

PRODUCT REPORTS 77: PRODUCT IDEAS FOR ARCHITECTS AND ENGINEERS, ALL ILLUSTRATED ARCHITECTURAL BUSINESS: GRAPHIC TECHNIQUES FOR PRODUCTION SAVINGS MANUFACTURERS' CASEBOOK: SEVEN PROJECTS THAT REVEAL PRODUCT INGENUITY ARCHITECTURAL ENGINEERING: AUTOMATED TRANSPORT HELPS HOSPITALS SHARE SERVICES FULL CONTENTS ON PAGE 3

### ARCHITECTURAL RECORD

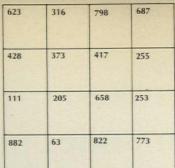


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Of particular assistance to the editor in the preparation of this issue were: Ioan Blatterman Alex White Anne Ting

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tectural Index. Published monthly except May, August, and October when semi-monthly, by McGraw-Hill, Inc. Quotations on reprints of articles available. Every possible effort will be made to return material submitted for possible publication (if accompanied by stamped, addressed envelope), but the editors and the corporation will not be responsible for loss or damage. EXECUTIVE, EDITORIAL, CIRCULATION AND ADVERTISING OFFICES: 1221 Avenue of the Americas, New York, N.Y. 10020. Other Editorial Offices: 425 Battery Street, San Francisco, Cal. 94111. PUBLICATION OFFICE: 1221 Avenue of the Americas, New York, New York 10020. Second-class postage paid at New York, New York 10001 and at additional mailing offices.

OFFICERS OF McGRAW-HILL PUBLICATIONS COMPANY: Gordon ones, president; Paul F. McPherson, executive vice president; Gene Simpson, group vice president; senior vice presidents; Ralph Blackburn, circulation; John B. Hoglund, controller; Ralph R. Schulz, editorial; David G. Jensen, manufacturing; vice presidents: James E. Boddorf, planning and development; Edward E. Schirmer, marketing

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\$24.00. Canada: \$17.00 for architects, engineers and other individuals in the fields served; others \$26.00. Other countries: \$30.00 to architects, engineers; others \$40.00. Single copies \$5.00. GUARANTEE: Publisher agrees to refund that part of subscription price applying to unfilled part of subscription if service is unsatisfac-

ASSOCIATED SERVICES/McGraw-Hill Information Systems Co. Sweet's Catalog Files (Architectural, Engineering, Interior Design, Industrial Construction and Renovation, Light Construction, Plant Engidustrial Construction and Refloration, Egil Construction, Dodge Building Cost Services, Dodge/Reports and Bulletins, Dodge/SCAN Microfilm Systems, Dodge Management Control Service, Dodge Construction Statistics, Dodge regional construction newspapers (Chicago, Denver, Los Andrews)

geles, San Francisco).
THIS ISSUE is published in national and separate editions.
POSTMASTER: PLEASE SEND FORM 3579 TO Fulfilment Manager
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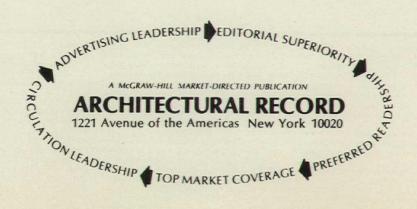
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Folger Adam Co	Helikon
700 Railroad St., Joliet IL 60434	315 E.
Forms & Surfaces 145, 253, 254, 256, 292, 346	Herman
Box 5215, Santa Barbara CA 93108 Fortress Inc	Zeelan
8801 Beverly Blvd., Los Angeles CA 90048	Hill-Rom
Fourco Glass Company	Highw
P.O. Box 2230, Clarksburg WV 26301 Franciscan Tile	Hobart (
2901 Los Feliz Blvd., Los Angeles CA 90039	Hoist &
Friedrich Air Conditioning and	1110 8
Refrigeration Co	750 C
78295	Honeyw
Fry Reglet Corp	Honey
801 W. Milford St., Glendale CA 91203 Samuel Furiness Mat Co., Inc	12118
Inman Ave. & Progress St., Edison NJ 08817	Hotpoint
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	P.O. B
GAF Corp31	Hunter A
140 W. 51 St., New York NY 10020	73216
Gail Ceramics	
Gamewell/Alarmtronics825	1
91 Bartlett St., Marlborough MA 01752 Gardco Mfg. Inc	-
2661 Alvarado St., San Leandro CA 94577	IKG Indu
General Bathroom Products Corp447	P.O. E
2201 Touhy Ave., Elk Grove Village IL 60007 General Binding Corp	37202 Imperial
1101Skokie Blvd., Northbrook IL 60062	2222 9
General Electric Co 519, 523, 524, 525, 526,	Inclinato
528, 529, 530, 533, 534, 535, 852, 856, 857, D69 Appliance Park, Louisville KY 40225	2200 F Industria
General Electric, Sheet Products Section 241	P.O. B
1 Plastics Ave., Pittsfield MA 01201 General Products Co	P.O. B
P.O. Box 887, Fredericksburg VA 22401	INRYCO
The Gerber Scientific Instrument Co	P.O. B
P.O. Box 305, Hartford CT 06101  Gold Bond Bldg. Products, Div. of	In-Sink-E 4700-
National Gypsum Co345	Insta-Foa
325 Delaware Ave., Buffalo NY 14202	2050 1
B.F. Goodrich General Products Co	2231 (
Gould, Inc 1	Internati
3631 Perkins Ave., Cleveland OH 44114	4 Taft
W. R. Grace & Co., Construction Products Div	3800 F
62 Whittemore Ave., Cambridge MA 02140	The Iron
P.O. Box 509, Westport CT 06880	I-T-E Imp
Greenstreak Plastic Products	Spring
3400 Treecourt Ind. Blvd., St. Louis MO 63122	ITT Fluid
Gretchen Bellinger Inc	4711 (
Grohe—A Division of Flygt Corp	Southa
1591 Elmhurst Rd., Elk Grove Village IL 60007	ITT Nesh
Grunau Co., IncSprinkler Mfg. Div	State R
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GTE Sylvania	1
21 Penn, Fall River MA 02724 GTE Sylvania	-
1704 Barnes, Reidsville NC 27320	JACLO II
GTE Sylvania	162 Ca
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1 Stamford Forum, Stamford CT 06904	Jenn-Air
The Gunlock Co., Inc	3035 9
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P.O. Box 7079, St. Louis MO 63177	Jewett Re
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Scottsboro AL Hamilton Industries	
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Scottsboro Al.   Hamilton Industries	Johns-Ma Ken-Ca Johnson
Scottsboro Al.  Hamilton Industries	Johnson P.O. B
Scottsboro Al.  Hamilton Industries 10  1316—18th St., Two Rivers WI 54241  HANSA International, Inc. 531, 532  10 Kearney Rd., Needham MA 02194  Hanseatic Furniture Co. 633, 670  3005 Commercial Ave., Northbrook IL 60062	Johnson P.O. B H & R Jo
Scottsboro AL  Hamilton Industries	Johnson P.O. B
Scottsboro Al.  Hamilton Industries	Ken-Ca Johnson P.O. B H & R Jo State H L.E. John 2100 S
Scottsboro AL  Hamilton Industries	Ken-Ca Johnson P.O. B H & R Jo State H L.E. John 2100 S Jordan C
Scottsboro Al.  Hamilton Industries	Ken-Ca Johnson P.O. B H & R Jo State H L.E. John 2100 S Jordan C 2200 K Joy Mfg.
Scottsboro AL  Hamilton Industries 10  1316—18th St., Two Rivers WI 54241  HANSA International, Inc. 531, 532  10 Kearney Rd., Needham MA 02194  Hanseatic Furniture Co. 633, 670  3005 Commercial Ave., Northbrook IL 60062  HAPCO 13  P.O. Box 1205, Boulder CO 80302  Harter Corp. 662  Prairie Avenue, Sturgis MI 49091  Hastings Tile 357, 369, 370, 371, 372  410 Lakeville Rd., Lake Success NY 11040  Hastings Tile & "Il Bagno" Collection 373, 374,	Ken-Ca Johnson P.O. B H & R Jo State H L.E. John 2100 S Jordan C 2200 k Joy Mfg. Oliver
Scottsboro AL  Hamilton Industries	Ken-Ca Johnson P.O. B H & R Jo State H L.E. John 2100 S Jordan C 2200 k Joy Mfg. Oliver Just Mfg.
Scottsboro Al.  Hamilton Industries	Ken-Ca Johnson P.O. B H & R Jo State H L.E. John 2100 S Jordan C 2200 k Joy Mfg. Oliver
Scottsboro AL  Hamilton Industries	Ken-Ca Johnson P.O. B H & R Jo State H L.E. John 2100 S Jordan C 2200 k Joy Mfg. Oliver Just Mfg.
Scottsboro Al.  Hamilton Industries	Ken-Ca Johnson P.O. B H & R Jo State H L.E. John 2100 S Jordan C 2200 k Joy Mfg. Oliver Just Mfg.
Scottsboro AL  Hamilton Industries	Ken-Ci Johnson P.O. B H. & R. Jo State H. L.E. John 2100 S Jordan C 2200 k Joy Mfg. Oliver Just Mfg. 9233 k
Scottsboro Al.  Hamilton Industries	Ken-Ci Johnson P.O. B H. & R. Jo State H. L.E. John 2100 S Jordan C 2200 k Joy Mfg. Oliver Just Mfg. 9233 k
Scottsboro AL  Hamilton Industries	Ken-Ci Johnson I P.O. B H & R Jo State I- L.E. John 2100 S Jordan C 2200 k Joy Mfg. Oliver Just Mfg. 9233 k
Scottsboro Al.  Hamilton Industries	Ken-Ci Johnson I P.O. B H & R Jo State H L.E. John 2100 S Jordan C 22000 k Joy Mfg. Oliver Just Mfg. 9233 k
Scottsboro AL  Hamilton Industries	Ken-Ci Johnson I P.O. B H & R Jo State I- L.E. John 2100 S Jordan C 2200 k Joy Mfg. Oliver Just Mfg. 9233 k

Helikon Furniture Co., Inc
Helikon Furniture Co., Inc
Zeeland MI 49464 Hill-Rom Co., Inc
Hobart Corp
1110 East Princess St., York PA 17403
Home Metal Products Co., Div. Mobex Corp518 750 Central Expressway, Plano TX 75074 Honeywell Commercial Division765
Honeywell Plaza, Minneapolis MN 55408
Hoover Systems         429           12118 Corporate Drive, Dallas TX 75228           Hotpoint         521
600 Third Avenue, New York NY 10016 Howe Furniture Corp
155 E. 56th St., New York NY 10022  Hunt & Moscrop (Canada) Ltd. D80  P.O. Box 355, Granby, Quebec J2G 8E5, Canada  Hunter Associates 12  792 Partridge Drive, Bridgewater NJ 08807
IKG Industries
P.O. Box 479, 201 Fatherland St., Nashville TN 37202
Imperial Glass Structures Co
2200 Paxton St., Harrisburg PA 17105 Industrial Air, Inc. E09
P.O. Box 215, Amelia OH 45102 Industrial Products Div., Johns-Manville D99
P.O. Box 5705, Denver CO 80217 INRYCO, Inc
P.O. Box 393, Milwaukee WI 53201 In-Sink-Erator Div., Emerson Elec. Co
4700—21st St., Racine WI 53406 Insta-Foam Products, Inc
Integrated Ceilings, Inc
International Dynetics Corp
3800 Park Ave., St. Louis MO 63110  The Ironmonger
446 N. Wells Street, Chicago IL 60610
Spring House PA 19477 ITT Fluid Handling Div. D94 4711 Golf Rd., Skokie II. 60076 ITT Landmark Lighting 877 878 879 881
ITT Landmark Lighting 877, 878, 879, 881 Southaven MS 38671
State Rd. & Rhawn St., Philadelphia PA 19136
JACLO Inc. 784 162 Carlton Ave., Brooklyn NY 11205
Jamison Door Co.         269           Box 70, Hagerstown MD 21740         Jenn-Air Corp.         539
3035 Shadeland Ave., Indianapolis IN 46226 Jensen-Thorsen Corp
301 Interstate, Addison IL 60101  Jewett Refrigerator Co., Inc
2 Letchworth St., Buffalo NY 14213  Joanna Western Mills Co
Johns-Manville
Johns-Manville Sales Corp., Holophane Div334, 687, 896, 898, 899, 900, 901, E13, E14, E15, E37
P.O. Box 5108, Denver CO 80217  Johns-Manville Sales Corporation
Ken-Caryl Ranch, Denver CO 80217  Johnson Controls, Inc
H & R Johnson, Inc
L.E. Johnson Products, Inc
Jordan Commercial Refrigerator Co
Joy Mfg. Co.         E11           Oliver Building, Pittsburgh PA 15222         Just Mfg. Co.         E05
9233 King Street, Franklin Park IL 60131
K
Kalwall Corp
1111 Candia Rd., Manchester NH 03105 <b>Karl Mann Associates</b>

Kawneer Architectural Products 235, 262, D42, D43, D44	L
1105 N. Front St., Niles MI 49120	1
Route 1, Box 14, Vienna WV 26105	1
Keene Corp.         265           50 Keeler Ave., Norwalk CT 06856           Keene Corp., Porta-Fab Div.         692	1
2319 Grissom Drive, St. Louis MO 63141	1
Keene Lighting, Div. of Keene Corp	1
2245 Vauyhall Pd. Union NII 07082	١
Keller Products, Inc	
6/20 N. Teutonia Ave., Milwaukee VVI 53209	
P.O. Box 429, Joliet IL 60434	
Kemos Carpet Mill	1
Kentile Floors Inc	
Kim Lighting, Inc. 904, 905 16555 E. Gale Ave., City of Industry CA 91749	1
Kinnear-Division of Harsco Corp	-
P.O. Box 598, Columbus OH 43216 <b>Kirsch Co.</b>	
Sturgis MI 49091 Knoll International	-
745 Fifth Ave., New York NY 10022 Kohler Co	-
KoolShade Corp. D62	
722 Genevieve St., Solana Beach CA 920/5	
Koppers Co	
715 E. 10th St., Wichita KS 67201	1
1056 West Mason St., Green Bay WI 54303	
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Princeton IL 61356	-
L &M Const. Chem. Inc	-
Lake Shore Industries	-
Landscape Forms, Inc	-
Rt. #3, Kalamazoo MI 49001	1
H. Lawrence Carpet Mills, Inc 321, 322, 323 150 E. 58th St., New York NY 10022	1
Lear Siegler, Inc./Automated Systems Div720	J.
280 E. Riley St., Zeeland MI 49464	
280 E. Riley St., Zeeland MI 49464 Lee/Jofa	
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Mansfield Sanitary, Inc.	.76
Perrysville OH 44864 Marathon Carey-McFall Co581,	67
Montoursville PA 17754	
Marble Furniture	0.
Markel Electric Products Inc	
Marlite Brand Paneling	44
	.74
Masonite Corporation	34
29 N. Wacker, Chicago IL 60601	
Master Lock Co. 2600 N. 32nd St., Milwaukee WI 53210	
Jas. H. Matthews & Co., Architectural Division 1315 W. Liberty Ave., Pittsburgh PA 15226	41
The Maytag Co.	.52
Newton IA 50208 McDonald Products Corp.	.58
721 Seneca St., Buffalo NY 14210	
McQuay Group McQuay Perfex Inc. 481, 487, 805, 806, D69, D70, D90, D91, D92, D93, D97,	D9
P.O. Box 1551, Minneapolis MN 55440  Mehac, Inc.	12
Mebac, Inc	
P.O. Box 1075, Salem VA 24153	24
Metal Awning Components, Inc. 1177 W. Maple, Clawson MI 48017	43
Motalwach Machinem Com	48
901 North Ave., Elizabeth NJ 07207  Metropolitan Furniture Corp. 950 Linden Ave., S. San Francisco CA 94080  Michael Business Machines Corp.	65
950 Linden Ave., S. San Francisco CA 94080	0
145 West 45th St., New York NY 10036	. 2
145 West 45th St., New York NY 10036 Micro Design 857 West State St., Hartford WI 53027	. 1
Milcor Div., INRYCO, Inc. P.O. Box 393, Milwaukee WI 53201	20
P.O. Box 393, Milwaukee WI 53201 - Minolta Corp.	. 2
101 Williams Drive, Ramsey NJ 07446	
Model Parts, Inc. 212 Murray Rd., Dept. P, Newark DE 19711	
Modernfold—An American Standard Co. P.O. Box 310, New Castle IN 47362	D6
Modulo 3 Inc.	61
100 Progress Parkway, Maryland Heights 63043	M
Moen, A Division of	
<b>Stanadyne</b>	
Mohawk Carpet Mills	30
Moldcast Lighting 908, 910, 911, E07, E08, E09,	E1
I-80 at Maple Ave., Pine Brook NJ 07058  Molded Fiber Glass Concrete Forms Co.	. 5
P.O. Box 675. Ashtabula OH 44004	
Monitor Products, A Div. of Comerco Inc. 3000 South Alaska, Tacoma WA 98409	
Morrison Molded Fiber Glass Co. 400 Commonwealth Ave., P.O. Box 508, Bristol	15 V
24201	
The Monroe Co., Inc. 194, 30801 Carter St., Cleveland OH 44139	
The Mosler Safe Co	467
1561 Grand Blvd., Hamilton OH 45012	
The R. C. Musson Rubber Co	57
Mutschler-A Triangle Pacific Co561,	56
320 South Madison, Nappanee IN 46550  Myrtle Desk Co.	60
Myrtle Desk Co. Taylor & Millis, High Point NC 27261	
N	
Nabco Glazed Products, Inc	01
Nalco Chemical Co.	80
Nalco Chemical Co. 2901 Butterfield Rd., Oak Brook IL 60521	12
Napco, Inc	12
National Center for a Barrier Free Environment I 8401 Connecticut Ave., Washington DC 20015	00
National Partitions, Inc. 340 W. 78th Rd., Hialeah FL 33014	69
340 W. 78th Rd., Hialeah FL 33014 Neenah Foundry Co.	12
P.O. Box 729, Neenah WI 54956	
Neo-Ray Lighting Systems, Inc. 537 Johnson Ave., Brooklyn NY 11237	86
Nevamar Div., Exxon Chemical Co 155,	15
Odenton MD 21113  E.A. Nord Co.	27
Third and Norton Ave., Everett WA 98206	
Nor-Lake, Inc	
Notifier Co. 3700 North 56th St., Lincoln NE 68404	82
Nutone Div., Scovill 443, 829,	830
Madison & Red Bank Roads, Cincinnati OH 45	227
0	
Olsonite Corp. 8801 Conant Ave., Detroit MI 48211	449
8801 Conant Ave., Detroit MI 48211 Omega Lighting, Emerson Electric Co., Inc. 270 Long Island Expwy, Melville NY 11746	88

Onan Div.—Onan Corp	6. E04 1
	32
Onward Hardware Ltd.	251
932 Victoria St., N., Kitchener, Ontario Otis Elevator Co.	722
750 Third Ave New York NY 10017	
Overly Mfg. Co.	475
West Otterman St., Greensburg PA 15601 Owens-Corning Fiberglas Corp 338, 42	1 422
Fiberglas Tower, Toledo OH 43659	1,422
Oxford Pendaflex Canada Ltd	2, 591
200 Norseman St., Toronto, Ontario M82	Z 5M7
Canada	
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First & River Sts., Monessen PA 15062 Panel Concepts, Inc.	428
11140 Talbert, Fountain Valley CA 92708	420
Patcraft Mills, Inc.	323
Dalton GA 30720 The Pate Co.	187
2625 S. 21st Ave., Broadview IL 60153	
S. Parker Hardware	252
27 Ludlow St., New York NY 10002 Patterson-Kelley Co.	F06
East Stroudsburg PA 18301	200
PBS, Inc.	183
6918 Gage St., Riverside CA 92504 Peerless Electric Co	1 922
747 Bancroft Way, Berkeley CA 94710	
Pella Roiscreen Co.	276
100 Main St., Pella IA 50219 Pellerin Milnor Corp.	500
P.O. Box 400, Kenner LA 70063	500
Penco Products Inc	6, 419
Brower Ave., Oaks PA 19456 Penn-Virginia Materials Corp. Mktg. Hdg.	D17
Penn-Virginia Materials Corp., Mktg. Hdq 200 Erie Rd., Eastlake OH 44094	
Permapost Products Co.	46
P.O. Box 121-P, Hillsboro OR 97123 Philadelphia Carpet Co	
Phillips Products, Inc.  Box 466, Bartlett IL 60103	580
Box 466, Bartlett IL 60103	242
Plastic Building Products Corp.  2206 Frankfort Ave., Louisville KY 40206	212
Plasticoid Products Inc.	9
P.O. Box 526 North Rd., Warehouse Po	int CT
06088 Poggenpohl/USA	520
222 Cedar Lane, Teaneck NJ 07666	
Polite Seat Co.	450
12 Wilmot Ave., White Plains NY 10605 Pope & Talbot	381
1700 S.W. 4th Ave., Portland OR 97201	
H.K. Porter Co., Inc.	845
Portland Cement Association	D11
Old Orchard Rd., Skokie IL 60076	
Potlatch Corp.	149
P.O. Box 916, Stuttgard AR 72160  Powers-Fiat	D89
3400, Skokie IL 60076	
Powers Regulator Co	27, 823
3400 Oakton St., Skokie IL 60076 PPG Industries 23	18. 361
One Gateway Center, Pittsburgh PA 15222	
Precast Systems, Inc.	DOG
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10400 W. Higgins Rd., Rosemont IL 60018	
10400 W. Higgins Rd., Rosemont IL 60018  Precision Air Products Co	2, 743
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10400 W. Higgins Rd., Rosemont IL 60018 Precision Air Products Co	9, D15
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10400 W. Higgins Rd., Rosemont IL 60018 Precision Air Products Co. 74 15132 Summit Ave., Suite 301B, Oakbrook IL 60181 ProSoCo, Inc. 8 1040 Parallel Parkway, Kansas City KS 6610 Prescolite, A U.S. Industries Co. 1251 Doolittle Drive, San Leandro CA 9457	9, D15 4 883
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Reading Door Closer Corp257
Main St. & Boose Rd., Reamstown PA 17567
Red Dot Lighting, Div. L.E. Mason Co918 98 Business St., Boston MA 02136
Reflector Hardware CorpEPD503
1400 North 25th Ave., Melrose Park IL 60160
<b>Regal Tube Co.</b>
Republic Steel Corp.,
Drainage Products Div. 54 4416 Louisville Road, N.E., Canton OH 44705
Republic Steel, Industrial Products Div
1038 Belden Ave. N.E., Canton OH 44705
Revere Copper and Brass Inc
P.O. Box 151, Rome NY 13440
Rheem Heating & Air Conditioning Div
Ribbon Technology Corp. 73
6270 Bowen Rd., Canal Winchester OH 43110
Richards-Wilcox Mfg. Co
116 Third St., Aurora IL 60597 Risom
River St., N. Grosvenordale CT 06255
Rite-Hite Corp
6001 S. Pennsylvania Ave., Cudahy WI 53110
Rixson-Firemark, Inc. 250 9100 W. Belmont Ave., Franklin Park IL 60131
Robertshaw Controls Co 840, 841, 842
P.O. Box 27606, Richmond VA 23261
H. H. Robertson Co 200, 201, 202, 932, D54 400 Holiday Drive, Pittsburgh PA 15220
Roblin Building Products Systems
1971 Abbott Rd., Buffalo NY 14218
Roll Form Products, Inc
Roll Form Products, Inc
220 Seegers, Elk Grove Village IL 60007
Roper Eastern 324
9325 Snowden River Pkwy., Columbia MD 21046 Roper IBG
P.O. Box 100, Wheeling IL 60090
Roseburg Lumber Co
P.O. Box 1088, Roseburg OR 97470  Roseline Products, Inc
120 Schmitt Blvd., Farmingdale NY 11735
Rusco Electronic Systems929
1840 Victory Blvd., Glendale CA 91201
<b>Rust-Oleum Corp.</b> 339, 340 2301 Oakton, Evanston IL 60204
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Salem Carpet Mills
P.O. Box 12429, Winston-Salem NC 27107
Sargent & Co
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Sargent & Co.         243           100 Sargent Dr., New Haven CT 06509         Scott Plastics Co.           9.O. Box 2958, Sarasota FL 33578         414           Scott Mach. Dev. Corp.         D59
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Sargent & Co.         .243           100 Sargent Dr., New Haven CT 06509         Scott Plastics Co.         .414           P.O. Box 2958, Sarasota FL 33578         Scott Mach. Dev. Corp.         D59           Walton NY 13856         Seamloc Carpet Co.         .320, 384           165 W. Putnam Avenue, Greenwich CT 06830         Sears Contract Sales         .786           Sears Tower, Chicago IL 60684         Sears Tower, Chicago IL 60684         Sears Tower, Chicago IL 60684           Season-all Industries, Inc.         .261         Indiana PA 15701           James Seeman Studios, Inc.         .389           50 Pose Place, Garden City Park NY 11040         Serco Engineering Corp.         D71           Box 5060, London, Ontario N6A 4M4, Canada         Shakertown Corp.         .215           Box 400, Winlock WA 98596         Shure Brothers Inc.         .835           222 Hartrey Ave., Evanston, IL 60204
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Sargent & Co.         .243           1 00 Sargent Dr., New Haven CT 06509         Scott Plastics Co.         .414           P.O. Box 2958, Sarasota FL 33578         Scott Mach. Dev. Corp.         .D59           Walton NY 13856         Seamloc Carpet Co.         .320, 384           165 W. Putnam Avenue, Greenwich CT 06830         Sears Contract Sales         .786           Sears Tower, Chicago IL 60684         Sears Tower, Chicago IL 60684         Seass Tower, Chicago IL 60684           Sears Tower, Chicago IL 60684         Season-all Industries, Inc.         .261           Indiana PA 15701         389           50 Pose Place, Garden City Park NY 11040         Serco Engineering Corp.         .071           Box 5060, London, Ontario N6A 4M4, Canada         Shakertown Corp.         .215           Box 400, Winlock WA 98596         Shure Brothers Inc.         .235           222 Hartrey Ave., Evanston, IL 60204         Sika Chemical Corp.         .51, 71, 217, 364           P.O. Box 297, Lyndhurst NJ 07071         Sim-Kar Lighting Fixture Co.         .862           D & Tioga Sts., Philadelphia PA 19134
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1120-36th St. S.E., Grand Rapids MI 49501
Stendig Inc 651, 652, 653, 656, 657, 658, 659
410 E. 62 St., New York NY 10021
Stephen-Leedom         319           919 Third Ave., New York NY 10022           Sterner Lighting Systems         902, 903
Sterner Lighting Systems 902, 903
351 South Ave. W., Winsted MN 55395
Stow Davis
25 Summer Ave., N.W., Grand Rapids MI 49504
Stratton Industries Inc304, 305
Box 1007, Highway 61 South, Cartersville GA
30120
Structural Stoneware Inc
Structures Publishing Co
Box 423 Farmington MI 48024
Box 423, Farmington MI 48024  Sunar Ltd
Sunshine Ave., Waterloo, Ontario N2L 1X2 Canada
Sunroc Corp
Rt. 452, Glen Riddle PA 19037
Symons Corp.         69           200 E. Touhy Ave., Des Plaines IL 60018           Systonetics, Inc.         D04
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Tape-Athon Corp. 827
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Tappan Appliance Div538
Tappan Park, Mansfield OH 44901
TDC Div. of Frequency Technology, Inc E38
Box 365, Whitcomb Ave., Littleton MA 01460
Teledyne Rotolite
T-1-1 14/-4 011.
1730 E. Prospect, Ft. Collins CO 80521
1emco, Inc411
4101 Charlotte Ave., Nashville TN 37209
Temcor
Temcor         .689           2825 Toledo St., Torrance CA 90503         Thayer Coggin, Inc.         .592
Thayer Coggin, Inc
Thonet Industries, Inc 604, 632, 641, 645
491 E. Princess St., York PA 17405
3M Co
3M Center, St. Paul MN 55101 3M Co., Decorative Prod. Div
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100 Progress Parkway, Maryland Heights MO
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63043 Tork, Inc. One Grove St., Mount Vernon NY 10550 Touch-Plate Electro Systems, Inc. 824, E24 16530 Garfield Ave., Paramount CA 90723 Trans-Continental Distributors, Inc. 356 300 West Hubbard St., Chicago IL 60610 Tremco 188, 213, 218, D35, D36 10701 Shaker Blvd., Cleveland OH 44104 Tri-tech, Inc. 837 1500 Meriden Rd., Waterbury CT 06705 Tropical Paint Co. 193 1246 West 70th St., Cleveland OH 44102 Tunnel Gallery at Karl Mann Assoc. 558 232 E. 59 St., New York NY 10022 Tuohy Furniture Corp. 588, 668 42 St. Albans Place, Chatfield MN 55923 Tyler Pipe P.O. Box 2027, Tyler TX 75701
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63043 Tork, Inc. One Grove St., Mount Vernon NY 10550 Touch-Plate Electro Systems, Inc. 824, E24 16530 Garfield Ave., Paramount CA 90723 Trans-Continental Distributors, Inc. 300 West Hubbard St., Chicago IL 60610 Tremco 188, 213, 218, D35, D36 10701 Shaker Blvd., Cleveland OH 44104 Tri-tech, Inc. 837 1500 Meriden Rd., Waterbury CT 06705 Tropical Paint Co. 193 1246 West 70th St., Cleveland OH 44102 Tunnel Gallery at Karl Mann Assoc. 558 232 E. 59 St., New York NY 10022 Tuohy Furniture Corp. 588, 668 42 St. Albans Place, Chatfield MN 55923 Tyler Pipe 119 P.O. Box 2027, Tyler TX 75701  U Uniroyal Construction Products 303 East Ohio St., Chicago IL 60611 United-Desoto 3101 S. Kedzie, Chicago IL 60606 United McGill Corp. 750 P.O. Box 820, Columbus OH 43216 U.S. Borax 3975 Wilshire Blvd., Los Angeles CA 90010 U.S. Ceramic Tile Co. 1375 Raff Rd., S.W., Canton OH 44711
63043 Tork, Inc. One Grove St., Mount Vernon NY 10550 Touch-Plate Electro Systems, Inc. 824, E24 16530 Garfield Ave., Paramount CA 90723 Trans-Continental Distributors, Inc. 300 West Hubbard St., Chicago IL 60610 Tremco 188, 213, 218, D35, D36 10701 Shaker Blvd., Cleveland OH 44104 Tri-lech, Inc. 837 1500 Meriden Rd., Waterbury CT 06705 Tropical Paint Co. 1246 West 70th St., Cleveland OH 44102 Tunnel Gallery at Karl Mann Assoc. 232 E. 59 St., New York NY 10022 Tuohy Furniture Corp. 42 St. Albans Place, Chatfield MN 55923 Tyler Pipe P.O. Box 2027, Tyler TX 75701  U Uniroyal Construction Products 303 East Ohio St., Chicago IL 60601 United-Desoto 3101 S. Kedzie, Chicago IL 60606 United McGill Corp. 750 P.O. Box 820, Columbus OH 43216 U.S. Borax John St., Canton OH 44711 United States Gypsum Co. 347, 426, D08,
63043 Tork, Inc. One Grove St., Mount Vernon NY 10550 Touch-Plate Electro Systems, Inc. 824, E24 16530 Garfield Ave., Paramount CA 90723 Trans-Continental Distributors, Inc. 356 300 West Hubbard St., Chicago IL 60610 Tremco 188, 213, 218, D35, D36 10701 Shaker Blvd., Cleveland OH 44104 Tri-tech, Inc. 837 1500 Meriden Rd., Waterbury CT 06705 Tropical Paint Co. 193 1246 West 70th St., Cleveland OH 44102 Tunnel Gallery at Karl Mann Assoc. 558 232 E. 59 St., New York NY 10022 Tuohy Furniture Corp. 588, 668 42 St. Albans Place, Chatfield MN 55923 Tyler Pipe P.O. Box 2027, Tyler TX 75701  U Uniroyal Construction Products 303 East Ohio St., Chicago IL 60601 United McGill Corp. 750 P.O. Box 820, Columbus OH 43216 U.S. Borax D61 3975 Wilshire Blvd., Los Angeles CA 90010 U.S. Ceramic Tile Co. 365 1375 Raff Rd., S.W., Canton OH 44711 United States Gypsum Co. 347, 426, D08, D22, D25, D39, D46, D47, D48, D56
63043 Tork, Inc. One Grove St., Mount Vernon NY 10550 Touch-Plate Electro Systems, Inc. 824, E24 16530 Garfield Ave., Paramount CA 90723 Trans-Continental Distributors, Inc. 300 West Hubbard St., Chicago IL 60610 Tremco 188, 213, 218, D35, D36 10701 Shaker Blvd., Cleveland OH 44104 Tri-tech, Inc. 837 1500 Meriden Rd., Waterbury CT 06705 Tropical Paint Co. 193 1246 West 70th St., Cleveland OH 44102 Tunnel Gallery at Karl Mann Assoc. 558 232 E. 59 St., New York NY 10022 Tuohy Furniture Corp. 588, 668 42 St. Albans Place, Chatfield MN 55923 Tyler Pipe 119 P.O. Box 2027, Tyler TX 75701  U Uniroyal Construction Products 303 East Ohio St., Chicago IL 60611 United McGill Corp. 750 P.O. Box 820, Columbus OH 43216 U.S. Borax 3975 Wilshire Blvd., Los Angeles CA 90010 U.S. Ceramic Tile Co. 365 1375 Raff Rd., S.W., Canton OH 44711 United States Gypsum Co. 347, 426, D08, D22, D25, D39, D46, D47, D48, D56 101 S. Wacker Drive, Chicago II. 60606
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63043 Tork, Inc. One Grove St., Mount Vernon NY 10550 Touch-Plate Electro Systems, Inc. 824, E24 16530 Garfield Ave., Paramount CA 90723 Trans-Continental Distributors, Inc. 300 West Hubbard St., Chicago IL 60610 Tremco 188, 213, 218, D35, D36 10701 Shaker Blvd., Cleveland OH 44104 Tri-tech, Inc. 837 1500 Meriden Rd., Waterbury CT 06705 Tropical Paint Co. 193 1246 West 70th St., Cleveland OH 44102 Tunnel Gallery at Karl Mann Assoc. 232 E. 59 St., New York NY 10022 Tunhel Gallery at Karl Mann Assoc. 558 232 E. 59 St., New York NY 10022 Tuohy Furniture Corp. 42 St. Albans Place, Chatfield MN 55923 Tyler Pipe 119 P.O. Box 2027, Tyler TX 75701  U Uniroyal Construction Products 303 East Ohio St., Chicago IL 60601 United McGill Corp. 750 P.O. Box 820, Columbus OH 43216 U.S. Borax 305 Swilshire Blvd., Los Angeles CA 90010 U.S. Ceramic Tile Co. 365 1375 Raff Rd., S.W., Canton OH 44711 United States Gypsum Co. 347, 426, D08, D22, D25, D39, D46, D47, D48, D56 101 S. Wacker Drive, Chicago IL 60606 U.S. Plywood 176, 177, 178, 341, 342 1 Landmark Sq., Stamford CT 06921
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Universal Restoration Inc
Box 248, Lancaster PA 17604 Universal-Rundle Corp
UOP Inc. 807
700 S. Flower St., Burbank CA 91502
4805 Lexington Ave., Cleveland OH 44103
Upson Co
V
Vecta Contract
740 W. Mockingbird Lane, Dallas TX 75247
Velo-Bind, Inc. 17 650 Almanor Ave., Sunnyvale CA 94086
Versatec
Vertey Furniture 648 649 650
1519 S. Bundy, Los Angeles CA 90025 Vilter Mfg. Corp. E01
Milwaukee WI 53207 Vincent Brass & Aluminum Co
724 24th Ave., S.E., Minneapolis MN 55414
Vinyl Plastics, Inc
Vogel-Peterson Co
The Vollrath Co. 490
1236 N. 18th St., Sheboygan WI 53081 V'Soske, Inc
155 E. 56th St., New York NY 10022
W
Walker Parkersburg Textron937
P.O. Box 1828, Parkersburg WV 26101 Wall Trends International 387 388
Walker Parkersburg Textron   937     P.O. Box 1828, Parkersburg WV 26101     Wall Trends International   387, 388     979 Third Ave., New York NY 10022     Walton Laboratories   E07
One Carol Place, Moonachie NJ 07074
Wang Laboratories, Inc. 3 836 North St., Tewksbury MA 01876
Waste King Commercial Equipment Group488
5119 District Blvd., Los Angeles CA 90040 Waupaca Elevator Co. Inc
Wellco Carpet Corp. 301, 302 P.O. Box 281, Calhoun GA 30701 Welsbach Lighting Prod. Co., Inc. 914
Welsbach Lighting Prod. Co., Inc914
240 Sargent Dr., New Haven CT 06511
240 Sargent Dr., New Haven CT 06511 Wenger Corp. 696
Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060
Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060 Western Drinking Fountains 792 Box 47, Glen Riddle PA 19037 Western Fireplaces/A.R. Wood Mfg. Co. 412
Wenger Corp.         696           58-P Wenger Bldg., Owatonna MN 55060         792           Western Drinking Fountains         792           Box 47, Glen Riddle PA 19037         792           Western Fireplaces/AR. Wood Mfg. Co.         412           Box 218, Luverne MN 56156         412
Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060 Western Drinking Fountains 792 Box 47, Glen Riddle PA 19037 Western Fireplaces/A.R. Wood Mfg. Co. 412 Box 218, Luverne MN 56156 Westinghouse Architectural Systems 607, 610 4300 36th St., S.E., Grand Rapids MI 49508
Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060 Western Drinking Fountains 792 Box 47, Glen Riddle PA 19037 Western Fireplaces/AR. Wood Mfg. Co. 412 Box 218, Luverne MN 56156 Westinghouse Architectural Systems 607, 610 4300 36th St., S.E., Grand Rapids MI 49508 Westinghouse Commercial, Industrial Air Conditioning Div. 757
Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060 Western Drinking Fountains 792 Box 47, Glen Riddle PA 19037 Western Fireplaces/A.R. Wood Mfg. Co. 412 Box 218, Luverne MN 56156 Westinghouse Architectural Systems 607, 610 4300 36th St., S.E., Grand Rapids MI 49508 Westinghouse Commercial, Industrial Air Conditioning Div. 757 Box 2510, Staunton VA 24401
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Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060 Western Drinking Fountains 792 Box 47, Glen Riddle PA 19037 Western Fireplaces/A.R. Wood Mfg. Co. 412 Box 218, Luverne MN 56156 Westinghouse Architectural Systems 607, 610 4300 36th St., S.E., Grand Rapids MI 49508 Westinghouse Commercial, Industrial Air Conditioning Div. 757 Box 2510, Staunton VA 24401 Westinghouse Electric Corp., Decorative Micarta Div. 158, D29 Hampton SC 29924 Westinghouse Electric Corp
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Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060 Western Drinking Fountains 792 Box 47, Glen Riddle PA 19037 Western Fireplaces/AR. Wood Mfg. Co. 412 Box 218, Luverne MN 56156 Westinghouse Architectural Systems 607, 610 4300 36th St., S.E., Grand Rapids MI 49508 Westinghouse Commercial, Industrial Air Conditioning Div. 757 Box 2510, Staunton VA 24401 Westinghouse Electric Corp., Decorative Micarta Div. 158, D29 Hampton SC 29924 Westinghouse Electric Corp., Lighting Div. E03, E05, E06 Vicksburg MS 39180 Westinghouse-IXL 536, 537 Route 1, Elizabeth City NC 27909 West-on-Letters, Inc. D57
Wenger Corp. 696  58-P Wenger Bldg., Owatonna MN 55060  Western Drinking Fountains 792  Box 47, Glen Riddle PA 19037  Western Fireplaces/A.R. Wood Mfg. Co. 412  Box 218, Luverne MN 56156  Westinghouse Architectural Systems 607, 610  4300 36th St., S.E., Grand Rapids MI 49508  Westinghouse Commercial, Industrial Air Conditioning Div. 757  Box 2510, Staunton VA 24401  Westinghouse Electric Corp., Decorative Micarta Div. 158, D29  Hampton SC 29924  Westinghouse Electric Corp., Lighting Div. E03, E05, E06  Vicksburg MS 39180  Westinghouse-IXL 536, 537  Route 1, Elizabeth City NC 27909  West-on-Letters, Inc. D57  969 N. LaBrea Ave., Los Angeles CA 90038
Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060 Western Drinking Fountains 792 Box 47, Glen Riddle PA 19037 Western Fireplaces/AR. Wood Mfg. Co. 412 Box 218, Luverne MN 56156 Westinghouse Architectural Systems 607, 610 4300 36th St., S.E., Grand Rapids MI 49508 Westinghouse Commercial, Industrial Air Conditioning Div. 757 Box 2510, Staunton VA 24401 Westinghouse Electric Corp., Decorative Micarta Div. 158, D29 Hampton SC 29924 Westinghouse Electric Corp., Lighting Div. E03, E05, E06 Vicksburg MS 39180 Westinghouse-IXL 536, 537 Route 1, Elizabeth City NC 27909 West-on-Letters, Inc. 959 N. LaBrea Ave., Los Angeles CA 90038 Weyerhaeuser Co. D30, D34, D41 Tacoma WA 98401
Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060 Western Drinking Fountains 792 Box 47, Glen Riddle PA 19037 Western Fireplaces/A.R. Wood Mfg. Co. 412 Box 218, Luverne MN 56156 Westinghouse Architectural Systems 607, 610 4300 36th St., S.E., Grand Rapids MI 49508 Westinghouse Commercial, Industrial Air Conditioning Div. 757 Box 2510, Staunton VA 24401 Westinghouse Electric Corp., Decorative Micarta Div. 158, D29 Hampton SC 29924 Westinghouse Electric Corp., Lighting Div. E03, E05, E06 Vicksburg MS 39180 Westinghouse-IXL 536, 537 Route 1, Elizabeth City NC 27909 West-on-Letters, Inc. D57 969 N. LaBrea Ave., Los Angeles CA 90038 Weyerhaeuser Co. D30, D34, D41 Tacoma WA 98401 Whirlpool Corp. 540 Adm. Center, Benton Harbor MI 49022
Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060 Western Drinking Fountains 792 Box 47, Glen Riddle PA 19037 Western Fireplaces/AR. Wood Mfg. Co. 412 Box 218, Luverne MN 56156 Westinghouse Architectural Systems 607, 610 4300 36th St., S.E., Grand Rapids MI 49508 Westinghouse Commercial, Industrial Air Conditioning Div. 757 Box 2510, Staunton VA 24401 Westinghouse Electric Corp., Decorative Micarta Div. 158, D29 Hampton SC 29924 Westinghouse Electric Corp., Lighting Div. E03, E05, E06 Vicksburg MS 39180 Westinghouse-IXL 536, 537 Route 1, Elizabeth City NC 27909 West-on-Letters, Inc. 959 N. LaBrea Ave., Los Angeles CA 90038 Weyerhaeuser Co. D30, D34, D41 Tacoma WA 98401 Whirlpool Corp. 540 Adm. Center, Benton Harbor MI 49022 Whitten Corp. 699
Wenger Corp. 696  58-P Wenger Bldg., Owatonna MN 55060  Western Drinking Fountains 792  Box 47, Glen Riddle PA 19037  Western Fireplaces/A.R. Wood Mfg. Co. 412  Box 218, Luverne MN 56156  Westinghouse Architectural Systems 607, 610  4300 36th St., S.E., Grand Rapids MI 49508  Westinghouse Commercial, Industrial Air  Conditioning Div. 757  Box 2510, Staunton VA 24401  Westinghouse Electric Corp., Decorative  Micarta Div. 158, D29  Hampton SC 29924  Westinghouse Electric Corp., Lighting Div. E03, E05, E06  Vicksburg MS 39180  Westinghouse-IXL 536, 537  Route 1, Elizabeth City NC 27909  West-on-Letters, Inc. D57  969 N. LaBrea Ave., Los Angeles CA 90038  Weyerhaeuser Co. D30, D34, D41  Tacoma WA 98401  Whirlpool Corp. 540  Adm. Center, Benton Harbor MI 49022  Whitten Corp. 699  Cape Rd., Mendon MA 01756  Wide-Lite Corp. 849
Wenger Corp.         696           58-P Wenger Bldg., Owatonna MN 55060         Western Drinking Fountains         792           Box 47, Glen Riddle PA 19037         Western Fireplaces/AR. Wood Mfg. Co.         412           Box 218, Luverne MN 56156         Westinghouse Architectural Systems         607, 610           4300 36th St., S.E., Grand Rapids MI 49508         Westinghouse Commercial, Industrial Air           Conditioning Div.         757           Box 2510, Staunton VA 24401         Yestinghouse Electric Corp., Decorative Micarta Div.         158, D29           Hampton SC 29924         Westinghouse Electric Corp., Lighting Div.         E03, E05, E06           Vicksburg MS 39180         Westinghouse-IXL         536, 537           Route 1, Elizabeth City NC 27909         West-on-Letters, Inc.         D57           969 N. LaBrea Ave., Los Angeles CA 90038         Weyerhaeuser Co.         D30, D34, D41           Tacoma WA 98401         Whirlpool Corp.         540           Adm. Center, Benton Harbor MI 49022         Whitten Corp.         699           Cape Rd., Mendon MA 01756         Wide-Lite Corp.         849           P.O. Box 606, San Marcos TX 78666         Wilson Art         153, 154, 157
Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060 Western Drinking Fountains 792 Box 47, Glen Riddle PA 19037 Western Fireplaces/A.R. Wood Mfg. Co. 412 Box 218, Luverne MN 56156 Westinghouse Architectural Systems 607, 610 4300 36th St., S.E., Grand Rapids MI 49508 Westinghouse Commercial, Industrial Air Conditioning Div. 757 Box 2510, Staunton VA 24401 Westinghouse Electric Corp., Decorative Micarta Div. 158, D29 Hampton SC 29924 Westinghouse Electric Corp., Lighting Div. E03, E05, E06 Vicksburg MS 39180 Westinghouse-IXL 536, 537 Route 1, Elizabeth City NC 27909 West-on-Letters, Inc. D57 969 N. LaBrea Ave., Los Angeles CA 90038 Weyerhaeuser Co. D30, D34, D41 Tacoma WA 98401 Whirlpool Corp. 540 Adm. Center, Benton Harbor MI 49022 Whitten Corp. 699 Cape Rd., Mendon MA 01756 Wide-Lite Corp. 849 P.O. Box 606, San Marcos TX 78666 Wilson Art 153, 154, 157 600 General Bruce Drive, Temple TX 76501
Wenger Corp.         696           58-P Wenger Bldg., Owatonna MN 55060         792           Box 47, Glen Riddle PA 19037         412           Box 278, Luverne MN 56156         412           Box 218, Luverne MN 56156         4300 36th 5t., S.E., Grand Rapids MI 49508           Westinghouse Architectural Systems         607, 610           4300 36th 5t., S.E., Grand Rapids MI 49508           Westinghouse Commercial, Industrial Air           Conditioning Div.         757           Box 2510, Staunton VA 24401           Westinghouse Electric Corp., Decorative           Micarta Div.         158, D29           Hampton SC 29924         48tinghouse Electric Corp.,           Lighting Div.         E03, E05, E06           Vicksburg MS 39180         483           Westinghouse-IXL         536, 537           Route 1, Elizabeth City NC 27909           West-on-Letters, Inc.         D57           969 N. LaBrea Ave., Los Angeles CA 90038           Weyerhaeuser Co.         D30, D34, D41           Tacoma WA 98401         Whirlpool Corp.         540           Adm. Center, Benton Harbor MI 49022         Whitten Corp.         699           Cape Rd., Mendon MA 01756         4849           P.O. Box 606, San Marcos TX 78666         Wilson Art
Wenger Corp. 696 58-P Wenger Bldg., Owatonna MN 55060 Western Drinking Fountains 792 Box 47, Glen Riddle PA 19037 Western Fireplaces/A.R. Wood Mfg. Co. 412 Box 218, Luverne MN 56156 Westinghouse Architectural Systems 607, 610 4300 36th St., S.E., Grand Rapids MI 49508 Westinghouse Commercial, Industrial Air Conditioning Div. 757 Box 2510, Staunton VA 24401 Westinghouse Electric Corp., Decorative Micarta Div. 158, D29 Hampton SC 29924 Westinghouse Electric Corp., Lighting Div. E03, E05, E06 Vicksburg MS 39180 Westinghouse-Ikl 536, 537 Route 1, Elizabeth City NC 27909 West-on-Letters, Inc. D57 969 N. LaBrea Ave., Los Angeles CA 90038 Weyerhaeuser Co. D30, D34, D41 Tacoma WA 98401 Whirlpool Corp. 540 Adm. Center, Benton Harbor MI 49022 Whitten Corp. 699 Cape Rd., Mendon MA 01756 Wide-Lite Corp. 849 P.O. Box 606, San Marcos TX 78666 Wison Art 153, 154, 157 600 General Bruce Drive, Temple TX 76501 Wilson Lighting 325 2001 Peninsula Drive, Erie PA 16506 The Wine Vault Co. 698
Wenger Corp.         696           58-P Wenger Bldg., Owatonna MN 55060         Western Drinking Fountains         792           Box 47, Glen Riddle PA 19037         Western Fireplaces/AR. Wood Mfg. Co.         412           Box 218, Luverne MN 56156         Westinghouse Architectural Systems         607, 610           4300 36th St., S.E., Grand Rapids MI 49508         Westinghouse Architectural Systems         607, 610           4300 36th St., S.E., Grand Rapids MI 49508         Westinghouse Commercial, Industrial Air         757           Conditioning Div.         757         80x 2510, Staunton VA 24401         757           Westinghouse Electric Corp., Decorative Micarta Div.         158, D29         158, D29           Hampton SC 29924         Westinghouse Electric Corp., Lighting Div.         E03, E05, E06         Vicksburg MS 39180           Westinghouse Electric Corp., Lighting Div.         E03, E05, E06         Vicksburg MS 39180         S36, 537           Westinghouse-IXI.         536, 537         Route 1, Elizabeth City NC 27909         West-on-Letters, Inc.         D57         969 N. LaBrea Ave., Los Angeles CA 90038         Weyerhaeuser Co.         D30, D34, D41           Tacoma WA 98401         Whirlpool Corp.         540         Adm. Center, Benton Harbor MI 49022         Whitten Corp.         699           Cape Rd., Mendon MA 01756         Wide-Lite Corp.
Wenger Corp.         696           58-P Wenger Bldg., Owatonna MN 55060         792           Box 47, Glen Riddle PA 19037         Western Fireplaces/A.R. Wood Mfg. Co.         412           Box 218, Luverne MN 56156         Westinghouse Architectural Systems         607, 610           4300 36th St., S.E., Grand Rapids MI 49508         Westinghouse Architectural Systems         607, 610           4300 36th St., S.E., Grand Rapids MI 49508         Westinghouse Architectural Systems         607, 610           4300 36th St., S.E., Grand Rapids MI 49508         Westinghouse Flectric Corp., Locorative Microscopy         757           Box 2510, Staunton VA 24401         Westinghouse Electric Corp., Decorative Microscopy         158, D29           Hampton SC 29924         158, D29           Westinghouse Electric Corp., Lighting Div.         E03, E05, E06           Vicksburg MS 39180         Westinghouse-IXL         536, 537           Route 1, Elizabeth City NC 27909         West-on-Letters, Inc.         D57           969 N. LaBrea Ave., Los Angeles CA 90038         Weyerhaeuser Co.         D30, D34, D41           Tacoma WA 98401         Whirlpool Corp.         540           Adm. Center, Benton Harbor MI 49022         Whitten Corp.         699           Cape Rd., Mendon MA 01756         Wide-Lite Corp.         849           P.O. Box 606, San
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Wenger Corp. 696

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B13 Cementitious Decks B14 Concrete Formwork B15 Concrete Materials B16 Concrete Reinforcement B17 Precast Concrete

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B18 Masonry Accessories B19 Masonry Restoration B20 Mortar B21 Unit Masonry

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B43 Preformed Wall & Roof Pane B44 Roof Accessories B45 Roofing Specialties B46 Sealants B47 Shingles & Roofing Tiles B48 Waterproofing

DOORS & WINDOWS B49 Entrances & Storefronts B50 Glazing B51 Hardware & Specialties B52 Metal Doors & Frames B53 Metal Windows B54 Special Doors B55 Window/Curtain Walls B56 Wood & Plastic Doors B57 Wood & Plastic Windows

FINISHES B58 Acoustical Treatment B59 Carpeting B60 Ceiling Suspension Systems B61 Painting Materials B62 Prefinished Panels B63 Resilient Flooring B64 Special Coatings & Surfacings R65 Tile

B65 Tile B66 Wall Covering B67 Wood Flooring

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B70 Fireplaces
B71 Flagpoles
B72 Identifying Devices
B73 Lockers
B74 Partitions
B75 Postal Specialties

B75 Postal Specialties B76 Protective Covers B77 Storage Shelving B78 Telephone Enclosures B79 Toilet & Bath Accessories B80 Wardrobe Specialties

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B83 Darkroom Equipment
B84 Detention Equipment
B85 Education Equipment
B86 Food Service Equipment
B87 Laboratory Equipment
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B89 Library Equipment

B90 Loading Dock Equipment B91 Medical Equipment B92 Residential Equipment B93 Waste Handling Equipment

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The Diller Corp. Dryvit Systems A66 DuPont de Nemours & Co., E.I., Elastomers A36 DuPont de Nemours & Co., E.I.,

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 A31 General Electric Co., Plastics

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A19 Inryco, Inc. A81 ITT American Electric Corp.

