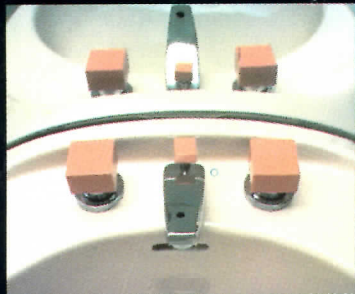
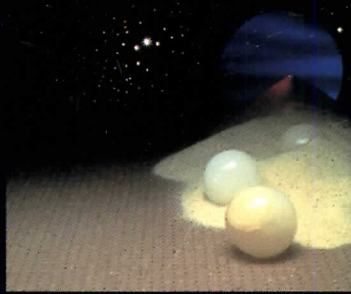
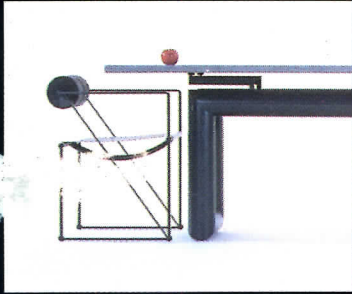
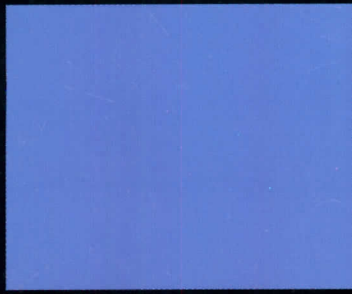
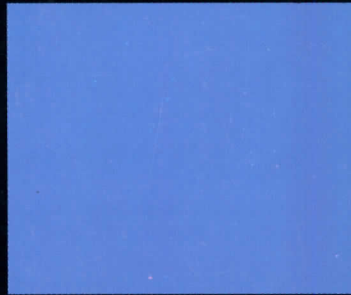


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Product Reports
1985



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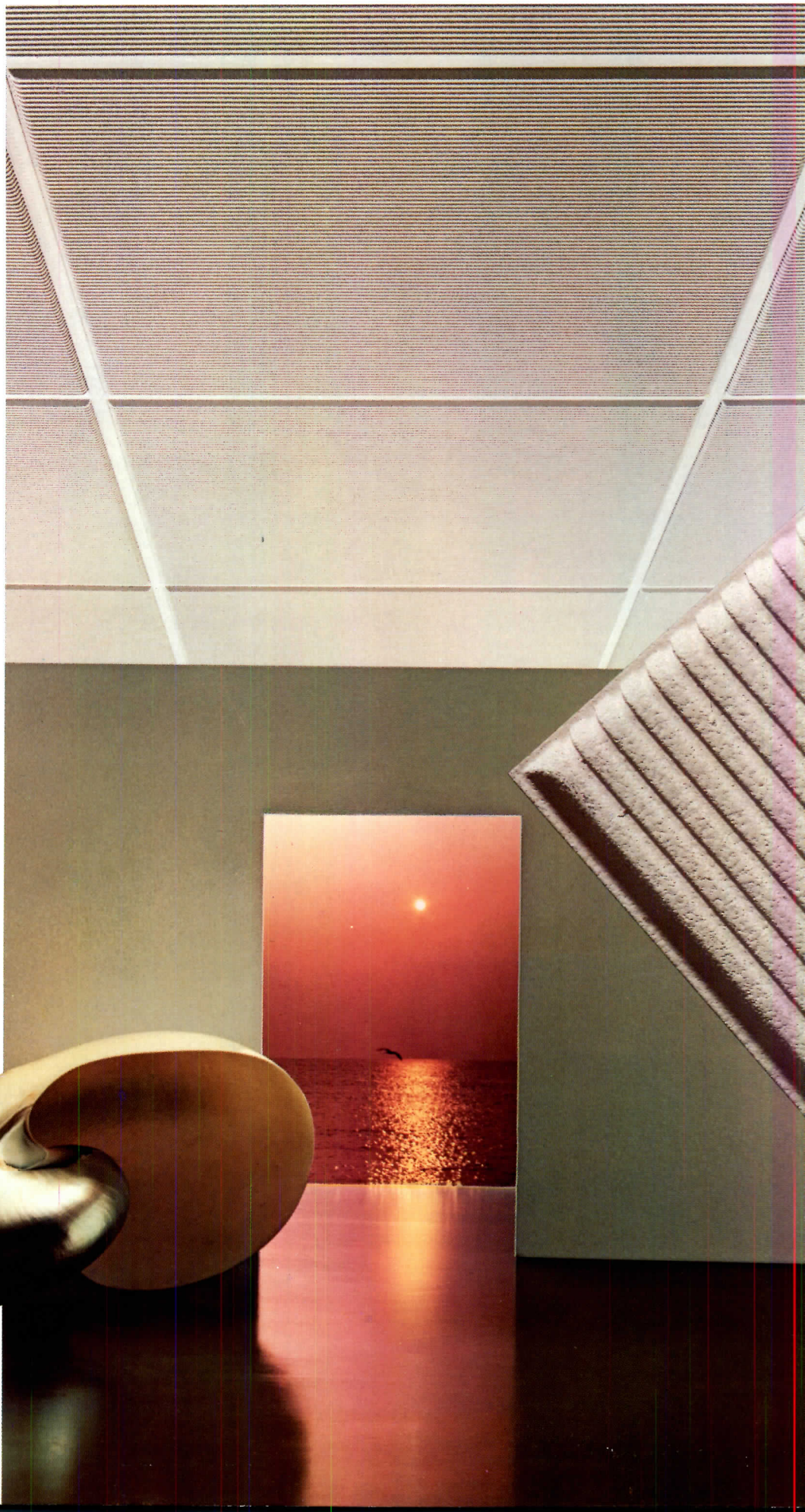
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I enjoyed Walter Wagner's editorial on "STAC: a new reader service OR the computer age comes to inquiries" [RECORD, September 1984, page 9].

This service is a definite advance in information retrieval for the profession. ARCHITECTURAL RECORD is to be congratulated on developing the system.

Dean Matthews
Vice President
Gray-Matthews Associates, Inc.
Seattle

Somehow I feel that I strongly agree with the title of your recent editorial "Getting started (or getting going) with computers—you've got to think about where you want to get" [RECORD, July 1984, page 9], but find that I disagree with the second half of your actual editorial.

The A/E Systems '84 show did provide a stunning (confusing) array of CAD systems, but architects and engineers should realize that they can logically eliminate the confusion by prioritizing their current and probable future needs for a CAD system. Simply buying a \$15,000 system can result in a tremendous amount of wasted time (the most precious commodity for A/Es) if the system does not live up to expectations and provide real productivity gains. A good CAD system should be long-lasting, positive and expanding—kind of like a good marriage. As you would not marry the first woman (man) who would have you, you should not buy the first CAD system that seemingly has an acceptable price tag. As you plan for a long marriage, your plans for a CAD system should include long-term growth.

Like most things today, you get what you pay for. That isn't to say that some systems don't offer better price/performance ratios than others, but the facts are that if a \$15,000 system could do everything that a \$150,000 system does, the supplier of the larger, more expensive, system would immediately go out of business—and we all know that that's not happening.

The first thing an A/E should do is consider what he wants out of a CAD system and then prioritize those items into actual needs and wants. He also should have a clear productivity goal in mind for his cost-justification process. The list below generally represents capabilities that are obtainable today. In general, each attribute adds more sophistication. A/Es can check off what they want, realizing that each service represents not only more cost but also more avenues for payback and higher productivity (you get what you pay for).

The various functional attributes of CAD are:

- drafting replacement (on a screen);
- automated drawing functions (cleanup of intersecting lines);
- drawing intelligence (manipulation of objects, association of data with objects, direct data reporting, and geometry knowledge, including center, arc midpoint, tangent, etc.);
- design capabilities (building intelligence, meaning that if you move a wall, the window comes with it, etc., and architectural features, including automatic sections, elevations and perspectives);
- interference checking, including solid 3D geometry;
- integration to other A/E functions (structural, civil/site, estimating, specification writing).

By knowing what one wants and what one can afford, an A/E can make decisions now that leave the doors open for future software and hardware growth, not replacement. It does not pay to be so frugal at the beginning that one burns the bridges to the future in the process.

Yes, all of these CAD systems are "stunning," as you stated, and they are probably confusing, too. But getting started does not mean simply buying something for under \$15,000; it means *you've got to think about where you want to get.*
James R. Pfeiffer
Manager, A/E Marketing
McDonnell Douglas Automation
Company
St. Louis

Corrections

The flooring shown in RECORD's story on James Stirling's Neue Staatsgalerie and Chamber Theater in Stuttgart (September 1984, pages 148-149) was manufactured by Nora Flooring, not, as stated, by Pirelli.

In its story on the Seely Mudd Library at Yale University (RECORD, August 1983, pages 86-90), the magazine should have credited Watson (not William) W. Wise as one of the principal donors.

Addendum

Photographic credit for the Venturi collection, Item 451 shown on page 198 of this issue, should go to Mario Carrieri.

Material requested

Architect Warren W. Gran seeks material for a book on renovations and additions to suburban houses, particularly builder or subdivision housing. He can be reached at 71 West 23rd Street, New York, New York 10010 (212/206-1560).

Through January 27

Exhibit, *History & Culture: French Contemporary Sculpture*, by Anne and Patrick Poirier/Jean-Pierre Raynaud, including white tile ceramic installation and a room-sized archeological ruin of charcoal; at Newport Harbor Art Museum, 850 San Clemente Dr., Newport Beach, Calif.

Through March 17

Exhibit, *Chicago Women in Architecture: Progress & Evolution, 1974-1984*, at the Chicago Historical Society, Clark St. at North Ave., Chicago.

January 21-22

Affordable Housing Workshop, sponsored by Planners Training Service, American Institute of Certified Planners, cosponsored by the U. S. Department of Housing and Urban Development; at Hotel Royal Plaza, Orlando, Fla. The program will be repeated February 4-5 in San Antonio and March 7-8 in San Francisco. For information: Christine Barbetta, AICP, 313 E. 60th St., Chicago, Ill. 60637 (312/955-9100).

January 26-29

Annual convention of National Home Builders Association, in Houston. For information: NAHB, 15th and Elm, Washington, D. C. 20005 (212/822-0439).

January 29-31

Workshop-seminar series on Simplifying Communications Wiring, sponsored by Darlabs Inc.; at Boxborough, Mass. The series will be repeated elsewhere around the country through the year. For information: Peter W. Moeckel, Marketing Coordinator, Darlabs Inc., Harvard, Mass. 01451 (617/456-3500).

February 7-28

"India and Bangladesh Tour," including Chandigarh and other cities, sponsored by Walter Schamu & Associates, Inc. For information: Peter C. Doo, AIA, Walter Schamu & Associates, Inc., 107 E. Preston St., Baltimore, Md. 21202 (301/685-3582).

March 5-7

1985 Convention and Technology Exposition, the American Institute for Design and Drafting; at Houston Convention Center. For information: AIDD, Convention Headquarters, 901 N. Washington St., Suite 509, Alexandria, Va. 22314 (703/548-1263).

March 12-16

37th annual convention of the National Glass Association, with National Glass Show and 31 seminars; at Orange County Convention Center, Orlando, Fla. For information: National Glass Association, 8200 Greensboro Dr., Suite 302, McLean, Va. 22102 (703/442-4890).

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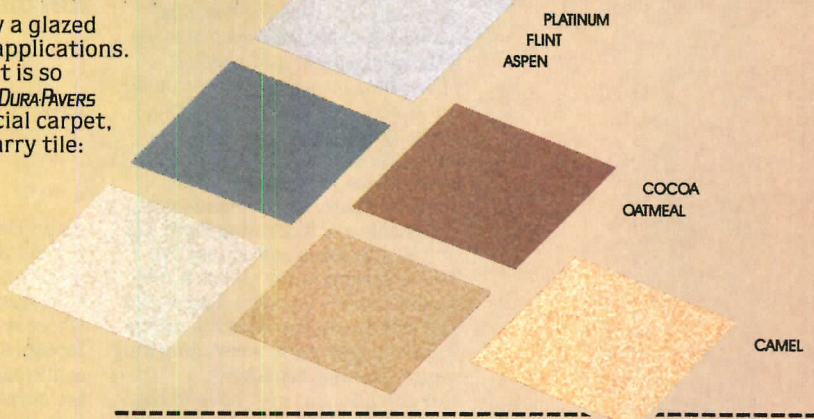


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What are we going to do about profitability?

Despite a strong economy, several 1984 financial performance surveys find no cause for rejoicing for many design firms. A survey by the AIA covering a five-year period from 1978-83 shows that, while the dollar volume of private construction increased by 33 per cent and public construction by 13 per cent, only architectural firms with 10 or more people managed to keep pace. Gross revenues in single-person firms actually fell by some 32 per cent. Revenue in firms with more than 19 people did go up almost 89 per cent, making the mean for all firms 51.6 per cent.

Revenue does not necessarily mean profits—here's how we stack up

One measure of profitability is compensation the firm members receive. This increased over the five-year period by only 28 per cent for principals and 34 to 37 per cent for employees while inflation rose 52.7 per cent—producing a decline in real terms. The survey noted that compensation for such professions as lawyers and engineers kept pace with the inflation rate.

Another measure—net profit before taxes—has shown a steady decline from 4.9 per cent of total revenues in 1980 to 2.9 per cent in 1982 and 2.4 per cent in 1984. This is according to another survey, the fourth in a biennial series conducted by Birnberg & Associates, a Chicago-based management and marketing consultant firm. Based on data collected from 254 design firms throughout the United States and Canada, this survey finds that overhead remains the major cost area for firms—creeping from 133 per cent of total direct labor in 1978 to 171 in 1984.

Salary surveys by three AIA component chapters also reveal architects lagging

The Dallas chapter survey showed entry-level salaries averaged, depending on firm size, from \$13,000 to \$15,400, with highs of \$17,000. Median-level salaries ranged from \$26,000 to \$32,100, with highs of \$35,000. Principals earned from \$41,900 to \$72,250, with highs of \$99,500.

The Boston chapter's survey showed entry-level salaries at \$12,600 to \$15,300 (with an average of \$13,400); median-level at \$20,600 to \$35,500 (average, \$29,000); principals at \$22,000 to \$66,100, although the latter category did achieve up to \$85,800 in total compensation.

The New York City chapter's survey reported both salaries and total compensation after profit-sharing and bonuses were added. The income picture in any case was somewhat better—not considering

the especially high cost of living. The respective figures were \$15,000 to \$19,000 (\$17,500 to \$21,000 total compensation); \$24,000 to \$37,700 (\$29,400 to \$37,700) and \$36,000 to \$64,000 (\$58,250 to \$215,000).

The New York chapter shows some badly needed positive direction

The somewhat better figures in New York are at least partially the result of a concerted effort begun by members Joe Wasserman, Richard Hayden, Eason Leonard and Frank Munzer of that chapter's finance committee.

Their efforts, begun in 1981, resulted in a chapter executive-committee resolution the following year that starting-level salaries should be increased by 20 per cent over a three-year period, to create an upward ripple effect. They also resulted in a resolution introduced by the chapter at the 1984 AIA national convention that the Institute assign a high priority to achieving adequate salaries throughout the country.

But the national AIA acknowledges that there are no "quick fixes"

AIA vice-president Theodore Pappas heads its economics and compensation task force and is responsible for an ongoing program to develop architects' management skills. When asked what the Institute can really do, he says: "Everyone asks that—as if we could press a button. But there are no quick fixes—especially for a problem that's really complex. It depends on so many variables, such as ways of getting paid, geographic location—some firms do spectacularly better than others—and personal motivation, that (despite the surveys) it's not even an easy problem to pinpoint. Unlike, for instance, the need to conserve energy, which has an absolute bottom line."

Pappas feels that the fact that everyone is talking about salaries and compensation in itself generates synergetic results. He notes that many architects have started to raise, for instance, billable rates. And that, especially in the current times of tough competition, it is only this kind of across-the-board effort that will make sense.

Is it really important to architects that they earn money?

"You can't force people," says Pappas, "to do what they don't want to do." Many people have entered the field properly setting their goals on producing better design and mainly concerned with life quality over quantity. It is this

image of "higher" concerns that may be part of the problem when it comes to negotiating money.

In part to counter this problem, the AIA has just concluded an intensive two-day workshop in Dallas entitled *Power, Image and Compensation*, in which participants are invited to view videotape replays of themselves—and their attitudes—as they discuss these subjects. (More on this when all reports are in.)

Indeed, the lack of an expressed interest in monetary rewards has been one of Pappas's problems in successfully launching what he feels would otherwise be one of the Institute's best campaigns in this direction: to instill an entrepreneurial sense in architects early, through courses in schools.

The schools may be generating another problem. According to Fred Prather, president of the American Society of Registered Architects: "More than 175,000 graduates from major architectural programs may enter the profession in the next 15 years. This, of course, is more than twice the number of persons already registered in a time when automation promises to wipe out many of the lower-echelon jobs." Says Prather: "The large number will far outstrip the ability of the profession to absorb it." And, in any case, this development would seem destined to vastly increase already intense competition.

Britain, faced with the same problem of overpopulation in the profession, is looking at steps in the United States may be unwilling or unable to take—limiting the number of graduates to as little as two-thirds of current production by the simple means of closing schools and cutting off government funding.

What, then, can concerned architects do for themselves?

According to architects' attorney, Barry LePatner, architects looking for better returns must first "sincerely seek to practice in a businesslike manner and must exhibit those business traits most sought after by clients. If you can successfully identify *clients'* goals and articulately translate them into successful design, (then) you will have secured satisfied clients pleased to pay fair fees."

According to Leonard: "The image of an architect as an 'artist' but not a financially responsible professional has cost us our stakes in the business world." The clues to profitability lie in a balanced operation. For instance, Leonard recommends that every practice with more than one person have a fiscal officer, preferably an architect with an MBA.

He recommends that firms share information, including creating a data bank on such statistics as man-hours spent in other offices to perform tasks on specific types of buildings and a "life-line" service manned by experienced volunteers who advise on salaries, fees and contracts. He strongly recommends the cost-based method of compensation.

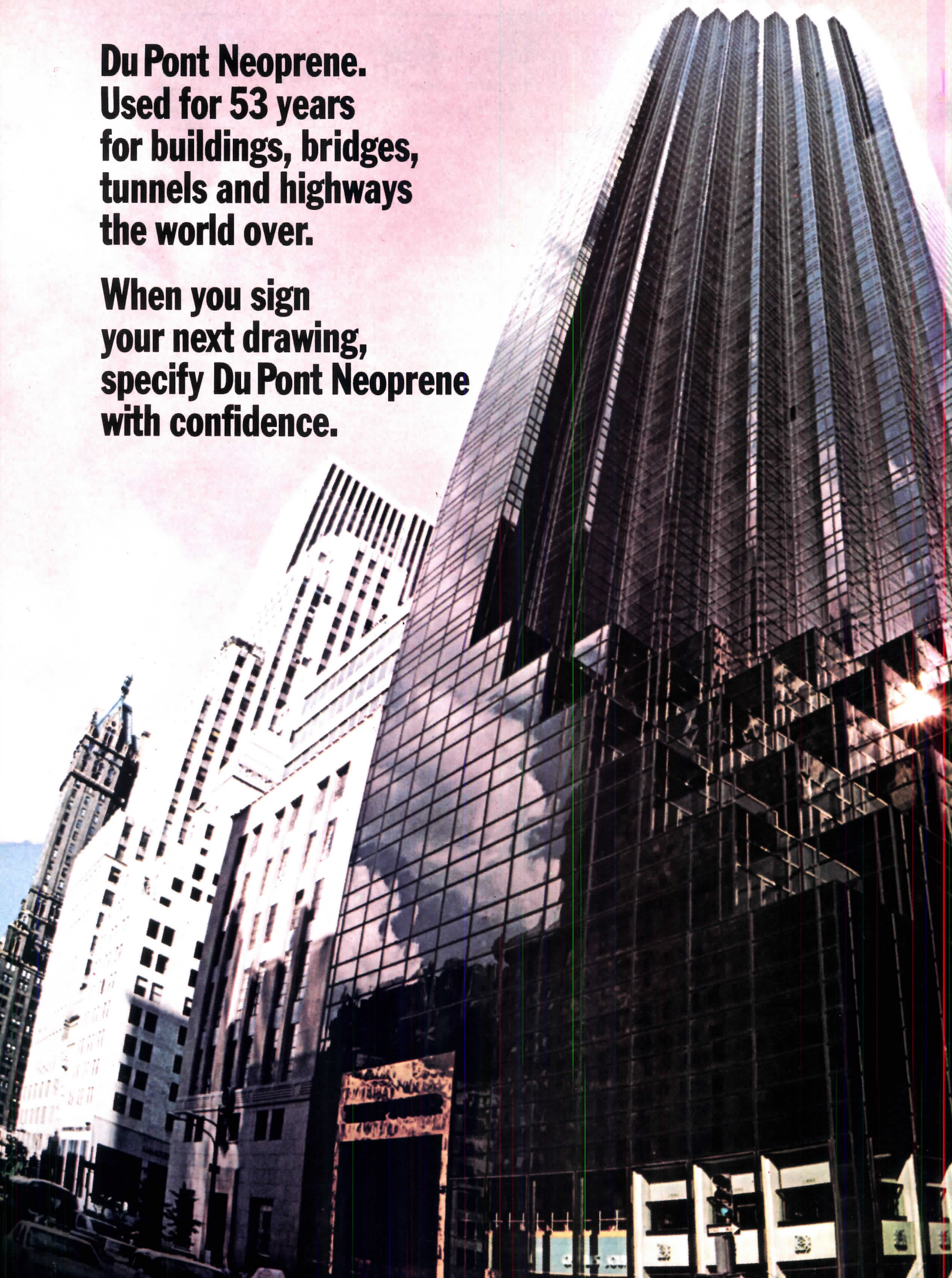
But what does an architect tell a client when faced with the cold fact that another firm is ready to do the job for less? LePatner: "You should advise your prospect that:

- The low bidders are *not* your competitors. Their rates preclude them from being able to turn out the same quality work in the same time.
- As a smart businessman, your client knows full well there is no such thing as a free lunch. Cheap fees are cheap for a reason.
- Your firm is committed to quality design through to the completion of the project. This cannot be provided at bargain-basement rates, and you will not seek to operate at what is less than a fair fee for your caliber of product.
- You respect the client's business acumen, and you are sure he would not negotiate fees with a doctor, lawyer, or accountant once he accepted the fact that the particular professional could competently provide the services needed.
- Finally, you would rather turn down this opportunity than do the work for less than a fair fee. Hopefully, he will be lucky and get a good job from the cut-rate architect. However, he should be cautioned that if, during this project, that designer should get a better-paying commission, the client should expect to see his project move to the bottom of the priority list where only junior talent will respond to the junior fee."

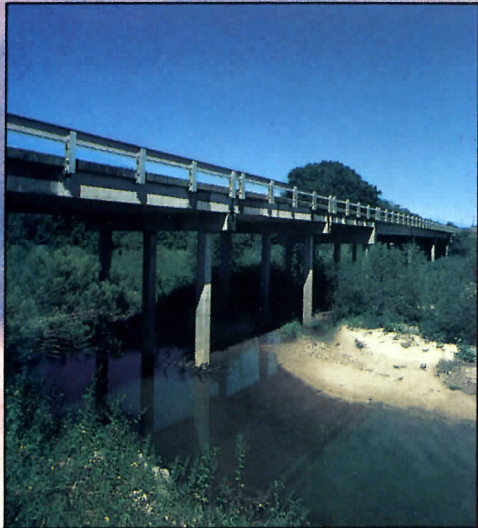
Leonard: "Architects should face the fact that to the rest of the world, the word compensation means 'Money.' The other professions and other members of our industry are not at all bashful about this issue. Why do architects find it so distasteful to talk about the bottom line? That very reluctance—to negotiate hard, to ask for the full value of services, to ask for more when the owner increases services required, to press for that final payment or adjustment—is the prime reason why our net income is so disappointing." *Charles K. Hoyt*

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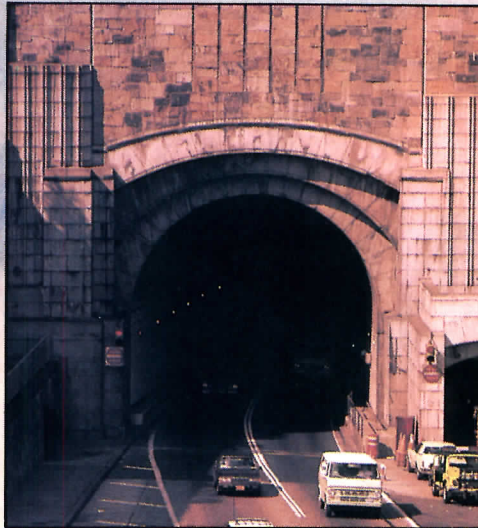
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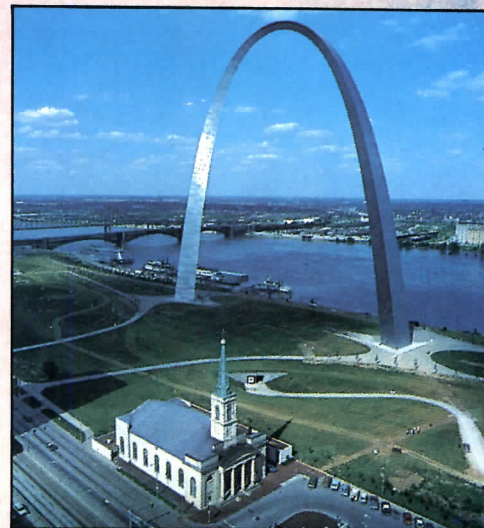
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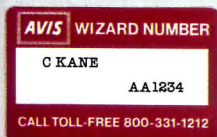


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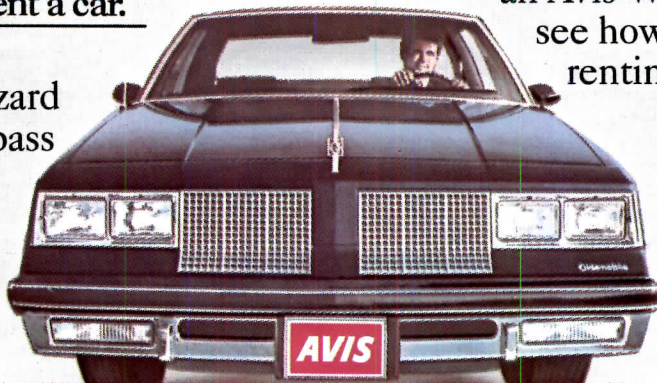
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Product Reports 1985

Rolling and reacting with the market

In *Product Reports 1980*, in Division 1 (Office Supplies and Equipment) there were two listings, count them, two, of computer hardware. Just five years later, in this issue, there are 40. And that just two months after we published (in October) a 32-page insert devoted in its entirety to computer software—a listing of some 350 architect-specific software programs, which in its first few weeks in architects' hands has generated over 30,000 inquiries, a somewhat spectacular expression of reader interest.

At our recent Round Table on the office environment (*Record Interiors*, mid-September), the panelists talked about and/or debated and/or argued over open planning and its partition and furniture systems compared with private offices; the changing requirements for telephone, data communication, and computer wiring; about the flexibilities of flat wiring; about changing lighting and daylighting requirements; about corporate standardization of furniture and finishes (vs. greater option and range of choice); about the need/desirability of adjustable desks and chairs and computer workstations; et cetera et cetera et cetera.

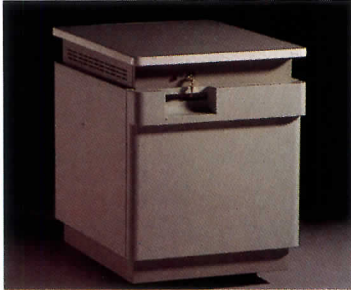
There's a point, of course: Just as architects and engineers—you readers—need to roll with and react to what's happening in architecture (with some occasional and much-needed innovation of your own), manufacturers need to roll with and react to what the market is demanding (with some occasional and much-needed innovation of their own). As Michael Brill said at our Round Table on office interiors: "The architect, the interior designer, the facilities manager, the developer *and the product manufacturer* are straining at new roles, trying to redefine their roles. It's going to take us a while to sort out how these roles can be structured so that problems don't fall through the cracks and so that we can in fact get the . . . spaces that people need. Meanwhile, we can't say 'It's not my problem.' We can say it individually, but we can't say it collectively—because collectively we are a kind of service industry whose job it is to provide a set of tools for organizations so that they can do their work."

