

Roofing Spec

\$2.00

National Roofing Contractors Association

February 1984




**NRCA's
97th Annual
Convention**



Celotex

Jim Walter company



**THE ONLY WAY TO REMAIN THE LEADER
IS TO WIN SMALL VICTORIES, OVER ONE ROOF
AT A TIME, ALL ACROSS AMERICA.**

There can be only one leader in any field. In roofing, it's Celotex.

We make more kinds of roofing shingles than anybody else in the business. And we stand behind each shingle with steadfastness and loyalty.

We make Sol-Seal™ the "old reliable" shingle that has become the standard of the industry.

We make the FRST™ Fiber Glass Asphalt Shingle – the patented white roof warranted to stay fungus-free for 20 years.

We make a complete line of the new fiber glass asphalt shingles. In a full range of colors. And provide limited warranties for 20 and 25 years.

We make the Dimensional Shake™ Shingles, definitely the best looking of the heavyweight asphalt shingles made.

And we advertise our shingles nationally on TV. So more homeowners than ever before are asking for Celotex roofs – by name.

And in the roofing business, that's no small victory.

Check #588 on Reader Service Card

WHY DERBIGUM MAY BE YOUR SINGLE BEST CHOICE IN SINGLE-PLY ROOFS.

Most single-ply roofs have built a reputation on how easily they go down. The Derbigum™ roof system, though, long ago built its reputation on how well it stands up.

THE STRENGTHS OF BUR IN A SINGLE-PLY

Derbigum™ is a unique commercial roofing system that combines the strengths of traditional, asphalt, built-up roofing with the ease and low-cost installation of a single-ply.

This patented system is a bitumen modified with polypropylene, to slow the aging process and increase

roof life. And, like proven, built-up roofs, it's made with reinforcing mats for greater strength. All in a single-ply.

In addition, Derbigum's built-in adhesive layer ensures easy, torch-on application, high-strength bonding and a smooth, finished surface.

Derbigum will excel on virtually any kind of roof—dome, barrel, peaked and flat decks. In new as well as re-roof applications.

16 YEARS PROVEN PERFORMANCE

With all this going for it, it's small wonder that Derbigum is one of the world's best-proven, single-ply roofs. With over 1.6 billion square feet installed since 1967. On roofs all over the world. In virtually every kind of climate.

Since it was first introduced in the

United States, there have been no known product failures.

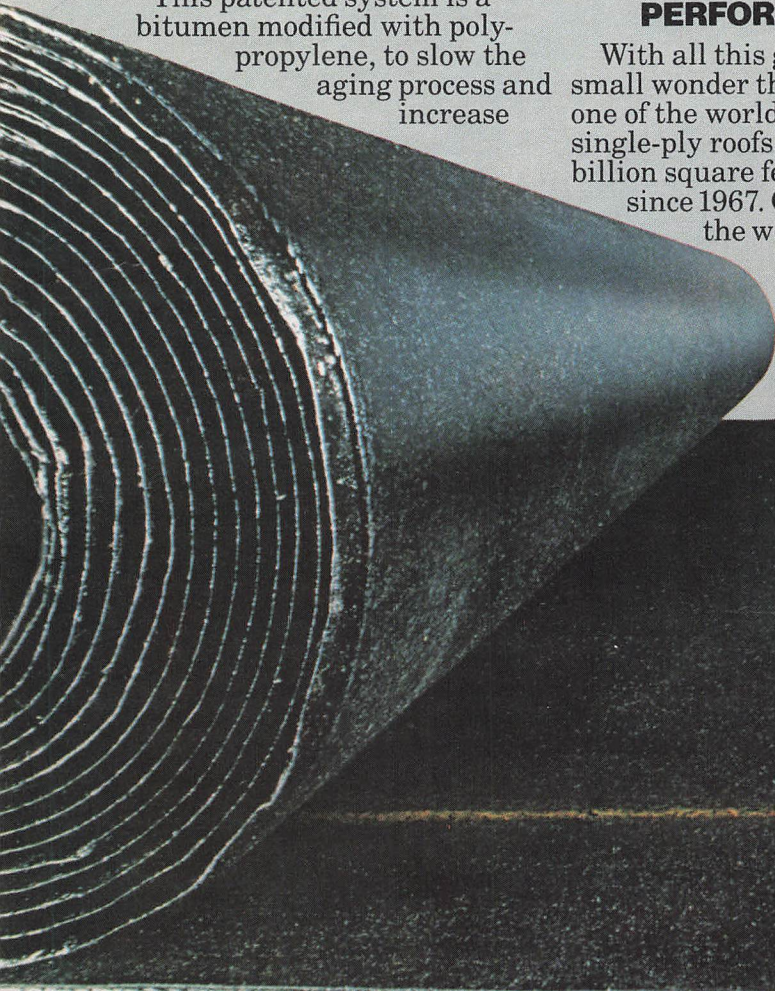
40 YEARS OF ROOFING EXPERIENCE

Owens-Corning knows that Derbigum roof systems are called upon to endure torturing extremes. Driving winds, ice, snow and roof temperature variations of over 100 degrees in a single day can be expected on a commercial roof.

That's why we have invested over 40 years and hundreds of millions of dollars in providing the highest quality, state-of-the-art roofing asphalts, membranes and insulations.

So that when you specify Derbigum, you've singled out a single-ply roof you can rely on.

For more information, contact your Owens-Corning sales representative. Or write B.T.D. Meeks, Owens-Corning Fiberglas® Corp., Fiberglas Tower, Toledo, Ohio 43659.



THE TOP ROOF FOR ANY BOTTOM LINE

OWENS/CORNING
FIBERGLAS

TRADEMARK ®

© O.-C.F. Corp., 1983

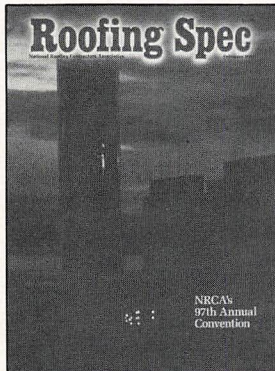
Check #616 on Reader Service Card

Roofing Spec

Vol. 12, No. 2
February 1984

Staff

Christine Nolen Taylor,
Director of Communications
Constance Arkus, Assistant
Director of Communications
Martin Eastman, Managing
Editor



Atlanta hosts the 97th Annual Convention of the National Roofing Contractors Association



NATIONAL ROOFING CONTRACTORS ASSOCIATION

8600 Bryn Mawr Avenue
Chicago, Illinois 60631
(312) 693-0700

ROOFING SPEC (ISSN 01997742) is published monthly by the **NATIONAL ROOFING CONTRACTORS ASSOCIATION**, 8600 Bryn Mawr Ave., Chicago, Ill. 60631. Statements of fact and opinion are made on the responsibility of authors alone and do not imply an opinion on the part of the Officers, or the membership of NRCA. Material may be reproduced by any member or affiliate organization only. Appropriate credit line is requested. Copies to members include a four-page supplement.

Second-class postage paid at Chicago, Ill., with additional entry filed in New Richmond, Wis. **Annual subscription rate** for NRCA members is \$15, included in **Annual Membership Dues**. Additional Subscriptions for member firms are \$10 annually. Non-member subscriptions are \$15 per year.

POSTMASTER: Send address changes to ROOFING SPEC, 8600 Bryn Mawr Ave., Chicago, Ill. 60631.

Departments

- 8 Comment
- 10 Ideas, Notes & Random Thoughts
- 12 National News
- 22 Associate News
- 24 Legal
- 80 New Products, Ideas & Publications
- 83 Coming Events
- 84 Classified Ads
- 86 Tech Talk

Features

- 30 1984 NRCA Convention Exhibitors
- 50 Contractors prompt coal tar tests; results show ASTM standard inadequate by William C. Cullen, research associate, NRCA
- 61 New program tells the public, "We know what's going on"
- 67 Atlanta: where the Old South meets the Sunbelt
- 73 NRCA Annual Report, 1982-1983

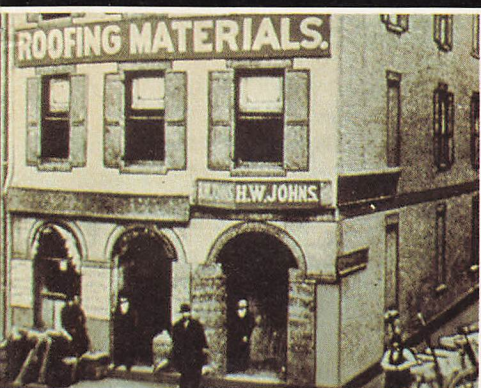
Advertisers

- | | | | |
|-------|--------------------------------------|-----|-------------------------------|
| 88 | Aeroil Products Co., Inc. | 39 | Manning Paper |
| 58 | American Associated Inc. | 6-7 | Manville |
| 32 | Annith Engineering | 84 | MM Systems |
| 88 | Asphalt Roofing Manufacturers Assoc. | 8 | Mobillift |
| 89 | Asphalt Roofing Manufacturers Assoc. | 35 | Monsey |
| 49 | Associated Foam Manufacturers | 71 | Morgen Mfg. |
| 82 | Bilco | 64 | NRCA TV Today |
| 72 | Bond Cote Systems | MS4 | NRCA/Kettles |
| 92 | Carlisle SynTec Systems | 43 | NRCA/Rfg. & Waterprfg. Manual |
| 2-3 | Celotex | 4 | Owens-Corning Fiberglas |
| 13 | Clearfield Conveyors | 68 | Phillips Fibers Corp. |
| 59 | Consolidated Fiber Glass | 69 | Phillips Fibers Corp. |
| 15 | Cooley Roofing Systems | 18 | Pittsburgh-Corning |
| 87 | Elk Roofing | 14 | Red Bell |
| 9 | Firestone Industrial Prod. | 70 | Reeves Roofing Equip. |
| 58 | Flame Engineering | 33 | Reiman & Georger |
| 90-91 | GAF Corporation | 41 | Roofmaster Products Co. |
| 65 | General Tire | 21 | Siplast |
| 34 | Giuffre Bros. Cranes, Inc. | 17 | Soprema France |
| 60 | Globe Industries | 79 | J.P. Stevens |
| 27 | Goodyear | 25 | Tamko |
| 46-47 | International Permalite | 85 | Tramex Electronics |
| 37 | Jimco | 45 | Tropical Industrial Coatings |
| 23 | Karnak | 52 | Tyler Pipe |
| 19 | Kendall Company | 14 | UIP Engineered Products |
| 29 | Koppers Co., Inc. | 11 | United Construction Products |
| 70 | Liquid Asphalt Systems | 16 | US Intec |
| 53 | Liquid Asphalt Systems | 28 | Brian R. White |
| 26 | Liquid Asphalt Systems | 20 | Wilder Machinery Co. |

**The original bright idea
in roofing came 21 years
before the light bulb.**



**That's why
no one can hold
a candle to our systems today.**



Today's Manville fiber glass roofing systems are the result of over a century of experience.

In 1858, experimentation began in roofing by one of the founders of Manville. And, the *reliable* built-up roof was born.

The technology, techniques and products of commercial/industrial roofing have changed dramatically since the 1800's.

One thing hasn't.

Building owners, specifiers and roofing contractors still want a roof that doesn't leak.

That's why they count on the *proven performance* of Manville fiber glass built-up roofing systems, the end result of 125 years of roofing development.

Our confidence in our systems is backed by our Signature Series Guarantees, which Manville signs with pride and which are backed by the Manville Customer Assurance Trust Fund.

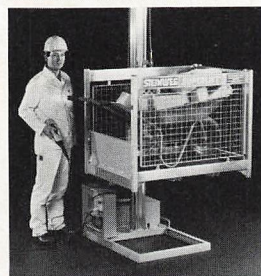
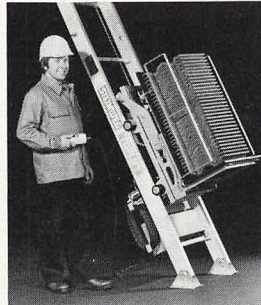
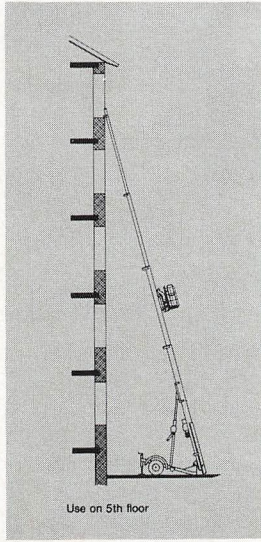
No wonder our systems just keep getting brighter. And have since 1858.

Contact Manville Roofing Systems,
P.O. Box 5108, Denver, Colorado 80217,
(303) 978-2228.

The Signature for Roofing Performance & Innovation

Manville

**MOBILLIFT.
ONE OF THE
THREE
MOST
VERSATILE
PORTABLE
LIFTING
SYSTEMS
IN THE
WORLD.
THE OTHER
TWO ARE
TOPLIFT
AND
SUPERLIFT.
ALL BY
STEINWEG.
ALL
AVAILABLE
NOW.**



	CAPACITY	HOISTING HEIGHT	POWER*
MOBILLIFT	440 Lb.	to 52'/69'/82'	110V Single Phase Electric
TOPLIFT	330 Lb.	to 65'	110V Single Phase Electric
SUPERLIFT	400 Lb.	to 246'	110V Single Phase Electric

*Optional Gas Generator Available.

SEE US AT
NRCA Booth #1533-39
Atlanta, February 1984

**AMERICAN
STEINWEG**

6920-A Peachtree Industrial Blvd. Norcross, Georgia 30071
(404) 447-6525, Telex 707453 ("AMSTEG")

Dealer Inquiries Invited

Comment

Changing Our Image

Every year's convention, of course, is better than the last one. That's almost axiomatic in convention hyperbole.

Also, as regards NRCA conventions, it happens to be true.

This analysis, we know, is somewhat less than modest. (According to the economist John Kenneth Galbraith, however, "Modesty is a vastly overrated virtue.") But the analysis, as we prepare to embark upon NRCA's 97th in Atlanta, is fair, by nearly any measurement.

One standard of measurement is numbers, and they're encouraging: some 6000 folks will be in town, occupying some 2500 hotel rooms. Over 300 companies will exhibit in 647 booths. All of these numbers are NRCA records.

Bigness does have its drawbacks—like riding buses and waiting in line—but it also gives us the means to provide top-notch speakers and entertainers. (Of our last eight keynote speakers, two have been U.S. presidents, and two more would have liked to have been.)

What money can't buy, though, is the opportunity that conventions give the industry to take pride in itself. It's an industry growing in size and growing in influence, and it is always revealing to hear the comments of first-time NRCA convention attendees. Usually they begin with: "I had no idea. . ."

This year's convention will be the best yet because of its size and its impact, and also because it will be the scene for the formal beginnings of the most far-reaching program NRCA has undertaken since we decided to write a manual. The program is appropriately titled "Changing Our Image, Protecting Our Future."

It includes local and national advertising campaigns; it includes public relations of all sorts. It will involve state, local and regional roofing contractor associations; it will involve manufacturers; it will involve NRCA members on an individual basis.

The program will be unveiled and explained in dramatic fashion on Wednesday afternoon, February 15. It's a session you won't want to miss.

But then, there's very little of the convention experience that you should miss. That's another part of improving each year—and we hope, modestly, that you'll agree.

Bill Aard

FIRESTONE FasTRAC™

Introducing the first non-penetrating mechanically- anchored system that truly meets the demands of single-ply.

FasTrac.* Firestone's new single-ply fastening system that you'll like for what it does. And, for what it doesn't do.

FasTrac doesn't require sheet penetration. Ballast. Substrate adhesives. Time-consuming batten strip hand sealing. And, FasTrac doesn't increase labor costs. In fact, it can even reduce them.

FasTrac does go down easy. Retaining tracks are screw-fastened to the roof substrate. The EPDM sheets are easily laid over the strips. Then, insert strips are rolled-in to tuck and lock the EPDM sheets to the roof.

Get on the right track.
Use Firestone's new FasTrac system on your next job. It's a better way for a better roof.

*The specially designed
FasTracker™ tool tucks the
EPDM sheets down, and locks
the insert strips into the track.*

Firestone
INDUSTRIAL PRODUCTS COMPANY



Division of The Firestone Tire & Rubber Company

Firestone Industrial Products Company
Roofing Products Department
3500 Depauw Blvd., Indianapolis, IN 46268
SALES: (800) 428-4442 TECHNICAL: (800) 428-4511
In Indiana: (317) 875-9921

See FasTrac at the NRCA—Booth 523



Ideas, notes and random thoughts

GO FOR THE GOLD and be a winner by attending NRCA's 97th Annual Convention in Atlanta, Feb. 14-17. Just like the Olympic contestants, you can also achieve greatness in the professional and personal areas of your life by participating in the business sessions, educational programs, exhibit and social functions organized by the nation's oldest construction trade association... NRCA!

For a comprehensive guide on the products NRCA exhibitors will be displaying, see the 1984 Convention Exhibitor Listing, p. . . Whether it's BUR, single-ply, cold process, cranes, conveyors or any other roofing product or piece of equipment, you'll find it at the Exhibit Hall in the Georgia World Congress Center.

Georgia peaches, peanuts, Coca-Cola and CONVENTION SPEC rank as the top four sources of enjoyment in Atlanta. CONVENTION SPEC is the only newspaper covering all four days of convention activities. Be informed. Watch for its burgundy banner and convention logo at your hotel and in the Georgia World Congress Center.

Fred Good, NRCA's Executive Vice President, has been named to the first board of governors of the Foundation for International Meetings. The newly formed organization of associations will hold events abroad. James P. Low is chairman of the group.

National Roofing Foundation Update

The National Roofing Foundation would like to thank the following companies for their contributions:

Beaver Enterprises
BURMCO
The Denchfield Corp.
Carl Hudson & Associates
C. Jordan & Son, Inc.
The Kimmenade Corp.
Leigh's Roof Service, Inc.
J.L. Murray Co., Inc.
Roof Maintenance Systems
Statesville Roofing & Heating Co., Inc.
Success Roofing
Tri-State Roofing & S/M Co.
W.J. Woodruff Roofing Contrs., Inc.

You, too, can become a Friend of the Foundation. Your tax-deductible donations help provide scholarships and aid in the development of educational programs. For additional information on the Foundation, contact NRF at 8600 W. Bryn Mawr Ave., Chicago, Ill. 60631.

"Happiness lies not in the mere possession of money; it lies in the joy of achievement, in the thrill of creative effort."

Franklin D. Roosevelt

The fourth edition of the NRCA *Roofing Materials Reference & Guide* is now available. The *Guide* is updated and published two times a year on a subscription basis. The book includes hundreds of BUR specs and Elasto/Plastic sheet-applied roofing membrane products, representing over 70 manufacturers and suppliers. Use the *Guide* to compare the characteristics of similar generic materials and analyze products based on uniform testing procedures. For details, contact Norm Bullock at NRCA, 312/693-0700.

Two European Symposiums will be held June 4-8, 1984. The topics are "Future for Plastics in New Constructions and in Maintenance, Rehabilitation, Repair and Reinforcement of Existing Structures" and "Plastic and Rubber Waterproofing in Civil Engineering." For more information on the sessions, write to: C.E.P./Quai Banning, 6/B-4000/Liege, Belgium.

NRCA's Conference on Reroofing and Energy Conservation will be held in New York on March 15 and in Indianapolis on March 29. The one-day seminar focuses on the reroofing options available and requirements for a satisfactory system. Contact Alan Grayson at 312/693-0700 for a brochure.