Johns-Manville
A68 Building Systems Division
A88 Holophane Division

A52 Kemlite Corp.
A21 Koppers Company

A65 Lazarus Fabrics
A09 L & M Construction Chemical Inc.
A28 Ludowici-Celadon Co.
A62 Lyon Metal Products Inc.

A72 Macton Corp., The
A49 Mannington Mills
A33 Marvin Windows
A17 Masonite Corp.
A89 Jas. H. Matthews & Co.
A70 O.O. McClaudy Group, McQuay—Perfex, Inc.
A76 McQuay Group, McQuay—Perfex, Inc.
A77 Montgomery Elevator Co.
A58 Mutschler—A Triangle Pacific Co.

A59 Kelley Co., Inc.

A13 Neenah Foundry Co.
A81 Nutone Division of Scovill Mfg.
Co.

A83 Onan Division, Onan Corporation

A50 Pennwalt Chemicals Corp.

A75 Powers Regulator Co.

A14 Power Strut Div. of Van Huffel

Tube Corp.

A06 Rally Inc.
A37 Raynor Mig. Co.
A23 Roll Form Products Inc.
A43 Roper Eastern Bldg. Systems
A54 Rosemount Partitions Inc.

A29 Schlage Lock Co.
A57 Scott Plastics Co.
A56 SGL Industries Inc.
A18 Smith, Elwin G., Div. Cyclops

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A38 Stanley Works
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A60 Vollrath Co. A32 Von Duprin Inc.

A69 Wenger Corp.
A34 Weyerhaeuser Company
A11 Wheeling Corrugating Co.
A08 Whitacre-Greer

C12 Elevators C13 Hoists & Cranes C14 Lifts C15 Pneumatic Tube Systems

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C20 Heat Pumps
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C24 Plumbing Fixtures & Trim

C25 Pumps & Compressors C26 Refrigeration Equipment C27 Water Supply & Treatment ELECTRICAL

ELECTRICAL
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C29 Electrical & Electronic Controls
C30 Electrical Heating-Cooling
C31 Lighting
C32 Motors & Controls
C33 Power Generation
C34 Protective Systems
C35 Raceways
C36 Service & Distribution
C37 Wiring Devices

### Graphic techniques workshop strives for production savings

Ned Abrams' Design Production Techniques Workshop (Deprotech) is a two-day learning marathon where architects are instructed in the cost economies, time-saving and improved quality that graphic arts techniques can bring to their project drawings. Deprotech's workshop takes place at Mr. Abrams' architectural offices in Sunnyvale, California; the basic course is \$350, exclusive of accommodations. (The mailing address is: Deprotech, 845D Stewart Drive, Sunnyvale, California 94088.)

"We've found as much as 20 to 30 per cent of a typical drafting job to be repetitive," Mr. Abrams explains, "Obviously, the elements are not always identical. But from a graphic arts standpoint, they are the same-easily and quickly reduced, enlarged, photocopied and duplicated.

### Architects work on their own projects in the workshop

At Deprotech, architects are introduced to techniques of opaque drafting media, photocopying, enlarging/reducing equipment and offset duplicating, learning first hand how to make the workshop's objectives work for them individually. Mr. Abrams describes those objectives as fourfold: To 1) increase efficiency in contract drawing while cutting operating costs, 2) reduce tedious redundancies in contract drawing production, 3) increase time which can profitably be spent on design with greater control over completion times, and 4) reduce errors and omissions while adding both detail and readability.

Participants bring plans of iobs they are currently working on, including schematics, preliminaries, construction and presentation drawings. The bulk of the workshop involves "handson" experience. In fact, several hundred dollars worth of work can be done during the two-day period.

Participants are shown how base drawings are developed and how, through the use of overlays, additional information can be added without replicating previously developed information. (See RECORD, July 1976, pages 55-58, for an overlay drawing tech-

How these techniques apply to each participant's own plans is reviewed during the next segment of instruction, "It's important for a designer to develop an eye for recognizing redundancies, so that when he starts planning his next project, he'll think graphically as well." Mr. Abrams notes.

An analysis of how drawings should be organized is done before any drafting takes place. A system of base sheets and overlays is then established by determining what information is common to certain drawings.

Once conceptual sketches have been completed, then largescale drawings of key elements that will appear repeatedly throughout the plans can be made. These elements usually include floor plans, bays, elevations and general systems: heating, air conditioning, electrical and plumbing.

### A photo enlarger/reducer is essential

Conceptual sketches then are reproduced to large scale by use of an enlargement/reduction camera, Mr. Abrams employs an A.B. Dick Design Master camera (Figure 1) that can enlarge drawings up to 120 per cent or reduce them to as small as 45 per cent. (A number of manufacturers make similar self-contained cameras, according to Mr. Abrams. Also suitable are the process cameras that most reproduction houses use.) The camera reproduces images to desired scale on paper which in turn can be reproduced on photocopying and offset duplicating equipment.

The automatic camera system













also enlarges or reduces to the desired scale by dialing in the proper percentage figure. With a touch of a button, enlargement or reduction is made. The entire operation takes place in less than a minute. and requires about the same amount of space as a drafting table. The system accommodates documents up to 24 by 36 inches.

Once enlarged and reproduced, conceptual sketches then become base material from which base sheets are made. This is accomplished by using a nuArc light table on which key elements are drafted on sheets that have been laid over enlarged conceptual sketches. It is at this point key elements are delineated using chart tape (which produces sharp, black lines for high quality reproduction later on) or by traditional drafting methods.

After key elements have been drawn, they are reduced, usually by 50 per cent. They are then photocopied on a dry toner copier (Figure 2). A "Model 695 Dry Copier," also from A.B. Dick Company, which by nature of its process produces very black copy for sharp line and screened reproduction, is used.

"We use the 695 not only because it produces remarkably black copy, but also because it is one of the few copiers available which reproduces to exact size," Mr. Abrams explains.

Once key repetitive elements have been photocopied, they are cut out and ready to be aligned in various clusters to determine what the best options and combination of options are (Figure 3).

After these key elements have been pasted down (Figure 4) on base sheets, dimensioning, notations and structural framing can be put together using overlays; they can then be reproduced in quantity by offset duplicating or by diazo printing. If more than 50 plans are needed, it is wise to offset duplicate because of the economies involved.

vinyl wall covering

### Manufacturers' casebook: seven projects that reveal product ingenuity



### A tile roof responds to esthetic and service needs

Last May, RECORD asked many building product manufacturers to suggest their most memorable product applications for publication. The result of that survey was many more significant examples than we could accommodate in these nine pages, all instances of extraordinary architect-manufacturer collaboration.

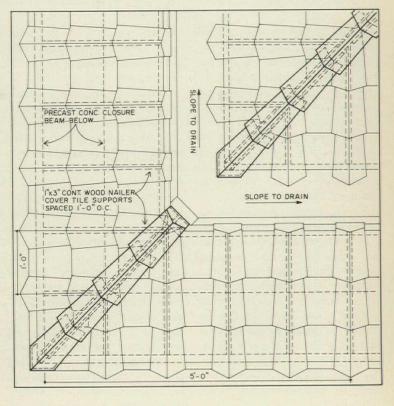
Among those projects selected from this "manufacturers' casebook" of exceptional product applications is the Basking Ridge (New Jersey) Complex, offices designed by The Kling Partnership for the American Telephone and Telegraph Company (above and on the next two pages).

Assuring that this 1,350,000-square-foot complex would have a minimum impact on the surrounding residential community was a primary design consideration. The concept is low horizontal elements comprising terraced parking and two interconnected two-, three- and four-story office wings with horizontal bands of precast concrete and bronze reflective glass, capped with 22-degree pitched roofs.

Of the few materials that could satisfy the client's stipulation of a 50-year roof, tile provided the strong three-dimensional appearance that the architects felt was necessary on a roof that is this building's most prominent design feature. Clay roofing tile manufactured by the Ludowici-Celadon Company in a Greek pattern was chosen for two reasons: its serviceability and the esthetic interest it achieves on large-scale roofs. The pattern has been custom-manufactured by the company for 50 years.

Ludowici is credited with an adaptation made at the architects' request. A special vertical return tile extending into the built-in gutter was created to facilitate flashing and to provide a handsome resolution of the eave line.

By virtue of its weight, clay roofing tile tends to be manufactured for local use and may be suited to local climates only. Ludowici points out that it "burns" its tile at one temperature for all climatic conditions, and installation of this product can be accomplished by roofing contractors.





### A systems ceiling achieves lighting, VAV and partition integration goals

Ceilings for the office areas at the Basking Ridge Complex were designed for systems bidding of the ceiling panel, lighting fixture, variable air volume terminal, and temperature controls. The consulting engineers, Kling/Lindquist, wrote a specification that did not limit the bidders to just one method of air distribution, but permitted various combinations of air diffusers and VAV devices.

The designers provided a distribution system of medium pressure ductwork to distribute the air to ceilings above the occupied spaces, and capped connections were provided on the ducts at specified intervals for the ceiling contractor's use (see drawing far right). The designers also provided a typical layout of each of the three types of systems under consideration for one typical office area for which alternate proposals were received.

It was each bidder's responsibility to demonstrate the ability of his system to meet specified requirements for air motion, temperature control and sound criteria.

He also had to fulfill the architects' esthetic requirements and provide the flexibility for tenant rearrangement.

Many ceiling systems were considered, with 18 mockups created in rented trailers at the job site; three successful ones were selected for more complete testing. The winning system fulfilling entirely the design criteria was submitted by Carrier and Day-Brite Lighting Division, Emerson Electric Company, and took two-and-one-half years to develop.

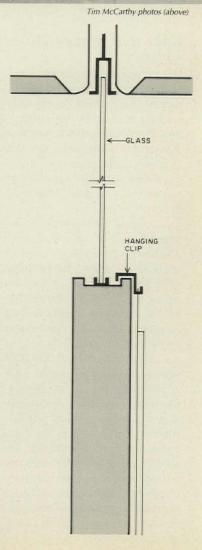
The system consists of modified Carrier *Moduline* variable volume terminals and linear diffusers connected to the distribution ductwork with flexible ducts, and supported from rods which also support the 5-foot-square ceiling panels (small photo, far right). The virtually simultaneous installation of finished ceiling and air distribution systems was designed to facilitate the fast track construction process.

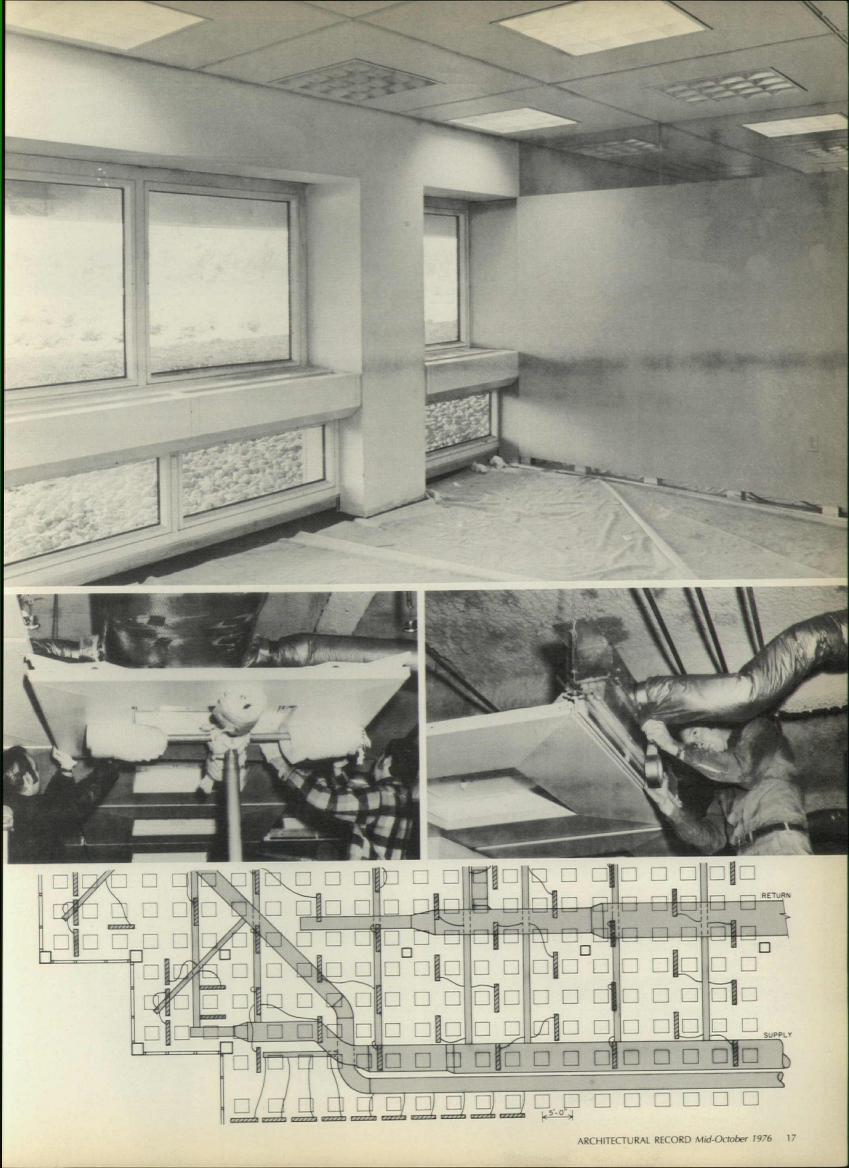
In modifying the *Moduline* unit for this project, Carrier removed the normal diffuser apparatus;

Day-Brite in turn, incorporated the diffuser in its ceiling panel, adding a recessed slot that accepts the glass panels that complete the movable partitioning (see drawing right and photos above). This enables the Carrier units to send a normal air stream pattern to each side of the partition, with individually controlled air options. Moduline controls installed on one unit can control up to six "slave" units. If partitions are changed, the controls can be relocated or an additional control can be installed to divide the zone, a task that is said to be easily accomplished by building maintenance personnel.

In this installation, the Carrier unit is fed air from the side of the plenum. The usual configuration is end feed, with most variable volume units in end-to-end runs, feeding air through into adjacent units. This system achieves a 3.2 cfm per square foot in the perimeter offices.

Special aluminum extrusions for the partition tops, posts, runners and hanging clips were manufactured by Vaughan Walls, Inc.







### Acrylic skylights satisfy architects' desire for lightweight, insulated enclosure

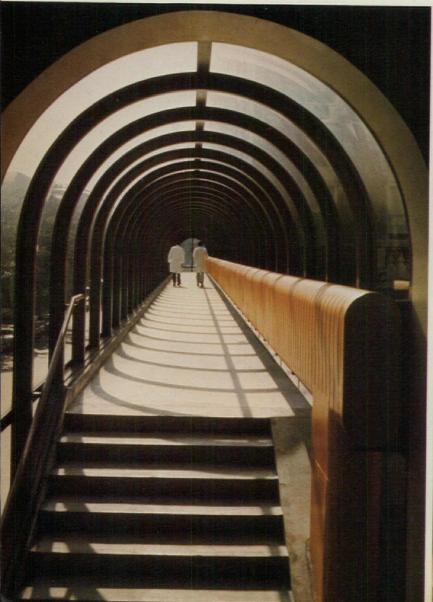
Within the new National Air & Space Museum in Washington, D.C., all major exhibits are housed in a series of enclosed and open, skylighted, glassfronted galleries with open steel trusses. Architects for this new component of The Smithsonian Institution, Hellmuth, Obata & Kassabaum, Inc., selected Rohm & Haas Plexiglas skylight material for the three 120-foot square glass-fronted galleries for several reasons.

The 10-foot square domed Plexiglas units required no support members. Since tubular steel trusses were used at the ceiling, this factor was important in presenting an unobstructed appearance (photo, above right). The trusses, L-shaped bent sections with a web pattern, carry the heavy loads of suspended exhibits. The architects looked for a roofing solution that would allow maximum openness and light, and through which the exhibits would relate to the outdoors.

A second reason for this selection was that the skylights furnished certain desirable construction qualities. Comprised of two layers of *Plexiglas*, with an air space in-between, the domes needed no insulation. Light and sun filtration was achieved by using a bronze tint on the outside layer of material and clear material on the inner layer.

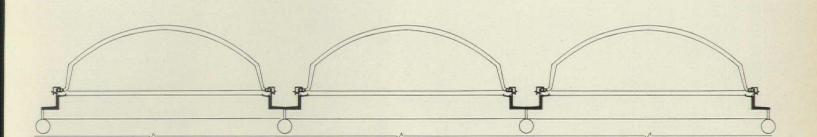
Super Sky Products, Inc., a custom fabricator of monumental skylights, produced the aluminum-framed skylights. Prior to installation, the company constructed a 20-by-60-foot mock-up

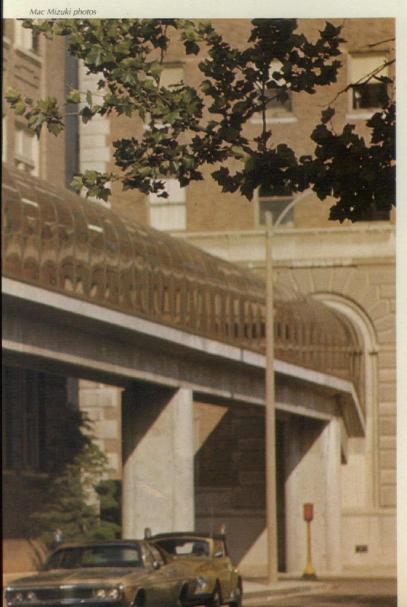
that was subjected to accelerated weather testing. Due to the area of these skylights, a major problem was expansion and contraction control, and water removal. Super Sky, which offers professional design services to the architect, developed the expansion controls and the gutter system that permits drainage to the sides of the building and to some interior drains. Adjustable supports enabled interfacing of the skylight with the trusses at proper drainage angles pitched in two directions.











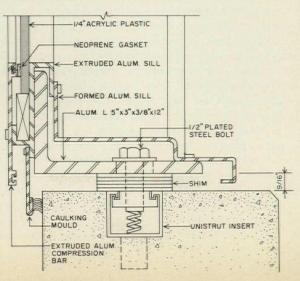
### Standard components build an architectural bridge

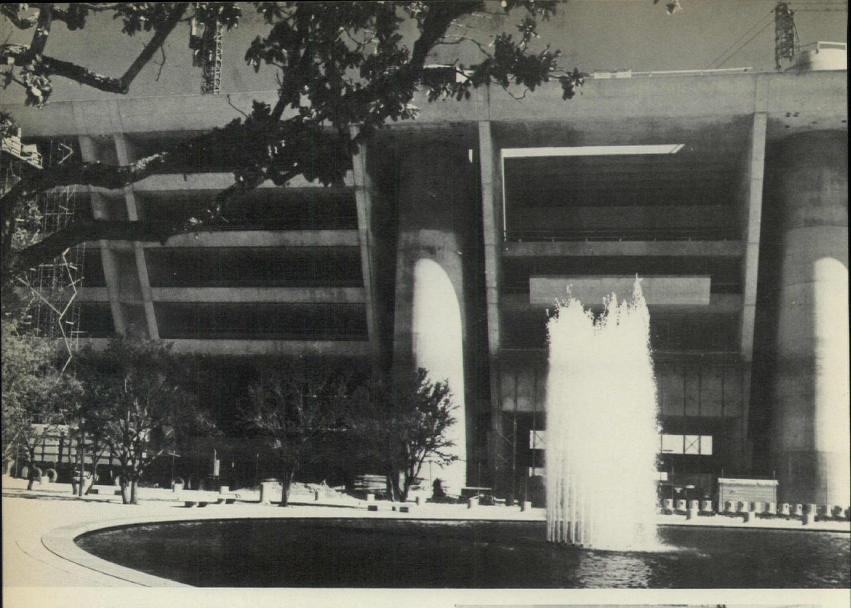
The Eugene J. Mackey & Associates design of the Euclid Avenue Pedestrian Bridge in St. Louis—linking two research facilities of the Washington University Medical Center—resulted from the architects' desire to use a manufacturer's standard components as much as possible to meet performance and esthetic requirements.

In this case, O. O. McKinley Company was called upon to furnish the material, labor and equipment to fabricate and erect aluminum and plastic elements of the enclosed 200-foot passageway. Of prime esthetic importance was the 4-foot radius of the walkway

which emphasizes the stone arch of the hospital building (see photo, left).

O. O. McKinley began offering this type of structure as a standard product after erecting one six years ago to the design of architect Evans Woollen. In the case of the Euclid Avenue Pedestrian Bridge, a company engineer aided the architects in re-working the basic shapes to accommodate new loading conditions created at the steps. Every mullion, each 4 feet on center, provides an expansion and contraction point of ½ inch for the 4-foot tinted acrylic panels.





### Services/structure integration relies on forms and . . .

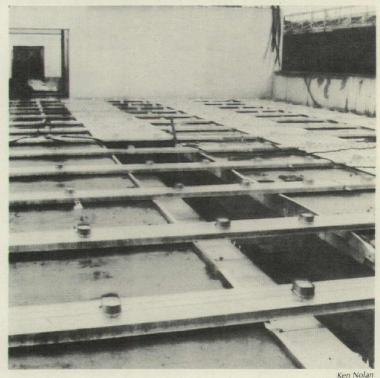
The Dallas, Texas, Municipal Center, designed by Associated Architects, I. M. Pei & Partners/ Harper & Kemp exemplifies an unusually demanding concrete job in terms of design, specifications and required performance. The result is a building with concrete work of unusual quality.

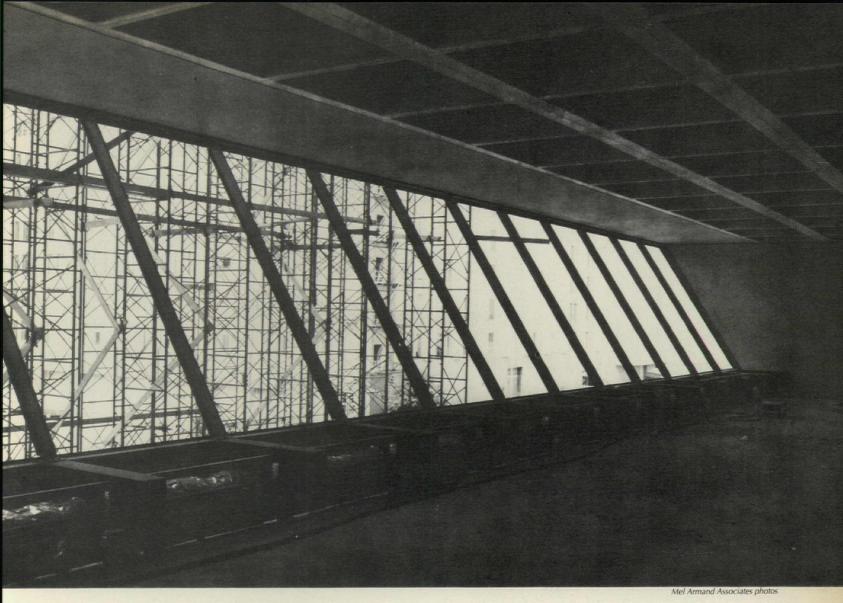
The structure is based on a 56-inch square coffer formed on fiber glass domes molded to the architects' specifications by Molded Fiber Glass Concrete Forms Company. The architects insisted on near-perfect concrete since it was to be exposed inside and out. Joint lines between dome flanges were required to be no more than 1/16-inch wide and only 1/16-inch tolerance was permitted in matching adjoining lines. The 1700 domes purchased for the project were molded with special flanges to produce these tolerances, and to produce those dimensions through seven uses.

In placing and nailing the forms to the plywood deck, not only were the domes carefully aligned, but the nails were positioned in a uniform pattern to avoid a random look when the

forms were stripped. All joints were sealed with a silicone compound and to prevent the leakage of concrete materials during pouring operations, gaskets were provided under all coffer form joints. The result of this procedure—and the fineness of the form itself-is the monolithic expanse of coffered ceiling, void of the more usual reveals created by cruder, butted forms. (In the upper righthand photo, the concrete has not yet been sandblasted to remove the bead).

To save time and labor, the domes were attached to flying units, the largest 14-feet wide and 40-feet long. This permitted handling as many as 24 domes as a single unit. Finished beams, 101/2inches wide at the bottom, sloping to 161/2-inches wide at the top permitted clear spans up to 65 feet 4 inches (see drawing at bottom, right). The stiffening ribs across the width of the bay are 41/2inches wide at the bottom, and the concrete is 3-inches thick over the domes. Trapezoidal fiber glass units bolted to the top of the domes voided a tapered air slot to a plenum.





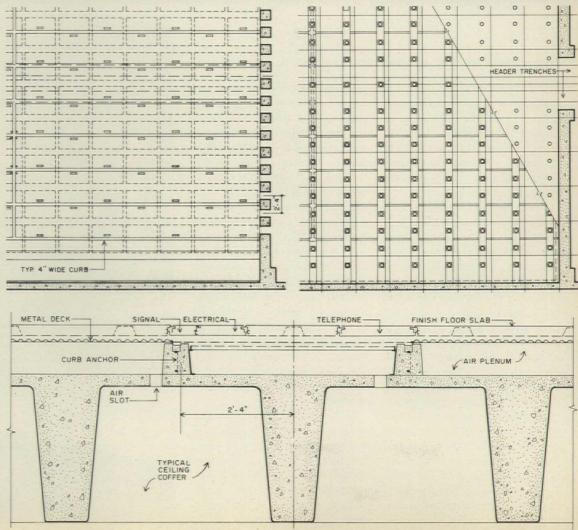
### ... concept refinement

The floor system was designed to integrate electric and communications and air distribution, a concept which the Pei firm has been refining through application in a number of their major buildings. With deep-coffered long span structures of this type, the "air floor" eliminates ductwork concealed in suspended ceilings.

For this building, Mac-Fab Products, Inc. furnished the metal decking and the triple-cell metal cellways that were installed across 4-inch concrete curbs poured the length of the bays.

One of the primary concerns in structures of this type is the air leaking that can occur between supply and return plenums if the slab sags slightly after a number of years. In this application, neoprene gaskets were installed on the top of the curbs, and sealed by the downward curve of the corrugated metal decking.

The alternation of air slots in the top of coffers assures that no matter what office partitioning arrangement the owner might chose, air supply and return functions are provided. The grid cannot be violated.







### Automated transport helps hospitals share services

The sharing of central stores, food preparation and laundry facilities for a 1200-bed, five-building medical complex in Minneapolis is made possible by an 8200-foot transport system, designed by Close Associates and Horty, Elving & Associates, architects of the

remodeled Metropolitan Medical Center which now adjoins Hennepin County Medical Center, by Smiley, Glotter and Associates and Thorson & Thorshov Associates.

Based on a performance specification, the system was de-

veloped by American Chain & Cable Company's Chain Conveyor Division, working with Herman Miller, Incorporated. This is the first installation automating the handling of the Herman Miller *Co/Struc* lockers.

The scheduled delivery sys-

tem comprises: horizontal track, transporters and monitoring controls; five vertical lifts (photo left); and two cart washes.

Upon receiving the contract, ACCO engineered a transporter that would hang vertically, no matter what the load of the C-

### Industrial lighting adapted for classroom use

Previous experience with the manufacturer's engineering services and the product led the architects of this middle school in Irvine, California, to propose lighting based on industrial fixtures using efficient, color-corrected mercury vapor lamps.

The Venado Middle School, designed by William Blurock & Partners is a loft space building with small seminar spaces located on a mezzanine threading through the gable roof structure. Because of intersecting exposed ducts and truss joists—and a California earthquake law—full-swivel pendant fixtures provided an esthetic alternative to surface-mounted, continuous strip fixtures.

Having used these industrial fixtures in another school and in their own offices, the architects selected 250-watt deluxe white mercury vapor lamps in industrial fixtures supplied by the Holophane Division of Johns-Manville.

Holophane engineers, working with lighting engineer Frederick Brown and Associates,

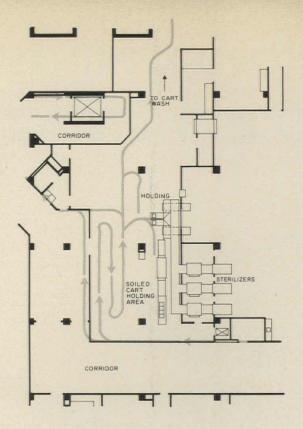
reworked the photometrics of this fixture to provide a batwing light pattern at the task level; the normal application of this fixture is in high-ceiling spaces and the light pattern is narrow at the source, causing hot spots. Mounting heights (not lower than 12 feet) and locations were determined by a Holophane computer program for uniform light distribution.

Holophane incorporated in the fixture a refractive grid lens blocking light above 60 degrees to minimize glare. The lens was regressed 1½ inches and mounted in a frame with torsion springs for easy relamping. Extra quiet encapsulated ballasts were specified. The 24,000-hour lamps provided the required 70 footcandles for the classrooms.

The architects caution that because of the long mercury lamp starting time (up to three minutes), this type of lighting is not well suited to audio-visual areas. Where this lighting is used, the architects provided a fast-starting quartz light for emergency use.



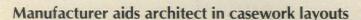




locker it carried. This required considerable experimentation with the suspension point.

Supplies in the lockers are carried by overhead (7 ft 2 in.-high) powered and gravity monorail from central service areas to patient floors, where the *Co/Strucs* 

are unloaded for floor distribution by cart. Each transporter has a dial dispatch control and carries two lockers. Before lockers are returned to their original stations (middle photo), they pass through automatic washers (see plan and photo right).



Among the findings of the 1976 Architectural Record "Annual Survey of Building Product Manufacturers" is the fact that a growing number of producers are offering free, professional design services to architects.

The McKennan Hospital in Sioux Falls, South Dakota, is an example of how architects can use these design services of a manufacturer. The architects in this case are Caudill Rowlett Scott, and The Spitznagel Partners Inc., and the manufacturer is Monitor Products.

The architects' design goal was to achieve casework that would complement the Hill-Rom medical services head wall (right) selected for the patient rooms. It contains reading lights, examining lights and outlets for oxygen and suction. Monitor manufactured the custom-designed wardrobes, storage casework; on one side of the bed is a swing-out cabinet for storing wash basin, toiletries and other personal care items. On the other side is a board containing the intercom controls.

Dimensionally and detail coordinated with the Hill-Rom unit, the Monitor units are constructed of particle board, finished in high pressure laminate in primary colors—the finishes of the Hill-Rom patient wall.

Monitor, 50 per cent of whose business is in the health care casework field, provided the final layout for the laboratory in this instance, based on the work of a full-time licensed architect employed by the company. His plans were incorporated in the architectural drawings.

Also manufactured by Monitor to the architects' design were central nursing stations comprising medications work compartments, central communications desk, ward clerk's work space and other charting desks. Mobile carts made by Monitor hold patients' charts, and carrels located with the core are provided for physicians. The company is credited with skillful development of the relatively new concepts here in movable task casework.









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This issue of RECORD's Product Reports issue represents something of an anniversary—it is the fifth edition of what we described back in October 1972 as "a new effort by the editors of RECORD to show—in an organized, easy-to-use-forreference fashion—the most important new products. . . . "

The editorial of that first issue described why we had started this new program: "The continuous and continuing outpouring of new and better and more efficient and more flexible and more colorful products-often interrelated with other new products in 'packages' or sometimes 'systems'—has a continuous and continuing impact on efficient and economical building design. And so architects and engineers need to know about new products—and as quickly as possible."

That remains an important goal. The importance of the dialogue between architects and engineers and the manufacturer was reinforced for us only months ago, when we held a Round Table on Technical Backup for Architecture (RECORD, mid-August)—subtitled "where is the expertise, how do we get it out, and how does it get paid for?"—during which it became obvious again that designer and manufacturer alike can benefit from a close working relationship. The symbiotic advantages of that "working together" are further reinforced by the case examples of effective designer-manufacturer collaboration shown beginning on page 15. But what is most important and most basic is that the manufacturer continue to bring to the market a flow of new products that not only suggest new ways to solve design problems, but indicates a clear faith in the future of our industry and its established marketing patterns. And the proof of that is in every page. . . .

### How to use this issue

This year Product Reports is organized, as usual, on the 16-division UCI format. The page number for each division can be found on the Contents page, page 3, and more information on any product or service in this issue can be easily obtained by using the Reader Service section that begins on page 8. Inquiry cards are provided for reader convenience on page 9 and 10. An index to manufacturers whose products appear editorially may be found on page 5, while advertisers in this issue are indexed on page 190.

A special feature of this issue should be noted. Again this year, readers will be able to circle one number on the Reader Service Card to receive manufacturers' literature on entire product sections within any of the 16 divisions. Of course, information on individual products may still be requested by circling the product's number in the case of advertisers, or by writing the number in the space provided, in the case of products featured editorially. However, if you wish to use the Reader Service Cards on page 9, we think you will find them useful as you read this issue.

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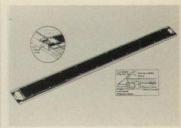












COMPUTERS

- PRINTER/PLOTTER / The model "5105" produces clean, high-density images and smooth line contours from computer-generated graphics and alphanumerics. The unit can plot standard D-size (22- by 34-in.) drawings in approximately 11 seconds. / Gould, Inc.
- PLOTTING SYSTEM / "Model 42" with a plotting speed of 42 in. per second has a plotting area of 36 by 48 in. Several off-line data plotting applications include: land use maps; subdivision layouts: piping diagrams: structural design; motion fill analysis. / The Gerber Scientific Instrument Co.
- WORD PROCESSING / Three CRT, diskette-based word processing systems can be expanded by "plugging in" more electronics, work stations, and capabilities. Operational features include: large CRT display screens; uncluttered keyboards; and built-in power options. / Wang Laboratories, Inc.

DRAFTING SYSTEMS / The "Auto-Draft" system consists of input stations, a minicomputer controller, and a plotting device. The system's plotter is a flatbed design with a 40- by 60-in. plotting area, capable of pen speeds up to 22 inches per second. / Auto-trol Corp.

ELECTROSTATIC PLOTTERS Eight units offer a choice of 22 or 24 in. paper width, vertical plotting speed of one or two in. per second, and resolution of 100 or 200 dots per in. Four models offer character generator and simultaneous print/plot option for display of captions, legends, and other alphanumeric data while plotting. / Versatec.

TIMESHARING COMPUTER / Called the "Decsystem-20," the 36-bit word length system features a full complement of high-level languages, and a newly designed systems architecture. The system offers concurrent timesharing and batch and transaction processing capabilities. / Digital Equipment Corp.

### INFORMATION SYSTEMS

- TRUSS DESIGN MICROFICHE / This microfiche library of 16,000 wood truss designs contains design conditions for asymmetrical and inverted designs, extended top chord bearing, double stub ends, umbrella, and truss lengths up to 100 ft. / Automated Building Components, Inc.
- PROFESSIONAL MANUAL / "Untangling the Web of Professional Liability" is a 200-page illustrated guide intended to assist the design practitioner toward a more claims-free professional career. / Design Professionals Insurance Co.

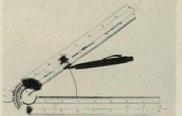
### **OPERATIONAL**

STRAIGHT EDGE / A floating action parallel straight edge has sizes from 30- to 72-in. long. The ruling edges are made of clear Plexiglas for drafting and drawing and stainless steel for cutting, editing, and drawing. / Plasticoid Products Inc.

COMPUTERS INFORMATION SYSTEMS **OPERATIONAL** OFFICE MACHINES OFFICE SUPPLIES REPRODUCTION



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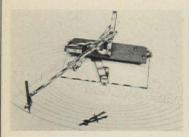
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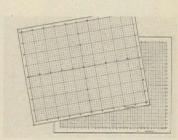




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21

DRAFTING TABLE / Power operation gives 20 in. of vertical travel (from 50% in. down to 30% in.). "VR 20" tables also feature a counterbalanced board tilt control mechanism allowing adjustment of the board to any angle, from zero to 90 degrees. / Hamilton Industries.

OPTICAL TAPEMEASURE / The Optical Tapemeasure measures distances from 50 to 600 ft. The unit is hand-held and measures 81/2 by 4 by 11/2 in. and weighs 16 ounces. Accuracy is claimed within 3 in. at 50 ft, 6 in. at 100 ft, 5 ft at 200 ft, and 20 ft at 600 ft. / Ranging, Inc.

**ELLIPSOGRAPHS** / These instruments draw mathematically true ellipses up to 30 in. major axis and a minimum of 4 in. minor axis. The large linkage in the "Model 25" is mounted in ball bearings for free movement and accuracy. / Hunter Assocs.

DRAFTING INSTRUMENT / 13 The "Pentaflex" is made of clear Lexan plastic, and incorporates five drafting instruments in one: three snap-in scales; protractor; triangle; compass; and beam compass. /

### **OFFICE MACHINES**

MICROFICHE READER / The "930" unit is recommended for applications where documents have been photographed at random angles, because the image rotation control rotates the 11-in.-sq screen a full 360 degrees. Magnification is from 24x to 48x. / Micro Design.

BINDING SYSTEM / "Therm-A-Bind 200" binds any loose papers, photos, cards or other literature, and operates on standard 115-volt ac power. Weighing less than 22 lbs, its dimensions are 12 by 19 by 7 in. / General Binding Corp.

OFFICE BINDER / A portable, mechanical binding unit called "The Clincher" will bind almost any collection of materials up to 11 in. wide and one inch thick in hard or soft cover. It punches and binds documents in minutes, according to the company. / 3M Co.

BINDER / "Model 123" is a manually-operated punch-and-bind office machine that makes a patented, flush bind. Books can be de-bound and re-bound for last-minute page changes. Both punching and binding are done with the same U-shaped control bar. / Velo-Bind, Inc.

METRIC CONVERTER / This calculator features pre-programmed metric conversion for length, weight, speed, liquid or dry volume, and temperature. Each unit comes with an ac adapter and carrying case. / Better Ideas.

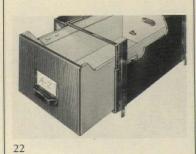
PRINT FOLDER / Prints are 19 stacked on a tray and hand fed, one at a time. Folded prints from 11 by 17 in. to 36 by 72 in. emerge in seconds, according to the company. Two models are available for a completely automated one-pass print folding system. / Bruning Div., Addressograph-Multigraph Corp.

COLLATOR / "Gather-8" gathers eight sheets at one point and then a finger-tip pull is all that is needed for collating. It can handle a variety of stocks, according to the company. / Michael Business Machines Corp.

### **OFFICE SUPPLIES**

21 TWO-DIMENSIONAL SCALES / These transparent grid scales are over-

lay/underlay guides for measuring and construction. The two versions available are a 1/4 in.: 1 ft architectural grid, with 10 by 121/2 in. (40 by 50 ft) capacity; and a metric grid, with 24 cm by 30 cm capacity. / GraphiCraft.









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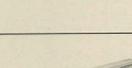








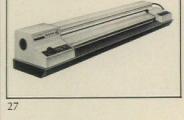
26











25 HIGH-VOLUME PRINTER / The "Model 600" high-volume engineering copier uses no ammonia and requires no venting. It prints up to 75 ft per minute. An adjustable tracing tray can be expanded to receive larger tracings. / Bruning Div., Addresso-

FILM PROCESSOR / "Model 344" accepts Kodak films and papers fed from the back and processes dryto-dry in 90 seconds. All processed materials are delivered to the receiving basket in the front. Graphics arts materials up to 44 in. wide and 18 ft long can be used. / Eastman Kodak Co.



ADHESIVE LABELS / A new size (11 by 17 in.) plain bond self-adhesive label for large document copiers is as easily copied as is regular plain bond paper, and the silicon-treated backing paper is divided into several strips for convenient removal by the user. / Avery Label.

SELF-STACKING FILE / The

steel supports of each "Interstak" file

unit permit flexible self-supported

stacking arrangements without tools or hardware. / Oxford Pendaflex Canada

> DOCUMENT PROCESSOR / A triple-purpose document processing machine combines imprinting/numbering, photocopying and microfilming into one operation. The "Docuprint 900" produces 60 copies per minute and microfilms 60 documents per minute. / AES Technology Systems, Inc.

graph-Multigraph Corp.

WHITEPRINTER / Formerly available only as a console-model, with adjustable legs, paper-storage compartment and roll stock attachment, the "Model 350" machine can now be purchased for tabletop use, producing at speeds of up to 30 ft per minute. / Blu-Ray, Inc.

### REPRODUCTION

WHITEPRINTER / A table-Xerox Corp. A, E, ICR/PE \*

COPYING MACHINE / The "Electrographic 1824," designed to top whiteprinter, the "Mark III" can accept single sheet or bound originals up to 18 in. wide by any length, also produce copies up to 53 in. wide by produces gray-scale tonal renditions any length. A separate heater switch on prints of full-color or black-andfor instant-on operation, a built-in pump switch and forward-reverse white illustrations. The unit operates switches are other features. / Teledyne on standard 115-volt, 13-amp ac power. / Minolta Corp. Rotolite.

- GRAPHIC TRANSFER / A photomechanically imageable transfer material, which enables users to make sheets of dry transfer letters and symbols from any line original, is processed by a simple one-chemical, roomlight procedure. Images adhere to most surfaces used by graphic professionals. / 3M Co.
- 33 PRESSURE DIAZO COPIER / The "PD 80" copier delivers large-size prints with no ammonia fumes or chemical mixes. With instant-on operation, the copier needs no warmup. The desk-top 42-in. unit plugs into a normal 110-volt outlet. / Bruning Div., Addressograph-Multigraph Corp.
- COPIER / A new cassette accessory now available for this portable large document copier produces copies of material up to 14- by 25-in. using ordinary unsensitized paper. /

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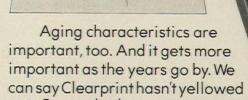
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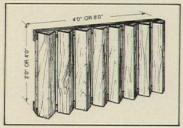
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# site work s



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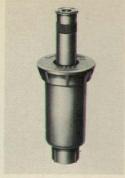
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### FENCES & GATES

46 NOISE BARRIER / The "Perma-Delta" sound barrier is a specially engineered sound absorbing system made almost entirely of plywood. It uses a series of vertical, triangular-shaped resonance chambers into which traffic sounds are compressed, entrapped, delayed and reduced. / Permapost Products Co.

### **IRRIGATION SYSTEMS**

- 47 CONTROLLER / An automatic controller schedules the independent operation of 11 sprinkler stations. It can be programmed to provide varying daily watering schedules over a two-week period. The UL-approved controller can be wall- or pedestalmounted. / Rain Bird.
- 48 AUTOMATIC WATERING / A watering and sprinkler control system is a solid state quartz crystal, which is battery-operated. At the owner's option it can easily be converted to house current by means of an ac/dc transformer. / Aqua Brain.



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49 POP-UP SPRINKLER / "Model 1800" has a pop-up height of 2³/16 in. When not in use, the nozzle retracts flush with the top, which is completely closed to prevent debris from collecting around the nozzle and stem. A heavy stainless steel retract spring provides positive pop-down. / Rain Bird.

### MARINE WORK

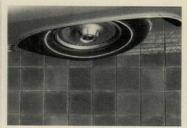
50 MARINA PONTOONS / Matched-die molded fiber glass floating pontoons are said to be unaffected by rust, rot, salt, gasoline. The 3- by 6-ft modules are 23 in deep and

by rust, rot, salt, gasoline. The 3- by 6-ft modules are 23 in. deep and weigh 72 lb. Color is molded in. / Molded Fiber Glass Co.

51 EPOXY SYSTEM / This product is said to protect concrete and steel in splash/tidal zones and under water. The two-component system mixes with special filler, and applies by hand to pilings, sea walls. The coating is free of joints. / Sika Chemical Corp.



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### **PAVING & SURFACING**

- 52 PAVING / The use of *Grasscrete* concrete forms produces a parking lawn capable of carrying cars and trucks. A steel-reinforced slab is poured on the forms over a prepared bed; the concrete paving will have evenly spaced holes, which are then filled with soil and planted with sod or seed. / Bomanite Corp.
- 53 THIN PAVERS / The "3A Individual Control Joint Paving System" is a combination of %-in. or ¾-in. frost-proof thin pavers bonded to a wet screed bed in one operation. The system can be applied in vehicular traffic areas as well as in pedestrian areas. / Structural Stoneware Inc.

### SITE DRAINAGE

54 SECTIONAL SPANS / "Maxi-Span" sectional plate structures are recommended for bridge replacement, stream enclosure, and culvert problems. They are available in spans to 40 ft and water area of 927 ft. / Republic Steel Corp. E, ICR/PE\*

FENCES & GATES
IRRIGATION SYSTEMS
MARINE WORK
PAVING & SURFACING
SITE DRAINAGE
SITE FURNISHINGS



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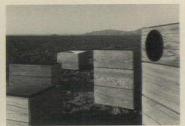


### SITE FURNISHINGS

- MOTORCYCLE STAND / Constructed of steel plate and boron alloy chain, the "Moto-Safe" stand accepts all styles of motorcycles. The stand lends itself to cluster parking. / Rally
- 56 DRIVE-UP CONTAINER / The heavy-duty galvanized metal top is coated with a baked enamel finish. The chute top may be used on either the company's 55 or 30 gallon litter receptacles, providing a 171/2 by 11 in. opening. / Clean City Squares, Inc.
- 57 TRASH RECEPTACLES / Fiber glass receptacles are available in 12 colors and finishes. Units are suited for both interior and exterior usage and come with an epoxy-coated metal liner. / Landscape Forms, Inc. A, ID\*





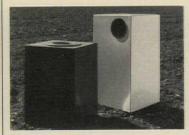


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- TABLE & SEATS / Forum series tables and seats are available in redwood, pressure-treated pine, and purpleheart wood. Tables are 40 in. square by 29 in. high. Seats are 19 in. square by 16 in. high. Units are available with a choice of two pedestals. / Landscape Forms, Inc. A, ID\*
- SITE FURNISHINGS / Strata series of planters, modular seating, and trash receptacles are from 15 to 63 in. Series is available in redwood, oak, and purpleheart wood. / Landscape Forms, Inc. A, ID\*
- PLANTER-BENCH / Promenade planter bench is 91 in. square by 21 in. high. The wood frame is available in redwood or oak, and fiber glass planter and bench inserts are available in 12 colors and two finishes. / Landscape Forms, Inc. A, ID\*







- TRASH RECEPTACLES / Fiber glass trash receptacles are available in 12 colors and two finishes. Units are suited for both interior and exterior usage and come with a metal liner. / Landscape Forms, Inc. A, ID\*
- BENCH / Forum series bench is available with or without a back and has a choice of two pedestal styles. Available woods are redwood, pressure-treated pine or purpleheart wood. / Landscape Forms, Inc. A, ID\*
- PLANTERS / Timberwall is a series of planters, modular seats, and trash receptacles. Planters are available from 17 to 60 in. Wood choices are redwood, pressure-treated pine, and purpleheart wood. / Landscape Forms, Inc. A, ID\*







- PLANTERS / The Meridian series of planters, modular seating, and trash receptacles is available in redwood or oak. / Landscape Forms, Inc. A, ID\*
- 65 TRASH RECEPTACLES / Agora series trash receptacles are available with design coordinated planters and modular seating. Units are available in redwood or oak. / Landscape Forms, Inc. A, ID\*
- 66 PLANTERS / Cleft is a series of planters, modular seating, and trash receptacles. Planters are available in square, cylindrical, and rectangular shapes up to 63 in. Wood choices are redwood, oak, and purpleheart wood. / Landscape Forms, Inc. A, ID\*



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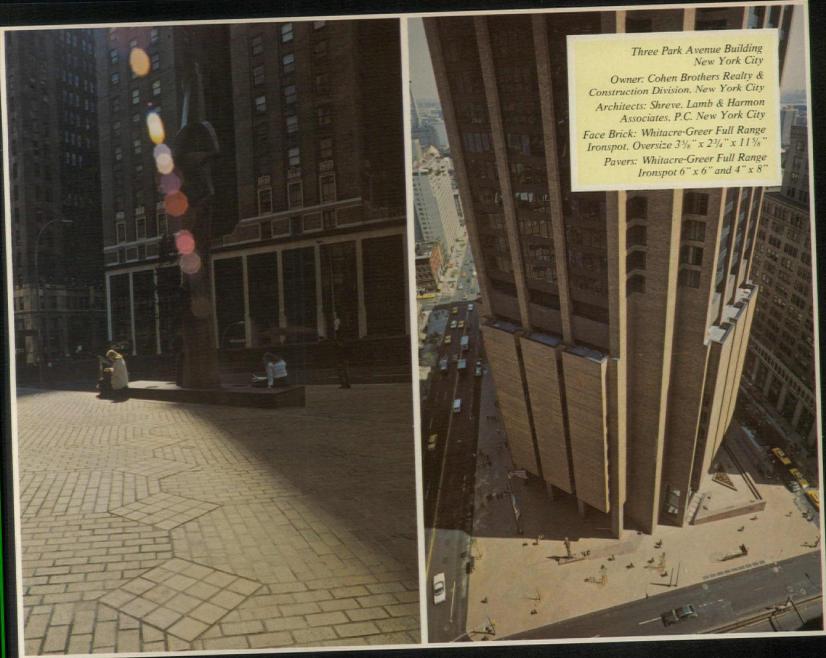
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CALEDONIA



102 MATTE

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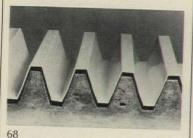
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## Soncret



















**CEMENTITIOUS DECKS** 

REINFORCED PLANK / The channel reinforced "PetriCal" has tongue-and-groove longitudinal sides, reinforced on one side with a 34-in., 16-gauge galvanized steel channel, bonded to the plank at the manufacturer's plant. The allowable span is 60 in. / Cornell Corp. A,E,ICR/PE\*

### CONCRETE MATERIALS

70 GLASS-REINFORCED CEMENT / Glass-fiber reinforced cement (GRC) can be easily formed into intricate, thin-wall shapes with either a decorative or a smooth surface. The key engineering properties of GRC products are fire-resistance, weather-resistance, and shatter-resistance. / Cem-Fil Corp.

71 CONCRETE STRENGTHENER / "Plastocrete 161" series of strength-

producing admixtures controls set, im-

proves workability, finishing, and

quality of concrete. Three chloride-

REINFORCEMENT / "Ribtec" stainless steel fibers have been especially developed for use in concrete where applications demand a high degree of rust and corrosion resistance. The finished concrete panels may be much lighter weight than when ordinary mesh or bar reinforcement is used. / Ribbon Technology Corp.

MAUSOLEUM CRYPT / With

this modular crypt system it is said to

be possible to set up 100 smooth-fin-

ish modular crypts per day economi-

cally. The interlocking modular units

are designed to be self-supporting, and

crypt banks are actually the super-

structure for the mausoleum building.

/ DUWE Modular Crypt Corp.,

A,ICR/PE\*

PRECAST CONCRETE

### **CONCRETE FORMWORK**

FORM LINERS / The trapezoidal liners are extruded from Cycolac brand ABS engineering thermoplastic. Unlike styrene, Cycolac does not separate from forms as temperatures vary and will not warp, absorb moisture or discolor the concrete. It also produces a smooth surface. / Greenstreak Plastic Products.

CONCRETE REINFORCEMENT

REBAR COATING / Three epoxy coatings tested by the National Bureau of Standards have demonstrated the required flexibility, resistance to corrosion from road salts, bond strength to concrete, and resistance to abrasion and impact in bridge construction. / Armstrong Products

free formulations are offered. / Sika Chemical Corp.

> 75 INSULATED PANELS / Corewall insulated wall panels constitute a simple wall cladding that is durable, fire-resistant and capable of spanning 30 ft or more between foundation and roof or floor structure. Modular panels are available in 8 and 10 ft widths. Panel thickness varies 5 to 11 in. inclusive. / Licensor, Butler Mfg. Co.

PIER REPAIR / "Z-Bead," available in both round and square versions, is designed to meet all marine construction applications as they apply to repair of wood, steel or concrete pilings. The new form is made of corrosion-resistant fiber glass. / Symons Corp. A, LC, ICR/PE\*

CEMENTITIOUS DECKS CONCRETE FORMWORK CONCRETE MATERIALS CONCRETE REINFORCEMENT PRECAST CONCRETE

### OFFICE EQUIPMENT

**D01 METRIC HANDBOOK** / The "American Metric Construction Handbook," contains both basic information and detailed, application-oriented discussions of the various areas to be affected by American usage of the metric system. It is available for \$14.95 from Structures Publishing Co., Box 423, Farmington, Mich. 48024.



DO2 MODEL SUPPLIES / The catalog contains drawings and photos of the parts, suggested uses, information on ways to modify parts for specific applications, as well as facts on tools, modelmaking equipment, paint and cement and part storage units. The book also contains metric conversion tables, working tips, safety rules for power tools and a recap of the functions of engineering scale models. / Model Parts, Inc.

D03 BARRIER-FREE DESIGN / The National Center for a Barrier Free Environment, including The American Institute of Architects, the President's Committee on Employment of the Handicapped, and the National Easter Seal Society, publishes a bimonthly Report, dealing with barrier free design topics. A complimentary copy of Report is available. / National Center for a Barrier Free Environment.

### D04 AUTOMATED GRAPHICS /

Three brochures describe a completely automated graphics system which provides comprehensive management reports concerning status, cost and resources throughout the planning, scheduling and control phases of a project. / Systonetics, Inc.

### SITEWORK

D05 CHAIN LINK FENCING / An aluminized steel chain link fence fabric is said to have up to five times the weather-resistance of galvanized-coated fencing. A full-color brochure gives test data, as well as details on eight types of fence, and three grades of fittings and gates. / Page Fence Div. of Acco.