This *Product Reports* issue is, of course, the ideal vehicle for reminding us all that "collectively we are a kind of service industry." While in most issues, the architects and engineers and their accomplishments are the heroes, in this issue the heroes are the manufacturer and producer; and neither group can function effectively without the other. The recent accomplishments of the manufacturers are shown on the pages that follow. *Product Reports* is organized in the familiar 16-division UCI format. The page number for each division can be found in the Table of Contents on page 3. An index of manufacturers whose products appear editorially can be found on page 11, while advertisers in this issue are indexed on page 304. You can get more information on any product or literature item in the issue by using the Reader Service cards on pages 9-10 and 307-308, or by using your STAC card and phoning in your inquiry requests for computer-quick response (if you're not used to using your STAC card, you'll find instructions on the Reader Service Cards). All historic precedent indicates that you readers will make 350,000 inquiries from this issue. May you find (collectively) 350,000 solutions to your problems.

One final word: While she got some help in choosing what we will show in this issue from her friends on the editorial staff, this issue was organized and written in its entirety by Karen Stein, a recent graduate of Princeton with a degree in architecture, and the newest member of RECORD's staff. She handled thousands of submission forms, made and fielded hundreds of phone calls, attended countless press conferences, spent months at her terminal writing—and, most important of all, spent all of her time thinking about how to make this issue more useful to you readers. Three cheers, Karen. And thank you. *W. W.*

1 Office Equipment

UCI 1, Office equipment:
Computers
Information systems
Instruction manuals
Maintenance/operational
equipment
Office machines
Office supplies
Reproduction equipment



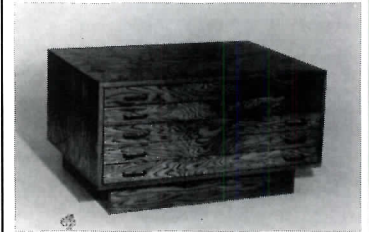
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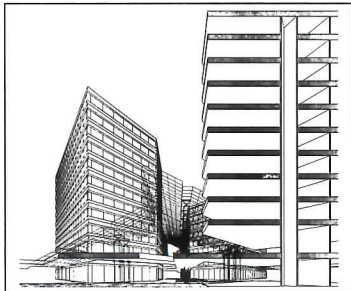
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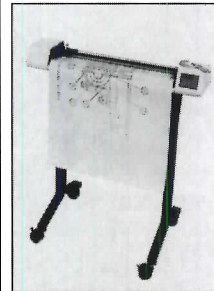
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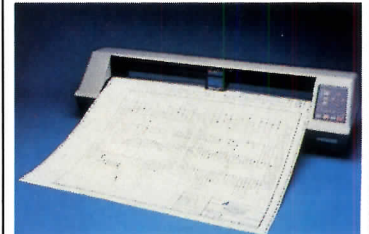
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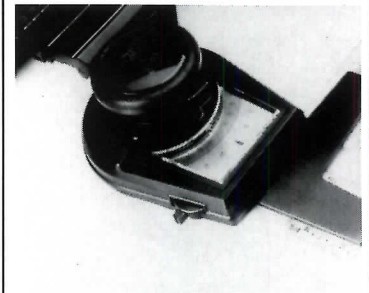
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1 CAD system

Wes-CADD is a computer-aided design and drafting system that can be used in interior space planning and furniture placement. The system includes a graphic CRT, a prompter, a keyboard with pushbutton menu and joystick, and a stand-alone microprocessor (shown). Westinghouse Furniture Systems, Grand Rapids, Mich.

2 Software package

Architectural Interactive Design System is a software package that can create a three-dimensional model and other required views of a building if a sketch is provided. The system has a library of 2,000 standard symbols and solids-modeling capability. Arcad, Los Angeles.

3 CAD workstation

The *CDS 3000* is a fully packaged and configured workstation for computer-aided design, engineering, and manufacturing. The system features mouse-driven operations and a monochromatic graphics terminal. Two-dimensional design and drafting and space-planning capabilities are standard. Computervision Corp., Bedford, Mass.

4 Drawing bag

A drawing bag, constructed of all-leather or of water-repellent nylon with leather end-pieces, handles, and shoulder strap, can carry rolled drawings. Features include 1-in. Velcro strips that hold drawings in place, a rain flap, and a tool pocket. The bag is available in several lengths, diameters, and colors. Abrams-Schletzbaum Ltd., Charlotte, N.C.

5 CADD system

The *Artech* CADD system has an electronic pencil that moves a cursor around the screen, draws, edits, and retrieves information from the computer library. Other features include color-coded command buttons on a graphics tablet that activate up to 300 instructions. SKOK Systems, Inc., Cambridge, Mass.

6 Printer

The model *2000* is a single-lamp diazo printer that can print up to 25 ft per minute. The printer has a clutch system that allows a tracing to slip through when it is pulled. Repro Technology, Inc., Conroe, Tex.

7 Frame printer

The manufacturer's new high-speed vacuum frame printer features a special blanket for securing several vertical composites used in one exposure and a timer that may be stopped to check prints and then allowed to resume until completion. Blu-Ray, Inc., Essex, Conn.

8 Plotter

The *DMP-51* plotter features a pen speed of up to 22 in. per second, programmable accelerations, a pen-on-paper resolution of 1/1000 in. and 26,000 bytes of built-in intelligence. The plotter can produce C- or D-size drawings. Houston Instrument, Austin, Tex.

9 Distributed system workstation

Built-in communications and networking software allow the *DS/4000* to function as a stand-alone workstation or as a node in a distributed system. The technical workstation features high-resolution monochrome graphics, using dual-ported video RAM technology, integrated mass storage, and a variety of input and output devices. The graphics board has a resolution of 1024 by 1024. Data General Corp., Westboro, Mass.

10 Flat file

A 5-drawer plan file cabinet is made of oak plywood, with solid oak edge bands at all exposed edges. The cabinet is available in two sizes: the first is 16 1/2 in. high by 40 3/8 in. wide by 29 3/8 in. deep, the second is 16 1/2 in. high by 48 3/8 in. wide by 35 3/8 in. deep. Pacific Filing Concept, Atascadero, Calif.

11 Plotter

The *Zeta 836* digital drum plotter can handle cut-sheet and continuous-feed media with a plotting width of up to 34 in. The plotter features a resolution of .001 in. and a speed of 25 in. per second. Interchangeable carriage-mounted pens are available in several colors. Nicolet Computer Graphics Div., Martinez, Calif.

12 Drafting machine

The *Autoflow III* drafting machine has centralized control, with slide action operation, and a horizontal and vertical braking system. A floating scale can be lifted and remain suspended 3/4 in. above the drawing board. Other features include an enclosed protractor and micrometer adjustment for the angular setting of the horizontal scale. Keuffel & Esser Co.,



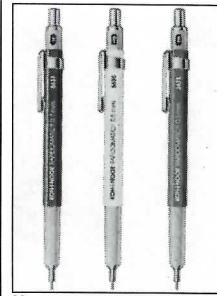
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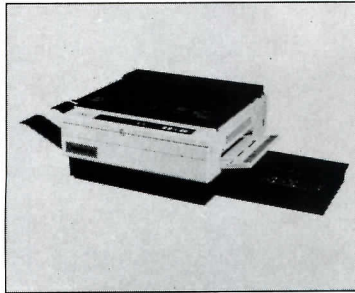
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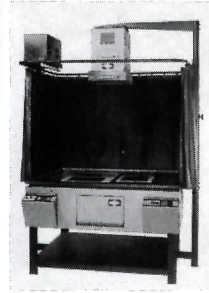
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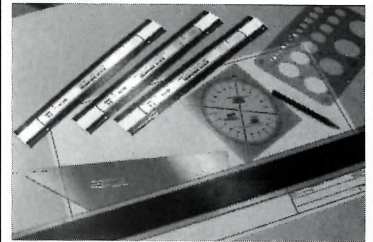
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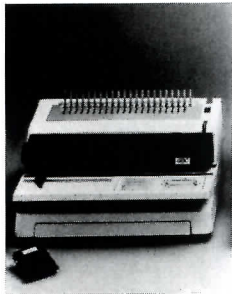
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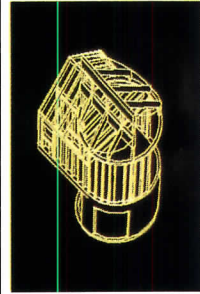
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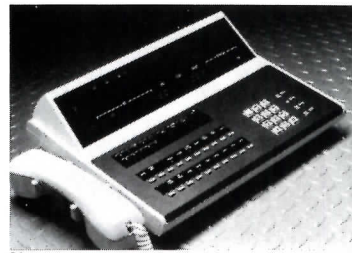
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13 CAD system

The *ROBO* is a computer-aided drafting and design system that connects to the *Apple II+* or *Ie* microcomputer. The system, which includes a plotter and a joystick, can produce scaled technical drawings and custom-designed graphics. Chessell-Robocom Corp., Newtown, Pa.

14 Copier

The model *2045R* is a 45-copy-per-minute copying system that features automatic document feeding, sorting, a 2,000-sheet capacity, and three-way size reduction. Paper selection is made by a microprocessor that electronically determines the size of the original. The copier can collate up to 20 sets of 50 pages. Gestetner Corp., Yonkers, N.Y.

15 Binding system

The *470KM* electric punch and plastic binding system features a foot-pedal binding activator. The document is automatically measured before the holes are punched. Up to 25 sheets can be punched at a time, approximately 16,000 sheets per hour. General Binding Corp., Northbrook, Ill.

16 Drafting table

The *Futur-Matic T/C* drafting table features a power pedestal for automatic elevation and tilt control. A hand-controlled system has 250 lb of lifting capacity with a 30- to 50-in. travel range and 150 lb of tilting torque with 88 deg of angle adjustment. Mayline Co., Inc., Sheboygan, Wis.

17 Solids-modeling software

CEADS-GMS is a solids-modeling program that can construct three-dimensional sketches. In addition to producing color-line and color-shaded images, the system's features include wire-frame, haloed, and hidden-surface display, and isometric, perspective, and cutaway-view capabilities. Holguin, El Paso, Tex.

18 Graphics system

MicroCAD is a two- and three-dimensional graphics system for the IBM PC and compatible computers. Features of the system include a rotatable grid for drafting, an automatic spiral generator, and a function that can calculate the area, center of gravity, and moment of inertia of an object. Computer Aided Design, San Francisco.

19 CAD system

Sigma III is a stand-alone 32-bit microprocessor-based CAD system that is capable of local area networking and distributed processing. Each workstation consists of a microprocessor and a 19-in.-high color monitor with 1280 by 1024 line resolution and 256 available colors. Sigma Design, Inc., Englewood, Colo.

20 Exposure system

An overhead system for the exposure of overlays features a 6000w adjustable metal halide lamp. Touch-activated controls, with eight memory channels, can store exposure information for different materials used or overlay combinations. nuArc Co., Inc., Chicago.

21 Communications system

The electronic *Perception* communications system features message waiting, call pick-up and automatic call-back, multistation conferencing, and call forwarding. The attendant console (shown) has direct access to paging. Toshiba America, Inc., Tustin, Calif.

22 Drawing pencils

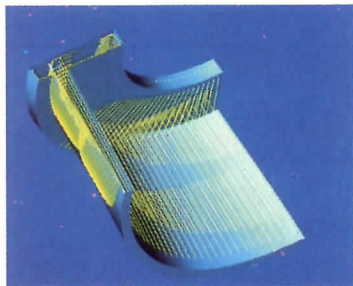
The *Rapidomatic* line of automatic pencils features push-button advance of up to 12 leads, lead degree indicator, and a finger grip with a diamond-machined non-slip sleeve. The line includes models for .3mm, .5mm, and .7mm diameter leads. Koh-I-Noor Rapidograph, Inc., Bloomsbury, N.J.

23 Drafting tools

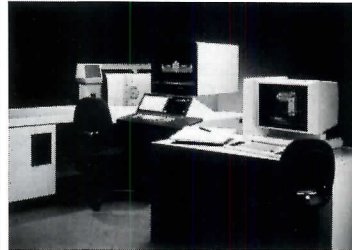
A line of basic drafting tools is intended for work on isometric and diametric drawings. Included in the line are drafting sets for a T-square and parallel straight-edge system, or sets for use with a standard drafting machine. Components such as triangular scales, beveled-edge triangles, and protractors are included. Graphic-Standard Instrument Co., Troy, Mich.

24 Printer

The model *248* whiteprinter has a 50-in. throat, a feedboard, either front or rear print delivery, and printing capacity of up to 25 ft per minute. Basic controls, including mechanical speed, developer pump system, and developer heating units, have a high-low capability. Blu-Ray, Inc., Essex, Conn.



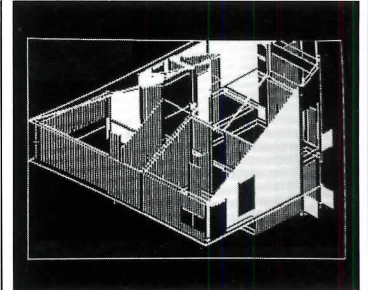
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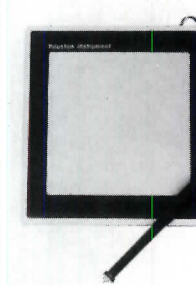
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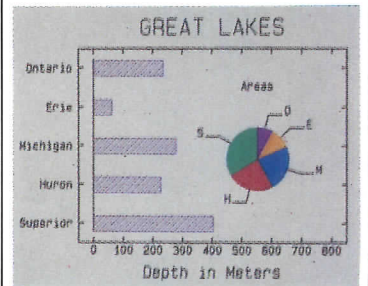
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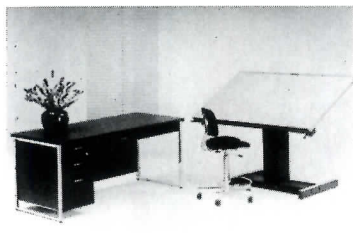
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25 Concrete detailing package
The manufacturer's concrete detailing package can make a three-dimensional model of a structure and produce finished cross-section and placement drawings. Industry-standard or user-defined bar shapes can be selected from a menu and placed in a three-dimensional "working surface." The system recognizes parameters established by the user, including practice codes, and also provides interference detection. Intergraph Corp., Huntsville, Ala.

26 Workstation
An intelligent workstation for the manufacturer's *Graphics 3* is based on the IBM system 9000. It performs system tasks by directing graphics manipulations to the workstations. Tricad, Inc., Milpitas, Calif.

27 Drafting table
The *ET* electrically powered drafting table is part of the *Coordinate II* series of drafting furniture. A lever can adjust the table tilt at an angle from 0-90 deg. The table comes with a choice of vinyl-coated steel, solid core plastic laminate, or cellular core hardboard drafting boards. Stacor Corp., Newark, N. J.

28 Graphics workstation
The *Advanced Graphics Workstation III* is a stand-alone CAD/CAM system that provides 32-bit power independent of a mainframe. Hardware features include a main memory with one megabyte of storage, expandable to four megabytes, and both Winchester and floppy disk drives. A 19-in. bit-mapped raster screen has color resolution of 1024 by 1024 and up to 256 available colors. Auto-trol Technology Corp., Denver.

29 CAD package
CADPLAN can be used to create, edit, and plot two-dimensional designs, including floor plans and piping or wiring diagrams. The system operates on a user-selectable grid system. Designs can be drawn on the screen using a cursor-control device. Personal CAD Systems, Los Gatos, Calif.

30 CADD software
Plot 10 CADD software, for use on computers with the CP/M-86 operating system, accesses dynamic graphics that speed image construction and allow pictures and text to be moved around the screen. The software's file utilities organize and archive drawings. Tektronix.

31 Plotter
The *HP 7550A* is an automatic sheet-feed plotter that can handle up to 150 sheets of A- or B-size paper. The plotter features a front-panel display, function keys for message instructions, and a pen speed of 31.5 in. per sec. The plotter can also be used with liquid ink pens on mylar and vellum. Hewlett-Packard Co., San Diego.

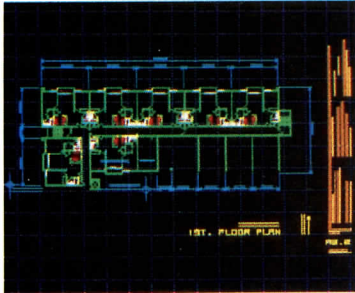
32 Digitizer
The *PC PAD* can be used as a digitizer to trace drawings and translate them into data that a computer can store and display on a graphics monitor, or as a mouse for cursor-control applications. The 8-in. by 7-in. wedge-shaped instrument has a 5-in. by 5-in. active surface. Houston Instrument, Austin, Tex.

33 Dual display system
The *Producer* is a dual display system that allows the operator to view a drawing on one 19-in. screen and work on another. The color display has a resolution of 512 by 384; the monochromatic display has a resolution of 1024 by 800. The user can distinguish specific areas of a drawing on the color display and do detail work on the monochromatic. Bausch & Lomb, Inc., Interactive

34 Graphics software
The IBM PC version of *Scribe* graphics software can generate three-dimensional perspectives, isometrics, and elevations, and has hidden-line removal capabilities. A help menu or command summary has been added to the package. Cascade Graphics Development, Inc., Santa Ana, Calif.

35 Graphics software
Graftalk, a business-oriented software package, can be used to produce pie, bar, and line plot graphs. It can be installed on most CP/M-based systems that drive a graphics device through a serial or parallel output port. Redding Group Inc., Ridgefield, Conn.

36 Building monitor
The *Econ-S* is a microprocessor-based, programmable load controller for use in buildings of 30,000 to 100,000 sq ft. The controller stores all operating data, monitors and displays the status of loads, and provides automatic system diagnostics and alarming as well as initiating relay output commands based on program, sensor, or switch inputs. General Electric Co., Warwick, R. I.



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37 Color display system

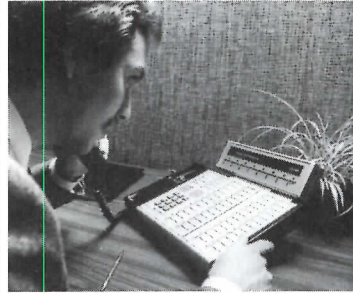
VersaCAD and *CADAPPLE* software are now available with a selection of high-resolution colors. For IBM, *VersaCAD* has a resolution of 640 by 640 in 16 colors. For APPLE, the 16 colors are available with a 512 by 448 resolution. T & W Systems, Inc., Huntington Beach, Calif.

38 Electronic drafting system

ProDraft has a high-resolution raster display screen, a sheet-fed plotter, and a menu tablet. Other system options include a digitizer, smaller or larger plotters, and software packages for architectural or telecommunication applications. Bausch & Lomb Interactive Graphics, Austin, Tex.

39 CAD workstations

The modular configuration of the *Spectra* workstation features a compact pod that houses a CPU, a 14.5 megabyte Winchester disk, a dual disk drive, and a drawer for disk storage. A movable arm holds a full-size color monitor above the work surface. A D-size plotter is standard. Casters allow the pod to be positioned under or adjacent to any work surface. BruningCAD, Tulsa, Okla.



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40 Office system

Dimension System 85 is an office system that allows the user to prepare, store, send, receive, and manage documents electronically. The system can create forms, track schedules, and arrange meetings. An integrated voice/data terminal line features messaging capabilities. AT&T Information Systems, Morristown, N. J.

41 Turnkey CAD system

The hardware of the *Aycad* turnkey CAD system includes a 21-megabyte disk drive, a 1.2-megabyte floppy disk drive, a 19-in. color raster graphics monitor with 1024 by 1024 resolution and 256 total colors, and a 12- by 12-in. digitizing tablet. Two- and three-dimensional graphics software is also standard. Aydin Controls, Fort Washington, Pa.

42 Computer system

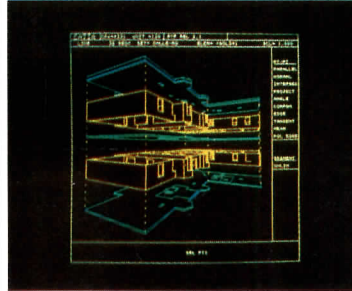
The *APPS/2* system consists of a computer, a video terminal, a tape punch interface, and its own software package. A digitizer can be used to reproduce a form by tracing its shape with a stylus. Alden Computer Systems, Natick, Mass.



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43 Software

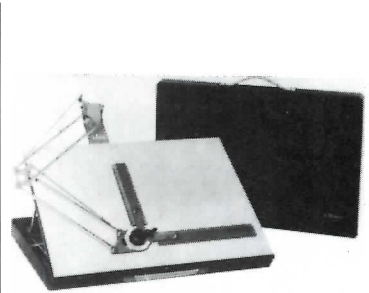
Vista-View is "windowing" office automation software that allows the user to simultaneously look at information from multiple applications and merge it into a single composite. The user can switch from application to application, run programs concurrently on up to eight channels, and integrate data from a single keyboard and screen. Datapoint Corp., San Antonio, Tex.

44 Lettering tapes

The manufacturer's carbon lettering tapes consist of a top section that holds the color carbon and a carrier. Six colors are available and each can be substituted in the cartridge top. The lettering is said to be abrasion resistant. Visual Products & Supply, Cleveland.

45 Computer graphics system

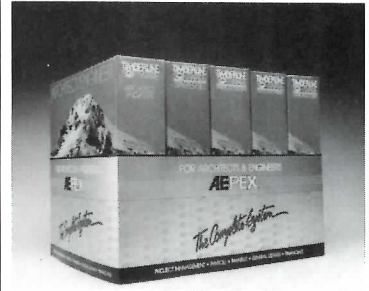
CATIA is an interactive creation and visualization system that allows the user to create geometric models on XYZ coordinates. Objects can be defined as wire frames, surfaces, or solids. A designer can work in a 2- or 3-dimensional mode, and plans, sections, and elevations can be derived from the computer model. IBM Corp., White Plains, N.Y.



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46 Drafting kit

A drafting kit in an attaché carrying case consists of a spring-balanced drafting machine mounted on a rigid board. Standard features of the kit include removable and interchangeable scales, balanced arms, a protractor lock, adjustable tilt-up support, and a storage compartment. Hunter Products, Inc., Bridgewater, N. J.

47 Access security system

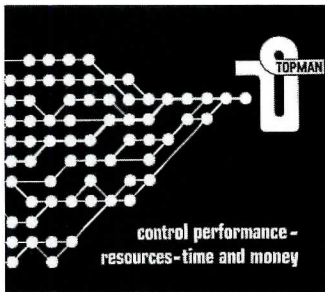
Class-PC is an integrated security management system that can be controlled by a single operator. Limiting access is accomplished by installing card readers at the entrance to restricted areas and issuing different cards to each cardholder. Applied Realtime Systems, Inc., Metairie, La.

48 Software

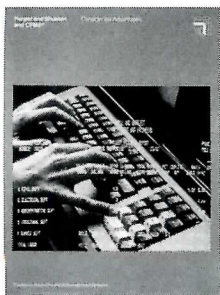
Aepex is a project management and accounting software package for small- to medium-sized architectural and engineering firms. The software's four integrated modules include project management, general ledger, payroll, and accounts payable. The package runs on the IBM PC and other personal computers. Timberline Systems, Portland, Ore.

1 Office Equipment Product literature

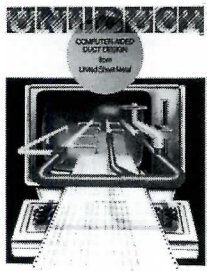
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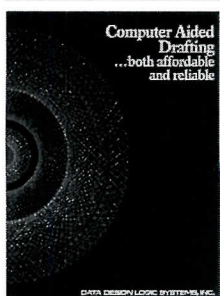
49 Project management
Topman—Total Planning and Management—software, a project management and control package, is featured in an 8-page brochure. Suggested applications, required program inputs, and possible output and report formats are reviewed. Applied Management Methods, Inc., Doylestown, Pa.



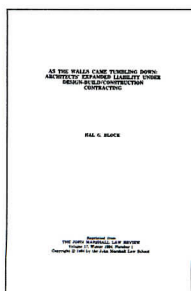
50 Accounting system
CFMS, a computerized financial management system developed specifically for design professionals, is featured in a 6-page color brochure. Samples of project-progress and time-analysis reports are shown. The system is available through timesharing, service centers, or through rental or licensing agreements. Harper and Shuman, Inc., Cambridge, Mass.



51 Duct design
Uni-Duct, a computer-aided duct design service, is described in a 4-page color brochure. Standard information provided by a program printout, including suggested duct size, airflow through a section, section velocity, and duct static pressure loss, are listed, and samples of typical data input are shown. United McGill Corp., Westerville, Ohio.



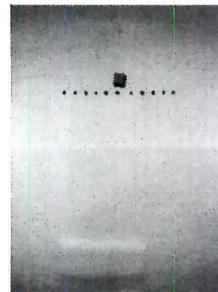
52 CAD system
A 4-page color brochure describes the *CAD-Master 400*, a low-cost turnkey system. The components, including the IBM PC computer, a high-resolution plotter, and the manufacturer's software package that allows the user to draw, dimension, enter notes, and modify designs, are discussed. Data Design Logic Systems, Inc., Santa Clara, Calif.



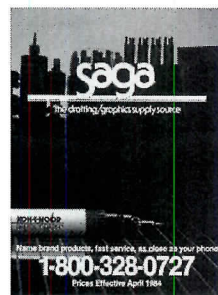
53 Architects' liability
A 50-page booklet reviews architects' expanded liability under design-build and construction contracting. A brief history of architectural liability is followed by a discussion and analysis of several components of the design-build contract. Advice on licensing and insurance is included. Shand, Morahan & Co., Inc., Evanston, Ill.



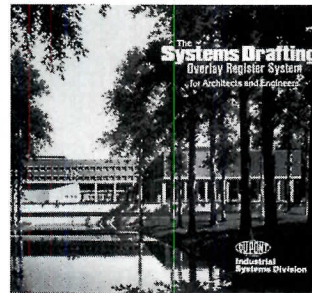
54 Software referral
A 332-page catalog describes software products offered by independent software vendors from all over the world. A section on computer-aided design and drafting has detailed write-ups of drafting, geometric modeling, integrated CADD, and solid modeling systems. Tips on software selection are included. Digital Equipment Corp.,



55 Computer support services
A packet with several inserts contains information on computer services in the fields of architecture, engineering, and facilities programming and management. Services including CADD networking, and furniture and equipment tracking or inventory, are described. Design Logic, Inc., Oakland, Calif.



56 Drafting supplies
A 56-page color catalog of drafting supplies and accessories contains illustrations, descriptions, specifications, prices, and ordering information. *Stikybak*, an adhesive-backed polyester film suitable for making title blocks, etc., which comes in versions for use in diazo printers or plain-paper copiers, is described in detail. Saga, Div. of Dade, Inc., Minneapolis.



57 Overlay drafting
The *Overlay Register System*, which uses pinbar registration and a series of overlays to produce a composite drawing, is featured in a 4-page fold-out color brochure. The working, requirements, and advantages of the system are described in the literature. E. I. duPont de Nemours & Co., Inc., Wilmington, Del.



58 Plotters
A 12-page color brochure reviews the manufacturer's line of drafting plotters. Resolution, pen control, speed, acceleration, and accuracy of the plotters are discussed, and characteristics of each model are listed. Photos of plots show the line quality that can be achieved. Hewlett-Packard Co., San Diego.



59 Software
A 150-page catalog describes approximately 300 software packages for the manufacturer's 32-bit *ECLIPSE MV/Family* and *DS/Family* systems. Architecture-, engineering-, and construction-related packages are reviewed, including 3-D drafting, project management, accounting, and various engineering analyses. Data General Corp., Westboro, Mass.



60 CAE/CAD/CAM system
CDS 4000, a computer-aided engineering, design, and manufacturing system that offers distributed processing from a centralized database, is featured in a 20-page brochure. Color photos show several types of software in use, including architecture-, engineering-, and construction-related packages. Computervision

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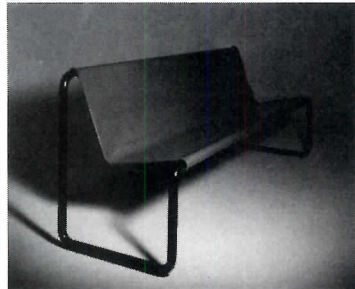
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2 Site Work

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 Recreational facilities
 Site drainage
 Site furnishings
 Site utilities
 Soil treatment



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61 Bicycle rack
Ribbon Rack is a 5-ft-long unit that can hold seven bicycles. The rack is made from heavy-gauge steel pipe that is hot-dipped and galvanized after construction. Both the frame and the wheels can be fastened to the rack in an upright position. Brandir International, Inc., New York City.

62 Bicycle stand
Handi-Stand is a one-piece bicycle rack made from a polyethylene molding. The stand holds five bicycles and measures 10 1/2 in. by 16 in. by 45 in. For extra security, bicycles can be chained to the zinc-plated steel bars provided for each section. Peco Inc., Portland, Ore.