At NRCA headquarters, Bea McSheffrey has been promoted to Meetings & Conventions Coordinator and John Meese has been named Roofing Service Center Manager.



Hot-Shot,TM the use-tested torching system For successful heat-fused roofing

Now, get proper flame control and positive flame shutoff in a line of roofing torches that have been extensively use-tested by one of the nation's largest roofing contractors.

If you apply torched-on modified or straight bituminous roofing systems, you can't afford to work without Hot-Shot torching systems. A full line of general-purpose and specialty torches and equipment all **designed specifically for roofing jobs.**

Positive flame control **in handle**, not at the burner head. Flame automatically throttles back to economizer setting when idling. And

EXACT

Hot-Shot systems feature the torch, used in Europe since the 1950's for

torch-applied roofing.



There are single and double head hand held torch designs with a range of extension tube lengths in a variety of complete kit packages. **And, for real speed in application, the powerful, five-torch-power, Dragin WagonTM shown above** (patent pending) which combines torches and roofing layer in one unit. All controls at the handle, with positive control of both flame intensity and the distance of the torch heads from the roll surface.

There is a full line of individual components, parts, and accessories, too, all in stock for immediate shipment.

So, don't waste another day using equipment adapted from some other purpose. Start working right with job proven Hot-shot torching systems.

Call or write now for details and prices.

united construction products

1300 Shoshone • P.O. Box 4246 • Denver, Colorado 80204 U.S.A. • Phone (303) 892-0400

NATIONAL NEWS

1983 construction activity heading for record

With November's contracts for new construction holding at a high level, 1983's construction activity is heading for one of the biggest gains on record, the F.W. Dodge Division of McGraw-Hill Information Systems Company announced.

November's \$15.4 billion of newly-started construction brought the total for the first 11 months of 1983 to \$178.5 billion, already more than in any previous full year.

"With December's contracting still to be included, 1983 construction contract value is within reach of a record \$195 billion and will top last year's total by as much as 25 percent," George A. Christie, vice president and chief economist for F.W. Dodge, said.

"Considering the depressed state of the building business in the early 1980's, a large percentage gain such as the one we're now reporting isn't too surprising," Christie said. "What

makes it important is that in contrast to previous post-recession gains in construction, this one is taking hold with negligible inflation. The fact that construction costs have increased by only about 1 percent in the past year makes 1983's 25 percent gain in the value of newly-started work especially meaningful in terms of jobs and building materials output."

"By far the biggest difference between 1983 and 1982 construction activity is the level of interest rates," Christie said. "In 1982, mortgage rates of 17 percent depressed housing activity to barely one million units. The drop in mortgage rates to 12 percent resulted in an additional 700,000 housing starts this year. That change alone explains almost all of the improvement to date in total construction volume."

Through 11 months of 1983, the value of residential building ad-

vanced 61 percent to \$86.8 billion, while all other construction (commercial and industrial building, public works, etc.) increased only 4 percent.

"Nonresidential building is the key to the construction industry's continued expansion through 1984," Christie stated.

November's contracts for new construction rebounded from a minor October setback with a 4 percent gain, after adjustment for seasonality, boosting the latest month's Dodge Index to 145 (1977 = 100). November's gain brought the current rate of contracting back to the strong level that has prevailed since early summer.

Nonresidential building provided much of the thrust in November, as the latest month's \$5.5 billion of new projects rose a seasonally-adjusted 7 percent. Commercial and industrial building contracts were up 17 percent in November, while institutional building declined 8 percent.

November contracts for residential building, totaling \$7.6 billion, retreated a seasonally-adjusted 1 percent from the previous month's value, with a sag in one-family building. The end of the decline of mortgage rates in the spring of 1983 changed the makeup, but not the strength, of the housing recovery, according to Christie.

"Until then," he said, "it was essentially a single-family building boom. Now multifamily projects are providing a lot more of the action."

Nearly half of November's 1.8 million housing starts (annualized rate) consisted of multifamily units, compared with one third in 1983's early months.

Nonbuilding construction contract value totaled \$2.3 billion in November, up 11 percent after sea-

MONTHLY SUMMARY OF CONSTRUCTION CONTRACT VALUE

Prepared by F. W. Dodge Division
McGraw-Hill Information Systems Company

	November 1983 Construction Contract Value (000,000)	Seasonally Adjusted Percent Change From Previous Month	
Nonresidential Building	\$ 5,510.7	+ 7	
Residential Building	7,574.7	- 1	
Nonbuilding Construction	2,279.7	+ 11	
Total Construction	\$15,365.1	+ 4	
	11 Mos. 1983 (000,000)	11 Mos. 1982 (000,000)	Cumulative Percent Change
Nonresidential Building	\$ 57,214.1	\$ 55,662.2	+ 3
Residential Building	86,811.0	53,804.5	+ 61
Nonbuilding Construction	34,517.9	32,659.3	+ 6
Total Construction	\$178,543.0	\$142,126.0	+ 26

DODGE INDEX

(1977 = 100, SEASONALLY ADJUSTED)

September 1983	143
October 1983	139
November 1983	145

sonal adjustment. The latest month's gain represented a return to the pre-October level of contracting for public works projects following a temporary interruption.

"October's setback, which was principally in highway/bridge construction, may have been due to the transition from one fiscal year's Federal budget to the next," Christie explained. "November's rebound suggests that highway funds are moving again."

By region, November's construction contracts showed that a gain of 14 percent in the Northeast accounted for virtually all of the nation's improvement for the month. Contracting in the Midwest, South and West was little changed from October's value.

Non-union shops making gains

A survey of union mechanical contractors has found many despondent and frustrated by non-union shop competition.

The 1983 survey was conducted by the Mechanical Contractors Association of America (MCAA). Its findings are summarized in a report titled "The Unionized Mechanical Construction Industry Continues in Crisis." The survey follows up and confirms the findings of a similar survey conducted in 1982.

"The survey indicates that if major changes are not made soon, the future of the unionized mechanical construction industry is in serious jeopardy," said Herbert R. Jacobson, chairman of the task force that produced the report.

The feelings and beliefs of union mechanical contractors were polled by the survey. It found most contractors convinced that non-union shops are here to stay and will continue to be difficult to compete with.

"Non-union contractors have become large enough that they can bid any size project and have qualified, productive people. At the union wage it is impossible to compete," one

respondent said.

Contractors also feel the advantages of being a union shop have been diminished. One contractor said, "Even the old cliché of 'a pool of highly trained, productive workers' has gone down the drain."

The survey also found contractors frustrated by the lack of union co-

operation to combat the mutual threat of non-union competition. Of contractors who have won concessions from the unions, a majority believe the steps are not working. "The concessions are so stingy," one respondent said, "it doesn't help the contractor."

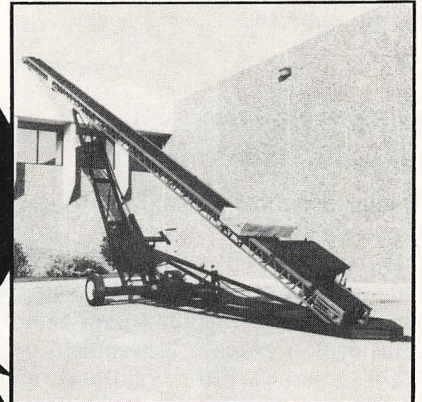
continued on following page

CLEARFIELD'S

BIG 3

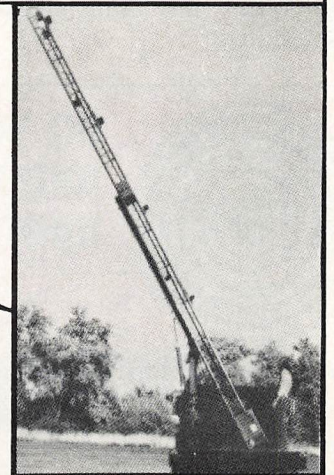
HSDU

18 H.P. ENGINE
16" BELT WITH 1½"
"V" CLEATS
DISCHARGE 26'
HYDRAULIC SPEED
CONTROL



H-I-H

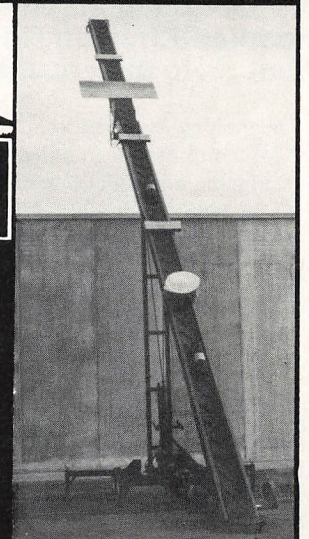
CONVEYOR TURNS 360°
& RAISES TO MORE
THAN 70°
AVAILABLE IN 26', 31' &
36' LENGTHS
TURNTABLES
AVAILABLE



**ONE IS
PROBABLY
RIGHT
FOR
YOU!**

LN-77

ALL HYDRAULIC
EXTENDS TO 77' &
REACHES UP TO 53'
FOLDING BOOM
WISCONSIN
4 CYLINDER
30 H.P. ENGINE



**If you're still
not convinced --**

**Call or write for
details on these or any
of 28 other conveyors!**



CLEARFIELD CONVEYORS, INC.

**362 South Main
Clearfield, Utah 84015
Telephone 801 773-1311
1-800-453-2446**

Check #589 on Reader Service Card

continued

RSTC issues insulating concrete bulletin

The following technical bulletin was finalized and approved by the Roofing Systems Technical Committee (RSTC) and also has the approval of the Technical Operations Committee of the National Roofing Contractors Association (NRCA).

Roofing over lightweight insulating concrete decks

It has been recognized that roof membrane systems installed over lightweight insulating concrete decks have a greater potential for problems than do systems installed over substrates which contain less moisture.

The moisture often retained in lightweight insulating decks can contribute to:

- reduced insulation values;
- membrane blistering;
- weakening of the membrane;
- reduced membrane service life;
- membrane splits due to freezing;
- rusting of fasteners, metal forms, and other metal accessories and
- reduced fastener holding power.

It is the recommendation of RSTC that when specifying these type of decks, special provisions are required.

- Determine that the deck system has been specified in strict accordance with the deck manufacturer's recommendations. These determinations should be the sole responsibility of the deck manufacturer and should be accepted

prior to a plan being put out for bid.

- Specify a roof membrane system specifically designed and recommended by the roofing materials manufacturer for this purpose.
- Select a deck application method (or system) which is approved by the deck manufacturer.
- Provide underside venting by using form boards or ventilated steel deck, and provide for topside venting by mechanically fastening the base ply to the deck and by providing for venting at roof edges.
- Require that the deck manufacturer and deck applicator certify in writing that the deck was installed properly and is satisfactory to accept the roof system.

continued, page 16



DO YOU WANT TO PRODUCE AND SELL MODIFIED BITUMEN ROOFING?

Contact UIP. . . The **ONLY** American manufacturer to offer machinery for the production of Modified Bitumen Roofing.

UIP can build an entire Modified Bitumen Roofing Plant . . . to put you into business.

- Technology acquired from European sources
- Adapted to American equipment and methods
- Producing a product that has been used successfully for 15 years in Europe, Canada and the United States
- No overseas shipping costs
- Convenient U.S. maintenance and service
- UIP, the world's largest manufacturer of roofing manufacturing machinery, has been supplying the Roofing Industry since 1910.

For further information, contact Mr. Wallace L. Hart, Vice President



UIP ENGINEERED PRODUCTS CORPORATION

149 N. Swift Road,
Addison, Illinois 60101

Telephone 312/629-8400. Telex 280572.

See Us At Booth Number 947
NRCA Show, Atlanta
Feb. 14-17, 1984

ROOFERS...



WHEN TIME IS MONEY...

Clean-Ups Go Quick with Emulsion Jell!

- Thick consistency applies to both flat and vertical surfaces, minimizing the expense of run-off
- Emulsifies Tar, Asphalt, Bitumen and Asphalt base plastic cement monoform roofing compounds
- Cleans all masonry surfaces - Brick, Stone, Concrete, etc.
- Cleans tar, pitch, asphalt, oil, grease from floors, brick, asphalt spreaders, road machinery, tar & asphalt heating pots, tools, etc.
- Easily flushed off with hot or cold water leaving the surface CLEAN and STAIN FREE

CALL COLLECT 919/365-7079
IN FLORIDA 305/431-2083

FREE TUBE Soft Touch Hand Cleaner
With Each Inquiry

Sales Office - Rte. 1 Box 282-2, Wendell, NC

RED BELL, INC.

P.O. Box 8525, Pembroke Pines, FL 33024

Check #619 on Reader Service Card

RAISE YOUR STANDARD OF ROOFING.



CoolTop brings quality to new heights.

Sure, you're installing more and more single-ply membranes. They're in high demand. But which one sets the standard when it comes to the highest quality at the lowest labor cost? CoolTop, PVC, or EPDM?

CoolTop 40 is highest on the list. Here's why: 1) It's made from pure CPE* – chlorinated polyethylene – the high quality material that best resists oil, fire, chemicals, and weathering. It's a top quality product requested by more and more customers for installation under more and tougher conditions. 2) CoolTop's Fortrel® polyester reinforcement provides dimensional strength... the feature that lets you use CoolTop's labor-saving mechanically attached system. 3) At only 5 oz./sq. ft., CoolTop can be installed directly over the old roof. It is attached to the deck itself with specially coated galvanized plates and screws at pre-marked places on the membrane. It can

be installed in most weather conditions, lessening down-time. 4) Fast heat-welding with automated equipment eliminates expensive adhesives and creates welded seams as strong as the membrane itself. For you, that means fewer callbacks. 5) CoolTop 40 is a complete

CoolTop roofing system. We manufacture the membrane, market the entire system and sell direct to authorized installers. You get our *total* support and back-up, with a ten-year warranty. All in all, when you move up to CoolTop, you really raise your standard of roofing. For technical information, write or phone us at: Cooley Roofing Systems, Inc., 50 Esten Avenue, Pawtucket, Rhode Island 02860. Tel: (401) 724-0490. **Cooley Roofing Systems.**



CoolTop's mechanical attachment and heat welding system mean faster installation.

*Chlorinated polyethylene from the Dow Chemical Company. Fortrel® is a registered trademark of Fiber Industries, Inc., a subsidiary of Celanese Corporation. CoolTop® is a trademark of Cooley, Inc.

NATIONAL NEWS

continued from page 14

OSHA changes may affect contractors

The Occupational Safety and Health Administration (OSHA) is working on standards and revisions to standards which may affect roofing contractors, according to Gary

Strobel, OSHA special assistant for health standards.

One draft proposal already reviewed would have clarified the requirements for fall protection in

construction under 29 CFR 1926.28(a) and 1926.105(a). It was opposed by a majority of OSHA's Advisory Committee on Construction Safety and Health, however.

The draft contained an exemption from tying off requirements for employees engaged in steel erection in situations where it would be more dangerous to use safety belts and lanyards than not to use them.

Some Committee members opposed the draft's provisions, arguing that granting a single exemption for one trade is not an adequate approach.

The Committee recommended the directive be amended to state that where employees are exposed to falls of 10 to 25 feet and are not using approved safety belts and lanyards, 1926.28(a) is applicable unless the circumstances justify otherwise.

The Committee will also be looking at draft proposals on asbestos in the next two weeks, Strobel said.

Proposed standards on these items as well as others are scheduled to be published by OSHA in the next three months.

Fla. open shop wins suit

An open shop in Florida, denied a contract because it was non-union, won its suit recently against the general contractor that refused to award the contract.

Independent Enterprises International was originally awarded work on the Dade County Metrorail project. Its contract was terminated by the general contractor before work began because of its open shop status.

Independent sought protection under Florida's right-to-work law and sued the general contractor.

The Florida court, ruling in Independent's favor, stated that contractor corporations are entitled to the same protection under the law as individuals. The court set a new date for a hearing to determine damages.

continued, page 18

**WEATHER-TOUGH
BRAI®**

U.T. Medical Branch at Galveston, following Hurricane Alicia - Brai roof undamaged!

Galaxy Towers - on the Pacific at Long Beach - with roofs protected by Brai.

BEATS THE ELEMENTS!

Weatherbeater Brai is specified for the tough jobs — salt air ... hurricanes ... snowstorms ... heat ... cold — and comes through with flying colors every time.

Proof? How about the greatest array of outside testing by the people who set industry standards? Brai has won approvals for



So you know it can handle your next roof with all the protection you need — leakproof guarantees to 15 years.

Send for details — to be sure.

u.s. intec, inc.

1212 Brai Drive • P.O. Box 2845 • Port Arthur, TX 77643
Phone (Texas) 1-800-392-4216
(Outside Texas) 1-800-231-4631 • Telex 779-320

Eastern Region: 106 Meister Ave. • P.O. Box 5326
North Branch, N.J. 08876 • (201) 725-8317

Check #630 on Reader Service Card

SOPRALENE



Glushak
83

FOR THE ROOFING "GIANTS."

Today, selection of a good waterproofing or roofing is based upon an infinite number of technical factors. Soprema has developed Sopralène, which represents a wide range of advanced technology membranes, suited to all possible types of roofing and waterproofing requirements.

For the application of these membranes, we are contacting the leading professionals in each country: the roofing "giants". For us it means, to be sure to offer perfect roofing or waterproofing.

SOPREMA
waterproofing mammoth



SOPREMA ROOFING & WATERPROOFING INC.
191, Post Road West
WESTPORT
CT 06880 USA
Tel. (203) 227 95 66
Telex 643797

SOPREMA WATERPROOFING INC.
57, Marie de l'Incarnation QUEBEC CITY
QUEBEC G1N 3E9 Tel. (418) 681.8127 Telex 051-3004

- Complete descriptive literature on SOPRALENE.
- A sample of SOPRALENE.

Name: _____

Occupation: _____

Full address: _____

Tel.: _____

continued from page 16

Meeting held to advance BUR's standing

In July 1983, a meeting was held to examine the state of commercial/industrial built-up roofing. Present at the meeting were chief operating officers of the member companies of the Asphalt Roofing Manufacturers Association (ARMA) and the Execu-

tive Committee of the National Roofing Contractors Association (NRCA).

During the candid discussions between participants, a cooperative attitude prevailed, according to a statement issued jointly by the two associations.

Since the meeting, several steps have been taken to enhance BUR's standing in the industry.

One step was the appointment by ARMA of a special Task Force to develop BUR systems performance criteria. Bill Cullen, former assistant chief of the Center for Building Technology, National Bureau of Standards will serve as consultant to the group.

The criteria document will contain definitive guidelines for systems specifications that are known to provide long-term performance. It is expected to be completed by early 1984.

Also included in the Performance Criteria Document will be the conclusions of the joint ARMA/NRCA Roofing Systems Technical Committee (RSTC). The committee has been addressing the question of reasonable and workable application techniques and tolerances.

In addition, the leadership of both ARMA and NRCA will be encouraging manufacturers and contractors to work together for their common good.

RIEI offers seminar discounts

The Roofing Industry Educational Institute (RIEI) is offering fee discounts to certain RIEI seminars.

The discounts are available to firms sending six or more persons to the seminars. Applicable seminars are RIEI Seminar 101 on basic roofing technology; Seminar 102 on "Roof Inspection, Diagnosis and Repair" and Seminar 103 on "Elasto/Plastic Sheet Applied Roofing Systems."