**D06 FENCING** / A 16-page architectural catalog explains why "Colorbond" pre-galvanized vinyl-bonded steel mesh fence carries a 15-year warranty against rust and corrosion. In-

cluded are on-site photos of industrial, maximum security, 3-gauge "Elephant" mesh, and redwood-picket privacy-fencing. / Colorguard Corp. A,E,ICR/PE\*

### CONCRETE

D07 CONCRETE CHEMICALS / A 1977 product data guide provides a brief description, application methods, coverage, specification compliance and cost estimating information on form coatings, cures, concrete floor treatments, masonry corrective and protective compounds, grouts and bonding agents. / L & M Construction Chemicals, Inc. A,E,ID,ICR/PE\*



**D08 ROOF DECKS** / Energy, fuel and thermal data on the insulating advantages of poured gypsum/concrete roof decks are given in a six-page illustrated folder. / United States Gypsum Co. A\*

D09 PARKING GARAGES / "Metro-Space" multi-story parking structures offer fast construction time, security, parking efficiency and convenience, according to a new brochure describing the prefabricated system. / Precast Systems, Inc.

D10 CONCRETE FORMS / An illustrated data sheet presents the properties and benefits of "Pour-Form 107" phenolic-treated plywood forming panels. These forms are guaranteed against delamination of either inner plies or overlay surface. / Evans Products Co., Ltd.

### MASONRY

D11 SPLIT-FACED MASONRY / This literature describes a single-wythe load-bearing split-faced concrete block combined with foamed insulation and gypsum board to form the walls of an apartment complex in a particularly noisy location. Detail drawings, resistance ratings and sound transmission data are included. / Portland Cement Assn. A\*

D12 TILE COST / Material, installation and overall in-the-wall costs for a variety of wall materials, including structural glazed facing tile, are given in a cost comparison chart. Information is based on the "Means" Cost Data Book 1976 and other company sources. / Stark Ceramics, Inc.

more literature on page 45

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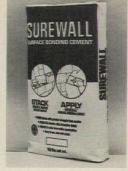
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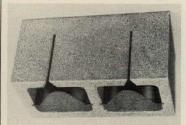












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### MASONRY ACCESSORIES

CONCRETE ANCHOR / The TAPCON anchor taps threads in concrete to generate holding power and a tool drills the required pilot hold while driving the anchor. This assures fast installation of a wide variety of components directly to concrete. / Buildex Div., Illinois Tool Works, Inc.

### MASONRY RESTORATION

MASONRY CLEANER / "Sure Klean No. 101," a heavy-duty masonry detergent is designed to remove excess mortar, job dirt, and stains from red brick, concrete block, and other dark colored new masonry surfaces. / ProSoCo, Inc. A\*

**RESTORATION** / Preservation and restoration of deteriorated stone and brick can be accomplished by impregnation capable of producing indepth structural reinforcement. Missing and decomposed details are said to be faithfully restored with composite material. / Universal Restoration Inc.

### MORTAR

91 SURFACE-BOND CEMENT / Surewall bonding cement, available in a range of non-fading, pastel colors, reduces mottling and discoloration associated with integrally colored cement products; and eliminates the need for painting in decorative colors. It is also available in finish coat. / W.R. Bonsal Co. A\*

### **UNIT MASONRY**

92 GLAZED MASONRY / Units for interior and exterior use feature a variegated color texture of 24 earthtone and natural hues with permanent soft satin finish. These through-wall load bearing units meet Federal specifications, OSHA and USDA requirements. / The Burns & Russell Co.

93 FACE MASONRY / TREND-STONE ground face masonry units are concrete block ground to expose the aggregates. Various aggregates, mineral pigments and tinted coatings provide a selection of variegated colors for interior or exterior use. / Nabco Glazed Products, Inc.

### UTILITY BRICK / "Du-Wall" utility brick, an 8-in. through-the-wall brick featuring a ceramic glazed interior face and a Rushmore textured exterior face, comes with square corners only. "Du-Wall" conforms to ASTM specifications for clay tile and needs no steel framing. / Stark Ceramics, Inc.

MORTARLESS BRICK / "Zip Brick" is a concrete brick, manufactured in 4 and 8 in. widths. Interlocking horizontal joints provide a strong, self-aligning wall. Each brick is manufactured with 36 in. simulated mortar joint. / Zip Brick, Inc.

ACOUSTICAL BLOCK / Type Q Soundblox uses metal septa to acoustically divide the cavity volumes and funnel-shaped slots to improve acoustical coupling to the resonator cavities. Soundblox has a NRC of .50-.60 / The Proudfoot Co., Inc. A, ICR/PE\*

MASONRY ACCESSORIES MASONRY RESTORATION MORTAR UNIT MASONRY



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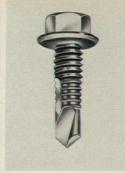
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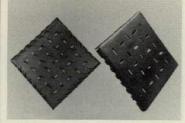


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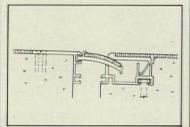
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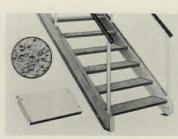


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### **FASTENERS & SUPPORTS**

### 112 MECHANICAL FASTENERS

Teks selfdrilling fasteners drill through deck and structural metal up to 1/2 in. thick. A "Stitch Teks" provides for the positive fastening of light gauge sidelaps. Diaphragm action approvals have been obtained for this system. / Buildex Div., Illinois Tool Works Inc.

### METAL DECKING

113 STEEL ROOF DECK / The full 36-in. wide "Type B" steel roof deck panels reduce the number of sheets to be handled on job site. The welding pattern remains the same as the one used on company's original 30-in. wide panels. / Roll Form Products, Inc.

### METAL FABRICATIONS

114 CHURCH STEEPLE / The all-aluminum frame affords a maintenance-free steeple available in two styles: traditional or contemporary. / Ameray Mfg., Inc.

### 115 FLOOR PLATES / Steel anchor floor plates are offered in 1- or 11/2-ft plates and conform to Federal specifications. When imbedded in a concrete base, the steel plates form a permanently-anchored floor surface. / Pryton

### 116 STORAGE DECKING / The system consists of a basic starting module, to which the user may add an outside-edge railing; pre-assembled framework; and a heavy duty channellock safety grating for the deck floor. The weight capacity of the assembled modules is 150 lbs per sq ft. / Penco Products Inc.

117 STAIR TREADS / Designed to meet OSHA safety requirements, these reversible channel treads have a patented, metal-bonded surface that offers slip-resistance and permanence. The treads are available in a range of sizes. / Mebac, Inc.

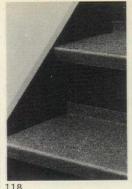
### **EXPANSION CONTROL**

109 JOINT CLOSURE / This floor joint closure system is said to almost disappear when covered with vinyl tile. In addition, the curved centerplate, which does not require any filler strips, is totally functional at all movement extremes. / Balco, Inc. A\*

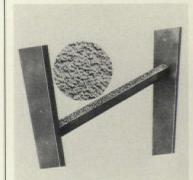
110 JOINT CLOSURE / Designed to cover expansion joints between new to existing construction, this closure is applied directly over the existing floor slab, eliminating the need to cut back old concrete. / Balco, Inc. A\*

111 SLIDE BEARINGS / Available in standard and custom configurations, these Teflon slide bearings offer reduced resistance to friction compared with conventional steel or brass bearing pads. / Balco, Inc. A\*

**EXPANSION CONTROL FASTENERS & SUPPORTS** METAL DECKING METAL FABRICATIONS METALS & ALLOYS RAILINGS & HANDRAILS STRUCTURAL METAL





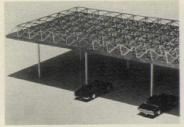


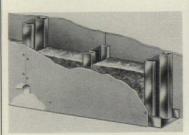
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118 STAIR SYSTEM / SafeTreads are completely covered with a heavy epoxy finish which results in a footgrabbing, non-slip, wear-resistant surface. They are manufactured in either steel or aluminum, and can be bolted or welded to the stringers, and ordered with open or closed risers. / Derrico,

119 URINAL CARRIER / With more than 30 different types of urinals currently available, manufacturers have offered carriers with as many different plates to fit them. This universal urinal carrier, with slotted hanger support plate, can be used for any installation, even for dry wall construction. / Tyler Pipe.

120 LADDERS / The rungs of these fixed ladders have a slip-resistant coating of abrasive grit permanently bonded with aluminum metal to the steel or aluminum surface. Ladders are made with 1% in. wide strut rungs or with 3/4-in.-square rungs. / Mebac, Inc.





122



121 LIGHT SPACE FRAME / Developed with the assistance of Carr Smith and Associates, engineers and architects, this all-aluminum space frame is corrosion-resistant and lightweight. It is suggested for carports, covered storage and outdoor gyms. / Alcan **Building Products.** 

122 RESILIENT STUD / Sound attenuation partitions consist of 25-gauge galvanized studs installed 24 in. on center with resilient flanges facing in alternate directions. Gypsum board panels are attached to the non-resilient flanges. Wall cavities are filled with mineral fiber insulation batts. / Allied Structural Industries, Inc. A\*

123 ARCHITECTURAL MESH / For wall panels, room dividers, elevator entrances, etc., 24 standard types are fabricated from stainless steel, brass, and/or aluminum, and furnished in rigid panels. / Cambridge Wire Cloth







126



# **METALS & ALLOYS**

125 GALVANIZED STEEL / An improved galvanized steel offering atmospheric corrosion resistance features a coating appearance that is the same as regular galvanized metal. It fabricates and has the mechanical properties of a normal galvanized product. / Armco Steel Corp.

# **RAILINGS & HANDRAILS**

126 RAILING AND HANDRAIL / RigidRail is especially suited for water and waste treatment plants, power plants, petrochemical installations and industrial facilities. Clear anodized finish is standard. Duranodic bronze is suggested where color and maximum abrasion resistance are required. Construction Specialties, Inc.







129

127 MUNICIPAL RAILING / The railing, which can be used in sewage and water treatment plants, is aluminum, pre-assembled, anodized, with toe plate if required. "I" beam posts are 6063-T6 (30,000 psi). The design includes rectangular top and mid-rails and 2-in.-square posts. / Napco, Inc.

128 COMMERCIAL RAILING / The company is adding a nearly circular top rail (with a newly designed wall bracket) to its line. Finishes will be in black, white or dark bronze thermosetting acrylic enamel or clear anodized. / Napco, Inc.

# STRUCTURAL METAL

129 STEEL TUBING / This cold formed, welded structural steel tubing in wall thicknesses of 9/16 in. (.5625) in perimeters from 6 in. to 10 in. sq-as well as other dimensions—is available in continuous lengths up to 60 ft. The new thicknesses are offered in accordance with the physical and chemical characteristics of ASTM Specification A-500, Grade B. / Regal Tube

# The revolution is over in Boston,

There's nothing revolutionary any more about building with Wheeling® Steel Framing. Across the land more and more architects are specifying it.

Wheeling Steel Framing is always available, so you

avoid costly delays.

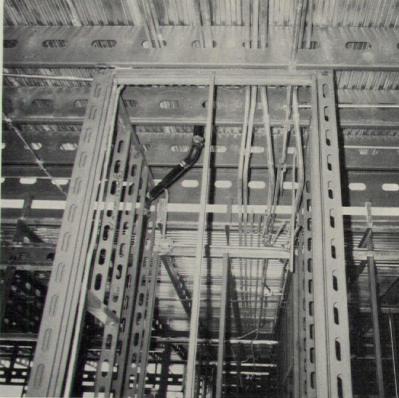
Once started, the building goes up fast and costs are held to a minimum. Construction crews working with

steel framing get more done in less time.

You can specify the proper insulation and finishing material to achieve the required heat loss and sound ratings you need.

No matter where the building is built, you're free from shrinking, swelling, rotting or warping. And, of course, Wheeling Steel Framing is non-combustible.

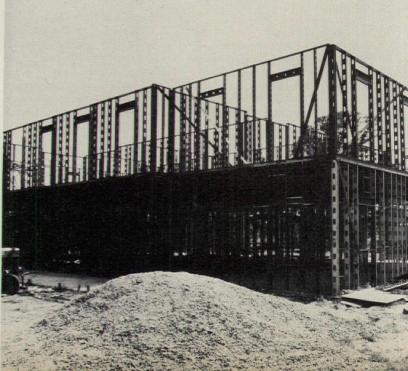




The cavity created by steel framing allows for continuous insulation of the walls. This was important to Architect Elam Denham in designing a unique hospital/nursing home in Bella Vista, Ark. State law requires nursing homes be heated as high as 80°. Steel frame structures insulate well.

Architect W. J. Evans designed a beautiful 3-story plantation-style sorority house for the campus of Louisiana State University. 13 tons of steel framing provided substantial savings over a similar, previous design with solid masonry walls.





# Baton Rouge and Bella Vista.

You don't have to be a revolutionary to call for Wheeling Steel Framing. The ground has already been broken at Boston, Baton Rouge, Bella Vista and many other places.

We've got a catalog full of all the information you need to know: gauges, and sizes (we've more than anyone else), load tables, etc. Write for it. Wheeling Corrugating Company, Division of Wheeling-Pittsburgh Steel Corporation, Dept. GC-17, 4 Gateway Center, Pittsburgh, PA 15222.



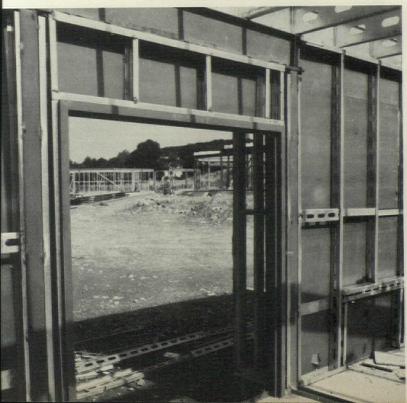
For more data, circle A11 on inquiry care





Viviendas La Victoria is a Boston housing project by John Sharratt Associates. There are  $151,000 \, \mathrm{sq}$ . ft. of steel framing in the wall areas;  $83,000 \, \mathrm{sq}$ . ft. of floor joist framing and  $20,000 \, \mathrm{sq}$ . ft. of specially-designed fabricated steel trusses in the roof framing systems.

Architect John Guarino, AIA, chose Wheeling Steel Framing for the Fernald School, also located in Massachusetts. The exterior is brick veneer over gypsum sheathing. The versatility of steel framing makes it ideal for school construction.







For more data, circle A12 on inquiry card



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♦ For more data, circle A13 on inquiry card

continued from page 37

D13 TILE CATALOG / A 12-page color catalog features a complete line of structural glazed facing tile, structural textured and acoustical tile, High Brick and utility brick. Each product is shown in a variety of installations. / Stark Ceramics, Inc. A\*

D14 TEXTURED TILE / Complete technical data, including wall sections and fire-rated wall diagrams, are given in a 10-page folder covering structural textured clay tile. / Stark Ceramics, Inc. A\*

D15 RESTORATION CLEANER / A complete line of chemical cleaners for all masonry, granite, marble, sandstone and other older building surfaces is presented in a four-color brochure. Many "Sure Klean" compounds utilize a cold-water rinse, said to be less costly or damaging than sand-blasting or steam cleaning. Graffiti-removal products are included in the catalog. / ProSoCo, Inc. A\*

D16 PREFINISHED PANELS / "Splitwood II" lightweight exterior masonry panels are described in a new fact sheet. These mineral-fiber cement panels come in sizes up to 4 ft by 11 ft 6 in., and are able to span from floor to floor without intermediate horizontal joints. / Johns-Manville.



D17 LIGHTWEIGHT MASONRY / Pennavalite lightweight aggregate is featured in a new architectural brochure. The fly-ash product's energy-saving properties as an admixture in concrete block are discussed. / Penn-Virginia Materials Corp.

D18 GROUND FACE MASONRY /

A color folder presents the performance and cost advantages of *Trendstone* concrete block. These masonry units have one face ground to expose the colors of the aggregates; the surface is then finished with a satin gloss coating. Test data, limitations, and manufacturer's standards are included in the brochure. / Nabco Glazed Products, Inc.

# **METALS**

D19 STEEL JOISTS / A manufacturer-sponsored survey compared Super-C steel joists and wood joists as to initial construction and annual floor-related maintenance costs. A 12-page illustrated brochure summarizes the findings, and includes a breakdown of typical life-cycle savings reported. / U.S. Steel Corp. A\*

D20 STRUCTURAL STEEL / A new "Code of Standard Practice for Steel Buildings and Bridges" has been published by AISC. Effective September 1, the revised code clarifies responsibility for design details, expands erection tolerances, and discusses contracts and contract changes. There are new sections on quality assurance and on architecturally-exposed structural steel Copies at \$1.50 each from The American Institute of Steel Construction, 1221 Ave. of the Americas, New York, N.Y. 10020.

D21 STRUCTURAL JOINTS / The Research Council of Riveted and Bolted Structured Joints of AISC has published a new specification for joints using ASTM A325 or A490 bolts. Allowable stresses have been significantly increased for many applications, including friction-type connections under certain conditions. The new specification brings all allowable design stresses to a uniform safety factor of 2. Copies are \$1.50 each from The American Institute of Steel Construction, 1221 Ave. of the Americas, New York, N.Y. 10020.

D22 FLOOR JOISTS / Detailed product and assembly information on 14-to 20-gauge steel joists for residential and apartment construction is given in an eight-page brochure. Span dimensions are shown in a table; cost-reduction benefits are outlined. / United States Gypsum Co.

D23 EXPANSION JOINTS / These joints can save money and improve architectural appearance by stopping damage due to internal and external wall expansion and contraction, flexing, or settling, according to an illustrated manufacturer's brochure. Application detail drawings are included. / Keene Corp. A\*

more literature on page 113

# design flexibility The Key to Power-Strut's Grid Ceiling Support System

Easily moved internal partitions allow for seasonal expansion or contraction Adjustable track lighting fixtures hidden by baffles, spotlight merchandise Hanging baffles hide open ceiling, electrical and mechanical equipment A criss-cross grid of Power-Strut continuous slot channel is hung from unfinished ceiling or building's steel structure



# A unique concept in functional esthetic effects . . .

The Power-Strut Modular Grid Ceiling Support System is simple in design and easily installed. A criss-cross grid of Power-Strut continuous slot metal framing is hung from the rough unfinished ceiling or the building's steel structure.

Decorative baffles or fins are hung vertically from this grid. The decorative baffles hide all mechanical, heating and cooling ducts, sprinkler systems, etc.

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Our typical openwebbed designs deliver unsupported spans up to 70 feet. Got an eye for the unusual? That's business-asusual for us: We'll come up with all the right joists for your job — curves and crescents if necessary, or ingenious new roof and floor structures.

Individual computer design assures exactness. On-time delivery saves on-

site exasperation. When you want a job done right, call up some modern technology. Call your local Trus Joist field consultant, and take a load off your mind.

Specify Trus Joist. We've got our system down to a science.

TRUS JOIST CORPORATION

For more data, circle A15 on inquiry card

# uci 6

# wood and



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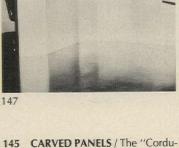




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roy" 1500 series offers a collection of modular panels for walls, doors and fixtures. Carved in vertical grain redwood, oak or Honduras mahogany, panels are 9 in. wide and up to 96 in. long. / Forms & Surfaces.

# **CONNECTORS & SUPPORTS**

146 MOLDINGS / Moldings that exactly match the finish and thickness of paneling (or any available covering) consist of finishes laminated on a plastic substrate often with the exact same material the panel manufacturer uses. / Keller Products, Inc. A\*

# LUMBER

Kemlite Corp.

149 RED CEDAR BOARD / "Trojan Board," a solid red cedar board is supplied unfinished 1/2-in. thick, in face widths of 3 and 5 in. and lengths of approximately 1 to 6 ft. / Potlatch Corp.

148 REINFORCED PANEL / Fiber

glass reinforced plastic GLASBORD

paneling has a pebble-like, embossed

surface. Available in 1/8- and 3/16-in. thick panels, in white and beige, the

panels can be fabricated into curtain

wall or spandrel panels. Sizes are

standard 4 by 8 ft and 4 by 10 ft. /

150 REDWOOD PANELS / Manufactured from clear or clear all-heart grades of kiln dried redwood lumber, panels are available in edge glued or finger jointed end and edge glued panels, in widths up to 36-in. and lengths from 4 to 22 ft. / Louisiana-Pacific Corp.

# ARCHITECTURAL WOODWORK

142 WOOD PANELING / Solid hardwood 1/2- or 3/4- in.-thick is available as tongue-and-groove paneling in random or specified widths. Domestic and foreign wood species may be ordered, all pre-sanded for on-site finishing. / Wood Mosaic. A,ID\*

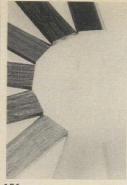
143 WOOD VENEER / Made from the African Ayous tree, replicas of such wood veneers as rosewood (shown), teak, English oak, and burl are marketed under the name "Leriex." / Balfour, Maclaine International Ltd.

144 WOOD-WAFER PANELS / ASPENITE multi-purpose building panels come in various patterns. Standard 4- by 8-ft panels are made from hardwood wafers permanently bonded with waterproof phenolic resin. / MacMillan Bloedel Ltd.

# LAMINATED & PROCESSED SHEETS

147 WALL COVERING "Homapal" metal laminate with asbestos substrate is suitable for a variety of interior furnishings and fixtures. It is traffic-resistant; has a flame spread rating of 17.95; and a zero fuel contribution and smoke factor. Forty styles in four finishes are available. / The Diller Corp. A, ID\*

ARCHITECTURAL WOODWORK CONNECTORS & SUPPORTS LAMINATED & PROCESSED SHEETS LUMBER PLASTIC FABRICATIONS PLASTIC LAMINATES STRUCTURAL PLASTICS STRUCTURAL WOOD



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# PLASTIC FABRICATIONS

151 MOLDING / A line of dimensional grained wood and cellular PVC moldings is available in a variety of colors in standard molding profiles and lengths. Impact-resistant, the "Centennial" line is prefinished. / DG Shelter Products.

152 FRP PULTRUSIONS / Structural and custom-shaped pultrusions are available in safety colors of orange, red, yellow and virtually any other color on special order. These pultrusions are recommended for walkways, railings, and platforms. / Morrison Molded Fiber Glass Co.

### **PLASTIC LAMINATES**

153 METALLIC LAMINATES / Aluminum or copper metallic laminates in 12 patterns are available with brushed or hammered finishes. / Wilson Art.



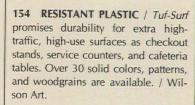
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155 PLASTIC LAMINATES / "Beechwood" features a fine, wavering grain design and light woodtones. There is no gloss or sheen. Like real wood, the surface can be waxed to enhance the grain design. / Nevamar Div., Exxon Chemical Co. U.S.A.

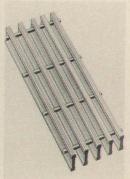
156 PLASTIC LAMINATES / Identified as "Vintage Cane" and "Classic Cane," the two new special dimensional designs duplicate the look and feel of octagonal woven cane. Both laminates meet or exceed all NEMA standards. / Nevamar Div., Exxon Chemical Co. U.S.A.



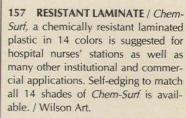
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158 DECORATIVE LAMINATE / The line's total of 99 grades include two solids, a nondirectional parquet (shown), and an African wood species. *Micarta* is a high-pressure laminate available in standard construction and sizes. / Westinghouse Electric Corp., Decorative Micarta Div.

### STRUCTURAL PLASTICS

159 GRATING / This line of fiber glass reinforced gratings is especially designed to resist chemical corrosion and to be electrically non-conductive. A high strength-to-weight ratio with minimum deflection is claimed for the lightweight gratings. / IKG Industries. A, ICR/PE\*



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162

# STRUCTURAL WOOD

160 WOOD BRIDGES / These laminated-wood pedestrian bridges are suitable for parks, golf courses and other natural areas. The low-maintenance spans are constructed in both arched or straight designs, and may be factory-stained in a variety of colors. / Koppers, Inc. A\*

161 PREFABRICATED DOMES /The clear-span *Triax* dome can be fabricated in sizes up to 600-ft in diameter. A network of curved laminated wood segments is arranged in triangular modules connected by a steel hub system. Various roofing membranes can be applied to the beams and decking. / Koppers Co., Inc.

162 LIGHTWEIGHT FRAME / The "Timbergrid," a lightweight system for framing industrial/commercial buildings consists of joists combined with glulam beams to provide bay sizes from 20 by 30 ft to 35 by 50 ft. / Wood Fabricators, Inc.



Rimrock Mall, Billings, Montana

Architect: Charles Kober Associates

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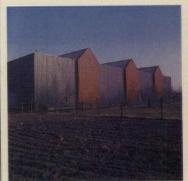
CLADDING/SIDING COMPOSITE BUILDING PANELS FLASHING INSULATION MEMBRANE ROOFING METAL ROOFING PREFORMED WALL & ROOF PANELS ROOF ACCESSORIES ROOFING SPECIALTIES SEALANTS. SHINGLES & ROOFING TILES WATERPROOFING





179













vinyl siding is available in three colors: gold, gray and buckskin. A smooth finish has also been added. Combined with the line's original colors (white, yellow, green) and grain finish, these additions are resistant to fire, corrosion, scratching and denting. / Johns-Manville Sales Corp.

179 VINYL SIDING / Driftgrain solid

180 REDWOOD PLYWOOD Shown as siding on a suburban office building, redwood is said to offer durability, dimensional stability, insulation qualities and ease of finishing. / California Redwood Assn. A, LC\*

181 REDWOOD / The tongue-andgroove pattern shown is applied diagonally: it can be left to weather naturally or finished with a water repellent or a lightly pigmented stain. / California Redwood Assn. A, LC\*

# COMPOSITE **BUILDING PANELS**

182 ENCLOSURE PANEL / A 4-in.thick core of pre-cast and grooved Styrofoam is laminated to exterior and interior panels (4-by-8-ft) to form the basic panel. After erection, the panels are pressure filled with a specified mix of concrete. The concrete honey combs the panel, and provides the structural frame. / Beata Corp.

183 INSULATING PANELS / Combination panels have either metal, plywood, gypsum wallboard, perlite board or rockwool on one side; a rigid closed-cell core of insulation; and an outer surface of glass-reinforced felts, aluminum foil, polyethylene or other materials. / PBS Inc.

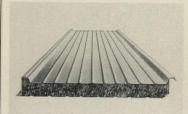
184 EXTERIOR WALL / The GRAN-OSTRUCT system of exterior wall components uses steel stud framing, asbestos cement board and portlandcement based surfacings to create prefabricated components. In addition to flat wall units, a range of shaped, contoured units can be fabricated. / Cement Enamel Development, Inc. A, ICR/PE\*

CLADDING/SIDING

176 SIDING / A new addition to the "Roughtex" siding line, "Great Divide" fir plywood panels have a striated batten-and-groove design. The %-in.-thick siding is available in sizes up to 4- by 12-ft, in a choice of 26 factory-finished colors. / U.S. Plywood. A. LC\*

177 SIDING/CLADDING / This hardboard lap siding has a woodgrain pattern with drip edge; "Yorktown" panels are factory-primed for paint or stain. The hardboard is 7/16-in,-thick; meets FHA standards; and is produced in 8-in.-wide by 16-ft-long panels. U.S. Plywood. A, LC\*

178 SIDING / "Roughtex West" panels feature random V-grooves or. %-in.-thick textured plywood. Manufactured in sizes up to 4- by 12-ft, the long edges of each panel are shiplapped for smooth butt joints. Siding may be painted, stained, or left to weather naturally. / U.S. Plywood. A,



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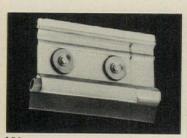


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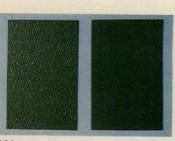


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185 PANEL / An insulated wall and roof panel with certified .05 U value (R-20) achieved a UL-flame spread rating of less than 25 and has been subjected to "guarded hot box" tests. The panel is listed by Factory Mutual as both a "Class I Wall" and a "Class I Insulated Roof Deck Panel System." / Butler Mfg. Co.

### **FLASHING**

186 FLASHING RETAINER / "Vinylok" allows flexible flashing to be installed in contact with reglet. The "P" flashing retainer is inserted to engage the bottom of the reglet and thus provide a positive retainer for the flexible flashing. / Fry Reglet Corp. A, LC\*

187 PIPE SEAL / The product weatherproofs pipes that penetrate roofs. The spun aluminum base flashes into any roof system, and a stepped neoprene rubber boot clamps to pipe and base making a flexible, weatherproof connection. Two sizes fit all pipes 1/2to 6-in. / The Pate Co. A\*

188 ROOF FLASHING / Consisting of aluminum extrusions and an elastomeric sheeting, the product forms a weather-tight seal between the roof membrane and adjacent parapets or walls. / Tremco. A\*

189 SOFFIT-TRIM / The soffits are available in six builder widths, readyto-paint with matching plowed fascia and accessories. Produced of laminated fiberboard, waterproofed and pre-cut, the soffits are available in three finishes, ready to paint or stain with a treated face. / Upson Co.

# INSULATION

190 INSULATION / Insul-Liner metal building insulation consists of 51/2-in.-thick fiber glass batt, vinvlfaced board and a special "C" shaped plastic extrusion. The vinyl-faced board section seams are finished with an aluminum cross-purlin tee section. / Johns-Manville.

191 WALL SYSTEM / An interior wall insulation system, ZONOLITE THERMOSTUD, consists of a rigid styrene foam insulation board in which a U-shaped metal furring channel is embedded at the factory. The insulation board and the furring channel are fastened as a unit to the masonry wall. / W.R. Grace & Co. A, LC,

# MEMBRANE ROOFING

# 192 ROOFING/WATERPROOFING

/ Low fume evolution at application temperatures is a worker health benefit claimed for this roofing compound: coal tar bitumen. In-use testing results showed the formulation to have excellent waterproofing properties and corrosion resistance. / Koppers Co., Inc.

193 ROOFING SYSTEMS / Two UL listed roofing systems contain Flame Gard, a fire retardant. The manufacturer also states that the systems require no heating or mixing and resist cracking and peeling. They are for asphalt gravel roofs with a pitch of 3 in. per horizontal ft or less. / Tropical Paint Co.

194 ROOF REPAIR / The two elements of this program are: a network of lightweight, simply installed, urethane foam body roof vents; and a coldprocess, tar-based roof resaturant. The program offers an alternative to "tearoff" and replacement. / The Monroe Co., Inc.

## METAL ROOFING

195 METAL ROOFING / A preformed ribbed roofing panel in single panel lengths up to 20 ft 9 in. long, this product eliminates end laps or joints. Side laps are achieved by a snap lock feature incorporating a sealant which makes it watertight. / Childers Mfg. Co., Div. of OHD Corp.

196 STANDING SEAM ROOF / ColorKlad prepainted architectural steel. for standing and batten seam roofs, fascia, coping, gravel stops, flashing and special effects, is now available in dark bronze, plus eight standard colors. All nine colors can be specified in smooth or textured "T" finish. / Vincent Brass & Aluminum Co.



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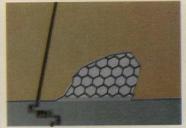
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197 STANDING SEAM ROOF / The roof system, with a 90 UL listing, features factory-caulked sidelaps, ease of installation; because it uses no on-site seaming machine, it can be offered in a variety of colors in 24-gauge finishes. / American Buildings Co.

# **PREFORMED** WALL/ROOF PANELS

198 INSULATING PANELS / Porcelain-on-steel panels with polyurethane cores come in 60 standard colors that will not fade, according to the company. / AllianceWall Corp. A\*

199 INDUSTRIAL WALL PANEL / For panels used in corrosive atmospheres, Duofinish 700 combines an oven-cured finish coat of corrosionand-abrasion-resistant urethane and an epoxy prime coat, both factoryapplied over hot-dipped, 11/4 oz. zinc galvanized steel. / INRYCO, Inc. A,



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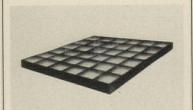
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200 PANELS / Available only in the West, "Forma2wall, " a factory-assembled, honeycomb core wall with the flat face is now fabricated in modular widths up to 60 in., in a 3-in. thickness in coated, anodized and stainless finishes. / H. H. Robertson Co.

201 FACING/PARTITION WALL / This slimmer version of "Forma2wall" is 11/4 in. thick. The flat-faced, factory assembled honeycomb core wall unit is suited for use as interior partitions or for applications such as uninsulated soffits, fascia or column and beam wraps. / H. H. Robertson Co.

202 INSULATED WALL / A choice of two insulation values is offered with "Vara2wall," a factory-assembled insulated wall with fluted exterior and flat interior face. Designers have a choice of either 0.13 or 0.10 U-value. / H. H. Robertson Co.

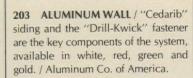




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# **ROOF ACCESSORIES**

204 SKYLIGHTS / Energy conservation, economy and low-glare uniform visual comfort are claimed for the Solartron line of insulated skylights. Two reinforced acrylic sheets form a sandwich around a grid-divided, 3/8-in.thick dead air space; a plastic curb flashing bonds to the exterior skin to prevent condensation. / Solartron Corp. A, LC\*

205 SKYROOF SYSTEM / This insulating skyroof system has been tested by UL 790 (ASTM E-108) and passed the Class A Built Up Roof Covering requirements. It is composed of translucent fiber glass and aluminum sandwich panels with U = .24, and a weather sealing installation system. / Kalwall Corp. A\*



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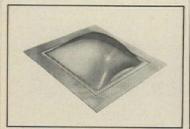


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206 ROOF HATCH / Now available in 2 ft 6 in. by 4 ft 6 in. and 2 ft 6 in. by 8 ft sizes, this hatch has steel cover exterior and liner bonded to an inner core of rigid foam-type insulation. The cover load carrying capacity is 70 psf. / Milcor Div., INRYCO, Inc. A, ICR/PE\*

207 TUBULAR SKYLIGHT / This skylight system conceals fasteners and connectors, covering the clamping bar fasteners, which prevents loosening and removal of glazing, while providing added resistance to the elements. / Imperial Glass Structures Co. A\*

208 SKYLIGHTS / Geometrical differences between a circular head condition and rectangular base condition of skylight structure at Peachtree Plaza tower (Atlanta) resulted in this approach. All four sides of acrylic panels are formed on different planes. The visually warped effect is produced by the increasing and decreasing projected horizontal dimension of framing members in conjunction with equal radial angles. / Roper IBG. A\*



209



210



211

209 DOME SKYLIGHTS / Double dome insulated skylights are manufactured of high impact, weatherable PVC. The inner dome is permanently sealed to the outer dome to provide a 2-in. dead air space. Both domes are clear. / APC Corp.

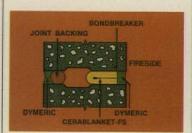
210 SKYLIGHT PANEL / "Solar-White" prefabricated glass block panels have been strengthened with thicker aluminum extrusions and the use of notching dies that interlock the grid members. This assembly technique forms a monolithic grid immovable even under wide temperature variations. / Circle Redmont Corp. A\*

# ROOFING SPECIALTIES

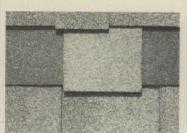
211 PRE-FORMED FASCIA / The Microzinc 70 pre-packaged, pre-formed batten fascia system can save 60 per cent labor over conventional sheet metal installation practices, according to the company. It comes in 5 or 9 ft interlocking sections. / Ball Corp., Metal and Chemical Div. A\*



212



213



214

212 GUTTER SYSTEM / This industrial grade, heavy-duty gutter system of solid vinyl (PVC), is designed especially for use in chemical, processing and in other industrial plants. "Vinyl Craft" is unconditionally guaranteed for 10 years. / Plastic Building Products.

### **SEALANTS**

213 JOINT SEALING / The newly-developed fire-resistive joint sealing system can be used to achieve fire endurance at the joints of precast concrete panels, beyond the desired fire endurance as determined by ASTM E-119. / Tremco. A\*

### SHINGLES & ROOFING TILES

214 ASPHALT SHINGLE / Six color blends are available in "Sierra" shingles, classified UL Class C fire-resistant, and carrying the UL wind-resistant label. Weight: 340 pounds per square. Average exposure: 4½ in. / The Flintkote Co. A\*



215



216



217

215 SHINGLES / Individual Western red cedar shakes and shingles are bonded to a 4-ft-long wood backing to form "Easy Panel" siding. The panels are nailed—directly over sheathing or existing siding only at studs, saving installation time. Special corner pieces eliminate mitering. / Shakertown Corp. A, LC\*

# WATERPROOFING

216 WATERPROOF HIGHWAY / "Membrance 125" is a hot-applied, self-healing waterproofing material that fills and seals bridge surfaces. No cure time is required. Stress cracks up to ½ in. will self-heal automatically. / Uniroyal, Inc.

217 WATERPROOF MEMBRANE / A one-component, modified-urethane elastomer waterproofs above- and below-grade concrete. The membrane may be reinforced with fabric for superior protection. Tack-free in eight hours, it exceeds FHA, BRAB, BRI permeance specifications. / Sika Chemical Corp. ICR/PE\*



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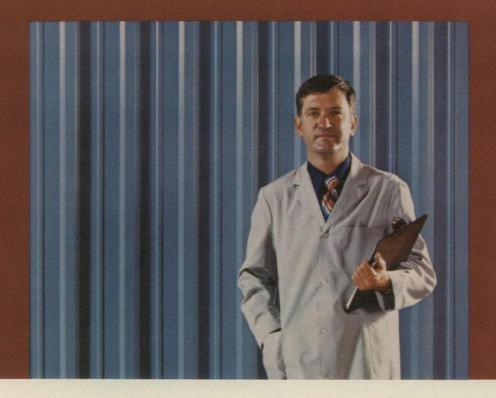
220

218 EXTERIOR WATERPROOFING / TREMproof 90W two-part, quick breaking, rubberized emulsion is specially developed for interior and exterior waterproofing applications such as sandwich slab construction, as well as foundation walls. It is adaptable to insulated or non-insulated decks or plazas. / Tremco. A\*

219 WATERPROOFING / A pressure-sensitive adhesive can be applied simply by pressing tape from a roll onto the desired surface. Because it is made of 100 per cent butyl rubber, the sealer is resilient, non-oxidizing and water-resistant. / The Monroe Co., Inc.

**220 WATERPROOFING** / "Hydro Pel" is a blend of vinyl toluene, methyl and butyl methacrylate copolymers and stearates forming an in-depth moisture barrier to block capillary action. It prevents moisture penetration for a minimum of five years and retards efflorescence. / L&M Construction Chemicals, Inc. A, E, ICR/PE\*

# Announcing a new super-tough finish for industrial walls



# It's Inryco Duofinish 700

Now the same coating that protects offshore drilling rigs, refinery structures and chemical processing equipment is adapted to steel wall panels pre-finished with new Duofinish 700™: a urethane finish coating over epoxy-primed, galvanized steel (hot-dipped with full 11/4 oz. zinc).

Duofinish 700 is super-tough. It resists the corrosive, abrasive atmospheres of industrial areasthe hot sun and salt air of coastal sites. It looks good right from the start and stays looking good longer, because its smooth surface continues to shed grime and dirt.

Sometimes a corrosive atmosphere is inside a building. Duofinish 700 is available on both exterior and interior Inryco wall panels.

Duofinish 700 has been subjected to recognized accelerated testing. You can evaluate the results yourself in Catalog 22-16. Send for yours now with the handy coupon at the right.

Duofinish 700 is one of many new Inryco developments in building enclosure systems.

INRYCO, Inc., Building Panels Division Dept. K, 4033 W. Burnham Street; P.O. 393 Milwaukee, Wisconsin 53201

I'd like to know more about Inryco Duofinish 700.™ Please send me Catalog 22-16.

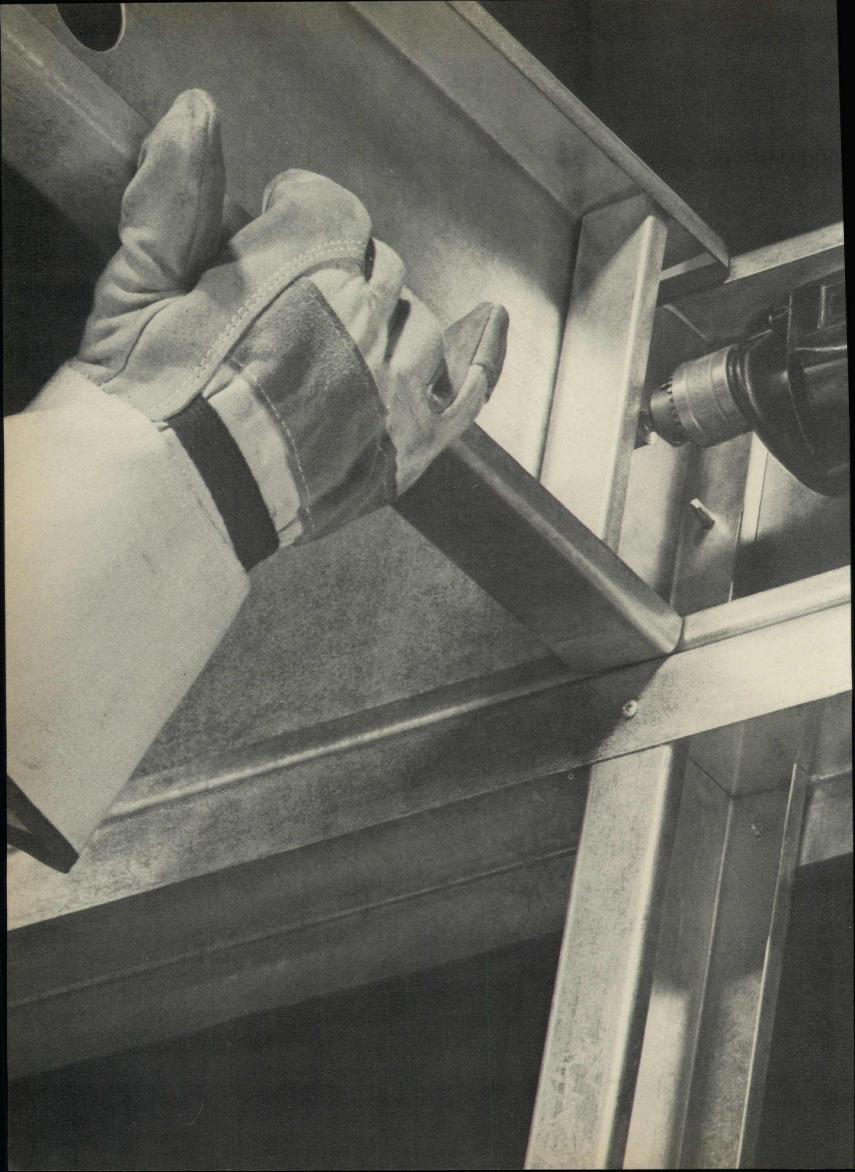
Company Title

Address \_

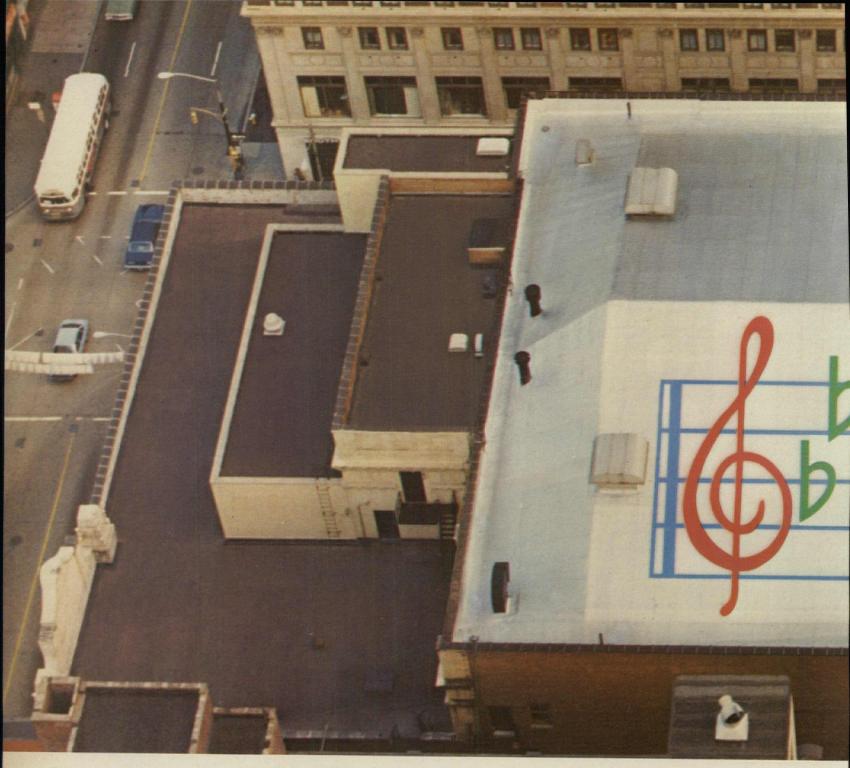
State\_\_\_ City\_



General Offices: Melrose Park, Illinois







# Koppers presents: KMM.™ A premier roofing material.

The building: famed Heinz Hall, Pittsburgh. The hall's renovated roof: Koppers Aluminum-Clad KMM.

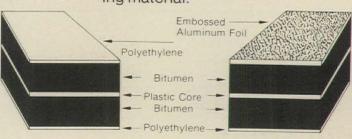
KMM™ (Koppers Multi-purpose Membrane) is a new roofing, reroofing and waterproofing concept from Koppers.

It's a factory-made material, produced in Koppers own plant under strict quality control.

# Triple-belted.

Standard KMM
has a tough plastic center belt

locked between two belts of bitumen. Aluminum-Clad KMM adds an additional layer of heavy, embossed aluminum sheet and is recommended for roofs too steep for an aggregate surface. It is also recommended as flashing material.



Standard KMM

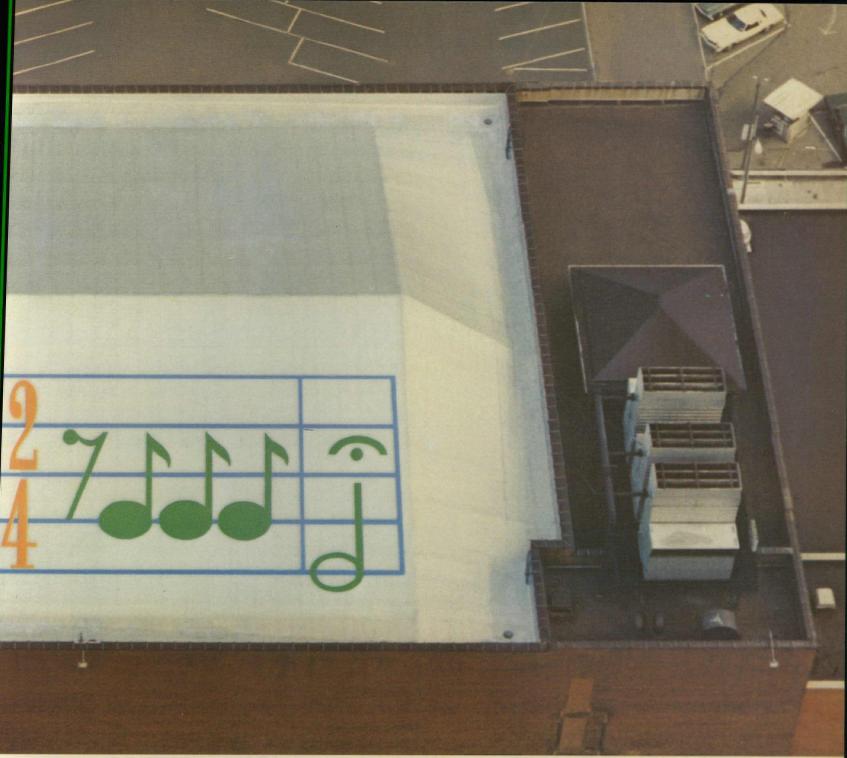
Aluminum-Clad KMM

# Rolls on, Irons down.

KMM is simply rolled out over the prepared subsurface. One roll alongside the other, with each roll overlapping the other by four inches.

The adjoining rolls are then fused together along the overlap, using an ordinary torch and round-nosed trowel to "iron" the softened bitumen laps together. The seal is fast and simple.

The seal is fast and simple.
Secure. (Aluminum-Clad KMM is rolled out over a coating of KMM™ Adhesive, but is sealed in the same fashion.)



Architects: Stotz, Hess, MacLachlan & Fosner; General Contractor: Mellon-Stuart Co.; Roofing Contractor: Miller-Thomas-Gyekis, Inc.

On flat roofs, either a loose gravel or bound-aggregate topping is applied directly on Standard KMM.

# Koppers KMM: offered with a renewable guarantee.

The triple-belted KMM system has been used successfully in Europe 18 years. We've tested it in our Research Center for 5 years—and have field tested KMM around the country. We are convinced of its quality. Koppers quality. So convinced, that we offer KMM with a renewable 5-year guarantee—so that you can specify it with confidence.

Koppers KMM Information Center 1900 Koppers Building Pittsburgh, PA 15219

I would like additional information and detailed specification literature on Koppers KMM triple-belted roofing system. **KOPPERS** 

Architectural and Construction Materials

Name

Architectural Firm

Street Address

City

State

Zip

# good looking with massive insulation!

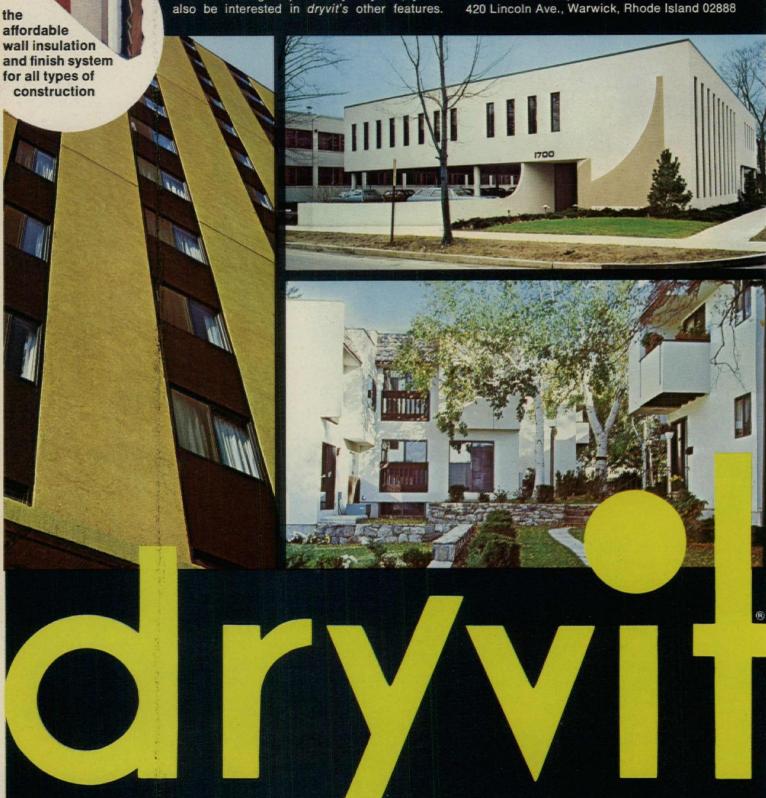
When it's your challenge to come up with a design that's distinctive, different . . . within a budget . . . consider dryvit. It's the remarkable exterior wall insulation and finish system that lets you create expensive looking effects while providing the exceptional insulation values you

If total building responsibility is yours, you'll

Permanent integral colors. Crack resistance. Minimal maintenance. Simple application. Space saving. Lower initial investment in heating/cooling plant. Energy economizing.

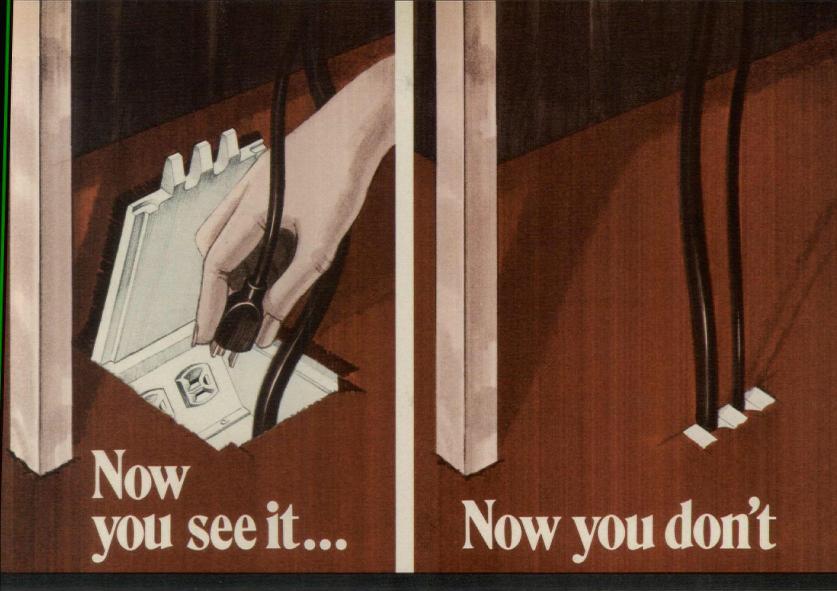
It costs less installed than any other maintenance-free exterior system.

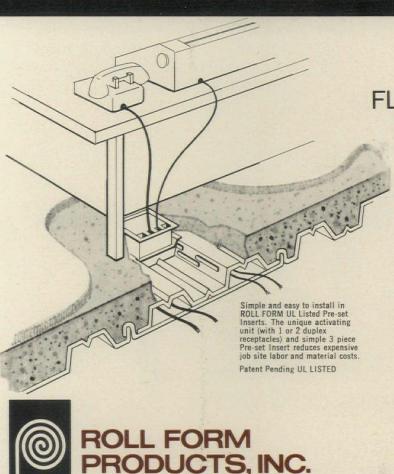
# DRYVIT SYSTEM, INC.



permanent exterior

wall system does it better!