63 Site furnishings
 Bollards, cigarette snuffers, planters, and waste containers are included in the manufacturer's collection of site furnishings. Made of solid concrete, the products are available in an exposed aggregate or the new *Weatherstone* finish. Wausau Tile, Wausau, Wis.

64 Bench
 A bench for outdoor seating is part of the *Sling* series of site furniture. Made of perforated galvanized steel, the bench comes in a selection of 10 standard colors or in teak or oak. Both metal and wood versions are said to be weather resistant. Forms + Surfaces, Inc., Santa Barbara, Calif.

65 Slide gate
 The manufacturer's new slide gate has a one-piece member that acts as both the horizontal top rail and the integrated track. The gate can be constructed with mesh filler or in a picket design. The single gate comes in sizes of up to 50 ft, and the double model can be ordered in sizes up to 100 ft. Anchor Fence, Inc. Baltimore.

66 Planters
 The new planters designed by Paul Mayen are equilateral triangles with rounded corners. The inside of the planter is sprayed with black Teflon so plants may be placed directly into the container. Three different side lengths and heights are available. Architectural Supplements, Inc., Div. of Habitat International Ltd., New York City.

67 Walkway lighting
 Intended for low-level walkway lighting, the *Junior Jefferson* is made of Western red cedar that is kiln-dried and laminated. The lamps are available with a selection of incandescent globes. Each order is built to the customer's specifications. Ryther-Purdy Lumber Co., Inc., Old Saybrook, Conn.

68 Timber bridge
 Glue-laminated pedestrian bridges can be manufactured to a specified shape, including curved girders and arches. The bridge components are prefabricated at the lamination plant and can be assembled at the site. Pressure treatment is said to retard salt corrosion. Western Wood Structures, Inc., Tualatin, Ore.

69 Benches
TimberForm is a hardwood bench with cast-iron armrests that is intended for use in urban renewal and restoration projects. Available in lengths of 6 to 8 ft, the bench can be ordered with or without center armrests. Columbia Cascade Timber Co., Portland, Ore.

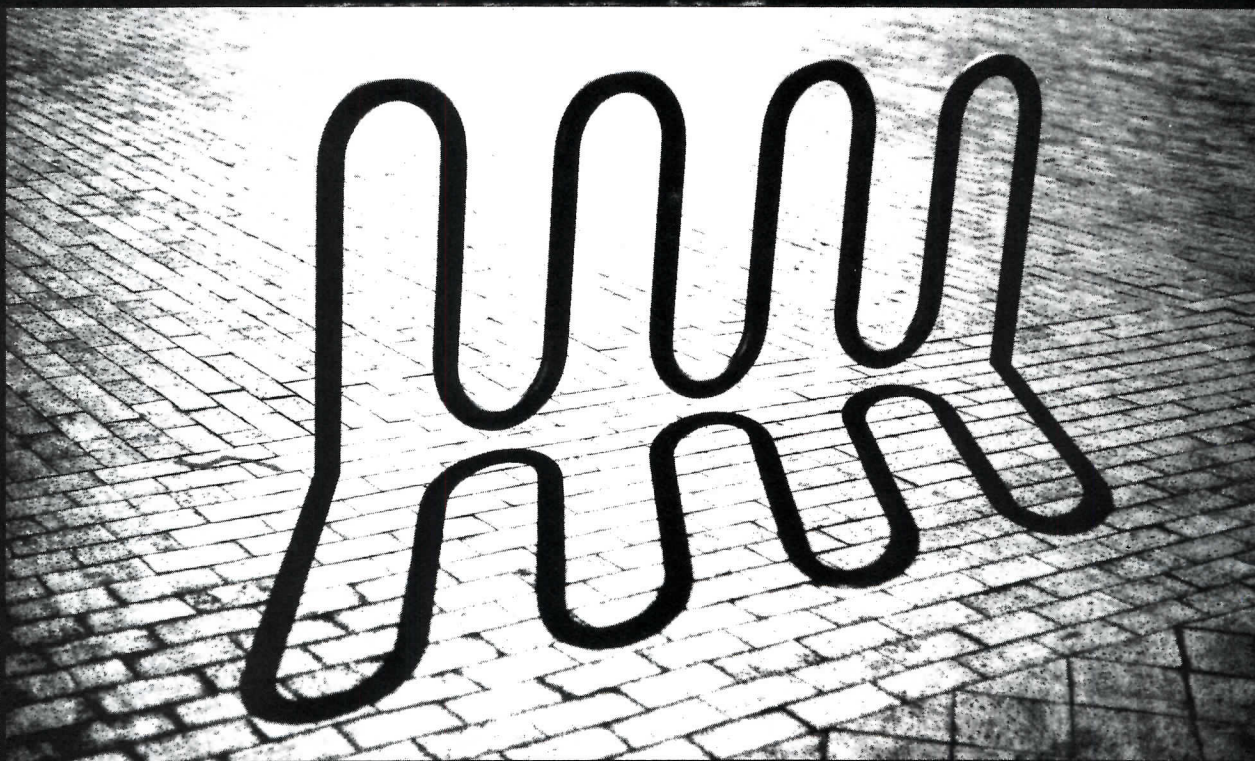
70 Landscape furnishings
Groundscape is a modular system of concrete elements that are precast with steel reinforcing and have an exposed aggregate finish. Litter baskets, recessed and cantilevered benches, lampposts, planters, and wall elements are included in the collection. Ambient Woodworks, Inc., Toronto, Ontario, Canada.

71 Faceblock
 The manufacturer's line of faceblock—an outdoor wall material—is available in a variety of textures. Larger than standard brick, the product comes in three sizes and several colors. Davidson Brick Co., Perris, Calif.

72 Concrete paving
Bomanite is a colored, patterned, and textured cast-in-place concrete slab system. The paving is available in 40 patterns and 24 colors and is designed for installation on patios, sidewalks, and driveways. Bomanite Corp., Palo Alto, Calif.

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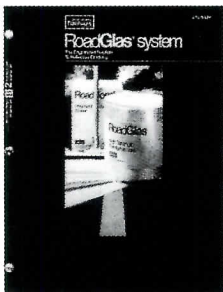
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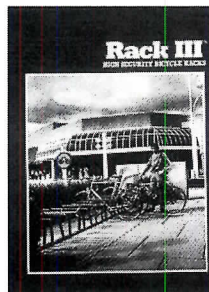
2 Site Work Product literature

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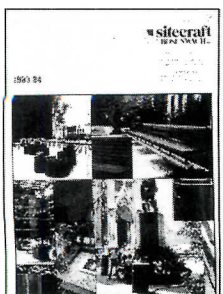
73 Pavement repair

The *Roadglas* system, which combines a woven glass fiber mat with an asphalt polymer binder, is featured in an 8-page brochure. Information and photos review suggested applications, such as reflected crack suppression, bridge deck waterproofing, and crack sealing. Owens-Corning Fiberglas Corp., Toledo.



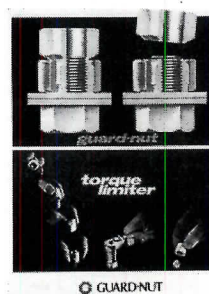
79 Bicycle rack

The *Rack III*, which makes possible a three-point locking of the frame and both wheels, is featured in a 4-page brochure. Photos show group installations of the heavy-gauge reinforced steel modular units. A padlock that fits into a protective shield is also illustrated. Rack III High Security Bicycle Rack Co., Oakland, Calif.



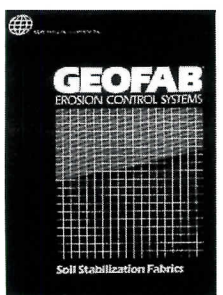
74 Site furnishings

The *Sitecraft* line of planters, benches, receptacles, and small tables is featured in a 12-page color brochure. Diagrams show available styles and list their dimensions. The products are made of California redwood. Rosenwach, Inc., Long Island City, N. Y.



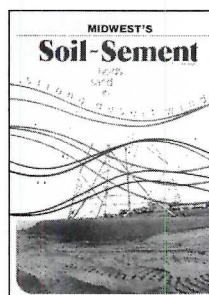
80 Fastening system

The manufacturer's fastening system of nuts and bolts is featured in a 6-page brochure. The components of the system, intended to limit theft and vandalism of signs and site furnishings, are illustrated. Special tamperproof bolts and screws are shown. Guard-Nut, Inc., Sonoma, Calif.



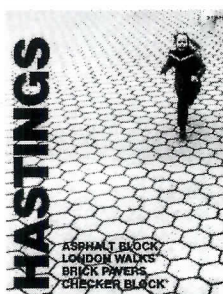
75 Erosion control

The *Geofab* system of erosion control, which includes silt fences, drainage systems, and methods of soil stabilization, is described and illustrated in a 20-page brochure. The literature also contains specification charts. Mercantile Development, Inc., Westport, Conn.



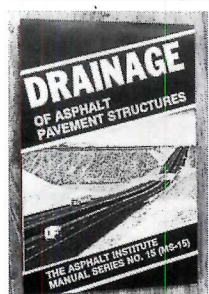
81 Dust retardant

Soil-Sement dust retardant, said to control dust problems and water erosion, is featured in a 4-page color brochure. The product, which can be applied to haulage roads, road berms, yard areas, parking lots, and ash, is shown in several desert applications. Midwest Industrial Supply, Inc., Canton, Ohio.



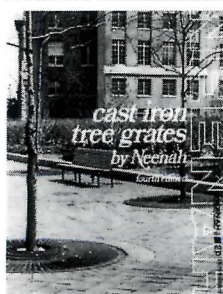
76 Pavers

Asphalt blocks, brick pavers, and *London Walks*—the manufacturer's hydraulically pressed concrete slabs—are featured in a 12-page color brochure. Tables listing available sizes, shapes, colors, and finishes of each product group are included in the literature. Hastings Pavement Co., Freeport, N. Y.



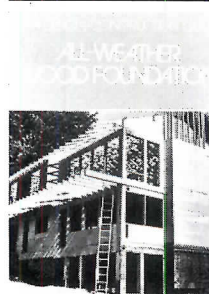
82 Asphalt drainage

A 160-page guide contains information for use in the design, construction, and maintenance of drainage systems for a variety of asphalt pavements, including highways, streets, airports, and parking areas. Data on both surface and subsurface drainage is included. The Asphalt Institute, College Park, Md.
Available for \$6.00 per copy.



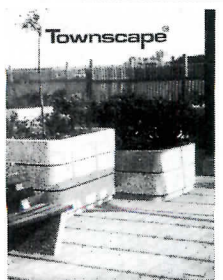
77 Tree grates

A 32-page catalog reviews the manufacturer's line of cast-iron tree grates for street plantings and mall landscaping. Available in 85 sizes and styles, the grates come in square, round, oval, octagonal, and custom-specified shapes. Neenah Foundry Co., Neenah, Wis.



83 Wood foundations

A 38-page brochure discusses below-grade stud walls built of pressure-preservative-treated lumber and plywood. Diagrams and tables show how the *AWWF*—all-weather wood foundation—system can be used in the design and construction of full basements and crawl spaces. American Plywood Association, Tacoma, Wash.



78 Street furniture

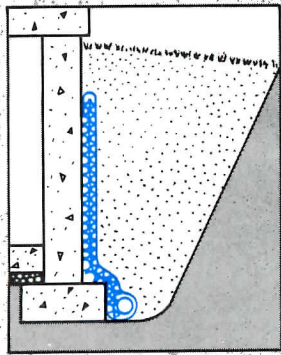
Bollards, seating, planters, waste containers, tree grids, and landscaping units are shown in a 16-page color brochure. Installation photos, diagrams, and dimensions of each product group are included in the literature. Townscape Products, Ltd., Simcoe, Ontario, Canada.



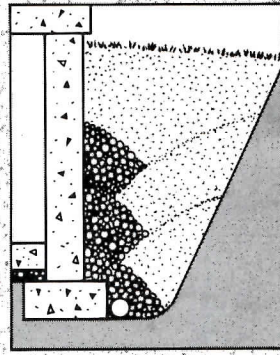
84 Fitness course

Fit-Trail, an exercise and conditioning course, is featured in a 4-page color brochure. The course, which takes the user through 32 exercises at 20 stations along a variable length trail, is described, and introduction and *station sign* panels are shown in photos. SouthWood Corp., Charlotte, N. C.

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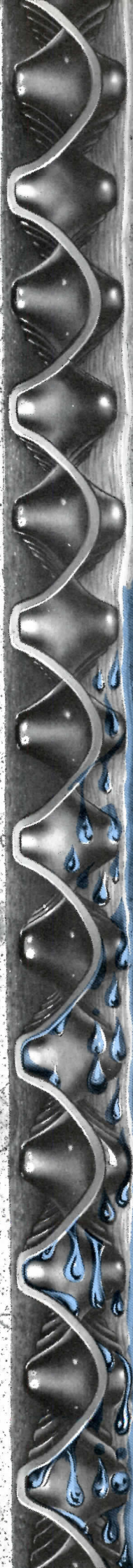
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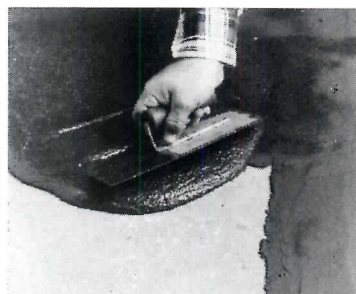
3 Concrete

4 Masonry

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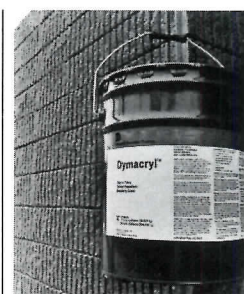
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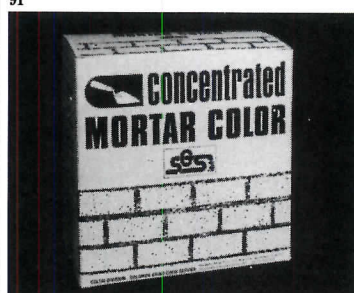
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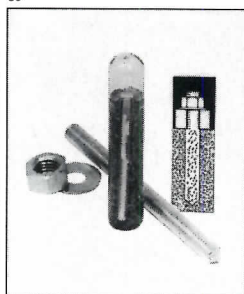
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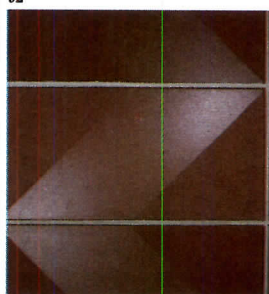
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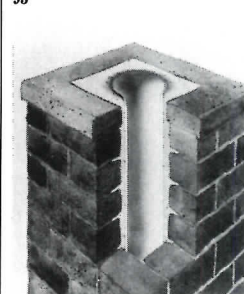
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85 Composite concrete
Micro-cotta is a polymer-based composite concrete that can be used for architectural ornament. The product has a compression strength of 5,320 psi and is said to offer nominal water permeability and penetration. It is also light in weight. Simplex Products Div., Adrian, Mich.

86 Stucco-reinforcing fiber
Dur-O-FibAR AR Glass is an alkali-resistant fiber that is said to improve the physical properties of stucco and to control random cracking. Each fiber is approximately 1/2 in. long and 13.5 microns in diameter. The product is available in premeasured packages and can be added to the stucco batch at the site or in the plant. Dur-O-Wal, Inc., Northbrook, Ill.

87 Masonry and concrete coating
Thoroseal is waterproofing material for masonry and concrete that may be used above or below grade for exterior or interior applications. It is said to fill and seal pores and voids, protecting concrete, brick, or stone from moisture penetration. The product, made from cement and lime, can be finished in different textures. Thoro

88 Concrete surfacer
A few hours after application, *Perma-Lock* concrete surfacer dries to a chemical- and abrasion-resistant floor covering. The product can be applied directly to laitance-bearing concrete and damp surfaces without surface treatment. Porter Paint Co., High Performance Coatings Div., Louisville.

89 Concrete panels
The *Cellcrete* system is composed of precast panels that are assembled around a steel framework. The panels are available in six textures, including brick, exposed aggregate, fractured-fin, and sandblast. They are 12 by 24 in., with cast tongue-and-groove edges. The Scott System, Inc., Denver.

90 Chemical anchor
The *Parabond* anchor is a non-expanding chemical capsule anchor intended for fastening low-density materials, for close-to-the-edge and shallow embedment fastening, and other stress-critical applications. The two-part system consists of a threaded rod stud and a sealed glass capsule that contains polyester resin, quartz sand aggregate, and a hardener. Molly

91 Concrete masonry blocks
Shadow Stone is part of a series of relief-faced, split blocks produced on standard block-making equipment. The face of *Shadow Stone* is divided into three unequal sections that are split at different depths, creating an irregularly textured wall. The blocks can be used on interior and exterior walls. Designer Blocks, Inc., Milwaukee.

92 Mortar colors
The manufacturer's line of mortar colors is made from finely milled iron oxide pigments. The product comes in preweighed packages to regulate color uniformity. Solomon Grind-Chem Service, Inc., Springfield, Ill.

93 Masonry panels
Dilite custom preglazed concrete masonry panels are available in a variety of patterns and colors that appear to change as light sources vary. The panels are said to be lightweight. The Burns & Russell Co., Baltimore.

94 Masonry stain
Dymacryl is a water-repellent, semipermeable, color-stable masonry stain made from 100 per cent acrylic co-polymers and inorganic pigments. It is said to provide a uniform appearance to masonry while preserving the original surface texture. Dampney Co., Inc., Everett, Mass.

95 Floor and wall panels
Armstone floor tile and wall panels are made from approximately 90 per cent marble and a proprietary polymer system. The tiles and panels are available in 18 colors, with either a polished or matte finish. Standard tile sizes are 12 in. sq, and wall panels come in units of up to 4 ft sq. ArmStar, Div. of Armstrong World Industries, Lone Star Industries and Shell Oil Co., Lenoir City, Tenn.

96 Chimney liner
The manufacturer's liner system is designed to improve the fire safety of chimneys. It consists of two layers: an insulating liner that is applied under horizontal pressure to bond to the chimney, and a sealer that dries to a hard finish to protect the layer underneath. Ahrens Chimney

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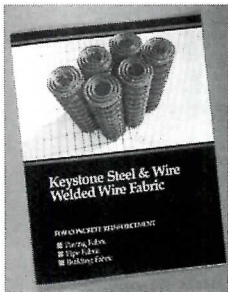
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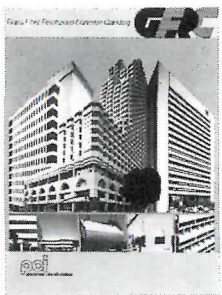


3 Concrete Product literature

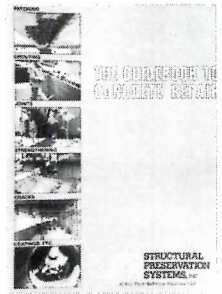
4 Masonry Product literature



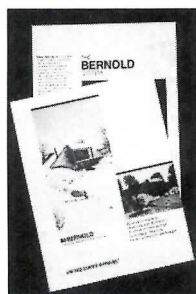
97 Welded wire fabric
Steel and wire paving, pipe, and building fabrics for concrete reinforcement are reviewed in a 4-page brochure. Each product type is described and illustrated, and listings of its particular specifications are given. Keystone Steel & Wire Co., Peoria, Ill.



98 Reinforced concrete cladding
A 16-page color brochure details the design, application, and production of a glass-fiber-reinforced concrete cladding. Photos depicting uses and available colors, forms, and textures are included, as are construction details and guidelines that should be considered when specifying the material. Prestressed Concrete Institute, Chicago.



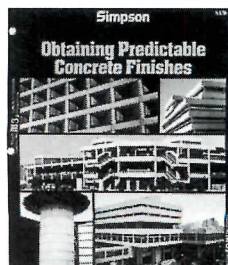
99 Concrete repair
A 50-page guide to concrete repair is divided into sections on patching, grouting, cracks, joints, strengthening, and coatings. Materials used to repair concrete and methods of their application are discussed. Structural Preservation Systems, Inc., Baltimore.



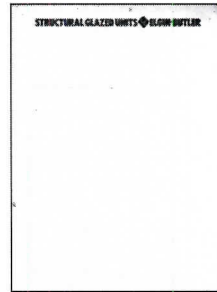
100 Concrete forming system
The *Bernhold* system, which consists of modular steel plates that can form a load-bearing shell for arch structures, curved retaining walls, or barrel roofs in earth-sheltered construction, is featured in a fold-out color brochure. The available sizes and weights of plates are given. United States Gypsum Co., Chicago.



101 Water reducers
Daracem-100, intended to improve the plasticity and increase the compressive strength of a concrete mix, is featured in a 6-page color fold-out brochure. The literature describes how the product improves slump retention, maintaining mix workability for as long as 2 to 2 1/2 hours. W. R. Grace & Co., Cambridge, Mass.



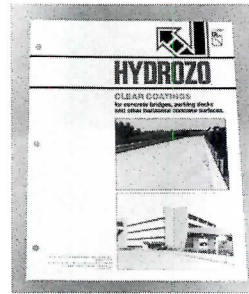
102 Concrete finishes
A 4-page color brochure reviews issues for consideration in the selection of exterior concrete form panels. Photos show examples of such problems as mechanical transference and surface discoloration. The manufacturer's concrete finishes are shown along with suggestions on form planning. Simpson Timber Co., Panel



103 Structural glazed units
Structural wall-bearing brick and tile that have been glazed in a variety of colors and textures are featured in a 16-page color brochure. The literature contains data intended to facilitate design and job specifications, tips on usage, and technical advice. Elgin-Butler Brick Co., Inc., Austin, Tex.



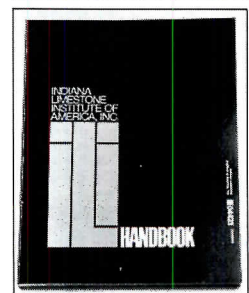
104 Limestone panels
Modular and custom-fabricated limestone wall panels are discussed and illustrated in a 16-page color brochure. Typical wall and spandrel construction details are included in the literature. The six available finishes are shown. Harding & Cogswell Corp., Bedford, Ind.



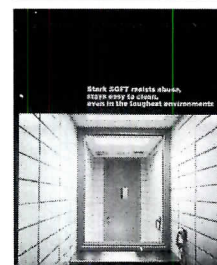
105 Concrete coatings
A 4-page brochure provides technical data on the manufacturer's line of concrete and masonry coatings. The products' use on parking decks, columns, abutments, and retaining walls is described. The coating's resistance to chloride ion penetration and water, salt, or freeze-thaw deterioration is discussed. Hydrozo Coatings Co., Lincoln, Neb.



106 Marble tile system
The manufacturer's system for the installation of a thin marble tile, using an aluminum-clad substrate and a silicone adhesive and joint sealant, is described in a 4-page color brochure. Information on the system—which allows direct attachment of the panels to steel studs—its components, and installation procedures is included. Vermont Marble Co., Proctor, Vt.



107 Limestone
A 126-page handbook describing limestone and its use as a building material includes case histories and suggested application specifications. Updated information on mortars and mortar systems, sealant systems, and windload and safety factors is included in the literature. Indiana Limestone Institute of America, Inc., Bedford, Ind.



108 Security tile
The manufacturer's line of structural glazed facing tile, intended for use in correctional facilities, is featured in an 8-page color brochure. Acoustical and security benefits are listed. Photos illustrate several installations and the range of available tile shapes and sizes. Stark Ceramics, Inc., Canton, Ohio.

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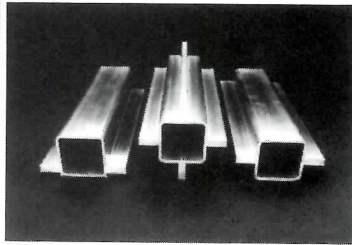
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Bal Harbor 101
Condominium Residence
Bal Harbor, Florida
Architect: Bleemer, Levine & Associates
Owner: Cal Kovens Construction Co.

COLD SPRING

5 Metals

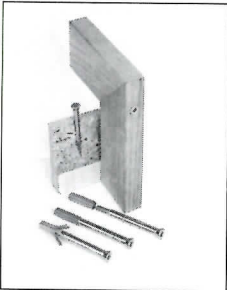
UCI 5, Metals:
 Architectural metalwork
 Expansion control
 Fasteners & supports
 Floor plates
 Gratings
 Metal decking
 Metal joints
 Metal stairs
 Ornamental metal columns
 Perforated metal
 Structural metal framing



109



110



111

109 Aluminum extrusions

The manufacturer's three new aluminum extrusions are said to expand the application potential of its aluminum frame construction system. All inside dimensions of the extrusions are made to specified size. Outside dimensions are derived by adding 3 in. to over-all width, height, or depth. The extrusions are available in 11 shapes. AMCO Engineering Co., Schiller Park, Ill.

110 Metal sheets

Alucobond metal sheets are intended to be used for cladding, curtain walls, fascias, and interior applications. The product is made of two sheets of aluminum with a thermoplastic core. The sheets are available in two thicknesses and two standard widths and can be formed to exact specifications. Consolidated Aluminum Corp., St. Louis.

111 Anchoring system

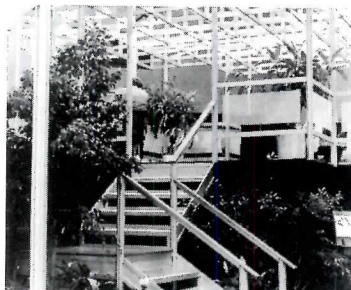
JAWbolt anchors and bolts can be used to fasten wood, particle board, stone, plaster, plastic, concrete, brick, asphalt, and chipboard. The system is said to exert no sideways pressure and to hold 1,350 lb in end-cut oak and 3,000 lb in concrete. Bolts can be dismantled and reassembled. Jaw Manufacturing Co., Reading, Pa.



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112 Spiral stair

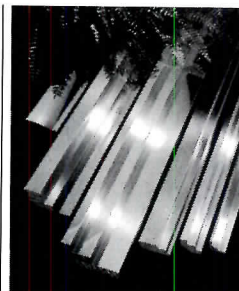
The *Quick Step* spiral stair is made from 100 per cent steel and can be used for interior and exterior applications. The stair comes in a kit with enough treads for a 114-in.-high stair. A curved steel handrail, stair balusters, platform frame, columns and connecting hardware are included. American General Products, Inc., Ypsilanti, Mich.

113 Cast-iron staircases

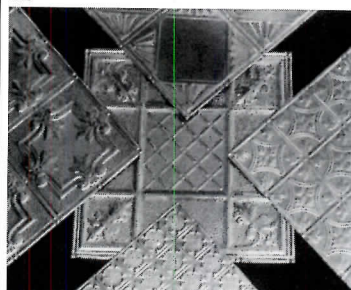
The *Kensington* straight staircase is a Victorian-style reproduction. The cast-iron stair comes in 36-in.-wide modules. Up to three steps are self-supporting, but longer rises must be mounted on steel channels. Each rise consists of four castings that can be bolted together at the site. Steptoe and Wife Antiques, Ltd., Willowdale, Ontario, Canada.

114 Aluminum extrusion system

A system of aluminum extrusions and joints designed by Chris Sykes can be used to build two-level structures. The rapid-assembly kit is intended to be used for stairways, walls, and ceilings. The system is available in a variety of anodized or epoxy finishes. Click Systems, Inc., Toronto, Ontario, Canada.



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115 Moldings

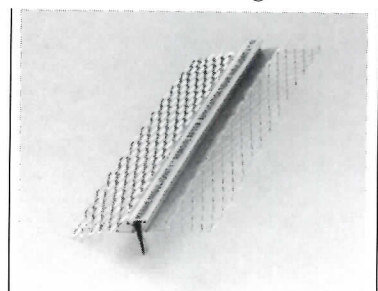
Architectural Crown Moldings are made from .025 aluminum with a bright or satin finish coated with a transparent acrylic epoxy enamel laminated to a fire-rated substrate. Their standard length is 8 ft, and they can be installed with a variety of adhesives or mechanical fasteners. PHD Industries, Burbank, Calif.

116 Embossed metal

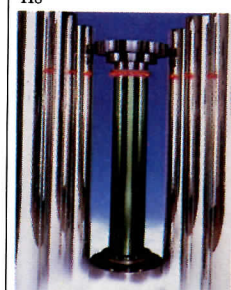
The manufacturer's embossed metal for ceilings and walls is stamped by dies that date as far back as the 19th century. The 18 designs, ranging in style from Victorian to Art Deco, come in 2- by 8-in. sheets with patterns of 6-, 12-, or 24-in. repeats. Chelsea Decorative Metal Co., Houston.