All attendees from a firm must be registered for identical seminars for that firm to qualify for the discount. For more details contact Susan Mathews at RIEI, 303/770-0613.

continued, page 20

It makes sense to recommend FOAMGLAS® roof insulation

When you finish the job, you want referrals... not callbacks

There are five good reasons for recommending FOAMGLAS® insulation to your customers.

1. Moisture in liquid or vapor form cannot penetrate FOAMGLAS® insulation and this ensures constant insulating efficiency. In new buildings or old, this means reduced heating and cooling equipment capacities and energy needs.

2. FOAMGLAS® insulation's low coefficient of thermal expansion means it won't expand or contract when temperatures fluctuate. This prevents a major cause of roof failure.

3. Strong, rigid FOAMGLAS® insulation stands up to roof traffic and

loads that can crush other insulating materials and result in damaged roof membranes and leaks.

4. FOAMGLAS® insulation is all glass, it cannot burn. This can help cut insurance rates and deductibles

for roofer and owner.

5. FOAMGLAS® insulation is installed using standard roofing procedures... it installs quickly, at a reasonable cost. Ideal for BUR or adhered single-ply systems.

The Best Reason of All

FOAMGLAS® insulation performs so well that, once the job is done, you'll get referrals... not complaints.

For more information on flat and tapered systems contact Marketing Department FB-4, Pittsburgh Corning Corporation, in the U.S.A., 800 Presque Isle Drive, Pittsburgh, PA 15239
Tel: (412) 327-6100.

Visit Us at
Booth 410/412
at the NRCA Show
in Atlanta, Georgia



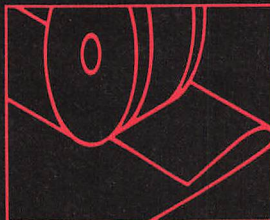
Check #618 on Reader Service Card

A ROOF IS ONLY AS GOOD AS ITS SEAMS.

It happens all the time. A roof has to be replaced because its sealing system couldn't take the heat. Or the cold.

Kendall has virtually eliminated this problem with the development of **Polyken™ LS Seaming Tape** and **Polyken™ Flashing Tape**.

Using a technologically superior sealing mechanism, Polyken Tapes combine with time proven EPDM rubber to form the **Polyken Roofing Systems**.



The product of years of research, **Polyken LS Seaming Tape** and **Polyken Flashing Tape** provide aggressive watertight bonds to ensure EPDM sheet seam and flashing seal integrity.

The **Polyken Roofing Systems** save money too, because they're fast and easy to install. Also, every contractor who installs a Polyken Roofing System has been thoroughly trained in its application. Plus, our roofing systems have a 10 year limited warranty.

So for re-roofing applications or new roof construction, specify **Polyken Roofing Systems**, with **Polyken Tapes**. The successful way to seal up your roofing problems.

For more information call: 800/225-2600. The Kendall Company, Polyken Roofing Systems, Boston, MA 02101.

KENDALL



Polyken™
ROOFING
SYSTEMS

Check #604 on Reader Service Card

NATIONAL NEWS

continued from page 18

UFCA offers discount on membership

The Urethane Foam Contractors Association (UFCA) is offering a 50 percent discount on its membership fee to attract new members.

The discount applies to all membership categories and will be in effect until March 1, 1984.

"The UFCA Board of Directors feels this move is needed in order to bring in new members now when the economy is still sluggish," Vernon "Skip" Lowe, UFCA's executive vice president, explained.

UFCA is geared to meet the needs of sprayed-in-place polyurethane foam insulation professionals. Membership is extended to contractors; raw materials manufacturers; foam, coating and equipment manufacturers as well as suppliers of related products; distributors; independent

sales representatives; government employees and academicians.

Members receive regular monthly mailings, a subscription to *UFCA Newsletter*, the quarterly *Urethane Foam Insulation* and a discount

on other UFCA publications and activities.

For more information contact UFCA, 300 Arcade Square, P.O. Box 1288, Dayton, Ohio.

RIEI changes newsletter

Changes from the name on down are being made to the newsletter of the Roofing Industry Educational Institute (RIEI).

The publication, retitled the "RIEI Information Letter" will focus on reference material and technical articles of interest to the roofing industry. Each issue will also have a page showing the current RIEI seminar schedule.

The cost of a subscription to the newsletter will be \$12 per year. RIEI explains that the cost of printing and sending the newsletter to its ever-growing mailing list makes it necessary to try to recover part of the expense.

Requests for a subscription to the "RIEI Information Letter" may be sent to RIEI Business Manager Susan E. Mathews.



THE WILDER WORKHORSE

SLIT A 10' STRIP OF 1/16" STEEL IN 7 SECONDS!

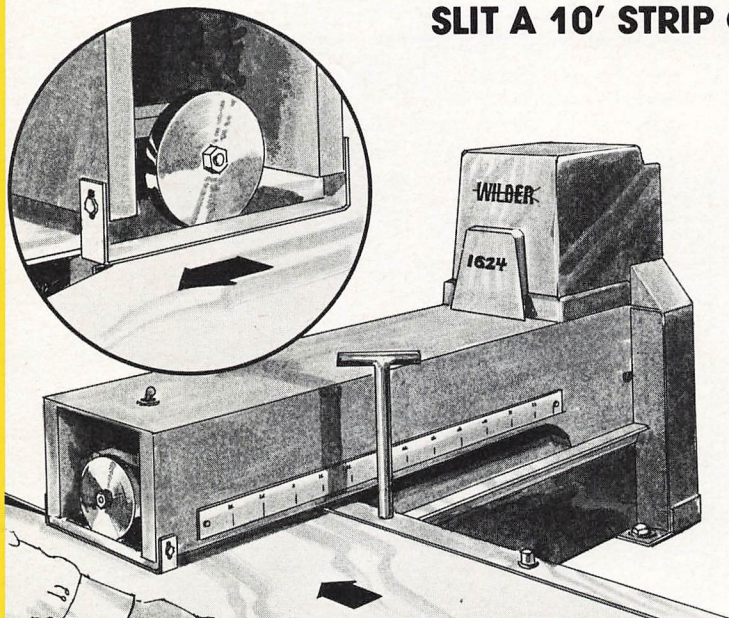
**Change the Width & Cut Again
in 10 Seconds**

Designed for fast, accurate cutting of metals, veneers, display board . . . almost any material which will accept shear cutting. Cuts any length . . . any width up to 24", with absolute accuracy.

ALL MODELS ARE SELF FEEDING

The blades pull the material so they leave no marks. No strain for the operator. The WORKHORSE does the work. Cuts the material, and cuts the job time too.

- FAST
- ACCURATE
- INEXPENSIVE
- PROVEN OVER 30 YEARS



WILDER

MACHINERY COMPANY
P.O. Box 1207 Salinas, CA 93902

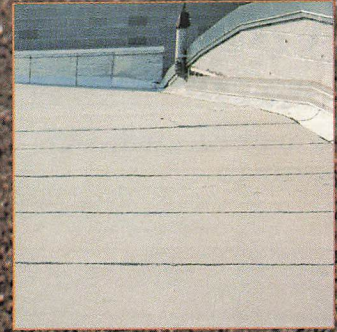
For Further Information
Call TOLL FREE (800) 245-0714
In Calif. Call Collect (408) 424-2236

Check #632 on Reader Service Card

Parafor 50LT

Siplast quality
in a single ply
elastomer modified
bitumen roofing
system.

Siplast's world of experience has been applied to the single ply needs of the roofing industry. The result is PARAFOR 50 LT, a single ply system that gives architects and specifiers a better choice. Siplast engineers and chemists have developed an elastomer modified bitumen that provides needed elongation and elasticity characteristics together with excellent resistance to the sun's ultraviolet rays, thermal shocks and extreme low temperature. They have also included a polyester mat to give the material both strength and a puncture resistance seldom found in a single ply.



PARAFOR 50 LT is engineered in such a manner as to give architects and specifiers great design flexibility. It can be applied with hot asphalt, cold adhesive or by torch to all slopes with drainage and over all standard roof decks and insulations.

PARAFOR 50 LT combines strength and flexibility with superior resistance to sun, freezing temperatures and other traditional causes of roof degradation. In addition, the granular surface of PARAFOR 50 LT gives you a choice of a wide variety of colors in a lightweight single ply that needs no gravel. It is guaranteed for a full ten years.



siplast



Call Today

For more information on the engineered excellence of PARAFOR or any of SIPLAST's time-proven roofing systems call: **1-800-643-1591**

In Arkansas, Call Collect:
501/246-8094

SIPLAST

Hwy 67S, Arkadelphia, AR
71923

Associate News

Heyman Elected GAF Chairman

Samuel J. Heyman was elected GAF Corporation's chairman and chief executive officer, replacing Dr. Jesse Werner who was defeated by a 58.3 percent vote of the company's shareholders. New directors and officers were also announced.

New directors include: Daniel T. Carroll of The Carroll Group, Inc.; Dr. Jacob E. Goldman of Medisystems Management Co.; Sanford Kaplan of Whittaker Corp., Intel Corp. and Cordura Corp.; William P. Lyons of William P. Lyons & Co., Inc. and Associate Professor at Yale University; Scott A. Rogers, Jr., of Publisher's Equipment Corp.; Edward E. Shea of Indels, Marx Davies & Ives; Joseph D. Tydings of Finley, Kumble, Wagner, Heine, Underberg and Casey; William Spier, private investor and Robert C. Wilson of the Memorex Corp.

The new board also voted to expand to 12 members and elected Robert H. Beber and Richard F. Smith, members of the previous board, to the new executive panel.

Beber and Smith were also re-elected as executive vice presidents. Other GAF officers re-elected were: John A. Brennan, senior vice president of building materials; Carl R. Eckardt, senior vice president of chemicals; Raymond J. Lacroix, vice president and treasurer; Salvatore C. Bellini, controller; Abraham Lindenauer, vice president; Robert F. McCarthy, vice president of chemicals and manufacturing and Raymond W. Smith, vice president of chemicals and marketing.

SYenergy Makes Personnel Changes

SYenergy Methods, Inc. of Rhode Island promoted one employee and hired another.

Larry Mills was appointed regional sales representative and is now responsible for developing sales in the mid-Atlantic states. Mills joined SYenergy five years ago. Previously, he was a sales rep for Norelco.

Barbara Imondi was named sales coordinator and is in charge of processing orders and coordinating inside sales.

Prior to joining the company in 1981, Imondi was an administrative assistant for Kelly & Picerne real estate developers.

Benoit Purchases New Insulation Plant

Benoit Industries, Inc. of San Antonio, Tex. has announced the purchase of Polymer Chemical Corp. in Santa Fe Springs, Calif.

Benoit is a wholly-owned subsidiary of Benoit, Inc.

Benoit Industries manufactures the BenCore line of commercial roof insulation.

The company has begun manufacturing the BenCore product line in its new plant. As with all Benoit Industries products, sales and marketing will be managed by Benoit, Inc. in St. Paul, Minn.

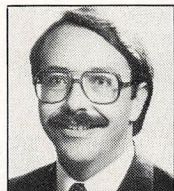
Phillips Fibers Signs Leslie Ad Firm

Phillips Fibers Corp. has named Leslie Advertising as its advertising agency.

Leslie will provide a full range of marketing communications services for the company, including market research, advertising and media placement, special promotions, collateral and public relations.

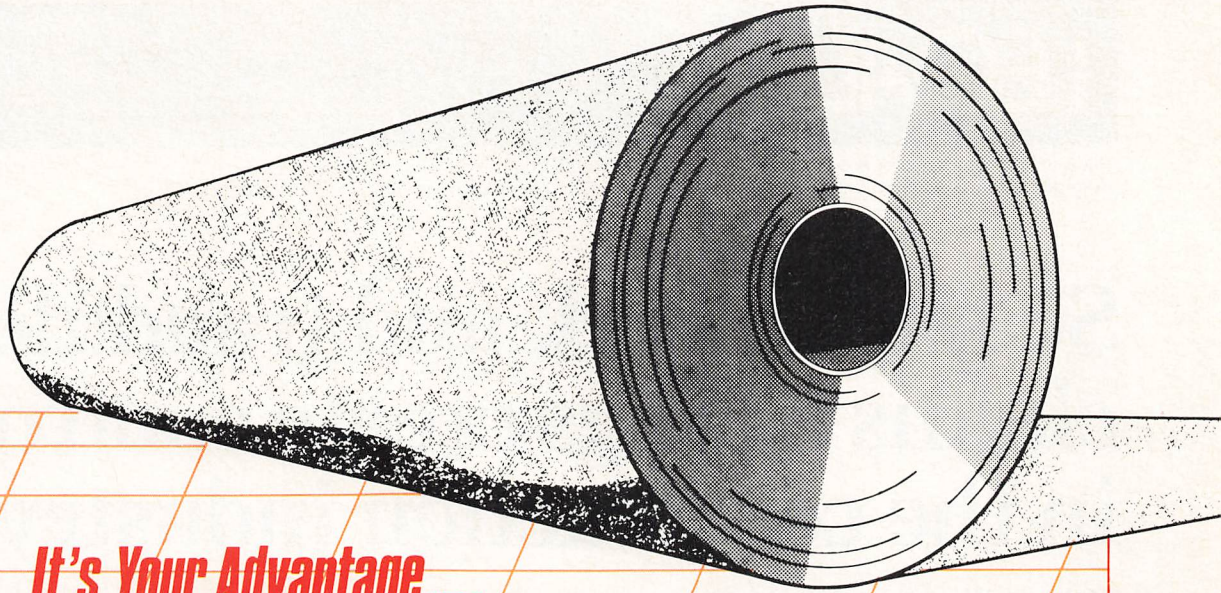
Phillips Fibers is a subsidiary of Phillips Petroleum and operates manufacturing facilities across the southeast. Its headquarters is in Greenville, S.C.

Lutz Joins Temple-Eastex



Mark S. Lutz has joined Temple-Eastex, Inc. as technical sales representative for rigid foam roof insulation products.

Prior to joining Temple-Eastex, Lutz was a sales rep for Celotex Corp. He has also worked with W.R. Grace & Co. and Buildex-ITW.



**It's Your Advantage
with KARNAK'S COLD PROCESS
ROOFING SYSTEMS and POLYESTER MEMBRANES**

- High tensile strength and toughness.
- High breaking elongation.
- Lightweight.
- High resistance to splitting or cracking from thermal shock, low temperatures, freeze/thaw cycles, folding, creasing and rough handling.
- Ideal for use in Cold Process Roofing Systems.
- Properties are not affected by water.
- Temperature resistance to continuous exposure up to 350°F (177°C).

Karnak Poly-Mat spunbonded polyester is a sheet product of continuous-filament polyester fibers that are arranged, highly dispersed and bonded at the filament junctions. Karnak's new Poly-Mats are interchangeable with any of Karnak's existing Cold Process Roofing Systems and can be used with either #78 Cold Process Adhesive, #220 Fibrated Emulsion or #330 Dead Level Emulsion Coating.

Karnak #3036 Poly-Mat "Lightweight"
(Dupont #2016 Reemay)

Available in the following sizes:

36" x 180' 9" x 180'
18" x 180' 6" x 180'
12" x 180' 4" x 180'

Karnak #3236 Poly-Mat "Medium Weight"
(Dupont #2024 Reemay)

Karnak #4236 Poly-Mat "Heavy Weight"
(Dupont #2033 Reemay)

Karnak #5236 Poly-P-Mat
(Phillips E3N Rufon)

Call Karnak for the name of your nearest local distributor:

TOLL FREE 800-526-4236
IN N.J. 201-388-0300

REEMAY
RUFON



KARNAK



KARNAK CHEMICAL CORPORATION

330 Central Avenue, Clark, NJ 07066
201-388-0300

See our complete product line at the Atlanta N.R.C.A. Roofing Convention, Booth 200-202.



This column was prepared for *Roofing Spec* by the law firm of Hendrick, Spanos & Phillips. The column presents information on legal matters of general interest. The text is necessarily generalized, and you are advised to consult with a professional legal advisor before taking any action.

Scope-of-work and fraudulent claims rulings create controversy in the construction industry

Field application of project plans and specifications

In the case of a typical fixed-price, "build-to-design" contract, the contractor's responsibilities are only to perform the work as reasonably indicated by the plans and specifications prepared by the design professional.

Unless it is expressly required in the contract itself, the contractor generally is not held responsible for performance of the completed work. If the project is properly constructed but does not *function* properly, the failure to function is not the contractor's responsibility. Consequently, you should be careful not to deviate from the requirements of the detailed plans and specifications in order to try to make something work. If you do, you may not only breach your obligation to build in accordance with the plans and specifications, but you may also assume the responsibility for its failure to perform in accordance with the intended purpose.

Because the contractor's compensation is limited to the agreed fixed price, it is mandatory to limit the work performed to only that within the *original* scope for which you contracted, as adjusted by subsequently issued and agreed upon change orders. The contractor must recognize that his scope of work is *solely* that which was reasonably indicated in the plans, specifications and contract documents.

A frequent scope-of-work controversy arises out of deficiencies or ambiguities in the plans and specifications. If the problem is considered "patent" (i.e., one that reasonably should have been discovered by the contractor before the bid was submitted), the contractor has a duty to ask about the perceived problem and to get clarification or other resolution *prior* to entering into the contract.

However, if the deficiency or ambiguity was a "latent" one (deficiencies not reasonably noticeable to the contractor during the pre-bid estimation process), the general rule is that such ambiguities are interpreted most favorably to the bidding contractor and most strongly against the party that drafted the document. In such a case the contractor is entitled to take the narrowest, easiest and least costly reasonable interpretation—and he should do so!

The contractor need only show that in assembling his estimate and bid, he interpreted it that way and that it was reasonable under the circumstances. He need not show that it was the best or most reasonable interpretation.

Thus, unless the contract documents are irreconcilably in conflict or clearly indicate a design problem, the contractor should read the specifications as narrowly as reason permits in defining and pricing his work.

The first step in the protection of remedies for the extra work is careful analysis and definition of the scope of work to be performed. This should be done by the contractor at the outset, and the definition of scope of work must be effectively communicated to and followed uniformly by all employees so that the contractor may present a unified front.