BROOMALL, PA. 19008 Manufacturers of Complete Floor Systems and Roof Decks

600 REED ROAD

For more data, circle A23 on inquiry card

# NEW FLUSH SERVICE FITTING RISES TO THE **OCCASION**

Roll Form's Dual Flush Service Fitting, with the exclusive Flip-top, provides easy access to electrical receptacles and communication services.

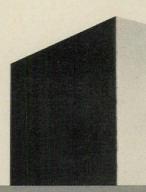
The fitting is designed for use with Roll Form's fully integrated in-floor distribution systems and provides complete office flexibility. The unit is easily installed, activated, or deactivated and moved, saving expensive on-site labor and material costs. Office changes are quick, easy and economical with no telltale carpet holes or cover plates.

Installed flush with the floor surface, it permits maintaining the smooth, handsome appearance of the floor covering. Carpeting raises with the unit's Flip-top and does not have to be peeled back for access to the unit, which allows easy placement and removal of electrical plugs.

See Sweet's Arch. File Section 5.5/Rol or write for Bulletin FSF-1 with complete information.

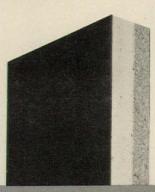
# If you're involved with roofing insulation,

there are two facts you should know.



Rigid urethane foam is the #1 roof insulation.

**APACHE** is the #1 source for laminated urethane panels.



**Big Energy Saver**—Urethane has a "K" factor of .13 and its high thermal efficiency can save thousands of dollars in heating and cooling costs every year.

**Big Labor Saver**—Rigid urethane is supplied in large, lightweight sheets which are easily handled by one man.

Insurance Approvals—Rigid urethane roof insulation meets both FM and UL requirements.

Long Lasting—The strong, closed-cell structure of urethane foam assures its insulation values for the life of the roof.

FREE CATALOG. Write today for a 12-page data-packed brochure on APACHE rigid foam roof insulation.

Longest Experience—We've been producing this top quality roof insulation for 11 years. Today, there are almost 500,000,000 sq. ft. of APACHE urethane insulation in industrial and commercial buildings.

**Urethane Specialist**—Rigid urethane foam panels are the only product we make, so we concentrate all our resources on continually improving our urethane insulation.

Fast Delivery—We're the only company with three plants for producing urethane foam. They're strategically located across the country for swift service on all orders.

"Rigid foamed polyurethanes are organic materials, which decompose at 450°F., and will ignite and burn at 600°-700°F., or when exposed to open flame. These products should not be used in exposed applications."



Millmaster Onyx Group 2025 E. Linden Avenue, Linden, New Jersey 07036 (201) 486-6723

ANOTHER **kewanee** INDUSTRY

For more data, circle A24 on inquiry card



# ColorKlad The Y's Choice

When the architect chose Colorklad for the Minneapolis YWCA, he had good reasons—the same good reasons which make ColorKlad the most visible -and exciting-roofing and flashing metal on the market today.

Nine attractive colors and two textures blend well with any architectural style or building material. New textured ColorKlad "T" eliminates glare and hides seams, further expanding the architect's design flexibility. And ColorKlad's maintenance-free finish is backed by a written 20 year warranty, guaranteeing maximum performance—at lowest possible cost to your client.

Specify the aesthetics, integrity and cost performance of Colorklad for your next project-you'll make a wise choice.

YWCA, Minneapolis, Minnesota Freerks Sperl Flynn, Architects, St. Paul, Minnesota Hoyt Construction Company, Sheet Metal Contractor, Bloomington, Minnesota



**Building Products Division** 724 24th Ave. S.E. Minneapolis, Minn. 55414

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e it our way.

# Specify Glasstex\*-the only Class "A" textured surface fiber glass shingle in the business. (From CertainTeed, who else.)

You've never had it so good! Beautiful, fiber glass, selfsealing, wood-grain-textured shingles. For added protection against fire and wind.

Glasstex textured fiber glass shingles are now available in 5 versatile colors that will last the life of the roof. And that life is backed by our 25-year limited warranty against defects. Practically speaking, that's % longer than conventional shingles, because our Glasstex shingles are made to last longer.

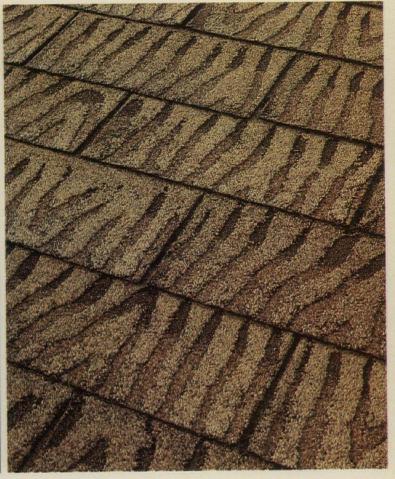
But the more you find out about Glasstex textured fiber glass shingles, the more we think you'll see it our way.

For a complete product description write: Glasstex, CertainTeed Corporation, P.O. Box 860, Valley Forge, PA 19482

\*Glasstex is the registered trademark for textured fiber glass shingles from CertainTeed Corporation







Textured fiber glass shingles. (From CertainTeed, who else.)



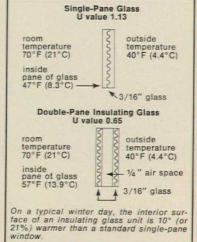


# Insulating glass. The heating and cooling system you don't even have to plug in.

What's more, there are no wearing parts. And the only maintenance is an occasional washing.

The point is that once purchase and installation costs are paid, double-pane insulating glass throughout a building is a year-round system to help keep in the heat all winter and not lose your client's cool in the summer. Saving energy. Saving money.

This diagram, for example, shows that on a typical winter day, the interior surface of a double-pane, double-hung unit of insulating glass can be 21% warmer than its single-pane counterpart\*. Resulting in a heat transfer coefficient (U value) slashed from 1.13 to 0.65. Add a metalized coating to the glass and the U value



drops to a highly efficient 0.50.

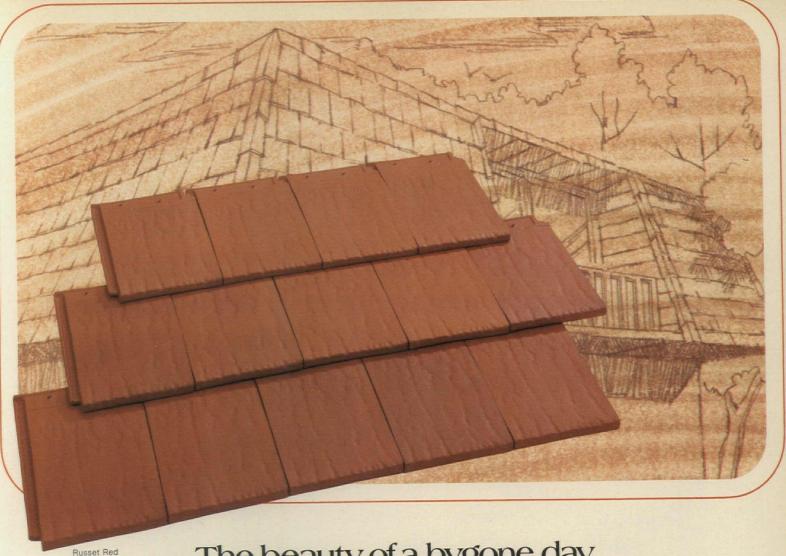
In addition to lower heat loss are the many years of service you can expect from insulating glass units, particularly when they are manufactured with sealants based on our LP® liquid polysulfide polymer. Fact is, over 80% of IG manufacturers use polysulfide base sealants. We think that simple fact speaks for

itself.

For more information on insulating glass units and the polysulfide base sealants that give them long life, write Marketing Communications, Thiokol/Chemical Division, P.O. Box 1296, Trenton, New Jersey 08607.

Based on calculations from the ASHRAE (American Society of Heating, Refrigeration and Air Conditioning Engineers, Inc.) Guide and Data Book.

Specialty Polymers • Off-the-Road Vehicles • Synthetic Fibers • Sprayers • Propulsion • Educational Services Friction Materials • Ski Lifts • Pyrotechnics • Closures • Rubber and Rubber Chemicals • Radiation Curable Polymers and Coatings



# The beauty of a bygone day captured in a heritage for tomorrow.

# AMERICANA Roofing Tile by Ludowici.

Derived from the rugged hand-hewn character of split shakes used during our country's colonial period, Americana has become one of the most versatile tile patterns in the portfolio of today's architects. Bold butt lines and a simulated wood surface combine to provide an interplay of light and shadow, and soft but rich colors create varying moods with every change of light.

As with all Ludowici Tile, Americana colors are permanent, gently mellowing with time. Earth Gray, Russet Red, Forest Green, Beach Brown, Lava Black, Hawaiian Gold, Sunset Red (weathered surface) and two-tone glaze Pacific Blue make up the Americana spectrum.

And the tile itself can be expected to outlast the buildings it

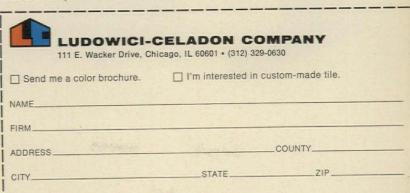
beautifies and protects, requiring little or no maintenance. It's fungus and decay proof. Defies fires. And resists the effects of storm and weather throughout the years.

Ludowici Tile stands out, handsomely and gallantly, in any climate.

Beautiful and lasting as Americana and other Ludowici tiles are, they often cost no more—and frequently less—than fire-resistant wood shakes, slate or other premium priced roofing materials.

For further information on the design versatility offered with Ludowici Tile, look in the Yellow Pages for your local Ludowici distributor, or refer to Sweet's Catalog. Or, mail the coupon.





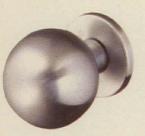
Design: 11 x 712 **Bright Chromium** 



Design: 68 x 422

Satin Brass

Design: 44 x 712 **Bright Brass** 



Design: 22 x 422 Satin Chromium

Design: 61 x 422

Oil Rubbed Bronze



Design: 17 x 422 Oil Rubbed as Cast Bronze



51-001 Hinge Iron as Cast Blackened

# the design line

Knob and lever mortise locks which neatly become a part of any design theme. A heavy duty mechanism, engineered to meet or exceed accepted commercial standards, with a minimum of moving parts to provide economy, reliability and long life.







Design: 32 x 430 **Bright Bronze** 



Design: 70 x 422 Iron as Cast Blackened



Design: 42 x 422 Oil Rubbed as Cast Bronze



Design: 22 x 715 Satin Bronze

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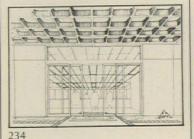
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# ors and windows

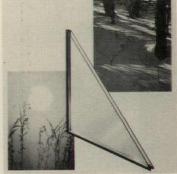


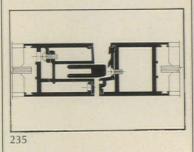


239















# **ENTRANCES & STOREFRONTS**

233 AUTOMATIC DOOR / Auto-Slide standard 4000 and custom 8000 series door packages provide two models with single sliding doors, and three models with biparting sliding doors designed to fit standard entranceways, ranging in width from 7 to 14 ft. / Stanley Door Operating Equipment Div., The Stanley Works. A\*

234 SLIDING DOOR / The "Astro-Slide II" is a self-contained automatic sliding door system with built-in emergency breakaway panels. Pushing action against doors or side panels converts them into swinging doors. / Dor-O-Matic, Div. of Republic Industries, Inc. A\*

235 EMERGENCY EXITS / The Entara System features a security astragal mechanism completely concealed in the door stile, needing no mullions or other devices for proper panic exit functioning. This Panic Guard device also blocks the insertion of wire hooks; UL-listed. / Kawneer Architectural Products. A\*

# GLAZING

236 SPANDREL GLASS / Called "Col-R-Span," the product achieves a uniform appearance between spandrel and vision glass areas of buildings. "Col-R-Span" in standard and custom colors can be furnished with approved applied insulation or with safety backing to GSA standards. / EGP Div., Shatterproof Glass Corp. A\*

237 STRENGTHENED GLASS Strengthened glass with reflective appearances approaching ordinary annealed float glass, according to the company, reduces the "banding effect" of alternating vision and spandrel panels. / EGP Div., Shatterproof Glass Corp. A\*

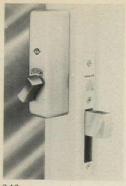
238 THIN REFLECTIVE / For windows and doors of homes and light commercial buildings, "Solarcool" bronze reflective glass is 1/8 in. (3mm) and 3/16 in. (5 mm) thick, and can be single glazed in wood or aluminum sash. The reflective coating is said to resist weathering, and the glass can be handled and cut like tinted flat glass. / PPG Industries. A\*

239 GLAZING OPTIONS / The company now offers a range of glazing options in most "Perma-Shield" windows and gliding doors, which feature a rigid vinyl sheath over preservativetreated wood core sash and frame. Options are clear, environmental, spandrel, decorative and safety glazing. / Andersen Corp.

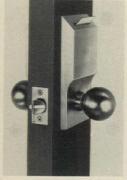
240 THERMAL GLAZING / Both Clearlite and Cleartemp insulating glazing units are now available in float glass of varying thicknesses. / Fourco Glass Co. A\*

241 GLAZING / Company-sponsored fire-testing showed LEXAN F-2000 polycarbonate sheet (at right in photo) to have superior combustion characteristics compared to acrylic sheet. The product is said to meet new toxicity standards. / General Electric Co., Sheet Products Section. A, ICR/PF\*

ENTRANCES & STOREFRONTS GLAZING HARDWARE & SPECIALTIES METAL DOORS & FRAMES METAL WINDOWS SPECIAL DOORS WINDOW/CURTAIN WALLS WOOD & PLASTIC DOORS WOOD & PLASTIC WINDOWS



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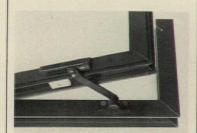
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# HARDWARE & SPECIALTIES

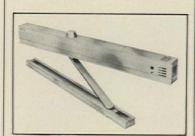
242 LOCK ACTUATOR / Electric actuator uses 24 volt DC current to operate the *M.S.* deadlock, shown with an optional mechanical thumbturn. The security system can include keyboard or card-actuated access control, and timer switches for automatic relocking. / Adams Rite Mfg. Co. A\*

243 ACCESS CONTROL / "Restrict-A-Card" is a mechanical system that can be operated by a credit card-type "key," a conventional key, or both depending on the control desired. No electricity is required. / Sargent & Co.

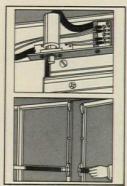
244 ELECTRIC HINGE / Designed for use on hollow metal or wood doors equipped with electric locks in medium security institutions or hospitals, the hinge contains chases to hold up to five wires and is non-handed, operating at 24 VAC or less. / Folger Adam Co.



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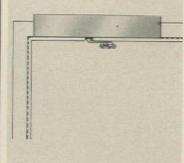
245 SAFETY HARDWARE / For pivoted windows, the device allows the pivoted sash to open approximately 5 in. to a "fail safe" ventilating position. A special key releases the retaining arm for complete rotation of the sash. It is available in finishes to match the window. / Wausau Metal Corp. A\*

246 DOOR CONTROL / This electronic "DFE III" fire/smoke door control is a combination hydraulic door closer, electric hold-open, and smoke detector. The built-in ionization detector can operate independently. / Dor-O-Matic, Div. of Republic Industries, Inc. A\*

247 DOOR CONTROL / Auto-Slide access control package prevents manual sliding of the doors during operating hours with a power solenoid bolt in the door header. The package can also be wired to remote monitoring stations. / Stanley Door Operating Equipment Div., The Stanley Works. A\*



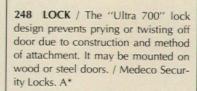
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249 DOOR CLOSER / A rack and pinion hydraulic closer, plug-in ionization detector, and a double-lever arm are features of the "4430-MED" automatic door closer/holder. Holdopen positions are unlimited up to 160 deg. / LCN Closers. A, E\*

250 PIVOT SWITCH / A magnetically-sensitive reed switch concealed in the CS-M19 pivot activates an alarm when the door is opened even a slight amount. Precise adjustments may be made with a Phillips screw driver, without removing the door or pivot. / Rixson-Firemark, Inc. A\*



251



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251 HINGE / The "Jiffy Clip" and "Snap-on Hinge" permit quick and easy assembly of cabinets, panel doors, vanities, etc.; no skilled labor is needed. / Onward Hardware Ltd. LC\*

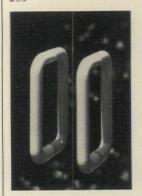
as standard hinge, this completely reversible and adjustable spring hinge is UL-listed for use with A- and B-label fire doors. Chrome, prime coat, and Duranodic finishes are available. / S. Parker Hardware Mfg. Corp. A, LC\*

253 CABINET PULLS / The smooth surface of these colorful solid-nylon drawer pulls is non-static and easy to keep clean. / Forms & Surfaces.





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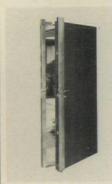


255 CASEWORK HINGE / Available in eight configurations for cabinets, as well as for doors up to 7/8-in.-thick, hinges have an interleaf feature, which allows a close fit for a finished appearance and improved dustproof effectiveness. / Stanley Hardware. A\*

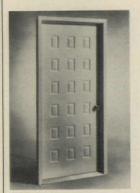
256 DOORPULLS / These non-static doorpulls are 101/4-in.-long. Handles are available in non-fading white, black, blue, orange and yellow. / Forms & Surfaces.



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# PNEUMATIC CLOSER / Heat/smoke sensors activate a switch to release the air in this life-safety door-control system, closing the door automatically. One unit locks the closer spring in a loaded position, allowing the door to swing freely during normal use. / Reading Door Closer

258 DEADLOCK / Five deadbolts and two dog-bolts are operated with one key on the "Vertibar," which is surface-mounted reinforcement for the entire door and jamb. The heart of the unit is a 10-lever system capable of numerous combinations. The mortise cylinder accepts standard cams. / Fi-

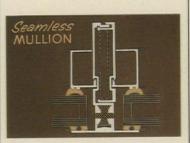
# **METAL DOORS & FRAMES**

259 STEEL DOORS / "Cordoba" entrance doors have an 18-panel design on both steel faces, with an insulating core of high-density polyurethane. Weather-sealing and frost thresholds are included: a Class B 11/2 hr-label door is available. / General Products

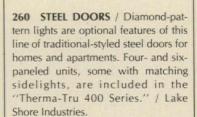


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### **METAL WINDOWS**

261 THERMAL WINDOW / Double-, triple, or quadruple-glazed for maximum protection against conduction losses, "Model 535" commercial replacement windows also feature an insulating thermal barrier around frame and sash. Extruded aluminum frames are said to be maintenance-free. / Season-all Industries, Inc. A\*

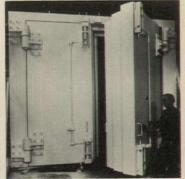
262 METAL WINDOWS / Both thermal and non-thermal glazing systems incorporate the Seamless Mullion, said to lower installation costs, reduce energy consumption, and provide airand waterproof frontal framing. / Kawneer Architectural Products. A\*



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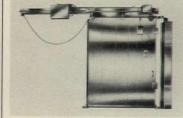
## SPECIAL DOORS

263 ACOUSTICAL DOORS / This door system has a STC rating of 47 dB, producing average office sound levels even in areas directly adjacent to very high-noise machinery. The 4-in,-thick steel-faced door is hung from heavyduty track. / Richards-Wilcox Mfg. Co.

264 AIRPORT PIT DOOR / The steel cover and frame of this utility pit door are designed to provide uniform support for the heaviest aircraft wheel. Compression springs permit easy manual opening; a hold-open arm locks the door at 90 deg. / The Bilco Co. A,E, ICR/PF\*

265 BLAST-PROOF DOORS / Able to withstand extreme seismic and tornado loads, the "Ray Proof" series of special doors is designed to maintain shielding and functional integrity in nuclear power plants and other vital areas. / Keene Corp. A,E\*





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266 PATIENT ROOM DOOR / Providing a constant view of the patient room, these two-, three- and four-door aluminum units are from 7- to 14-ft wide. Two side doors swing open, while the two center doors slide, except when unlatched to operate as swing types. / Century Institutional Products.

267 CURTAIN DOOR / "Clearstrip" is a doorway and area closure composed of a series of hanging 1/8-in.thick PVC strips, partially or fully overlapped. Traffic can flow smoothly through the entrance. / Clark Door Co., Inc. / A,E, ICR/PE\*

268 BI-FOLD DOORS / This panel jacket kit comes with stiles and rails in either white, gold or woodtone finish; mirrors or hardboard panels up to 1/4in.-thick may be used with the bi-fold door unit. / L. E. Johnson Products,

269 COLD STORAGE DOOR / The company has introduced a line of insulated cold storage fire doors carrying a UL Class A 3-hour rating. The doors are offered with either galvanized or stainless steel cladding, in models for: sliding or swinging use, with power- or manual-operation. / Jamison Door Co.

270 BI-FOLD DOORS / The "Americana" series of two- and four-section wooden bi-fold doors are 1%-in.thick, sized to fit openings up to 8-ft wide. There are louvered, spindle, and solid paneled style doors; all come complete with necessary installation hardware. / E. A. Nord Co. LC\*

# WINDOW/CURTAINWALLS

271 INSULATED PANEL / "Double-Wall" consists of a 19/16-in.-thick insulating panel that is faced with fiber glass reinforced plastic. The standard 30- by 96-in. or 48- by 120-in. panels fit in an aluminum track framing system. / Kalwall Corp. A\*

272 CURTAIN WALL / "CWT-550" is a thermally improved curtain wall system designed for medium- and high-rise buildings. A reverse-type pressure wall system, the "CWT-550" eliminates metal-to-metal contact between exterior and interior and ensures against water infiltration. / Amarlite/Anaconda, A\*

273 ALUMINUM WALL / "Uniflat," shown in the Citicorp building (designed by Hugh Stubbins and Associates) in New York, is a custom panel that can be fabricated up to 5 by 20 ft. Any type of glazing may be specified for the fiber glass insulated panel which achieves a flat uniform appearance. Paint or hardcoat finishes are offered. / Flour City Architectural Metals. A\*

### WOOD & PLASTIC DOORS

274 WOOD DOORS / Chrome or brass accents are design features of these prefinished flush doors, available in white, black or walnut finishes. Similar treatments may be ordered in fireproof B-label doors for commercial applications. / J. Zeluck, Inc. ID\*

### WOOD & PLASTIC WINDOWS

275 MARINE GLAZED WINDOW / This unit has a thermally broken operating sash for marine glazing. Sash are factory-assembled to insulated translucent panels as window replacements and wall systems. / Kalwall Corp. A\*

276 WOOD WINDOWS / Suitable for large fixed window applications, the unit pivots for washing. The wooden frame has an exterior aluminum skin with an acrylic enamel finish. Double-glazing has a 13/16-in. dead air space; thermal glass and solar screening are options. / Pella Rolscreen Co. A\*

277 CASEMENT WINDOWS / Vinvl glazed insulating glass and complete dual weatherstripping provide the weatherproofing qualities, according to the manufacturer, of these unitized casement and awning windows. Concealed sliding hinges permit removal of sashes without removing screens. / The Malta Co.

Caradco wood casement windows save enough in energy to buy a lot of extra luxury.

Create a custom look with Caradoo's casement bow windows

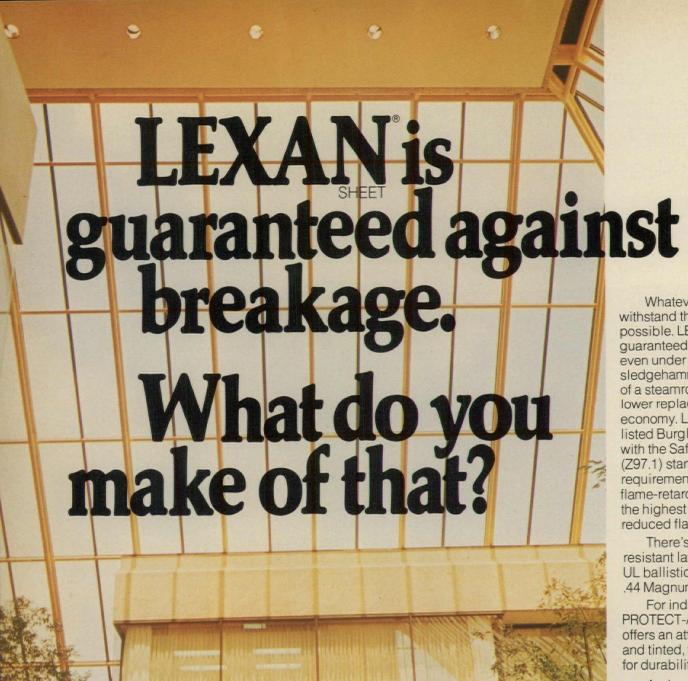
Use Caradeo casement windows generously... capture the outside view while conserving energy inside.

You can offer extra luxury in your homes by using Caradco wood casement windows and still save energy costs. Here's why: wood frame and sash insulate hundreds of times better than metal. Caradco's double weatherstripping system far exceeds normal infiltration standards. Insulating glass set in vinyl gaskets cuts heat loss in half. And Caradco's unique triple glazing offers even more energy savings. Create the window style you want from the total Caradco package, including four widths,

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six heights, picture windows, bows and bays. And don't overlook the beautiful Caradco sculptured doors. They add even more luxury to a home.

Caradco Window and Door Division



Whatever you make of it will withstand the worst punishment possible. LEXAN sheet is quaranteed against breakage,\* even under the blows of a sledgehammer or the onslaught of a steamroller. That means lower replacement costs, more economy. LEXAN sheet is UL listed Burglar Resistant, complies with the Safety Glazing A.N.S.I. (Z97.1) standard and OSHA requirements. And new F-2000 flame-retardant grade meets the highest standards for reduced flammability.

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Photo: Nashville House Nashville, TN Architect: Robert Lamb Hart/HKS

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- Check local codes for construction applications.
  - Consider emergency acce



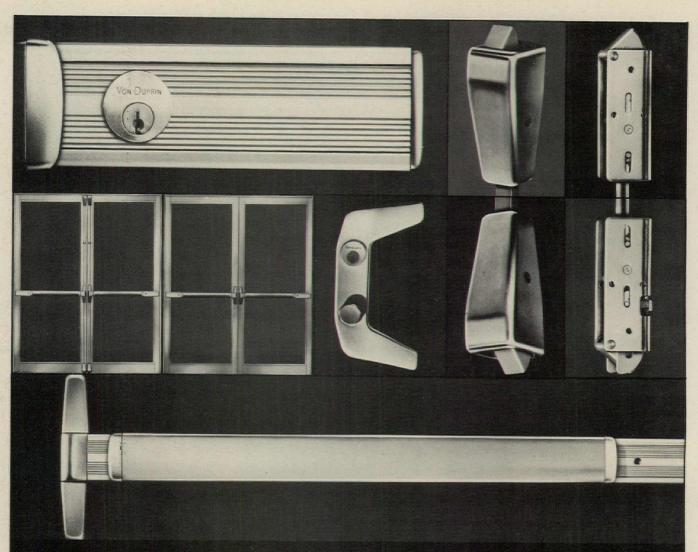
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latch retraction so that a control station operator can flip a switch to retract the latch bolts and immediately change a locked door to push-pull condition. For complete catalog details, write for Bulletin 762.



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ices includes factory finishing, special detailing and beveling, machining for hardware and security devices, moisture protection, computerized estimating and coordinating production to your job schedule.

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Every architectural door we make carries a full performance warranty and, where applicable, the U.L.

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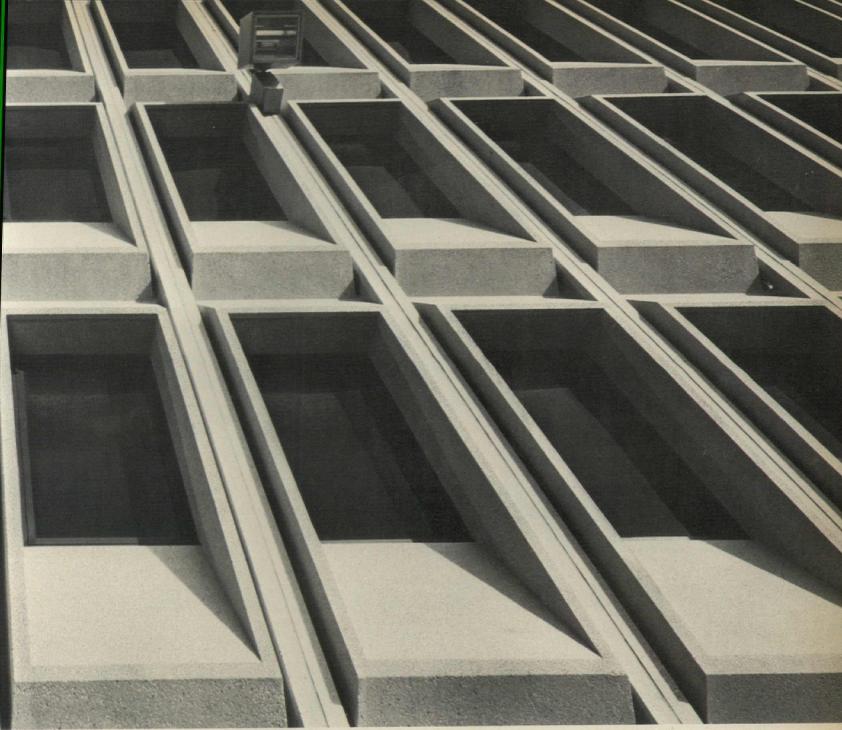
And the flexible, functional design of Perma-

Shield Awnings and Casements. In white or our earth-tone color Terratone.

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Essex County Technical Careers Center, Newark, N.J. Robert Moran, Architect

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solar tints to reduce air conditioning loads. Its low heat conductivity (K1.2) reduces winter heat loss. It is thermoformable and easily fabricated to meet your design requirements.

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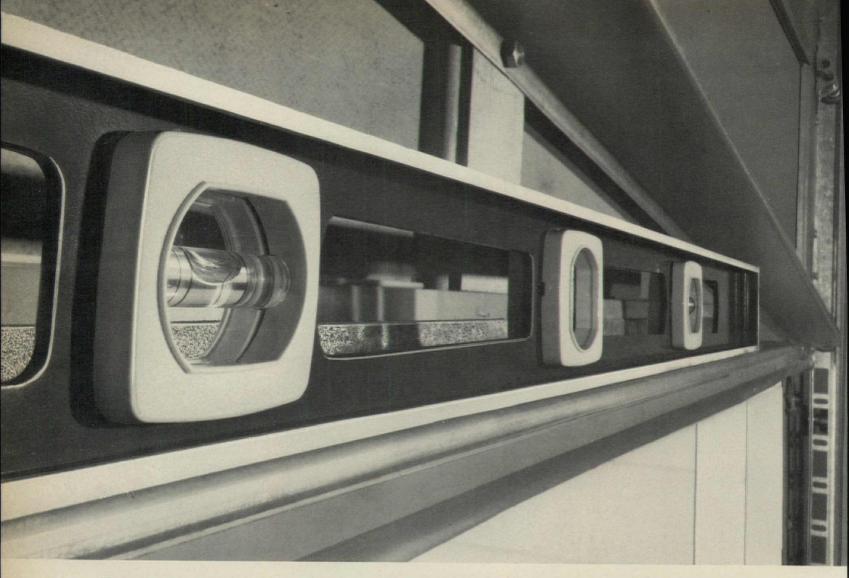
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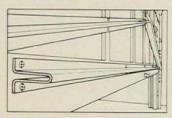
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# DISHE







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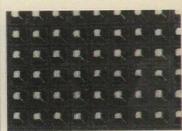


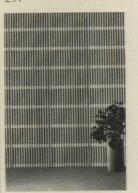
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#### ACOUSTICAL TREATMENT

#### 290 THERMOSETTING FOAM / Rapco-Foam is a modified urea-formaldehyde resin with good thermal and acoustical insulation characteristics demonstrated in ASTM tests. Recent UL ratings for the exposed foamed-in-place material are: flame spread, 10; smoke density, 35; and fuel contributed, 0. / Rapperswill Corp. A\*

291 BARRIER PANELS / TEC noisebarrier panels can be easily assembled into enclosures, walls/partitions and plant offices which meet OSHA requirements. The 2-in.-thick and 32in.-wide panels come in several lengths; a connector batten provides an integrated power raceway. / Eckel Industries, Inc.

292 ACOUSTIC GRILLES / A line of wood and metal fiber glass-backed grilles provide noise-dampening properties and an attractive appearance. Rated systems are available in redwood, oak, stainless steel, bronze and copper. / Forms & Surfaces.

#### CARPETING

293 CARPET BACKING / Secondary carpet backing, ActionBac is woven entirely of polypropylene in a construction that combines flat monofilament warp with a spun filling in a tight mesh effect. It features mildew-resistance, stability, and strength; it is available in 12-ft widths, and four colors. / Amoco Fabrics Co.

294 COORDINATED CARPET / Designed to complement "Regent's Row" contract carpeting are these new striped, checked and square pattern styles. All are made of Antron nylon with static protection, with a densely woven cut and loop fabric to withstand heavy traffic areas. / Bigelow-Sanford, Inc. ID\*

295 CONTRACT CARPET / "Regiment" is a textured level-loop with a handmade-looking surface. The antistatic DuPont Antron III nylon fabric is available in a wide range of solid and heather colorations. / Bigelow-Sanford, Inc. ID\*

296 HOSPITAL CARPETING / A tufted level-loop of Anso X in a soft pattern, "Projection" carpet is intended especially for hospitals and health-care facilities and offices. Twelve colors are in stock. / Bigelow-Sanford, Inc. ID\*

297 GRID PATTERN / A cut pile Anso nylon carpet, "Departure" features a tri-color, three-dimensional grid pattern. Suitable for commercial applications, the carpet is warranteed for five years' wear. / Salem Carpet Mills.

298 VELVET PLUSH NYLON / Eight different patterns, in 36 color combinations each, are available in the "Designer's Matrix" series from the Royal Scot Collection. Pile is Enkalure II soilhiding nylon with static control, fusion bonded to heavy-duty backing. / Carson Pirie Scott & Co.

ACOUSTICAL TREATMENT CARPETING CEILING SUSPENSION SYSTEMS PAINTING MATERIALS PREFINISHED PANELS RESILIENT FLOORING SPECIAL COATINGS & SURFACING WALL COVERING WOOD FLOORING



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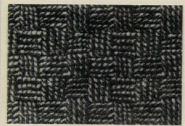


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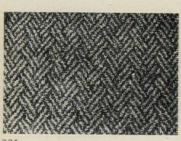




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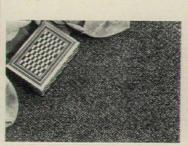
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299 CONTRACT CARPET / "Mactor" is a fusion-bonded acrylic/nylon carpet said to resemble wool, with excellent wear qualities. This Royal Scot carpet comes in 33 solid colors. / Carson Pirie Scott & Co.

300 ROPE DESIGN / Two-tone printed cut-pile Anso nylon, "Crosstyne" is a woven rope design available in five colors. Carpet has a five-year guarantee. / Salem Carpet Mills.

301 PRO-SHOP CARPET / Manufactured of heat-set staple nylon, "Club Champion" golf shop carpeting is guaranteed for five years against tuft pull-out or damage caused by spiked shoes. Carpet can be ordered in any of ten colors. / Wellco Carpet Corp.

302 EARTH-TONE CARPET / A 1/8gauge cut-loop carpet made of Antron nylon, "Design XII" has the look of woven velvet, but with a heavy wear rating. It is available in a dozen earthtone colors. / Wellco Carpet Corp.

303 CORD PATTERN / "Office Park" contract carpeting is made of DuPont's Dacron III polyester, said to offer durability, ease of maintenance and static protection. / Deering-Milliken, Inc. A\*

304 CONTRACT CARPET / Coordinated stripes and solids in a range of heather yarns, "Ironsides" carpeting is made of DuPont's Antron III nylon with static protection. / Stratton Industries, Inc.

305 PEBBLE TEXTURE / "Cablecord" has a pebbly texture composed of heather colored Antron III nylon by DuPont. The heavy-duty carpeting has built-in static control. / Stratton Industries, Inc.

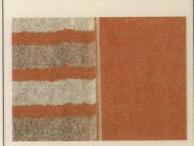
306 CUSTOM PATTERNS / The "Texturecraft III" collection is a completely custom series woven in DuPont's Antron III nylon. Shown are two suggested patterns. / Mohawk Carpet Mills.

307 DIAGONAL WEAVE / Eight-ply Antron III nylon fiber is woven in a diagonal direction for Interweve heavyduty contract carpeting. The anti-static weave is slow to soil; twelve colors are available. / Bigelow-Sanford, Inc. ID\*

308 AIRPORT CARPET / Quotation cut and loop Antron III carpeting should stand up even to the foot traffic of airport terminals. Twelve new colors are available in this soil-hiding fabric. / Bigelow-Sanford, Inc. ID\*

309 HEATHER CARPET / This commercial grade carpet is manufactured by the Unibond back coating system. "Precedence" has a cut/uncut pile of DuPont's Antron III static-resistant nylon fabric. / Lees Carpet Div., Burlington Industries, Inc. A, ID\*

310 COMPUTER CARPETING / "COMPU-CARPET" is guaranteed to meet strict standards for electrical resistance in floor covering materials. Made of Zefran nylon filament yarn over Statex-II conductive jute backing, COMPU-CARPET comes in a range of colors and styles. / United Technical Products. A,ID\*









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#### 311 COORDINATED CARPETS / Thick plush acrylic/nylon pile is available in six heathered solids and three complementary stripe patterns. "Jewel

Crest III" carpet by Roxbury carries a five-year heavy-duty wear warranty . / Carson Pirie Scott & Co.

312 BERBER CARPET / This domestic-made all-wool carpet from the Royal Scot Collection features natural colors. The carpet is fusion-bonded for good wear and appearance characteristics in commercial applications, according to the manufacturers. / Carson Pirie Scott & Co.

313 NYLON CARPET / A new construction method is said to give the look of woven carpet to "Starting Point/Break Away" Antron nylon carpeting from the Royal Scot Collection. The cut and loop pattern comes in 12 color combinations, with custom shades available. / Carson Pirie Scott & Co.





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#### Two-tone colorways of Antron III antistatic yarns are featured in "First Magnitude" carpeting from the Royal Scot Collection. With a face weight of 34 oz, this cut and loop pattern provides a tuft bind of over 20 lbs. / Carson Pirie

314 COMMERCIAL CARPETING /

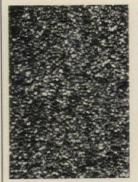
315 MAZE DESIGN / This textured level-loop Antron nylon carpet is intended for heavy-duty use. A geometric maze design is overprinted on any of seven tri-tone colormixes. The 12-ft-

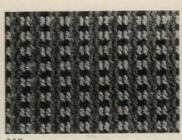
wide carpet, "Item III," is anti-static

treated. / Philadelphia Carpet Co.

316 PRINTED CARPET / A fusion bonding system is used to manufacture "Arcosanti" heavy-duty carpeting. Jute backing is coated with liquid PVC; the Dow Badische Zefran fabric is embedded in the vinyl; and the carpet is heat-cured. The easily-maintained carpet is available in a wide range of colors. / Kemos Carpet Mill. A.ID\*









318 SAXONY CARPET / Certified for both residential and commercial purposes in extra-heavy-traffic areas, "Grand Slam" saxony-pile carpeting is also warranted against damage by golf shoe spikes. Carpet is made of 100 per cent Zefran nylon, a Dow Badische fiber. / Century Carpet Mills, Inc. A,

319 EXTRA-HEAVY / This line of cut and loop carpeting is intended for extra-heavy commercial traffic. "Claridge" fabric is 100 per cent Dow Badische Zefran nylon, and has a fiveyear carpet-wear warranty. / Stephen-Leedom Carpet Co., Inc. A,ID\*



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320 SPIKE RESISTANT / "Golftrend II" is a 70-ounce dense plush carpeting insured by a five-year warranty against fiber loss or break caused by golf spike damage. It is made of Dow Badische's Zefran blend CR-4 acrylicnylon yarn. / Seamloc Carpet Co. A.ID\*

321 WOOL CARPET / Suitable for both contract and residential use is this cutpile velvet finish carpet available in two-color combinations of 100 per cent wool tweed. / H. Lawrence Carpet Mills, Inc.

322 LOOP/SHEAR CARPET / This all-wool loop and partial shear carpet features a subtle diamond pattern, shown here in russet colorways. / H. Lawrence Carpet Mills, Inc.



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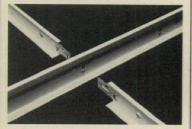


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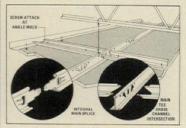
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323 HEAVY-DUTY CARPET / "Cordilan +" is a two-level ribbed pattern carpet of Acrilan nylon. Available in nine colorations including two-tone stripes as well as solids, the carpet is recommended for medium to heavy contract use. / Patcraft Mills, Inc.

#### **CEILING SUSPENSION SYSTEMS**

324 CEILING GRID / "Snaplock" ceiling grid features a simple method of joining cross tees and beams: tees are located in the ceiling grid through routs in the beam, and attach to one another. The grid is rigid before acoustical panels are laid in. / Roper Eastern Building Systems. A\*

325 MODULAR CEILING / Available in a variety of colors and shapes, "Contempo 8" square modules are shipped pre-assembled in 2-ft-square panels that fit standard grid systems. Made of Rohm and Haas Class I acrylic, the panels may also be used as soffits, wall dividers, or store displays. / Wilson Research Corp. A, ID\*

326 INTEGRATED CEILINGS / An acoustical noncombustible mineral ceiling panel, "Rockrimmon" is available in a 24-in.-square size. The edges are rabbeted so that, when installed in an exposed grid system, the ceiling surface drops below the face of the grid. / Armstrong Cork Co. A\*

327 CEILING PANEL / A monolithic image is achieved by "Grid Shapes" ceiling panels, that offer the look of tile with the economy of 2- by 4-ft panels. / Armstrong Cork Co. A\*

328 CEILING PANEL / "Textured Squares" ceiling panels provide a continuous surface effect in 2- by 4-ft panels with sound absorbing perforations hidden in the textured areas. / Armstrong Cork Co. A\*

329 CEILING PANEL / "Circles 'n Squares" offers the look of tile in 2- by 4-ft panels. The grid is effectively disguised by the geometry of the pattern. / Armstrong Cork Co. A\*

330 CEILING SYSTEM / The company's "Synercon 60" system uses a new grid, specially designed lighting fixtures, air handling options and a new high efficiency acoustical board for applications primarily in open office spaces. / Armstrong Cork Co. A\*

331 ACOUSTICAL CEILING "Silok" low-density mineral fiberboard acoustical ceiling panels have a Noise Reduction Coefficient of .85 in 1-in. thickness; .95 for 2-in. thickness; and .90 for 11/2-in.-thick material. The Noise Isolation Class is 20 for 2-in. thickness. / Armstrong Cork Co. A\*

332 CEILING PANEL / Envelite "S" series 2- by 2-ft modules in four patterns, are ready to drop into standard ceiling grids. Handcrafted fiber glass castings that match stained glass in weight are said to be shatterproof. / ENVEL Design.

333 SUSPENSION SYSTEM / This UL-listed system is a new approach to installing rated drywall suspended ceilings. Cross-tees are actually drywall screw channels formed like suspension tees; tee design is said to provide good membrane fastening qualities. / Roblin Building Products Systems. A\*

334 ACOUSTICAL CEILING / Open Plan SpanAcoustic ceiling panels are said to provide design freedom and acoustic privacy for open-plan offices. The lightweight vinyl-faced fiber glass panels are available in sizes up to 5by 5-ft; up to 5- by 10-ft on custom order. / Holophane Div., Johns-Manville Corp. A,ID,ICR/PE\*









336 CEILING SYSTEM / The "Accent Ceiling System" is based on a 4by 6-ft module, said to be accessible, demountable, and economical to install. Coordinating tile is edged with a black line of exposed grid which eliminates lipping. / Conwed Corp. A, ICR/PE\*

337 ACOUSTICAL CEILING / "Module V" is a Class A noncombustible board with a NRC value of .95. Said to be impervious to humidity, the ceiling system allows for flexible lighting and HVAC placement with reduced grid members. / Owens-Corning Fiberglas Corp.



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#### **PAINTING MATERIALS**

338 RUST PREVENTATIVE / The non-leaded "9000 High Build Vinyl System" offers weather-, moisture-, and abrasion-resistance within fastdrying time, according to the company. It is available in a wide range of colors and is applicable to most surfaces and is suggested for severe chemical conditions. / Rust-Oleum Corp. ICR/PE\*

339 INDUSTRIAL COATING / A water-reducible acrylic USDA-approved coating, the RUST-O-CRYLIC 5700 system offers corrosion control, labor savings, durability and weather resistance. It adheres to a variety of surfaces, and is available in six "deep tone" colors as well as pastel finish coats. / Rust-Oleum Corp. ICR/PE\*

#### PREFINISHED PANELS

340 PANELING / Available in a variety of colors and simulated woodgrain, "Fire-Test" paneling is manufactured with flame-spread ratings of 30 and under or 25 and under. / Marlite Brand Paneling.

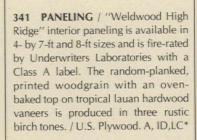


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342 PANELING / "Weldwood Barnboard" interior paneling features regular spaced planks 8 in. apart to simulate old boards. It is produced in six colors and is available in 4- by 8-ft panels, 1/4- and 5/32 in. thick; the product is fire-rated with a Class C label by Underwriters Laboratories. / U.S. Plywood. A, ID,LC\*

343 BRICK-DESIGN PANELS / "Used Brick" is a staggered brick design reproduced on 4- by 8-ft sheets of 1/4-in.-thick hardboard. The easily installed and maintained paneling is available in tan, red, and white. / Masonite Corp. A, ID,LC\*



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344 PANELING / Travertine marble is the design motif for "Marbletone" hardboard panels. The smooth wall panels come in 4- by 8-ft-boards, in either green or gray marble tones. / Masonite Corp. A, ID,LC\*

345 GYPSUM WALLBOARD / Five new patterns of Durasan prefinished gypsum board include contemporary stripes and white and gold solid tones. / Gold Bond Building Products. A\*

346 BRONZE PANELS / A new series of textures and designs has been added to this line of 1/8-in.-thick bonded bronze panels for large spaces, doors and other fixtures. The panels, some plywood-backed, are 3-ft wide by 8- or 10-ft high; aluminum, nickel, silver and copper castings are also available. / Forms & Sur-





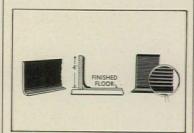


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348 BACTERIA RETARDANT / "Vitriform 90" porcelain-on-steel panels have a nonporous, glass-like surface which retards bacterial growth. No molding is needed, and minimal grouting requirements make the panels suitable for hospitals, doctors' offices, etc. / AllianceWall Corp. A\*

349 WOOD VENEER PANELS / Cedar, pine, oak and fir faces are now available in this line of 7/16-in.-thick fire-rated wall panels. The natural wood veneers come in 17 colors. / Roseburg Lumber Co. LC\*



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#### RESILIENT FLOORING

350 RUBBER BASE / Made of nonshrinkable non-porous rubber, this cove base has a permanently polished surface that will not wear or peel. Offered in 4, 6, and 21/2 in. heights, it is available in smoke grey, brick red, black, dark brown, light brown, sand and light avocado. / The R.C. Musson Rubber Co. A,ICR/PE\*

351 VINYL-CORK TILE / "Cork-O-Plast" tiles from Sweden use natural cork permanently bonded between a vinyl moisture barrier and a transparent vinyl wearing surface. Sound deadening and resilient, it is available in dimensions of 300 by 300mm (11.8 in. sq), and 150 by 900mm (5.9 by 35.4 in.). / ARCO Chemical Co. A, ID\*

352 ACCENT TILE / "Architectural Accents" vinyl-asbestos floor tile comes in two commercial gauges: 1/8and 3/32-in. "High intensity" colors may be used alone for a single-color floor, or to define store areas, as traffic direction lines, etc. / Kentile Floors Inc. A, ID,LC\*





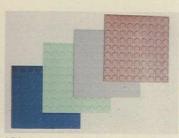


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354 NO-WAX FLOORING / Shown is "Briarcliff" resilient flooring, which has a no-wax, low-maintenance traffic layer. The wear-guaranteed sheet product comes in six colors. / Mannington Mills, Inc. LC\*

355 STAIR TREADS / Pre-sanded backs and noses are a new feature of this line of molded rubber stair treads. Eliminating on-site tread preparation, the pre-sanding assures a stronger tread-to-surface adhesion. / The R.C.A. Rubber Co. A\*



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356 RUBBER FLOORING / Norament rubber floor tiles, manufactured in 12 colors, are said to meet the most demanding requirements for very high traffic areas. Water, chemical and cut resistant, the flooring is non-static and easy to maintain. / Trans-Continental Distributors, Inc.

357 RUBBER UNIT PAVING / "Traffic Tread" rubber flooring comes in several sheet sizes and a wide selection of colors. A raised burl-100 to a 111/4-in.-sq-gives the paving material good non-slip qualities. / Hastings

358 SMOKE-RETARDANT / Vinylast and Terralast solid-vinyl tile are now manufactured in smoke-retardant formulations to meet fire safety regulations, including those for Federallyfunded health care facilities. There is a choice of ten colors, all with NBS smoke generation ratings of less than 450. / Vinyl Plastics, Inc. A\*



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359 VINYL FLOOR TILE / "Custom Cortina" pattern vinyl-asbestos tile now comes in colors. For commercial and institutional use, the tiles can be installed on, above or below grade over concrete or wood subfloors; all are alkali, fire, and stain resistant. / Azrock Floor Products. A,LC\*

#### **SPECIAL COATINGS & SURFACINGS**

360 METAL COATING / ENVIRON III water-borne coil coatings are designed for factory application on galvanized steel building products. The system consists of primer, finish coat, and optional backer. Finish coats and backers are supplied in a wide range of medium-gloss colors. / PPG Industries, Inc. A,ICR/PE\*

361 CONCRETE COATING / Zonolite Stak-N-Bond is a machine- or trowel-applied 1/8-in. glass-fiber reinforced cement-based coating, which when applied to both sides of concrete walls, eliminates the need for mortar. In white or gray, it can be painted or left unpainted. / W.R. Grace & Co. A, E,LC,ICR/PE\*





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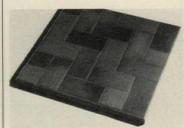


362 WALLCOVERING / "Coverall," a gypsum-based wallcovering that can be applied to any rigid surface, provides a permanent finish that becomes part of the wall. It features acoustical qualities, fire resistance, and easy application according to the company. Marlite Brand Paneling.

363 TEXTURED COATING / "Del-Plex" is a flexible, weatherproof, highbuild coating for masonry, prepared wood and primed metal surfaces. It is manufactured in three textures: fine, medium, or coarse (shown). Standard white color may be tinted; custom colors are available. / Del Paint Mfg.

364 SLAB SEALANT / Stress-resistant topping seals and protects ramps, decks and other above-grade slabs. Three-part coating consists of selfleveling sealant; fabric reinforcement; and epoxy top finish. Slight substrate movement will not crack surface. Sika Chemical Corp. ICR/PE\*







367



365 CERAMIC TILE / "Romany Sea Foam," decorative wall tile, is a 41/4by 41/4-in, bright glaze tile featuring a white glaze over the surface of blue, olive, gold or beige. / United States Ceramic Tile Co. A\*

366 OUARRY TILE / Textured "Co-Ionial Flash Brickplate" unglazed tile has high abrasion resistance and nonslip properties, and is frostproof, acidand alkali-resistant. A wide color variety is offered in the 4- by 8-in. tiles. / Gail Ceramics. A,ID,ICR/PE\*

367 SKID-RESISTANT TILE / The dot texture on "Terrestra" ceramic tile is obtained by sanding the surface after glazing, but before the tile is fired. Noslip dot design is by Golding/Meyer. (Photo shows tiles before installation.) / Artec Ceramic Surfaces.



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368 SELF-ADHESIVE TILE / Newlyintroduced "self-stick" ceramic tile features "spacer lugs" for accurate installation. It is intended for application on smooth wall surfaces; border and trim tile are available. / H & R Johnson, Inc. A\*

369 GLASS TILE / "Module 42" is a round (15%-in.-dia) vitrified colored glass tile. The French-made tile is suitable for commercial floors and walls, and is frostproof for either interior or exterior use. / Hastings Tile. A\*

370 HAND-PAINTED TILE / These vitreous china tiles are hand-painted in Italy in many floral and vine designs. Each tile is 8-in.-sq; four form a complete design suitable for residential and commercial floors and walls. / Hastings Tile. A\*



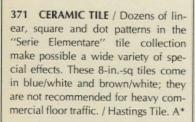
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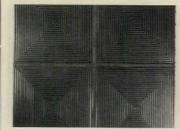


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372 HEAVY-TRAFFIC TILE / From Canada, "Frontenac" is a high-fired vitrified clay tile for floors and walls. The tile is frost-proof, acid- and stain-resistant, and does not show wear from heavy foot traffic. / Hastings Tile.