117 Anodizing process

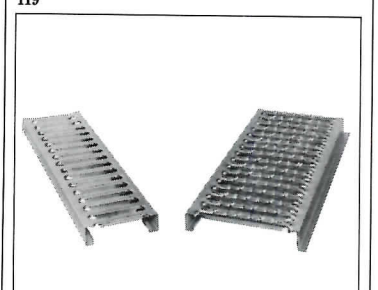
A two-step process uses *P3 almeicolor* chemicals to color anodized aluminum for exterior architectural applications. The clear anodizing process is followed by the depositing of the selected color. The shade depends on the length of time the metal is exposed to chemicals rather than on film thickness. Amchem Products, Inc., Div. of Henkel Corp., Ambler, Pa.



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120

118 Expansion and control joints

The manufacturer's *Insuljoint I* is designed for use where back-up insulation and/or lath and sheathing is cut behind control joints. The product is to be used every 100 sq ft as a surface-mounted joint for 1/4-in. and 3/8-in. plaster systems. Keene Corp., Parkersburg, W. Va.

119 Column cover

The mirror-finished green stainless steel column cover (shown) is part of the manufacturer's line of column covers and capital, base, fascia, and coping caps. The product line comes in natural and colored stainless steel, anodized and prefinished aluminum, bronze, brass, copper, and prefinished galvanized steel in a matte, satin, or mirror finish. Architectural Forms, Kansas City, Mo.

120 Metal grating

A new 1 1/2-in. grating is available in 6-in. and 9-in. planks of 12-, 14-, or 18-gauge galvanized steel. The gratings come in lengths of 20 and 24 ft. The slotted surface permits passage of water and debris. United Interlock Grating Div., United McGill Corp., Columbus, Ohio.

Webster Avenue



Landman—Andrews AIA

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5 Metals Product literature

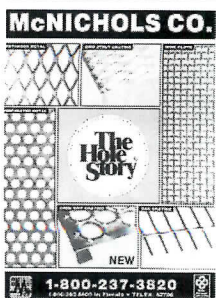
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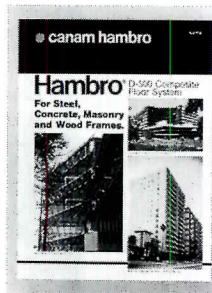
121 Wire partitions
A 12-page brochure shows the manufacturer's woven wire partitions, used to safeguard employees and equipment in hazardous working areas and to protect against theft and vandalism. Diagrams are included of the available panel types, which come in five widths and three heights. Logan Co., Louisville, Kentucky.



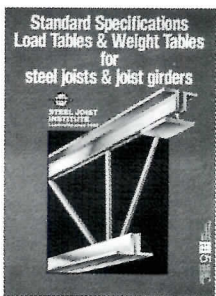
128 Spiral stairs
The manufacturer's line of metal spiral staircases is featured in a 4-page color brochure. Different models, including combination straight and spiral stairs, interior and exterior versions, and stairs with decorated balusters, are shown. Mylen Industries, Inc., Peekskill, N. Y.



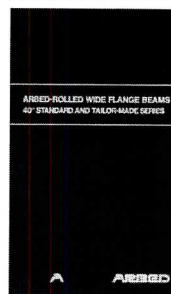
122 Metals
Information on the manufacturer's line of perforated metals, expanded metal, wire cloth, bar grating, grip strut safety grating, open grip grating, and tread grip flooring is provided in a 48-page catalog. The construction, dimensions, attachment methods, and specifications of each product group are included. McNichols Co., Tampa, Fla.



129 Composite floor system
The *Hambro D-500* composite floor system is described and shown in an 8-page color brochure. The system consists of hybrid concrete/steel T-beams and a continuous slab. Tables list fire-resistance ratings and thicknesses of available slabs, and the acoustical properties of the system. Canam Hambro, Div. of Canam Steel Corp., Needham Heights, Mass.



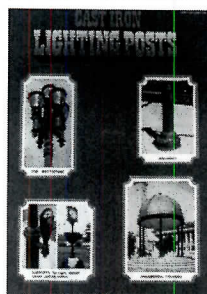
124 Joist, girder specifications
Standard load and weight specification tables for steel joists and joist girders are contained in a 56-page guide. Information on H-series open web, and LH- and DLH-series long-span and deep long-span steel joists is also included. Steel Joist Institute, Myrtle Beach, S. C.



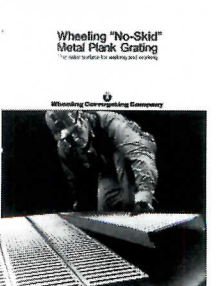
130 Flange beams
The manufacturer's line of 40-in. standard and custom-made rolled flange beams is reviewed in a 60-page catalog. Tables listing allowable stress, moment of inertia, plastic design, and uniform constants of the beams are included in the literature. Trade Arbed, Inc., New York City.



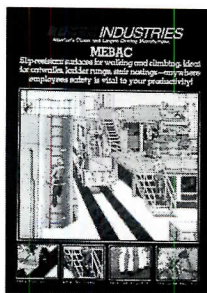
125 Metal products
The manufacturer's line of aluminum, bronze, and steel products is reviewed in a 20-page brochure. The separate product lines, including handrails, castings, extrusions, and aluminum ornaments, are described and shown in diagrams. Dimensions and installation information are included in the literature. J.G. Braun Co., Inc., Skokie, Ill.



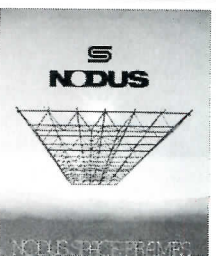
131 Cast-iron lighting posts
A 28-page color brochure features the manufacturer's line of cast-iron lighting posts. All models are manufactured to order so that they may be adapted to accommodate the luminaire desired. Light sources may be incandescent, mercury vapor, metal halide, or high-pressure sodium. Spring City Electrical Manufacturing Co., Spring City, Pa.



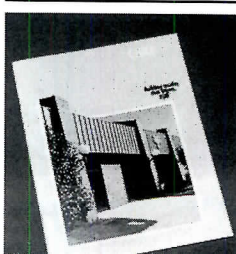
126 Metal plank grating
Metal plank grating fabricated from pre-galvanized steel coils, with raised "no-skid" holes, is featured in an 8-page brochure. Diagrams of the product's uses and available accessories are accompanied by tables listing the grating's physical properties. Wheeling Corrugating Co., Div. of Wheeling-Pittsburgh Steel Corp., Wheeling, W. Va.



132 Metal surface
A 6-page fold-out brochure describes *Mebac*, a metal flooring product available in plates, grating or stair nosings, with a surface of abrasive aluminum oxide for traction. Tables show grating-span deflection, allowable load per sq ft, and slip resistance-static coefficient of friction. IKG Industries, Div. of Harsco, Nashville, Tenn.



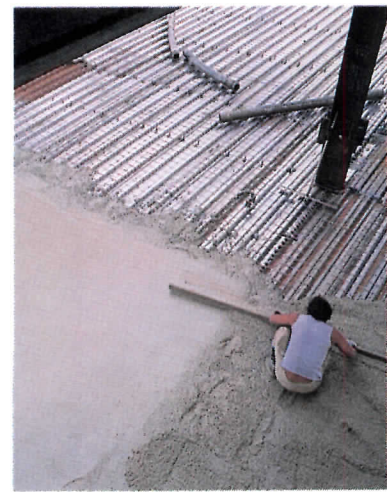
127 Space frames
The *Nodus*, a steel space-frame system with a special joint that permits members to be assembled on site without welding, is described and shown in a 20-page color brochure. The system's grid design, the maximum possible span, required grid depth, and available cladding materials are discussed. Lewis Steel Co., Inc., Parkersburg, W. Va.



133 Building systems
The components of the manufacturer's pre-engineered building systems, including rigid frame clear-span, rigid frame multispan, and multistory frame designs, are reviewed in a 12-page color brochure. Necessary site preparation for the installation of systems is described. Chief

DECK IN YOUR FAVOR.

When you stack up all the concerns you face in high-rise construction, it inevitably comes down to getting just what you need when you need it. There's too much at stake to gamble on products or service. That's why Vulcraft was chosen to supply composite deck as well as steel joists for the 12-story North Central Plaza II job in Dallas, Texas.



Composite deck simplifies construction

Although Vulcraft's composite deck would allow construction to proceed much faster and easier than the material and labor-intensive alternative of poured-in-place concrete, there was another consideration: delivery schedules. In order to accommodate the lack of "lay down space"

on the confined job site, Vulcraft promised to deliver specified bundles *at exact times on exact days*. On this job there was no room for hedging your bets. Vulcraft's attention to the sequencing and coordination of composite deck and joist deliveries made sure nothing was lost in the shuffle. All 241,000 square feet of composite deck and 38 tons of joists arrived at the site exactly when it was needed.

Since Vulcraft is the only company in the U.S. that makes and delivers steel floor deck, steel



Vulcraft deliveries eliminated "lay down space" worries

roof deck, composite floor deck, standing seam roof, steel joists, and joist girders, we're your ace in the hole for virtually any construction project.

For more information, contact any of the Vulcraft plants listed below. Or, see Sweet's 5.5/Vu.

VULCRAFT

A Division of Nucor Corporation

P.O. Box 637, Brigham City, UT 84302 801/734-9433

*P.O. Box F-2, Florence, SC 29502 803/662-0381

P.O. Box 169, Fort Payne, AL 35967 205/845-2460

*P.O. Box 186, Grapeland, TX 75844 409/687-4665

*P.O. Box 59, Norfolk, NE 68701 402/371-0020

*P.O. Box 1000, St. Joe, IN 46785 219/337-5411.

*Deck manufacturing locations

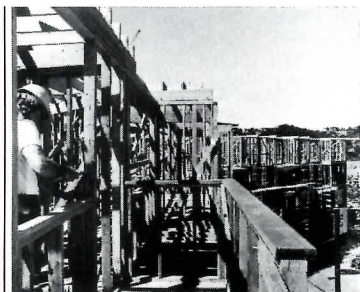
Architect: Robert Husmann AIA & Associates
General Contractor: Spaw-Glass Constructors
Steel Fabricator: Mosher Steel Company
Consulting Engineers: M. Hourani & Associates

Circle 1041 on inquiry card

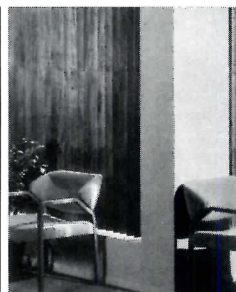
The 12-story North Central Plaza II used 241,000 square feet of Vulcraft composite deck as well as 38 tons of Vulcraft joists.

6 Wood & Plastics

UCI 6, Wood & plastic:
 Architectural woodwork
 Connectors & supports
 Laminated & processed sheets
 Lumber
 Plastic fabrications
 Plastic laminates
 Prefabricated structural plastics
 Prefabricated structural wood
 Simulated wood
 Stock millwork
 Wood treatment



134



137



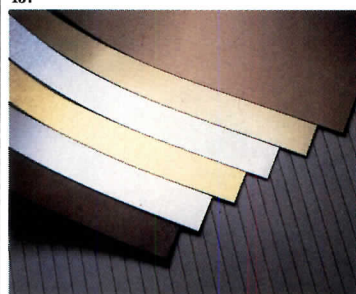
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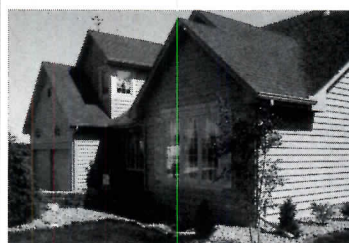
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134 Treated lumber

Dricon is a fire-retardant, treated wood formulated to provide low hygroscopicity—level of moisture pickup—and to reduce the danger of corrosion when metals come in contact with it. The wood is intended for use in climates with high humidity levels. It can be used for studs, trusses, and beams in systems using metal lath and plaster. Koppers Co., Inc., Pittsburgh.

135 Particle board

SurePine is a particle board made with a steaming process that gives the refiner added control. The manufacturer's new electronic equipment is said to fine-tune the pressing cycle so that the product can be tailored to specific applications. Willamette Industries, Inc., Ruston, La.

136 Treated wood

Flame Proof LHC wood is kiln-dried after treatment. It is claimed to have a reduced level of water retention and a higher resistance to corrosion than most conventional interior fire retardants. The wood is intended for interior applications with relative humidities of less than 95 per cent. Osmose, Griffin, Ga.

137 Wood blinds

The manufacturer's line of vertical hardwood blinds features tilt and draw control using a headrail system made of extruded aluminum. The blinds come with matching wood valences and can be ordered in 34 stains and opaque colors. Nanik, Div. of Wausau Metals Corp., Wausau, Wis.

138 Laminates

The manufacturer's new metallic surfacing collection features eight solid metal surfaces and one metallic laminate. The line includes gold, aluminum, brass and bronze finishes with polished or textured surfaces. The material is said to be flexible enough to be curved into a 3-in. radius. Wilsonart, Temple, Tex.

139 Redwood

The manufacturer's redwood siding comes in kiln-dried, 1- by 6-in., tongue-and-groove panels. The trellis lumber (shown) is available in 4- by 4-in., 4- by 6-in., and 2- by 6-in. sizes. California Redwood Association, Mill Valley, Calif.

140 Fiberglass panel

The *Kemply frp* panel consists of a wood substrate with fiberglass panels laminated to one or both sides. The .05-in.-thick, Class C-rated panel is intended for interior wall and ceiling applications and may be installed directly on a stud wall. Dyrotech Industries, Inc., Joliet, Ill.

141 Siding

The manufacturer's siding, made from 7/16-in. waferwood that has a resin-impregnated overlay, is embossed with a wood grain pattern. The siding is available in 16-ft lengths and 8- or 12-in. widths and comes primed and ready for painting. Louisiana-Pacific Corp., Portland, Ore.

142 Wood beams

The manufacturer's line of hollow wood "beams" is made from pine and is available in a variety of shapes, including O-, G-, J-, U-, L-shaped beams and flat boards for trim, casing, shelves, and stair parts. The beams weigh approximately 1.3 lb per board ft. They come finished or unfinished in rough-sawn, hand-hewn, smooth or standard styles. Rusticated Beams, Inc., West Warwick, R. I.

143 Laminates

The *Solicor* line of high-pressure laminates features a core of solid color that eliminates contrasting edges. The laminate can be post-formed to a 1/2-in. outside radius and a 3/16-in. inside radius. It is available in white, almond, gray, blue, beige, brown, and thistle. Wilsonart, Temple, Tex.

144 Fir flooring

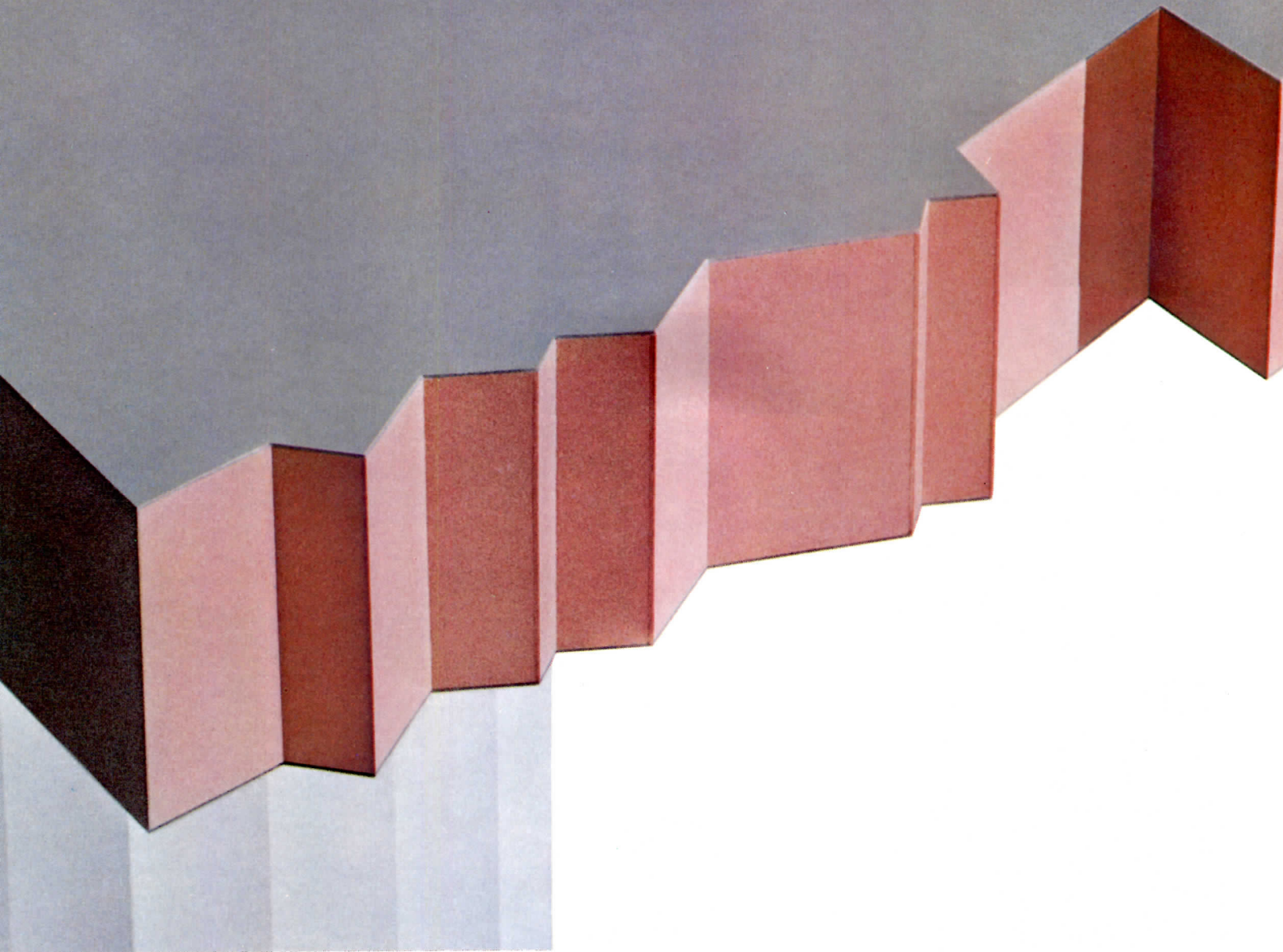
The manufacturer's kiln-dried, 1- by 4-in. vertical grain fir is finger jointed and glued into longer lengths. The wood comes in a tongue-and-groove configuration and can be used for porch flooring or interior flooring over subfloors. It can also be applied directly to the floor joists. The Pacific Lumber Co., San Francisco.

145 Treated wood

The manufacturer's line of pressure-treated wood is intended to be used for fences or in other outdoor applications where the wood comes in contact with the ground. The preservatives forced into the wood are said to protect it from termite infestation and decay. Western Wood Preservers Institute, Del Mar, Calif.

COLORCORE.

THE ONLY SURFACING MATERIAL THAT CAN
KEEP UP WITH YOUR IMAGINATION.



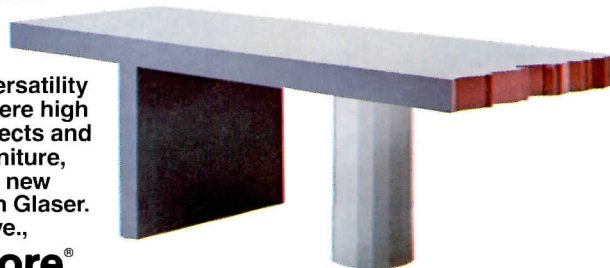
“Broken Length” Designers: Massimo and Lella Vignelli, 1983.

One side of the Vignelli’s table is rooted in modernism. The other side is steeped in classicism with its ornamental column that supports the tabletop’s fragmented edge. In short, a somewhat surreal concept that sets up a tension between the past and present. Something that could only have been executed in COLORCORE® brand surfacing material. In this piece, COLORCORE is used to create a quality of stone. The Vignellis emphasized the monolithic characteristic of COLORCORE as well as its technical capability. The seamless edge finish of COLORCORE is an essential aspect of the design.

Because COLORCORE is solid color, it’s vastly superior in durability and versatility to almost any other surfacing material. It performs exceptionally well in areas where high abrasion resistance and wear are important. And, because of COLORCORE, architects and designers are now able to take exciting approaches to reception areas, office furniture, store fixtures, architectural applications and other installations as can be seen in new works by people such as Massimo and Lella Vignelli, Stanley Tigerman and Milton Glaser.

For more information write Formica Corporation, Dept. A1, 114 Mayfield Ave., Edison, NJ 08837. For free individual COLORCORE samples, call toll-free: (1) (800) 543-8201. Ask for Operator #207. In Ohio, call: (1) (800) 582-1396.

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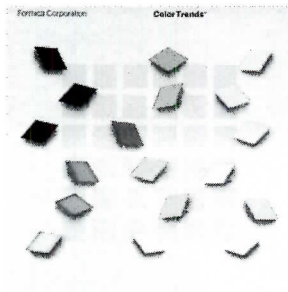


6 Wood & Plastics Product literature

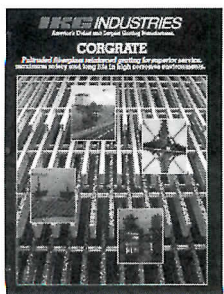
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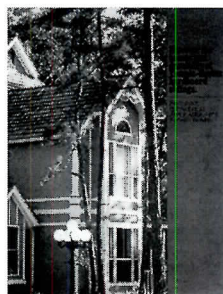
146 Metallic laminates
The *Homapal* line of laminates, made with copper, chrome, aluminum, or stainless steel, is featured in a 4-page color brochure. General product information and illustrations of the various patterns and textures are included. Panel installation, using adhesives, is discussed. The Diller Group, Div. of Formica Corp., Morton Grove, Ill.



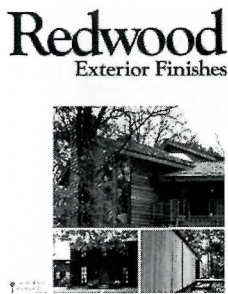
152 Laminates
The *Color Trends* collection of laminates is featured in a 4-page color brochure. Eighteen new colors, including orchid haze, doeskin, moonstone, seafrost, bamboo, thistle, dusty jade, copper rose, cordovan, blueberry, and hemlock, are shown. The available sizes, grades, and finishes of the laminates are listed. Formica Corp., New York City.



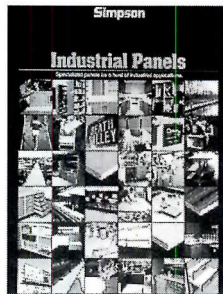
147 Grating
Corgrate, a pultruded fiberglass-reinforced grating, is described in a 12-page brochure. The corrosion- and impact-resistance of the panels, which are also lightweight, are described. Plan and sectional views of the available grating patterns and a load deflection chart are included in the literature. IKG Industries, Div. of Harsco, Nashville, Tenn.



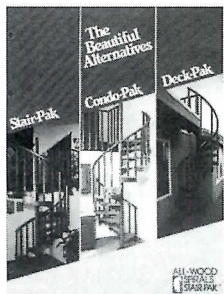
153 Siding
A line of hardboard siding with a 100 per cent wood-fiber content is featured in a 10-page color brochure. Lap, shiplap-edge lap, square-edge panel, and shiplap-edge panel sidings are described. Photos show a variety of patterns and several facing styles. A table lists required nail sizes and spacings. Temple-Eastex, Inc., Diboll, Tex.



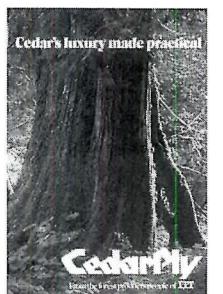
148 Redwood finishes
Redwood exterior finishes are featured in a 4-page color brochure. Descriptions of the finishes, including clear water repellents, bleaching oils or stains, semi-transparent or opaque stains, and paints, are accompanied by listings of their uses, effects, and suggested application methods. California Redwood Association, Mill Valley, Calif.



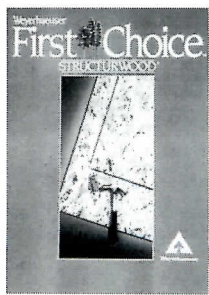
154 Panels
An 8-page color brochure features the manufacturer's line of industrial panels intended for flooring and other applications, including prefabricated docks, cabinets, and highway signs. Skid-resistant panels for flooring and wood-grain panels that are said to be stain-resistant are illustrated. Simpson Timber Co., Shelton, Wash.



149 Wood spiral stairs
Three wood spiral staircases are shown in a 12-page brochure. The oak *Stair-Pak* and the *Condo-Pak*—both for interior applications—and the mahogany *Deck-Pak*—for exterior applications—are shown in several color photos. Listings of standard features, available options, and dimensions are included. Stair-Pak Products Co., Inc., Union, N. J.



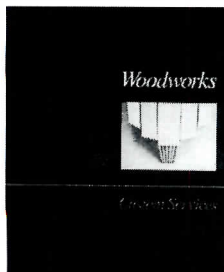
155 Plywood
CedarPly cedar-faced plywood is featured in an 8-page color brochure. Photos show both premium and select grades and the several available groove patterns. The product's durability and its resistance to decay and warping are discussed. Peninsula Plywood, Div. of ITT Rayonier, Inc., Port Angeles, Wash.



150 Wood panels
Structurwood, a wood panel that is said to have the structural strength of plywood and the uniformity of particleboard and waferboard, is featured in an 8-page color brochure. Data on the product's use for subflooring and roof or wall sheathing is provided. Results of stress tests are included. Weyerhaeuser Co., Tacoma, Wash.



156 Surfacing material
Corian, a solid plastic material, is featured in a 20-page color brochure. The product, which is available in sheets of three different thicknesses and in precast shaped forms, is shown in several applications. Methods for adhering, caulking, sealing, and installing the product are reviewed. E. I. duPont de Nemours & Co., Inc., Wilmington, Del.

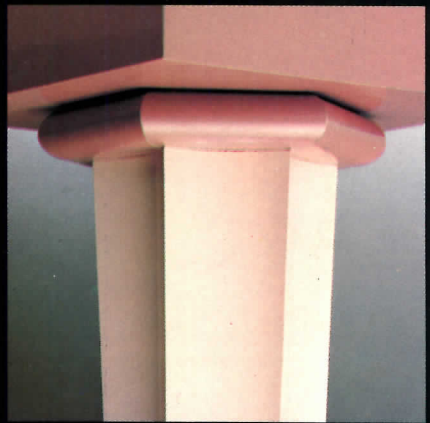
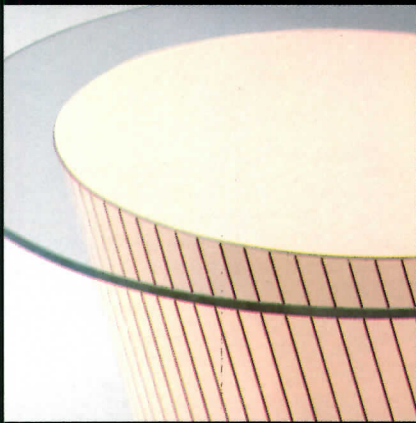
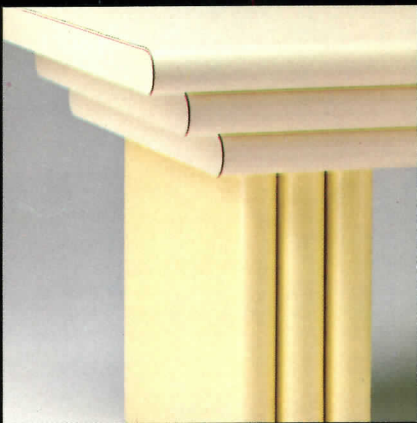
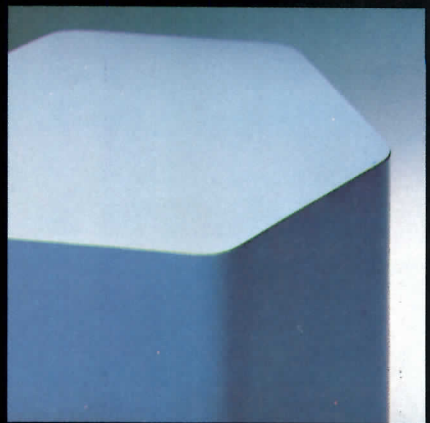
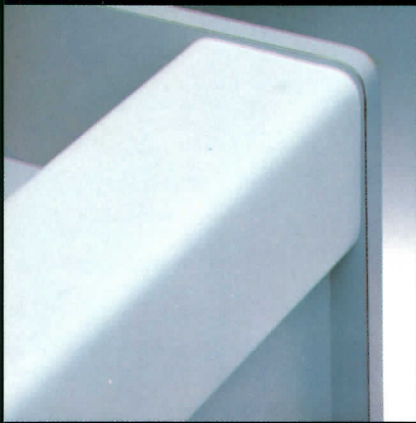
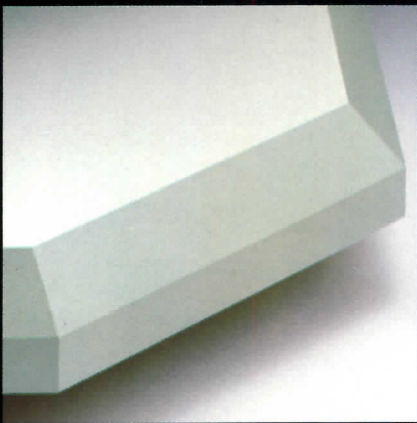
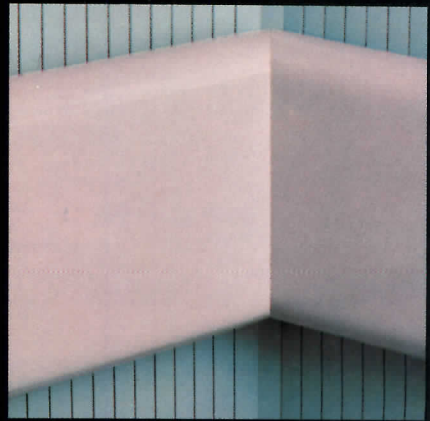
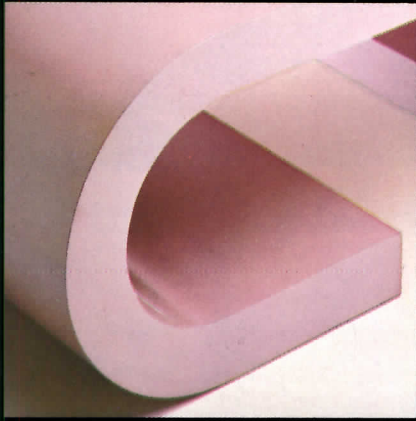
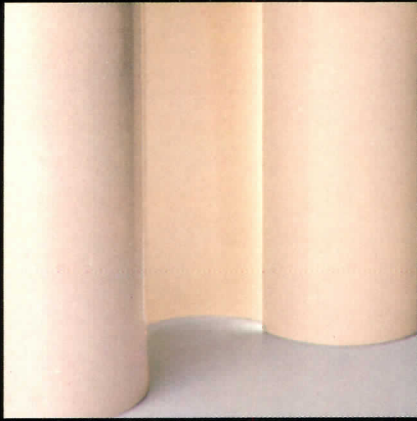


151 Custom woods and plastics
The manufacturer's custom design and fabrication process, which uses several materials, including exotic hardwoods, veneer, acrylic, and laminate, is described in a 6-page fold-out brochure. Photos show examples of finished products. Other services of the company are listed. Ambient Woodworks, Inc., Toronto, Ontario, Canada.