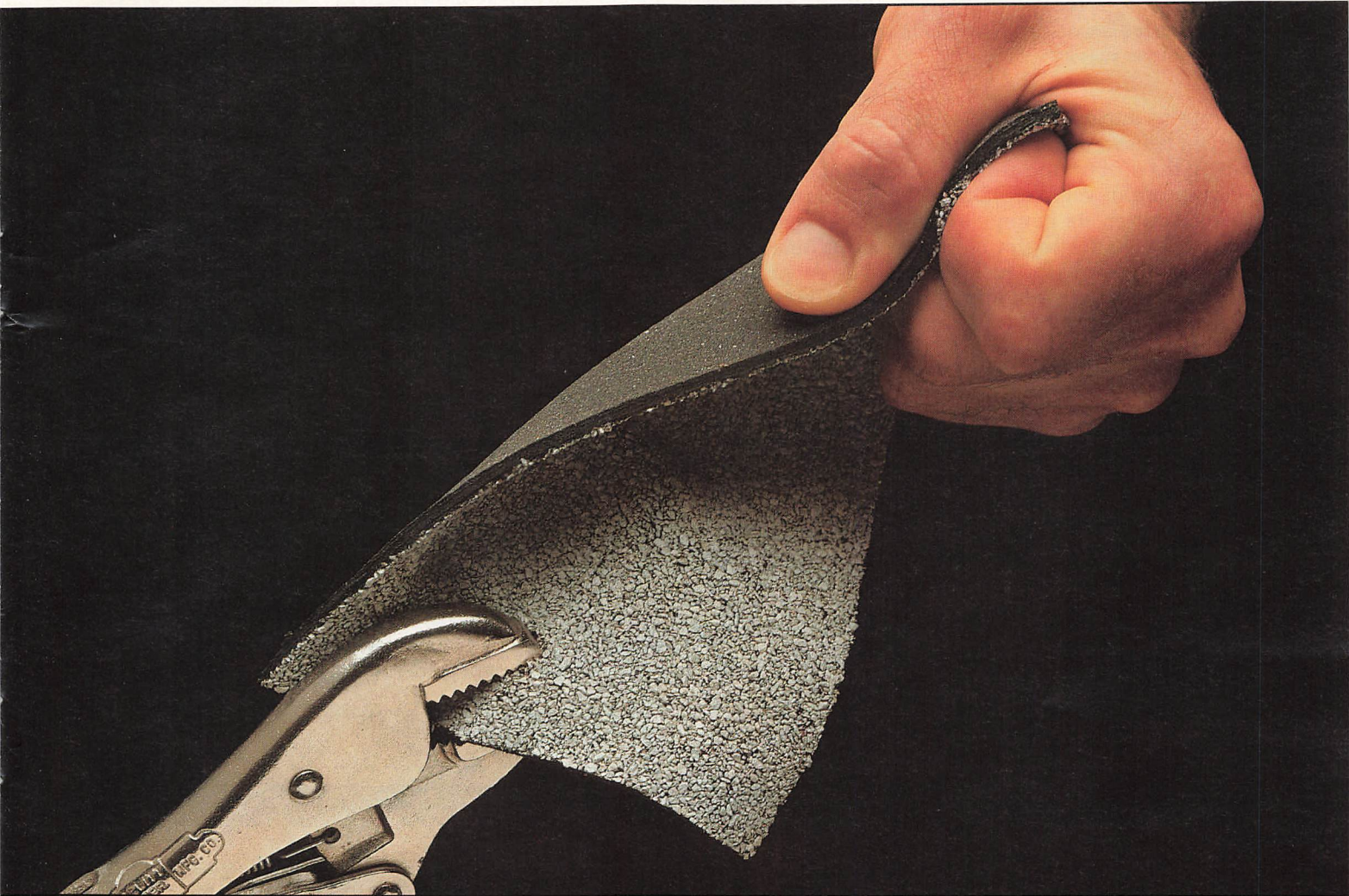
You should be careful to anticipate and recognize work or additional items of incurred direct or indirect cost falling outside such scope of work. Any work outside the contract scope of work should not be performed without taking proper steps to protect your rights to additional time or compensation. *Read your contract* and comply as strictly as practicable with the specified procedures for "notice," "changes," "claims" and "disputes." If you perform extra work without taking such precautions, you may be incurring unanticipated additional costs for which you will not be compensated.

When you are in doubt about whether requested work is within the scope of your contract or is extra work, perform the work as directed or required but reserve your right to request additional time or compensation by following all of the contract requirements. Afterward you can always elect not to pursue a claim for additional compensation or time, but if you have not taken the proper contractual steps, you may have no choice but to forego the claim.

When you request an adjustment to your contract as a result of a change, make sure you cover all elements of time and cost. Direct costs include labor, materials and equipment; indirect costs would include home office overhead and the costs of delay, disruption, ineffi-

continued, page 26

TAMKO AWAPLAN™ VS. THE LEGENDARY VISE-GRIP® LOCKING PLIERS



CAN A TAMKO AWAPLAN™ ROOF STAND UP TO A LEGEND?

Vise-Grip® locking pliers. In the hands of an average tradesman, their legendary strength and voracious teeth will gouge wood, bend steel, and rip tin like butter.

So how much damage could they do to our AWAPLAN modified asphalt roof? We tried twisting, bending, and pulling. Even ripping it. The results?



Twisting for Ambient Flex: No Failure.



Bending at 0°F for Cold Flex: No Failure.



Pulling for Tensile Strength: No Failure.



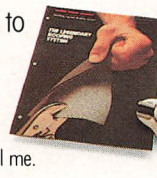
Ripping (just to be extra mean): No Failure.

In all fairness we then tried the same over-abuse with other roofing materials. The Vise-Grip® locking pliers lived up to their legend. The competition did not. But why take just our word for it?

PROVE IT TO YOURSELF.

O.K. Tamko, I want to see the results.

- Please send the newest AWAPLAN brochure.
- Have your sales rep call me.



TAMKO TOUGH awaplan™
Modified Asphalt Roofing System

NAME _____

TITLE _____

COMPANY _____

ADDRESS _____

CITY/STATE/ZIP _____

TELEPHONE NUMBER _____

Mail to: **TAMKO Asphalt Products, Inc.**

P.O. Box 1404, Joplin, MO 64802 417-624-6644

© 1983 TAMKO Asphalt Products, Inc. ® Vise-Grip is a registered trademark of Petersen Mfg. Co., Dewitt, NE 68341

Check #626 on Reader Service Card



continued from page 24

ciency and impact on the other work.

If you believe that a particular change will have impact on the cost or time for performance of other work but you cannot yet assess it, make sure you expressly reserve your rights in any "direct cost" change order proposal to claim later for indirect costs or time necessary to compensate for such impact. The general rule on pricing change orders is "price it" as part of the change or "preserve it" for later assertion.

New developments regarding false and fraudulent claims in federal procurement

Several recent, highly publicized federal procurement investigations into possible procurement "fraud" underscore the importance of careful and candid disclosure to the government of factual substantiation for prices sought by contractors (and subcontractors). The sanctions and exposure to liability that can be imposed on the contractors for such "fraud" can be substantial even under existing law.

Things may get even tougher in the future, however. Newly introduced United States Senate Bill 1566, "Program Fraud Civil Penalties Act—1983," proposes to provide an expeditious administrative civil penalty procedure that federal agencies may use to impose pen-

alties on parties submitting false, fictitious or fraudulent claims and statements to the federal government.

The scope of the bill is more expansive in its definition of "false claim" or "false statement" than any existing law. This statute would set up an entirely new and separate *administrative* procedure to be implemented by each government agency when it has "probable cause" to believe that any contractors (including subcontractors) or suppliers have submitted false claims

Senate Bill 1566 proposes to provide an expeditious administrative civil penalty procedure.

or statements. The administrative sanctions, which can be imposed through this process for anyone found to have "knowingly" made or submitted a false claim or statement, include a *civil penalty of up to \$10,000 for each false claim or statement*, together with an assessment of *not more than double* any amounts actually paid out by the government as a result of the fraudulent claim or statement and the amount of consequential

continued, page 28

Rent to Buy \$10.99 Per Hour



TAURUS WILL RENT YOU A COMPLETE CRANE SYSTEM*

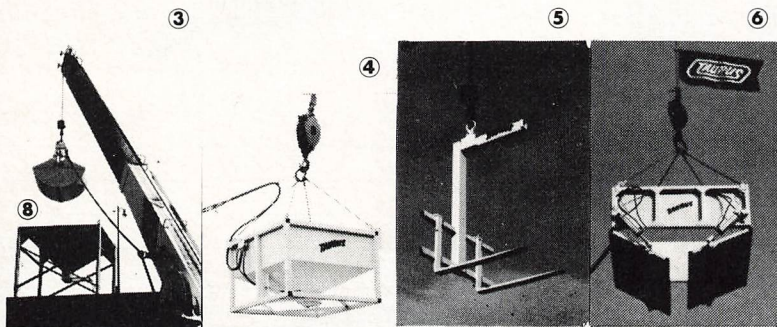
A large portion of the rental applies toward the purchase if you decide to buy.

TALK TO YOUR ACCOUNTANT ABOUT THE ADVANTAGES OF LEASE-PURCHASE VS. STRAIGHT RENTAL

Four Sizes Available — 8-17 Ton Capacity (up to 140' height)

*ITEMS INCLUDED

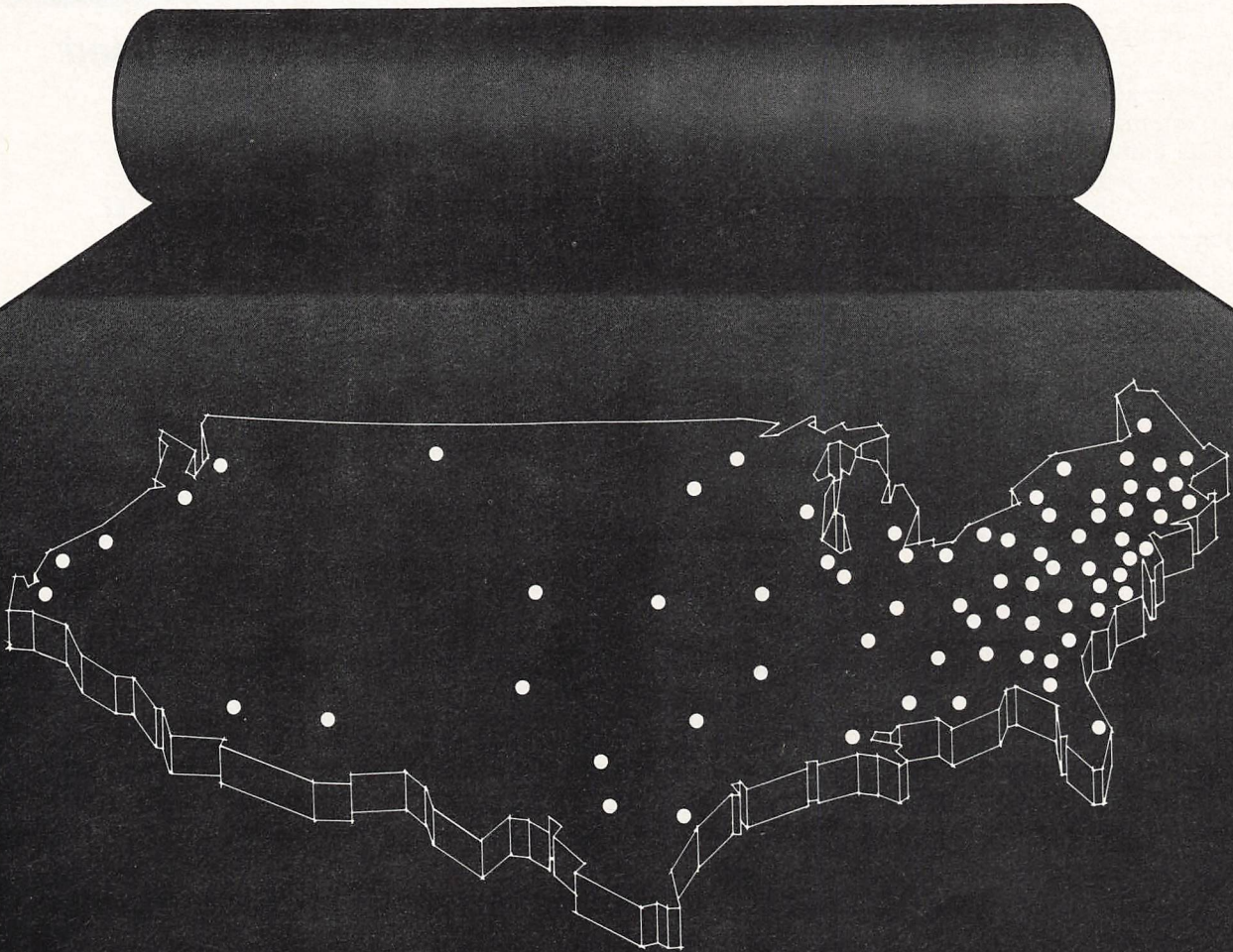
1. 1983 Ford Diesel
2. National 556 Crane
maximum lift capacity — 23,500#
boom height — 95'
full height — 2300/3800
(loaded capacity)
3. ½ Yd. Loose Material Clam Bucket
4. 1 Yd. Loose Material Clam Bucket
5. 4000# Pallet Fork
6. 2½ Cu. Yd. Steel Tear-Off Material Box
7. Nylon Lifting Straps.
8. 1½ Yd. Gravel Hopper



TAURUS
LIQUID ASPHALT SYSTEMS, INC.
2425 Jefferson
Kansas City, MO 64108 (816)474-0448

Reason **#1** to roof with Versigard from Goodyear.

FULL SERVICE DISTRIBUTORS.



An important reason to choose a Versigard® roofing system is the Goodyear-approved, full service distributor.

The 72 Goodyear full service distributors across the country are ready to serve you from start to finish.

Your Goodyear distributor can help you choose the best system for any job. He'll discuss advantages, quantities and application techniques. Tell you about new Goodyear ideas,

like cost-saving talc-free edges. Make sure materials, including insulation, are available when you need them. Offer advice and service once the job begins. And be there when the job is done.

For more good reasons to roof with Versigard, contact Bill Vobbe at (216) 796-4421 or write The Goodyear Tire & Rubber Company, Roofing

Systems,
1144 E. Market
Street, Akron, Ohio
44316.

GOODYEAR



damages (including the cost of investigating a false claim) incurred by the government. This penalty is much more severe than that which could be imposed under existing laws, and the existing laws require full *judicial* proceedings with attendant procedural protections for the accused party.

The administrative procedures created by the Act would be administered by the accusing agency itself and would not afford the accused party a right of "discovery" or "subpoena" power over individuals or documentary evidence (while the government officials are given this right). And, penalties can be imposed upon the government establishing its claims merely on the basis of a "preponderance" of the evidence (i.e., "more-likely-than-not") standard rather than the more difficult "clear and convincing" standard applicable to existing civil judicial penalty procedures under the False Claims Act, the forfeiture statutes and other existing statutory provisions. Moreover, the findings made by the agency head at such a hearing are final unless appealed to a Court of Claims, under the proposed statute. Even the Court of Claims standard of review is quite limited since the proposed statute provides that the findings of the agency "shall be conclusive" if they are supported

by "substantial evidence on the record considered as a whole." In other words, as a practical matter, only *legal* issues and not *factual* issues would likely be subject to challenge or appeal.

The breadth of coverage, the ease of accusation and prosecution of claim and the substantiality of the penalties under this proposed statute relative to existing law,

Penalties can be imposed upon the government establishing its claims merely on the basis of a "preponderance" of the evidence.

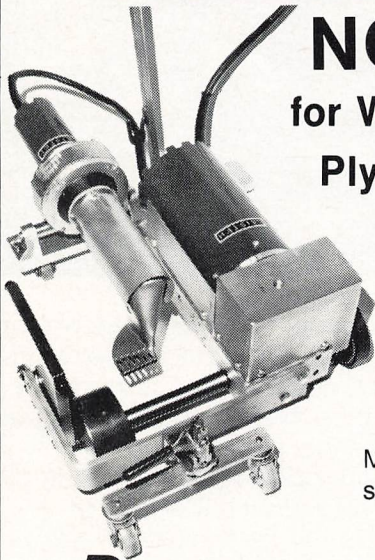
should be of significant concern to government contractors, subcontractors and suppliers. No one will argue that the government is not entitled to protect itself from outright fraud by contractors or claimants. However, any procedures for such protection should be more equitable and balanced than those proposed by Senate Bill 1566.



HOT AIR SEALING

VARIANT Automatic Sealer

NOW with Reverse Weld Accessory
for Welding Single
Ply Roofing along
the Parapet



**TRIAC HOT AIR
HAND TOOL**

Meets your hand
sealing needs

- Electronically controlled speed to 36 feet per minute
- Infinitely adjustable heat to 600°C.
- Double Insulated
- Portable
- Lightweight
- Inexpensive

COME SEE US



Atlanta, Ga.
February 14-17, 1984
Booths 1225,1227,1324,1326

CALL OR WRITE FOR BROCHURE NO. 12RS
DISTRIBUTORS' INQUIRIES INVITED

BW

brian r white co., inc.

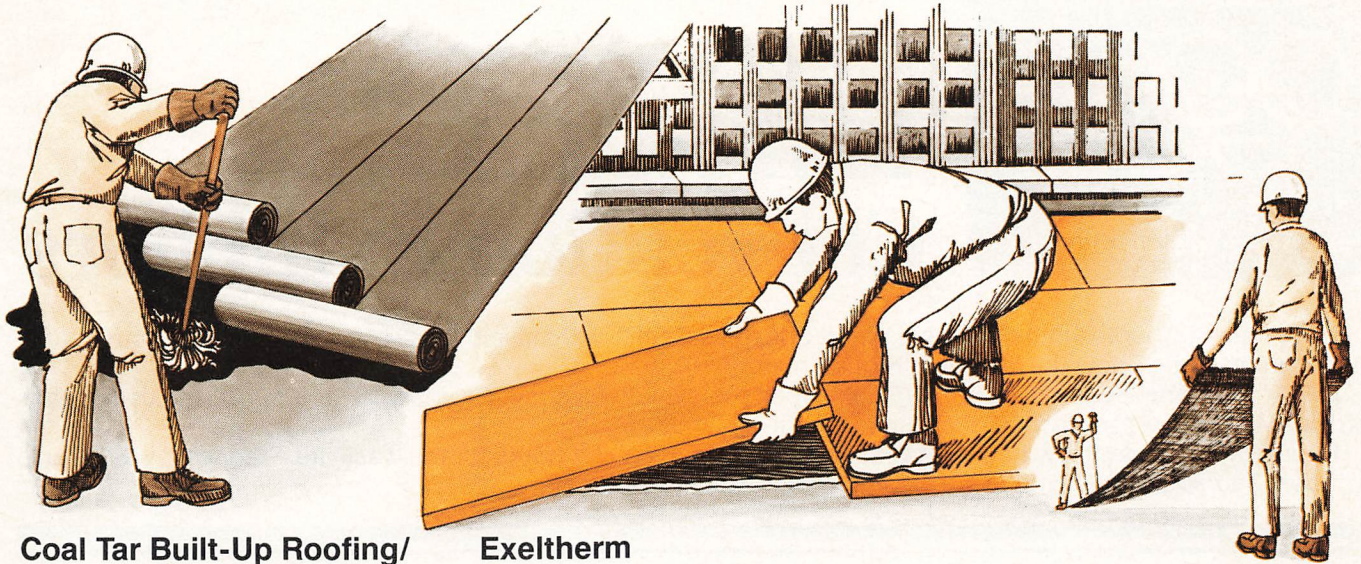
313 henry station road
ukiah, california 95482
(707) 462-9795

Check #631 on Reader Service Card

LEISTER

Koppers, the roofing people...

the experience and the products to satisfy all your roofing and waterproofing needs



Coal Tar Built-Up Roofing/ Waterproofing Systems

Proven on countless jobs since 1915. It's naturally resistant to moisture and oxidation, and its cold-flow, self-healing properties mean little maintenance and extended service life.

KMM® Membrane Systems

All-weather, cold-applied roofing/waterproofing systems for low sloped or steep roofs. Can be applied faster and more efficiently than other single-ply systems—using either the loose-laid or attached technique.

Exeltherm Xtra® Roof Insulation

A superior phenolic foam insulation board with extraordinary fire resistance and thermal retention properties.