373 BATH TILE / "System Modula" is a series of floor and wall tiles designed to coordinate with "T" shelves and other bath fixtures. Colors are red, orange, blue, white, and brown; mirrors and similar accessories are available. / Hastings & "Il Bagno" Collection. A\*



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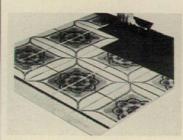


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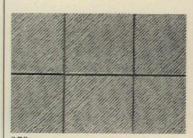


375 CERAMIC MOSAICS / Three colors have been added to this line of unglazed tile: dark brown; beige; and soft gold. The frost-proof tiles are small (largest is 2- by 2-in.) permitting a variety of abstract, graphic or pictorial designs for floors and walls. / American Olean Tile Co. A\*

376 MATTE GLAZE / "Espresso"—a deep black-brown—is a new color available in both matte and crystalline glazes. Tile is manufactured in a variety of shapes; some may be ordered in 2-ft-sq pregrouted sheets. There are matching ceramic soap dishes, towel bar holders, etc. / American Olean Tile Co. A\*



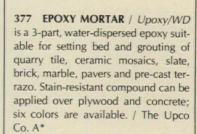
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378 TEXTURED TILE / A special process produces a finely-textured surface on ceramic floor tile. This non-slip surface is said to be very resistant to wear. / Franciscan Tile. A,ID\*

#### WALL COVERING

379 WALLCOVERING / "All-Plastic" wallcovering features a sheet-vinyl surface and a substrate of spunbonded polyester. The collection includes 123 contemporary floral and striped patterns, color-keyed to the look of cane, bleached wood and bamboo furnishings. / United-DeSoto.



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380 WALLCOVERING / The "Koroseal" vinyl wallcovering line consists of 45 textures and 46 colors; all materials are permanent in color, washable, and resistant to abrasion. "Koroseal" is designed to resist scraping, chipping, or cracking in all high traffic areas. / Boyd Architectural Wallcoverings. ID\*

**381 WALLCOVERING** / "Cedar Woodstrip," thin (1/10-in. thick) pieces of real Western Red Cedar, 3<sup>7</sup>/16-in. wide, in four different lengths (1, 2, 3, and 4 ft), comes packaged in clear plastic. Each package weighs 7 lbs and contains material to cover 33½ sq ft; it can be applied with standard paneling adhesive. / Pope & Talbot. A\*

382 WALLCOVERINGS / Vicrtex T is surfaced with a ½-mil. Tedlar film which makes the wallcovering totally stainproof and kills staph 100 per cent on its surface within 24 hours maximum according to the company; it is available in various patterns. / L.E. Carpenter & Co. A\*



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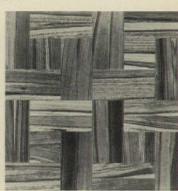


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383 WALLCOVERING / Medium in weight, 26 ounces per linear yard, and 53-54 in. wide, "Trinidad" vinyl wallcoverings are available in 25 deeply textured colorways. / B.F. Goodrich General Products Co. A.ID\*

384 WALL CARPET / The "Exstatic Wall System" is a latex-backed Zefran acrylic-nylon wall covering. Its use in hospitals is said to reduce airborne bacteria. The material has a Class A flame rating and good acoustical properties. / Seamloc Carpet Co.

385 MARBLE PATTERN / Heavyduty fabric-backed vinyl wallcoverings are now available in "World Marble." The wallcovering conforms to FS CC-W-408A; it is abrasion-resistant and easy-to-clean. / Stauffer Chemical Co. ID\*

386 WALLCOVERING / "Basketry" is a stylized, non-directional geometric pattern, based on a Japanese woodblock print. It is available in brown on white; sand/white; and gold/yellow. / Karl Mann Assocs.

387 VINYL WALLCOVERING / Fabric-backed vinyl wallcovering is scrubbable and easily removed. The vivid zig-zag pattern has a 7-in. repeat; it also comes in a blue, white, light and dark beige combinations. / Wall Trends International.

388 WALLCOVERING / Tone-ontone colors and two different textures produce a three-dimensional effect. The fabric-backed vinyl covering is washable and strippable; this pattern also comes in shades of light beige and greenish gold. / Wall Trends International.

389 TILE LOOK / "Alhambra" is a small-scale pattern of diagonally-placed gravure-printed tiles. The wallcovering is paper-backed vinyl laminate, pretrimmed and washable; it is available in four three-toned colorways. / James Seeman Studios, Inc.

#### WOOD FLOORING

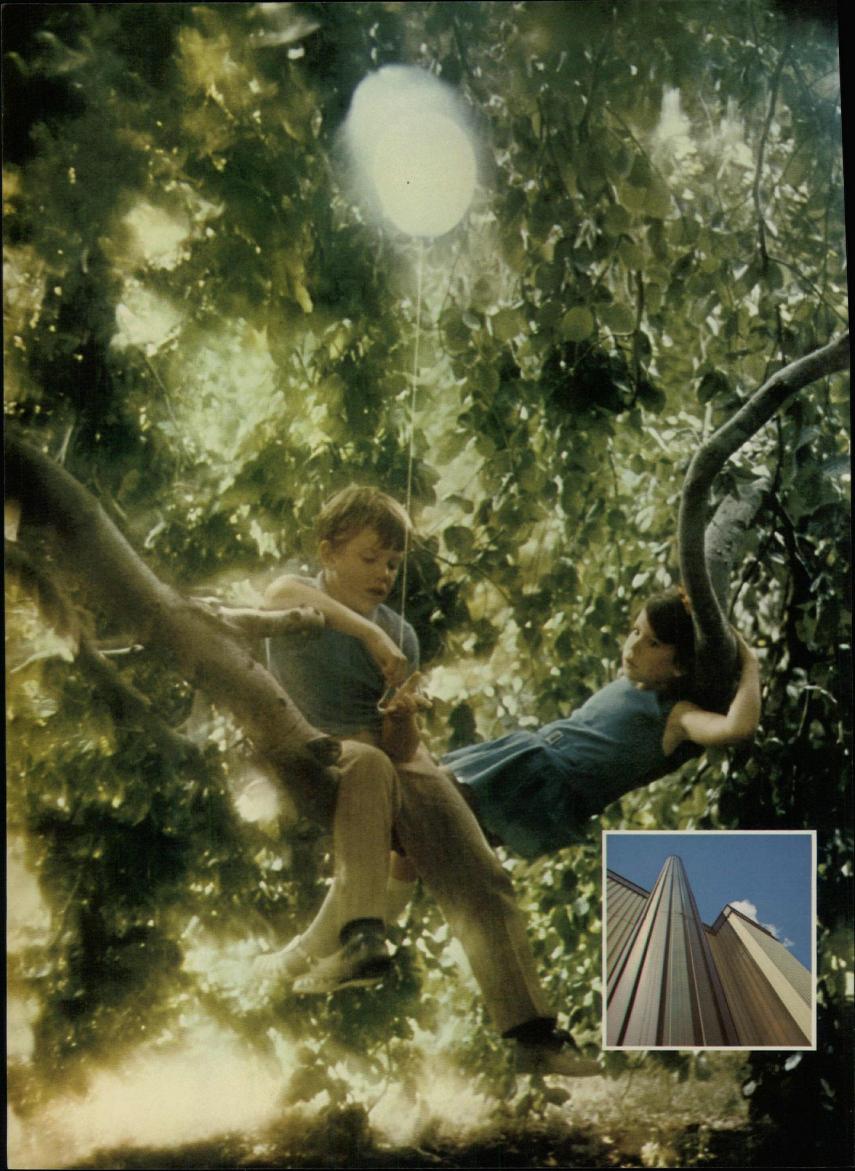
390 PARQUET / "Singapore Teak" parquet features 12- by 12-in, blocks of genuine teak in the classic Haddon Hall design. It is available either unfinished with a squared edge or prefinished in natural or walnut finishes. / Wood Mosaic. A,ID\*

391 PARQUET / "Princess Anne" teak parquet features 12- by 12-in. blocks of moisture-resistant teak surrounded by single-mitered pickets. It is available either unfinished with a squared edge or prefinished in natural or walnut finishes. / Wood Mosaic. A, ID\*

392 HARDWOOD FLOORING / "Cumberland Oak" is an economically-priced hardwood parquet flooring. The 6- by 6-in. prefinished blocks are installed with adhesive over almost any subfloor, including concrete. / E. L. Bruce Co., Inc. A, ID\*

393 OAK PARQUET / Both smooth and wire-brushed finishes are available in "Stone" pattern oak parquet flooring. The 12-in.-sq blocks can be installed over almost any subfloor. / E. L. Bruce Co., Inc. A, ID\*

394 TEAK FLOORING / "Tiger Stripe" is a new variety of teak parquet flooring, available in colors ranging from honey to deep brown. The prefinished 5/16-in.-thick blocks have a basketweave pattern of solid teak slats. / Bangkok Industries. A\*



# Will your structures meet their esthetic demands when they're old enough to express them?

The design and construction of public utility buildings and power plants represent a unique architectural challenge: these structures are private as well as public assets that must meet both the economic needs of business and the esthetic demands of the community.

During the past ten years, Fluropon® has made a major contribution to the architectural design and economics of public utility buildings. Fluropon® is the leading Kynar 500® fluorocarbon coating formulated full-strength to assure maximum longevity of the metal panel finish.

There are many practical reasons to specify Fluropon: low-cost maintenance, long-life color stability for matching building additions, superior adhesion to the substrate and long-term resistance to corrosion and to many common atmospheric pollutants.

But beyond the economic benefits, a public utility can make an enduring statement: we want to help preserve the esthetic values of the community.

#### DeSoto, Inc.

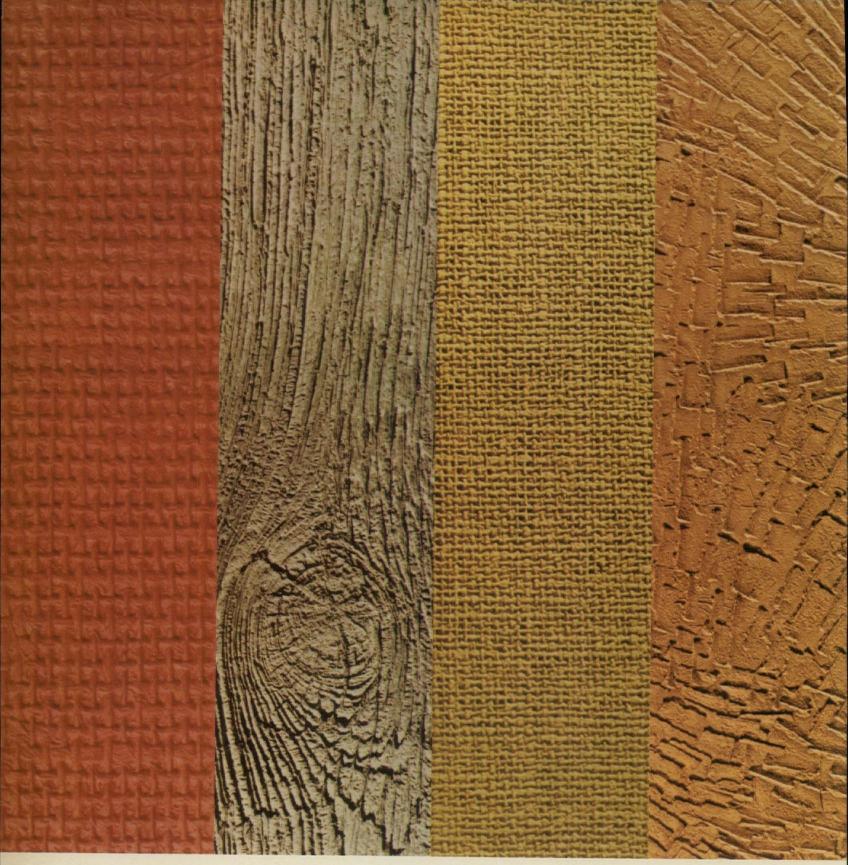


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Write for complete information on Fluropon Architectural Coating, including technical product specifications, colors and uses.

\*Fluropon meets Pennwalt license requiring 70% Kynar 500, Pennwalt's registered trademark for its polyvinylidene fluoride resin.

Fluropon: Helping public utilities make an enduring statement to their communities.



# And you thought that B.F. Goodrich only made whitewalls.



But we can make red walls, green walls, or gold walls. Barnboard walls. And grasscloth walls. Walls that have a look of leather. Full rich vinyl textured walls of all kinds.

And the B.F.Goodrich name is your assurance that they're quality vinyl wallcoverings. The very best we can manufacture.

Each pattern and design stands out because we've added a bit more to the textures. They're thick. Deep.

And because our wallcoverings are made of fabric backed vinyl, they're strong. And tough too. So the beauty never fades.

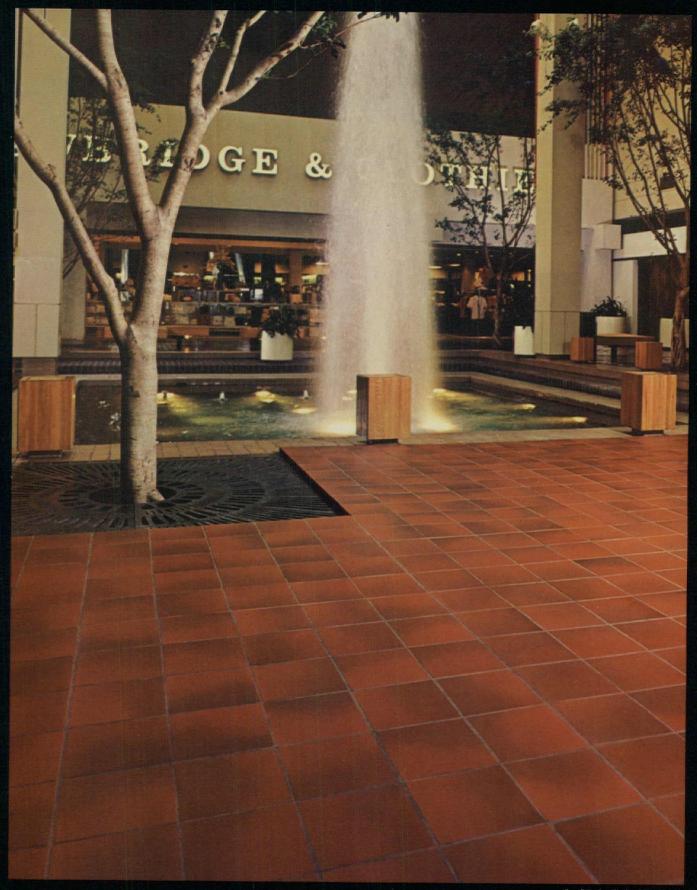
B.F.Goodrich vinyl textures can take a lot more wear and tear than paint can. And you won't face the cost and hassle of regular repainting.

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Sears, Roebuck and Co. chose Roper Eastern's Tablock ceiling grid system for this store in suburban Dallas. Tablock, our original exposed grid design, features the exceptional durability and reliability necessary to accommodate the many different lighting fixtures and HVAC outlets required in such a large building.

By selecting this Roper Eastern system, the architects and contractors were assured of simple, quick initial installation and future flexibility as the store requires rearrangement to accommodate new departments and product lines.

Roper Eastern has five distinctive ceiling grid systems, including one that is classified by UL as fire resistive. And our demountable wall system offers architects and contractors even more versatility for interior design. Ask for details about the Roper Eastern systems that are right for you. Write us on your company's letterhead for a free copy of our full color publication "Insight -A Report on Ceilings and Walls for National Accounts" plus a copy of our specification insert for the 1976 Sweet's catalogue.

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#### ROPER

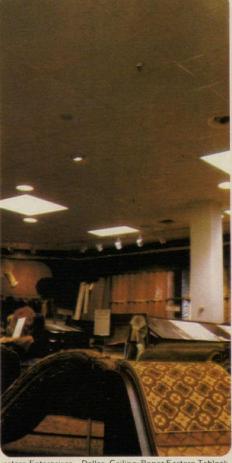
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- · Moderately priced at under \$13. per sq. yd. installed

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# Why Zonolite<sup>®</sup> Monokote<sup>®</sup> fireproofing is as basic as the steel it protects.

The optimum fire protection system still remains the subject of much research and debate. But one fact is recognized: no matter what combination of sprinklers, smoke detectors and other devices are used, there should be no trade-off in basic structural protection. Zonolite® Monokote® fireproofing provides the basic protection needed to maintain the structural integrity of your building.

- Monokote protects steel columns, beams and decks, which can buckle and fail at 1100° F, and minimizes the chance of costly structural steel repairs.
- Monokote helps contain fire by minimizing the passage of heat through steel decks and concrete floors.
- Monokote becomes an integral part of your structure, sheathing supporting members with a permanent, durable, protective, monolithic surface.
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Monokote is a proven product, backed by the long and extensive fireproofing experience of W. R. Grace & Co. For complete information on fireproofing that is as basic as the steel it protects, contact your local Zonolite Monokote representative or write Construction Products Division, W.R. Grace & Co., 62 Whittemore Avenue, Cambridge, Massachusetts 02140. In Canada, 66 Hymus Road, Scarborough, Ontario M1L 2C8.

GRACE



Plaster in a Roll™ goes up like wall paper over every conceivable surface including poured masonry, concrete block, plaster, gypsum board, expanded foam, metal, glass, wood and plastic.

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If you're involved in renovation or construction in hospitals, hotels, motels, schools, apartments, public buildings or any high traffic area...if you're looking for lead paint hazard elimination or want a one-step process that takes you from a problem to a finished wall...take a look at Flexi-Wall covering systems.

We're a one-step time and money saver which can turn your problem walls into a decorator's dream. Specify Flexi-Wall Plaster in a Roll™whereeveryou would use Type III heavy duty vinvl wallcovering.

- Comes in a roll
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(Sweet's Architectural and Interior Design Files #9.13/Fl., Spec/Data File, Section 9/Wall Coverings. Means Building Construction Cost Data/ Wall Covering Gypsum.)

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# We interrupt this advertisement for a commercial break. ARISTOCON.

Aristocon goes commercial. Now there's an alternate solution to the disadvantages of tile, parquet and carpeting in commercial flooring. Disadvantages such as seams, staining, soil buildup and maintenance.

You deserve a commercial break. And now you have it with Aristocon.

Aristocon brings to the commercial establishment the qualities that made it so successful in the home.

Aristocon is beautiful enough to dress up any shop, business or office. Tough enough to handle the traffic, spills and scuffs it must face every day.

One reason Aristocon can take the hard knocks is its exclusive no-wax JT88® wear layer. A wear layer so stain-resistant it protects against damage by iodine, alcohol, mustard, shoe polish, lipstick, hair coloring.

And, unlike other so-called nowax floorings, Aristocon won't need a redressing. In fact, just normal cleaning and occasional power buffing restore its original lustre.

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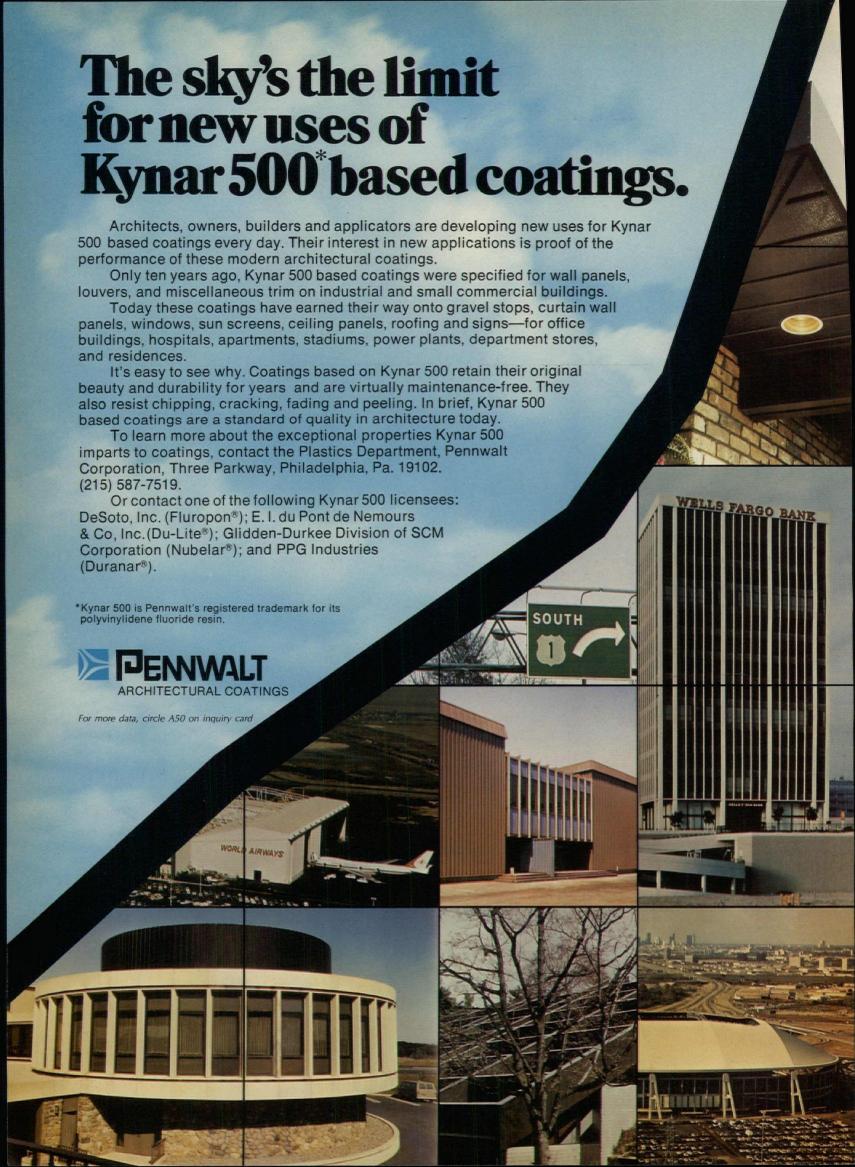
The Aristocon alternative. Beautiful. Tough. And easy on your pocket-book.

See us in Sweet's Light Construction File or write for free sample and architectural folio.

Mannington Mills, Inc., Dept. A76, Salem, N.J. 08079. Over 60 years of fine flooring. Others by Wellco Carpet Corp., Calhoun, Ga., a wholly owned subsidiary.













#### Spectacular Ceiling Patterns, Distinctive Room Dividers. **Countless Other uses With New** Decorative Acrylic Sheeting.

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Advantages of Chromo-Flex: Color-fast • Easily workable. Can be: Thermoformed, sawed, machined, drilled, shaved, milled, cemented, buttwelded. Use anywhere glass or wood is used. Stained glass effect at substantially lower cost.

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# ...foodstuffs stay fresher

Glasbord ribbed panels on your cooler walls allow free flow of cold air around tightly stacked boxes, bins, and cartons. Foodstuffs stay fresher, spoilage is reduced, profits go up.

Glasbord ribbed panels are a tough, durable fiber glass reinforced plastic (frp) lining material, compression molded with protruding ribs to assure maximum air circulation at wall areas. "Hot spots" that encourage spoilage are eliminated. Panels are nonporous, stain resistant, USDA accepted.

Learn how Glasbord ribbed panels can help your refrigerators refrigerate. Get the full story today.



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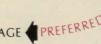
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continued from page 45



WEATHERING STEEL / A 17page booklet discusses Cor-Ten highstrength, low-alloy steel in architectural applications. Topics covered include suggested fabricating and handling methods, maintenance and fastening procedures, effects of various environments, and painting information. / U.S. Steel Corp.



D25 LOAD-BEARING STUDS / A 16-page brochure provides comprehensive product and framing information on load-bearing steel studs for apartment and commercial buildings up to 3-stories high. Studs feature a Cchannel design for extra strength at critical points; studs may be nested to meet varying load requirements. United States Gypsum Co.

#### **WOOD & PLASTICS**

D26 ROOF TRUSS / A kit gives details of the "Gang-Nail" ten-year warranty program for roof and floor truss components used in residential construction. / Automated Building Components. Inc.

D27 PLYWOOD STAIRS / Minimum plywood recommendations for stairway applications are presented in a technical flyer. Results of concentrated load tests conducted to ANSI standards are shown in drawings and charts. / American Plywood Assn.

D28 OVERLAID PLYWOOD / An illustrated bulletin gives information on medium-density overlaid plywood, a combination of exterior-grade plywood and a resin-treated surface. Technical data, including minimum bending radius, vapor permeance and thermal resistance tables, are also in the leaflet. / American Plywood Assn.

D29 PLASTIC LAMINATES / The entire standard line of Micarta decorative laminate is shown on three swatch cards. Samples available are solids and slates; woodgrains; and patterns, marbles and leathers. The backs of the cards contain size and finish information and specifications for fire-retardant grades of Micarta. / Westinghouse Electric Corp.

D30 LAMINATED WOOD / A detailed booklet describes laminated structural wood products: decks; beams, purlins and columns; arches; and panelized bridges. Load tables, span and arch dimensions, and section properties are included. / Weyerhaeuser Co. A\*

D31 WOOD DESIGN / The importance of basic college courses in wood and plywood design is stressed in an 18-page brochure. Architects' and engineers' comments on the need for expertise in wood design are illustrated by photos showing structural applications of wood and plywood. / American Plywood Assn.

D32 SLAVE PALLETS / The use of plywood pallets in automated storage and retrieval systems is discussed in a new data sheet. / American Plywood

D33 WOOD FOUNDATION / How the use of plywood-sided wood foundation walls can cut heating costs is shown in a four-page bulletin. / American Plywood Assn.

#### THERMAL/MOISTURE **PROTECTION**

D34 WOOD SIDING / A full range of wood-sidings is shown in an illustrated 24-page catalog. Included are hardboard, plywood, and cedar siding and shingles; construction details, wall sections and finish recommendations are given. / Weyerhaeuser Co. LC\*

D35 SEALANTS / A selector chart provides performance characteristics, specification ratings, joint sizes, surface types and colors for a line of construction sealants for caulking and glazing applications. Compression and structural gaskets for glazing systems are also described. / Tremco.

D36 WATERPROOFING / A fourpage bulletin describes TREMproof waterproofing systems for below, on, and above-grade. Application data are given on liquid waterproofing polymers and masonry preservatives; detail drawings show typical installations. / Tremco.

D37 INSULATION KIT / The brochure presents a completely portable two-part kit for producing six types of urethane foam used in insulating and caulking. The "foam machine in a carton" comes in small-, medium-, and large-volume units, including an ArcticPak for cold weather applications. / Insta-Foam Products, Inc. E\*

D38 METAL ROOFING / Product literature reproduces all standard colors, including the new dark bronze ColorKlad prepainted galvanized roofing sheets. / Vincent Brass & Aluminum

D39 SAFING INSULATION / Results of fire-testing Thermafiber safing insulation are reported in a four-page brochure. Thermafiber is a precisionformed, mineral fiber, semi-rigid felt designed for use as a fire stop in the safe-off area of curtain-wall high-rise construction. / United States Gypsum

D40 PLYWOOD ROOFING / Plywood roof decks can cut construction costs and work with almost any support system, according to a 24page booklet. Charts show maximum loads and spans; and fire and wind raings. Insulation tips are also given. / American Plywood Assn.

D41 PREFINISHED SIDING "Panel 15" is an aluminum-overlaid plywood panel for exterior walls and decorative applications. The panels combine structural sheathing, reflective insulation, and a baked-on, weather-resistant enamel finish carrying a 15-year guarantee. Panels and components are shown in a 12-page brochure. / Weyerhaeuser Co.

#### **DOORS & WINDOWS**

D42 CURTAIN WALL / An eightpage brochure describes the "SW-8900" curtain wall system, which is said to keep metal, erection, and glazing costs to a minimum. Featured details include a concealed operating vent identical in appearance to fixed glass lights. / Kawneer Architectural

D43 THERMAL GLAZING / Energysaving insulated glass holding systems are described in a 12-page brochure. Basic detail drawings and on-site installation photos are used to explain each Thermal Barrier window, curtain wall, or glass framing product. / Kawneer Architectual Products. A\*

D44 WOOD DOORS / A complete line of wood-veneer-faced doors for both interior and exterior use is described in a 20-page catalog. Included are fire-resistant and X-ray doors. Installation methods and recommended finishes are shown in detail drawings. / Weverhaeuser Co. A\*

D45 DOORS/FRAMES / An eightpage brochure describes Doormaster commercial frame, door and hardware assemblies. Section drawings of components are shown; prefinished wood, plastic laminate, hardboard and hollow metal doors are included in the line. / Ampco Products, Inc.

D46 STEEL DOORS / An illustrated color catalog outlines design and construction features of Kewanee honeycomb-core steel doors and frames, fire-rated doors and stick systems suitable for apartments, motels and other commercial and residential buildings. / United States Gypsum Co. A\*

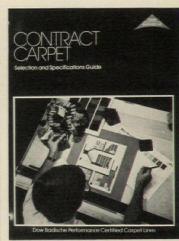
#### **FINISHES**

D47 ACOUSTICAL CEILING / New data sheets provide installation and maintenance information on 'Boulder'' and "Butte" textured mineral acoustical panels. Fire, thermal resistance, and sound test ratings for these Acoustone ceilings are given. / United States Gypsum Co.

D48 TEXTURE FINISH / Seven fact sheets feature close-up photos of sprayed, rolled or brushed textured finishes for walls and ceilings. The non-asbestos coatings hide minor defects in drywall surfaces. / United States Gypsum Co.

D49 CUSTOM CARPETING / An illustrated workbook suggests custom carpet design possibilities for special themes and applications. / Berven Carpets Corp.

D50 CARPET CERTIFICATION / A booklet explains how a fiber manufacturer can certify a carpet's performance under normal conditions for the traffic class specified. / Dow Badische



D51 CARPET GUIDE / A revised "Contract Carpet Selection and Specifications Guide" describes the testing of carpet fibers and yarns to assure high performance levels in all areas: wear, soil resistance, flammability, delamination and static control. / Dow Badische Co.

more literature on page 121

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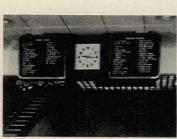


MICROGRAMMA microgramma

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#### **CHALKBOARDS & TACKBOARDS**

408 WRITE-ON BOARDS / "Rite-On, Wipe-Off" writing boards are constructed of specially treated porcelain on steel; they form a dustproof writing system when used with drymarker pens. They also serve as projection screen and magnetic bulletin board. / AllianceWall Corp. A\*

409 TACKBOARD / A light, reversible tackboard made in a variety of colors is fabricated with an expanded foam core coated with patented gypsum jute fabric. / Flexi-Wall Systems.

#### **COMPARTMENTS & CUBICLES**

410 OFFICE PARTITIONS / Freestanding partitions require no attachment to floors or walls, and can be moved and reassembled. Partitions are available in a variety of heights and wall coverings, including vinyl, carpet, high-pressure laminate and fabric. / Apton/Interlake, Inc.

#### **FIREPLACES**

411 BUILT-IN FIREPLACE / These front-opening 28-, 36- and 42-in. built-in, zero-clearance pre-engineered fireplace systems feature one size chimney for all three models. Refractory brick lines the back, bottom and sides of the firebox. / Temco, Inc.

412 FIREPLACES / The "M-35" fireplace is approved and designed specifically for use in mobile homes. It is freestanding, burns real wood or gas logs, and features an elevated hearth. / Western Fireplaces/A.R. Wood Mfg.

#### **FLAGPOLES**

413 ELECTRONIC POLES / The fully automatic pole raises and lowers flags via electronic sensor. The flag is tucked inside the pole for night and foul weather protection. Flagpoles are available in 30-, 35-, 39-, 45-, and 50-ft lengths and custom-designed up to 112 ft. / Electronic Flag Poles, Inc.

#### **IDENTIFYING DEVICES**

414 LETTERS, GRAPHICS / Seventeen styles of injection molded Plexiglas letters and numbers, 1/4 in. to 10 in.; and 21 styles of dimensional foam letters and graphics, 6 in. thru 24 in., are available in a variety of colors. Scott Plastics Co.

415 HELVETICA LEGENDS / Instalign lettering is made of self-sticking vinyl for indoor/outdoor use. It is selfaligning and available in white or black in 1- to 6-in. characters. Letters resist abrasion and solvents. / W.H. Brady Co.

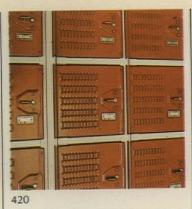
416 CLOCK-DIRECTORY / "Scribea-lite" lighted directory with clock has two columns of interchangeable lettered inserts. Various clock designs are available. The finish is polished chrome plate, but others are available. / Copley Mfg. Co.

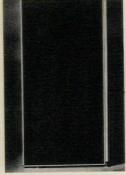
CHALKBOARDS & TACKBOARDS COMPARTMENTS & CUBICLES **FIREPLACES** FLAGPOLES **IDENTIFYING DEVICES** LOCKERS PARTITIONS POSTAL SPECIALTIES PROTECTIVE COVERS STORAGE SHELVING **TELEPHONE ENCLOSURES TOILET & BATH ACCESSORIES** WARDROBE SPECIALTIES



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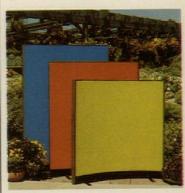
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417 POST-PANEL SIGNS / Nomar fiber-reinforced polyester for exterior and interior applications is nonstatic and repels both chemicals and solvents. Images and messages are subsurface embedded into fiber and polyester to protect them. / Jas. H. Matthews & Co., Architectural Div. A\*

418 GRAPHICS / Custom-designed architectural graphics are applied to an "ALKCOrylic" lens that resists peeling, cracking or scratching. / Alkco Mfg. Co.

#### LOCKERS

419 LOCKERS / Available in a variety of sizes and designs, "Decible II" features sound-deadening rubber cushions that absorb door shock, and a reinforced panel of insulation to reduce door-impact noise. Construction is sheet steel, with baked enamel finish. / Penco Products, Inc. A\*

420 LOCKER DOOR / An optional locker door on "All-American Athletic Lockers" combines ventilation with security. Partitions between box lockers are standard ¾ in. 13-gauge expanded metal for maximum ventilation. / DeBourgh Mfg. Co. A\*

#### **PARTITIONS**

421 SOUND SCREEN / The system's sound-absorbing performance results from two 1-in.-thick layers of Fiberglas insulation, faced on either side with a molded shell of sound-diffusing Fiberglas Glastrate. The system consists of three 30-in.-wide, 60-in.-high panels. / Owens-Corning Fiberglas Corp.

422 WALL PANELS / Sound absorbing panels combine a 1-in. layer of Fiberglas insulation with an outer covering of polyester fabric available in 21 colors. They are delivered factory finished, and can be adjusted on-site. / Owens-Corning Fiberglas Corp.

423 ACOUSTIC PANEL / Available in all standard sizes (including seated and standing privacy heights), the panels will accept all company suspended storage and work surfaces. Twenty standard fabric colors are available. / Hauserman, Inc. A\*

424 ACOUSTICAL SCREEN / Called "Screen-One," this screen has a Noise Reduction Coefficient (NRC) of .95 and a Sound Transmission Class (STC) of 24. Metal and fiber glass construction and flame-retardant fabrics also give the screen Class A status. / Vogel-Peterson Co.

425 OFFICE SCREENS / Six geometric patterns in 19 colors decorate these landscape screens. A rating of .90 Noise Reduction Coefficient (NRC) and a Sound Transmission Class (STC) of 24 are claimed. "PlanScape 2" is available in three heights: 55, 63 and 75 in. / Vogel-Peterson Co.

426 DRYWALL PARTITION / For residential construction, these steel stud partitions are lightweight, nonload bearing assemblies framed with steel channel studs that snap into steel floor and ceiling runners. The partitions are faced with SHEETROCK gypsum panels. / United States Gypsum

427 ACOUSTICAL PANEL / Part of the "Action Office" open plan furniture system, this two-sided acoustical panel has had its absorption coefficient raised from a minimum rating of .70 NRC (Noise Reduction Coefficient) to .95. It was achieved by using fabric surfaces and fiber glass on steel. / Herman Miller, Inc.

428 OAK TRIM PANELS / "Series 95" panels feature natural oak or walnut frames measuring 3 by 34 in. The panels are available in fabric or carpet coverings, in both straight and curved configurations from 36 by 60 in. to 60 by 72 in. An NRC of .95 is claimed. / Panel Concepts, Inc.



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tems.



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#### 429 ACCENT SCREENS / Accent-A-PROTECTIVE COVERS Screen components rest in a black

432 ROOF SYSTEM / A 1-ft wide flat bottom ceiling pan system provides a finished ceiling for outdoor living areas. Kits, in aluminum only, are shipped completely packaged with exact-sized members, predrilled holes, and a 6-in. integral gutter "K" fascia; the system may be freestanding or wall-hung. / Metal Awning Components, Inc. A\*

#### STORAGE SHELVING

433 CABINET STORAGE / The "Compactus" system features manual, semi-automatic hand-wheel systems and fully automatic operation, all metal construction, baked enamel finish, and tracks installed flush with the floor. / Drummex, Inc.

434 POST SHELVING / Shelving utilizing the beaded post is available for open- and closed-type installations with a choice of 36-, 42- and 48-in. widths; 12-, 18- and 24-in. depths and 84-, 96- and 120-in. heights. The stock color is "Dove Gray." / Lyon Metal Products, Inc. A, ICR/PE\*

435 STEEL SHELVING / The "Fullspace XL" steel system of lateral shelving units mounted on rail-riding carriages allows a load capacity of 9000 lbs. per carriage. A range of deccorative options is available. / Lundia Myers Industries, Inc.

436 MOBILE FILING / Rail-riding mobile carriages from 3-ft manuals to 68-ft long electric units with capacities up to 90,000 lbs (as shown) feature structural aluminum members. Passive fail-safe flooring is provided for pushbutton controlled electric carriages. / SpaceSaver Corp. A, ID\*

#### **TELEPHONE ENCLOSURES**

437 TELEPHONE BOOTH "Courier" is a compact outdoor/indoor telephone booth made of bronzefinish aluminum. Perforated anodized aluminum acoustical back panels, open bar shelf, and tinted tempered glass side panels are additional features. / Acoustics Development Corp.

#### **TOILET & BATH ACCESSORIES**

438 PLASTIC HOLDERS / "Serie Gronda" is a complete system of wall hanging accessories ranging from soap holders to bathroom wall units with sink. The line is made of molded plastic of the high impact type. / Hastings Tile & "Il Bagno" Collection.

439 MEDICINE CABINET / "Accessori" is a modular design to work with 5- by 10-in. wall and floor tile. "Accessori" features polished stainless steel trim, colored glass accent stripe to match bath fixtures, and mirror glass. / Hastings Tile & "Il Bagno" Collection. A\*

440 NYLON GLASS HOLDER / Two versions of this wall-mounted glass holder are new items in the line of solid nylon fittings from the company. The flat bottom unit (shown) and the round bottom one both feature antitheft installation and are available in ten colors. / The Ironmonger.

#### **POSTAL SPECIALTIES**

available. / Deko Industries, Ltd.

431 CENTRALIZED MAIL BOX Cluster arrangements of eight, 12 and 16 compartment boxes are available; the three sizes fit the same pedestal. Welded and riveted heavy-duty aluminum construction meets postal regulations. / American Device Mfg. Co. A\*

base supported by chrome feet. The

round screen is 54 in. in diameter; the

triangular screen is 54 in. wide at the

base and its 56 in. height can be ad-

justed to 61 in. A choice of patterns

and colors is available. / Hoover Sys-

430 ACOUSTICAL SCREENS / Avail-

able in a variety of colors, fabric cov-

ered acoustical screens come with a

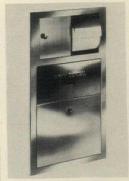
range of accessories which may be at-

tached to the surface of the panels.

Panel heights of 5734 in. and 71 in. are



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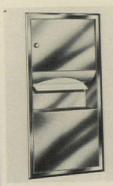


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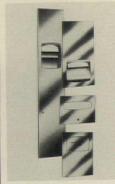
- 441 WASTE RECEPTACLE / Constructed of satin finish stainless steel, the large capacity unit slides out from under the counter for servicing. / The Charles Parker Co. A, E\*
- 442 PAPER HOLDER / A stainless steel combination dual paper holdersanitary napkin disposal unit features a removable waste receptacle and selfclosing disposal door. A new roll is exposed by sliding the compartment door to the other side of the unit. / The Charles Parker Co. A, E\*
- 443 BATH CABINET / "Tube" is finished in colors with a shiny wet-look. The recessed cabinet comes in two sizes, and is reversible for right- or lefthand door swing. Dimensions are 181/2 by 281/2-in. / NuTone Div., Sco-



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- 444 DISPENSER / A recessed stainless steel combination feminine napkin-tampon vendor features a convertible coin mechanism for 5-, 10- or 25cent operation. It has a capacity of 15 feminine napkins and 22 tampons. / Bobrick Washroom Equipment, Inc.
- 445 TOWEL DISPENSER / This recessed stainless steel satin-finished paper towel dispenser and waste receptacle is designed for installation in low traffic washrooms where space is limited. It is offered in recessed or surface-mounted models. / Bobrick Washroom Equipment, Inc. A\*

#### 446 WASHROOM ACCESSORIES /

The "Trimline" series is available in 13 satin-finished stainless steel recessed models designed to meet the requirements of all commercial washrooms; units are fitted with doors that completely cover recessed cabinets. / Bobrick Washroom Equipment, Inc. A\*

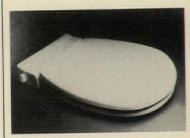






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- 447 BATHROOM CONSOLE / The "Contemporary Mode Ensemble" features a surface-mounted cabinet available with or without side lights, switch and convenience outlet. The matching vanity bases come in a choice of sizes with or without built-in drawers, in two colors. / General Bathroom Products Corp.
- 448 TUB RECESS KIT / Available in three colors, each fiber glass kit includes two side panels, one overlapping back panel with molded soap dish, adhesive, and caulking. Colors available are white, gold and blue. / Marlite Brand Paneling.
- 449 TOILET SEAT / Model 200 features a square back seat with sculptured styling, integral finger lift and barless top-mount hinge. It is available in plain colors and white. / Olsonite Corp.



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- 450 SELF-CLOSING TOILET SEAT / Molded of high-impact polystyrene, the "Polite Seat" closes automatically, quietly and gently after the toilet is flushed; it fits virtually all regular and elongated tank-type toilets. / Polite Seat Co.
- 451 HAIR DRYER / The three-minute, high-velocity, warm "Model SH" hair dryer features a stainless steel housing, all-metal construction, vandal-resistant design and UL approval. / Electric-Aire Corp.

#### WARDROBE SPECIALTIES

452 COAT AND HAT RACK / This one-piece rack of molded nine-ply hardwood construction features hand buffed, double lacquer walnut finish. Chromeplated hanger strip accommodates eight walnut hangers. / Raymond Engineering Inc. A\*

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Fourth, the Heatilator Fireplace weighs less than masonry fireplaces and requires no footings or blocks. Its compact design means it will fit almost anyplace, minimizing costly structural considerations. To meet the demands of today's home buyers, yet remain profitable, design and build Heatilator Fireplaces into your homes.

For information, call toll-free, (800) 553-8905 (Iowa residents call collect (319) 385-8880), or write: Heatilator Fireplace, a Division of Vega Industries, Inc.,33106W. Saunders, Mt. Pleasant, Iowa 52641. (Also manufactured in Canada.) Also see catalog in Sweet's Files.

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D52 ACRYLIC-WOOD FLOOR / A binder contains 79 pages of facts and photos on PermaGrain acrylic/wood flooring, including gym floors. A companion selector guide provides actual samples showing the 10 shades available in the 6- by 6-in. parquet block line. / E. L. Bruce Co., Inc. A,ID\*

D53 WALL FINISHES / Test results which should accurately predict inplace performance of special coatings are available in a new brochure. Data on chalking and color retention, coating system integrity, humidity and abrasion are included. / H. H. Robertson Co

D54 CEILING SYSTEMS / A detailed catalog describes a full line of sound control ceilings. Installation photos show mineral tile and panels; sound absorption and attenuation capabilities are also given. Thermal-acoustical insulation batts and blankets are among the other ceiling products included in the 76-page book. / Johns-Manville Sales Corp. A,ID,ICR/PE\*

D55 CFRAMIC TILE / Ceramic tile in a variety of classical and contemporary motifs is shown in a 1976 catalog. The full-color brochure illustrates imported tiles in a range of styles, colors and sizes. / Amsterdam Corp.



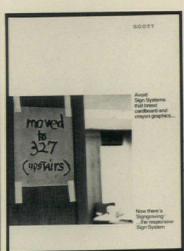
D56 SHAFT WALLS / An illustrated manual provides detailed information on design criteria, system comparisons, installation techniques and test data on drywall assemblies for enclosing shafts in high-rise construction. The weight-saving advantages of the "C-H Shaft Wall System" are explained. / United States Gypsum Co. A\*

#### **SPECIALTIES**

D57 LETTERING / A six-page condensed catalog presents 20 different styles of alphabet letters in rigid foam, in sizes up to 24-in, high by 1-in. thick. There are also mirror- and anodized aluminum-faced letters mounted on 1-in. thick foam; and background plagues and panels. / West-on-Letters, Inc.

D58 CHALKBOARDS / Selector guide compares characteristics of porcelain-steel chalkboard, write-on board, and composition chalkboard. Detail drawings show construction of all three types; application and mounting suggestions are given. / A-1 School Equipment, Inc.

C. Hadley Smith



D59 SIGNAGE / The "Signgraving" process uses an easily-operated pantograph-guided cutter to produce individual signs in laminated plastic. An eight-page brochure explains the signage system, which can supply identifying devices from nametags to complete directories. / Scott Machine Development Corp.

D60 SCHOOL DESIGN / A 32-page full-color concept brochure, "How to Make Old and New Schools Work . the Modified Open Plan," presents ideas for providing flexibility within educational buildings. The "Divisiflex" top-supported operable wall featured in the publication adapts spaces to changing learning methods and activities. / Modernfold. A\*

D61 SOAP DISPENSERS / A fourpage brochure illustrates recessed and surface-mounted powdered soap dispensers, and describes a full line of hand-cleaning products. / U. S. Borax.

D62 SOLAR SCREENS / Typical performance data and comparisons with various types of glasses and shading devices are included in this illustrated brochure. Tables present ASHRAE and other study data on the effectiveness of "KoolShade" solar screens in reducing heat gain through glass. / KoolShade Corp. A.E\*

D63 LOCKS / Combination padlocks, built-in combination locks, and built-in key locks are described in a new locker lock catalog. Also covered are control-keying systems, and laborsaving combination changers. / Master Lock Co. A\*

D64 PARTITION COLORS / A fullcolor foldout displays dozens of patterns, fabric colors, and wood and vinyl trims available for this line of office screens and partitions. / Hauserman, Inc. A\*

D65 OFFICE LAYOUT / A brochure contains color photos of various office arrangements made possible using a system of movable walls and partitions. / Hauserman, Inc. A\*

D66 PARTITIONS / A four-page color folder introduces several office partition systems, furnishings, and decorative and functional accessories. / Hauserman, Inc. A\*



D67 STORAGE SHELVING / A fourpage space planner is intended to help in the design and specification of mobile filing and storage systems, either manual or electric. A grid is included to plot workable installation layouts. / SpaceSaver Corp. A, ID\*

#### **EQUIPMENT**

D68 WASTE DISPOSAL / Brochure describes the new "Side-winder" waste pulping unit for food service installations. The disposer reduces food and paper garbage up to 85 per cent; a salvage drawer provides for recovery of accidentally-discarded silverware. / Somat Corp.

D69 DRYER EXHAUST / A 12-page booklet provides design professionals with information on the proper installation of clothes dryer exhaust systems. Included are data on duct types, maximum permissible duct length, and some problems of multi-unit installations. / General Electric Co. A, E.

D70 ICE MAKERS / Three brochures describe the Crystal Tips line of automatic flake, cube, and chip ice makers, ice and drink dispensers, and ice storage bins. Tables show daily ice producing capacities at various incoming water temperatures, plumbing and electrical requirements, etc. Crystal Products Div., McQuay-Perfex

D71 DOCK RAMP / An economically-installed 5- by 5-ft hinged-lip dock ramp is described in an illustrated brochure. The ramp floats freely with truck movement, and has a capacity of 20,000 lbs. / Serco Engineering Corp.

D72 HOSPITAL PROCESSING / Decontamination, preparation and packaging, processed stores, and transportation are four functional areas discussed in a new hospital processing department catalog. The 10-page booklet defines the advantages of central processing, and reviews key factors to consider in planning each hospital area. / AMSCO/American Sterilizer Co. A\*

#### **FURNISHINGS**

D73 FLOOR MATS / These imported polypropelene institutional floor mats are USDA- and OSHA-approved according to an illustrated fact sheet. Tapered ramp edges provide easy movement of carts or dollies. / Diversified Imports, Inc.

#### SPECIAL CONSTRUCTION

D74 STRUCTURES / A full color, 24page catalog features a complete line of structural systems and components for pre-fabricated buildings, as well as a section on a new standing seam roof said to eliminate up to 80 per cent of the through-hole fasteners previously needed for roof panels. / American Building Co.

D75 INTEGRATED CEILING / All basic ceiling components—lighting, acoustical materials, track supports, and air distribution-are supplied by the integrated ceiling systems described in this 16-page catalog. Eight ceiling designs are shown, with details on cost, sound attenuation and absorption, thermal insulation and sizes given for each. / Johns-Manville Sales Corp., Holophane Div. A, ID, ICR/PE\* more literature on page 131

# duipme



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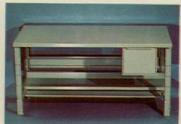






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#### **BANK & VAULT EQUIPMENT**

465 VAULT DOOR / The "American II" 31/2-in. door offers 13 different appearance and performance options, including a vault ventilator built into the left door frame. / The Mosler Safe Co. A\*

466 DRIVE-UP UNITS / "TellerVue 12" drive-up units combine automatic banking with teller/customer contact via closed circuit television. The "Message Insertion System" option permits the bank to cross-sell their services on the TV screen. / The Mosler Safe Co. A\*

467 BANKING TERMINAL / The "Mark II" features its own self-contained minicomputer and mass memory. It is designed as an on-line system with full off-line fallback, and it can be installed in drive-up, walk-up and free-standing configurations. / The Mosler Safe Co. A\*

468 PNEUMATIC TUBE / "System 4000" is expandable from a few stations to over hundreds without changing the controls or the network. The new positive closure design carriers are bi-directional and quiet in operation and will not open in flight. / The Mosler Safe Co. A\*

469 REMOTE TRANSACTION / Available either as a direct vision system or two-way television system, the "TransVista II" uses a pneumatic tube system. / The Mosler Safe Co. A\*

470 ALARM SYSTEM / "Moduplex 4000" customized electronic alarm system consoles can satisfy current risk programming, and have the inherent capability to meet increased risk potential, according to the company. / The Mosler Safe Co. A\*

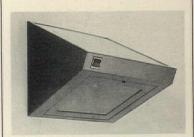
471 REMOTE TELLER / "Pneu-Vista 800" delivers the carrier to the teller just below the counter where it's easy to reach. One teller can serve two or more lanes of traffic, and if the teller makes an error, the carrier can be recalled in flight. / The Mosler Safe Co.

#### COMMERCIAL EQUIPMENT

472 COMP TABLE / A "jig-saw" design allows for a variety of news and composition room arrangements. "Knock-down" desk type stations support video display terminals, and reversible top for right and left hand use recommend this system for newspapers or micrographic applications. / Kreonite, Inc.

473 WORK BENCHES / The "Command 10" work bench with a tubular type leg and adjustable foot offers the user the possibility of 10 height adjustments from 293/32 to 379/16 in. / Republic Steel, Industrial Products Div.

BANK & VAULT FOUIPMENT COMMERCIAL EQUIPMENT DARKROOM EQUIPMENT **DETENTION EQUIPMENT EDUCATION EQUIPMENT** FOOD SERVICE EQUIPMENT LABORATORY EQUIPMENT LAUNDRY EQUIPMENT LIBRARY EQUIPMENT LOADING DOCK EQUIPMENT MEDICAL EQUIPMENT RESIDENTIAL EQUIPMENT WASTE HANDLING EQUIPMENT





475



#### DARKROOM EQUIPMENT

474 DARKROOM SAFELIGHT / The #2059 darkroom safelight is typically mounted on walls over film processing tanks or work areas. This fixture provides filtered light for darkroom film processing and general illumination. / Alkco Mfg. Co.

#### **DETENTION EQUIPMENT**

475 DETENTION WALL SYSTEM / A factory-prefabricated, modular detention wall system, includes tongue and grooved interlocking steel wall panels, integral bunks, utility compartments for cell lights and plumbing connections. / Overly Mfg. Co. A\*

#### **EDUCATION EQUIPMENT**

476 SCHOOL INTERIORS / Fullheight movable walls, screens, storage, chalk and tack, power/utility columns all interface, and work together. Complete software package includes planning help, installation, and training. / Hauserman Educators Div.







479

#### 477 ROLLING WORKSTATION

The unit provides security and mobility for teachers' textbooks, files, and supplies. It features a fold-down work surface, large drawers and coat rack, hanging file system, and space for 200 textbooks. / Hauserman Educators

#### FOOD SERVICE EQUIPMENT

478 DISHWASHER / This warewasher uses 10-by-20 in. dish racks and is 42 in. wide. Stainless steel sheathing is featured and cantilever table design eliminates table support legs. / Adamation, Inc.

479 ELECTRIC OVENS / In both front and side loading models, these commercial and institutional baking ovens are shipped completely prewired and assembled. Lightweight construction makes most floor bracing unnecessary. / Bolling Oven & Machine Co.



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480 PAN WASHER / The "Model RT-42BC" is a pass-through configuration that does away with the hazard of water drippage on the floor in front of the machine. The machine is constructed of stainless steel and approved by the National Sanitation Foundation (NSF). / Metalwash Machinery Corp.