157 Lumber
The manufacturer's selection of aged lumber, including white pine, oak, walnut, American chestnut, and cypress, is reviewed in a 6-page color brochure. The lumber, which is taken from old buildings that are not intended for restoration, is shown in several different applications, such as flooring, paneling, cabinetry, and furniture.

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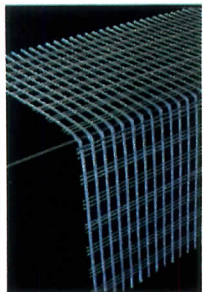
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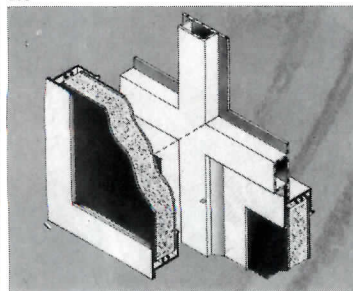
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7 Thermal & Moisture Protection

UCI 7, Thermal & moisture protection:
 Cladding/siding
 Composite building panels
 Flashing
 Insulation
 Membrane roofing
 Metal roofing
 Roof accessories
 Sealants
 Shingles and roofing tiles
 Waterproofing and dampproofing



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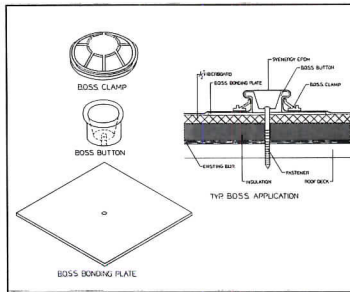


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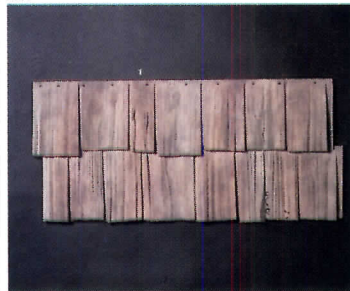
158 Corner-reinforcing mesh
Corner Mat is an impact-resistant mesh that can be used instead of double-wrapping flat mesh at corners. The product, which can be used in conjunction with the manufacturer's insulation systems and interior coatings, comes in pre-cut rolls that are 9 in. wide and 82 ft long. STO Industries, Inc., Rutland, Vt.

159 Panel moldings
 Extruded aluminum moldings, designed to be used in retrofitting insulated panels to existing windows, are available in 1 1/4 in., 1 1/2 in., and 2 1/4 in. thicknesses. The product can be either glazed or mechanically fastened to existing frames. Mapes Industries, Inc., Lincoln, Neb.

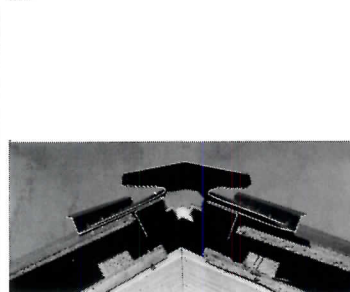
160 Silicone sealants
Sonolastic Omniseal is a moisture-curing silicone construction sealant. Designed for expansion joints in precast concrete, masonry, or metal curtain walls, and perimeter window caulking, the sealant requires no priming on most common materials. *Sonolastic Omniglaze* is a glazing sealant for glass and aluminum. Sonneborn Building Products, Minneapolis.



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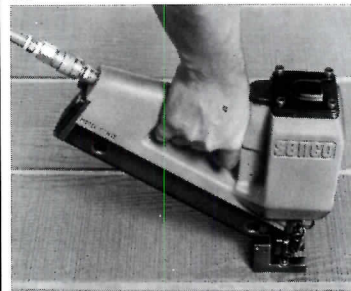
161 Roof bonding system
BOSS is a mechanical bonding system that consists of an 8-in. bonding plate with a 2-in.-diameter base unit. The rubber membrane is pinned between the base unit and a 3 1/2-in.-diameter locking washer. Synergy Methods, Inc., Cranston, R. I.

162 Siding panels
 Siding panels injection molded from "acrylium" are designed to simulate the look of hand-split cedar shakes (shown), brick, or stone. Panels can be installed over frame, masonry, or stucco surfaces. A 4-sided interlock system conceals nails and jointing and allows walls to breathe. Nailite International, Inc., Miami, Fla.

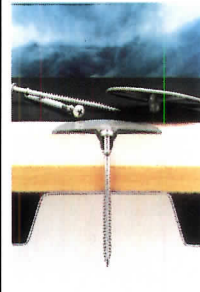
163 Tile roof ventilation
 The *Tile Ridge Univent* features the manufacturer's weather filter that prevents snow or rain from entering at the ridge of tile, shake or metal roofs. The adapter has a flange that covers the ends of the tiles to seal out weather and maintain air flow through the attic space. Air Vent, Inc., Peoria Heights, Ill.



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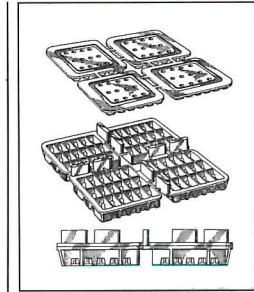


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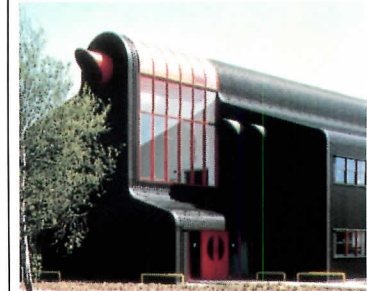
164 Concrete coating
Custom-Seal is a cement-based coating designed to waterproof, protect, finish, and decorate interior or exterior concrete, concrete block, and other masonry walls above or below grade. The coating has a base of Portland cement and comes in white and gray. Custom Building Products, Bell, Calif.

165 Siding guide
 A siding guide for use with this manufacturer's power nailers when attaching hardboard and wood siding, including horizontal lap siding and panel siding, allows the operator to drive fasteners at a firing angle perpendicular to the siding surface. A flush drive attachment prevents problems that lead to poor quality fastening points. Senco Products, Inc., Cincinnati.

166 Roof fastening system
Tapdek-SP is a fastening system for single-ply roofing. The product consists of a fastener that includes a locking collar and a stress disk with locking tabs. When the fastener is driven through the disk, the collar and tabs hold the disk under the fastener head. Elco Industries, Inc., Rockford, Ill.



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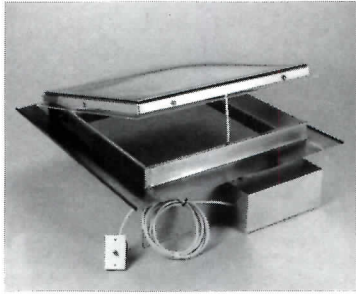


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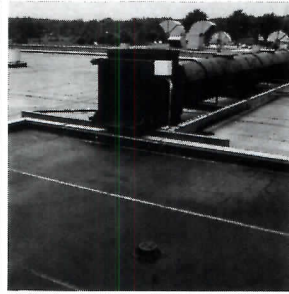
167 Paver pedestal system
Paver-Saver pedestals elevate deck surfaces to provide a drainage plane between pavers and the supporting substrate. The product incorporates a 3-way shim that, by rotating, can add 1/8, 1/4, or 5/16 in. to the height of the pedestal's support. American Hydrotech, Inc., Chicago.

168 Wall and roof system
FloClad is a new wall and roof system with a contoured design that enables walls, roofs, and corners to be blended together visually. Vertical corners and walls and roofs can be attached with pre-mitered steel or fiberglass molded caps. Two systems with panels of different widths are available. The Binkley Co., St. Louis.

169 Roofing
Scanroof is a roofing system that is both a complete weather membrane and a structural component. It consists of steel panels that are hot-dip galvanized and plastic-coated. The panels are available in a range of colors. Plannja AB International, Stockholm, Sweden.



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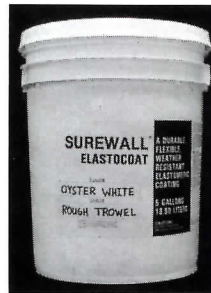
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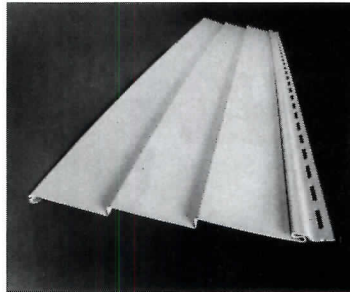
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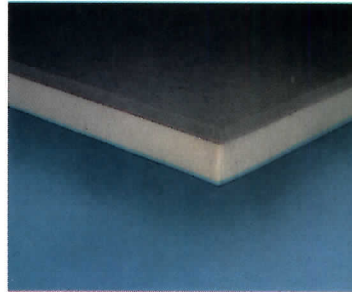
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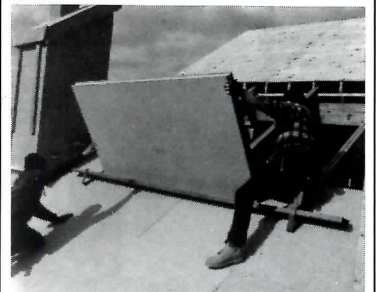
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170 Motor-operated skylight

The manufacturer's motorized skylight runs on 110 VAC and has the motor assembly concealed in the framing. The skylight has an inner and outer dome made of 1/8-in. acrylic. The unit's molded edge forms a protective covering over the gasket and a seal between the inner dome, outer dome, and curb liner. Ventarama Skylight Corp., Hicksville, N. Y.

171 Skyroof

Therma-L-Ucent panels consist of glass-fiber-reinforced polymer faces bonded to a mechanically interlocked aluminum grid core. The panels are 2 3/4 in. thick and are available in a staggered or stacked grid system. New England Pacific Corp., Lincoln, R. I.

172 Exterior insulation system

Structural Skin surface bonding cement is a blend of Portland cement, aggregates, and proprietary ingredients including glass fibers. Designed to waterproof above-grade masonry wall construction, the product structurally bonds dry-stacked concrete blocks. Conproco Corp., Hooksett, N. H.

173 Membrane liner

A liner previously used for underground fuel tank pits to reduce ground water contamination is now offered as a roofing material. Features include wide temperature service range, oil and solvent resistance, and resiliency. Carlisle SynTec Systems, Div. of Carlisle Corp., Carlisle, Pa.

174 Cladding system

The *Luxalon* cladding system consists of 6-in. tongue-and-groove panels that are fitted together on a carrier. The interlocking panels may be installed either vertically or horizontally. The panels are 4 in. wide and show either a rolled-edge profile or a built-in closure strip of the same color. Hunter Douglas, Inc., Maywood, N. J.

175 Vinyl siding

Restoration Series Three is a vinyl siding intended to simulate the appearance and texture of wooden clapboard siding. The panels are 3 in. to the weather and have a 3/8-in. edge and a low-gloss, smooth surface. Wolverine Technologies, Inc., Lincoln Park, Mich.

176 Roof shingles

Dimensional III shake shingles feature a 5 5/8-in. exposure and random tabs, and require fewer nails for installation than conventional shingles. The laminated shingles are made from two-ply fiberglass with a facing of ceramic-covered granules and come in five colors. The Celotex Corp., Tampa, Fla.

177 Elastomeric coating

Surewall is an exterior elastomeric coating that can be used instead of paint over stucco. The product is available in 18 colors in a rough trowel, smooth, or sand finish. The coating is said to be washable, retain color, and resist cracks, freezing, salt spray, impact, and abrasion. W. R. Bonsal Co., Charlotte, N. C.

178 Roof insulation

Iso-Perl, a composite of perlite board and polyisocyanurate insulating foam, is designed for use over nailable, non-nailable, and steel decks. The material provides a surface for hot applications and is said to help minimize blistering. International Permalite, Inc., Ontario, Calif.

179 Skylight system

SkyLyte systems, for skylights or atriums, have flush tubular extruded aluminum sections with concealed condensate channels. Glass, acrylic, or metal panels in thicknesses of 1 1/4 in. and up can be inserted into the frames. IBG International, Wheeling, Ill.

180 Roofing system

Hi-Tuff roofing is a mechanically attached, single-ply rubber membrane roofing system claimed to combine the weatherability of rubber with the benefits of automatic hot-air seam welding. Polyester scrim reinforcement for tear resistance and dimensional stability is said to make ballasting unnecessary. J. P. Stevens & Co., Inc., Easthampton, Mass.

181 Roof decking

TUPS is an insulating, structural load-bearing roof decking for exposed-beam construction. The product has a core of rigid polyurethane foam, sandwiched between the manufacturer's 1-in. structural board and 1/2-in. nail-base board. The panels are available in two sizes with foam thicknesses ranging from 2 1/2 in. to 5 in. Homasote Co., W. Trenton, N. J.



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182 Sealant

Spec 3000 is a non-sag urethane sealant designed to provide a flexible seal in moving exterior joints. Said to withstand adverse weather conditions and exposure to many chemicals, the product bonds to most surfaces without priming. The sealant comes in 10.6-oz cartridges in bronze, white, gray, and limestone. Geocel Corp., Elkhart, Ind.

183 Wood siding

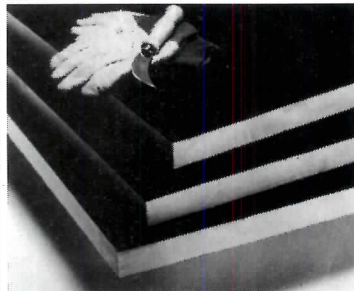
Railwood prefinished hardwood siding is 1 1/2 in. thick, permitting increased dimensional stability and deeper embossing and profiling. It is also self-aligning so that an entire wall can be covered working from a single measured line. Boise Cascade, St. Louis Park, Minn.

184 Roofing anchor system

FasTrac is an anchoring system that is designed not to penetrate the manufacturer's single-ply rubber roofing. A retainer track made of metal is screwed to the roof substrate. The sheets are then laid over it and fastened by polymer insert strips channeled into the track. Firestone Building Products Co., Indianapolis.



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185 Roof insulation

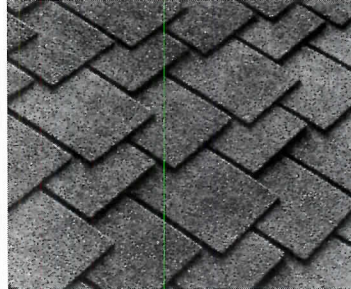
Exceltherm Xtra roof insulation is a closed-cell, thermoset, phenolic-base foam. The product can be installed over most types of roof decks, and is said to retain its thermal characteristics over an extended period of time and to have good fire-performance characteristics. Koppers Co., Inc., Pittsburgh.

186 Roof insulation

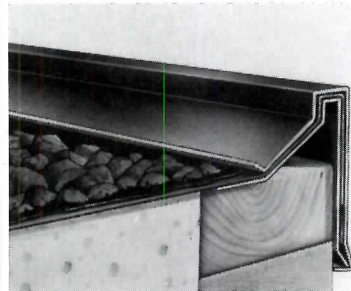
OCFoam is a polyisocyanurate foam insulation with glass-fiber-reinforced facings. The insulation is intended for use on low-pitched or flat nailable, non-nailable, and metal roof decks, or as a base for built-up roofing membranes. Owens-Corning Fiberglas Corp., Toledo.

187 Curtain wall insulation

A boardlike glass-fiber insulating material, *Type CW 225*, is designed for use as a thermal and acoustical insulation in commercial curtain wall systems. The product is available either unfaced or faced with an integral foil scrim kraft vapor retarder. Owens-Corning Fiberglas Corp., Toledo.



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188 Shingle

Designer125 is a fiberglass shingle that features a six-tab design. Designed to look like wood or slate, the shingle is Class A fire-rated and has a UL-approved wind resistance label. Manville Roofing Systems, Div. of Manville, Denver.

189 Fascia

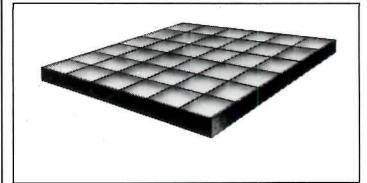
The *Snap-Lok* fascia system for single-ply roofs has a galvanized steel cant dam. Made of formed metal, the fascia snaps onto the cant dam to hold the roofing membrane in a secure position. The fascia is available in .04 and .05 aluminum or 24-gauge steel and in a variety of face heights. M M Systems Corp., Tucker, Ga.

190 Precast panels

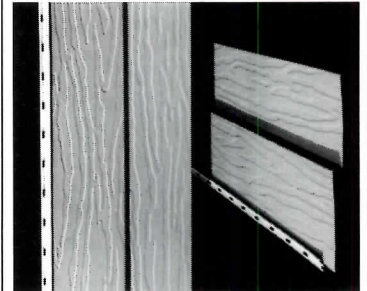
The manufacturer's precast architectural panels are made from layers of stranded fiberglass, polyester resin, and stone particles, with a stone aggregate surface. The panels come in thicknesses of 1/4, 5/16, and 3/8 in. and in sizes of 4 by 8, 10, or 12 ft. Stenni U.S.A., Inc., Plainfield, N. J.



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191 Insulating curtain

Insulating Curtain Wall is a window curtain designed to cover windows as large as 20 ft square. Curtain edges fixed to side tracks seal the window area. Air space between the curtain and the glass create energy buffers that are said to stop up to 90 per cent of the heat transfer. Thermal Technology Corp., Broomfield, Colo.

192 Skylights

The manufacturer's insulating skylights are single units that consist of a 1 1/2-in.-thick sandwich panel that forms a 1 3/8-in. dead-air insulation space. The outer and inner skins of the panel are translucent fiberglass-reinforced acrylic polyester and are laminated to a core made up of a 6- by 6-in. grid. Solartron, San Mateo, Calif.

193 Aluminum siding

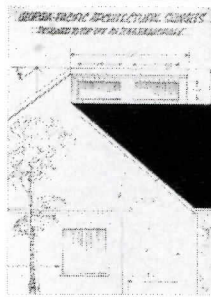
The manufacturer's *Valubilt* line of foamback aluminum siding features a double-thick nailing hem, said to provide stronger nail support and increased wind resistance. The siding's aluminum alloy is coated with three layers of alodine and epoxy resins and is surfaced with an oil-free polyester coating. ALSCO, Div. of Atlantic Richfield Co.,

7 Thermal & Moisture Protection Product literature

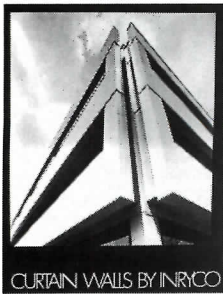
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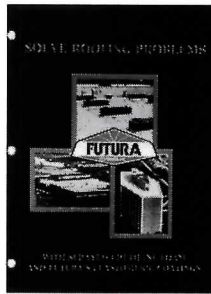
194 Exterior wall insulation
The manufacturer's exterior wall insulation and finish system is reviewed in a recently updated, 28-page color catalog. Information on application methods, technical service, and the warranty program is included. A chart helps to determine the amount of insulation necessary to achieve a selected R-value. Dryvit System, Inc., West Warwick, R. I.



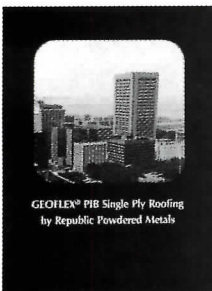
200 Shingles
A 4-page color brochure summarizes the colors, configurations, shipping weights, sizes, and specifications of the manufacturer's line of asphalt and fiberglass shingles. The advantages of the shingles, including their level of fire resistance, are described. Georgia-Pacific Corp., Atlanta.



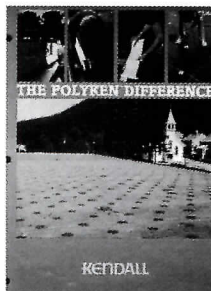
195 Curtain walls
The manufacturer's line of steel curtain walls, intended for low- and mid-rise buildings, is featured in an 8-page color brochure. Photos of different applications show how the system adapts to such design features as curved forms, sloping planes, and sharp or irregularly shaped corners. Different panel types are also shown. Inryco, Inc., Div. of Inland Steel Co., Milwaukee.



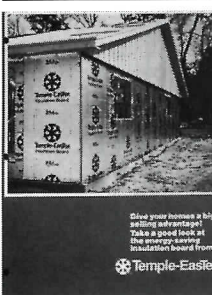
201 Roofing foam and membranes
Sprayed-in-place urethane foam and elastomeric barrier membranes are discussed in a 4-page brochure. The economic and engineering benefits of a roofing system that combines these two products are described. Tables that compare the insulation values and other physical properties of various materials are included in the literature. Futura Coatings, Inc., St. Louis.



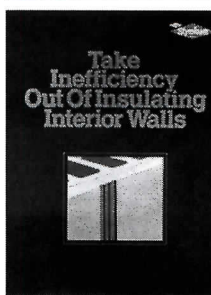
196 Roofing
Geoflex single-ply roofing is featured in a 24-page color brochure. Step-by-step installation procedures are depicted, and detailed re-roofing specifications are included. Diagrams show flashing, gutter, expansion-joint, and other typical details. Republic Powdered Metals, Inc., Medina, Ohio.



202 Roofing system
The *Polyken* roofing system, which consists of a synthetic rubber membrane, seam tape, flashing tape, and a mechanical fastening system, is featured in an 8-page color brochure. Diagrams and photographs showing installation details are included in the literature. The Kendall Co., Boston.



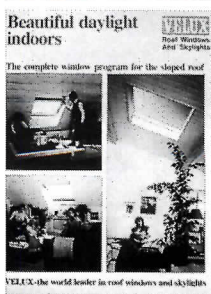
197 Insulation board
Insulation board made with an isocyanurate core is featured in a 4-page color brochure. Diagrams show how the board should be used on frame walls with siding or with brick veneer, on masonry walls, on A-frame and cathedral roofs, and as underlayment. A chart compares the R-values of the board with those of other products. Temple-Eastex, Inc., Diboll, Tex.



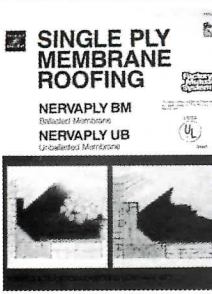
203 Interior wall insulation
Styrofoam insulation and the *Temp Guard* insulation furring system for new and existing concrete and masonry-wall buildings are featured in a 6-page fold-out brochure. Installation of the insulation, attachment of the furring system, and the thermal efficiency of the combined system are reviewed in the literature. The Dow Chemical Co., Midland, Mich.



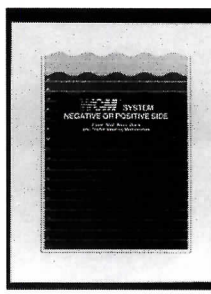
198 Roof maintenance
A 20-page color brochure on roof maintenance begins with a review of the components of a typical built-up roof. The performance of hot bitumens—both coal-tar pitch and mopping asphalts—is reviewed and compared to cold-process coatings. Results of weathering tests are included in the literature. Tremco, Div. of BFGoodrich, Cleveland.



204 Roof windows and skylights
An updated 24-page color brochure reviews the manufacturer's expanded line of roof windows and skylights. Photos show the different product lines and their special features. Diagrams of installation methods and dimensions of the windows are included in the literature. Velux-America, Inc., Greenwood, S. C.



199 Membrane roofing
An 8-page brochure describes the manufacturer's single-ply roofing systems. Diagrams show how various details are handled with a ballasted or an unballasted membrane. Test results of heat aging and accelerated weathering are included, as are specifications and a list of installations. Rubber & Plastics Compound Co., Inc., Long Island City, N. Y.



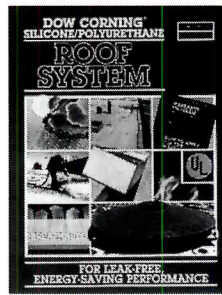
205 Waterproofing system
The manufacturer's negative- and positive-side waterproofing systems for floors, walls, roofs, and decks are featured in a 6-page fold-out brochure. Properties of the *WCM* membrane and installation procedures are described in the literature. Photos show several applications. U. S. Waterproofing, Inc., Fairfield, Conn.

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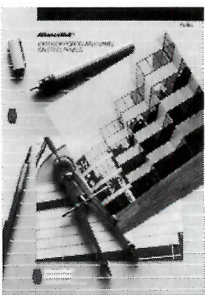
206 Skylights

The manufacturer's line of skylights is reviewed in a 24-page color brochure. Different models, including roll-away, turret-shaped, and top-hinged ventilating skylights, are depicted in the literature. Diagrams show construction details. Applications in various parts of the country are listed. Fisher Skylights, Inc., West Nyack, N. Y.



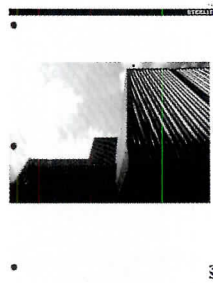
212 Roof system

A silicone/polyurethane roof system is featured in an 8-page color brochure. Performance characteristics, including the insulation and weathering capabilities of the system, are reviewed in the literature. Photos show installation methods and different applications. Dow Corning Corp., Midland, Mich.



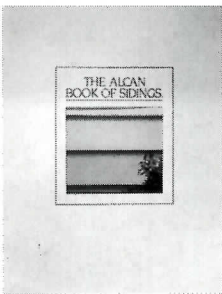
207 Porcelain enamel

The manufacturer's line of porcelain-enamel-on-steel exterior panels is featured in an 8-page color brochure. The durability, color stability, maintenance requirements, and custom fabrication capabilities of the product are reviewed. Construction guides and wind-load charts are included. AllianceWall Corp., Atlanta.



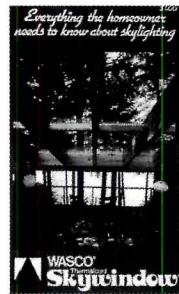
213 Wall and roof panels

A 24-page color brochure reviews the manufacturer's line of metal wall and roof panels. The metals used in the fabrication process and the *Corrstan* protective coating system are described in the literature. Diagrams of different panel profiles and samples of standard colors are included. Steelite, Inc., Pittsburgh.