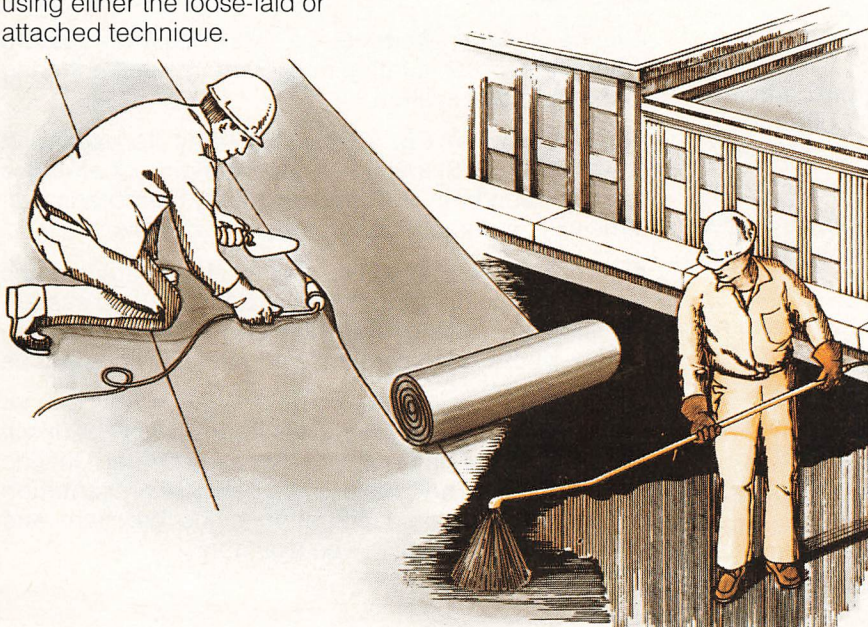
Roof Maintenance Products

A complete line of high quality products to extend the service life of commercial and industrial building roof systems.

Reinforcement Fabrics

Coated glass, jute, and saturated cotton fabrics are available to add strength to hot or cold applied bituminous coatings in much the same manner as reinforcement rods in concrete.

Take advantage of Koppers 67 years of experience in developing the most comprehensive line of roofing and waterproofing products in the field. Use the accompanying coupon to obtain additional information.



Send to:

Koppers Company, Inc.
Dept. 3-F
1901 Koppers Building
Pittsburgh, PA 15219

TBM-8301

Yes, have a Koppers representative contact me.

Please send more information on:

Name _____

Company _____

Address _____

City _____

State _____

Zip _____

Area Code _____

Phone _____

KOPPERS

Architectural and
Construction Materials

Check #605 on Reader Service Card



1984 NRCA Convention Exhibitors

More than 650 booths in the Georgia World Congress Center will make the 1984 National Roofing Contractors Association Trade Show the largest in roofing history.

NRCA President Burton Karp will officially open the exhibit Tuesday, February 14, at 6 p.m. Early convention arrivals will have a "preview" of the displays until 7:30 that evening.

Hours for the Trade Show have been expanded this year. Exhibit hours for the week are. Wednesday, 8:30 a.m. to noon; Thursday, 12:30 p.m. to 6 p.m. and Friday, 8:30 a.m. to noon.

AEP-Span (240, 242).

Aeroil Products Co., Inc. (705) will present the state-of-the-art equipment for the "hot," built-up roofing contractor.

AGR Co. (1445, 1544) will feature its ALPHAGARD polyisobutylene single-ply membrane which is available in reflective white for energy savings and standard black as a premium 60-mil system.

Ahrens Chimney Techniques, Inc. (122, 124) will present its relining system for new and existing masonry chimneys. The product consists of a first liner, which adds structural stability and insulates, and a second liner which is acid-moisture resistant.

Air Vent, Inc. (343).

Alkor Div. of Solvay (1101, 1200).

Allroof International, Inc. (318) will feature the complete Belroof system. It includes two modified bituminous single-ply roofing membranes, the SD-4 and the SD-4M.

American Associated Companies, Inc. (1031, 1033, 1035 & 1037) will display its complete line of cotton and fiber glass yarns and made-up heads along with waterproofing rollers and frames.

American Buildings Co. (1341) will feature its standing seam metal roof system, complete with a sub-structural system and thermal insulation.

American Hydrotech, Inc. (1422) will present its complete line of waterproofing and roofing products.

American Roofing Corp. (1122) will feature modified bituminous membranes including 4mm ARC Premium and 4mm ARC Granular. Both are polyester reinforced and 4mm ARC Aluminum is fiber glass reinforced.

American Steinweg Co., Inc. (1533, 1535, 1537 & 1539) will feature its ladder and platform hoists specifically designed for the roofing and construction industries. The Mobilift, the Toplift and the Superlift will be highlighted.

American Western (1435).

Amspro Products, Inc. (322) will feature its Uniflex Aluminum Roof Coatings, in addition to its complete line of black asphalt and tar base primers, cements and other coatings.

Annith Engineering Co., Ltd. (1541) will present its complete range of Concrete Roof Tile Machinery, from the relatively inexpensive AE 380 machine to the automated CA 100.

Apache Building Products Co. (1131, 1133) will feature White Line roof insulation and "Sam," its self-adhering roof membrane system.

ARCO Chemical Co. (517) will display its expanded polystyrene (EPS) insulation for roofing. Cost effective use of EPS in both BUR and single-ply membrane systems will be demonstrated in several models.

Aro Corp. (1436, 1438) will display its air-operated pumps for dispensing bonding adhesive and lap seam sealant for single-ply roofing. Maximum control, increased efficiency, operator convenience and time savings will be demonstrated.

Asphalt Roofing Manufacturers Association (1320) will feature the Built-Up Roofing Information Center. Generic information on BUR, including a new A/V presentation on the subject, a specification guide brochure and other useful material will be available.

Associated Foam Manufacturers (400, 402) will exhibit its contour taper tile system, which is a custom-designed, slope-to-drain and roof insulation system. It is made of lightweight expanded polystyrene.

Atas Aluminum Trim & Shapes Corp. (1042, 1044) will present its attractive, strong and lightweight roof panel which has a special locking system for easy installation.

Atlas Bolt & Screw Co. (1348) will exhibit its product line, featuring the Kwik-Deck mechanical fastening system for attaching insulation to wood or steel deck. Atlas will also present its At-Con screws for attachment to concrete and Kwik-Con plastic fasteners.

Atlas Building Materials (1005, 1007 & 1009).

Babcock/Davis/Hatchways, Inc. (104).

Barra Corp. of America, Inc. (647, 648) will display its full line of Braas Rhenofol PVC single-ply. Barra will introduce the new, higher energy efficient "BRAAS WHITE" CV48 PVC single-ply.

J.P. Benjamin Equipment (1231, 1233, 1235, 1330, 1332 & 1334).

Benoit, Inc. (74, 75) will feature its BenCore "Vent It," a rigid isocyanurate roof insulation with a self-venting facer assembly designed for the direct application of BUR and modified bitumen.

Berridge Mfg. Co. (744) will present its architectural metal products for roofs, walls, soffits, facades, mansards, equipment screens and reproductions for restoration. Berridge will also feature its TEE-PANELS standing seam system.

Berryfast, Inc. (943, 945).

Bilco Co. (316) will show a model S-50 aluminum roof access scuttle, modified as an S-50SV single-leaf automatic fire vent and a type DSH4848-AA, double-leaf aluminum automatic fire vent. Bilco will also exhibit the recently introduced Model LU-1 LadderUP.

Binkley Building Products (1536, 1538) will present its metal wall systems and a new standing seam roof panel called Insta-Lok.

Bird, Inc. (327) will display its line of fiber glass-based asphalt roofing products.

Bitogum S.p.A. (1408, 1410).

Bitumec Engineering (946).

Bituminous Materials (736).

Blackwell Burner Co. (401).

Boato Tecsystem S.p.A. (1444) will display a scale model of a complete single-ply production plant. The Italian firm is a manufacturer of modified bitumen membrane plants.

Bond Cote Systems (131, 133) will feature its Bond Grey™ 35 single-ply roofing system, which is made of a thermoplastic polymeric alloy and reinforced with Fiber-Loc™, a high tenacity, low elongation Celanese Fortrel® Polyester fiber.

Bostich, Div. of Textron (1318).

Bowe Co., Inc. (1217, 1219 & 1221) will present DIBITEN, an Italian-produced bituminous roofing system, manufactured in varying thicknesses with a polyester or fiber glass core.

Briggs & Stratton Corp. (1023) will feature its industrial/commercial engine line. Included is a new 10 H.P. cast iron Model 243457, with 6:1 gear reduction and electric starter, suitable for LP operation.

Buildex Div./ITW (1025, 1027, 1124 & 1126) will feature its all new Accudrive® XL Stand-up Screwgun, equipped with the easy change bit feature.

Building Design Journal (347).

Cal Gas Corp. (1529, 1531) will present its LP-Gas and gas-related equipment for the roofing industry. Cal Gas will provide a free computer printout on the cost comparison of propane carburetion vs. gasoline.

Cal-Shake (320).

Canfield Industry (1540, 1542).

Carboline Co. (1327) will feature Chem-Elast® elastomeric coatings for urethane foam, Carboline PIB single-ply sheet membrane systems, Toch waterproofing material and Roof-Flex® elastomeric membranes.

Carlisle SynTec Systems (823) will present its Sure-Seal™ Total Roofing Systems. Ballasted, totally adhered or mechanically attached, Carlisle roofs are available in EPDM, neoprene and butyl. The company also offers insulation, fasteners, flashings, adhesives, edging and counterflashing.

Carpenter Insulation & Coatings Co. (1322) will present its single-source warranted, surface-applied polyurethane insulative foam, an elastomeric coating system and application equipment.

Cascades, Inc. (1220).

Cel Hydraulic, Inc. (845).

Celotex Corp. (717).

CertainTeed Corp. (813) will feature Certaglass, an asphalt-impregnated fiber glass built-up roofing ply sheet. For residential roofing, CertainTeed will present Hallmark Shangle®, Independence Shangle®, Horizon Shangle™, Glasstex®, Glassguard® and Sealdon®.

Chem-Hart (1020).

Ciro Roofing Products (221).

Clark-Cutler-McDermott Co. (1223) will exhibit Clarmac-RM, a non-woven fabric consisting of manmade fibers. The product consists of a polyester mat impregnated with asphalt.

Classic Products, Inc. (1302, 1304) will display its rustic shake shingle in eight colors, including the new "Weathered Wood" series. The shakes have a molded urethane backing to give additional rigidity and energy conservation.

Clearfield Conveyors, Inc. (416, 418, 420, 422, 424 & 426) will display the LN-77 Conveyor. With the articulating boom, it has a discharge height of 53 feet and extends to a length of 77 feet.

continued on following page

Exhibitors

continued

Cleasby Manufacturing Co. (723).

CNA Insurance (406, 408) provides business insurance coverage for property, liability, workers' compensation and business auto along with additional coverage specifically designed for roofing contractors through NRCA.

Columbia-ABECE, Inc. (1038) will present the Skandia line of complete, concrete roof tile plants to produce modern, low cost roof tile, from 5,000 to 45,000 units a shift.

Columbine International, Ltd. (345, 444) will present Zinser Hot Air Welding Equipment and accessories, featuring the Zinser K-75/K-76 Dragon Automatic Welder and the K-5 Hand Held unit.

Concord Management Systems, Inc. (1340) will exhibit its comprehensive, computerized management information system for the roofing contractor. The computer will demonstrate effective job-costing techniques, fast and accurate take-offs for estimates and an accounting system.

Conklin Co. (1117, 1119, 1216 & 1218) will present its liquid-applied and single-ply roofing systems including Rapid Roof, Polymate liquid-applied system; Rapid Ply membrane and Master Bond hypalon single-ply.

Consolidated Fiber Glass Products Co., Inc. (331, 430) will display its complete line of fiber glass roofing systems. The featured product will be Super II, the Conglas Modified Bitumen System. Conglas insulations and accessories will also be displayed.

Consolidated Protective Coatings Corp. (227) will outline a new roofing system that can be used for original construction, roof retrofit or roof maintenance. The new system, consisting of three products, is called the "Top Team."

Construction Fasteners, Inc. (231, 233, 330 & 332) will highlight the new and improved DEKFAST roof insulation fastening systems. CONFAS masonry anchors will also be featured.

Contractors Guide (1206).

Cooley Roofing Systems, Inc. (831, 833, 835, 930, 932 & 934) will feature its Cool Top 40 Single-Ply Membrane Roofing System. Cool Top 40 is a white, 40 mil CPE extrusion-coated polyester single-ply system, designed for fully-exposed installations through mechanically fastening on flat, sloped or curved roofs.

Cornell Corp. (941) will exhibit ThermaCal nail base roof insulation. ThermaCal is urethane, combined with wafer-board, to form a base for shingles and shakes. Samples will show ThermaCal's exclusive shiplap edge.

Christalhope, Inc. (1336, 1338) will feature its INDUROL WATERSEALER, a monocomponent elastomeric roofing material which is U.L. Class A fire retardant and applied by brush, roller or spray.

Charles A. Crosbie Lab., Inc. (1047) will present the Crosbie CC-1000, which provides stain-free removal of asphalt, grease and oil from concrete, brick, equipment, clothing and hands—safely and easily. CC-2000, CC-2001 and CC-3000 will also be featured.

Daly Protective Coatings (117) will feature its EPDM roofing system, which is a cold-applied process composed of a polyester membrane in a polymeric asphalt compound. Asbestos-free roof coatings and cement will also be presented.

Danosa Caribbean, Inc. (1418, 1420) will highlight its SBS Modified Bitumen Membranes, reinforced with polyester or fiber glass mat. The membranes are finished with mineral granules, sand and/or polyethylene film. They can be torch fused or hot mopped.

Decks International, Inc. (936) will feature the Versarroof® Framing System for mansards, fascias and equipment screens. The Versarroof® Re-roofing System will also be presented.

DeSoto, Inc. (1107, 1109) will display Fluoropon®, a Kynan® 500 premium coating for metal roofing.

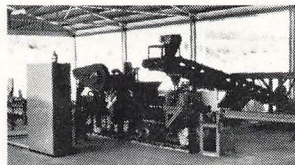
continued, page 34



ANNITH ENGINEERING CO. LTD.

Manufacturers of Concrete Roof Tile Machinery

Tiles are a rapidly expanding and profitable market.



- We build and install the machinery.
- We supervise initial production and train the personnel.

EXHIBITING
IN
ATLANTA
FEB '84

ANNITH Engineering Company Ltd. Halleaths Lochmaben Scotland TLX. 778779
An Associate Company in the Annandale Group

Check #582 on Reader Service Card

Reimann & Georger.

The leader today...The leader tomorrow.

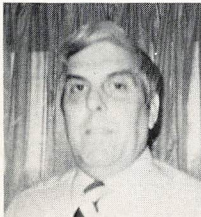
Today, roofers internationally rely on R&G's quality, job-proven products and leadership in the origination, design and engineering of ever more efficient, safe hoisting equipment to boost productivity.

Tomorrow, roofers will continue to depend upon R&G for other innovative, high performance products like the new hydraulic power unit, the HydraPak.



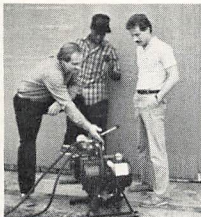
"During a recent three month period we used the R&G HydraPak & Winch in conjunction with R&G Trolley Hoist frames on several commercial and housing projects ranging from 4 to 11 stories high. Pound for pound, I have never seen a more valuable piece of equipment. It just runs all day at a constant speed, regardless of the weight of the load. We had a few minor problems; but not one of them cost us even a minute of lost time."

Mark J. Sobeck, President
Sobeck Corporation Contractors - Wyoming, Pennsylvania



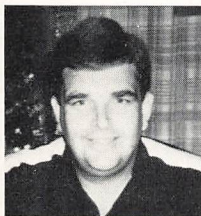
"During our 85 years in the roofing business we have found material handling a costly phase of operation. The quality, the engineering, and the dependability of the R&G Trolley Hoist has helped us reduce these costs considerably. Also, because of our concern for the safety of our employees, the safety features of the Trolley Hoist has been another reason for choosing R&G products."

William G. Nolder, President
Rupert Gruber & Company - Buffalo, New York



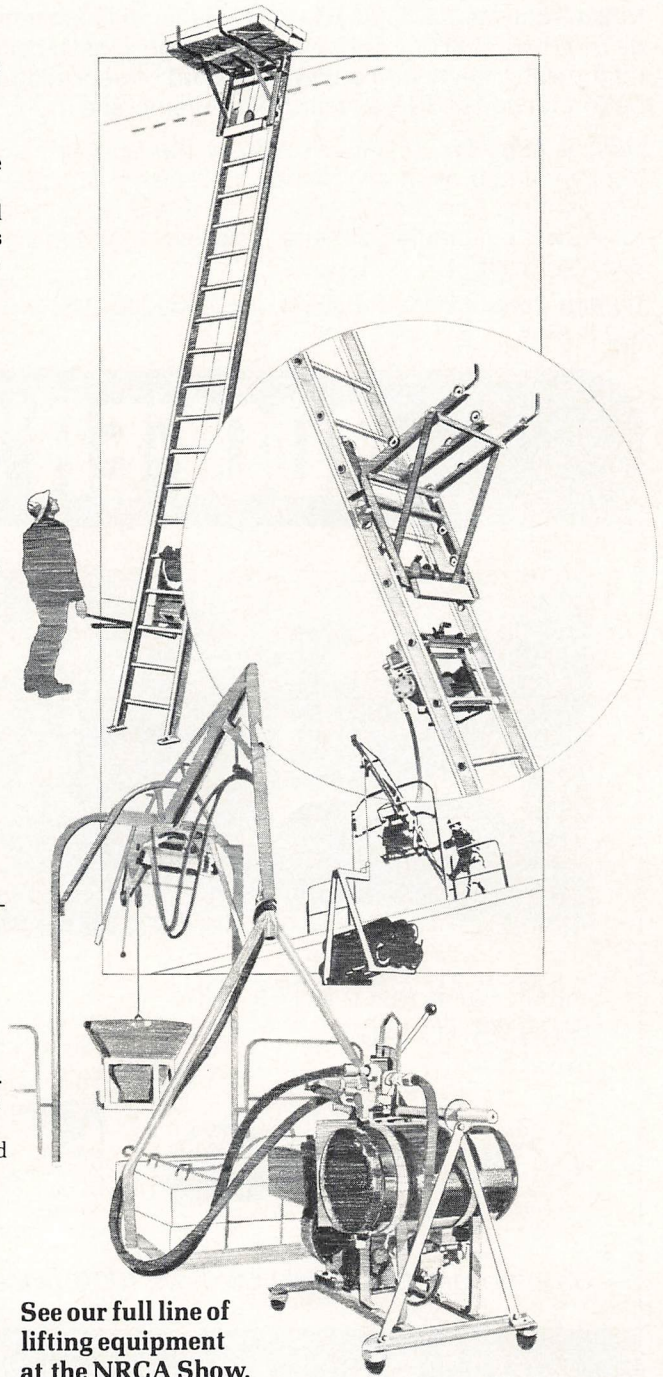
"R&G has always been, and will continue to be, the front runner in the design of the platform hoist because of the unit's simplicity, ease of operation and low maintenance costs. R&G has always been extremely responsive to any field problems. R&G is a manufacturer that does stand behind its products. We feel very comfortable with them."

Rick Brauner, President
Brauner Equipment - Baltimore, Maryland

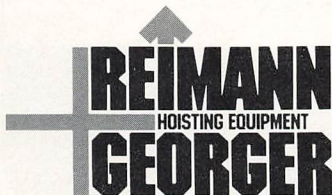


"We have had excellent results with the new R&G HydraPak. The unit powers R&G as well as competitive hoists with very positive results. We are loyal to R&G because they offer only the highest grade products, factory service and response to field problems which is unsurpassed in the industry."