481 WATER DISPENSER / A compact office water dispenser that replaces bottled water is designed for use with a coffee maker that can be placed on the dispenser's top surface, which is 34 in. high, 24 in. wide and 201/2 in. deep. All fittings are made of metal; all tubing is copper. / McQuay Group, McQuay-Perfex Inc.

482 HOT WATER DISPENSER / Called the "Steaming H2O Tap," Model H778 provides 190 F hot water at the kitchen sink, instantly. It is used in institutions for making instant foods. The unit was designed with an allchrome finish. / In-Sink-Erator Div., Emerson Electric Co. A\*



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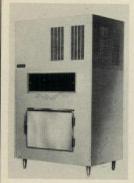
483 FOOD CUTTER / Two high speed cutlery stainless steel knives cut quickly and cleanly. The stainless steel bowl and aluminum bowl cover detach easily, without tools, for sanitary clean-up. / Hobart Corp. A\*

484 DELI SCALE / A digital sequential computing scale for restaurant and deli applications, Model "1510" automatically computes the total cost of items sold by the pound. / Hobart Corp. A\*

485 FOOD SLICER / For high volume commercial and institutional kitchens, the 512 TMS (Top Mounted Sharpener) features a unique blade sharpener. The sharpener, stored on top of the housing, drops into place for the grinding-honing operation. / Hobart Corp. A\*



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- 486 REFRIGERATOR / "H Series" refrigeration offers exclusive "downduct" air circulation and a usable space savings of up to 20 per cent. High density polyurethane foam provides maximum insulation, and the seamless one piece interior liner exceeds NSF requirements. / Hobart Corp. A\*
- 487 FLAKE ICE MAKER / The Crystal Tips series has a production capacity of up to 2000 lbs per day for the 149 model and up to 3000 lbs per day for the 229 model. Ice makers have polyurethane insulation, and stainless steel bin liners. / McQuay Group, McQuay-Perfex Inc.
- 488 WASTE DISPOSER / A line of commercial food waste disposers feature: patented anti-jam swivel impellers; totally enclosed fan-cooled motors and specially compounded hush cushions for quiet operation. / Waste King Commercial Equipment Group.



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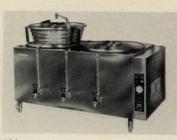


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- 489 REFRIGERATOR / A line of foamed-in-place urethane refrigerators and freezers in one-, two- and threedoor sizes come with finishes of walnut, coral, avocado, blue and gold. Stainless steel and white vinyl, and aluminum exteriors are available. / Jordon Commercial Refrigerator Co.
- **490 MOBILE BUFFET** / The base of each buffet unit is white vinyl-clad steel with a standard wood grained panel in the center, over which may be applied one of several standard colors or patterns. All units are NSF and UL listed. / The Vollrath Co.
- 491 TILT KETTLE / This steam jacketed kettle does not require a steam connection or ventilation. Only electrical supply is needed. The tilt kettle is available in three sizes: 12 qts; 20 qts; and 40 qts. It is available with mixer. / Bardeau Ltd.



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- 492 BANQUET COFFEE URN / The "C-2500" will brew 15 gal. and produces coffee at the rate of 2500 cups per hour continuously. Overnight element keeps the water at 180 F for fast start. / Bardeau Ltd.
- 493 TILT SKILLET / This unit features an electro-mechanical tilt mechanism. The heat transfer system heats the skillet from cool to 430 F in 10 minutes. It can be used as a grill, a steamer, a stock pot, etc. / Bardeau Ltd.

#### LABORATORY EQUIPMENT

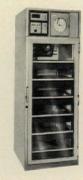
494 LAB REFRIGERATORS / Available in 1.5, 3, 6, 12 and 20 cu ft for laboratory, hospital and pharmacy use, the unit has drawers and adjustable shelving. An acrylic, baked enamel exterior with stainless steel is available. Interiors are hard surfaced aluminum. / Nor-Lake, Inc.



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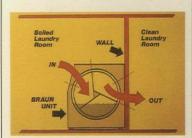


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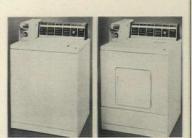


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- 495 GLASSWARE WASHING / Fully automatic pushbutton or punch card control of washing; rinsing; separate wash and rinse water piping systems; plus fresh tap water and purified water rinses are among the operating advantages of "Newmatic F-570" laboratory glassware washers. / AMSCO/American Sterilizer Co.
- 496 FUME HOODS / Contempra fume hoods are said to allow operation at lower face velocities (with less use of power, hence less cost) than conventional units. Both hood models are available in three widths: 4, 5 and 6 ft. All are 34½ in. deep and 59 in. high. / Fisher Scientific Co. A,E\*
- 497 BLOOD BANK / Refrigerator has a built-in temperature surveillance module, which constantly monitors the solution temperature in Celsius. Illustrated, model "BBR-25" has six fully extendable, vertically adjustable and removable drawers. / Jewett Refrigerator Co., Inc.



498





#### LAUNDRY EQUIPMENT

498 LAUNDRY SYSTEM / For hospitals, these material-handling systems serve pre-programmed washer/extractor/conditioner units that automatically process 100 to 800 lbs of laundry per cycle. These modular units are adaptable to any installation or operating specification. / G. A. Braun, Inc. A\*

499 COIN-OP LAUNDRY / Heavyduty Kenmore coin-operated washers offer an energy-saving water valve that reduces the ratio of "hot" water mixed with "cold" to form "warm" wash or rinse water, yet the water is still at a temperature sufficient to produce satisfactory results. / Sears, Roebuck and Co. A,LC\*

500 WASHING SYSTEM / The "Hands-Off Washing System," which completely eliminates the need for a washroom labor force, is now available with 600-660 lb capacity "Model 7244 WTB" tilting washer-extractors. Automatic programmers control the entire operation. / Pellerin Milnor Corp. A\*



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501 WASHER/EXTRACTOR / Including a dryer, the unit can be mounted on top of the other on a heavy duty steel frame. The "Spacemaster" is designed to utilize heavy duty laundry detergents. An automatic dispensing system controls injection of laundry detergents. / Economics Laboratory, Inc.

502 WASHER / The "Washmaster 590," designed for small to medium size operations does not require boltdown. Each machine is equipped with a stainless steel manual feed door for adding either powdered or liquid products. / Economics Laboratory, Inc.

#### LIBRARY EQUIPMENT

503 LIBRARY FURNISHINGS / The line includes open and closed base bookstacks, shelving and dividers, full vision show and security cases, mobile high-density stack and compact shelving. Seating group includes 23-, 26-, and 29-in. high study carrels and tables. / Reflector Hardware Corp., Educational Products Div.











**LOADING DOCK** EQUIPMENT

504 DOCK LEVELERS / These units have a lip hinge integral with load beam support for long life. The enclosed single spring power pack has front-of-board adjustment, and ramps service truck beds from 12 in. above to 12 in. below the dock level. / Kelley Co., Inc. A,ICR/PE\*

505 DOCK BUMPERS / The standard thicknesses of these laminated, reinforced rubber dock bumpers are 41/2 and 6 in. Such bumpers are often required for use with inclined ramps, dock door seals, canopied docks or where greater distances between truck and dock are needed. / Durable Mat Co. A,ICR/PE\*

506 HYDRAULIC LEVELER / Basic design for the "HY Series" features a 25,000 lb. capacity on a 6-by 8-ft deck, intended for use in a normal 20in. pit depth, interchangeable with other units in the company's full line. Optional features include corrosion protection for the main cylinder rod. / Rite-Hite Corp. A,ICR/PE\*







509

507 DOCK SEAL / A compressiontype truck dock seal with an automatically adjustable "floating" design also includes a weather guard that extends over the vehicle, a sloped top to hinder accumulation of water or snow, and a sealing flap. / Kinnear. A.ICR/PE\*

508 DOCK LIFT / Installed in a pit, this 2000-lb lift is flush with grade when lowered. This model "LS2-48" lift with beveled toeguard platform allows loading of appliances and other bulky merchandise into pick-up trucks. / Southworth Machine Co.

#### MEDICAL EQUIPMENT

509 SURGICAL TABLES / "COM-PAT IV" radiographic surgical tables include a permanent, floor-mounted pivot base and a choice of three interchangeable, portable surgical tables. / AMSCO/American Sterilizer Co. A\*



















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510 WALL SYSTEMS / The "Medica-Line C-66 Centron" wall systems, available to meet any ceiling height required, centralize all the essential medical care services. They are surface mounted, pre-assembled and prewired and can be preplumbed for all medical gases. / Keene Lighting, Div. of Keene Corp.

511 MEDICAL WALLS / Available in colors and wood tones, these vinylclad steel walls feature key components strategically located and colorcoded for quick identification and use. New components can be added in a matter of minutes, according to the company. / Square D Co.

512 X-RAY ILLUMINATOR / A three-way rocker switch in tandem with a micro switch allows manual or film actuation of the unit. The units are 20 gauge steel finished in white baked enamel or satin finish stainless steel. They are available surface or recessed, singularly or in multiples. / Alkco Mfg. Co.

513 MEDICAL EQUIPMENT / The 650 Slimcore provides electrical power, medical gases, nurse call and other supportive nurse-patient services in a pre-fabricated, space-saving, wallhung module. / Hill-Rom Co., Inc.

#### RESIDENTIAL EQUIPMENT

514 KITCHEN CABINETS / Extruded aluminum pulls for the drawers and doors are a feature of this line, in white, numerous colors, or woodgrains. / Roseline Products, Inc.

515 KITCHEN CABINETS / "Forecast" offers a flush door look with hidden hinges. It is available in white, as well as many solid colors, or woodgrains. "Forecast" is made of Formica inside and out, and comes in many sizes, with built-in accessories. / Roseline Products, Inc.

516 COMPACT REFRIGERATOR / The unit is 5.54 cu ft with a 0.47 cu ft freezer. The door comes with woodgrained vinyl painted steel and flush, right-hand opening. Unit is UL listed. / Sears, Roebuck and Co. LC\*

517 GLASS COOKTOP / The SmoothLine glass cooktop features a 12 by 18-in. glass work surface with 6and 8-in. diameter elements. Two, four and six element ranges are offered. / Distinctive Appliances, Inc.

518 CHAR-GRILL / A line of grills for indoor barbecuing is available in a choice of charcoal, gas or electric models in several different styles. The drop-in model sets into a 30-in. counter-top area and has a 15 by 22 in. cooking surface. / Home Metal Products Co., Div. of Mobex Corp.

519 WALL OVEN / The company's six-model line of 27-in, wall ovens is now available with full-width black glass doors that become "seethrough" windows when the oven light is turned on. All models are rated for operation on either 240- or 208volts. / General Electric Co. A,LC\*

520 KITCHEN / Solid oak slats trimmed with silver colored metal edges are details of this West German line now available in the U.S. Solid color finishes are also offered. / Poggenpohl/USA.

521 MICROWAVE OVENS / Microwave ovens with 1.3 cu ft capacity include a deluxe model that cooks by both time and temperature. All models in the line can be built-in as wall ovens. / Hotpoint.









523



522 WASHER/DRYER / The company recently added automatic bleach dispensers (left) to more models in its automatic washer line. The company also redesigned its dryer so that once the front of the cabinet is off, all components are readily accessible. / The Maytag Co.

523 WASTE DISPOSERS / Where local codes permit, a 20-amp single-circuit installation can be used with any company disposer and all of its built-in dishwashers except the top-of-the-line built-in model, GSD1050. The disposers are rated 5 or 7 amps for an average load, and all the built-in dishwashers carry a 9-amp rating. / General Electric Co. A,LC\*

**524 REFRIGERATOR** / "Model TBF-14DT" refrigerator-freezer is a 14.2-cu ft unit offering a Power Saver switch which helps minimize energy consumption. Available in colors and white, the refrigerator features right or left hand door openings. / General Electric Co. A,LC\*



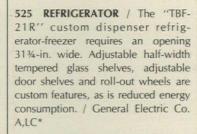
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526 TRASH COMPACTOR / Model "GCG460" has a new escutcheon appearance and door latch. The unit is 14% in. wide, 34 in. high and 18 in. deep. It is capable of reducing trash volume by approximately 80 per cent. / General Electric Co. A,LC\*

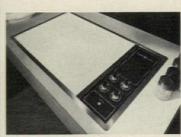
527 CUSTOM CABINETS / A custom line of cabinets with black stained oak fronts features doors constructed of a particle wood core, veneered and edge-banded with oak. The face veneer has slight vertical grooves in 2-in. intervals. / Tielsa.



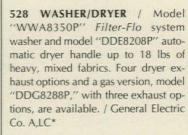
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**529 RANGE** / A 30-in. free-standing glass-top range line provides a choice of oven door configurations and oven cleaning systems. All four ranges are available in white, harvest, avocado and dark copper. / General Electric Co. A,LC\*

530 CERAMIC COOKTOP / Cleanline glass-ceramic cooktop, model "JP684" is a 36-in. built-in. It can replace most 30- and 36-in. wide gas and electric surface sections as it extends only 4½-in. below countertop level. / General Electric Co. A,LC\*



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and dressing room cabinetry / Bathroom and dressing room cabinetry is constructed of particle board finished inside and outside with white melamine laminate. The fronts are constructed of a particle board core, finished on all sides with a heavy layer of *Plexiglas* in five colors and one wood veneer. / HANSA International, Inc.

fronts are of high pressure plastic laminate bonded to a particle wood core, and horizontal edges are rounded. The cabinet body is constructed of particle board, finished inside and outside with white melamine laminate. / HANSA International, Inc.

533 DROP-IN RANGE / These 27in. wide ranges meet UL requirements for zero-in. spacing between range and vertical sidewall above countertops. Standard ovens offer picture window doors. Ranges are available in colors and white. / General Electric Co. A,LC\*

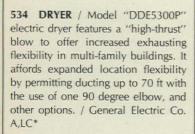


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535 COMPACT LAUNDRY / The top-loading washer is 21-in. wide, 21in. deep and 36-in. high, and has a 5-lb capacity. The companion 115volt automatic dryer is designed for inside exhausting. It measures 21 in. wide, 1834 in. deep and 281/2 in. high. / General Electric Co. A.LC\*

536 KITCHEN CABINETS / Called "Heirloom," this line includes designs for kitchens, family entertainment areas, and bathrooms. Cabinets with a raised center panel in the door are made of pecan, with brass-finished pulls and knobs. / Westinghouse-IXL.



538



539 537 REMODELING CABINETS / The

"Hatteras" line includes a hardwood frame and veneered-panel self-closing doors. There are adjustable shelves. Hardware is brass-finished. Cabinets are also available for bathrooms. / Westinghouse-IXL.

538 GAS RANGES / Company officials say that the new oven cuts most cooking times about 33 per cent, and also provides up to 50 per cent total savings on gas fuel consumption when compared to conventional ovens. The "Convectionaire" also features electric ignition of all burners. / Tappan Appliance Div.

539 GRILL-RANGE / Free-standing and drop-in ranges feature an oven that bakes with conventional radiant heat or converts to a convected-heat oven. Twin-element glass-ceramic or conventional-element cooktops are built into plug-in cartridges. / Jenn-Air Corp. A,LC\*

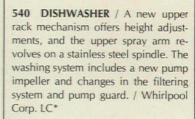


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#### WASTE HANDLING **EQUIPMENT**

541 PULPING SYSTEM / The 3-hp SIDEWINDER for food-service waste features simple hook-up of a single unit containing both the pulper and HydraExtractor. The new unit pulps waste in a water slurry, and the extracted semi-dry pulp is discharged directly into a haul-away container. / Somat Corp.

542 PULPER / The 5-hp SIDE-WINDER for restaurants and institutions features recovery of accidentally thrown-out flatware; it has push-button controls. / Somat Corp.



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543 CONTAINER PACKER / "Model 520A" is a fully automatic container packer designed to mate with standard refuse chutes found in high rise buildings. This unit packs trash in containers ranging in size from 2 to 8 cu yds in either front or rear load models. / International Dynetics Corp. A\*

544 TRASH PACKER / This heavy duty unit may be used wherever trash containers are used. Both front and rear load versions are offered in 5-cu yd or 6-cu yd capacity respectively. Packing forces of 20,000 lbs produce a 4 to 1 packing ratio. / International Dynetics Corp. A,E\*

545 WASTE COMPACTOR / Called the "AP-Plus 1" the device compacts all types of waste at a force up to 10,-000 lbs, and requires 4.7 sq ft of floor space. It is mounted on casters and powered by a 34-hp, 115 volt, 15 amp motor. / AMF Food Service Div.

#### You can buy Mutschler cabinetry because it's the most expensive,

#### or because it's the best.

Those seeking the finest in cabinetry will invariably look to Mutschler. But at the same time, they will see other attractive offerings costing less.

And until a closer inspection is made, one might well ask: Would I be paying for the Mutschler name?

Careful comparison, however, will reveal why Mutschler Cabinetry commands a higher price.

#### Built the way fine furniture used to be built.

These cabinets are custom-built in Nappanee, Indiana by consummate craftsmen. They use extra-thick Oak, Maple and Cherry hardwoods throughout. And unlike most cabinets, even the shelves are solid hardwood.

All cabinet joints are mortised and tenoned with corner rails and corner

blocks and interlocked in various other ways to complete a structure of incredible strength. The drawers ha

The drawers have dovetailed joints found only in the finest furniture.

#### The perfected finish. 17 different steps.

The cabinets are machine sanded then hand sanded and hand rubbed to satin smoothness. Then stain is applied followed by handwiping and heat drying. The natural grains are then accented by shading and toning. A catalyzed vinyl sealer is applied followed once again by heat drying. And then by sanding, steel-wool smoothing, and cleaning.

A catalyzed varnish top coat is applied. Then the cabinets are oven baked. And finally, they are rubbed with a special lubricant, waxed, buffed and polished—all by hand.

You get a finish not only beautiful but highly resistant to stains and scratches.

Storage. Are we giving away the secrets of magicians?

An ingenious variety of storage features works magic with space. Slide-out racks, baskets, vegetable bins, tote trays and can storage which all turn wasted space into active space. Revolving corner storage making useful places out of corners. A swing-out spice rack

putting everything at your fingertips. And a large storage pantry made to handle an unbelievable array of goods using

swing-out shelf units.

Along with these and many other storage options, you get adjustable shelves in upper and lower cabinets. And the upper cabinets are deeper than other makes—a full 13 inches (to hold large serving platters and oversize dinner plates laid flat).



Swing-out spice rack.

The only kitchen that lets you rearrange storage features all by yourself.

If you should decide later on that you would rather have your vegetable bins where you have your pots and pans, you can do it. In fact, virtually all Mutschler storage features are easily interchangeable. Even silverware and cutlery storage features can be moved from drawer to drawer.

Think what this exclusive flexibility means to you. You can re-

arrange as your needs change over the years. You can purchase additional storage features in the future. This alone makes Mutschler cabinetry worth paying more

Interchangeable racks, baskets and trays.

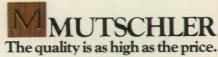
#### Why you should not settle for less than the finest.

The cost of cabinetry averages about 25% of the total cost of a typical kitchen remodeling project. It would be false economy to compromise on cabinetry when you can get Mutschler without

adding a great deal to your total costs.

Your Mutschler Kitchen Specialist stands ready to answer all of your questions and assist you in every way possible. (He can also show you other fine cabinetry for the home including complete wall systems and bathroom vanities.)

Look under "Kitchen Cabinets" in the Yellow Pages. That's where you go for the finest.



Nappanee, Indiana 46550 (219) 773-3111 a Triangle Pacific Company

#### **Look At Docklevelers Two Ways**





#### To Save Your Clients' Money

VIEW ONE. With today's high labor and material handling costs, more and more owners are realizing they can't afford inefficient plain concrete docks. Many are adding permanent docklevelers to their present docks . . . and insisting they be included in new docks. Why? Because a permanent dockleveler will pay for itself in less than a year. Some figures show a permanent dockleveler can save \$4000.00 per truck position per year . . . and often give 12 to 15 years service. VIEW TWO. Take an inside look at a Kelley Permanent Dockleveler. Compare it with any other dockleveler. The patented Kelley safety

and operating features - cross traffic legs, single enclosed power pack, lip hinge supports, single adjustment point, plus optional emergency "Panic Stops" — are not available on any other dockleveler. These features are what make Kelley the world's most preferred dockleveler . . . because they help attendants and equipment operate more efficiently . . . with far greater safety. So why let your clients settle for substitute docklevelers? Recommend Kelley. Then contact your Kelley Representative. He's well qualified to help you choose the best size and capacity dockleveler for your client's needs.



Kelley Company, Inc. 6768 North Teutonia Avenue Milwaukee, Wisconsin 53209 Phone: (414) 352-1000 Telex: 26-661

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continued from page 121



D76 SOLAR HEAT / "Your Home's Solar Potential" is a do-it-yourself survey to guide the layman in evaluating the feasibility of using solar heat in a particular house. The 60-page book also offers tips on energy saving in the home, and discusses active and passive solar heating systems. Copies are \$9.95 each from Edmund Scientific Co., 380 Edscorp Bldg., Barrington, N.I. 08007.

#### D77 BUILDING COMPONENTS /

An illustrated brochure introduces the capabilities and activities of this firm's Building Systems Group, manufacturers of metal framing systems and commercial/industrial lighting fixtures. / GTE Sylvania.

#### **CONVEYING SYSTEMS**



D78 CRANES/MONORAILS / An illustrated brochure describes Louden crane and monorail systems for many industrial and process applications. The relative advantages of handpushed and motor-propelled systems are discussed, as are the features of Selectomatic controls for automated handling, and gimbal suspension systems. / Crane & Monorail Systems Div.

#### **MECHANICAL**

D79 CONVEYOR SYSTEM / An illustrated 12-page booklet explains the Recordlift vertical selective conveyor system. The chain-loop unit can accept up to 12 32-lb trays per minute. The models described have vibration dampening pads and solid-state controls for quiet operation. / Standard Conveyor Co. A\*

D80 HEAT EXCHANGERS / A series of illustrated catalogs describes the firm's extensive line of heating and cooling equipment for heavy industrial processes and Hvac applications. Included are brochures on extended surface heat exchangers; aluminum alloy, steel and stainless steel steam heating coils; finned tubes; and unit heaters for industry. / Hunt & Moscrop (Canada) Ltd.

D81 PLUMBING FIXTURES / An illustrated 40-page booklet offers planning and decorating ideas for bathrooms, powder rooms and kitchens. Included are tubs, lavatories, toilets, fiber glass enclosures, kitchen and bar sinks, and faucets and fittings. / Kohler Co.

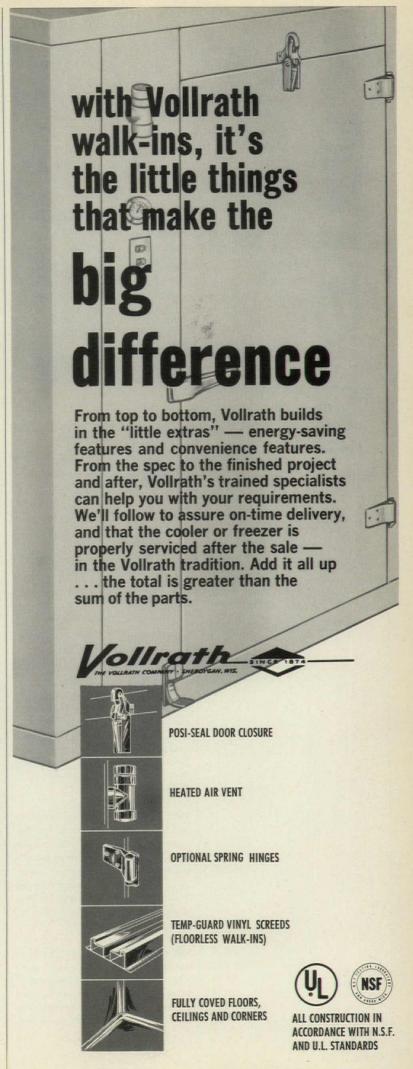
D82 FAUCETS / Newest models and options available are included in a 24page color catalog showing a full line of single- and two-handle washerless faucets for kitchens and baths. / Delta Faucet Co. LC\*

D83 FAUCET VALVE / A four-page brochure explains how the Scald-Guard bath valve protects against accidental burns. The extra safety advantages of the valves' Hot-Stop Button feature are also outlined. / Delta Faucet Co. LC\*

D84 PLUMBINGWARE / A concise guide covers bathtubs, whirlpool baths, china- and porcelain-steel lavatories, and water closets, including "Conserver" models which reduce water use. Twelve plumbingware colors are shown. / Briggs. A, LC,

D85 FIXTURE / An illustrated brochure describes a complete line of urinals, bowls, lavatories and drinking fountains for commercial use. Included in the series are 18-in.-high closets for the handicapped, and a lavatory for wheelchair users. / Briggs. A, LC, ICR/PE\*

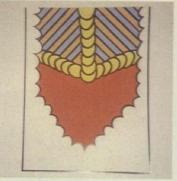
more literature on page 153



For more data, circle A60 on inquiry card

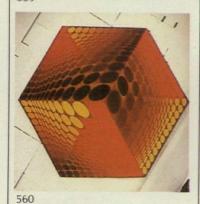
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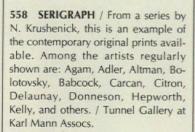


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ARTWORK



559 MURALS / Anything that can be photographed or drawn can now become a mural-size, full-color graphic via a company computerized process that images with pigmented paints. Large wall-covering size paintings are produced from small camera-size photographic transparencies. / 3M Co., Decorative Products Div.

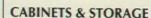
560 TAPESTRIES / "Tupa" is one of a series of seven new Aubusson tapestries by Victor Vasarely. Hexagonal in shape, it measures 8 ft 4 in. by 7 ft 2 in.; the other tapestries in the series are square or rectangular. / Art Vivant, Inc.





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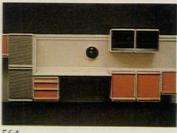




561 CABINET STORAGE / This line of full flush door custom cabinetry is available in oak and maple woods for kitchen and bathroom cabinets as well as wall storage systems. / Mutschler-A Triangle Pacific Co.

562 CABINET STORAGE / This line of wall systems provides storage units for home and office use. Units are available in oak, maple and cherry woods, in a variety of furniture styles. / Mutschler—A Triangle Pacific Co.

563 CABINET STORAGE / The "Essex Laboratory Cabinets" feature plastic laminate drawer and door fronts in a choice of natural woodgrain or 10 accent colors. All panels are 34in. particle board, and drawer bodies are hardwood. / Conco Industries, Inc.



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564 CABINET STORAGE / Wallhung, mobile, or free-standing "Unicell" is designed for health service facilities. The system, designed by Robert A. Chervenak, is based on onepiece molded plastic components which can be combined into any number of configurations. / Monitor Products/Comerco Inc.

565 CABINETRY / Called Systemetric because of its modular design in metric dimensions, this line will satisfy nearly all functional requirements. Cabinet sides are available in a choice of vinyl laminated particle board, or oak or maple veneered panels. / American Seating Co.

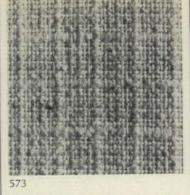
566 STORAGE UNIT / "Ciarly," a cabinet that swings open from a compact unit, features mirrors, swing-out drawer compartments, and a padded seat that flips up for storage underneath. It is made of high impact plastic. / Hastings Tile & "Il Bagno" Collection.

ARTWORK CABINETS & STORAGE FABRICS FLOOR MATS **FURNISHING ACCESSORIES FURNITURE** RUGS SEATING WINDOW TREATMENT





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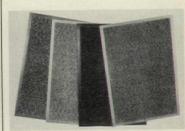






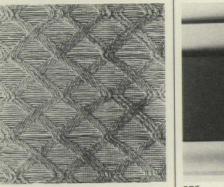


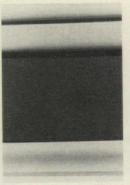






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#### 567 MODULAR CABINET /

"Cubex" cubes consist of wooden rectangles and a base which can be tapped together by hand with the use of black connectors. It is available in scratch-proof white lacquered finish, and in blond pine treated with acidfast varnish. / Cado/Royal Systems, Inc.

568 STORAGE / Designed by Giulio Polvara, this shelf storage system is structured for heavy loads. Made of ABS, an impact resistant, high gloss resin, "Polvara" has six basic components. / Beylerian Ltd.

569 MODULAR DRAWERS / The "8400" series modular drawers feature a wrap-around support frame. Frame assemblies are available in both 36- and 18-in. high sizes for use with either 24- or 18-in. deep shelving. / Lyon Metal Products, Inc. A, ICR/PE\*

#### **FABRICS**

570 NUBBY-FABRIC / "Ruffian" is a nubby-textured upholstery fabric available in sand, pewter, and earth brown, 54 in. wide. 83 per cent face varn is 100 per cent wool; 17 per cent back yarn is 100 per cent nylon. / Stow-Davis Textile Div.

571 LIMOUSINE CLOTH / A fabric used in custom automobiles is also recommended for contract upholstery applications. It is 100 per cent wool, mothproofed and offered 62 in. wide in four earth tones and: red, green, blue and aubergine. / Gretchen Bellinger Inc.

572 DRAPERY FABRIC / "Stable Loc Diamond" is flame-retardant and available in six colorways featuring white or natural face and backings of white, flax and solar bronze. / Design Tex Fabrics, Inc.

573 SWISS WEAVE / Custom woven in Switzerland, "Phoenicia" is of natural yarns, incorporating a surface grid. For upholstery applications, the fabric is 100 per cent wool. / Gretchen Bellinger Inc.

574 SCOTCH WEAVE / A doubleweave plaid woven in Scotland, "Glamis" is a fiber blend of 70 per cent wool and 30 per cent silk. With a subtle 41/2-in. repeat, "Glamis" is suitable for upholstery or window-wall applications. / Gretchen Bellinger Inc.

575 YACHTING COTTON / This is a lightweight natural fiber fabric available in 40 colors. The repp weave is cotton and suitable for a wide range of applications. / Gretchen Bellinger Inc.

576 LATTICE TAPESTRY / This fabric is 51 in. wide, with a 141/4-in. repeat. It is 93.6 per cent cotton, and 6.4 per cent Viscose rayon in a tapestry weave. There are six colorways. / Lee/lofa.

#### FLOOR MATS

577 ANTI-STATIC MATS / Using the combination of an anti-static conductive 100 per cent nylon filament face varn and "Synzap," a specially formulated electro-conductive "formed," or non-woven fabric, the mats reduce the level of static charges well below the sensitivity level, according to the company. / Crown Industries.

578 FLOOR MAT / The "Fluff Cord Spike Tile," developed as a golf spikeresistant floor covering is composed of rubberized fabric strips cut from recycled heavy duty tires and bonded to a fiber glass mesh back. The basic unit is 3% in. thick and 12 in. square. / The R.C. Musson Rubber Co. A\*







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579 FLOOR MAT / Alternating strips of deep corrugated vinyl and plush vinyl backed carpet are permanently fused together to make the "Corru-Carpet" entrance mat. Each strip is between 6 to 12 in. wide with an overall thickness of 7/16 in. / Samuel Furiness Mat Co., Inc.

#### **FURNISHING ACCESSORIES**

580 PLANTER / A 24-in. plastic planter for residential and commercial use is part of a line ranging in size from 4 to 8 in. in diameter, with an additional four sizes up to 17 in. in diameter. / Phillips Products Co. Inc. A, ID\*

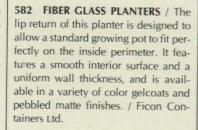
581 HANGING GARDEN / A complete ceiling-mounted hanging plant system in 3- and 5-ft lengths, comes with 360° swivel hanger hooks. Either size can be joined for any length formations. / Marathon Carey-McFall Co.







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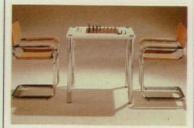
583 DESK ACCESSORIES / The "Eclipse" line of desk appointments incorporates five new finishes in the curvilinear design. The line is now available in natural walnut or oak, black leather, and five metal finishes. / McDonald Products Corp.

584 PILLOWS / Upholstered with antique Kilim rug fragments, these pillows are available in a variety of sizes and shapes. / Karl Mann Assocs.





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#### 588 TABLE SERIES / The solid oak "TB-1" table features the butcher block laminating process in its 11/2-in. thick top, 31/2-in. square column, and oak spiders. Table tops may be specified round or square. / Tuohy Furniture

589 WIRED COMPONENTS / Newest addition to the UniGroup family of office interior systems is ERA-1, a panel system featuring completely integral 20 amp electrical service. Panels are joined by a hinged snap-in connector which completes the circuit from panel to panel. ERA-1 also accommodates communications wiring. / Haworth, Inc.

590 OPEN PLAN SYSTEM / "Ad Infinitum," designed by ISD Incorporated, is available in a variety of heights, widths, and finishes; the heights of work surfaces may be adjusted to fit individual needs. Freestanding or attached accessories are also available. / Alma Desk Co.

#### **FURNITURE**

585 OPEN OFFICE / "Free-Dimensional" features task/ambient lighting. Modular work station components and straight or curved panels come in various heights, and all provide acoustical control and concealed power access. The design is by Warren H. Snodgrass. / Stow/Davis.

586 MULTI-PURPOSE TABLE / From the "Strux" casual table collection, a 30-in. square table (2734 in. high) has a white melamine laminate top with 2-in. diameter chrome finish caps locking in massive chromed steel tubular legs. / The Bunting Co., Inc.

587 TRESTLE TABLE / The table is constructed of solid Appalachian red oak and features a metal-into-metal fastening device. Also pictured are "Everywhere" chairs, constructed of solid oak, and available with or without arms in upholstered or all-wood versions. / John Adden Furniture, Inc.

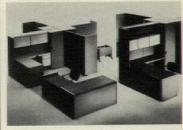






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591 OFFICE DESK / The all-in-one file and desk "Access Station" is designed to house either letter, legal or computer size hanging folders, and is available in a variety of styles to suit most modern office requirements, according to the company. / Oxford Pendaflex Canada Ltd.

592 RESIDENTIAL GROUP / "New Concept '80" features pure wool wrapped case pieces, handtufted area rugs, Jacquard upholstery fabric and wall assemblages. The free-standing living/dining/bedroom furniture group is available in a variety of styles, finishes, and colors. / Thayer Coggin, Inc.

593 LAMPS / "Quinta," designed by Silvio Coppola, is a suspension lamp, adjustable in height, in textile and metal with a white, textured finish. / Artemide/dist. by Castelli Furniture, Inc.

594 CONFERENCE TABLE / Each table has a wood top in oil-finished oak, teak or walnut, in a choice of round, rectangular and boat shapes. Tables are supported by curved triangular steel columns of polished chrome. / American Seating Co.

595 OFFICE SYSTEM / "Multables" combines primary work surfaces with general and specialized equipment stands, and mobile storage units. Primary among the new units is a 30 by 62-in. work surface which may be used as a free-standing unit. / Hauserman, Inc. A\*

596 OCCASIONAL TABLES / Ray Wilkes' folding tables designed to complement a modular sofa group, feature a folding tetrahedron leg structure of tubular solid steel with a bright chrome finish. Tables come in two lengths and three wood & plastic finishes. / Herman Miller, Inc.

597 MEETING ROOM TABLE / The "Risom/Burr" boat shaped meeting room table is surfaced in red oak or American walnut veneer or plastic laminates, and is available in a choice of leg finishes. It stands 2834 in. high and is offered in 8, 9, and 10-ft lengths. / Howe Furniture Corp.

598 FURNITURE / The "Forum Collection" features a desk and credenza in Carpathian Elm Burl and oak with polished stainless steel base and accompanying bookshelves. Also available are lounge seating and occasional tables. / Davis Furniture Industries, Inc.

599 VERTICAL FILING / "Paperflo" features six trays which hold various size papers; sort material vertically; and can be free-standing, installed, or mounted. Each tray is furnished with a plastic holder for labeling. / Steelcase

600 OFFICE SYSTEM / "Zapf," designed by Otto Zapf, is a system of components-vertical panels and horizontal surfaces—with accessories for storage and filing, and a set of special connectors. The components are available in a variety of widths, heights, and finishes. / Knoll International. A\*

601 TABLE / The "Risom/Burr Folding Rectangle" table is available in red oak or American walnut veneer or plastic laminates, and its 134-in. tubular legs are "Chromax" or architectural bronze. It is 2834-in. high and is offered in various lengths and widths. / Howe Furniture Corp.

602 OPEN PLAN / Storage, work top, shelving, and file combinations form the "Options" open plan system designed by Bob Becker. The system's steel frames are faced here with wood veneer in rift oak, and acoustic fabrics. / Helikon Furniture Co., Inc.











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603 EXECUTIVE OFFICE / A cantilevered, cube design series is offered in high contrast American walnut veneers in either a full filled high-gloss finish or a hand rubbed oil walnut finish; it is accented with burnished bronze reveal strips, perimeter bases, and drawer pulls. / Myrtle Desk Co.

606 SOFT-EDGE DESK / The "Group 2" desk series has a soft-edge, sturdy panel look in slip-matched natural white oak. The series includes single and double pedestal desks, credenzas, and secretarial desks with returns. / Risom.

609 OPEN PLAN SYSTEM / "Advent III" pedestals are free-standing and may be slid out of a workstation, and transported elsewhere within minutes. Plastic laminate and acoustical panels are secured with Velcro fasteners and require no tools for their mounting or

610 WORK STATIONS / Five word

processing work stations in four con-

figurations provide work surfaces and

storage areas that can be raised or

lowered-independently of each

other-in 1-in. increments. An acous-

tical hood, acoustical panels, and task

lighting fixtures are also included. /

Westinghouse Architectural Systems

604 PLYWOOD TABLE / This "Ekselius" table has oak veneer molded plywood legs in a double pronged configuration. It is also available with a triple prong design. / Thonet Industries, Inc.

607 OFFICE LIGHTING / The "ASD" open office lighting system incorporates indirect and task lighting that follows recommendations by the Illuminating Engineering Society for general office lighting. Fixtures are mounted on the tops of work station panels or are integrated under shelves and cabinets. / Westinghouse Archi-

612 LAMP / Designed by Gae Aulenti, the "Alcinoo" is a table lamp with clear Murano glass diffusor blown with a metal mesh base. / Artemide/dist. by Castelli Furniture, Inc. removal. / Harvey Probber Inc.

613 LAMPS / "Sintesi," designed by Ernesto Gismondi, is a collection of lamps in lacquered metal in a variety of models for different applications: table, wall, floor, ceiling. They are available in white, red, blue, and green. / Artemide/dist. by Castelli Furniture, Inc.

605 DESK / The company provides a radius edge in its "Dicta" desk series. Horizontal, book-matched veneers in walnut or oak construction are offered. / Costa Mesa.

tectural Systems Div. 608 PEDESTAL TABLES / The "2800" series pedestal tables are of-

fered round, square and rectangular

including 66- and 72-in. dual pedestal conference styles. All are 29 in. high

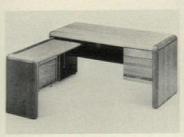
and can be specified with choice of laminate top colors. Bases are finished in mirror chrome. / All-Steel Inc.

611 DINING/CONFERENCE / John Mascheroni designed round and rectangular "Tubo" dining/conference tables. Bases are of one piece, hand polished aluminum. / Vecta Contract.

614 CREDENZA LAMPS / Lamps 29 in. high are available: in antique bronze or polished chrome; wrapped in natural leather or cork; or in a variety of colors. Shade options include black or white parchment, white linen, or natural linen. / L. Paul Brayton, Ltd.







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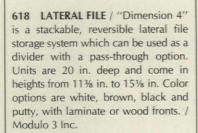


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615 OAK TABLES / "Gamba," designed by Gunter Eberle, is available with black or mirror polished top casting and has recessed adjustable glides. / Vecta Contract.

616 CHROME BASED TABLES / Offered in 35 different models-round. rectangular, boat and racetrack-this table is said to be moderately priced. / Vecta Contract.

617 LAMINATE TABLE / "KDX" tables, designed by Gunter Eberle, are offered in the specifier's choice of laminate color and pattern. KDX tables ship and store "in the flat," and panels slip lock to center column. / Vecta Contract.



619 OPEN OFFICE / The "Facit 80" wood and steel office is a Scandinavian line including folding screens and free standing, movable partitions cabinets with and without doors, bookcases, periodical shelves, writing surfaces, etc., designed by Carl Christiansson. / Facit-Addo, Inc.

620 WORK/STORAGE SYSTEM Available in colored lacquer finished maple or ash veneer, with stainless steel hardware, the system features: work station, storage cabinet and wardrobe cabinet. / Dunbar Furniture.

621 OAK OFFICE / The "Delta Oak" collection, designed by O. J. Holohan, includes desks, returns, credenzas and tables and seating. All drawer fronts, rails and posts are solid oak. / The Gunlocke Co., Inc.

#### RUGS

622 WOOL RUG / Made of 100 per cent virgin wool, the rug's field is a heavy eight-ply natural yarn in high loop. The sienna color is a two-ply low loop which gives a random, mottled look. There is a fully sheared border. / V'Soske, Inc.

#### SEATING

623 ERGONOMIC CHAIR / Designed by Emilio Ambasz and Giancarlo Piretti Vertebra will adjust automatically to a person's movements. Mechanisms are concealed by rubber bellows, forming arms on certain models. Seat and backrest components are dark molded ABS with a complementary finish on pedestals or legs. / Krueger.

624 STACK CHAIR / A stack of 45 chairs is 671/2 in. high. The "Matrix" combines solid steel rod frame with a textured polypropylene seat and backrest. Options include a folding tablet arm, bookrack and ganging. / Krueger.

625 SYSTEM SEATING / Designed by Paul Evans, "Super System" modular units include a channel chair and ottoman which may be used in a variety of combinations with case pieces. Upholstery is either cotton, velvet or wool. / Directional.

626 SWIVEL CHAIR / "Series 800" has a fully-upholstered seat and back and tubular frame available in either mirror chrome or bronze finish. The plywood shell construction and tufting provide maximum comfort. / Marble Furniture.





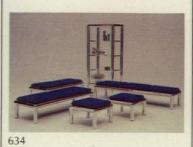
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627 LOUNGE / The "Velma" lounge group consists of one, two, three and four person units designed by Gunter Eberle. / Vecta Contract.

630 LOUNGE / "Tappo," designed by John Mascheroni in 1973, consists of 30 and 24 in. straight seats, 45 degree curved seats, tables and planters and plug-in arms. The 1976 introductions are 221/2 degree inside and outside seating units. / Vecta Contract.

633 OFFICE CHAIR / In 12 models for office, lounge, and conference seating, the chair has a three-piece shell with flexible contour back, and pneumatic height and tilt adjustments. / Hanseatic Furniture Co.

628 LOUNGE SEATING / The "89 Series" lounge seating group in solid oak is available in a variety of finishes and fabrics. / Buckstaff Co.

631 FOLDING CHAIR / "Plia," designed by Giancarlo Piretti, is now available with natural cane. / Castelli Furniture, Inc.

636 PILLOW / The "Pillow" series has been expanded to include modular pieces, allowing rectangular variations. High and low arms are available. Seams are saddlestitched. The designer is Phyllis Epstein. / Fortress

629 CHAIR / The "Maestro" chair has skids or a five-arm swivel base, and is free-rocking or available with a tilt-and-turn mechanism. It is designed for multi-purposed seating needs and comes in leather or in a variety of textiles. / Brayton International.

632 GANGING CHAIR / The company adds to its line of polished chrome tubular steel seating with the new "Tee" chair. It may be used as individual seating or ganged for modular seating purposes. / Thonet Industries, Inc.

634 BENCHES / "Tubo" was designed by John Mascheroni who created the "Tubo" cocktail table and lamp now in the permanent collection, Museum of Modern Art, New York. / Vecta Contract.

637 HEAVY-DUTY SEATING / "Tic Tac Toe" is designed for heavy contract use. Seat/back and arm modules are contained in heavy steel pans allowing flexible arrangements and easy maintenance. D. T. Chadwick is the designer. / Fortress Inc.

635 BENCHES / Designed by John Mascheroni to supplement the "Tappo" seating system, benches are offered with or without ganging ABS bases. / Vecta Contract.

638 SEATING / Made of high-impact polypropylene, "Contempo" seating is available with a choice of three chrome-swivel bases which flex for comfort. It is offered in a choice of colors. / Diversified Imports, Inc.











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639 KILIM SEATING / Upholstered in antique Kilim fragments, the collection of chairs, stools, and ottomans is suggested for use in both residential and contract interiors. / Karl Mann Assocs.

640 MODULAR SEATING / The addition of 30-degree inside and outside wedge modules to "Chadwick" modular seating permits specifiers to form much sharper and smaller curves. Only three of the new wedges are needed to turn a 90-degree angle. / Herman Miller, Inc.

641 FIBER GLASS CHAIR / This fiberglass reinforced polyester armless modular lounge chair was designed by Stewart MacDougall. It is available in five colors, and its attached seat/back unit may be covered in a selection of fabrics. / Thonet Industries, Inc.

642 SEATING GROUP / Designed by Charles Gibilterra, modular oak butcher block elements mechanically connect. The oil finished butcher block is resistant to normal wear and if damaged, can be sanded and reoiled. / Artec Furniture.

643 EXECUTIVE CHAIR / The "England" chair has upholstered arms and attached cushions. It is available in fabrics and leathers. The design is by Bert England. / Fortress Inc.

644 LOUNGE CHAIR / The "Iliad" chair features 21/4-in. chrome tubing that suspends the upholstered seat and upholstered arm panel inserts. The Charles Gibilterra design is also available as a love seat or sofa. / Dunbar Furniture.

645 STACKER / The "Skandia" stacker was designed by Sorensen and Thygesen. The molded plywood seat/back unit may be covered in vinyls and fabrics. The chair stacks six high and is available in both a side and arm chair version. / Thonet Industries,

646 RECEPTION GROUP / A line of tubular chrome reception seating and tables includes 11 seating styles and 11 tables in 15 and 20 in. heights, available in a range of fabrics and top materials. / All-Steel Inc.

647 OFFICE CHAIR / The "CAS" series has been "anthropometrically" designed (for comfort) for use with contemporary, modular work stations. Available in seven models, and with cast aluminum alloy frame, the chair is offered in six colors, and finished with a nylon coating. / Sunar Ltd.

648 LOUNGE CHAIR / The "Briar Group" is available with an external frame of solid white oak or walnut. Other woods and special finishes are available on request. Seat and back cushions are button tufted. / Vertex Furniture.

649 SOFA / "Variant 1" is finished in mirror chrome or bronze. The loose seat and back cushions are urethane foam wrapped with Dacron. The suspension is Pirelli webbing over a hardwood frame. / Vertex Furniture.

650 PULL-UP CHAIR / "Variant" is designed with seat and back of urethane foam covered with a laver of Dacron. The standard external frame is mirror chrome or bronze, with other metal finishes available on request. / Vertex Furniture.



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651 SEATING / The "Fantasy" series, urethane foam molded over a steel frame, can be upholstered in a choice of vinyl, fabric, leather, or suede or COM. / Stendig, Inc.

652 CHAIR / The "Lark" restaurant chair is available in natural-finish solid beech plus a choice of standard finishes and colors. The seat is foam upholstered plywood. / Stendig, Inc.

653 CHAIR / "Attache," a high back swivel-tilt armchair, is one of a series of executive chairs. It has a five-prong steel tube chromed mirror polished base available with casters or glides. The upholstery on all models is handsewn 3mm thick Swiss military leather. / Stendig, Inc.

#### 654 MODULAR SEATING /

"Varius," designed by Barry Brukoff, is a modular on-site maintenance and recoverable series of soft seating with integral poly-resin tables. Once assembled, a unit can only be disassembled with a special tool. The system is designed primarily for institutional use and public spaces. / Metropolitan Furniture Corp. ID\*

655 CHAIR / The "Berlin Chair," designed by von Gerkan-Marg-Perisic, comes in three models with either fabric or 3mm thick stamped-in leather upholstery. An arm-chair model is available. / Brayton International, Inc.

656 HIGH STOOL / "Bruno," a sculpted high stool, has a solid oak or beech frame in a wide range of finishes. The seat is foam upholstered. / Stendig, Inc.

657 DINING/CONFERENCE CHAIR / The "Stellar" frame is an oval tube, chromed, and mirror polished. The

seat is foam on molded plywood with an upholstery selection of special heavy grain Swiss "Mammoth" leather, or Swiss leather, or suede. / Stendig, Inc.

658 CHAIRS / The Swiss-designed "Rey" series is suitable for dining, library and conference use. It has a solid beech or oak frame connected to the seat with solid aluminum castings. The seat and back are foam on molded plywood. Various finishes are available. / Stendig, Inc.

659 DINING CHAIR / The steam bent solid ash "Thalia" chair is available in a natural finish and other standard finishes and colors. The seat is woven cord or foam upholstered over elastic webbing. / Stendig, Inc.

660 ARM CHAIR / Designed by Bert England, the chair is offered in walnut or polished stainless steel construction. / Risom.

661 SEATING / The "500 Series" chairs feature dual wheel casters, cantilever arms, deep seam stitch patterns, chrome beading along cushion margins and posture molded body shells. / All-Steel Inc.

662 SEATING LINE / The "7600 Series" designed by Earl Koepke includes executive models with fully upholstered arms, managerial and supervisory seating with open arms, armless clerical chairs, fixed back and posture back secretarial models, pedestal base chairs and high base chairs. / Harter



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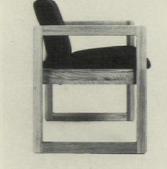
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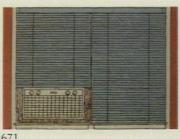
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663 MODULAR SOFA / A rectilinear seating solution, the modular sofa group can be specified in configurations from a single chair to a six-seat unit. Inner construction uses the injected molded foam process; all units are fully upholstered and are bolted to a tubular steel frame. / Herman Miller,

664 DRAFTING CHAIRS / The "MKD" chairs by Danish designer Jorgen Rasmussen are offered in three versions: secretarial, drafting stool and side pull-up, shipped "KD." Secretarial and drafting models afford height, angle and pivotal backrest adjustments. / Herman Miller, Inc.

665 ERGONOMIC CHAIRS / "Ergon Chairs" provide comfort in four models: secretarial, operational, management and executive. All have adjustments accommodating different body sizes and the basic office postures. / Herman Miller, Inc.

666 LOUNGE / "Kimba," designed by Michel Ducaroy, features heavy Dacron padding quilted to the fabric. It is available with or without a black molded styrene base permanently attached to provide either normal or low seating height. / Airborne/Arconas Corp.

667 LOUNGE / Called the Circle Seating Group, these chairs, benches, tables and planters feature molded foam over a tubular steel and plywood inner frame. Each piece is covered with stretch wool, or smooth polyester stretch fabric in numerous colors. / American Seating Co.

668 SLED-FRAME CHAIR / All frame parts are solid oak. The sledded leg frame utilizes exposed mortise and tenon joints and soft-radius corners; the seat frame is constructed with finger joints. The molded cushions are upholstered polyfoam with Dacron fill. / Tuohy Furniture Corp.

669 CHAIR BED / The "Chair Bed" opens into a single bed 72 in. long and features a solid Appalachian red oak frame, removable cushions and urethane mattress. / John Adden Furniture,

670 DESK CHAIR / Either the standard spring tilt or the new pneumatic tilt is now available on the desk models in the "Delta 2000" series. The arms have been completely upholstered, and twin-wheel casters are now used to lessen carpet wear. / Hanseatic Furniture Co.

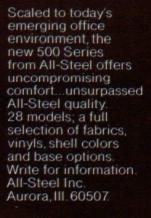
#### WINDOW TREATMENT

671 WINDOW BLINDS / These blinds are a combination of two blinds with one headrail, and separate lift controls. Other features are: 1-in. slats: miniaturized head and bottom rails; 60 colors, 10 "duplex" slats; and 'mix'n'match'' slat colors in one blind. / Marathon Carey-McFall Co. A, ID\*

672 SLIM BLINDS / The company has introduced a new color line to the firm's collection of 1-in., aluminum Riviera window blinds. This new "Tiltone" line offers slats with color on the room side and an off-white finish on the window surface. / Levolor Lorentzen Inc. A\*

673 WINDOW SHADE / "Comfort Shade" reduces solar heat penetration, yet maintains glare-free, see-through visibility and air flow. It is vinyl, weather-resistant, dimensionally stable, and mounted on rollers; it is available in widths up to 72-in. and lengths to 9 ft. / Joanna Western Mills Co. ID\*

674 DRAW DRAPE SYSTEM / The "Baton Draw System" protects draperies from abuse by putting the baton outside of the draperies where it is plainly seen and easily used. The track is designed for high-abuse areas and may be wall or ceiling mounted. / Kirsch Co. A\*







All-Steel Showrooms in New York, Los Angeles, Chicago, Aurora. In Canada, All-Steel Canada, Ltd. One of the Canada, Ltd. One o

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# Marina



320 MARINA — an original design by Mario Marenco. One of the reasons Stendig furniture is specified around the World.

> Stendig Inc., 410 E. 62 Street New York City 10021

Stendig

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standard clauses covering every aspect of a drapery installation

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mation through our Word Processing Center and creates a completed set of specifications within 72

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TEST ONE: DU PONT NEOPRENE Time: 1 minute, 30 seconds after ignition.



Time: 3 minutes, 00 seconds



Major flames out. Time: 6 minutes, 00 seconds. Damage: 1 chair involved, fabric melting and smoldering on two adjoining chairs.



TEST TWO: HR POLYURETHANE containing flame retardants Time: 1 minute, 30 seconds after ignition.