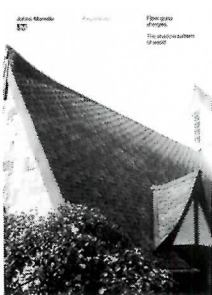
208 Siding

An 18-page color brochure illustrates the manufacturer's line of aluminum siding. *Driftwood*, *Vin-Al-Wood*, *Driftwood Vinyl*, and *Cedarwood* are shown in several applications. Product descriptions and specifications are included in the literature. Alcan Building Products, Div. of Alcan Aluminum Corp., Warren, Ohio.



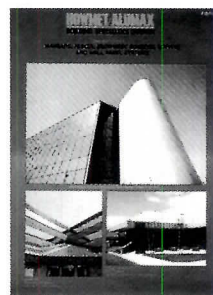
214 Skylights

A 36-page color brochure reviews the manufacturer's line of skylights. The brochure contains descriptions of different *Skywindows*, available options, and sizing and installation information. Several new models are shown, including the *DDR-V-1* and *GV-1* venting skylights. Wasco Products, Inc., Sanford, Maine.
Available for \$1.00 per copy



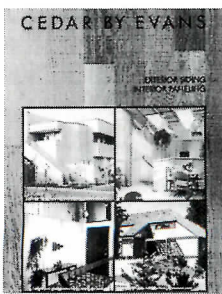
209 Shingles

RegalWood fiberglass shingles are featured in a 4-page color brochure. Product photos, a comparison between *RegalWood* and conventional three-tab shingles, and durability and application data are included. Manville Roofing Systems, Div. of Manville Corp., Denver.



215 Metal panels

The manufacturer's process of coil coating, roll forming, and fabrication of aluminum and steel products is reviewed in an 8-page color brochure. The products include light-gauge framing, soffits, shingles, and various types of wall panels, all available in a variety of finishes and textures. Diagrams show structural details. Howmet/Alumax, Mesquite, Tex.



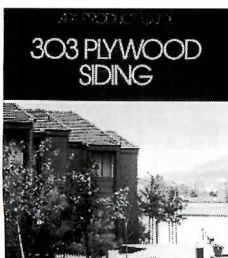
210 Siding and paneling

Western red cedar exterior siding and interior paneling are featured in a 6-page color brochure. The characteristics, groove details, required care, and finishing of the panels are described. Photographs show four different grade face veneers. Evans Products Co., Portland, Ore.



216 Aluminum panel system

The *Ferrowall* aluminum panel system, which features insulated panels assembled with aluminum extrusions and standard or silicone butt glazing, is shown in a 4-page brochure. Color photographs showing several installations are included in the literature. Ferro Enameling Co., Oakland, Calif.



211 Plywood siding

A 24-page color guide details the use and specification of plywood siding. Information on panel strength and stiffness, acoustical and insulation values, durability, and workability is included in the literature. Photos show several applications and possible finishes. American Plywood Association, Tacoma, Wash.

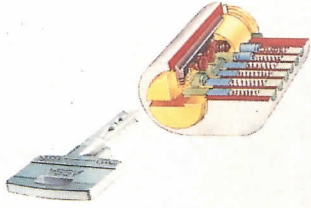


217 Roof system

A 4-page color brochure features the manufacturer's line of roof and wall panels. A diagram of the roof panel, made of 26-gauge steel with polyisocyanurate insulation, a zinc coating, and a white covering membrane, is included. Tables list available panel thicknesses and insulation and load values. Alumina Shield Industries, Inc.

8 Doors & Windows

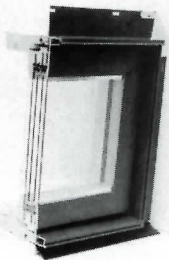
UCI 8, Doors and windows:
Entrances and storefronts
Glazing
Hardware and specialties
Metal doors and frames
Metal windows
Skylights
Special doors
Special windows
Windows/curtain walls
Wood and plastic doors
Wood and plastic windows



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218 Lock cylinder

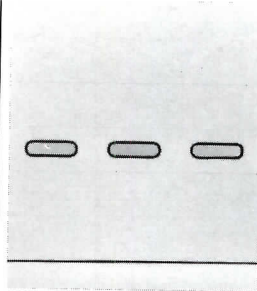
The *Twin 6000* lock cylinder features duo locking mechanisms, consisting of a standard pin tumbler system with special side pins and a coded side bar, that operate simultaneously with a distinctively shaped key. Assa, Inc., Downers Grove, Ill.

219 Roof window

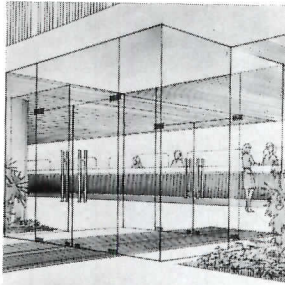
The German-designed *Stella* roof window features a low profile that is said to allow approximately 90 per cent of the window to be light-transmitting, insulated glass. Snap-in screens permit opening of the window without screen removal. Roto Frank of America, Inc., Old Saybrook, Conn.

220 Multiple pane windows

SolaireFilm wood window units, available with triple or quadruple glazing, are made with one or two lights of transparent *SunGain* film. The film has an anti-reflective coating said to increase light and solar energy transmission and screen out ultraviolet rays. The triple-pane glazing is 1 in. thick, the quadruple is 1 1/2 in. thick. Weather Shield Manufacturing, Inc., Medford, Wis.



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221 Overhead door

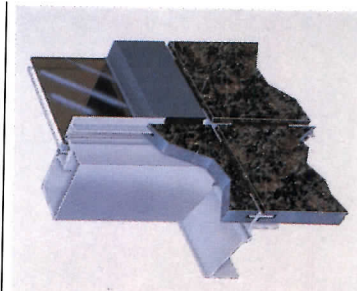
The *Thermospan 150* commercial sectional overhead door has a U-value of 0.126. The door is made with a polyurethane core that is poured, cured, and bonded to inner and outer steel skins, forming an insulating system that includes a thermal break, a joint seal, a projecting seal, and an optional top seal. Wayne-Dalton Corp., Mt. Hope, Ohio.

222 Glass entry

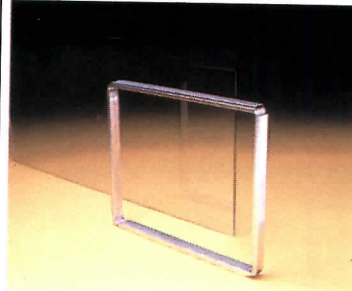
The *TVE* entrance system has glass panels and doors that have no top or bottom metal rails to disrupt visibility. The door handles, pivot, and lock are available in three types of stainless steel, two brass, three bronze, six anodized aluminum, and standard and custom-painted finishes. PPG Industries, Inc., Pittsburgh.

223 Glass

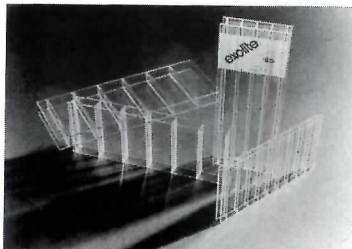
The manufacturer's line of roof windows and skylights is now available double-glazed with tempered glass. The interior pane features a selective emission coating—a copper film covered with several layers of oxide. Velux-America, Greenwood, S. C.



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224 Stone curtain wall system

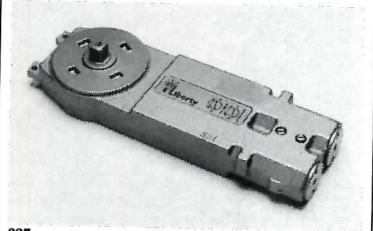
Aluma-Tech is a curtain wall system that allows granite, limestone, marble, and other stone materials to be set in an aluminum grid by means of a mechanical attachment system that makes bolts, anchors, or epoxy unnecessary. E.G. Smith Construction Products, Inc., Div. of Cyclops Corp., Pittsburgh.

225 Aluminum spacer

A laser-welded, roll-formed aluminum air spacer allows several insulating glass configurations. Standard, rectangular, trimline, and dual-seal air spacers can be used with bending machinery. The spacer is available in a mill finish and in satin or bronze anodized aluminum materials. Allmetal, Inc., Bensenville, Ill.

226 Glazing sheets

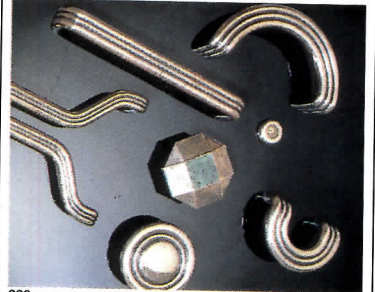
Exolite is a line of insulating sheet glazing products. Available in acrylic and polycarbonate, the product is a structural glazing material with two skins separated by ribs that form insulative air channels without interrupting light transmittance. CYRO Industries, Woodcliff Lake, N. J.



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227 Door closer

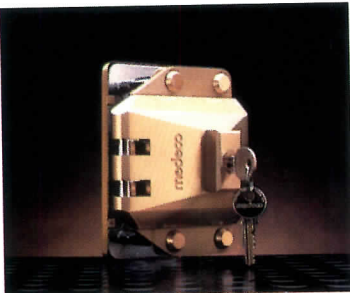
The *Elite* concealed overhead door closer has two adjustment valves—one for initial and one for final closing speed. Other features of the closer include roller bearings, a thick cam, and cast-iron pistons. The closers are guaranteed for five years by the manufacturer. Liberty Hardware Manufacturing Corp., White Plains, N.Y.

228 Door lever

The *Rego* lever for entry and passage doors was designed by Stanley M. Paul. The handle is 4 1/2 in. long and the back plate measures 2 by 7 1/4 in. Both the handle and back plate are available in a variety of finishes. Paul Associates, Long Island City, N.Y.

229 Door pulls

Modern Classics is a new line of door pulls. The elements are cast in bronze, brass, or aluminum, with a hand-rubbed patina finish developed by the manufacturer. Several of the pulls feature dark-green jade inlays. Forms + Surfaces, Santa Barbara, Calif.



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230 Dropbolt

The *D-10* high-security dropbolt is intended for residential and commercial applications in high-risk areas. A 5/16-in. steel plate shields the lock cylinder and protects it from drilling and pulling. The cylinder operates with a coded key that must lift and rotate special tumblers to release a dual locking action before the lock will open. Medeco Security Locks, Inc., Salem, Va.

231 Folding doors and partitions

A line of multifolding doors and partitions features several accessories, including curved tracks and meeting points that enable doors to meet, cross, and stack parallel to each other. The solid or veneer wood panels are 3/8 in. thick and are connected by vinyl hinges. Wood Specialty Products Co., Lacey, Wash.

232 Lever handle lock

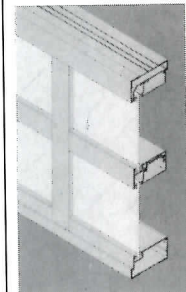
The manufacturer's upright mortise lock has a single outside cylinder. When the inner handle is raised in an upright position, it throws the deadbolt. When the handle is in the level position, the deadbolt is retracted. Assa, Inc., Downers



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233 Windows

A line of German-designed windows uses only solid kiln-dried Sipo mahogany for frames. The tilt-and-turn windows have chromium-plated steel hardware. Sashes and frames are vertically and horizontally adjustable. Tischler und Sohn, Greenwich, Conn.

234 Panel doors

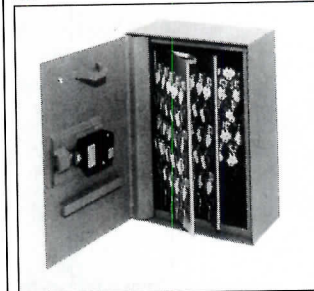
A line of hardwood interior doors features raised and beaded panels. Made from a selection of lumber, the doors come in approximately 250 designs. The Western pine door (shown) uses mitered joints to assemble its irregularly shaped components. Sun-Dor-Co., Inc., Wichita, Kansas.

235 Framing system

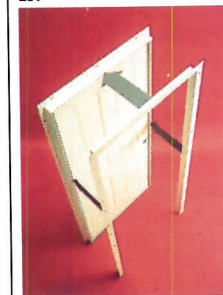
Fa-Set 400 is a framing system that features a glass-to-the-front design. The system may be glazed from either the outside or inside. The window head and sill have the same extrusion to simplify ordering and inventory. Kawneer Co., Inc., Norcross, Ga.



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236 Half-round window

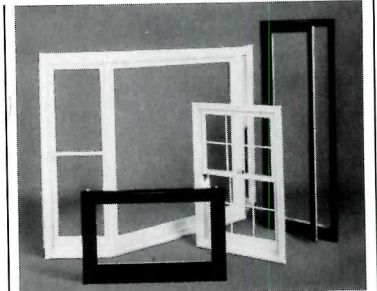
A half-round window features a seamless molded urethane frame and a wood interior that can be finished to match the room's wood trim. The windows are made with 7/8-in. insulating glass; the urethane frames are protected by primer. Webb Manufacturing, Inc., Conneaut, Ohio.

237 Key cabinet

The *Bulldog* high-security key cabinet can hold 125 regular keys. The cabinet is made of 10-gauge steel and has a door of 1/4-in. plate steel with a 1/2-in. recess to prevent prying. The unit is 6 3/8 in. deep, 12 in. wide, and 16 7/16 in. high. Telkee, Inc., Glen Riddle, Pa.

238 Steel door and frame

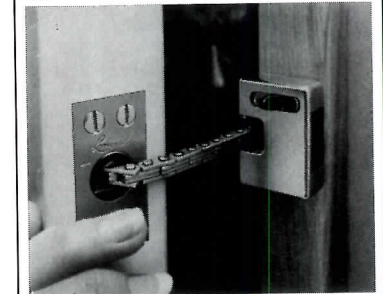
The *Adjusta-Fit* system consists of an insulated steel door pre-hung in an adjustable steel frame. The system includes a snap-on metal trim, magnetic weatherstripping, a two-piece variable-width threshold, and a selection of hinges. The system can be installed after walls are in place. General Products Co., Inc., Fredericksburg, Va.



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239 Wood windows

Regal is a line of solid Ponderosa pine wood windows. The line has a finish that penetrates and bonds with the wood substrate. Other features include insulating glass, with a rubber seal, and color-coordinated screens and glazing. MW Manufacturers, Rocky Mount, Va.

240 Door pull

The door pull (shown) is part of the *D-line* series of door hardware. Designed by Danish professor Knud Holscher, the door pull features tight corner bends. The fittings are available in polished and satin stainless steel. The Ironmonger, Chicago.

241 Door chain

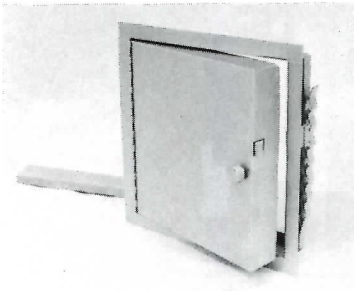
The *Lockwood MC-40* is an automatic, concealed security chain. The switch that operates the retractable steel chain can be put in the off position when the door is closed. The chain is available in brass, bronze, or chrome. Lloyd Matheson, Inc., Charlestown, N. H.



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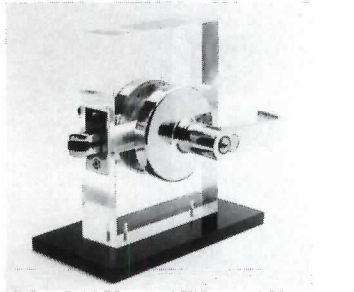
242 Insulating window system
Flex-Tite is a magnetic interior insulating window system. A thermal barrier flexes or adjusts automatically to the expansion or contraction of the acrylic glazing or changing air pressure. The air space between the acrylic glazing and the prime window prevents infiltration. Plaskolite, Inc., Columbus, Ohio.

243 Window
The manufacturer's *Circlehead* window is now available in ellipticals, quarter-circles, springlines, and special seven half-circles in addition to seven standard sizes of half-circles. The windows feature wood construction, an aluminum-clad exterior, 3/4-in. insulating glass, and optional wood windowpane dividers that snap out. Pella/Rolscreen Co., Pella, Iowa.

244 Access doors
The *Series F* access door for heating, plumbing, and electrical systems is intended for use in areas where access is required through a fire wall. The doors, which are made of 16-gauge steel, have a UL fire-rating of B. The self-latching lock can be specified with a key-operated cylinder or a steel knob. M M Systems Corp., Tucker, Ga.



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245 Door frames
Guardwood door frames are made from hardwood and have a 20-minute fire rating. The frames are available with a minimum jamb size of 1 1/16 in. by 4 3/4 in. and a minimum casing size of 3/4 in. by 1 3/4 in. The frames fit a maximum single opening of 4 by 7 ft. Architectural Millwork, Inc., Hutchinson, Kansas.

246 Security Bolt
The *900 Series* security bolt lockset is a lever-handle, cylindrical lockset that functions as both a 1/2-in. throw-latch and a 1-in. throw dead-bolt. The lock features a straight-lever and return-lever design to meet principal handicapped codes. Russwin Div./Emhart Hardware Group, Berlin, Conn.

247 Structural glazing system
The manufacturer's structural silicone glazing systems *711* and *712* are designed to allow the flush installation of vision and spandrel glass for an all-glass facade without mullions. The *711* has single-glazed vision and spandrel glass and the *712* has double-glazed windows and a choice of single- or double-glazed spandrels. PPG Industries, Pittsburgh.



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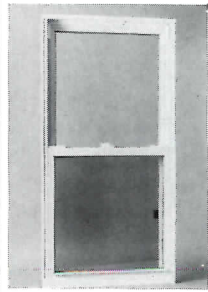
248 Laminated glass
The manufacturer has introduced laminated bent architectural glass for interior and exterior applications. The product consists of two matched pieces of bent glass bonded together with a polyvinyl butyral interlayer. The bent laminated glass ranges in thickness from 1/4 in. to 1 in. Laminated Glass Corp., Telford, Pa.

249 Lever handle
The *Flexigrip* lever handle is designed for health care facilities and geriatric use. The size and textured surface of the handle are intended to permit a firm grip. The handle is available with mortise locks. The Ironmonger, Chicago.

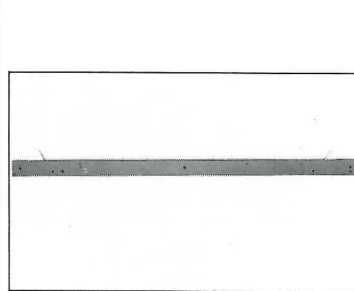
250 Shutters
The manufacturer's line of European-style shutters is intended to be used as both an insulation and a security system. When down, the shutters create an air space that adds a layer of insulation between the shutter and the window. The shutter slats are made of PVC or aluminum and can be adjusted to let in the desired amount of light. Euroshutters, Inc., Roslyn, N.Y.



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251 Roof window
The *TPS* roof window is now available with a scissor opener, eliminating the need for an interior screen rail. The new design also allows cords for roller blinds and outside awnings to be placed on one side of the window. Velux-America, Inc., Greenwood, S.C.

252 Replacement windows
Pro-Comm 575 replacement windows come in double-hung, single-hung, picture window, and panel-frame designs. All models feature sash and frame with 7/8-in. insulating glass, thermal break, step jamb, and T-slot foam weatherstripping. Tilt-in windows are standard. Season-all Industries, Inc., Indiana, Pa.

253 Door coordinators
The *900 Series* of door coordinators is used on pairs of doors to prevent the active door leaf from closing ahead of the inactive leaf. An adjustable safety release permits the active leaf to close when above-normal forces are applied. The coordinators are 1 5/8 in. wide by 5/8 in. high and come in standard lengths of 36, 48, and 56 in. H.B. Ives, Div. of Harrow Co., New Haven, Conn.



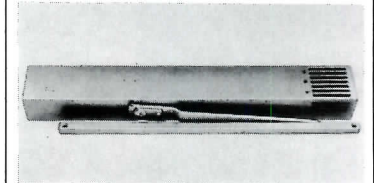
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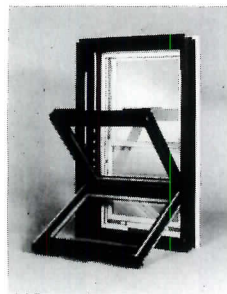
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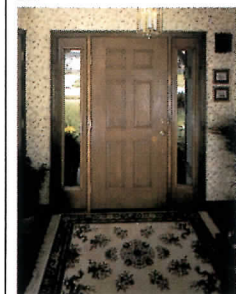
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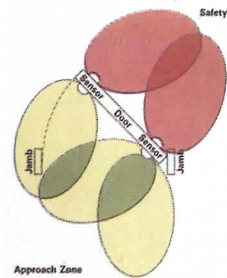
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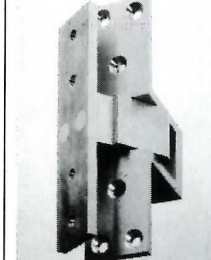
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254 Patio door system

SwingSet wood swinging patio doors feature 5/8-in. insulating glass. The system is available in one-, two-, or three-door units with optional wood grilles. Double-contact weatherstripping surrounds the operating door, and the adjustable aluminum sill has a thermal break. Morgan Products Ltd., Oshkosh, Wis.

255 Hinges

The *A Series* of special purpose aluminum extruded hinges is designed for use in clean rooms, sound rooms and radio-frequency-shielded rooms. The hinges' design features a hardened pin held by two radial bearings and supported by a thrust bearing. Brookfield Industries, Inc., Brookfield, Conn.

256 Swing door sensor system

Stanley Sentrex is a sensor system for swing doors that eliminates the need for floor-mat controls and overhead motion detectors. Infrared sensors on both sides of door signal a computerized system to open, stop, or close the door. The *Posi-Trac* position controller tells the operator where the door is at all times. Stanley Magic Door, Div. of The Stanley Works, Farmington,

257 Door

The *Empress* is a wooden door that features an etched oval glass insert. The etching is inside the beveled, insulated safety glass to ease cleaning. The door is 1 3/4 in. thick with a vertical grain, raised panel face on both sides. Simpson Door Co., Seattle.

258 Double-hung window

The *Magnum* is available in larger sizes and with a wider variety of glazing options than standard double-hung windows. The window is constructed of Ponderosa pine and is said to be able to resist higher wind loads and rain velocities than most windows. Four double-coil springs on block-and-tackle balances are intended to ease operation. Marvin Windows, Warroad, Minn.

259 Lever sets

Italian Touch lever sets come in solid brass with an antique or polished finish, in a combination of brass and natural woods, and in six different colors. Lever handles can be ordered in oak, rosewood, ebony, porcelain white, cardinal red, almond brown, green onyx and tortoise shell. Valli & Colombo (U.S.A.), Inc., Duarte, Calif.

260 Window-wall system

VistaWall is an exterior and interior window-wall system said to combine thermal efficiency with noise control. Available in all-glass or panel-and-glass modules, the product has been tested for wind load and water/air filtration performance following ASTM procedures. Industrial Acoustics, Co., Bronx, N.Y.

261 Replacement window

The *Supertilt* replacement window, with 3/4-in. flat glass, is made of aluminum and has three vinyl thermal breaks. The window has a self-storing horizontal slider and corners that screw together in order to ease glass replacement. ALSCO, Div. of ARCO Metals Co., Akron, Ohio.

262 Stained glass

The manufacturer specializes in the design and construction of stained and clear glass pieces that are beveled, leaded, sandblasted and/or painted. The sandblasted and carved 4- by 3 1/2-ft panel (shown) is made of 1/4-in. peach glass. Elysian Art Glass Co., Denver.

263 Door-control device

Smok-Chek is a smoke-actuated door control device. The unit is available with an integral photo-optic detector and can be mounted on a standard 2-in. door frame. The device features a "free swing" adjustable friction arm that allows the door to be held at any position. Rixson-Firemark, Div. of Conrac Corp., Franklin Park, Ill.

264 Door

The *Fiber-Classic* insulated entry door features a high-compression molded fiberglass exterior that can be stained to resemble a solid-white-oak paneled door. The door can be planed and trimmed and is said to have four times the insulation value of a standard wood door. Therma-Tru Corp., Toledo, Ohio.

265 Pivot hinges

The manufacturer's line of *Pocket Pivots* is designed to position open doors flush with the adjoining wall. The hinges are semiconcealed and allow a door opening swing of 90 deg. The hinges are available in steel or bronze finishes. Dor-O-Matic, Chicago.

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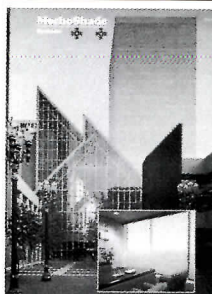
Doors & Windows Product literature

For more information
write item numbers on
Reader Service Cards



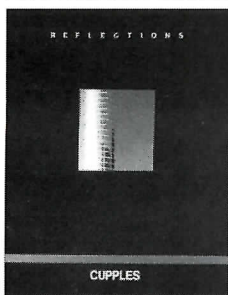
266 Pleated shades

A 6-page color brochure shows pleated shades that can be used for arched-top windows, skylights, A-frame tops, and sliding glass doors. Semi-transparent, semi-opaque, and opaque fabrics are illustrated. Diagrams explain installation procedures for both inside and outside mountings. Verosol U. S. A., Inc., Pittsburgh.



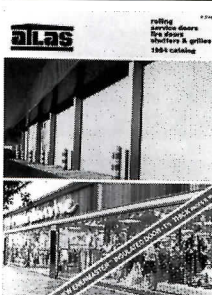
272 Shades

An 8-page color brochure describes the manufacturer's manually operated shading systems. Diagrams show the *SnapLoc*, a shade cloth that attaches to an extruded aluminum shade tube; the *Electro Shade* system, for large glass areas; and *Skylighter* shades, for sun and heat control. Mecho Shade Corp., Long Island City, N. Y.



267 Glazed curtain wall

A 16-page color brochure features silicone-glazed structural curtain walls. Design considerations, specifications, and details for two-sided and four-sided support systems are reviewed in the literature. Photos show several installations. Cupples Products, Div. of H. H. Robertson Co., St. Louis.



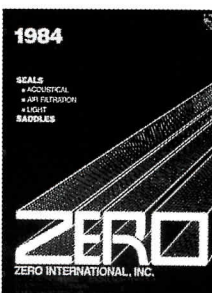
273 Rolling doors

A 32-page color catalog features the manufacturer's line of rolling service doors and door accessories. Rolling fire doors and grilles, counter shutters, and motor operators are also shown in the literature. Different door slats are described, including the slats of the insulated *Enermaster* rolling door. Atlas Door Corp., Edison, N. J.



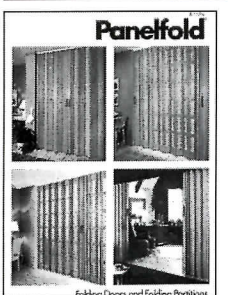
268 Fire protection glass

German-manufactured *Contraflam* glass, said to stop the penetration of smoke and flames and prevent the passage of heat radiation, is featured in a 12-page color brochure. Testing data and diagrams of glazing systems are included in the literature. Euroglass Glasrep Corp., White Plains, N. Y.



274 Seals

A 28-page brochure features the manufacturer's line of acoustical, air-filtration, or light seals and saddles. Diagrams showing the various products, with dimensions, descriptions, construction details, and material specifications, are included in the literature. Zero International, Inc., Bronx, N. Y.



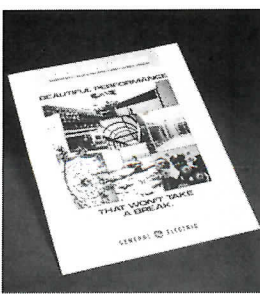
269 Folding doors and partitions

The *Scale/6* collection of folding doors and partitions is featured in a 12-page color brochure. Options such as cane, mirrored, and translucent panels are shown. Diagrams showing the assembly of the panels and installation of the partitions are included in the literature. Panelfold, Inc., Miami, Fla.



275 Overhead door

The *Dura-Therm* overhead door is featured in a 4-page color brochure. The components of the door, including 24-gauge galvanized-steel faces, a polyurethane foam core, and a baked-acrylic painted exterior, are shown in a wall section. Track systems and additional optional equipment are described. McKee Door Co., Div. of McKee Industries, Aurora, Ill.



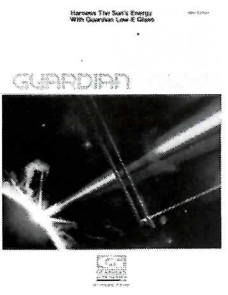
270 Sheet glazing materials

Lexan sheet glazing materials are reviewed in a 16-page color catalog. A new double-walled profiled sheet, said to be ultraviolet-resistant, is featured. Sound, light, and heat transmission levels and windload capabilities of each product group are discussed in the literature. General Electric Co., Plastics Group, Pittsfield, Mass.



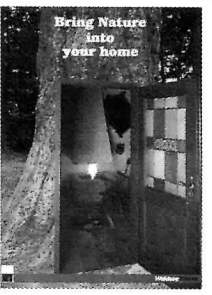
276 Bent glass

Clear float, tinted float, wire, and patterned glass are featured in a 4-page brochure. The bent-glass process and glass types suitable for this process are described in the literature. Color photos show several exterior and interior applications. California Glass Bending Corp., Wilmington, Calif.