Bud Joy, President
Frank P. Frey & Company - Melrose Park, Illinois



See our full line of
lifting equipment
at the NRCA Show,
Booth No. 1407-1413.



P.O. Box 681, Buffalo, New York 14240 (716) 895-1156

Check #621 on Reader Service Card

Exhibitors

continued from page 32

Digital Systems of Fla. (1425, 1427) will exhibit its mini-computer turnkey systems for the accounting and construction professions. DSF's turnkey systems consist of proprietary software, matched with Digital Equipment Corp. minicomputers and sold as a complete package.

Dodge/SCAN (119, 121).

Dow Chemical U.S.A. (61, 62, 1424 & 1426) will highlight its STYROFOAM brand insulation, a tough, closed-cell, rigid plastic foam with a 35-year record of successful performance for BUR and single-ply membrane roofs.

Dunbar Mfg., Inc. (1146) will display the Dunbar/Tico truck-mounted hydraulic cranes for delivery of palletized roofing. The cranes enable the dealer to unload full pallets of shingles, either ground level or on top of a two-story roof.

Dunlop Construction Products, Inc. (241, 243, 245, 340, 342 & 344).

E.I. Du Pont de Nemours & Co., Inc. (300, 302) will feature its REEMAY® spunbonded polyester reinforcing mat for commercial BUR systems. REEMAY® is lightweight, easy-to-handle and easy-to-install.

Duro Last Roofing, Inc. (101, 103) will present a 30 mil thermoplastic-coated polyester fabric that resists ultraviolet rays, microorganisms, chemicals, acids and is not affected by heat or cold.

Dynamit Nobel of America (447, 448, 546, 547 & 548).

Elastizell Corp. of America (1148) will exhibit ELASTIZELL Insulating Roof Deck System for positive drainage, fire resistance and as a solid base for both BUR and single-ply roofing systems.

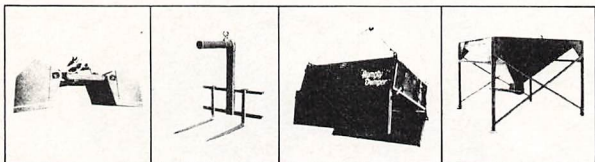
Elco Industries (1522, 1524).

continued, page 36

ROOFER'S CRANES



4 CAP. AVAILABLE 8-17.5 TON
(BOOMS TO 140')



RENT TO BUY \$10.75 per/hr.

Giuffre Brothers will rent you a complete Roofers Crane Package!

All of your rental, less an interest charge, will be applied toward the purchase when you decide to buy.

ITEMS INCLUDED:

1. 1984 IHC, GMC or Ford Diesel Truck
2. RO or National Crane 23,500 lb. cap.
3. Giuffre Series 3 Clam Bucket 1 yd.
4. 4000 lb. Pallet Fork
5. 3 yd. Steel Humpty Dumper
(no aluminum junk)
6. Roof Top Hopper
7. All necessary equipment for a package.

Save thousands on freight! We have 100+ cranes located throughout the USA and Canada.

**GIUFFRE
BROS. CRANES**

RENTALS
SALES & SERVICE
9770 South Ridgeview Drive
Oak Creek, Wisconsin 53154
(414) 761-2300

Check #598 on Reader Service Card

COME TO BOOTH 1532-1534
AT THE NRCA CONVENTION.
FEB. 14-17, ATLANTA, GA



Monsey brings you ENDURE™. It's the first complete polyester roofing system under one roof.

Now you can do perfect reroofing jobs. Even if it's your first time with single ply.

ENDURE isn't just a convenient collection of components. We've formulated the mastic and coatings to be compatible with each other — and with Du Pont polyester cloths that are superior in elongation and flexibility. As a complete system, ENDURE offers advantages.

ENDURE is a labor saving system.

You'll save up to 30% of the time you'd spend on BUR. Part of that time-saving comes from not having to wait for built-up layers to cure; part comes from the simplicity of application.

ENDURE improves your profit.

You don't have to expend so many man-hours. You don't have to expend so much material. You can match any BUR job for quality and longevity; so you're talking BUR profits without BUR's costs.

ENDURE gets you more jobs.

You can beat BUR quotes anytime. You can promise just as much quality for a lower price.

You can work faster, do more jobs. In short, you can be bigger in your own market than ever before.

All together now.

A) The most researched and tested polyester roofing cloths. They're molecularly compatible with both asphalt and solvent-based coatings.

B) Two choices of coatings: Monsey's water and clay-based emulsions, or, Monsey's specially formulated solvent-based asphalt coatings.

PRO-GRADE: New from the most complete line of roofing products anywhere.

Look into Monsey's new PRO-GRADE line of roofing products for contractors only. It's the latest addition to the solvent-based coatings, adhesives and aluminums developed during 40 years of service to the roofing industry.

Monsey products come to you from six manufacturing locations and a nationwide distributor network. For information contact Monsey Products Company, Cold Stream Road, Kimberton, PA 19442.

M **monsey products co.**

Monsey Products, Cold Stream Road, Kimberton, PA 19442
215-933-8888, 800-523-0268

Check #611 on Reader Service Card

Exhibitors

continued from page 34

Envirospec, Inc. (141).

ERD Systems, Inc./Burke (107, 109) will exhibit Burkeline mechanically-fastened and adhered Hypalon roofing systems for assorted applications. A wide variety of colors, thicknesses and physical characteristics allow for a broad selection of systems to choose from.

ES Products (1201, 1203) will demonstrate its self-locking fasteners; the Capped ES/nail for securing roofing base plies to structural wood fiber and cement fiber decks, the Nail-Tite for anchoring base plies of BUR to poured gypsum concrete and the Riv-Nail for securing rigid insulation board to metal roof decks.

ESE Machines (112) Ewald Stellrecht offers the state-of-the-art in rollforming panformers and seamers. The current line includes panformers for standing seam and one-piece batten pan, cap machines for snap-on batten and standing seam, expansion cleats and automatic seamers.

Estimation, Inc. (333) will exhibit the CONTRACTOR I computerized estimating system for roofing contractors and other construction trades. The Concept E conceptualized estimating program will be featured.

Evans Products Co. (91, 92) will display its complete line of fiber glass BUR membranes, rigid insulation, adhesives and coatings. In addition, Evans will also feature the Permaglas talc free EPDM single-ply roof membrane with a full line of accessories.

Evergreen Slate Co., Inc. (913) will exhibit roof lay-ups of its Vermont Roofing Slate in all colors. Slater's tools will also be presented, including rippers, hammers and the ESCO slate cutter.

Everhart Associated Services (1346) will present a line of 18 gauge spun aluminum seamless roof vents and pitch pockets from Bo-Dan, a Division of Collins Metal Spinning.

Fabco Fastening Systems (1011, 1013, 1110 & 1112) will feature its new Factory Mutual approved PLATE-FIXX® Insulation Fastening System, patented plastic plates, CON-FIXX® thread-cutting screws for concrete, toggle bolts and a complete line of stand-up setting tools.

Fabral Div. of Elcan Building Products (339).

Fashion, Inc. (1308) will display architectural metal roofing panels and mansard fascia panels.

J.T. Feeney, Inc. (1347).

Firestone Industrial Products Co. (523) will feature four single-ply roofing systems, ballasted, adhered, mechanically anchored and Firestone's new, non-penetrating mechanically anchored system, FasTrac.™

Flame Engineering, Inc. (441) will display the complete line of Red Dragon roofing torches. The new SPA 530L liquid propane-fueled, modified bitumen applicator will be featured.

Flex-Shield Corp. (100, 102) will exhibit its F.A.R. Mark I and F.A.R. Mark II elastomeric roof systems. The systems are flexible, lightweight, and may be applied over most roofing surfaces.

Foam Tech (446).

Follansbee Steel Corp. (1313).

Foremost Manufacturing Co. (1207).

Forplast U.S.A., Inc. (1520) will present its automatic overlap welder and the roofing quick gun.

Fry-Reglet Corp. (840) will present its complete line of roof reglet and flashing systems used in conjunction with concrete, masonry and stucco. The reglet and flashing systems are fabricated from a wide range of materials including galvanized steel, stainless steel, aluminum, MZ-80 and copper.

FSC (223, 225) will exhibit its rigid, cellular polyurethane insulation systems, elastomeric weather protective coating products and surface primers of various generic types.

Futura Coatings (208, 210) will feature the Futura-Ply liquid-applied, single-ply membrane system for BUR work. In addition, Futura will present its complete line of high strength, high performance elastomeric coating systems for polyurethane foam insulation.

GAF Corp. (1141, 1143, 1145, 1240, 1242 & 1244) will highlight its SUPER SYSTEM, a combination of BUR and EPDM products and accessories for the roofing industry.

Gardner Asphalt Corp. (939).

Garlock Equipment Co. (531, 533, 535, 537, 539, 541, 630, 632, 634, 636, 638 & 640) will feature the heavy duty Kettle line—115 gallon through 780 gallon. Garlock will also show a complete line of On Deck Roofing and Reroofing equipment, spotlighting the R-800 Riding Workhorse. The 72' Conveyor and Hydraulic Hoist with accessories will be on display.

Gates Engineering Co. (1111, 1113, 1210 & 1212) will highlight its seven distinct single-ply sheet roofing application techniques, using EPDM and neoprene. Gates will also provide information on liquid urethane/IRMA installation procedures and liquid neoprene/Hypalon roofing systems.

Gedaco USA (317, 319) will present the Gedagom Continuous Filament Polyester, a waterproof bitumen-polymer membrane. The product is a prefabricated membrane which consists of a nonwoven fabric of a high resistance continuous filament polyester, thermally stabilized, isotropic and rot proof.

Geissler U. Pehr (1431, 1433 & 1530).

General Tire Building Products Co. (631, 633, 635, 730, 732 & 734) will feature GenFlex EPDM and GenSeal PVC Roofing Systems, with three "unballasted" U.L. Class A EPDM systems, plus the Disc Anchoring system for fast installations and spotlighting White EPDM as an energy and aesthetic medium.

Genstar Building Materials Co. (1230, 1232) will exhibit roofing, organic and glass; modified asphalt roofing; laminated shingles and its commercial specification manual.

Georgia-Pacific Corp., Bldg. Products (1440, 1442) will present its product mix—everything from standard shin-

gles to fiber glass felts, roof insulations to roll roofing, accessories and complimentary building products.

Georgia-Pacific Corp., Chemical Div. (445) will feature its expandable polystyrene resin, which is marketed to block molders for production of EPS insulation board. EPS insulation is a closed-cell, lightweight, resilient foamed plastic.

Gerard Tile Co. USA, Inc. (63, 64) will feature its Gerard Tile Superroofing Tiles, manufactured from 26-gauge galvanized steel. Acrylic resin is sprayed onto the tile, then natural graded stone chips are sprayed into the resin surface. An acrylic clear overglaze is then applied, and the tiles are oven cured.

Giuffre Bros. Crane, Inc. (607) will highlight its 11-ton capacity, truck-mounted hydraulic crane. The following accessories will also be displayed: clam-buckets, tear-off box, roof top gravel hopper, adjustable pallet fork, gravel bucket, trailer hitch and toolbox.

continued on following page

JIMCO BREATHER VENTS



THE JIMCO BREATHER VENT

THE BALLARD JL-10

THE JIMCO SP-60

THE JIMCO UF-13

THE JIMCO HT-20

THE JIMCO CJ-30

THE JIMCO VJ-2

At Jimco Products we understand the importance of proper ventilation in all type roofs. That's why we manufacture and sell seven different type breather vents. All of our vents are made of .063 gauge aluminum which eliminates any possibility of rust, corrosion, or ultra violet deterioration. Thereby, a rugged, yet maintenance-free breather vent.

JIMCO PRODUCTS, INC. ● LIVONIA, MI 48150 ● (313) 525-5162 / Toll Free 1-800-382-8983

Check #602 on Reader Service Card

Exhibitors

continued

Elk Corp. of America (311, 313) will display its Prestique® line of Fiber Glass Laminated Shingles. The top-of-the-line Prestique® features a three-dimensional look with a U.L. Class A fire rating and a 30-year limited warranty. Prestique II® will also be featured.

Enerco-Watertite (1202, 1204).

The Enterprise Companies (217, 219) will exhibit the Memoric Seamless Roofing System. The product's elastomeric, rubber-like consistency creates a monolithic, self-flashing film which conforms to any sound surface to provide superior waterproofing capabilities.

Global Coatings, Ltd. (304, 306).

The BFGoodrich Co. (1008, 1010 & 1012) will feature a complete line of roofing accessories for single-ply and built-up applications. Products include drains, vents, flashing, waterproofing products, solar-powered products, Lexsucu Insulation Clips and BFG Screw Fasteners.

Goodyear Tire & Rubber Co. (1017, 1019, 1021, 1116, 1118 & 1120) will exhibit its new mechanically-fastened system in addition to its complete line of roofing products, including both black and white single membrane.

Gory Associated Industries, Inc. (1342, 1344) will present its complete line of concrete tile, ideal for single and multi-unit residential and commercial buildings.

Goss, Inc. (1323, 1325) will exhibit Flame Tool Equipment. Goss Ready-Flame Torches are used for applying single-ply roofing.

W.R. Grace & Co. (746, 747, 748 & 846) will highlight the Grace Roofing Systems, including GRM™ Roofing and Zonolite® Roof Deck Insulation.

Graco, Inc. (1130, 1132) will present its gasoline-powered airless sprayers.

Guaina Corp. of America (1138) will display the NOVAGLASS line of modified bitumen single-ply roofing. The ITALPROFILI's line of drains and scuppers will also be exhibited.

Guardian Fasteners & Closure Systems (839) will feature its roof insulation fastening system, consisting of a 3¼" galvanized plate and self-drilling, self-tapping screws. Fasteners are available in lengths of 1½" to 12".

Gulf States Asphalt Co. (1246) will feature its hot mopped roofing asphalt and a full-line of cold-applied coatings for new roof construction and maintenance of existing roofs.

Gusmer Corp. (1316) will exhibit Model H-II and the new FF-III "Little Big Shot" proportioning units and the complete line of spray and pour guns for dispensing urethane foam insulation.

W.P. Hickman Co. (89, 90) will present the HICKMAN NAILERLESS ROOF SYSTEM which can be used with both BUR or single-ply roofing membrane.

Hillsdale Industries, Inc. (226) will display its Model 930 Cluster Skylighting System. In addition, Hillsdale will also feature its new Residential Venting Skylight, the complete line of standard and custom-designed skylights, thermal safety vents and hatches.

E.L. Hilts & Co. (938, 940) will show its extensive line of equipment and tools for BUR. Hilts will also exhibit its new tools for single-ply "Elasto/plastic" roofing, as well as the new Roof Core Cutter for removing roof test cuts.

Hoechst Fibers Industries (436, 438) will exhibit its two types of polyester nonwoven fabrics for roofing. Type 33 fabrics have thermal stability and are used for reinforcement of modified bitumen roll roofing. Type II fabrics are used as slip sheets or rock shields.

Homasote Co. (125, 127) will present its full line of urethane and isocyanurate roof insulation boards, featuring the Ultra/C™, Ultra M™ Membrane Board and Ultra/C™-1 (FM-1 approved) product line for use with BUR and most single-ply systems.

Hoover Universal (642) will highlight its Exterior Fire-X Shingles and Shakes, Exterior Fire-X Lumber and Plywood and PRO-TEX interior fire retardant treatment for lumber and plywood.

Howmet Aluminum Corp. (917, 919) will display architectural metal roofing systems, mansards, fascias, equipment screens, canopies and walk-way covers. The products are available in a variety of colors and styles, in both steel and aluminum.

Hutton Publishing Co. (146).

Hyload, Inc. (646) will display its modified coal tar membrane, reinforced with dispersed polyester fibers. The membrane is applied in hot steep asphalt over a No. 4 glass reinforced base sheet and carries a 10-year guarantee.

Index S.p.A./Index Roofing Corp. (1243, 1245).

Innovative Formulations Corp. (207).

International Paper Co. (1430, 1432, 1434) will feature the CONFIL® line of nonwoven fabrics especially engineered for a variety of roofing systems. The company will also exhibit PROVEIL™ roofing membrane for use in single or multi-ply cold roofing applications.

International Permalite, Inc. (623) will display its full line of roof insulation and accessory products for both BUR and single-ply applications, covering an "R" value range of 2.08 to 25.0.

Interstate Coatings, Inc. (218).

continued, page 40

What's
black &
white
and builds
your
profits?

MANNIGLAS®

A non-asbestos, non-asphaltic facer
for rigid foam insulation providing:

Excellent adhesion between foam
and facer

Excellent adhesion between facer
and single ply membrane systems

Will not "muddy up" with SPM
adhesives

Economical SPM adhesive util-
ization

Dimensional stability that en-
hances the dimensional stability
of the insulation board

Elimination of costly slip sheets

Compatibility with asphalt and
FM Class I built up roofing
systems

Reduced inventory - one facer
for all systems

Economy to the board manufac-
turer, roofer, distributor and
customer

Contact us for complete technical
information or contact your insula-
tion manufacturer, membrane
supplier or wholesaler and specify
MANNIGLAS®



MANNING PAPER COMPANY

Division of Hammermill Paper Company
P.O. Box 328, Troy, New York 12181
(518) 273-6320 TELEX 145-450

Exhibitors

continued from page 38

IPW Interplastic (1516, 1518) will feature The Interroof System in both ballasted and mechanically-fastened installation methods. The system is known for its speedy installation (field seams up to 100 feet per minute) and for its non-penetrating, mechanically fastened membrane.

IVS, Inc. (836, 838) will show its complete line of Eliminator Vac Systems, featuring the new GRAVELVEYOR. The GRAVELVEYOR is a five-inch air conveyor capable of transporting $\frac{3}{8}$ " to 2" gravel and stone to great vertical heights and horizontal distances.

J & P Petroleum Products, Inc. (641) will exhibit its new waterproofing membrane, Aquasel 2001 AD. Aquasel is a cold-applied, self-adhering, modified bitumen waterproofing membrane. The company will also present its full range of Tex-Mastic construction materials.

Jimco Products (140, 142) will feature its vents for all types of roofs. All Jimco vents are made of .063 gauge aluminum, which eliminates any possibility of rust, corrosion or ultra violet deterioration.

Kabar Manufacturing Corp. (337) will exhibit an on-site heat sealer for single-ply roofing. It seals at a speed of 12 feet per minute for 1½" wide seams.

Karnak Chemical Corp. (200, 202) will display its Cold-Applied and Elasto/Plastic Polyester-Reinforced Roofing and Waterproofing Systems, as well as its line of repair and dampproofing products.

Kelly Energy Systems, Inc. (1041, 1043, 1045, 1140, 1142 & 1144) will present WHALESKIN/81^{RT} EPDM Rubber Roofing, Patented Plate Bonded System, fire retardant WHALESKIN/81^{RT} C-EPDM[®] Rubber Roofing and Fire Barrier Reservoir Board for FM Class I roof deck construction.

The Kendall Co. (222, 224) will feature POLYKEN ROOFING SYSTEMS. POLYKEN uses single-ply EPDM membrane panels which are field seamed with POLYKEN LS Seam Tape and sealed watertight with POLYKEN Flashing Tape. The computerized POLYKEN HEX Fastening System will also be exhibited.