Time: 3 minutes, 00 seconds. Five chairs in two rows involved.



Major flames out. Time: 29 minutes, 30 seconds Damage: 5 chairs in two rows involved.



TEST THREE: STANDARD **POLYURETHANE** Time: 1 minute, 30 seconds after ignition.



Time: 3 minutes, 00 seconds. Five chairs in two rows involved.



Major flames out. Time: 40 minutes, 00 seconds. Damage: All seven chairs involved.

#### We tested theatre seats against fire. Neoprene cushioning foam performed best.

We conducted three burn tests at Factory Mutual's Test Center.

In each test we used seven theatre chairs in an environment intended to simulate that found in a typical theatre or public auditorium. Our fuel source in each case was typical theatre trashpopcorn boxes, drink cartons, cups and napkins-placed under the center chair.

As the photographs above show, there was considerably less flame damage among the chairs cushioned with deep foam of Du Pont Neoprene than among those cushioned with other common cushioning foams.

#### The Test Chairs

Test #1 used cushions of Neoprene deep foam. Test #2 used cushions of high resiliency (HR)

polyurethane foam containing flame retardants. The chairs in these two tests were otherwise identical, with upholstery fabric and plastic seat backs containing flame retardants.

Test #3 was conducted with a standard type polyurethane cushioning foam in chairs with untreated components.

#### **Smoke Obscuration**

During each test, light obscuration by smoke was measured by photo cells six feet from the floor. Data gathered show the chairs cushioned with Neoprene produced less total smoke because only one chair was consumed

Combine the results of these tests with the resilience and comfort of

Neoprene foam, and it's easy to see why this versatile, durable material has been widely specified wherever public safety is at a premium.

For complete test data, plus information on suppliers of Neoprene foam cushions or finished seats, write: Du Pont Company, Room 24402F, Wilmington, DE 19898.

#### **Cushioning Foam of DuPont Neoprene**



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## uci 13



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693 PORTABLE ENCLOSURE / For factory floor work stations or offices, a prefabricated galvanized enclosure with ventilation, lighting and flooring is shipped ready to plug-in, in two unit sizes: 6 by 6 ft or 7 ft 6 in. by 10 ft. / Allforce Acoustics, ICR/PE\*

#### **RADIO-FREQUENCY** SHIELDING

694 SHIELDED ROOMS / A series of functional, radio frequency (RF) shielded soundproof rooms, exceeding prevailing standards, for life sciences and medical research provide RF shielding of 120 db over the frequency range from 14 KHz up to 10 GHz. / Ray Proof Div., Keene Corp.

#### SPECIAL PURPOSE ROOMS

695 SERVICE UNITS / Primarily for the overseas market, the "knock down" modules may include bathroom, kitchen, utility room, laundry area and heating and air conditioning equipment packaged in easy-to-assemble components. / Alcoa Construction Systems, Inc.

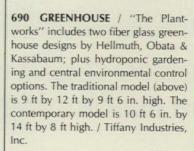
#### **INTEGRATED CEILINGS**

687 CEILING GRID / This modular ceiling suspension grid for integrated ceiling systems offers uninterrupted regress, reveal edge flanges and full mitered flanges at all intersections. Air boots can go anywhere on any runner. / Johns-Manville Sales Corp., Holophane Div. A,ID,ICR/PE\*

#### PREFABRICATED BUILDINGS

688 GREENHOUSE / Previously used primarily for horticultural applications, many shapes and sizes of greenhouse modules available from the company are recommended for home and condominium glassed-in living areas. The aluminum and glass structural systems come prefabricated. / Lord & Burnham, Div. Burnham Corp. A\*

689 GEODESIC DOMES / A sloped dome support wall-frame design that reduces foundation loads employs a lightweight tension ring and intermediate wall columns that slope inward 4 in. per ft from the foundation toward the all-aluminum dome. / Temcor, A\*



691 IN-PLANT OFFICE / Available in a variety of sizes, the office is preengineered with sound deadening features, concealed electrical, clear view glass panels, acoustical ceiling, indirect lighting, etc. It can be relocated easily. / National Partitions, Inc.

692 IN-PLANT BUILDING / "Porta-Panel" is a prefinished, woodgrained panel system. The line, available in 15 standard sizes plus custom sizes, has a factory installed door assembly with tempered safety glass window, and factory glazed window assemblies. / Keene Corp., Porta-Fab Div.

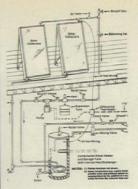
INTEGRATED CEILINGS PREFABRICATED BUILDINGS RADIO-FREQUENCY SHIELDING SPECIAL PURPOSE ROOMS SWIMMING POOLS TOTAL ENERGY SYSTEMS



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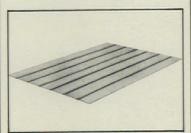




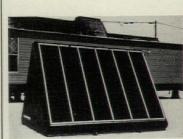
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#### 696 SOUNDPROOF ROOM / Preengineered sound-controlled rooms in 50 sizes are completely self-contained with lighting and ventilation built in. Units plug into a standard wall outlet. Sound Module rooms are relocatable. / Wenger Corp. A,E\*

697 REACH-IN COOLER / Reach-in service doors are now equipped with two alternate heater wire circuits; one circuit is employed for freezers, the other for coolers. Concealed heater wires prevent condensation and frost formation on refrigerated storage area doors. / Bally Case & Cooler, Inc. A\*

698 WINE CELLAR / A custom-designed and guaranteed wine cellar is available for home and commercial use, and the refrigeration system used in pre-built models is now available separately for custom installation. The Steditemp refrigeration unit maintains a constant 53-57 F temperature./ The Wine Vault Co.

#### **SWIMMING POOLS**

699 POOL BULKHEAD / The product can shorten a 50-meter swimming pool to 25-meters or 25 yards. The pool divider rides on either metal gutters or concrete and tile curbs, and is adaptable to any pool-edge configuration. It spans widths to 75 ft. / Whitten Corp. A\*

700 HYDRAULIC LIFT POOL Floors adjust hydraulically from deck level to a depth of 10 ft in five minutes, at the touch of a button. For safety, the floor is raised to deck level when not in use. The pool is self-cleaning. / A.F.W. of North America.

#### TOTAL ENERGY SYSTEMS

701 SOLAR COLLECTOR / In "Tube-in-Strip," the absorber plate and the tubes are one, integral sheet of copper. The result is said to be an absorber plate with high conductivity, efficiency and durability. / Revere Copper and Brass Inc. A\*

702 SOLAR WATER HEATER / The Solar-Bank system for heating domestic water includes a storage tank, pump, heat exchanger, valves and solar collectors. The system can provide up to 100 per cent of the domestic hot water requirements of both residential and commercial buildings. / Revere Copper and Brass Inc. A\*

703 SOLAR HEATING / A complete solar heating air system is comprised of flat plate collector panels, an air handling unit and automatic controls. The system can be used in commercial, industrial and residential applications. / Solaron Corp. A,E\*

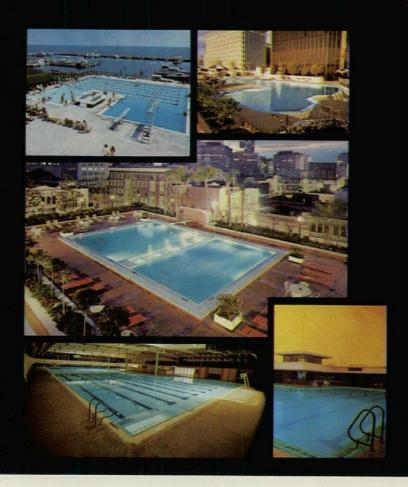
704 SOLAR WINDOW / "Sunwall" is an insulated sandwich panel (U = .40) with solar transmittance of 77 per cent. The system is designed for use in the walls or roofs of structures requiring high solar energy penetration with minimal heat loss. / Kalwall Corp. A\*

705 SOLAR PANEL / Designed to serve requirements of air conditioning, hot water systems and solar heating, these collectors have an inorganic selective coating with absorptivity of .98 and an emissivity averaging .30. Weighing 210 lbs., each collector measures approximately 26 by 100 by 61/2 in. / Ametek, Inc.

706 SOLAR COLLECTOR / Typical applications for the "SunCeiver" solar collector are the heating of swimming pool water and home hot water. The 'SunCeiver' is constructed with an outer frame of heavy gauge aluminum that measures 35% by 77 by 4 in. deep. / Halstead & Mitchell.

707 SOLAR FURNACE / Collection, heat transfer, storage (rock), motors and controls are enclosed within a single unit. The furnace has been engineered to be compatible with existing forced-air furnaces. / Champion Home Builders Co.

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The pool is part of a system. And the system provides the utmost in structural strength, hydraulics, water treatment, competitive swimming, and beauty. BUILT-IN CIRCULATION SYSTEM. All perimeter piping is built into the side-wall. It greatly simplifies and speeds construction, and eliminates potential maintenance and repair problems. SELF-SUPPORTING. The pool side-wall is self-supporting. Structural vertical braces and A-frame buttresses provide complete side-wall rigidity. The all-aluminum floor is designed to compensate for contraction, expansion and shear movement without cracking. PRE-FABRICATED. Tested pre-fabricated all-aluminum pool wall sections are delivered to the construction site ready for assembly. Chester's own technicians position, MIG arc weld, and field test each completed assembly. POOL-MATCHED FILTRATION. The Chester vacuum diatomaceous earth filter is designed for the pool. Delivers pure water of perfect clarity at the least cost. COMPETITION. The water-level roll-out ledge reduces backwash and turbulence. The Chester pool is a fast pool. SINGLE-SOURCE RESPONSIBILITY. Pool tank, filtration system, pool-to-filter piping — Chester takes on the system responsibility. WARRANTED. Over twenty years experience has proven Chester performance. Chester Pool Systems are warranted for five years not to crack, leak, or corrode. Call or write us today. We'll send you some figures beautiful to see.



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# J-M Expand-O-Flash Expansion Joint Covers. Now with extra-wide bellows for joint openings up to 36".



Wide expansion joints are becoming increasingly common.

Often leading to some rather makeshift—and often unsatisfactory arrangements to cover them.

But wide expansion joints don't have to be a problem.

In fact they're easily solved with J-M Expand-O-Flash Expansion Joint Covers...now especially made with extra wide bellows, up to 54" wide, to accommodate joint openings all the way up to 36" wide.

They install quickly and easily to form a strong yet flexible closure that's water-resistant and weather-resistant.

They're constructed in the same way as the narrower (4" to 12" width bellows) Expand-O-Flash you're familiar with.

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the neoprene
provides
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two requirements that are
even more critical for
extra-wide joints.

When you're confronted with providing protection for wider than normal expansion joints, specify J-M wide bellows Expand-O-Flash for savings in time and money.

And for roof protection that's covered if the J-M Guaranteed Roof Program is used

For product information about Expand-O-Flash Expansion Joint Covers, or the J-M single-source built-up roofing system, write for BU-302A, Johns-Manville, P.O. Box 5108, Denver, Colorado 80217. Or call Don Korte, 303/770-1000.



For single-source built-up roofing systems.

Johns-Manville

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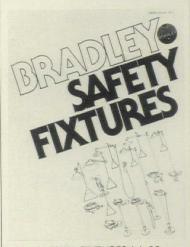
continued from page 131







D86 VANITY TOPS / Marbleized vanity tops in a variety of colors, sizes and bowl arrangements are shown in a color brochure. "Imperial Marble" units have a polished finish which is said to resist scratches, burns and bathroom chemicals. / Bradley Faucets.



D87 SAFETY FIXTURES / A 20-page technical catalog details product information on a line of safety drench showers, eye-wash fountains, and sprays; all units are said to meet applicable OSHA requirements. / Bradley Corp.

D88 FAUCETS / Faucets for kitchen, lavatory, tub and shower are shown in a color brochure. Vitreous china faucets are included in the line. All units are guaranteed against leaks or drips. / Bradley Corp. A\*

**D89 PLASTIC SHOWERS** / The Seagull all-plastic shower stall features a one-piece, knockdown plastic wall system and lightweight Molded-Stone floor. A color brochure illustrates three models, along with complete accessories. / Powers-Fiat.

D90 SINGLE ZONE HVAC / A completely-indexed 102-page catalog contains photos, drawings, diagrams and tabulated materials to assist the professional in the specification of *Roofpak* single zone heating and cooling units for high-rise, industrial, and institutional installations. / McQuay Group, McQuay-Perfex, Inc.

D91 UNIT COOLERS / A four-page brochure gives physical data and technical specifications for the *Pacemaker* series of unit coolers, suitable for meat, produce and dairy storage, warehouses, and supermarkets requiring temperatures in the 35 F range. / McQuay Group, McQuay-Perfex, Inc.

D92 ROOFTOP AC / The Roofpak system is especially designed for use in variable air volume applications, according to a new product bulletin. The factory-assembled unit, with capacities of from 15 to 105 tons, is said to reduce site labor requirements. / McQuay Group, McQuay-Perfex, Inc.

D93 VAV TERMINALS / Photographs of eight different *Fluidtech* VAV terminals are featured in a new brochure. Cost savings of the variable air volume concept are outlined in the material. / McQuay Group, McQuay-Perfex, Inc.

D94 SOLAR HEATING / Technical data based on actual operation of a complete hydronic solar heating and cooling system provides much of the information contained in a 132-page "Solar Heating Technical Design Manual." The book, which includes 23 pages of tables, charts and maps, is available for \$2.50 from ITT Fluid Handling Div., 4711 Golf Rd., Skokie, Ill. 60076.



D95 FIXTURE COLORS / Thirteen porcelain enamel color chips show the actual colors of this line of bathroom fixtures. Samples are displayed in a compact 4½- by 11-in. kit. / Briggs. A, LC, ICR/PE\*

D96 WATER SAVING / A four-page brochure explains how this line of faucets and fixtures for residential and commercial use can effect valuable water and energy savings. / Kohler Co.

D97 CONDENSING UNITS / A catalog describes the redesigned Seasoncon refrigeration condensing units. The 36-page book includes extensive tables providing computer-generated capacity data to assist in selecting a balanced system. / McQuay Group, McQuay-Perfex, Inc.

D98 AIR-COOLED CHILLERS / A product bulletin describes ALR/ALP air cooled chillers and condensing units. Chillers use two partially unloaded refrigerant circuits for operating economy at reduced load. / McQuay Group, McQuay-Perfex, Inc.

D99 PIPE INSULATION / A technical data sheet describing "Thermo-12" asbestos-free insulation—furnished in both pipe and block form—contains technical data on physical properties and thermal conductivity. It defines the insulation's high strength, light weight characteristics, and further details available shapes, sizes, as well as compliance with government and ASTM standards. / Industrial Products Div., Johns-Manville.

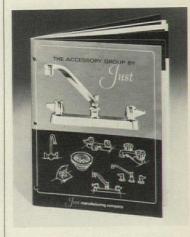
E01 WATER COOLER / An eightpage, color brochure describes the VEWC-P line of evaporative water coolers. The VEWC-P is available in 13 models with capacities ranging from 50 through 1000 nominal gpm for water cooling. Photographs of the various construction components are shown, and most dimensions are noted in both conventional and SI metric units. / Vilter Mfg. Corp.

E02 VAV TERMINAL UNITS / "Design 30" is a complete line of throttling-type variable volume terminal units, available in cooling-only and heating/cooling models for low and medium pressure systems. Six sizes, ranging from 100 to 3200 cfm, are available with either pneumatic or electric actuators, permitting design flexibility. "Design 30" offers light weight, all-aluminum casings, low installed cost, thermostatically controlled air volume in direct proportion to cooling load requirements, and compatibility with lower-cost packaged air handlers. / Aeronca, Inc.



E03 FIXTURE COLORS / A color chipping system is designed to keep all who specify bathroom fixtures (and colors) continually supplied with samples matched to company colors. The system incorporates a card file, containing 25 chips, each of eight fixture colors, including three new colors: Denim Blue, Frost Green and Misty Rose. In addition, it contains 10 chips of a "marbleized" effect available in certain vitreous china lavatories and 10 chips each of five kitchen sink colors. The color selector kit, containing a total of 260 color chips, 25 presentation envelopes and re-order envelopes is offered at \$8.75 per kit including postage from Eljer Plumbingware, Wallace Murray Corp.

E04 PLUMBING PRODUCTS / An illustrated 56-page catalog features plumbing products for hospitals, nursing homes, clinics and institutions. Included are such specialized products as sitz baths, wheelchair lavatories, surgeon scrub sinks, service sinks, extra-height toilets, pressure-compensating bath/shower controls, bedpan washers, knee and foot control faucets and many other fixtures and fittings. Specifications and dimensional data are included. / Kohler Co.



E05 SINK ACCESSORIES / The catalog features the company's line of faucets for kitchen, lavatory, institutional, commercial and bar sinks, along with drains, continuous waste connections, electric immersion heaters and drinking fountain fittings. Also included are: hardwood cutting boards designed to fit over kitchen and bar sink bowls, hot pan inserts for counters, dish and silver drainers, the company's stainless steel polish and the *NuTone* blender which can be a built-in feature on some sinks. / Just Mfg. Co.

E06 WATER HEATERS / A 12-page brochure describing a complete line of packaged water heaters for commercial, institutional and industrial use, ranging from a minimum-storage heater to units using any energy or fuel source: steam, gas, oil, boiler water, electric or combination of these. / Patterson-Kelley Co.

E07 HUMIDIFICATION / Residential humidification is the subject of a 12-page catalog including data on plenum evaporative, under-the-duct evaporative, atomizing type and table humidifiers. Basic installed models are shown with accompanying mounting locations, specifications and ARI ratings. In addition to full description of the units, the catalog illustrates humidification equipment accessories including humidistats, transformer kits, and tablets for the prevention of mineral scale build-up. / Walton Laboratories

more literature on page 156

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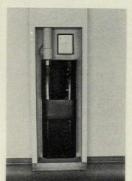


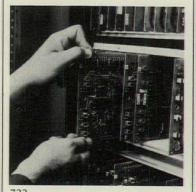












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**CONVEYORS & CHUTES** 

720 MAILMOBILE / This unmanned, self-propelled vehicle automatically follows an invisible guidepath to deliver mail and supplies throughout a building. The patented guidepath can be applied to any floor surface. / Lear Siegler, Inc./Automated Systems Div.

LIFTS

**HOISTS & CRANES** 

723 CHAIN HOISTS / An exclusive Wright overload cutoff has been incorporated as a standard feature on the Wrightway electric chain hoist line. The up-dated hoists are offered with one-quarter-, one-half-, one- and twoton capacities. / Hoist & Crane Div., Acco.

#### PNEUMATIC TUBE SYSTEMS

clinator Co. of America. A\*

726 STAIRWAY ELEVATOR / The "StairLIFT" can be installed on either side of stairs, with no special wiring re-

quired. It has a seat position lock and

foot guard switch, and is available in

choice of four upholstery colors. / In-

727 PNEUMATIC TUBE / This pointto-point system has polyvinyl chloride transmission tubing in these sizes: 21/2, 31/2, 41/4, 51/2 in. Carriers travel in a single tube in one direction propelled by pressure and vacuum. Stations are wall-mounted or recessed. / Powers Regulator Co.

728 TUBE / Cargoes weighing up to 5 lbs. can be delivered at a speed of 25 ft per second. Power requirements are 110 VAC. The system is energized only while carriers are in transit, saving energy. Safety locking doors and signal lights are standard. / Cutler-Federal, Inc.

#### **DUMBWAITERS**

721 HOME DUMBWAITER / The "Mini-Waiter" features a screw drive with two-stop service. The capacity of the metal car, measuring 18 by 18 by 24 in., is 45 lb, and two lift heights are offered: 9 and 12 ft. / Waupaca Elevator Co., Inc.

#### **ELEVATORS**

722 SOLID-STATE CONTROL /

New control systems with solid-state integrated circuitry are said to improve the performance of the company's "Go-Line" pre-engineered elevators for buildings to 30 stories. The system eliminates unnecessary elevator movement. / Otis Elevator Co. A\*

724 LIFT SYSTEM / Increased height capacity is an engineering improvement in PORCH-LIFT. Four standard models are available up to 53, 72, 84 and 96 in. All are key-operated, feature a non-skid platform surface, and operate on standard 110-volt electrical current. / American STAIR-GLIDE Corp. A\*

725 LIFT / A high-rise lift with a 2000-lb capacity and vertical travel of 96 in. is installed flush with the floor and enclosed by a cage. This lift services unused mezzanine space. The 36by 84-in. platform provides ample room for bulky items. / Southworth Machine Co.

**CONVEYORS & CHUTES DUMBWAITERS ELEVATORS HOISTS & CRANES** LIFTS PNEUMATIC TUBE SYSTEMS



Montgomery escalators and Power Walks and Ramps move more people at a lower cost per passenger than any other form of vertical transportation. And in a way that's aesthetically pleasing. That's efficient. That's Montgomery. Montgomery Moves People.

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Rotating rooftop restaurants using silent, smooth Macton turntables attract up to 50% more business than comparable ground-level restaurants.

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Macton's Special Products Division will design, engineer, fabricate, and provide necessary control systems for any kind of special turntable or dynamic steel structure.









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OFFICE LITERATURE / Division 16 continued from page 153



E08 HEAT RECOVERY / The brochure describes a number of custom-related heaters, coolers, pumps and heat reclaimers that pre-heat incoming fresh cold water by recapturing heat from hot waste water otherwise pumped down the sewer. / Ludell Mfg. Co.



E09 FANS / A six-page catalog covering a line of adjustable pitch vane-axial fans describes in detail the development of the fan, its history, testing, and efficiencies. Full specifications on all 14 sizes of the fan, direct and belt driven, are given. All features of the new fans are illustrated in cutaway views. / Industrial Air, Inc.

E10 TUBEAXIAL FANS / Tubeaxial fans, featuring an efficient redesigned "L" Macheta airfoil propeller, are described in Bulletin 154. The 16-page bulletin includes dimensions and performance data on 96 models of direct drive tubeaxial fans and 127 belt driven models. The company certifies that the direct drive models have been tested and rated in accordance with ASHRAE 51-75 and AMCA 210-74 Test Code, and guarantees they will deliver rated performance. These tubeaxial fans are available in sizes from 305mm (12 in.) through 2440mm (96 in.), with capacities from 900 cfm to 132,000 cfm. / Aerovent Inc.

E11 WASTE HEAT / Saving waste heat from plant air compressors is the subject of a four-page brochure on the theory and application of heat recovery by two company compressor engineering specialists. In addition, there are case histories of six installations in United States and Canadian plants. Each case history contains complete background information and photographs that illustrate the installation technique selected. The techniques include use of the compressor room as a plenum; distribution ductwork to the workplace; shop floor placement with thermostatically controlled dampers; and the use of rejected cooling water as a process warm water rinse. / Joy Mfg. Co.

E12 WATER COOLERS / Printed on heavy-duty card stock, this color selection chart has actual color swatches of vinyl, stainless steel, and hammertone gray enamel. Six different colors of vinyl may be laminated to the steel cabinets of most company water coolers. On the reverse side of this chart is an all-inclusive color selection guide which details exactly what finishes are available for each company water cooler model. / Sunroc Corp.

E13 BAR SINKS / Lancelot and Excalibur bar sinks are illustrated in a four-color flyer. The Lancelot model, with gooseneck spout, has three removable stainless steel wells for ice, bottles or garnish. The Excalibur model is available for either standard or narrow countertops. / Moen, A Div. of Stanadyne.

#### E14 WASHROOM ACCESSORIES /

A series of four washroom and accessory equipment "Spec-Guides" for architects and specification writers, have been prepared for hospital, school, office building and hotel construction and modernization projects. The hospital "Spec-Guide" includes coordinated washroom and accessory equipment applications for fourteen different hospital areas. / Accessory Specialties, Inc.

E15 WASHROOM DESIGN / A 23page washroom-shower design guide features numerous, suggested shower room and locker room layouts, / Bradley.

#### **ELECTRICAL**

E16 LOW-BRIGHTNESS / Efficient lighting levels with minimum energy consumption are provided by *Parabolume* low-brightness fluorescent luminaires, according to a color brochure describing the fixture. / Columbia Lighting, Inc.

E17 ELECTRICAL CONTROLS / A 200-page digest describes a full line of electrical control products, including switches, starters, push buttons, relays, and variable speed drives. Technical information, application notes, ratings and prices are given for each item. / GTE Sylvania.

more literature on page 167

# uci 15

# echanic



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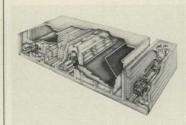
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#### AIR DISTRIBUTION **EQUIPMENT**

741 AIR HANDLERS / A fully redesigned group of models covers a range of ARI-certified capacities from 800 to 41,000 cfm. Forward curved or backwardly inclined fan wheels are offered in draw-through or blow-through configurations. / Airtemp Corp.

742 AIR DIFFUSERS / Blending into the ceiling treatment, the Modu-Vent diffusers provide draftless air distribution through the exposed face plates. / Precision Air Products Co.

743 MODULAR DIFFUSERS / Lami-Vent units may be mounted in either vertical or horizontal laminar fashion. They are engineered for applications where environmental control of primary air is essential to minimize the airborne infection rate. / Precision Air Products Co.



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745 AIR DOORS / Designed especially for food take-out and service counters, this compact model filters the high-velocity air used to keep out insects, dust, etc. It can be installed on either interior or exterior of service window, and is effective up to 5-ft high by 30-in. wide. / Mars Air Doors. A,E,ICR/PE\*

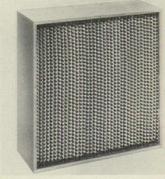
746 AIR FLOW MEASURING / Constant metering of air volume in A/C systems using the FMS-A measuring station will pinpoint duct leakage and other energy-using problems in the earliest stages. Two units offered are intended for either existing duct work or new systems. / Cambridge Filter Corp. A,E,ICR/PE\*



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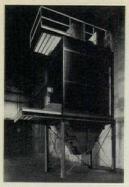
747 HEAT RECUPERATOR / Aeromatic 7300 provides automatic control of air temperature and circulation in industrial applications, and also functions as an auxiliary heater, with either hot water, steam or electric coils. / Aston Industries Inc. ICR/PE\* (Canadian)

#### AIR TREATMENT **EQUIPMENT**

748 AIR CLEANER / No duct connections are required to fit the HEACT electronic air cleaner into up-flow gas or electric direct drive residential furnaces. Easily removed for cleaning, the filter is UL- and CSA-listed. / Lennox Industries Inc. E,LC,ICR/PE\*

749 AIR FILTER / The Aeropac filter is available in 60-, 90-, and 95- per cent efficiencies for comfort and industrial Hvac systems. Performance is said to be constant over a range of face velocities, making the filter suitable for VAV installations. / Cambridge Filter Corp. A,E,ICR/PE\*

AIR DISTRIBUTION EQUIPMENT AIR TREATMENT EQUIPMENT FIRE PROTECTION EQUIPMENT HEAT GENERATION HEAT PUMPS HVC TERMINAL UNITS LIQUID WASTE EQUIPMENT MECHANICAL CONTROLS PLUMBING FIXTURES & TRIM PUMPS & COMPRESSORS REFRIGERATION EQUIPMENT WATER SUPPLY & TREATMENT



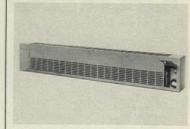
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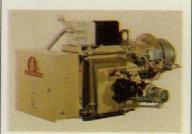
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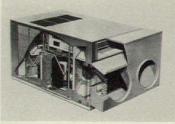
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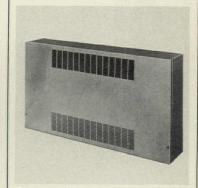
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750 PRECIPITATOR / Compact, needle-edged collector plates are features of this new line of modular electrostatic precipitators. Factory fabricated in complete subassemblies, each unit is self-supporting and needs minimal on-site assembly. Photo shows one unit of a tandem installation. / United McGill Corp.

751 ROOFTOP HVAC / Roofrite air handler units are sized from 2,500 to 63,000 cfm. Chiller water or direct expansion coils; electric heaters; hot water or steam coils; bypass and access sections are offered on each unit. The low-profile housing installs on a factory-supplied gasketed roof curb. / Carrier Air Conditioning Co.

#### FIRE PROTECTION EQUIPMENT

752 SPRINKLER HEAD / A compact center strut-eutectic fuse tube mechanism eliminates the link/lever of previous models. The "Liquidator" sprinkler head is available in most temperature ratings; with chromeplate, brass, wax-coated and lead finishes; and it is UL-listed and FM-approved. / Grunau Sprinkler Mfg. Div.

# 753 ADJUSTABLE NIPPLE / Model "EZ" sprinkler drop nipple has a 3-in. adjustment range. The corrosion-resistant device can be adjusted under full system pressure without leaks; it will not telescope, and does not need locking into final position. It is UL-listed and FM-approved. / Central Sprinkler Corp.

754 CONCEALED SPRINKLER / The ceiling plate of the "Royal Flush" concealed automatic sprinkler absorbs heat and falls away at rated temperature, allowing the deflector to drop ½-in. below ceiling. Fusible element releases water flow. The chrome-finished plate model is UL-listed. / Central Sprinkler Corp.

#### HEAT GENERATION

755 OIL BURNER / The compact Series HP Iron Fireman oil burner claims fuel savings of up to 48 per cent. A forced draft pressure atomizing burner mixes oil (Nos. 2 or 4) and air in precise quantities. The unit can be installed on high- or low-pressure boilers. / Dunham-Bush, Inc.

#### **HEAT PUMPS**

756 HEAT PUMP / The "Aqua-Matic" heat pump/recovery system claims dramatic fuel savings using a reverse cycle refrigeration system to recover and redistribute heat within a building's Hvac system. Models range from 12,500 to 61,000 Btuh (cooling); and 13,500 to 62,000 Btuh (heating). / Dunham-Bush, Inc.

757 HEAT PUMP / Model PH centrifugal heat pumps are available for industrial and commercial installations in capacities up to 535 tons (cooling). Units are said to be compact and quiet; 656 models can be assembled from standard components to meet individual requirements. / Westinghouse Electric Corp., Commercial, Industrial Air Conditioning Div. E,ICR/PE\*

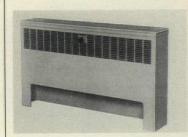
758 MOBILE HOME HVAC / Specially modified for the higher static air distribution of mobile homes, both the MCHP 9 heat pump (shown) and the MCHA 9 packaged air conditioner have powerful blowers, fiber glass insulation, and a refrigeration system. / Lennox Industries Inc. E,LC,ICR/PE\*

#### **HVC TERMINAL UNITS**

759 HYDRONIC HEATER / "Flow-Vector" is an 8-in.-high hydronic heating package featuring a copper/aluminum fin tube heating element and a low-silhouette tangential fan/motor system. Floor- or wall-mounted models have an adjustable thermostat for automatic temperature control. / Dunham-Bush, Inc.

760 VAV TERMINALS / Significant savings in installation, operating and maintenance costs are claimed for the Fluidtech system-powered variable air volume terminal. These units add little static pressure to the Hvac system. / McQuay Group, McQuay-Perfex Inc.

761 CABINET UNIT HEATER / These steam- and hot water cabinet heaters are intended for hard-to-heat areas in lobbies, entrances, classrooms, etc. A wide range of models include standard and recessed floor, wall- and ceiling-mounted units. / Dunham-Bush, Inc.



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762 CONVECTOR HEATER / Fabricated of furniture steel to withstand heavy traffic, these easily-installed convector heaters come in hydronic, steam or electric heat models. The copper/aluminum fin tube heating element is said to provide superior heat transfer and distribution. / Dunham-Bush, Inc.

763 PERIMETER HEATER / "Walvector Radiation" units offer a choice of hydronic, steam or electric heating for hard-to-heat areas with expansive glass. Standard models include sloping top outlet, front outlet, or top outlet. 16-gauge steel enclosures are from 2 to 8 ft in length, in 6-in. increments. / Dunham-Bush, Inc.

#### LIQUID WASTE EQUIPMENT

764 WATER TREATMENT / Fiber glass trough and weir-plate assemblies for municipal water treatment plants can be made to any size and design. These and other water treatment products can be custom designed by this manufacturer's new engineering division. / MFG Water Treatment Products





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#### MECHANICAL CONTROLS

765 THERMOSTAT / The "Pneumatic Economizer" thermostat meets Department of Defense energy conservation standards. The dual-setpoint unit restricts heating to 75 F maximum, and cooling to 75 F minimum, regardless of setting. / Honeywell Commercial Div.

#### **PLUMBING FIXTURES** & TRIM

766 WHEELCHAIR BASINS / Pre-assembled stainless-steel wash centers are designed for comfortable use by persons in wheelchairs. The drain lies close to the bowl and goes directly to the wall, permitting close-up use. All "Bradpack" units meet HEW and Public Health Service requirements and are UL-listed. / Bradley Corp. A\*

767 SIPHON-IET TOILETS / A newly styled tank has been introduced on the "Perry" siphon-iet two-piece toilets. Tanks are fitted with a non-corrosive flush valve, flush lever and ballcock; all meet FS WW-P541/A. / Mansfield Sanitary, Inc.



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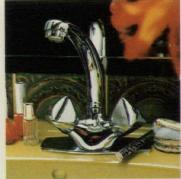
769 FIBER GLASS TUBS / Suitable for either residential or commercial installations, these bath tubs are made of 1/2-in, thick reinforced fiber glass in any custom color desired. Tubs feature a lumbar support for the back; arm rest; and non-skid bottom. / Hastings Tile & "Il Bagno" Collection. A\*

770 CIRCULAR BATH / This 67-in. diameter tub is molded reinforced plastic in bright red, yellow, blue, green, beige, black or white. The prepiped unit requires only water and waste connections. / Hastings Tile & "Il Bagno" Collection. A\*





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771 TUB/SHOWER UNIT / Reinforced colored fiber glass tub and shower wall are surrounded by clear plastic walls and a circular sliding door in this 6-ft, 101/2-in.-high bathing module. Included are built-in shelves, full-length mirror, towel warmers, contoured seat, and anti-slip bottom. / Hastings Tile & "Il Bagno" Collection.

772 SHOWER BATH / "Marazzidue," a 7-ft diameter bathtub of molded plastic, comes complete with a chrome-plated shower column with three adjustable heads. / Hastings Tile & "Il Bagno" Collection.

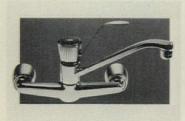
773 FAUCET / The "Classic" lavatory center-set faucet has a spout that swivels through 120 degrees, allowing the water to flow only into the basin to prevent any possible flooding. Spout extends 6-in. over the lavatory rim for easy access. / Grohe, Div. of Flygt



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- 774 **DRINKING FOUNTAIN** / Constructed of stainless steel with chrome-plated brass fittings, this three-station wall-mounted drinking fountain can be used indoors or out. Fountain shown is 52-in. long; two-station models are also available. / Elkay Mfg. Co. A,E\*
- 775 LAVATORY FAUCET / A thermostat on the right handle of the *Exquisit* wide-set faucet maintains a preset water temperature. A safety device shuts off the hot water if the cold water stops flowing through the valve. / Grohe, Div. of Flygt Corp.
- 776 KITCHEN FAUCET / Deep bell escutcheons are design features of the "Update" faucet. The single-handle has a replaceable cartridge; the body is cast brass with adjustable centers. / Moen, A Div. of Stanadyne. A\*



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- 777 BIDET / Designed to coordinate with the firm's line of one-piece water closets, this rounded-foot vitreous china bidet is available in 12 colors plus white. / Briggs. A,LC,ICR/PE\*
- 778 LAVATORY / This vitreous china lavatory has a concave front for access by users in wheelchairs. Also available is a one-piece water-saving 18-in. high closet, designed for easier use by handicapped persons. / Briggs, A,LC,ICR/PE\*
- 779 AERATOR FAUCET / "Flow Control Aerator" limits faucet output to 3 gal per minute at all line pressures up to 120 psi, saving water while providing a generous splash-free stream. / Moen, A Div. of Stanadyne.



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- 780 STEEL SINKS / "Lancelot" is an 11-model line of stainless steel kitchen sinks, featuring a space-saving single post mounting. The 18-gauge steel is hand-finished in a satin sheen surface. / Moen, A Div. of Stanadyne.
- 781 SHOWER HEAD / Mirror-finish chrome shower head delivers a choice of pulsating bursts of water in a steady-stream shower. Ball-swivel mount fits any standard ½-in. IPS shower arm. / Moen, A Div. of Stanadyne.
- 782 CABINET LAVATORY / "Aladdin" vitreous china lavatory fits all standard 21- by 24-in. cabinets. Available in a variety of colors, lavatory models accept either centerset or spread fittings. / American-Standard.



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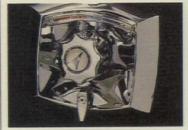


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- 783 ENAMELED STEEL TUBS / Two new bath tubs are available for standard or above-the-floor installation. Both are 5-ft. long, and 30-in. wide with sound dampening and a slip-resistant bottom. / American-Standard.
- 784 SHOWER / Both hand-held and fixed "Showerall" shower massage units need 2½-3 gallons of water per minute. Diverters allow use of existing shower or tub. / JACLO Inc.
- 785 FAUCET HANDLES / Color-coded inserts are featured in these redesigned "Classic" and "Hi-Lite" faucets. Size and shape of the handles have been changed for greater user convenience. / The Chicago Faucet Co.



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786 HOT WATER DISPENSER / A 1/2-gal tank can provide up to 60 cups of 190 F water per hour for beverages, etc. The dispenser is plumbed into sink water supply and uses up to one-third less energy than range-top heating. / Sears Contract Sales. LC\*

787 STAINLESS SINK / Model NSJR3221 features three improvements: the deck has been strengthened for single lever faucets; sound deadening has been increased; and highlighting has been increased around the edges of the sink. This model is offered in 20 gauge satin-finished stainless steel. / Jensen-Thorsen Corp.

788 BAR FAUCET / Faucets have rotating washerless valves and a handtightened lock-nut that will not work loose. / Delta Faucet Co. LC\*

789 BATH-SHOWER VALVE / This line of scald-proof valves features a "Hot Stop Button" to prevent accidental burns. Valve always opens in cold water first, passing through warm water before reaching hot temperatures. / Delta Faucet Co. LC\*

790 LAUNDRY FAUCET / A new addition to this company's faucet line, the Delex laundry faucet has washerless valves and lock-nuts that will not work loose. / Delta Faucet Co. LC\*

791 WATER COOLER / Intended for use where explosive materials and dangerous atmospheres exist, the model "Safe II" floor-mounted cooler has a UL-listed explosion proof motor compressor and junction box. It will deliver 16 gal-per-hr of 50 F drinking water. / Sunroc Corp.

792 OUTDOOR FOUNTAIN / Tri-Action self-closing valves with lever handles are included on this steel pedestal-mounted drinking fountain for outdoor use. The unit is specially designed for easy use by handicapped persons. / Western Drinking Foun-

793 BATH-SHOWER CONTROL

The "Rite-Temp" pressure-balance mixing valve is now available with "Antique" gold electro-plate or chromium handle. China dial plate is 71/2in, in diameter and comes in four colors. / Kohler Co.

794 TOILET / New colors have been added to the "Water-Guard" toilet line: "Black Black" and "Expresso Brown." The toilet needs 31/2-gallons of water to flush properly. / Kohler Co.

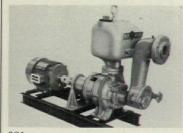
795 TUBS-LAVATORIES / Coordinated bath tubs and lavatory basins now come in vivid acrylic colors: lemon, cocoa, orange, watermelon, and black. / Universal-Rundle Corp.

796 SELF-RIMMING BASIN / Vitreous china "Planet II" oval countertop lavatory is shown with an 8-in. centerset faucet. The basin is 25-in. wide, with an 18-in. depth for use on most countertops. / Universal-Rundle Corp.

797 SHAMPOO LAVATORY / "Carousel," made of porcelain-enamel finished cast iron, is a 251/2- by 16in. basin for shampoos as well as normal lavatory use. It comes with "Regata" brass fittings, including a spray hose. / Eljer Plumbingware, Wallace Murray Corp.

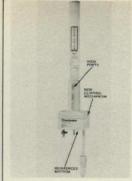


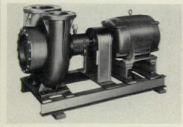
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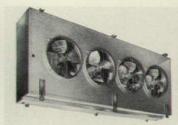
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798 DRINKING FOUNTAIN / The fountain is extended out from wall for easy wheelchair access and general public use. Receptor, shell, bracket and plate are satin-finish stainless steel. The bottom plate is condensation-proof and vandal-resistant. / Haws Drinking Faucet Co. A\*

#### **PUMPS & COMPRESSORS**

799 CENTRIFUGAL PUMPS / Intended for use in cooling towers, evaporative condensers, and large hydronic heating installations, these double-suction double-volute centrifugal pumps can handle a variety of liquids, including water, glycols, and brines. / Dunham-Bush, Inc.

800 CONDENSATE PUMPS / Type CHV pumps offer positive removal of hot condensate at abnormal rates, returning water automatically to low pressure boilers from steam heating systems. Capacities are from 2,000 to 20,000 EDR; pumps require only bolting to foundation, without any bars or bed plates. / Dunham-Bush, Inc.

801 SOLIDS PUMP / This self-priming centrifugal pump features a whirldeveloping disc-impeller placed out of the flow path for clogless, free-flow operation. Accepts solids to 1%-in. with a flow rate of 190 gpm. / LFE Fluids Control Div.

#### REFRIGERATION **EOUIPMENT**

802 PACKAGED CHILLER / Aircooled condensing eliminates the need for cooling towers, water treatment and pumps in model APC packaged chillers. Suitable for multiple air handling and fan coil AC units, APC chillers come in capacities of from 25 to 120 tons. / Dunham-Bush, Inc.

803 AIR COOLER CHILLER / Model ARPCX air cooled rotary screw chiller is a completely self-contained unit, needing no remote water or air-cooled condensing units. The screw compressor can operate as low as 10 per cent of full load; the chiller comes piped and wired on a single frame. / Dunham-Bush, Inc.

804 FLOWER DISPLAY CASE / Refrigerated units of 34-, 50-, and 70-cu ft feature self-closing sliding doors, black interior and exterior finish, and lighting. No plumbing is required; condensation is removed automatically. / Nor-Lake Inc.

805 UNIT COOLERS / Textured, corrosion resistant aluminum houses the Pacemaker series of coolers for meat, produce and dairy storage and warehouses where temperatures of 35 F or above are required. Capacities range from 4,500- to 144,000-Btuh. / McQuay Group, McQuay-Perfex Inc.

806 WATER CHILLERS / The Seasoncon line of air-cooled water chillers has been redesigned to offer lower costs and greater flexibility in comfort cooling applications. Sized from 75 to 130 tons, the units feature larger condenser coils and lower compression ratios. / McQuay Group, Mc-Quay-Perfex, Inc.

#### WATER SUPPLY & TREATMENT

807 CHEMICAL FEEDERS / Model "E" Chemicator is guaranteed to prevent corrosion, scale and slime from reducing the efficiency of refrigeration and AC systems. Motor-less automatic chemical feeder operates off the system's recirculation pump. View ports permit inspection. / UOP Inc.

808 WATER TREATMENT / A range of chemical treatments, feeders and instruments are available for the control of scale, corrosion and deposits in AC and boiler water systems. Consulting and analytical services are also offered. / Nalco Chemical Co.

809 WATER FILTER / For residential use, the Instapure filter removes chlorine, organic chemicals, and suspended particles from drinking water without eliminating minerals or fluoride. The unit attaches directly to a standard kitchen faucet. / Teledyne Water Pik.

#### Why only Elkay water coolers can give you all these features

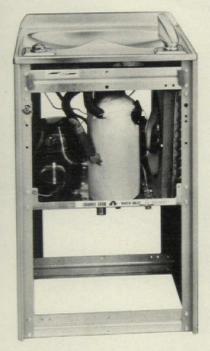






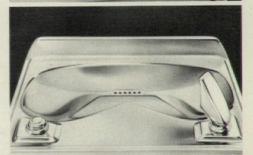






Features standard on most deluxe series models

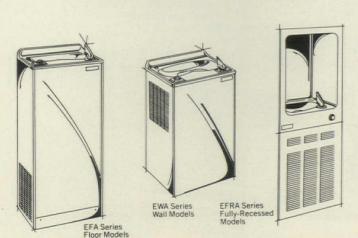


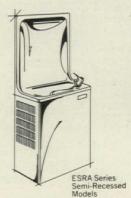


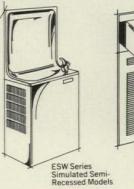
Cascade basin with anti-splash design and easy-to-clean surface

Elkay is constantly looking for new ways to make water coolers more efficient to use—easier and faster to install, adjust and service. Out of this research have come the advanced design features you see above, the combination of which is available to you in no other water cooler. For complete

information, write today for free up-to-date literature on Elkay water coolers.







2700 So. 17th Ave., Broadview, IL 60153

Manufacturing Company



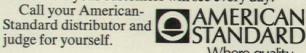
Elkay offers a complete line of water cooler models for every requirement

# We had the guts to make the best even better We gave new Aquarian II a better spout ring. A finely-honed bearing surface. A precision-machined manifold. Along with the finest disc

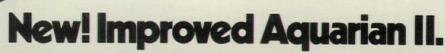
machined manifold. Along with the finest disc cartridge on the market.

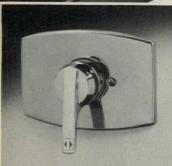
Hundreds of Aquarian II fittings were fieldtested nationally. The installing contractors endorsed the product thoroughly. Aquarian II set a new standard of excellence for the industry. Excellence your customers will see every day.

judge for yourself.



Where quality is a beautiful thing.









### The One Piece Bathing Suite.

#### One module installs in one step by one trade.

Walls, tub and top are molded in a single unit of colorfast acrylic sheet. Nail the module to your rough framing, hook up supply and drain lines and that's it. No drop ceilings to build, no dry wall to install, no painting to do. The One Piece Bathing Suite has no seams or tight corners to clean, no tile joints, cracks or crevices to collect

dirt or allow leaks. Its surface is three to six times thicker than sprayed-on coatings.

The same contemporary styling and ease of maintenance that make the One Piece Bathing Suite ideal for homes make it great for hotels and motels, too. Choose from seven decorator colors (gold, beige, blue, white, bayberry, regency blue and bone) and three sizes (60" tub-shower combination, 48" shower and 36" shower.)

Hydroguard 406 (left) provides the finishing touch. This pressure-equalizing valve automatically controls volume, temperature and flow direction (shower or tub). No more hot

Hydroguard 406 (left) provides the finishing touch. This pressure-equalizing valve automatically controls volume, temperature and flow direction (shower or tub). No more hot blasts, no more icy jolts. The pushbutton diverter automatically reverts to tub-fill after it's turned off. So the bather never gets a surprise dousing from the shower when he thinks he's filling the tub.

Contact your Powers-Fiat representative, or write Powers-Fiat, 3400 Oakton Street, Skokie, Ill. 60676.

SKOKIE, ILLINOIS 6007



# It's a beautiful way to save energy!

More and more architects are specifying McQuay's Hi-Line SEASONAIRE® heat-recovery unit. Here's why:



- 1. Very efficient water-to-air heat pump cools/heats year-round, also helps pay the energy bill by recovering the heat generated in any area of the building and transferring the heat to areas that need it.
- 2. Each unit can be individually metered with the tenant paying his own energy costs.
- 3. Lots of design options! Units can be located away from an outside wall to form a curtain cove. Or built into a room divider. Or easily concealed in a corner. Or built into an interior wall to serve two or more rooms. Or furnished with a finished cabinet for exposed mounting.
- 4. Quiet operation results from sound enclosures around the compres-

sor, and from draw-through coil design that muffles fan noise—and keeps building tenants happier.

- **5.** Very versatile, too: Units don't protrude through walls to the outside. No need for holes in outside walls—and no money spent making the holes. No need for louvers, either, to cramp your design or clash with the aesthetic integrity of the building. You can use a variety of treatments, and the compact, slender lines of the Hi-Line unit are very easy to work with.
- 6. Simplify your design: Units can be stacked—one over the other, floor by floor. Overall labor can be reduced 25% and installed cost reduced 15% or more. The slip couplings provided eliminate pipe cutting.

- If one unit fails to function, the entire building is not shut down. Only the space served by the out of service unit.
- Air-handling equipment rooms are equipment rooms are smaller or unnecessary.
- **9.** Ductwork and suspended or furred-in ceilings aren't necessary.
- 10. Chassis is easily removed and replaced. If repairs are needed, a spare chassis can be installed and the defective unit repaired at the shop.
- 11. For aesthetics and improved control, factory-installed thermostat is self-contained within cabinet, with sensor in return-air for quick measurement and fast response.



P.O. BOX 1551, MINNEAPOLIS, MN 55440

continued from page 156

E18 INDOOR LIGHTING / Industrial, commercial, and special-purpose lighting fixtures for indoor use are described in a 48-page color catalog. Included are sections on regular and heat-removal troffers, open lamp strip equipment, task lighting and high-intensity discharge fixtures, among others. / GTE Sylvania.

E19 GRID LUMINAIRE / Versatile application and efficient operation are claimed for the Troffer 4 recessed fluorescent lighting fixture. A brochure gives dimensional diagrams for the 2-, 3-, or 4-lamp fixture; tables show photometric data for each lamp type. / Westinghouse Electric Corp.

E20 SEQUENTIAL POWER / An eight-page folder describes and illustrates fully automatic sequential paralleling systems for emergency or standby power applications. This switchgear for multiple generating sets is intended for installations requiring extremely reliable power service. / Onan Corp. A, ICR/PE\*

E21 LIGHTING COSTS / A "Power Cost Analyser" permits industrial lighting users to calculate what electrical loading (in watts/sq ft) is costing per year for a given energy rate. / Westinghouse Electric Corp., Lighting Div.

E22 INDUSTRIAL LIGHTING / Design and construction details of the Flexoliner industrial luminaire are given in a four-page brochure. The fixture comes in single or tandem arrangements, and can accommodate mercury, metal halide, or high pressure sodium lamps. / Westinghouse Electric Corp., Lighting Div.

E23 LIGHTING INDEX / A complete lighting line is pictorally summarized on an index page, which provides cross-references to the manufacturer's product catalog. / Moldcast Lighting.

E24 SITE LIGHTING / Eleven data sheets cover this line of high pressure sodium site lighting products. Photometric data are provided to show light distribution patterns. / Moldcast Light-

E25 LIGHTING/SEATING /

Chesspiece units combine lighting, seating and signage in one basic landscape fixture with redwood seating slats. A brochure shows installations in malls, walkways, garden and park areas; models use incandescent or 50/100W mercury vapor lamps. / Moldcast Lighting.

E26 CUTOFF LUMINAIRES / Complete specification information is provided in a product brochure on Modules II sharp cutoff luminaires. These fixtures may be flat wall-, extended wall-, or pole-mounted. / Moldcast Lighting.

E27 LIGHTED CEILING / A condensed catalog presents the latest designs from this manufacturer of lighted ceiling systems. Technical data, maintenance information and application suggestions are provided. / Integrated Ceilings, Inc.

E28 ELECTRICAL CONDUIT / An information booklet and a fact folder provide data on intermediate metal conduit. Covered are the uses of this flexible conduit, code approvals, and bending and dimensional specifications, etc. / Allied Tube & Conduit

E29 HPS LUMINAIRES / A 24-page brochure is intended to be an idea and planning reference on the applications of energy-efficient high pressure sodium luminaires. Installations covered include indoor and outdoor lighting for plants, stores, banks and hospitals, as well as highway and walkway lighting. / Johns-Manville Sales Corp., Holophane Div.

E30 PRISMATIC LENSES / A quick reference guide describes and illustrates the range of Controlens prismatic lenses available to fulfill specific lighting needs. Among the injectionmolded acrylic lenses are flat cone prism and Refractive Grid, regressed, dropped, and wrap-around models. / Johns-Manville Sales Corp., Holo-

E31 HID FLOODLIGHTS / A color brochure details a number of benefits claimed for Vectorflood highefficiency architectural HID floodlights: precise illumination capabilities; choice of light sources; ease of installation and maintenance. Fixtures are UL-listed, suitable for wet locations, and have a NEMA Class HDB designation. / Johns-Manville Sales Corp., Holophane Div.

E32 PACKAGE GENERATOR / A brochure to assist the consulting or specifying engineer in the selection of diesel electric generator sets in the 50-400KW range describes options such as high capacity radiators or heat exchanger arrangements, additional controls and monitoring devices, and generator-mounted terminal boxes. Brief specifications are given on each of the 14 sets in the line, including both 50 and 60 Hz, standby and prime power ratings. / Caterpillar Industrial Div.

more literature on page 168



For more data, circle A77 on inquiry card

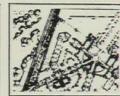


### The essential one-volume Mumford on Architecture



#### LEWIS MUMFORD ARCHITECTURE AS A HOME FOR MAN





Lewis Mumford's complete writings for Architectural Record are now collected together in one definitive volume. These 24 important essays span 50 years of the career of America's foremost architectural and social critic, and show the wide scope of concerns that have earned Mumford a unique place among the major thinkers of the 20th century.

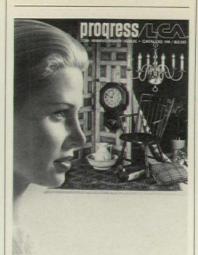
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continued from page 167



E33 LIGHTING CATALOG / The catalog contains hundreds of new items including new "Americana" residential fixtures, emphasizing middle price and lower price categories. / Progress Lighting Div. of LCA Corp.