271 Glass

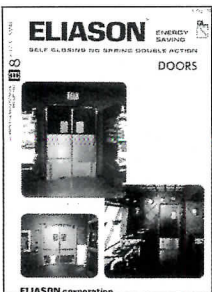
Low-E glass, a low-emissivity glass for use in double- and triple-glazed insulating units, is featured in an 8-page color brochure. Sunlight transmittance, reflectance, and ultraviolet light entry are discussed. Diagrams show how the product performs in different climates around the country. Guardian Industries Corp., Carleton, Mich.



277 Wood doors

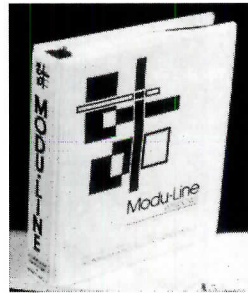
A 16-page color brochure describes a line of German-designed doors. Several wood door models are shown, including paneled oak doors, doors with glazed panels, sliding doors, and doors with matching upper panels. Plastic doors, intended for schools and public facilities, are also illustrated in the literature. Waldsee Doors, MCA Enterprises, Garland, Tex.

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278 Swing doors

An 8-page brochure features the manufacturer's line of swing doors. The aluminum double-action doors are shown in a variety of installations, including restaurants, hotels, emergency rooms, and stores. Door hardware and accessories, such as bumper strips and jamb guards, are described. Eliason Easy Swing Door, Div. of Eliason Corp., Kalamazoo, Mich.



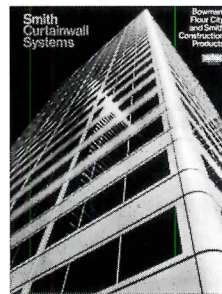
284 Aluminum windows

The manufacturer's technical manual is intended to aid the architect in specifying and detailing commercial aluminum windows. Each section of the guide shows typical details and installation information for the featured window type. Aluminum finishes and hardware are shown. Modu-Line Windows, Inc., Wausau, Wis.



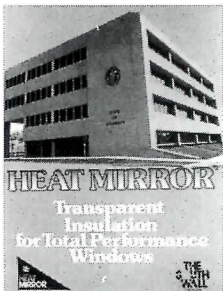
279 Fabric window shades

A 12-page brochure describes *Solar-ré*, a line of pleated fabric window shades woven with a thin layer of aluminum to reflect the sun. The six available styles, including opaque, "solar-sheer," sheer, "solarpaque," linen, and bouclé, are described and illustrated. Tables list the sun-blocking capabilities of each. Joanna Western Mills Co., Chicago.



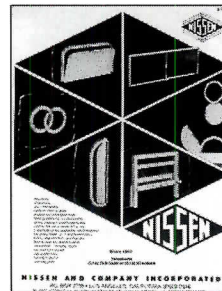
285 Curtain-wall system

A 12-page color brochure describes several spandrel panel systems made of aluminum plate, steel, granite, stainless steel, or glass. Fixed and operating window and louver systems are shown. Photos of installations in museums, shopping malls, and storefronts are included in the literature. E. G. Smith Construction Products, Inc., Div. of Cyclops Corp., Pittsburgh.



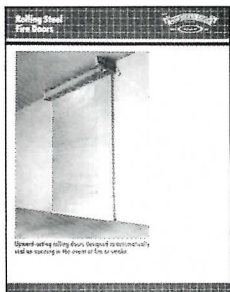
280 Window insulation

Heat Mirror transparent insulation for glass, designed to reduce ultraviolet light transmission, is featured in a 4-page color brochure. Photos show installations in various parts of the country. The type of glass used and the manufacturer are listed. Southwall Technologies, Inc., Palo Alto, Calif.



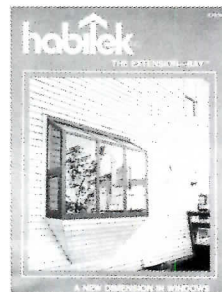
286 Glass accessories

An 8-page brochure features custom-built glass accessories. Sliding service windows, ticket windows, speak holes, and rotating shelf windows are shown. Listings of dimensions are included with the descriptions of each product. Nissen & Co., South El Monte, Calif.



281 Rolling doors

The manufacturer's line of UL Class A fire-rated rolling steel doors, made for openings of up to 12 ft square, is featured in a 4-page brochure. Different guide attachments and optional automatic bottom bars are described in the literature. Illustrations show the available slat types. Overhead Door Corp., Dallas.



287 Bay window

The *Extension-Bay* projecting bay window with a sloped roof of glass is featured in a 4-page color brochure. Information on the framing, glazing, gasketing, flashing, and available options of different window configurations is included in the literature. Habitek, Inc., Norristown, Pa.



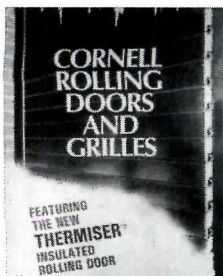
282 Industrial doors

An 8-page brochure features a line of industrial doors. Standard door features, including instant reversing, adjustable stay rollers, 4-wheel ball-bearing trolleys, and two pull-cord switches, are described. Each model is illustrated and accompanied by a list of specifications. Aluma Shield Industries, Inc., Daytona Beach, Fla.



288 Hardware

The manufacturer's line of hardware, including cabinet hardware, catches, swivels, door closers, hinges, knobs, and pulls, is featured in a 184-page catalog. Each product is illustrated and is accompanied by a listing of its dimensions and available colors. Liberty Hardware Manufacturing Corp., White Plains, N. Y.



283 Rolling doors and grilles

The *Thermiser* insulated rolling door is featured in a 28-page color brochure. Diagrams show the door's construction, including the urethane insulated curtain, and the weather-seal guides and bottom bar. The literature also contains information on the manufacturer's full line of rolling doors, grilles, and fire doors. Cornell Iron Works, Inc., Mountaintop, Pa.



289 Doors

An 8-page brochure features a line of insulated entry doors made from compression-molded fiberglass combined with wood. Color photos show several available models, including the *Crystalline Series*, which has glass panels and sidelights. The thermal performance and weatherstripping of the doors are described. Therma-Therm Corp., Toledo, Ohio.

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The 33 is the way to go if you happen to be working with narrow stile, medium stile or flush doors. You can also specify electric latch retraction or an electric alarm that can interface with other alarm components.

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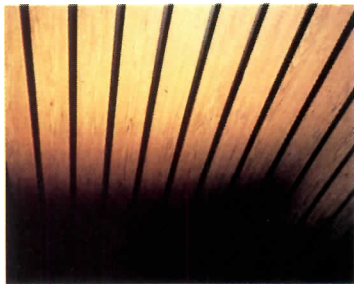
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9 Finishes

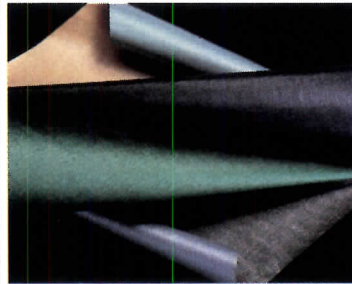
UCI 9, Finishes:
 Acoustical treatment
 Carpeting
 Ceiling suspension systems
 Painting materials
 Prefinished panels
 Resilient flooring
 Special flooring
 Terrazzo
 Tile
 Wall covering
 Wood flooring



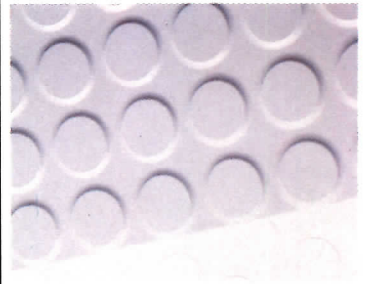
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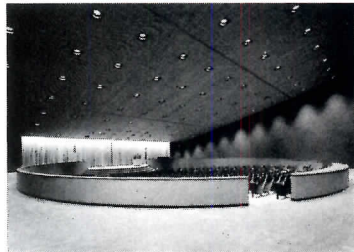
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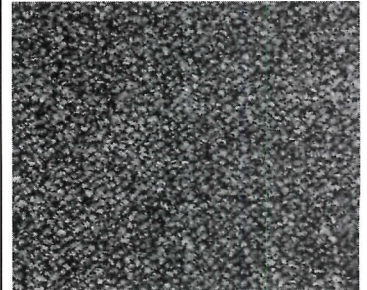
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290 Ceiling panels

The manufacturer's aluminum linear ceiling panels feature a high noise reduction coefficient. The 2-in. panels can be combined with baffles to form a ceiling grid. Laminated wood-grain finishes include pecan, oak, rosewood, and walnut. Nichols-Homeshield, St. Charles, Ill.

291 Flooring

GenuWood is wood flooring that has been vinyl clad for protection from moisture damage and staining. Intended for use in heavy-traffic areas, the flooring comes in a frosted oak color. PermaGrain Products, Inc., Media, Pa.

292 Ceiling system accessories

Clipons can be attached to existing, exposed T-bar grid ceilings to improve their appearance or to delineate individual work areas. Installation requires no tools, and the elements can be removed or relocated as space requirements change. Integrated Ceilings, Inc., Los Angeles.

293 Tile

Italian-designed *Kerastone* is a line of commercial tile intended for light-to-medium use. A high-temperature firing produces a tile with a water absorption rate of less than 3 per cent. The tile is available in 12 1/4-in. squares and comes in a range of colors and patterns. A low-relief grid back helps to insure a strong grip. Piemme of the Americas, Ltd., New York City.

294 Wood panels

Ventwood wood panels can be used for ceilings, partitions, acoustical walls, sun screens, and decks. They come preassembled, in a modular system that is joined by dowels and secured with epoxy-coated staples or pins. The wood selection includes hemlock, red cedar, and red oak. Howard Manufacturing Co., Kent, Wash.

295 Vinyl flooring

The new studded *Tractionfloor* is an anti-slip sheet vinyl with abrasive aluminum oxide chips dispersed throughout the wear-layer surface. The flooring also resists damage from items as hot as 572F. It is available in 79-in.-wide rolls. Forbo North America, Lancaster, Pa.

296 Fabric wallcoverings

Xorel fabric wallcoverings are woven of fiber-dyed, colorfast yarns. Said to be highly resistant to stains, minimally toxic, and sound absorbent, the wallcoverings are intended for high-traffic areas. The product comes in 100 colorways. Carnegie Fabrics, Inc., Rockville Center, N. Y.

297 Rubber floor tiles

Roundel is a line of rubber floor tiles that is available in eight colors. The tiles are 23 3/4 in. square and 3/16 in. thick. Included in the line is a raised disk floor tile, and stair treads, risers, and stringers (shown) that have a tapering gauge of 1/4 in. to 3/16 in. The Johnson Rubber Co., Middlefield, Ohio.

298 Floor tiles

The *Demos* series of 8-in.-square floor tiles is available in gray, green, beige, and white. The product is said to feature a high wear resistance, with the enamel able to withstand heavy loads. The tiles can be used in living rooms, kitchens, hallways, or bathrooms, and coordinate with the manufacturer's line of wall tiles. Sphinx Tiles, U.S.A., Ltd., Fairfield, N. J.

299 Rubber flooring

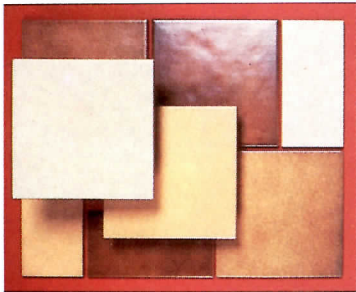
A 5/32-in. chamfered stud rubber flooring designed to ease cleaning in special maintenance applications has been introduced by the manufacturer. The tile comes in 39.37-in. squares, in 37 colors. It has a self-waxing feature. Jason Industrial, Inc., Fairfield, N. J.

300 Carpet tiles

Electron ESD, designed for the electronic office, is intended to control static electricity. The carpeting is made from nylon yarns with conductive additives. Available in 10 colors, the tiles come with a special backing to hide flat cable systems. Heuga U.S.A., Inc., Kenilworth, N. J.

301 Plywood floors

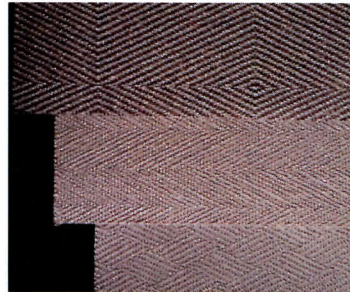
The manufacturer's line of finished fir plywood flooring comes in plank, ply/parquet, and wavelength forms. Made from a specified grade of plywood, the forms are laminated into planks. The material can also be used for door facings and tambours. Plyart/ L. Crost, Winnetka, Ill.



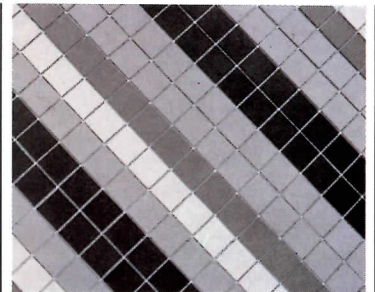
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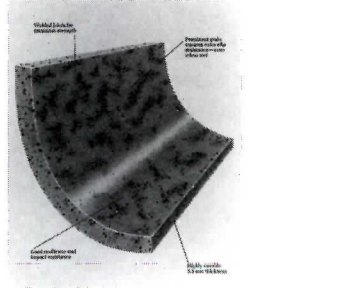
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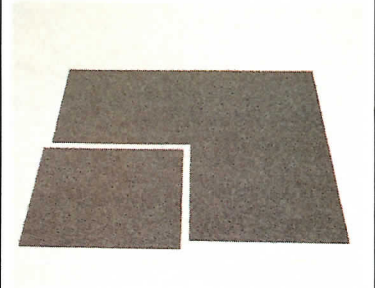
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302 Floor tile

The *Royal* collection of floor tile is frostproof, with a vitreous glaze. It is intended for high-traffic areas. The tile comes in two sizes, 4 by 8 in. and 8 in. square. Standard colors include light and hemp beige and antique and mohair brown. Gail Architectural Ceramics, Tustin, Calif.

303 Ceiling grid system

Centricitee is a 9/16-in. narrow-faced grid system. It contains a device that automatically centers a panel within an opening to prevent revealed board edges. Cross tees have offset ends to deter sagging or twisting. Donn Corp., Westlake, Ohio.

304 Vinyl tile

Oriental Pearl is an addition to the manufacturer's line of vinyl floor tile for commercial and residential interiors. The 1/8-in.-gauge tile comes in a standard size of 12 in. square and in custom sizes up to 36 in. square, and is available in six colors. Natural Vinyl Floor Co., Inc., Florence, Ala.

305 Rubber flooring

Noraplan Duo is a 100 per cent rubber flooring that features a contrasting dot pattern. Designed for high-traffic areas, the product is said to be non-toxic and flame-resistant. The flooring is available in ten colors in 4- by 32-ft rolls or 24-in.-square tiles. Nora Flooring, Madison, Ind.

306 Resilient flooring

Linoflex floor tiles are made from linoleum that is pressed onto a polyglas backing. Designed for high-traffic areas, the tiles can be installed at, above, or below grade using an alkaline adhesive. The 12-in.-square tiles are marbled and come in 10 colors. Forbo North America, Lancaster, Pa.

307 Decorative ceiling

The *Cirrus* metal ceiling system, designed by Charles Deaton, consists of 124mm by 152mm leaves that are .8mm thick. The leaves are attached to a grid at 4mm intervals from their middle point. Intalite Louvers & Ceilings, Inc., Northbrook, Ill.

308 Floor coverings

Tweed 1400 is a series of Belgian-designed sisal floor coverings. The natural sisal fiber is said to require little maintenance and to be particularly useful in applications where static control, noise reduction and resistance to cigarette burns are required. The floor coverings are latex-backed and come in three patterns. Merida Meridian, Inc., Syracuse, N. Y.

309 Safety flooring

Altro K35, a heavy-duty safety floor, has been added to the manufacturer's line of slip-resistant vinyl flooring. A new process is claimed to make the aluminum oxide grains used for slip resistance more effective when pressure is applied to the floor surface. The material is extra thick for comfort and durability. Compass Flooring, Inc., San Francisco.

310 Ceiling system

The manufacturer's new ceiling system features fabric covered panels and a concealed aluminum support frame. The panels, which snap into the suspension system, have a noise reduction coefficient of 95. They come in a variety of colors and in sizes from 4 to 10 ft. Tibbet, Inc., Toledo, Ohio.

311 Porcelain tile

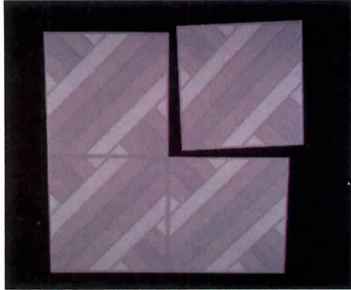
The *Porcelain Naturals* line of unglazed tile is back-mounted on 1-sq-ft mesh. The 4-in.-square tiles are available in white and in light, medium and charcoal gray. The tiles are designed for interior and exterior, commercial or residential use. Hastings Tile & Il Bagno Collection, Freeport, N. Y.

312 Carpeting

Multi-Point II Squares carpeting features an intricate textured loop. Made from nylon, the carpet is said to have a broadloom appearance with hidden seams, but it is available in both broadloom and tiles. The product comes in 10 standard colors and 28 additional colors for special orders. Stratton Industries, Cartersville, Ga.

313 Coating

Tech-gard heavy-duty coatings for industrial and maintenance painting requirements have been developed by a manufacturer of paints, chemical coatings, and adhesives. The product will be available as a maintenance gloss enamel. Pratt & Lambert, Inc., Buffalo, N. Y.



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314 Vinyl floor tile

An adhesive-backed vinyl tile uses chemical embossing to create patterns, giving the tiles some of the advantages of chemically embossed cushion sheet vinyl. The tiles may be installed on or above grade, over smooth concrete or wood subfloors. They are 12 in. sq. Azrock Floor Products, San Antonio, Tex.

315 Unglazed tile

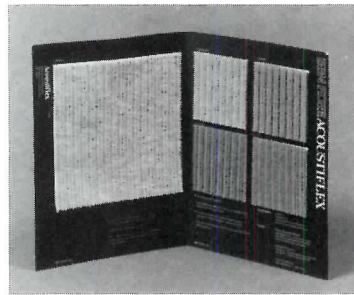
The *Marlit* line of unglazed tile features a .5 per cent water absorption level, and is said to be frostproof and impact resistant. Recommended for heavy-duty applications, the series is available in 4- by 8-in., 8- by 8-in., 8- by 12-in., and 12- by 12-in. sizes. Marazzi U.S.A., Inc., Sunnyvale, Tex.

316 Simulated stained glass

A proprietary process uses a special color film and lead to create a stained glass effect on any glass or mirror surface. A multicolored overlay design is placed on one side of the glass and then the design is outlined in lead on both sides. Colors are treated with ultraviolet inhibitors and are said to be fade resistant. Stained Glass Overlay, Inc., Costa Mesa, Calif.



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317 Tile

CeramaSuede is a new tile that features a slightly uneven surface intended to simulate suede. Suitable for countertops, walls, and light-traffic flooring, the tiles are 4 in. square. Ten pale colors, three floral and three leaf patterns are available. Huntington/Pacific Ceramics, Inc., Corona, Calif.

318 Acoustical wall covering

Acoustiflex is a fabric wall covering designed to absorb sound. The product is 1/4 in. thick with a vertical cord surface that has been needle punched. It is made of 100 per cent polyester with an acrylic back. Ben Rose, Inc., Chicago.

319 Tile

Italian-made *Milano* is a glazed floor tile that can be used for light-commercial and residential applications. The product is available in 8-in. squares that are 5/16 in. thick. The tile comes in six colors, four with fume glazes and two with solid glazes. American Olean Tile Co., Lansdale, Pa.



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320 Tile

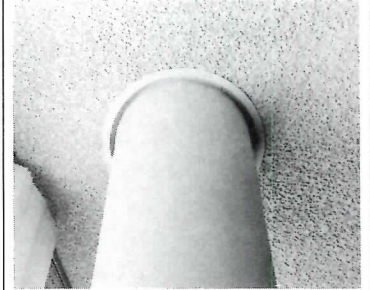
Perseidi is a Swiss-designed and Italian-manufactured ceramic tile series. It consists of nine 8- by 8-in. white tiles with a pattern of metallic gold stars that become progressively more numerous on each tile. The tiles are intended for bathroom floors and walls. Tosco Ceramica, c/o Italian Tile Center, New York City.

321 Vinyl wallcoverings

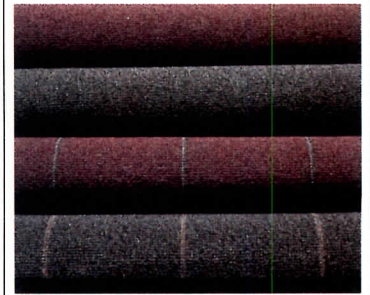
Three new patterns have been added to the *Koroseal* line of vinyl wallcoverings. *Dotted Stripe* (shown) coordinates with *Fabrique*, a solid-color embossed design. The third, *Sarabande*, is a tightly ribbed cord. The wallcoverings are designed for use in heavy-traffic areas and are available in 12 colors. BFGoodrich, Akron, Ohio.

322 Concrete finish

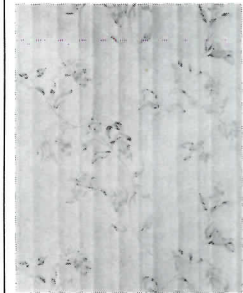
Thorolastic is a decorative and protective finish for concrete, concrete block, poured and precast concrete, brick, and stucco. Made from an elastic polymer, the acrylic emulsion finish is said to give with substrate movement and to resist decay from temperature and weather extremes. Thoro System Products, Miami, Fla.



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323 Column collar

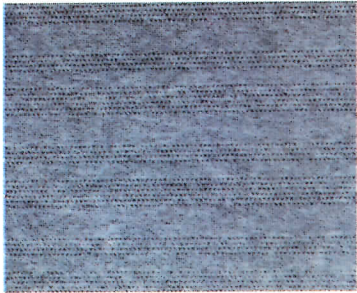
The manufacturer's column collar is a reveal molding for use around a column with a radius of 6 in. or more. One part consists of a plastic spacer that is wrapped around the column; the other part is an extruded aluminum molding that is flexed or roll-formed to the curvature of the column. The two parts are attached to the column by a band clamp. Fry Reglet Corp., Alhambra, Calif.

324 Contract fiber

Herculon Nouvelle olefin fiber for contract carpets and furnishings has a wool-like appearance and feel. It is said to be colorfast, to resist staining, pilling and fuzzing, and to be abrasion-resistant and virtually static-free. Hercules, Inc., Norcross, Ga.

325 Wallcoverings and fabrics

This Good Earth wallcoverings and companion fabrics were designed by Natasha Galanin. The wallcovering line includes 14 designs, available in 92 colorways, on paper-backed vinyl or mylar. The 100 per cent cotton sateen fabrics come in 28 colorways and are available in widths of 54 or 56 in. James Seaman Studios, Div. of Masonite Corp., Garden City Park, N. Y.



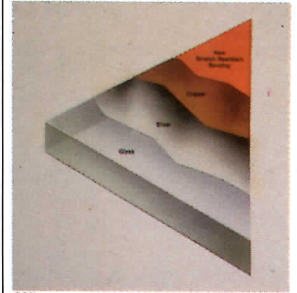
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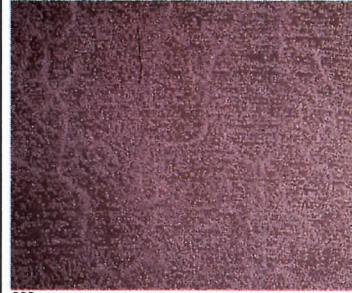
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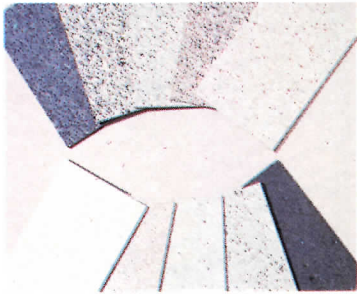
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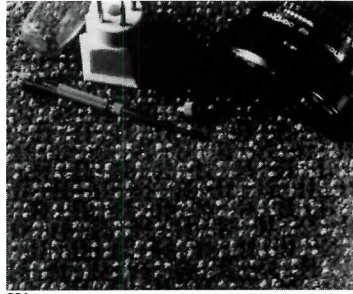
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326 Acoustical wallcovering
Sonalutions is an acoustical wallcovering said to reduce noise levels up to 75 per cent. Made from flame retardant materials, the product is also claimed to resist static shock and to provide thermal insulation. The material has a vertical ribbed design with a 5 1/2-in. repeat. Gilford, Inc., New York City.

327 Metal ceiling system
Plenum Mask ceiling panels can be used in new construction or over existing ceiling tiles. As the system does not fully enclose the plenum area, no special air distribution, lighting, or sprinkler fixtures are required. T-series carriers eliminate the need for separate hanger clips. Aluminum panels, available in white or bronze, are then snapped onto the panel carrier slots. Alcan Building Products, Div. of Alcan Aluminum Corp., Warren, Ohio.

328 Flooring
The *GeoMatrix 500* and *600* series of flooring feature marble or granite chips embedded in a flexible matrix of thermoset polyester. The flooring is factory polished and sealed. The tiles are intended for high-traffic areas. Dynasty Corp., Muscle Shoals, Ala.

329 Carpeting
Regency Square is a 28-oz, 1/10-gauge, textured-loop modular carpet. It is made with yarn-dyed *Antron XL* continuous filament nylon. The line of carpet tiles also includes *Regency Point*, a small-scale dot pattern. Milliken and Co., LaGrange, Ga.

330 Curved panels
The *Kalcurve* curved panel system is an insulated, light-transmitting building system that can be used for exterior walls, roofs, or skylights. The panels are available with radii of 18 in. and up, in custom or standard 4- and 5-ft width modules of up to 180 deg along the curve. The panels are made with a structural aluminum grid core with fiberglass-reinforced face sheets bonded to both sides. Each panel is 2 3/4 in. thick and weighs 1 1/2 lb. Kalwall Corp., Manchester, N. H.

331 Contract carpets
Technicale is part of the manufacturer's new *High Spec* series. The geometric pattern is woven of nylon, with a cut-and-loop surface. Designed for heavy-traffic interiors, the carpet comes in 18 colorways. Karastan Rug Mills, New York City.

332 Parquet flooring
The *Heritage* line of solid oak parquet flooring now includes a new light brown color called *Bran*. The 12-in.-square tiles are available with a wood or with a foam back that is intended to protect against moisture, insulate, and serve as a noise barrier. A tapered tongue-and-groove system permits the tiles to lock in place. Hartco, Inc., Div. of Tibbals Flooring Co., Oneida, Tenn.

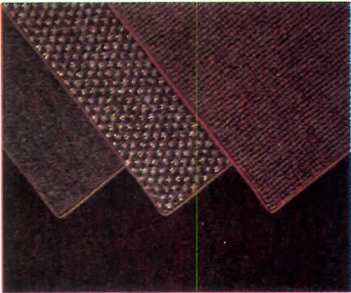
333 Carpets
Continuum is the manufacturer's new collection of loop and random sheared wool carpets. The carpets feature linear patterns which, with shifting light, are said to appear and disappear, leaving a surface translucency reminiscent of etched-glass. Edward Fields, Inc., New York City.

334 Ceiling panels
DecorCeilings are mosaic tambours designed for ceiling applications. The 2-ft-square panels can be used with standard heavy-duty grid systems. The panels are available in brushed aluminum or brass, polished aluminum, brass or copper, or red oak veneer. They are available with or without grooves or in a custom groove pattern. Winona Industries, Inc., Winona, Minn.

335 Mirrored glass
A bonding method known as *Falcoat* is claimed to provide a tighter bond between glass, silver, copper and backing than conventional mirror manufacturing processes, and to offer protection against black edge, silver deterioration, and scratching. Falconer Glass Industries, Inc., Falconer, N. Y.

336 Roll-on plaster
Plaster In A Roll is a gypsum-impregnated fabric wallcovering designed for heavy-duty commercial applications. The product covers concrete, cinder block, gypsum board, tile, plaster, paneling, and metal. It comes in several colors and weave patterns, and a new line of pastel colors has recently been introduced. Flexi-Wall Systems, Div. of Wall and Floor Treatments, Inc., Liberty, S. C.

337 Floor tile
The manufacturer's cement floor tiles are available in two new colors, *Fuego Antique* and *Autumn Blend*. Designed for residential and commercial uses, the high-density, low-absorption tiles can also function as low-level solar heat collectors. The tiles have a textured surface. Ro-Tile, Inc., Lodi, Calif.