Kenergy Corp. (120) will exhibit its skylights, designed for commercial and residential application. Kenergy features the Ken-Guard[™] Solar Protective Coating on all skylights to prevent yellowing, dulling or hazing.

Kern-Tac Southwest, Inc. (325) will feature Butylon and Butyl Coat—high solid, elastomeric, acrylic coatings for weatherproofing new and existing roofing and wall surfaces.

The Kimmenade Corp. (134).

King Asphalt Products Co. (341) will present all types of roofing asphalts. Both bulk and package asphalts are available from King's shipping points in Georgia, Indiana and Mississippi.

Kirby Fiberglas (1134).

Knighton Construction Systems (347, 446).

Kokem Products, Inc. (643) will exhibit SUNGUARD[™] Acrylic Latex Roof Coating. The product can be used for existing maintenance, repaired roofs and over some new roofing assemblies.

Kold King, Inc. (201, 203) will feature its cold process roofing, including specifications, material and equipment. A piece of cold process roofing equipment will be on display, in addition to movies and photographs of applications.

Koppers Co., Inc. (617) will exhibit its various roofing systems as well as a complete line of roof maintenance products. Koppers single-ply, multi-purpose membrane, KMM[®], will be featured along with Exeltherm XTRA[®] phenolic foam roof insulation.

Leatherback Industries, Inc. (1417, 1419) will exhibit asphalt roll roofing and roofing asphalts.

Leigh Products, Inc. (123).

Libin & Associates (1526) will display Sanyo electrical equipment.

Liquid Asphalt Systems, Inc./Taurus (431, 433, 435, 437, 439, 530, 532, 534, 536 & 538) will display Taurus Tankers, National Cranes and Taurus Roofer's Accessories—8 to 17.5 ton capacity, up to 150 feet in height.

Little Giant Industries (1402).

Ludowici-Celadon Co. (837) will present its clay roofing tile, available in a myriad of colors and patterns.

The Lutravil Co. (334, 336) will present Lutradur, a thick-diameter, spunbonded polyester for high performance BUR membrane and cold process.

Mage, Inc. (1103, 1105).

Major Chemical & Latex Corp. (1547, 1548) will feature TOPCOAT[™], a water-based liquid roof system applied with a paint roller, squeegee or an airless spray system. TOPCOAT[™] dries to a seamless self-adhered sheet, which expands and contracts with the roof to -30F.

Manville Corp. (801) will display roofing system cutaways of the new GlasTite Base Flashing, installed over Fes-Core insulation and Fesco Board and Fesco-Foam insulations and membranes installed over a variety of decks. J-M fiber glass roofing shingles will also be exhibited.

Marathon Roofing Products, Inc. (921, 923) will feature Standard and XL plastic, copper and aluminum insulation breathers, copper roof drains, vents and vent collars. Marathon will also be introducing a 48" Super Slitter.

Merchant & Evans Industries, Inc. (324, 326).

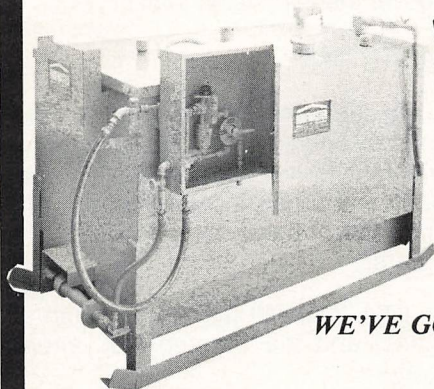
continued, page 42

ROOFMASTER

PRODUCTS COMPANY

COLD PROCESS SYSTEMS

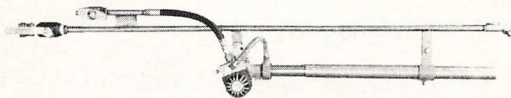
"Performance based on experience"



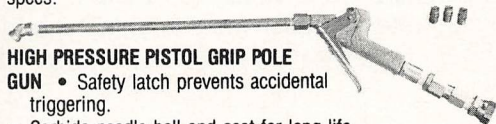
WARM-MASTER®

- Warms cold process materials without scorching - thinning - diluting or overheating.
- Trailer mounting available.
- Indirect fired.
- Thermostatically controlled.

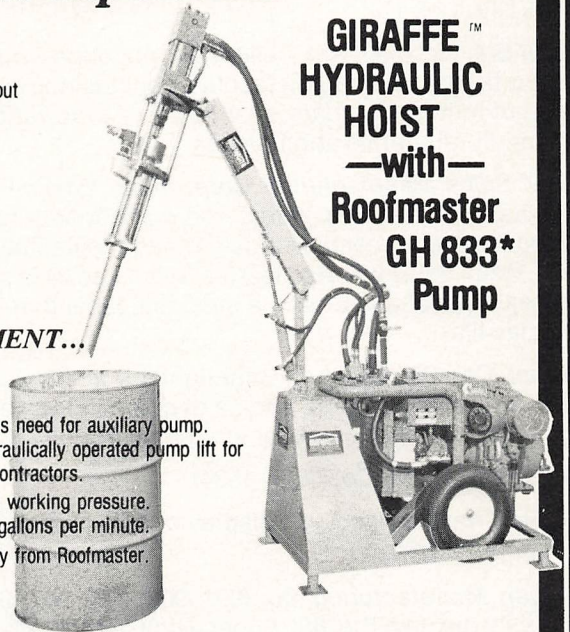
WE'VE GOT THE RIGHT EQUIPMENT...



GLASSMASTER POLE GUN R-300DN • Air operated chopper motor allows you to chop glass roving and induce it into a spray pattern. • Adjustable dual tips for better coverage. • Adjustable valves for motor speed and air tube. • Meets most fiberglass specs.



HIGH PRESSURE PISTOL GRIP POLE GUN • Safety latch prevents accidental triggering. • Carbide needle ball and seat for long life.



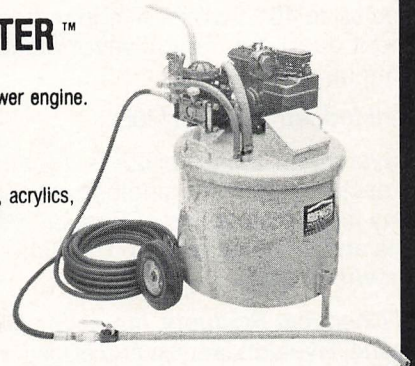
GIRAFFE™ HYDRAULIC HOIST —with— Roofmaster GH 833* Pump

- Eliminates need for auxiliary pump.
 - 1st. hydraulically operated pump lift for roofing contractors.
 - 2000 psi working pressure.
 - Up to 6 gallons per minute.
- *Exclusively from Roofmaster.

SPECIAL PRI-MASTER™

FOR THE SMALLER JOBS

- A complete system. • 5 horsepower engine.
- 50' hose • Spray bar with tips.
- 600 psi working pressure.
- Up to 6 gallons per minute.
- Sprays many emulsions, coatings, acrylics, fibered, non-fiber, aluminum.

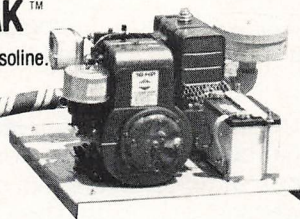


GRANUAL-MASTER™ Hopper

- Will broadcast up to 28 lbs. of gravel per minute thru 250' of 2" hose.
- Hose included.
- 1200 lb. capacity.
- Pre-set relief valve.

WITH POWER-PAK™

- 16 horsepower gasoline.
- Starter alternator



Manufacturers & Distributors of Roofing Equipment - Tools & Accessories

ASK YOUR DISTRIBUTOR... OR CALL...

ROOFMASTER
PRODUCTS COMPANY

750 Monterey Pass Road
Monterey Park, California 91754
Mailing Address: P.O. Box 63309
Los Angeles, California 90063

Tele: 213/261-5122
800/372-6409 (California, except 213/Area Code)
800/421-6174 (Nationwide, except CA, AK, & HI)
Telex: 298940 Roof ur

Exhibitors

continued from page 40

Metal Building Components, Inc. (235, 237) will introduce several new designs in architectural roofing panels, in addition to a unique retrofit roofing system based on its UltraDek 124™.

Metal-Era, Inc. (335) will present its roof edge systems. Products include snap-on fascias, copings and several types of termination bars, available in a wide variety of architectural metals and finishes.

Metal Sales Manufacturing Corp. (1509, 1511) will present its metal roofing, siding and components for the agricultural, commercial/industrial and residential markets. Metal Sales will also feature Seam-Loc 24, a standing seam panel and Stile™, a steel tile panel that looks like clay tile.

Monier Co. (321, 323) will highlight its concrete roof tiles, available in a wide choice of colors. The tiles are fireproof, and have a 50-year limited warranty.

Monsey Products Co. (1532, 1534).

Moppo Products (443) will display cotton mop yarn for roof application.

Morgen Manufacturing Co. (901, 903, 905, 907, 909 & 911) will display the 68' Super High Reach Roofers Conveyor, which effectively elevates gravel and rock at angles up to 45°. Two-inch high molded cleats, spaced one foot apart, let the conveyor discharge material at heights up to 47½ feet.

Morrell Industries, Inc. (1208).

MM Systems Corp. (925, 927) will feature its new Snap-lok Fascia System for single-ply roofing. MM will also display its complete line of Fascia Systems, Drip Proof Fascia and Snap-lok coping. The Batten-Tite System will be shown as well.

Multi-Chemical Products, Inc. (113) will present its polyurethane, Hypalon, acrylic and epoxy waterproofing and corrosion-proofing products, which provide protection for a wide variety of substrates. Multi-I-Therm, Multi-I-Thane and Multi-I-Shield systems will be featured.

National Nail Corp. (1000) will display its complete line of nails and fasteners for shingle, BUR and single-ply wood decks.

National Tile Roofing Manufacturers Assn., Inc. (1237, 1239) will have a booth providing information on the organization and numerous samples of different styles of clay and concrete roof tiles with installation photos.

Naturalite, Inc. (1343, 1345) will present its complete line of energy conserving skylights. The product line also includes roof scuttles as well as mechanical and drop-out type fire vents. The exhibit will include samples of various skylight corner sections.

Nevco, Inc. (1039) will feature its full line of lifetime, plastic roof vent pipe shields, which fit all sizes of roof vent pipes. The shields slip over existing vent pipes, down to the flashing, and cover the expansion joint.

Nieman Equipment (847, 848).

Nord Bitumi U.S., Inc. (847, 848) will present its Poly 4 modified bituminous membranes, produced in its new U.S. manufacturing plant. Poly 4 is produced in a standard thickness of 4mm and consists of bitumen modified with thermoplastic resins of polypropylene, elastomers and mineral stabilizers.

NRG Barriers, Inc. (204, 206) will feature its Nailboard rigid insulation panel and the Tapered Isocyanurate Roof Insulation System.

Oakway Manufacturing (209, 211).

O'Keefe's, Inc. (645) will highlight Ladderflex™, its flexible rubber ladder. The ladder can be used on any roof surface or pitch. It's lightweight and easily rolls up for transportation or storage.

Olympic Fasteners Corp. (1335, 1337) will present its steel and concrete roof deck insulation fasteners. The Olympic Heavy Duty Roofing Screw is Factory Mutual approved.

OTTO® Fabric, Inc. (1022, 1024 & 1026) will present the OTTO® STR® Silicone Roof System—an adhered Single-Ply® system not requiring ballast—and Silicone Fiber glass fabrics used in tension and air-supported structures, pond liners, roofing membranes and special industrial applications.

Owens-Corning Fiberglas Corp. (505) will exhibit a wide range of quality BUR products. Owens-Corning will highlight Derbigum® Elastomeric Roofing and Torch-On Flashing, Fiberglas Roof Deck Board™, Double Layer Insulation, Fiberglas Roof Insulation, the Glasfast® Fastening System, Perma Ply-R®, Perma Ply-R® No. 11, Perma Ply® No. 28 and Perma Ply® No. 28 Perforated products and the Owens-Corning Certified Roofing Contractor Program.

P.A.L. Development Corp. (432, 434) will feature the POWERCLAW, a mechanical, power driven, heavy duty roof remover machine which assures a clean, modern, efficient removal operation of flat decks and shingle roofs.

Palmer Asphalt Co. (105) will present federal and ASTM specification cold process roof coatings and cements, which have been specially formulated for the professional applicator.

Parker Sweeper Co. (1100) will highlight the HURRICANE 8 ROOF BLOWER, which provides a faster, more efficient way to clean dirt and disperse moisture during surface preparation and clean-up work.

Perma Glas-Mesh Corp. (128) will display its line of damproofing and waterproofing reinforcement membranes. The product line is made up of fiber glass scrim fabrics, cotton fabrics, fiber glass mats and polyester roofing membranes.

Petersen Aluminum Corp. (637, 639) will present its complete line of pre-finished steel and aluminum, featuring the PAC-CLAD Kynar 500 finish. Other finishes available include siliconized polyester, clear and hard-coat anodized.

Petrolane, Inc. (111) will present its propane fuel and equipment, featuring burners and torches for spot drying and pre-heating pump lines.

Phillips Fibers Corp. (70, 71) will feature its Rufon non-woven fabrics for roofing applications. Proprietary manufacturing techniques produce Rufon fabrics for stronger, longer performing roofs for virtually every

type of roofing system, including cold applied systems, slip sheet and stone separator mats.

PIB Roofing Products & Systems, Inc. (338) will exhibit polyisobutylene single-ply roofing membrane. The membrane consists of 60 mil polyisobutylene and 60 mil felt backing. It can be applied with either asphalt, cold adhesive or mechanical fasteners.

Pittsburgh Corning Corp. (410, 412) will display its Tapered FOAMGLAS® insulation, which is an ideal base for adhered single-ply or BUR membranes. FOAMGLAS® is all glass, cannot absorb moisture in liquid or vapor form and will maintain its original insulating value for the life of the installation.

Plymouth Rubber Co., Inc. (213, 312) will highlight three of the most widely accepted single-ply membranes: Neoprene, EPDM and PVC. For 20 years, Plyroof single-ply membranes have been manufactured in the U.S., installed by trained contractors and proven in the field.

PMS/Sucoflex (1317, 1319 & 1321).

continued on following page

CONTRACTOR:
"Is the wood nailer, insulation and seal strip typically supplied by the curb manufacturer?"

SPECIFIER:
"What is the proper fastener spacing for base flashing and counterflashing at curb?"

ARCHITECT:
"What is the NRCA recommended curb height?"

The NRCA Roofing & Waterproofing Manual answers questions.

Prepared by the National Roofing Contractors Association, **The NRCA Roofing & Waterproofing Manual** is a 450 page compilation of accepted industry standards and practices.

In a single volume are 8 complete sections on:

- Waterproofing
- Steep Roofing
- Built-up Roofing (with two chapters on single-ply)
- Handbook of Accepted Roofing Knowledge
- Construction Details
- Technical Bulletins
- Glossary
- Appendix

For more detailed information and a free brochure, call or write: **National Roofing Contractors Assn.**
8600 West Bryn Mawr Avenue
Chicago, IL 60631 (312) 693-0700
check #615 on Reader Service Card

Exhibitors

continued

Pneutek, Inc. (1416) will display a Factory Mutual Approved air fastening system for attaching roof insulation to concrete and steel roof decks. The concrete attachment can be made without pre-drilling. A simple pull of the trigger and the insulation is attached.

Polymer Plastics Corp. (1121) will highlight Polybrane 186, a liquid, single component, elastomeric polyurethane roofing system. Polybrane 186 creates a water-proofing coating over most roofing substrates.

Portals Plus, Inc. (147, 148).

Power Line Fastening System (1136).

Protective Coatings (944) will highlight its white and white fire retardant Superroof Systems. Samples, taken from an 18-year-old roof, will be on display.

Provincial Industrial Roofing & Sheet Metal Co. (216).

Publishers for Coventions, Inc. (1303) will distribute a catalog of the latest product information from the NRCA exhibitors.

Ramco Services (72, 73).

The Rawlplug Co., Inc. (110) will feature a new, extra-length mechanical fastener, the Rawl-Drives, for vibration-resistant fastening of insulation board to concrete decks. Additional equipment will be displayed.

Reach Plastics Limited (116, 118).

Reeves Roofing Equipment Co., Inc. (731, 733, 735, 830, 832 & 834) will show much of its equipment, including on-deck powered equipment, 12 models of roofing kettles—ranging from 100 to 1,500 gallons—and a complete line of on deck equipment.

Reimann & Georger, Inc. (1407, 1409, 1411, 1413, 1506, 1508, 1510 & 1512) will feature its HYDRAPAK, the hydraulic power source available for use with various hoisting equipment. The reliable, standard mechanical hoisting equipment will also be displayed, along with various accessories used with the R & G hoisting line.

R & G Sloane Manufacturing Co. (741) will display roof drains (2", 3", 4", 6" and 8"), underdeck clamps and vent shields. A cross section of an installed roof drain will be displayed.

Republic Powdered Metals, Inc. (230, 232) will feature GEOFLEX single-ply roofing and the complete line of cold process reroofing and BUR materials.

Resolite Div./H.H. Robertson Co. (1241) will present Resolite fiber glass reinforced plastic building panels for walls and roofs. All panels are acrylic modified for improved weathering and are offered in various profiles, as well as translucent or opaque.

Rising & Nelson Slate Co. (114).

R Max, Inc. (1001, 1003) will feature 10 different polyisocyanurate roof insulation boards, each designed for a specific commercial single-ply or BUR roof application.

Roofblok, Ltd. (737, 739).

Roofing Products International, Inc. (246, 247) will highlight the PosiSeal top fastening system for single-ply EPDM membrane. Fully-adhered, loose-laid and ballasted systems and accessories will also be on display.

Roofmaster Products Co. (931, 933, 935, 937, 1030, 1032, 1034 & 1036) will exhibit tools and accessories that have become standards in the roofing industry. Mop carts, service buckets, silicone tire covers, hoisting wheels, carbide blades, tear-off spades, the follow tool, AWA hoist and spray systems will be displayed.

Roof Penetration Products (239) will exhibit its full line of roof curbs, equipment supports and expansion joints. The company makes roof curbs for built-up roof systems, single-ply roof systems and metal building roof decks.

Roof Systems, Inc. (1016) will feature its metal standing seam panels.

Roll Former Corp. (1040).

Rubber & Plastics Compound Co., Inc. (93, 94) will highlight NERVAPLY® and NERVAPLY UB®, homogeneous, non-reinforced resilient PVC single-ply membranes. The products are alloyed with high polymer resins stabilized against ultraviolet rays, and highly plasticized.

San Joaquin Refining Co., Inc. (1419).

Sarnafil (US), Inc. (1305, 1307, 1404 & 1406) will feature its fiber glass and polyester reinforced roofing membranes for reroofing and new construction, including fully-adhered, ballasted and mechanically-fastened application methods.

Sawyer's Computer Software (1205).

Schnee-Morehead, Inc. (440, 442) will feature quality caulks and sealants with the trade names of Tacky Tape, Acryl-R, Permacryl, Isocryl, Acrylicone and Elastocryl.

Seal-Dry USA, Inc. (145, 244) will present the Seal-Dry System. The pure white, polyester reinforced, CPA polymer-coated membrane is designed for mechanical attachment. Seal-Dry is supplied in custom built, factory welded sheets.

Seaman Corp. (1102, 1104) will feature FiberTite® the complete roofing system that forms an environmental seal. FiberTite® Single-Ply Roof is the latest advance in a 30-year history of manufacture and installation of single-ply materials in ultra-high stress outdoor environments.