E34 ANNUNCIATOR / Literature describing low-voltage annunciator systems designed for offices, clinics, nursing homes, and restaurants outlines the versatility of the intercom systems which communicate orders or status through any combination of lighted pushbuttons, indicator lights, and audible devices. As a typical example, the brochure uses a medical clinic where doctors, nurses, and receptionist communicate with each other by reading lighted pushbuttons on annunciator panels located inside and outside of examining rooms and at the receptionist's master control. The brochure also describes an inexpensive, desk-top central door monitor. / Touch-Plate Electro Systems, Inc.

E35 SOUND REINFORCEMENT / A 16-page brochure describes how this line of sound reinforcement components handle critical sound requirements ranging in size and complexity from mammoth outdoor concerts to lounges. The line now includes an audio console, two power amplifier models, an extended range speaker system, a portable speaker column, a speaker column for permanent installations, an electronic crossover, and custom accessories. / Shure Brothers

E36 GENERATOR SETS / The fourpage brochure describes generator sets ranging from 10kW to 1050kW and lists 27 standard diesel driven generator sets and 11 gas driven generator sets by model number and power ratings. Included is the equipment offered with standard generator sets as well as optional equipment and controls. The literature deals, in general, with generator design and performance as well as offering brief descriptions of diesel and gas driven sets, and the application situations which determine the selection of one or the other. / Fermont Div., Dynamics Corp. of

E37 INDUSTRIAL RELIGHTING / A "do-it-yourself" worksheet for calculating the energy and cost savings that can be achieved by relighting industrial facilities with high pressure sodium (HPS) fixtures details a quick three-step procedure for estimating cost savings and payback period. / Holophane Div. of Johns-Manville Sales

E38 BALLAST & STARTER / A sixpage color brochure describes ballast and lamp starting circuits needed to operate the company's line of HMI HCI daylight lamps. Designed for lamp power ranges 200W through 4000W STABILARC constant power ballasts hold lamp color temperature constant for a variety of operating conditions, while the LAMPSTARTER MODULES provide the high voltage impulses necessary to strike the initial arc. HMI and HCI lamps provide the daylight spectrum required by theater, TV, motion picture, and special effects lighting applications. / TDC Div. of Frequency Technology, Inc.

E39 LOW-PROFILE HEATER / A data sheet describing a UL-listed electric heater designed to fit in tight spaces contains information such as drawings, dimensions and ratings which range from 500W at 120 volts with 1706 Btu/hour up to 2000W at 240 volts with 6826 Btu/hour. / I-T-E Imperial Corp.



E40 HEAT PUMP / A "mini manual" on the theory and mechanics of the heat pump is one of nine company booklets intended for servicemen of various type residential central heating and air conditioning equipment. The newest manual introduces the theory of the heat pump and briefly describes many of the major parts, their maintenance and importance within the pump system. / Rheem Heating & Air Conditioning Div.

E41 CIRCUIT BREAKER / A bulletin describing a full line of "Accutrip" circuit breakers for precision systems contains information such as ampere settings (both standard and optional). time-current characteristics, safety provisions, mounting variations, dimensions and electrical specifications. / I-T-E Imperial Corp.

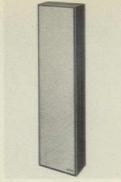
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#### COMMUNICATIONS

822 INTERCONNECT SYSTEM / The "D-1000" telephone interconnect system, an electronic PABX that replaces a hospital's present telephone system, is now equipped to handle up to 800 lines and 152 trunks. / Executone, Inc.

823 BUILDING AUTOMATION / Energy management, life safety, elevators and escalators, preventive maintenance, guard patrol, lighting, heating, ventilating, air conditioning-in one building or many-all can be placed under "System 570" control. / Powers Regulator Co.

824 BUILDING MONITOR / The desk-top central monitor provides both visual and audible alarm when a remote sensor is tripped. Applications include door monitoring for hospitals, industrial security, and smoke detection. Sensors can be placed up to one mile away. / Touch-Plate Electro Systems, Inc.

825 SMOKE DETECTOR / Ionization smoke detector has three chambers: reference, detection, and balancing/screening. The low-voltage device uses a Beta radiation source. Sensmoke detectors self-compensate for humidity and atmospheric changes; stabilizing baffles permit their use in areas of high-velocity air movement. / Gamewell/Alarmtronics.

826 COMMUNICATIONS / Designed for easy installation in new or existing high-rise buildings, the SAS Fire Fighter's Communication System enables emergency personnel to keep in contact throughout a building. The system can be linked to other detection and alarm equipment. / Notifier

827 BACKGROUND MUSIC / A "super-cassette" taped program provides up to 400 music selections, then automatically repeats itself. The user has complete control of the Model 800; snap-on cassette may be changed easily without threading. / Tape-athon

828 SPEAKERS / Engineered for interior areas with wide-range sound requirements, the SSD-1060 sound column speaker system is said to provide high intelligibility with wide frequency response and clear sound projection up to 200 ft. / Argos Sound.

829 FIRE-INTRUDER ALARM / This solid-state, UL-listed residential alarm system provides separate perimeter and interior intruder circuits. A supervised fire detection system monitors fire/heat and smoke sensors. / Nutone Div., Scovill.

830 HOME SECURITY / Intended for apartments and smaller homes, this package system includes a plug-in master control and magnetic contact switches for two radio transmitters; receiver and alarm horn are located in console. The unit is UL-listed and meets FCC requirements. / Nutone Div., Scovill.

COMMUNICATIONS **ELECTRICAL & ELECTRONIC CONTROLS ELECTRICAL HEATING-COOLING** LIGHTING MOTORS & CONTROLS POWER GENERATION PROTECTIVE SYSTEMS RACEWAYS SERVICE & DISTRIBUTION

WIRING DEVICES



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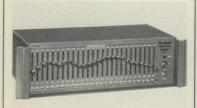




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831 PATIENT-NURSE CALL / "Call-A-Nurse" systems for extended care facilities are now UL-listed under standard 1069. Also part of the communications unit is a pillow speaker that combines call-placement with TV channel and volume selection, etc. / Rauland-Borg Corp.

832 SOUND EQUALIZER / Model 6226 is a 1/3-octave, 26-filter equalizer intended for extended-range use in concert halls, theaters, and performing arts centers. Dual-output capability eliminates the need for a low-level crossover network or separate filter sets. / Rauland-Borg Corp.

833 TELEPHONE SYSTEM / Based on computer logic circuitry, Telecenter II provides moderate-cost complete communications for schools, institutions, and commercial locations. Options include alarm signaling, automatic time signaling, and zone or group call capability. / Rauland-Borg Corp.

834 NURSECALL / Care/Com "No Frills" is said to be a simply designed, easy to install nurse-patient communicator. One control station, used with compact pillow speakers, will provide good voice quality communications with up to 60 patients. / Executone, Inc.

835 SMOKE-FIRE DETECTOR / Available in direct-wired, cord-connected and battery-operated models, solid-state Earli-Gard smoke and fire detectors have dual ionization chambers to compensate for changes in humidity, temperature and atmospheric pressure. / Square D Co.

836 IN-WALL AMPLIFIERS / New Spectrum-Master units include a builtin equalizer to enhance sound quality and volume under varying acoustical conditions. Suitable for installation in auditoriums, gyms, churches, etc., three amplifier capacities are available: 35-, 60-, and 100-W RMS. / Rauland-Borg Corp.

837 CLOCK SYSTEM / The Synchro-Pulse clock is a 12-volt solid-state system, with a master clock supplying a pulse to as many as 200 secondary clocks once per minute. Battery standby ensures operation of all clocks during a power interruption. / Tri-tech, Inc.

838 NOISE MASKING / The "Action Office Acoustic Conditioner" is a noise masking device for open-plan installations. The self-contained 8-in. diameter unit accommodates very absorbent to highly reverberant environments, and can be precisely tuned for each individual area. / Herman Miller,

839 STAFF REGISTRY / Any telephone in the hospital may be used by the staff to register "in" and "out" and get voice messages, with the Telestat solid-state system. The registry uses the hospital's telephone wiring; no additional wiring, tape loops, etc., are required. / Executone, Inc.

840 LIFE SAFETY CENTER / This product provides computerized automation capabilities for monitoring of fire and security points, and initiates commands to signal fire and public audio systems, door controls, ventilation fans, etc. / Robertshaw Controls,

841 ALERTING SYSTEM / The RECOM unit integrates with multiplexed fire/security systems to provide a firefighters' emergency communication facility, using remote in-place or portable phones. Other models are for public alerting, or to supply emergency telephones throughout a building. / Robertshaw Controls Co.

842 SMOKE DETECTOR / A selfcontained unit uses an ionization-type detector head and a 120 VAC-powered base for direct operation of door releases, bells, fans, etc., as well as activating a fire alarm. It is available with back boxes for flush- or surfacemounting. / Robertshaw Controls Co.



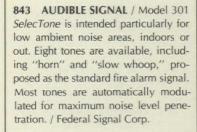
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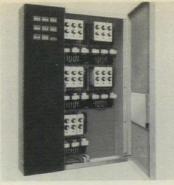
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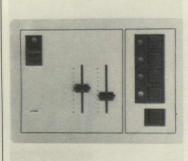
844 COMMUNICATIONS / System 7200 fire fighters' internal communications system provides both zone annunciation and two-way voice contact between the fire control center and any of 64 zones. Only a single pair of supervised wire is needed. / Johnson Controls, Inc.

#### **ELECTRICAL & ELECTRONIC CONTROLS**

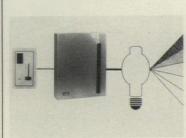
845 POWER CONTROLLERS / This automatic power factor controller is said to maintain reactive power at optimum load levels for power conservation. Units are furnished fully factorytested and ready for installation; ratings from 100- to 1,000-Kvar at 480 VAC are available. / H. K. Porter Co., Inc.



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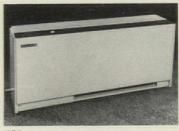
847 DIMMING CONTROLS / Versaplex controls allow quick selection of complex lighting scenes, using mercury vapor, fluorescent or incandescent units. Controls can be operated from lecterns, projection rooms, etc. / Lutron.

848 SOLID-STATE DIMMER / Hyperion systems offer the ability to dim 100-, 175-, 250-, 400-, and 1000-W mercury vapor lamps. No ballasts are needed to provide continuous dimming from 100- to 2-per cent lumen output. / Lutron.

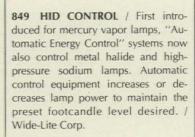




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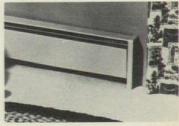


#### ELECTRICAL **HEATING-COOLING**

850 CEILING HEATERS / Series 3470 and 3480 high-velocity electric heaters may be either surface- or recess-mounted in a T-bar or hard-finished ceiling. The all steel, fully enclosed elements do not need filters; a thermal cut-out protects the heater, which is warranted for five years. / Markel Electric Products, Inc.

851 WATER-AIR CONSOLE / The "800 Series" water-to-air heat pump system uses individually-controlled console units to provide year-round heating and air conditioning. "800 Series" systems can be used with solar energy collectors. / Friedrich Air Conditioning and Refrigeration Co.







854

852 HIGH-EFFICIENCY AC / Low first-cost and easy installation are claimed for these 32-in. through-thewall heat/cool units, suited for replacement use in hotels, motels, apartments and other commercial structures. A top air discharge helps reduce drafts, and permits low wall mounting. / General Electric. A,E,LC\*

853 HOT WATER BASEBOARD / These hot-water electric baseboard heat units require no plumbing, ducts or flue. A water/antifreeze solution heated within a finned copper tube provides even, draft-free heat, according to the manufacturers. / Intertherm

854 SILL CONVECTORS / These custom wall-to-wall heaters combine standard components into a system that can include variable heat densities, inactive sections, and control enclosures within one monolithic cabinet. Bronze finish is standard; special colors, patterns and grilles are available on order. / Markel Electric Products, Inc.



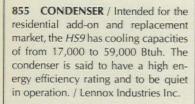
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**856** AIR CONDITIONING / Six cooling-only and four heat/cool models are offered in this line of 26-in. through-the-wall residential air-conditioning units. / General Electric. A,E,LC\*

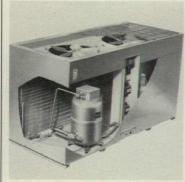
**857 TERMINAL AC UNITS** / Zono-line II heat/cool units have two fan motors for improved staged heating and airflow. High-efficiency and hydronic models are included in the line. / General Electric. A,E,LC\*



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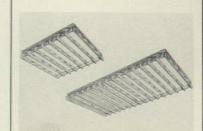


859 BLOWER COIL / The CB11 blower coil, designed for apartment, motel and residential applications, may be installed in an attic, crawl space or closet, or wall-mounted in up-flow or horizontal position. The heavy-gauge steel cabinet is fully insulated. / Lennox Industries Inc. E,LC,ICR/PE\*

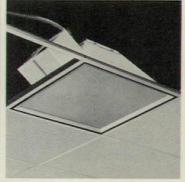
**860 CONDENSING UNITS** / For commercial/industrial applications, *HS7* series condensing units can be installed on the rooftop or ground-level slab. Two sizes are available: 15- and 22-tons. Both have dual direct-drive fans for a high refrigerant cooling capacity. / Lennox Industries Inc. E,LC,ICR/PE\*



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861 STRIP LIGHTING / "Counterpoint" features an individual or continuous unbroken mounting with standard 90-deg. inside and outside corners. The decorative closure is available in mirror chrome, gold, black or white. / Neo-Ray Lighting Systems, Inc. ID\*

862 OAK-FRAMED FIXTURE / A hand-rubbed solid oak frame combined with a latticed grille is featured on the "Scandia" fluorescent lighting fixture. The frame hinges. / Sim-Kar Lighting Fixture Co. A,ID\*

863 HID FIXTURE / "Innovator I," a 2- by 2-ft HID fixture designed for mounting either in inverted "T" suspended ceilings or in plaster ceilings, can accommodate air return or static function and can operate mercury, metal halide and high pressure sodium light sources. / Lithonia Lighting.



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864 FLUORESCENT COFFER / This unit fits standard 4- by 4-ft grid ceiling openings. The 6-in. deep EC coffer fixture eliminates the need for additional tile cutting, using 2- by 4-ft tiles. / Lithonia Lighting.

865 PENDANT HOOD / In addition to the original 16-in. diameter model, the "Pendant Hood" is now available in diameters of 12, 20 and 26 in. Designed by Stu Barnes, it is made from spun steel, available in a variety of finishes, and has interiors of white baked enamel. / Robert Long, Inc. ID\*

866 OFFICE PENDANT / One of the features of the company's "Synercon 60" ceiling system is this pendant task lighting fixture, which is suspended by chrome-plated rods from an electrified track in the grid system. / Armstrong Cork Co. A\*



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867 HID LIGHTING / A "Hi-Bay" lighting fixture, which allows installation in ambients to 65 C, is available in 150W, 250/400W, or 1000W highpressure sodium; 250W, 400W, or 1000W mercury vapor; 250W, 400W or 1000W metal halide lamps. The reflector is porcelain, aluminum or glass. / Benjamin Electric Mfg. Co.

868 CEILING / Each "Delta" unit is 23% in. square. It is made of steel with a baked-on painted finish, and uses a 150W incandescent lamp. It can be used in conjunction with a recessed fixture, opal glass cover, or white opal plastic dome. / Staff Lighting Corp.

869 EMERGENCY LIGHT / A solidstate emergency exit light, which meets OSHA 411egress identification requirements is available for 120 or 277 volt application. It operates for a minimum of 90 minutes, and the lamps have a 10-year lamp life. / Benjamin Electric Mfg. Co.



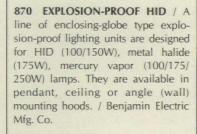
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871 DOWNLIGHT / The POWER-MISER mercury-vapor lighting fixture and ballast unit, with a conventional screw socket, replaces recessed incandescent downlights. It uses a 75W HID lamp that is said to produce as much light as a 150W incandescent lamp. / Crouse-Hinds Co.

872 RETAIL LIGHTING / "Reflectee II" is designed specifically for large retail stores. Fluorescent fixtures are recessed above the ceiling plane into highly reflective troffers. / Donn Products, Inc. A\*



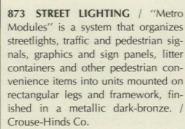
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**874 LIGHTING POLE** / The *TRI-ROUND* extruded aluminum pole is triangular at the bottom and tapers to a round top for a greater strength/weight ratio than spun aluminum poles. Compatible with a variety of site luminaires, it is available in heights up to 40 ft. / Crouse-Hinds Co.

875 LUMINAIRES / Square (LSL) and cylindrical (LRL) luminaires with a choice of HID lamps have a spun aluminum upper collector reflector and a lower distributor reflector, producing a Type V circular light distribution. The visual cutoff angle is approximately 75 deg. / Crouse-Hinds Co.



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876 LUMINAIRE / Round RSL luminaire has two precisely shaped, polished aluminum reflectors adjustable to produce up to 30 different light patterns. Made in 20- and 23-in. diameters, it is available with a choice of HID lamps. / Crouse-Hinds Co.

877 GATE-KEEPER / A steel plate of dark green stands 39½ in. high; it is a double-faced 15½-in.-wide monolith. / ITT Landmark Lighting.

878 PATH LIGHT / This unit stands 13½ in.; 8 in. wide, this double-faced fixture takes an incandescent lamp up to 100W. / ITT Landmark Lighting.



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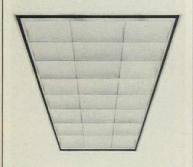
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879 BOLLARDS / In graphite color, they are in two heights: 151/2 and 271/2 in. Both are 8 in. in diameter, and use incandescent lamps up to 100W. / ITT Landmark Lighting.

880 RECESSED FIXTURES / Paralouver II is a family of low brightness recessed fixtures for static/air supply or heat transfer/air supply functions. Three lamp models can be switched for one-, two-, or three-lamp operation. / Day-Brite Lighting Div., Emerson Electric Co.

881 AREA LIGHTING / "Formlite" is available in three sizes for all major light sources and wattages. A lens of high-impact-resistant, tempered glass, and hydroformed aluminum reflectors diffuse the light. The housing finish is matte black acrylic enamel. / ITT Landmark Lighting.

882 EMERGENCY LIGHT / The "Guardsman" employs sealed beam lamps, provides up to 90 minutes of light from moment of power failure, and has a solid state battery charger that recharges in 12 hours or less after discharge. / Standby Systems, Inc.

883 OUTDOOR LIGHTING / This unit will accept a variety of HID ballasts and lamps (70W through 1000W). Visual cutoff is 75 deg., and the clear Lexan enclosure resists vandalizing. Black, bronze and pewter gray polyurethane finishes are offered. / Prescolite, A U.S. Industries Co.

884 FLOODLIGHT / The Areamaster, a weatherproof cast aluminum floodlight series, is prewired with an integral ballast for 400W metal halide and mercury lamps or 250W-400W high-pressure sodium lamps. It is engineered for general floodlighting. / Appleton Electric Co.

#### 885 EMERGENCY LIGHTING /

Tamperproof and maintenance-free, this unit is suitable for use in corrosive atmospheres. For wall or ceiling mounting, it provides instant emergency lighting when AC power fails, according to the company. / Tork, Inc.

886 DOWNLIGHTS / "Aura," suitable for either recessed or semi-recessed mounting, replaces a 12-in. sq ceiling tile or may be installed in all types of ceiling construction. The downlights are available in five models using incandescent or HID lamps. / Omega Lighting, Emerson Electric Co., Inc.

887 TASK LIGHT / One table- and two screen-mounted versions feature a 20-gauge steel housing with a singlefluorescent tube and low-brightness parabolic wedge louver. In addition, each features a separate on/off switch; 15-amp, 125 volt convenience outlet; and a 9-ft molded cord set. / Hauserman Inc. A\*

888 STORAGE AREA HID / These HID downlights are designed to direct light up high-stack storage areas and down long aisles. Engineered for use with mercury vapor, metal halide and high-pressure sodium lamps, the "Aisle-Bay" fixtures are housed in a parabolic elliptical reflector. / Keene Lighting, Div. of Keene Corp.

889 EMERGENCY LIGHT / A power source that converts any fluorescent fixture into an emergency fixture, the "SpecLine EMP13" is hinged for installation and servicing. Replacement batteries are readily available and provide 60 per cent of initial illumination for a period of 90 minutes. / Keene Lighting, Div. of Keene Corp.

890 TENNIS LIGHTING / Sharp cutoff beam control reduces light pollution or annoyance factor. The system integrates into the fence line, and has a high lumen 400 to 1000 W metal halide lamp. / C-E Elsco Lighting Products. A\*





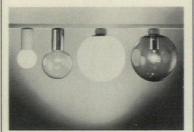
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891 WET LOCATION LIGHT / Low brightness, wet location lighting fixtures feature a break-resistant acrylic lens, corrosion-proof Lexan latches and watertight neoprene gasketing. Polyvinyl chloride (PVC) finishes and slope-side design are included. / Keene Lighting, Div. of Keene Corp.

892 OUTDOOR LUMINAIRE / Featuring a co-axial mounting arrangement combined with a concentric, segmented optical system, this luminaire produces an IES Type V light distribution utilizing a 1000W metal halide lamp. A junction box is part of the yoke assembly. / Gardco Mfg. Inc. A,E\*

893 WALK WAY LUMINAIRE / A decorative low-wattage, high-pressure sodium or mercury vapor design with integral ballast has steel or aluminum poles with wood-faced brackets. / C-E Elsco Lighting Products. A\*



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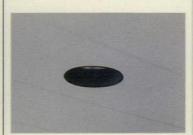
894 TRACK LIGHTING / The "Basic Lytespan" system features components in teakwood grain and polished chrome, as well as matte white and matte black. The spotlights include spheres, squares, step cylinders, basic cylinders and universals. / Lightolier, Inc. ID\*

895 OUTDOOR LUMINAIRE / An arm-mounted vertical downlight luminaire utilizes a 1000W metal halide lamp. A low profile minimizes windloading problems. Finishes are: anodized or painted bronze. / Gardco Mfg. Inc. A,E\*

896 FLAT PRISMATIC / Mayfair features a flat prismatic glass lens for long spacing, sharp cut-off and lamp obscuration, for most HID lamps up to 1000W. It is finished in matte black, brown or bronze, and matching poles are available. / Johns-Manville Sales Corp., Holophane Div.



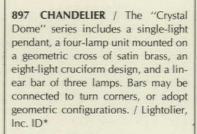
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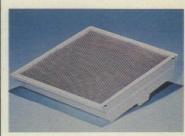


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898 PRISMATIC SERIES / The "Bantam 5000" series HID luminaires for commercial applications feature open prismatic glass reflectors for 100W-250W mercury lamps. Mounting with black baffle trim or 2-ft-sq regressed metal pan is offered. / Johns-Manville Sales Corp., Holophane Div.

899 HID FLOODLIGHT / Prismaflood outdoor luminaires combine HID operation with corrosion-resistant construction. They feature a prismatic glass lens and aluminum reflector optical system, for HID lamps up to 1500W. There is a choice of light distribution. / Johns-Manville Sales Corp., Holophane Div.



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900 RECESSED LUMINAIRE / Backed by a two-year material warranty against defects in parts and workmanship, the unit features injection-molded lenses. These 2- by 4-, 1by 4- and 2- by 2- ft fixtures include spring-loaded positive latch doors and choice of door frames. / Johns-Manville Sales Corp., Holophane Div.

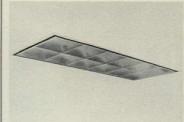
901 HID LUMINAIRES / The 3000 series commercial HID luminaires features a choice of natural, champagne or black anodized color reflectors; recessed lamps up to 400W for mercury and metal halide, or 150W HPS; potted ballasts and pre-assembly. / Johns-Manville Sales Corp., Holophane Div.

902 UNITIZED BALLAST / The reflector system is a hinged modular unit affording installation and maintenance economies. It is designed to swing out of the way or to be completely removed as a single unit. / Sterner Lighting Systems.













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903 RAIL LIGHT / The illuminated "Rail-Lite" is designed to provide lowlevel illumination. It may be wallmounted or post-mounted and is constructed of heavy gauge aluminum with finishes of anodic hardcoat or baked acrylic enamel. / Sterner Lighting Systems.

904 GRAPHIC LUMINAIRE / The framed cube is recommended for graphic presentation because of its square format and individual face panels. Easily removed graphic side panels are completely gasketed and available in translucent white Lexan. / Kim Lighting, Inc.

905 CUTOFF LUMINAIRE / This wide throw cutoff luminaire provides broad illumination at low mounting heights, (8 to 16 ft), while controlling glare through light cutoff at high angles. A compact reverse draft reflector system produces a symmetrical wide throw Type V distribution. / Kim Lighting, Inc.

906 TENNIS LIGHTING / The units feature a linear-shaped lamp compartment with 48-deg. sloping sides for good light distribution and efficiencies. Units are available in 400W and 1000W models and are finished in acrylic enamel beige color. / Guth Lighting, Div. of Sola Basic Industries.

907 CEILING SYSTEM / This ceiling integrates acoustics, Hvac and lighting into a modular subsystem for new or remodeled environments. It is all steel with perforated steel coffers finished in semi-gloss white acrylic enamel. Lighting is supplied by 30-in.-sq fluorescent units. / Guth Lighting, Div. of Sola Basic Industries.

908 CUTOFF LUMINAIRES / "Modules II" cutoff luminaires allow a coordinated design to be used from the walls of buildings on through the site. This lighting is available from 100W mercury vapor through 1000W highpressure sodium, eliminating all glare and brightness. / Moldcast Lighting.

909 TROFFER / Twenty-in.-wide "Parabolume" troffers are designed for mounting in the various 5- by 5-ft modular ceilings. Luminaires may be furnished with endpans or a variety of side trims for different ceiling applications or appearance in two-lamp or three-lamp models. / Columbia Lighting, Subsidiary of GTE Sylvania.

910 LIGHTING & SEATING / A series of below-eye-level lights, which also double as seats or signage, the "Chesspiece" series features finishes of standard black or optional mirrorpolished metal, simulated concrete, bronze paint or laminated wood. Moldcast Lighting.

911 EXIT SIGN / This self-powered and normal operating emergency exit sign features a flashing trouble light indicator. The "Life Saver 400" Series has a solid state, two-stage charging module with low voltage cutout. Also available is the optional intermittent 70 decibel audio-signal in emergency mode. / Moldcast Lighting.

912 LIGHTED CEILING / MIRRA-LITE is a suspended ceiling of flat polished stainless steel mirrors supported by a chrome finished modular grid. Decorative lighting is provided by exposed incandescent lamps located at grid intersections 18, 24, 30 or 36 in. on center. / Integrated Ceilings, Inc.

913 LUMINOUS SKYLIGHTS /

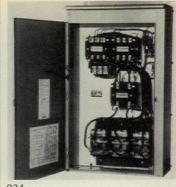
Using standard components, the new line is designed to suit the needs of specialized interior applications. Supporting grid is suspended on hanger wires from the structure. Lighting from above is by fluorescent strips. / Integrated Ceilings, Inc.

914 PLAZA LIGHTING / Coppertone aluminum spot welded frame with stainless steel hardware and polycarbonate panels help assure durability even in harsh atmospheres. A HID sodium or mercury vapor light source is provided. The unit measures 32 by 17 in. / Welsbach Lighting Products Co., Inc. A\*



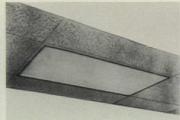








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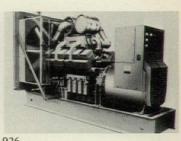
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915 MIRRORED CEILING / MIRRA-PLANE is a fully accessible suspended ceiling of flat polished stainless steel; 2-ft-sq mirrored panels are hung on torsion springs from a totally concealed T-bar grid. Panels are compatible with most standard incandescent downlights and wall washers. /Integrated Ceilings, Inc.

916 TRAFFIC SIGNAL / The unit which is suitable for both indoor and outdoor use is recommended for any application where directional control "STOP-GO" or "ON-OFF" type functions are indicated. / Alkco Mfg. Co.

917 NIGHT LIGHTS / Designed with aluminum louver to provide a subdued low level light on the floor without a visible brightness source, the night lights are fluorescent. A duplex outlet adds the function of a power supply. / Alkco Mfg. Co.

918 HID FLOODLIGHT / All fixtures are of die cast corrosion resistant aluminum and are finished with high temperature baked-on epoxy. Extra features include standard equipmentstainless steel external hardware and high temperature silicone gasketing. / Red Dot Lighting, Div. L.E. Mason Co.

919 TROFFERS / Fluorescent lighting fixtures, including two heat removal models for use in industrial and commercial applications, Super "G" troffers come in 1- by 4-, 2- by 2-, and 2- by 4-ft sizes for installation in NEMA type "G" grid ceilings. / GTE Sylvania

920 TENNIS FIXTURE / For indoor tennis courts, "Match-Point" fixtures use 1000W Metalarc lamps and operate in an inverted mounting position that aims light towards a reflective ceiling. / GTE Sylvania.

921 STACK LIGHT / A light tube of satin anodized aluminum can be fabricated from stock components to any length for fluorescent lighting of book stacks. The fixture can be attached directly to the stacks or to building structure, and is available in painted finishes as well. / Peerless Electric Co.

922 LIGHT GRIDS / This system of suspended aluminum modules can accommodate indirect fluorescent and direct incandescent lighting in the same ceiling. It is fabricated from stock extrusions to any specified requirement. Suspension hardware may be supplied. / Peerless Electric Co.

#### **MOTORS & CONTROLS**

923 ENCLOSURES / Explosion-proof quick-opening EPC enclosures, designed to protect motor controls and circuit breakers in hazardous locations, have a multiple-thread design for opening and closing covers in less than two full turns. They meet UL Standard 698. / Crouse-Hinds Co.

924 AUTOTRANSFORMER / A family of reduced voltage autotransformer starters, designed to start electrical motors under reduced current conditions, are intended primarily for use in commercial and industrial applications where the power source is insufficient to start larger motors on full voltage. / GTE Sylvania.

#### **POWER GENERATION**

925 STATIC INVERTER / The "Space Saver SSG" is a compact, wallmounted generator/inverter system, 48-in. high by 32-in. wide. Complete supervision panel is placed on the front door of the cabinet; capacities of 800-, 1000-, 1300-, and 1500 W are available. / Standby Systems, Inc.

926 GENERATOR / This high-capacity diesel-fueled electric generating set is designed to provide maximum emergency and/or standby power. The 750,000-W Series 750.0DFZ includes a revolving field, brushless alternator, and a resiliently-mounted console containing complete DC engine controls. / Onan Div., Onan Corp. A, ICR/PE\*



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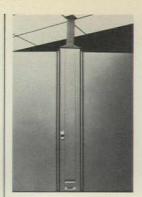
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927 EMERGENCY POWER / Generator units feature a power excitation principle that allows extremely fast recovery from load transients: .05 seconds or less. The unit's high amperage output trips circuit breakers connected to a short circuit, returning power quickly. / Kohler Co. A,E\*

#### PROTECTIVE SYSTEMS

928 FIRE CONTROL PANEL / The station controls heat, smoke and/or ionization detection devices in home or light commercial applications. ULlisted units operate on 120 volt AC, and have automatic trickle chargers for standby power. / Fire-Lite Alarms, Inc. A\*

929 ACCESS CONTROL / The "MAC540" console is the center of the company's new "Cardentry" system 500 access control and monitoring system. It makes all access decisions based on location of attempted entry, time of day and day of week, and the cardholder's pre-programmed security level. / Rusco Electronic Systems. A\*

#### **RACEWAYS**

930 POWER RACEWAY / Produced from a rigid vinyl extrusion, this wire manager provides a dual-chambered raceway for conducting all power and communications wires within office partition installations. A flexible bellows conceals wiring between panels and over post-connectors. / Hauserman Inc. A\*

931 SERVICE FITTING / A flip-up lid permits easy access to outlet box. Carpeting comes up with the hinged cover; the unit is flush with the floor surface. / Roll Form Products, Inc. A\*

932 RACEWAYS / The "Q-Floor Taproute" in-floor raceway system, combined with the "Tapmate II" preset box, is said to substantially reduce the cost of activating telephone and power outlets. / H. H. Robertson Co.

933 POWER DISTRIBUTION /

Compatible with this firm's office partition line, the "Power Screen" accepts wiring from ceiling or floor feed without having to thread wires or drop connectors. Eight outlets are provided at three levels; a pass-through permits running power cord to each side of the panel. / Hauserman, Inc.

934 POWER POLES / The "Tele-Power" pole is now made with an adjustable foot, allowing the 10-ft pole to be extended by as much as 4-in. A two-piece, wraparound steel boot covers the foot area for a finished appearance. / The Wiremold Co.

935 OVERHEAD RACEWAYS / New fittings for this overhead metal power/telephone raceway system are said to simplify installation and connection, and to satisfy code requirements. Corrosion-resistant covers protect unused overhead outlets. / The Wiremold Co.

936 OUTLET COLUMN / A metal shield isolates power from communications facilities within this 2½-in.-wide distribution pole. The column is equipped with one 20-amp U-ground duplex receptacle; the base has a skid-resistant pad that will not damage tile or carpeted flooring. / Hauserman Inc. A\*

937 OUTLET POLES / T/P poles bring telephone and electrical outlets within reach of the user where power systems are located above suspended ceiling. Each T/P pole has four prewired 15-amp 3-wire receptacles mounted separately from the telephone conduit; units are UL-listed. / Walker Parkersburg Textron.

#### SERVICE & DISTRIBUTION

938 ELECTRIC METERS / In the apartment installation shown, each meter station is completely self-contained and holds the kW/hr meter, accessories, and tenant main circuit breaker in a single, one-piece housing. / GTE Sylvania.



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939 COUPLING / Expansion/deflection coupling provides flexible, watertight connection to protect metal or PVC conduit runs where seismic disturbances, ground settling or thermal expansion/contraction may occur. Coupling adjusts for angular misalignment up to 30 deg. / Crouse-Hinds Co.

940 PANELBOARD / Panelboard for use in lighting and electrical distribution applications features circuit breaker connections bolted directly to the main bus. The panel also offers high short circuit bracing, up to 65 KA. / GTE Sylvania.

941 SWITCHGEAR / Large 15 kv substations provide electrical power to "Class II" switchboards, which control the power for computers, as well as all lighting and air-conditioning loads. / GTE Sylvania.



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942 DISTRIBUTION / "Electro-Connect" is a flexible metal-clad plug-in branch circuit wiring system for commercial and institutional buildings. UL-listed "Electro-Connect" provides all connectors, boxes and interface components to join the system to all electrical devices. / Emerson Electric.

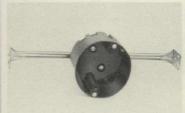
#### WIRING DEVICES

943 RECEPTACLE / OWIK-GARD "GFSR," a shallow, UL-listed receptacle which installs in an outlet box 11/2-in. deep provides Class A protection from ground faults. It is available in either ivory or brown, 15 or 20 amp. / Square D Co.

944 HOSPITAL RECEPTACLE / Designed with a built-in ground fault interrupter, the receptacles meet or exceed all UL tests for "Hospital Grade" and conform to all Federal and 1975 National Electrical Code specifications. / Bryant Electric Co., Div. of Westinghouse.



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946 CEILING BOXES / The new line, which consists of nail-on type, J-Bracket and Bar-Hanger versions features a steel insert. The fixture mounting screws are locked in steel, not in plastic. Tested for 200 lbs at 105 C, the steel inserts cannot pull out. / Slater Electric Inc.

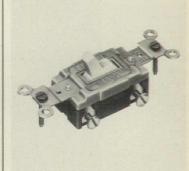
947 VERTICAL COVER / A weather resistant vertical cover is designed for outdoor installation of ground fault circuit interrupters and decorator duplex receptacles. Constructed of heavy duty die cast aluminum, with a silver grav baked enamel finish, the new "3723" cover features a self-closing flip lid. / Slater Electric Inc.



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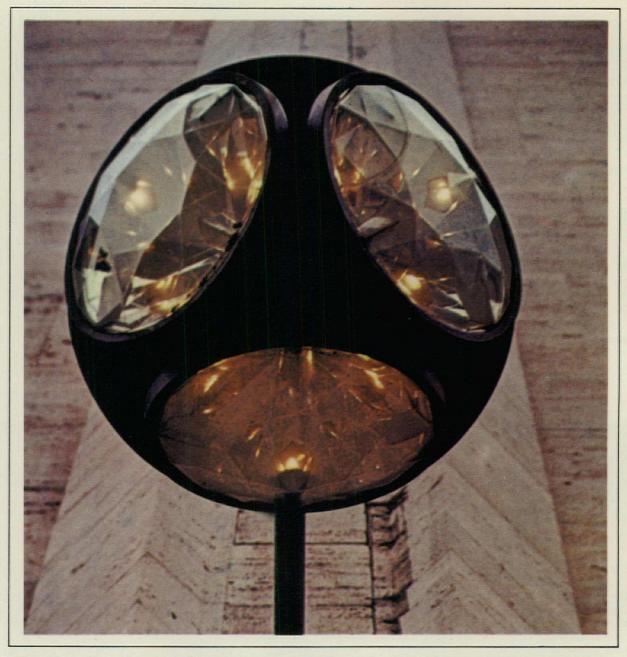


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948 SWITCHES / The company's single pole and three-way AC quiet switches, 15A 120 VAC, have been redesigned to accept four #10 wires. This switch allows the contractor to feed in and out of the same terminal. / Slater Electric Inc.

949 GROUND RECEPTACLE / A high abuse receptacle with isolated grounding is recommended for use with mini-computers, cash registers and laboratory equipment. Spec-Master isolated ground receptacles are UL-listed. / Leviton Mfg. Co., Inc. E\*

950 30 AMP SWITCHES / The line features a double pole line for disconnecting air conditioning and water heater loads inexpensively. These 30 amp switches feature a fully enclosed switch mechanism in a thick-sectioned, non-tracking urea housing. / Leviton Mfg. Co., Inc. E\*



Sterner custom lighting. Next time your imagination runs away with you, we'd like to tag along.

There's nothing we like better than accepting the challenge of turning your lighting concepts into reality.

The lighting fixture shown above, built for the New York State Theater at Lincoln Center, is a prime example. The architect, Phillip Johnson & Associates of New York, supplied the original lighting design ideas, and we delivered a quality-built system that included everything from the chandelier in the theater to the submersible floods in the fountain.

In addition to our custom design capabilities, Sterner offers a lighting library of outstanding fixtures... plus the expertise of our Simes and Infranor Divisions to help solve specialty lighting and floodlighting problems.



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#### ...by specifying Parabolume Low Energy Lighting!

It's true. In a carefully planned office, Parabolume can be an important energy-saving component of the total building design. Widespread light distribution may mean fewer fixtures on wider mounting centers or it could mean comparable light levels with one less lamp per fixture. This adds up to lower electrical loading and lower HVAC costs lower watts per square foot. And lower

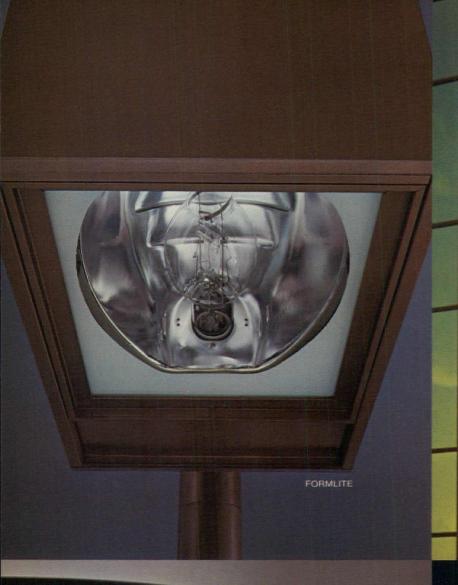
maintenance with extended component life assures lower operating expenses. Comfort and esthetic appearance are just extra benefits. Compare Parabolume, on your job, on the basis of life-cycle-costing. Ask us to prove it!

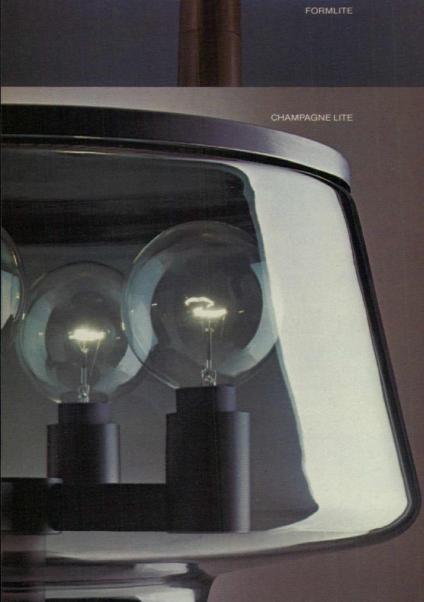


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For more data, circle A79 on inquiry card





#### SHINING EXAMPLES OF PURE DESIGN FROM LANDMARK.

Three of our designer series outdoor luminaires.
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Landmark Lighting TTT

The Most Advanced Apartment Lobby Communications and Entry

#### Dial-6...from NuTone

That's a pretty strong statement, and we wouldn't say it unless we believed it. NuTone Apartment SecuriCom® is designed for use in new or existing apartment buildings. The concept is so simple, so beautiful you'll wonder why no one ever thought of it before. NuTone Apartment SecuriCom requires no hard wiring to the apartment! It is simple to install, simple to operate—using tenants' own telephones!

If you can't wait until December, write today for more information on the most revolutionary apartment door entry system ever . . . Dial-6 . . . from NuTone . . . who else? For more information about NuTone Apartment SecuriCom, write Dept. AR-10.

#### **NuTone** Housing Products

Madison and Red Bank Roads Cincinnati, Ohio 45227



# The beauty of Alcoa Coilzak in parabolic luminaires is the beautiful way it controls light.

Parabolic luminaires are esthetically pleasing, in the design of the fixture and in the type of light they dispel. This is particularly important where people work, read or shop, where low visual brightness contributes to a comfortable atmosphere. The secret is precise light control, made possible because the reflective material in quality parabolic systems is Alcoa\* Coilzak lighting sheet. Note that we said *lighting sheet*. In a properly designed luminaire, reflectivity is only part of the story. Controlled image clarity and reflective diffusion are just as important. Alcoa Coilzak sheet is an Alzak®-finished reflector material that meets precise reflectivity and gloss standards.

Operating costs of a parabolic lighting system can be low. Because of its efficient light

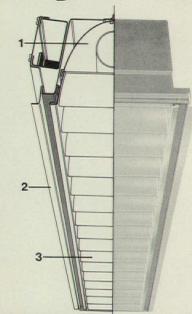
distribution, a properly planned system may require fewer luminaires, resulting in low electrical loadings. Savings in cleaning maintenance are possible also. Parabolic luminaires do not require a lens and the unique design, plus the static-free Coilzak louvers, resists soil and dust accumulation.

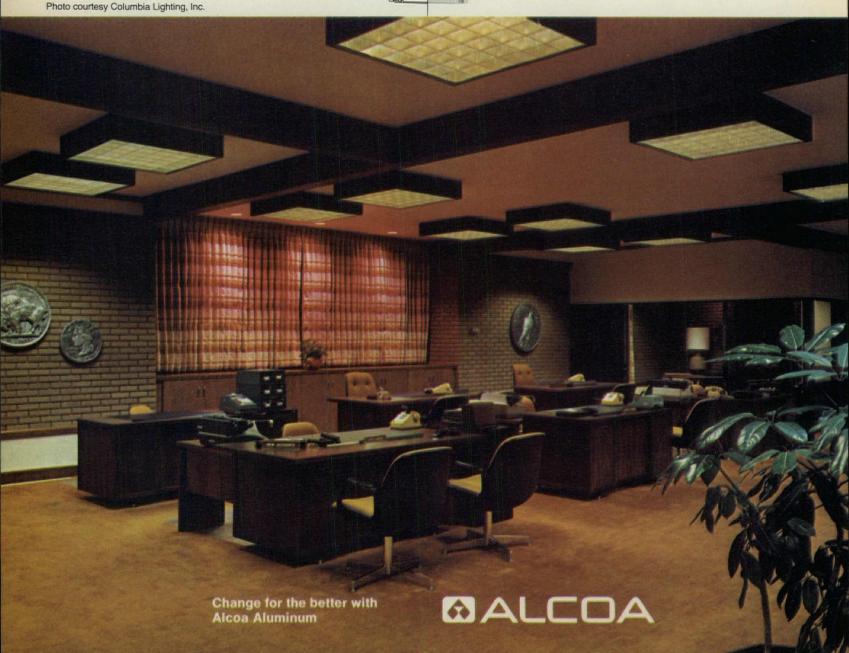
For more information on the many beautiful advantages of Coilzak lighting sheet in

For more information on the many beautiful advantages of Coilzak lighting sheet in parabolic luminaires, write Aluminum Company of America, 551X Alcoa Building, Pittsburgh, PA 15219.

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- One-piece constructed Coilzak reflector with accurately controlled parabolic shape.
- Extruded aluminum trim.
   Coilzak parabolic baffle assembly.





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Onan has been bringing power to the people for over 50 years.

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People appreciate the fact that we don't believe in the separation of power: We engineer, test and ship *complete* standby power systems.

Sure, we promise dependable performance.

And we keep the promise: Each system (engine, generator, automatic transfer switch) carries a warranty for five years or 1500 hours, whichever occurs first. (Details available upon request.)

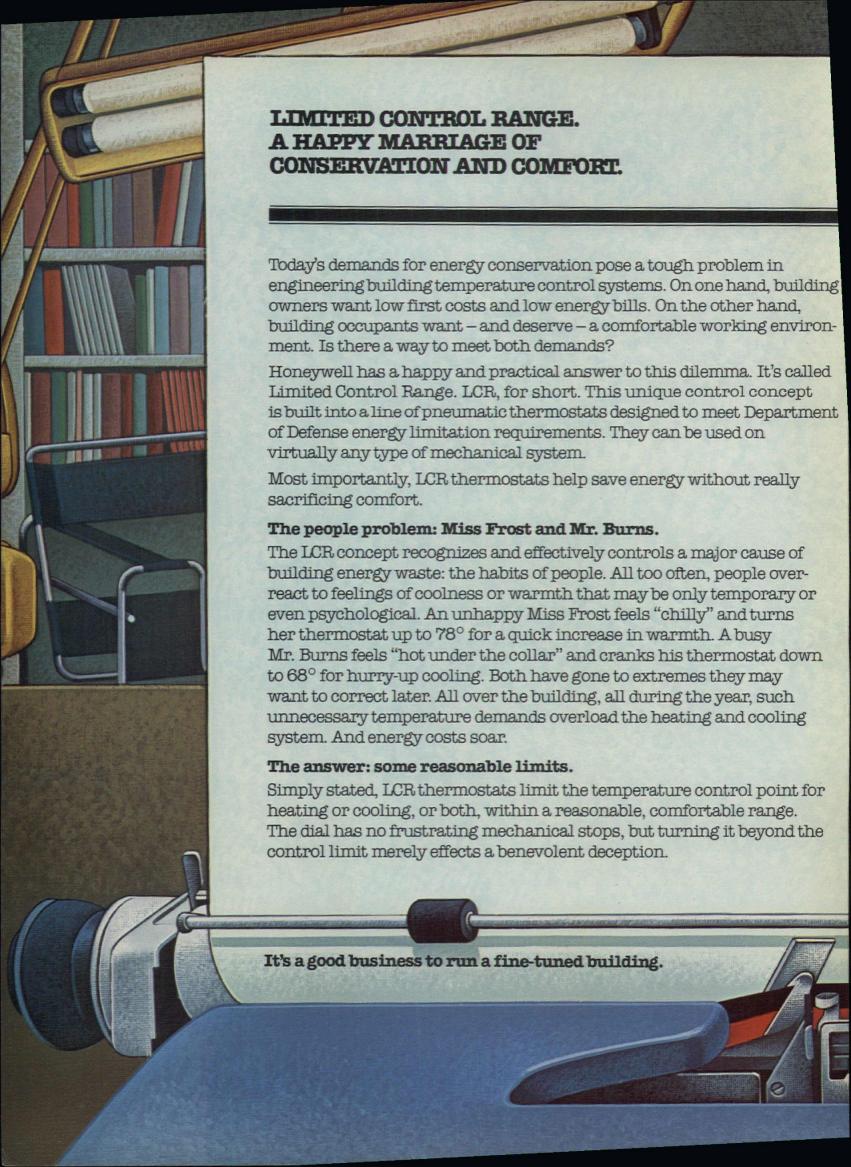
And to back up that promise, we maintain a world-wide parts and service network staffed with qualified graduates of our factory training schools.

So if any questions ever come up, there's never any question whom to call: Us.

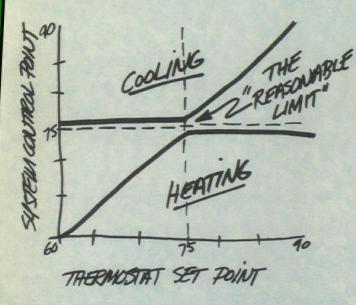
Work within the system for the orderly transfer of power. Call your Onan distributorship today. Or contact: Onan. 1400 73rd Ave. N.E., Minneapolis, MN 55432. Telephone: 612/574-5000, TWX: 910-576-2833, TELEX: 29-0476.



The systems approach to power . . . worldwide



#### Honeywell Energy Update No. 102



As you can see from the diagram, an LCR thermostat with an upper limit of 75° during the heating season will not demand heat beyond that space temperature. No matter how high Miss Frost cranks the dial. Similarly, during the cooling season, an LCR stat limited to a low of 75° will not demand cooling below that point, even though Mr. Burns sets it lower.

#### Eliminating the "fiddle factor" brings important benefits.

By controlling needless temperature demands, LCR minimizes load peaks, helps keep energy use stable. It allows virtually any HVAC system to operate at more energy-efficient levels. And, as energy rates rise, real dollar savings will rise with them.

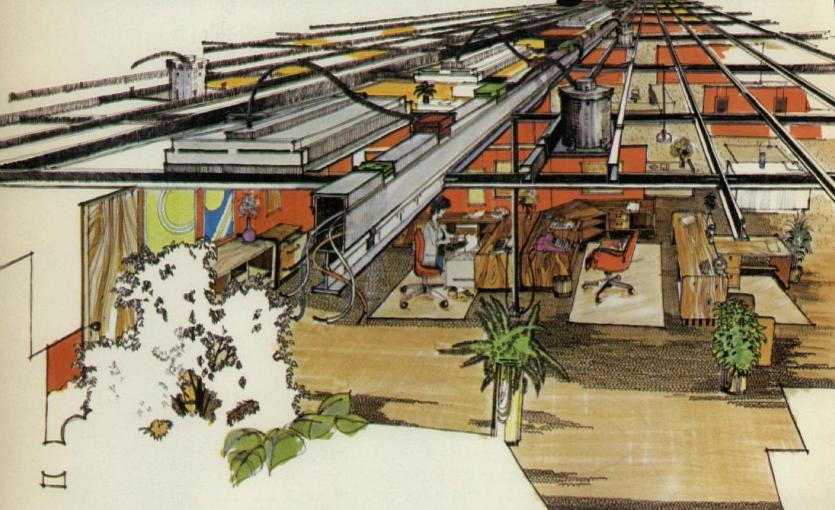
#### Skeptical? Get the facts.

Energy savings <u>and</u> comfortable temperatures. That's a big claim for our exclusive LCR thermostats, and we don't expect you to buy it out of hand. But we've got the details, facts and figures to prove it. To get them —fast—just look up your local Honeywell comfort controls specialist in the phone book. His number's in the white pages under "Honeywell Commercial Division." He's there to help you. Call him now.

Honeywell

For more data, circle A84 on inquiry card

# Announcing the 3M Modular Distribution System.



Because of it, a building can be flexible for a lifetime. 3M Brand Modular Distribution System answers your problems of distributing electrical power, electronics and communications at the time of installation and throughout the life of a building.

It offers you design flexibility, reduced installation, labor and maintenance costs, improved life cycle costing, and the simplicity of a total T-Bar and pole system for open-office landscaping. All out of the way, because it's part of the ceiling.

The basic component of the 3M Modular Distribution System is the Power T-Duct, a factory pre-wired raceway that is permanently mounted to a specified T-Bar ceiling system.

3M Modular Distribution System is UL-listed, and is factory pre-wired for receptacle circuiting with both 120 and 277 volts.

Want to know more about the only complete T-Bar system that works as long as your building lasts? Write Dept. EAY-3, 3M Electro-Products Division, Bldg. 223-4N, 3M Center, St. Paul, MN 55101.

For immediate assistance call toll free 800 328-1684.

We make it hard to go wrong.





Wall Mounted Sphere



3-Sphere Cluster with Refractors



Cylinder, with G40 Lamp



Sphere with Canopy, with Refractor



Tapered Cylinder, with Refractor



Ellipse



Hard Cube, with G40 Lamp



Soft Cube, Opal-White



Sphere with Planes,



Ellipse with Planes,



Drum, with

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The Appleton Glo-Metrics luminaire system offers unlimited architectural lighting design flexibility, permitting a variety of lighting effects in a visually unified lighting layout. There are ten contemporary diffuser shapes. Most shapes include choice of opal, transparent clear or tinted diffusers. They are available for use with incandescent, mercury, or high-pressuresodium lamps in a wide range of wattages (and with refractors where appropriate). Wall mounting brackets and pole-top cluster brackets for 2,3, or 4 diffusers are offered; also matching poles for single diffuser pole-top mounting and cluster arrangements. All components, including "in-pole" ballasts for HID luminaires, are furnished pre-wired. Write for 28-page full color Glo-Metrics Catalog. Appleton Electric Company, 1701 Wellington Ave., Chicago, III. 60657.



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