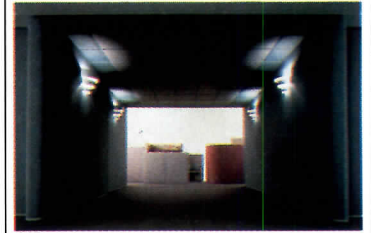
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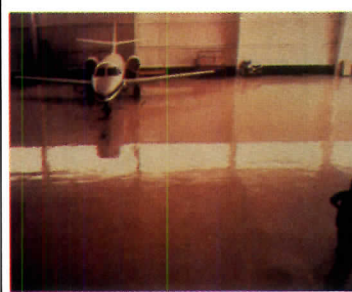
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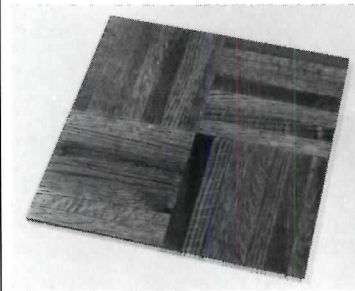
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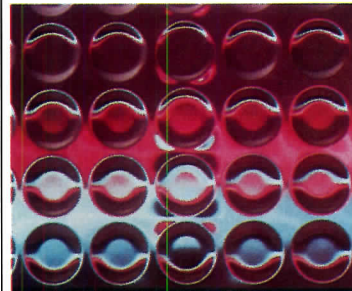
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338 Nylon carpets

Four new contract carpet styles made of solution-dyed nylon yarns have been introduced by the manufacturer. *Heather Twist*, with a nubby texture, is available in 12 colors and can coordinate with *Barclay Hill*, a geometric pattern, and *Barclay Hill II*, a pin-dot pattern. *King Cross II*, a cut loop carpet, comes in nine colors. Badische Corp., Cartersville, Ga.

339 Ceiling panels

A series of decorative ceiling panels cast in urethane or fiberglass-reinforced gypsum simulate carved wood paneling. Coffin, square, octagon, curved frame, grille, and lattice modules are available. Standard finishes are walnut, fruitwood, teak, oak, and white paint. Levolor Lorentzen, Inc., Lyndhurst, N. J.

340 Acoustical wall treatments

Serenity wall treatments are made from textured, low-pile knit polypropylene fabric laminated to glass fiber acoustical boards. They come in earth tones and in 11 new colors: rose dust, cranberry, taupe, lavender gray, fog, lilac mist, slate blue, pottery blue, sea foam, teal, and bottle green. Owens-Corning Fiberglas, Toledo, Ohio.

341 Ceiling grid

The *USG Profile* ceiling grid features standard lay-in panels with a flush-mounted appearance. The exposed flange is a 9/16-in.-wide strip that has a continuous center slot of approximately 1/4 in. Partitions can be attached without defacing the grid or panels, standard air-handling devices can be used without cutting, and no special trim is needed to mount light fixtures. United States Gypsum Co., Chicago.

342 Contract carpet

Dorset is one of the manufacturer's four new luxury carpet introductions. Made from 100 per cent wool, the carpet has a random multilevel loop construction and a Berber-like texture. The carpet comes in white and is available in widths of up to 13 ft 2 in. Stark Carpet Corp., New York City.

343 Hardwood parquet

PennCrylic is a plastic-impregnated hardwood parquet suitable for high-traffic areas. The product is available in 12- by 12-in. sections made up of four 6-in. squares reinforced with twin aluminum splines. The tiles come in oak finished in four different stains. Pennwood, East Berlin, Pa.

344 Ceramic tile

The *Shadow Series* of ceramic tile is designed for residential and commercial wall applications. Available in 6- by 4 1/2-in. units and 6-in. squares, the tile comes in eight colors, with a smooth glaze texture and a high-gloss finish. Monarch Tile Manufacturing, Inc., San Angelo, Tex.

345 Floor coating

Chemglaze polyurethane industrial coatings are said to provide color-fast, non-chalking protection for wooden, metal, or concrete floors. The coatings can be applied by spray, brush, or roller. The product comes in a clear coating or in a selection of colors. Lord Corp., Erie, Pa.

346 Metal panels

A line of embossed metal panels can be used as a cladding material for interior walls, doors, counter faces, and elevator doors and cabs. Special wall clips are provided by the manufacturer to attach the panels. Made of stainless steel, aluminum, copper, and bronze, the panels are custom sized and detailed. Forms + Surfaces, Santa Barbara, Calif.

347 Acoustical panels and tiles

Silent Elegance is a line of fabric-covered acoustical products for walls and ceilings. The wall panels are available in 30- by 108-in. and 30- by 120-in. sizes. The ceiling tiles come in a standard size of 7/8 in. by 2 ft square. Both the panels and the tiles have an NRC value between .6 and .8. Conwed Corp., St. Paul, Minn.

348 Finishes

A group of manufacturers has collaborated to create a joint product line of carpets, tiles, laminates, and fabrics. A generic color name is assigned to each coloration and these names remain constant for all manufacturers. Each product is identified both by its manufacturer's name and as a component of the joint line. Walker Group, Inc., New York City.

349 Ceramic tile

The *600 Series* of ceramic tile features a metallic sheen. The tile comes in nine colors and is available in high-gloss wall tile and matching matte tile for walls and floors. International Tile & Supply Corp., Los Angeles.

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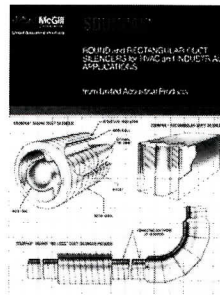
Finishes Product literature

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350 Sound masking

A 12-page booklet discusses the *Scamp* sound-masking system, which is available for use with mineral-fiber acoustic ceilings, glass-fiber or open-slatted ceilings, and areas where no acoustic ceiling exists. The units can also be used for paging, for fire alarms and other emergency messages, and for music. Insul-Art Acoustics Corp., Farmingdale, N. Y.



356 Duct silencers

A 4-page brochure reviews the manufacturer's line of *Sounpak* round and rectangular duct silencers for hvac and industrial applications. Information on the construction, sizes, materials, features, applications, and acoustical performance of the product line is included. United Acoustical Products, Div. of United McGill Corp., Griffin, Ga.



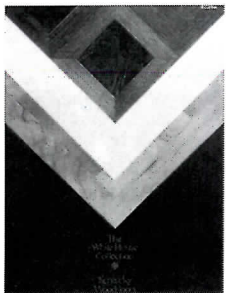
351 Marble

A 16-page color catalog features the manufacturer's *GL* marble that is sliced into 1/4-in.-thick sheets and reinforced with a coating of epoxy. Advantages of this product over standard, thicker marble sheets, including its lighter weight, are reviewed. Installation, which requires adhesives, is described in the literature. Marble Technics, Ltd., New York City.



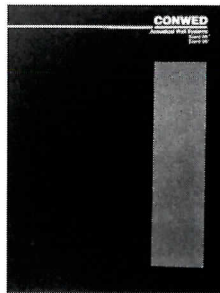
357 Porcelain-enamel panels

A 4-page color brochure features several applications of porcelain-enamel-on-steel interior panels. The panels are described as vandal-proof, germ-free, heat-resistant, and non-corrosive. A specification guide is included. AllianceWall Corp., Atlanta.



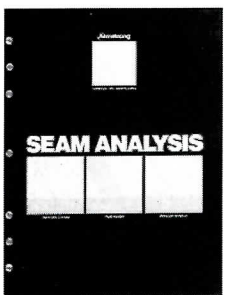
352 Wood flooring

A 12-page color brochure features the *White House* collection of wood floors. Photos of a range of pre-finished and unfinished hardwood floors are shown. Ordering and installation information is included in the literature. Kentucky Wood Floors, Inc., Louisville, Ky.
Available for \$2.00 per copy



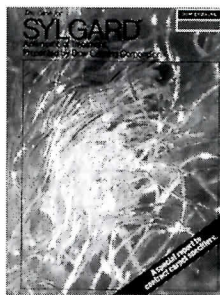
358 Acoustical wall systems

Two acoustical wall systems are described in a 4-page color fold-out brochure. The *Silent 65* and *95* are illustrated in several different applications, including conference and computer rooms. Plain, ribbed, and nonwoven fabric samples, in a selection of colors, are shown. Conwed Corp., St. Paul, Minn.



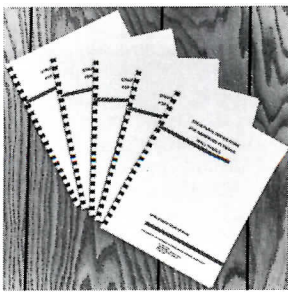
353 Seam-joining methods

A 6-page folder includes test results of seam-joining methods conducted for the manufacturer's *Medintech* commercial vinyl sheet flooring, developed for use in laboratories, operating rooms, and clean rooms. Chemically bonded, pressure-sensitive, and heat-welded procedures for seaming are compared. Armstrong World Industries, Inc., Lancaster, Pa.



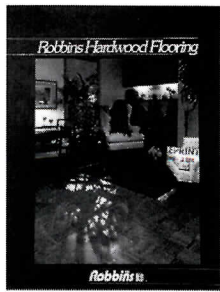
359 Carpet treatment

The *Sylgard* treatment, which consists of an antimicrobial agent that is bonded to carpet fibers, is described in a 6-page color brochure. Features of the treatment, designed to increase the life span of carpets, are reviewed. Properties of the agent and testing data on its performance capabilities are included in the literature. Dow Corning Corp., Midland, Mich.



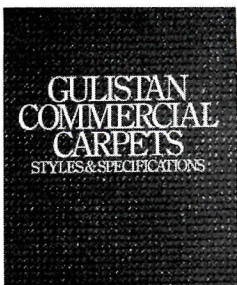
354 Plywood panels

A 24-page guide reviews the classification of species, the minimum permissible quality of veneer, internal construction, cross-sectional properties, and basic working stresses for plywood wall panels. Tables provide newly updated information. Hardwood Plywood Manufacturers Association, Reston, Va.



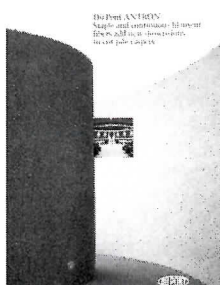
360 Hardwood flooring

A 4-page color brochure reviews the manufacturer's *Northern Oak Parquet*, *Designer 300*, and *Randomwood* lines of hardwood flooring. Each product line is described and illustrated. A description of the 5-step finishing process, backing and adhesive information and specifications, are included in the literature. Robbins, Inc., Cincinnati.



355 Commercial carpets

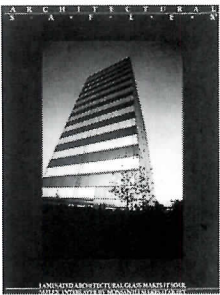
The *Gulistan* line of commercial carpets is reviewed in a 16-page color brochure. Each individual style in the product line is illustrated and described. Specifications for tufted and woven grades are included in the literature. Stevens/Gulistan Carpet, Aberdeen, N. C.



361 Carpet fiber

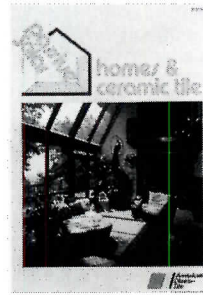
Antron, a continuous-filament nylon fiber for cut-pile carpets, is featured in an 8-page color brochure. Performance characteristics of the product and a description and diagrams of its fiber content are included in the literature. Photos show several different applications. Du Pont Co., Wilmington, Del.

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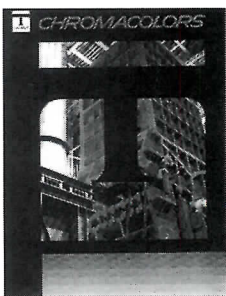
362 Sound control

Saflex, a resilient film made from polyvinyl butyral and developed for use as an interlayer with laminated architectural glass, is featured in a 10-page color brochure. The material's acoustical performance, its ability to screen out ultraviolet rays, and its maintenance requirements are reviewed. Monsanto Polymer Products Co., Div. of Monsanto, St. Louis.



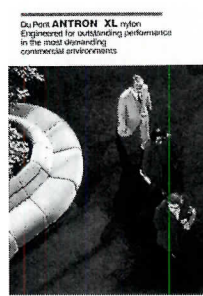
368 Ceramic tile

A 4-page color brochure discusses the role that ceramic tile can play in designing passive solar homes. The literature describes how ceramic tile over masonry—for walls—and over a concrete slab—for floors—can be used to absorb, conduct, and radiate the sun's heat. American Olean Tile Co., Lansdale, Pa.



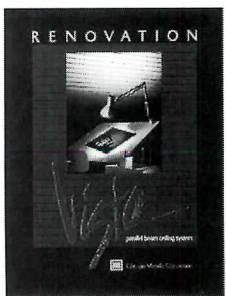
363 Coatings

Chromacolors is featured in an 8-page brochure that includes an expanded selection of colors for industrial and specialized coatings. Color samples are shown and product lines listed. These include epoxies, aliphatic polyurethanes, vinyls, chlorinated rubbers, industrial-grade alkyds, and water-based acrylics. Tnemec Co., Inc., Kansas City, Mo.



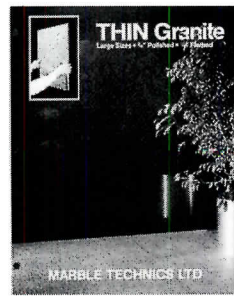
369 Fiber

The manufacturer's *Antron XL* fiber is featured in an 8-page color brochure. Diagrams and magnified photographs show the four-hole hollow filament structure of the fiber. Features of the product, including its resistance to soil, static, and wear, are discussed in the literature. Du Pont Co., Wilmington, Del.



364 Ceiling renovation

A 4-page color brochure describes the renovation of suspended ceiling systems using the manufacturer's *Vista* parallel ceiling beams. The literature describes the three-step installation process. Photos show the variety of available colors and finishes. Chicago Metallic Corp., Chicago.



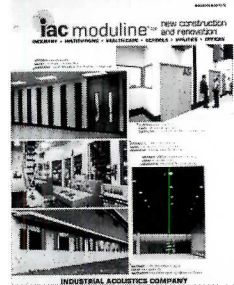
370 Granite panels

An 8-page color brochure features a line of thin granite panels for wall or floor coverings. The advantages of thin granite, available in panel sizes of up to 2 by 2 ft, are discussed. The finishes for both the polished, 3/8-in.-thick and the flame-textured, 1/2-in.-thick panels are shown. Marble Technics, Ltd., New York City.



365 Deck-coating systems

A 4-page brochure describes elastomeric deck-coating systems for concrete, metal, and other substrates. Features of the manufacturer's system, including its durability and its resistance to chemicals and moisture, are described in the literature. The proper method of application is also discussed. Futura Coatings, Inc., St. Louis.



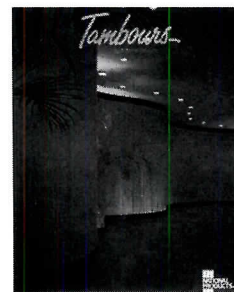
371 Acoustical components

An 8-page color brochure describes the adaptability of the manufacturer's line of acoustical components in the construction and renovation of sound-attenuated spaces. Components of the all-steel *Moduline* system, including wall and roof panels, doors, windows, and built-in silenced ventilation systems, are shown. Industrial Acoustics Co., Bronx, N. Y.



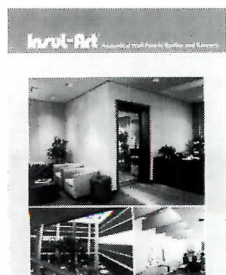
366 Coatings

The manufacturer's *Paint Databank* provides updated packets of literature on coating applications with product recommendations for architects and other specifiers. The service has literature on such topics as interior and exterior paints and stains, industrial maintenance coatings, and coating color selection. The Sherwin-Williams Co., Cleveland.



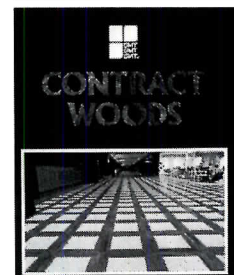
372 Tambours

A 4-page color brochure features the manufacturer's line of solid wood, veneer, metal, laminate, and cork tambours. Diagrams showing the different product lines are accompanied by descriptions of the available materials and a listing of dimensions. National Products, Louisville, Kentucky.



367 Acoustical panels

A 14-page brochure features the manufacturer's line of standard and custom-designed acoustical wall panels, baffles, and banners. Descriptions of each product line include features and specifications. Attachment methods are described, and color photos of installations are shown. Insul-Art Acoustics Corp., Farmingdale, N. Y.

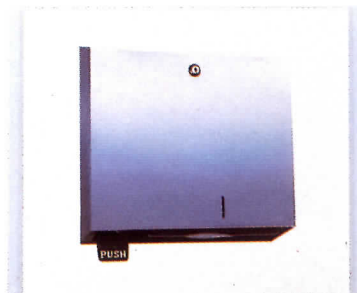


373 Vinyl floor tiles

The *Contract Woods* line of vinyl floor tile is featured in a 4-page color brochure. The 15 available wood-grain patterns, which are intended to give the appearance of custom hardwood flooring with the characteristics of resilient vinyl flooring, are shown. Information on installation and maintenance of the tiles is included. GMT/Go-Met Tile Associates, Inc., Bronx, N. Y.

10 Specialties

UCI 10, Specialties:
 Access flooring
 Fireplaces
 Flagpoles
 Identifying devices
 Lockers
 Partitions
 Pest control
 Storage shelving
 Sun control devices
 Toilet and bath accessories
 Wardrobe specialties



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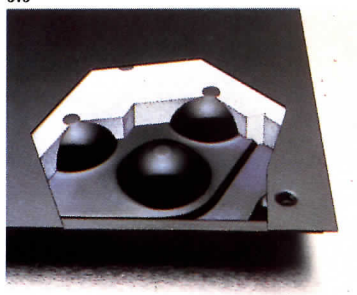
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374 Soap and towel dispenser
 The model 620 multipurpose bathroom unit has a lever-operated soap dispenser and a paper towel dispenser. The surface-mounted unit is made of stainless steel and is hinged at the bottom. The soap dispenser holds 24 oz of liquid and the towel dispenser has a refill indicator. The Charles Parker Co., Meriden, Conn.

375 Pigeon control device
Conservare is a pigeon control device made from mesh netting. Designed to protect masonry cornices, window ledges, and decorative stonework, the device can be mounted in place with stainless-steel pins. The netting is available in three colors and is said to be nearly transparent. ProSoCo., Kansas City, Kansas.

376 Access floor
ConCore access floors are designed to accommodate rolling loads. The composite steel-and-concrete panels are 24 in. square and are said to reduce the echo effect of typical access floor systems. The system is able to support concentrated loads with a maximum deflection of no more than .08 in. Tate Architectural Products, Inc., Jessup, Md.

377 Soap dispensers
B-111 and *B-112* soap dispensers are designed to handle corrosive lotion soaps, antiseptic solutions, and synthetic detergents of thick or thin consistency. Both models feature a stainless-steel filler top that is hinged to the tank and that can be locked. The dispensers have a satin finish to match the manufacturer's other washroom accessories. Bobrick Washroom Equipment, Inc., North Hollywood, Calif.

378 Fireplace
 The model *BH42* factory-built fireplace has a 42-in. front opening and features heat circulation, with optional twin box fans, an outside combustion air kit, glass doors, a mesh screen, and a tilt-up grate for firebox cleaning. Heatilator, Inc., Div. of HON Industries, Inc., Mt. Pleasant, Iowa.

379 Signage
 The *Modric* line of internationally recognized symbols includes handicapped, directional, and no-smoking signs on 3-in. diameter disks made from satin-finished anodized aluminum or polished stainless steel. Brass, bronze, or colors are available on special order. The Ironmonger, Chicago.

380 Insulating shutter
 The *Stowe* insulating shutter features raised wooden panels. The shutters are said to control air infiltration with a tongue-and-groove interlock system with compressive foam seals at all lap joints. A foil-faced polyisocyanurate insulating core with 1/8-in. dead air space on either side is also said to reduce sound transmission. InsulShutter, Keene, N. H.

381 Signage
System 2/90 signage can now be specified for exterior use. The signs hang from a horizontal spanner, eliminating the need for a bottom frame. The side frames have slots to hold the ends of the sign. Open Plan Accessories, Inc., Grand Rapids, Mich.

382 Shading and insulation system
 The manufacturer's motorized shading and insulation system is designed for use with greenhouses and roof glazing. The system uses *Lyverscreen* fiberglass fabric, said to be see-through and able to block out 90 per cent of the sun's radiant heat and ultraviolet rays. 3-S Haluscreen/Selinger Sun Screens, Rancho Cordova, Calif.

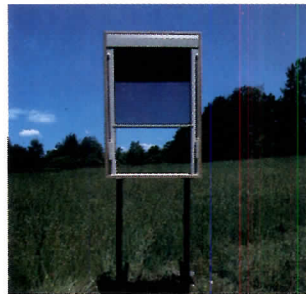
383 Toilet seat
 The *Sheltering Arms* seat can be used with existing bathroom fixtures and adapts to bowls with either a tank or flush valve, floor- or wall-mounted. Each arm is made from a continuous piece of steel, covered with a white, rustproof coating. The seat is made of polypropylene. Beneke, Div. of Sanderson Plumbing Products, Inc., Columbus, Miss.

384 Access floor system
 The *Severn* access floor system for offices and computer rooms facilitates management of wires, services, and utilities. The system is available with a variety of filled or unfilled panels and a selection of understructures. Donn Corp., Westlake, Ohio.

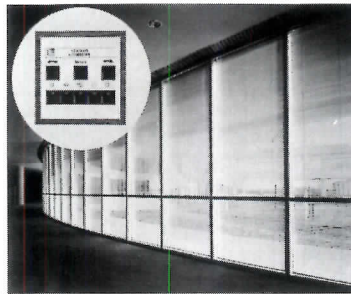
385 Solar and security shade
Protal is a combination solar control blind and security shutter designed to be mounted outside of a window. It provides a shading coefficient of 0.12, and is intended to be used for daylighting systems and to reduce air conditioning use. Baumann Inc., Div. of Air Vent, Inc., Barrington, Ill.



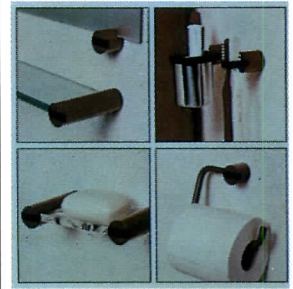
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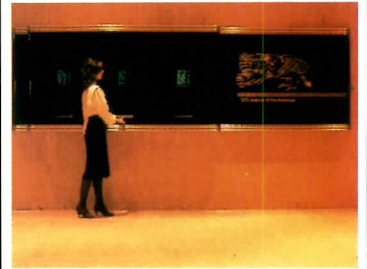
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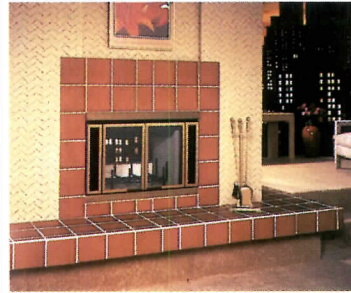
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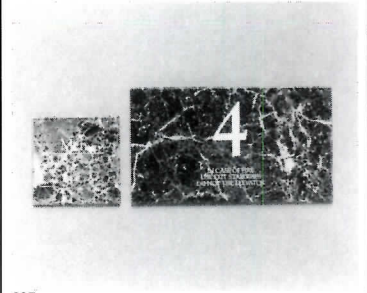
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386 Fireplace-stove

The *Shelburne* catalytic fireplace-stove is said to generate 40 per cent more heat than standard wood stoves, emit 90 per cent fewer pollutants, and create virtually no creosote. The catalytic converter also enables the stove gases to ignite at lower temperatures. The Vermont Stove Co., Shelburne, Vt.

387 Energy-control blinds

Thermocell blinds consist of a series of horizontal cylinders, honeycomb-shaped in profile, that compress, accordion-style, when the blind is retracted. The blinds are available in opaque, translucent and transparent styles, with or without side tracks, and may be used for conventional, sloped, horizontal, and bottom-up applications. Thermal Technology Corp., Broomfield, Colo.

388 Aluminum canopy

The aluminum fascia of the canopy acts as a supporting beam for the panels and as a concealed gutter. The roof panels and roll-formed fascia are available in several colors. A *Sunview* panel can replace the standard roof panels for increased sunlight. Alcan Building Products, Div. of Alcan Aluminum Corp., Warren, Ohio.

389 Shade system

The *Window Manager* shade system is designed to control sunlight, glare, and heat. The two-roller system has a sunscreen layer and a vinyl-fiberglass insulation layer. The system has a low profile, seals on four sides, and may be recessed, partially recessed, or surface mounted. Appropriate Technology Corp., Brattleboro, Vt.

390 Seagull barrier

The manufacturer's model *L53* bird control device is designed for use on piers (shown) and in other places that are considered gull and pigeon problem areas. Stainless-steel rods welded to a bar have sharp edges that are intended to discourage birds from landing. The device is designed to jab birds, not impale them. Nixalite Co., Moline, Ill.

391 Bathroom cabinet

The *Horizon* series of bathroom cabinets features three-way, frameless, beveled plate-glass mirrors with storage space behind each. The series comes in three sizes, 24 by 24 in., 30 by 28 1/2 in., and 36 by 28 1/2 in. Matching top lights are available in each size. Broan Manufacturing Co., Inc., Hartford, Wis.

392 Computer-controlled blinds

The *Litemaster* system features a computer system that automatically controls and synchronizes the tilt of motorized *Riviera* blinds. The system can be programmed to position up to 30 blinds in up to five preset positions. Levolor Lorentzen, Inc., Lyndhurst, N. J.

393 Hallway units

Modular Space Systems are designed to centralize tenant, mechanical, and electrical service facilities in symmetrical groupings. The panels or doors are available in stainless steel, bronze-tone stainless steel, or in 5/8-in.-thick solid phenolic core plastic laminate. Accessory Specialties, Inc., Yonkers, N. Y.

394 Fireplace

The model *ST3340* is a see-through fireplace designed to be installed through a dividing wall so that it can be viewed from two rooms. Optional accessories include a forced-air kit to boost heat output and an outside combustion air kit to bring in outside air. The unit features a two-wall air-cooled chimney system and 38-in.-wide screened openings. Superior Fireplace Co., Bellflower, Calif.

395 Bathroom accessories

The Danish-designed *Kosmos* bathroom accessory collection features all-brass surface-mounted fittings that are available in five colors and in a polished brass or chrome finish. The collection includes a shelf, mirror holder, toothbrush holder, soap dish, and toilet-roll holder. ABBAKA Trading Co., Inc., San Francisco.

396 Computerized directories

A line of computerized directories designed for office buildings and shopping malls features screens that display lists of names and locations corresponding to a letter of the alphabet selected by a user. Arrows on the keypad also allow the list to be scrolled up or down. Public Access Systems, Ltd., New York City.

397 Marble signage

The manufacturer's line of room and floor identification signs is intended to recall 19th-century designs. The 12- by 6-in. and 4- by 4-in. beveled pieces are engraved and paint-filled for contrast. The marble is available in several colors and finishes, and most type styles or logos can be reproduced. Best Manufacturing, Kansas City, Mo.

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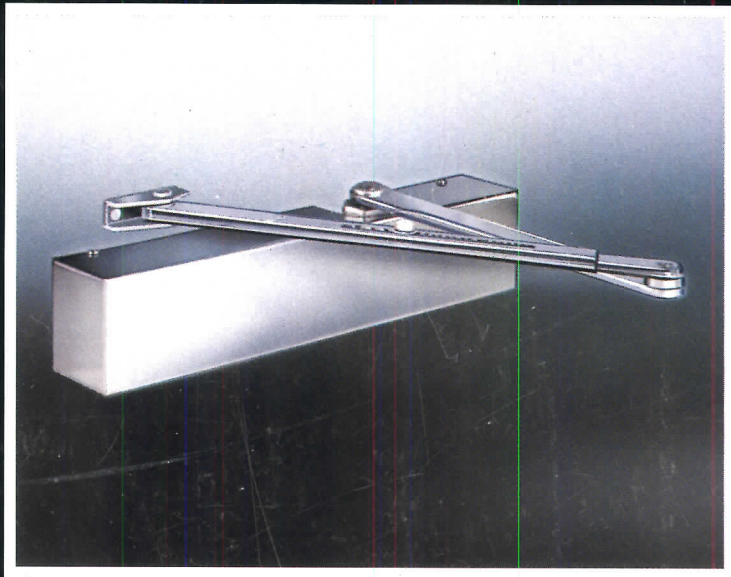
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