Sibo, Inc. (126) will display its tapered fiber glass roof insulation system, including perimeter slopes and

crickets or saddles. The system is totally factory pre-cut to insure a precision fit on the roof.

Single-Ply Institute of America (1306).

Siplast, Inc. (1521, 1523, 1525 & 1527) will exhibit its full line of modified bitumen products including: Paradiene 20/30, the granule surfaced elastomeric multi-ply roofing system; Veral, the copper, aluminum or stainless steel, foil-faced roofing and flashing system and Parofor 50 LT, the polyester reinforced single-ply, granule surfaced roofing system.

Smith Hoist Manufacturing Co., Inc. (1209, 1211 & 1213) will feature Hoist-Master Cranes, highlighting the Hi-Boy portable power crane. The crane is capable of lifting 2,000 pounds, with an operating height of up to 20 stories.

Soprema S.A. Canada, Inc. (1446, 1447 & 1546).

Speeflo Manufacturing Co. (106, 108) will feature the new Hydra M self-contained, gas-engine operated hydraulic airless sprayer. The Hydra M will pump roof coatings at a two-gallon-per-minute rate at pressures up to 4,000 PSI.

Spyder Sales & Service (1309, 1311).

J.P. Stevens & Co., Inc. (1403, 1405, 1502 & 1504) will present Hi-TUFF® Single-Ply Roofing. Hi-TUFF® Roofing is a mechanically-attached and easy-to-install system. The product combines the weatherability of DuPont "Hypalon" based rubber, the reliability of heat-welded seams and the strength of scrim reinforcement into one system.

Stewart-Warner Corp. (1247, 1248) will exhibit both Atomized Air and Airless cold-process application systems for roofing and subgrade coatings of spray primers, asphalt adhesives, resaturants and other sprayable materials.

Super "K" Industries, Inc. (1519) will display its Taperlite tapered roof insulation and roof saddles. The systems are designed to provide slope to flat roofs and promote drainage. Also on display are Super K's new tapered polystyrene products.

Supradur Manufacturing Corp. (1301, 1400) will exhibit mineral-fiber roofing and siding. The fireproof and durable shingles are available in a variety of styles and colors. Supradur will highlight Supra-Slate, Western-Shake, American Traditional, Dutch Lap and Hexagonal.

SYenergy Methods, Inc. (738, 740) will introduce new roofing applications and a new, fire-resistant, U.L. Class A EPDM membrane, Fire Stop. The product can be installed with the firm's plate-bonded system over 1/2" wood fiberboard and up to five inches of EPS insulation board.

continued, page 48

TROPISEAL

one-ply membranes



With TROPISEAL ONE-PLY MEMBRANES
you can do it all ...

- ✓ **New Roof Construction!**
- ✓ **Retrofit!**
- ✓ **Flashing repairs!**
- ✓ **Crack and blister repairs!**

VISIT WITH
US AT
THE NRCA
CONVENTION
Booth
No. 1300

TROPISEAL Membranes are self-contained, complete roofing and waterproofing systems in rolls, manufactured from the highest quality materials to exacting specifications. A unique formula of specifically processed asphaltic bitumen and modifying polymer resins help insure **TROPISEAL'S** unusual heat resistance, low temperature flexibility and easy workability.

Standard **TROPISEAL** is 157 mils thick (4 mm), with side lap markings for easy alignment. It is available with **TREVIRA® Spunbond polyester** reinforcement for universal use ... or fiberglass reinforcement for use in warmer, southern climates (**TROPISEAL GF**).

TROPISEAL carries a FACTORY MUTUAL I-90 WIND UPLIFT RATING and CLASS A, B and C rating from UNDERWRITERS LABORATORIES!

NOW TROPISEAL II IS ALSO AVAILABLE! It is identical to the standard **TROPISEAL** with polyester reinforcement, except for the thickness. **TROPISEAL II** is 118 mils thick (3 mm).

All three **TROPISEALS** are **TORCH APPLIED** ... so in most instances, expensive heating equipment, hot asphalt and special adhesives are not required. **SAVE ON PROPANE, TOO** ... since **TROPISEAL** requires only one-third to one-half gallon of propane per square, while most other torch applied sheets require one to one and one-half gallons of propane per square!

TOLL FREE (outside Ohio)
1 - 800 - 321 - 8353
in Ohio: (216) 273-2564



TROPICAL INDUSTRIAL COATINGS, INC.
P.O. Box 444/S2 - Brunswick, Ohio 44212

Check #628 on Reader Service Card

PERMALITE[®] standards for insulation.



When it comes to offering a full line of perlite and isocyanurate foam roof insulation products, the industry looks up to International PERMALITE, Inc.

damage and compression. The latest isocyanurate foam technology makes Permalite Iso-Lite ideal for use in BUR and all single-ply systems.

We've mentioned only three of our most popular boards. Of course, Permalite offers a wide range of product choices to suit your

We set the standards by which all other roof insulations must be judged. Permalite Sealskin[®], Iso-Lite[™] and Iso-Perl[™] all are specifically designed to deliver the most cost-effective performance.

Check the chart. See how Permalite products measure up.

Permalite Sealskin[®] — Versatile. Great for all types of roofing and re-roofing, whether BUR or single ply. Decades of satisfaction and problem-free performance.

Permalite Iso-Perl[™] — State-of-the-art, cost-effective aid in controlling blister problems. Permalite Iso-Perl combines an Iso-Lite base with Sealskin surface for the best of both worlds.

Permalite Iso-Lite[™] — FM Class I plus high R value. Stable. Lightweight, yet resistant to

RIGID ROOF INSULATION PERFORMANCE STANDARDS							
PRODUCT	HIGH COMPRESSIVE STRENGTH (> 30 PSI)	STABLE "K"	LOW "K" (< 0.20)	DIMENSIONAL STABILITY (< 3%)	CAN BE BOTH FIELD AND FACTORY TAPERED	MOISTURE ABSORPTION (< 2%)	AIDS IN CONTROL OF BLISTERS IN BUR
PERMALITE [®] SEALSKIN [™]	●	●		●	●	●	●
PERMALITE [®] ISO-PERL [™]			●	●		●	●
PERMALITE [®] ISO-LITE [™]			●	●		●	
FIBERGLAS		●		●			●
CLASS I COMPOSITES			●			●	
CLASS I FOAMS			●			●	
WOOD FIBER	●	●		●			●
EXPANDED POLYSTYRENE		●		●		●	



specific design or job requirements.

But all Permalite roof insulation board products have one thing in common.

They're proven performers!

"PERMALITE PERFORMANCE" is our pledge that arrives with every board we ship to you.

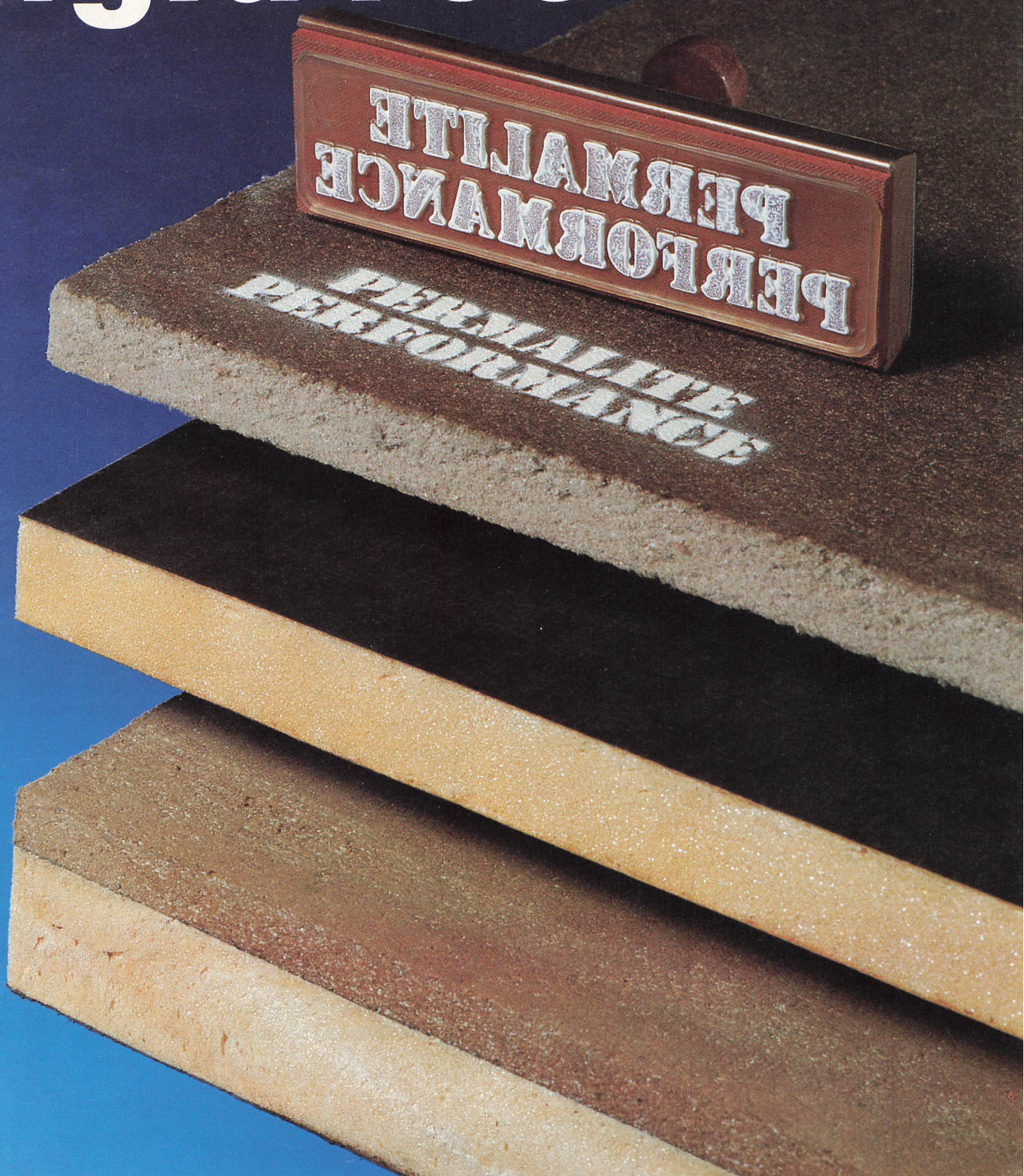
For detailed specifications and/or catalog, please contact:

ip INTERNATIONAL PERMALITE, INC.

Corporate Headquarters: 300 N. Haven Avenue, Ontario, CA 91761, (714) 983-9591, ext. 820
National Sales Office: 2905 Butterfield Rd., Oak Brook, IL 60521, (312) 654-4500, ext. 820
Manufacturing Facilities in California, Kentucky and New Jersey.

Check #601 on Reader Service Card

set the rigid roof



Exhibitors

continued from page 45

Tamko Asphalt Products, Inc. (413) will display its complete line of commercial roofing materials. Included will be Tri-Six (organic BUR), Tam-Glass (fiber glass BUR) and Tamko Awaplan, a polyester-based modified asphalt roll roofing material.

Taracorp Industries (1018) will feature roof flashings (all codes and sizes) sheet lead and solders.

Tech Specialties (1513, 1515 & 1517) will exhibit its wide variety of roof penetration products, including roof drains, pipe penetration and breather vents.

Technicote Corp. (308) will supply literature on its quality asphalt mastics, asphalt coatings, aluminum coatings, asphalt emulsions, coal tar coatings and mastics and waterproofing materials. Dupont and Bay Mills polyester membranes will be emphasized.

Teltex, Inc./Rhoflex Div. (743, 745, 842 & 844) will exhibit its solid state, thermo-fused polymer modified bitumen roofing system, reinforced with Trevira polyester. Rhoflex can be used for new or reroofing, flashing or repair and general waterproofing.

Tennant Co. (1339).

Thermal Insulation Manufacturers Assn. (1333) will provide information on the uses and benefits of polyurethane and polyisocyanurate roof insulations.

Thermo-Cell South East (310).

Thermo Materials, Inc. (212) will feature its seamless, cold process elastomeric system using DuPont elastomeric polyester membrane, with Thermo Modified Asphalt and reflective "SUPER PREP" coating for new and reroof assemblies.

Three E Corp. (1147) will exhibit its large range of products, including Flashband, Roofdex, Polarroof and Roofab.

Tietex Corp. (543) will highlight a stitch-bonded polyester fabric for cold process reinforcement.

Tramex Electronics, Inc. (130, 132) will introduce a new product to its line of non-destructive testing equipment. The Tramex Leak Seeker is a hand-held unit, specifically designed for finding moisture trapped beneath the surface and tracing it back to its point of ingress. The product has many additional unique features.

Transmet Corp. (136, 138) will exhibit Transmet Roofing Chips, which are lightweight, highly reflective pure aluminum alloy particles, about $\frac{1}{16}$ " square and thinner than a sheet of paper. Sprayed over hot or cold-applied BUR, the chips reflect about 75 percent of sunlight, doubling roof life and reducing internal roof temperature by 40F.

Tremco, Inc. (1004, 1006) will display roofing systems for both new and re-roofing applications, including the new THERM 100 Built-Up Roof system, as well as Tremply Adhered and Ballasted single-ply systems.

Tropical Industrial Coatings (1300) will feature TROPISEAL one-ply membranes. TROPISEAL is reinforced with non-woven polyester and carries a U.L. Class A rating without ballast. The complete line of liquid-applied coatings and maintenance products will also be displayed.

Troup Industries, Inc. (1437, 1439, 1441 & 1443) will exhibit its innovative roofing equipment, including the Speed Bead Lap Sealant Applicator, Guillotine Flashing Cut Off Saw, Bonding Adhesive Applicator Machine and the Wheelbert.

Troxler Electronic Laboratories, Inc. (1507) will show the Troxler Roof/Reader. The Roof/Reader pinpoints problem moisture areas, saves time and capital outlay. The Roof/Reader is also an effective quality assurance tool on new roofing materials for warranty verification.

Truck and Equipment Services (301, 303 & 305) will exhibit a roofers combination hi-lift/dump truck.

Truco, Inc. (143).

The Tru-Fast Corp. (1412) will feature a Factory Mutual Approved insulation board fastening system for single-ply membrane and built-up roofing.

Trumbull Asphalt (948, 1046) will feature the new Sweet's Catalog. This is the first time that an insertion totally dedicated to BURA has appeared in the major specifier book.

UIP Engineered Products Corp. (947) will present photographs and illustrations of its machinery for the manufacture of modified bitumen rolled roofing. UIP has the capability of building a modified bitumen machine or an entire plant for the production of modified bitumen rolled roofing.

United Construction Products (404) will exhibit its general purpose and specialty roofing torches designed exclusively for applying heat-fused roofing. Various hand-torch packages, the Dragin Wagon Torch Machines and new accessory products for heat-fused roofing will be featured.

United Industries (942).

U.S. Mineral Products Co. (545, 644).

U.S. Gypsum Co. (542, 544) will present its new FOAMULAR insulation "Family of Products." FOAMULAR insulation is available in minimum compressive strengths of 15 psi, FOAMULAR 150; 25 psi, FOAMULAR 250; 40 psi, FOAMULAR 400 and 60 psi, FOAMULAR 600.

U.S. Intec, Inc. (97, 98 & 99) will exhibit its APP modified bitumen roofing/waterproofing membrane and associated coating and application equipment.

The Upjohn Co./CPR (65, 66).

Urethane Foam Contractors Assn. (220) features a full complement of services to the polyurethane industry professional, including certification opportunities, mar-

keting assistance, educational programs and research and technology findings.

Vacuum Engineering Corp. (1123, 1125, 1127, 1222, 1224 & 1226) will feature its complete line of roof vacuuming equipment and accessories. The VecLoader and the Wet Head high pressure washing system will be featured.

Vermont Structural Slate Co., Inc. (1002) will display color samples of its unfading Vermont Roofing Slates, featuring the new dark grey slate, Heathermoor.

Vincent Brass & Aluminum Co. (307, 309) will exhibit ColorKlad prepainted, galvanized roofing and flashing sheets. The product is an AISI G90 galvanized (commercial quality), extra smooth primed and finished on one side with ColorKlad Kynar® based fluoropolymer coating system.

Vulcraft/Div. of Nucor Corp. (248, 346) will display the complete Standing Seam Roof System which is designed for use on conventional construction projects.

Wasco Products, Inc. (1310, 1312) will present its architectural custom skylighting systems, energy-efficient Skydomes®, Skywindows® and a full line of skylights for commercial, industrial, institutional, retail and residential buildings.

Wat Pro, Inc. (1106, 1108) will feature its complete line of Flagon Roofing Systems, including ballasted, mechanically fastened and fully adhered. All seams are welded in the proven Thermal Plastic Systems with ratings exceeding 2,000 PSI.

Wausau Tile (1421, 1423) will present elastic, vulcanized rubber terrings® that are used for pre-cast concrete paver support systems and provide uniform joint alignment below surface drainage.

WeatherGard Roofing Systems, Inc. (1543, 1545) will feature its full line of single-ply elastomeric roofing systems, including both white and black EPDM as well as neoprene.

W.J. White Co. (742) will highlight the new HOT WIRE polystyrene insulation cutter. The HOT WIRE is portable and designed for job site usage, sump drains and custom-tapered systems. It also notches edges for wood nailers, cuts holes for pipe stacks and cuts grooves for conduit.

Brian R. White Co., Inc. (1225, 1227, 1324 & 1326) will feature the Leister line of Hot Air Sealers and Welders.

Wilco Manufacturing (841).

Wilson Distributing Co., Inc. (540) will exhibit Wilson Polyester, PROVEIL*, manufactured by International Paper Co., for use as a reinforcement of cold process built-up roofing.

York Manufacturing, Inc. (1331) will display its complete line of copper laminated flashings, Wascoseal PVC waterproofing membrane and SUPERFLASH roof accessories.



Long life is the true beauty of a modern roof system.

Contour Taper Tile® expanded polystyrene (EPS) combines high insulating value with drainage for dead level roof decks. Small roofs or thousands of squares, economical Contour Taper Tile lengthens roof life and cuts energy costs.

Compatible with loose-laid and adhered systems — built-up or single-ply designs — Contour Taper Tile's positive drainage adds life to any system you choose. The best roof membrane is a dry roof membrane.

Independent labs monitor R value, flame retardancy, density and strength. Contour Taper Tile quality meets building code requirements. Layout and design are done to architectural specifications and every piece of EPS is marked for easy installation. Regional plants offer on-site job guidance.

Got a question or want complete specifications? Call toll free or write for our new brochure, "Positive Solutions for Roof Drainage and Insulation."

Contour Taper Tile is manufactured by —



**Associated Foam
Manufacturers**

PO Box 246, Excelsior, MN 55331 • Phone: 612-474-0809
Call Toll Free: 1-800-255-0176

Check #584 on Reader Service Card

Contractors prompt coal tar tests; results show ASTM standard inadequate

By William C. Cullen
Research Associate, National Roofing Contractors Association

The National Roofing Contractors Association (NRCA) sponsored a laboratory test program at the Chicago Testing Laboratory, Inc. to evaluate samples of coal tar pitches and coal tar bitumens. The nine samples were obtained from roofing contractors and represented the production of nine plants in the U.S.A.

The test results did not give adequate answers to the several contractor complaints associated with the application of coal tar products and their ultimate performance in service. The complaints involved, among others, "overruns," "coking," "brittleness" and "membrane splitting."

The results did provide encouraging leads in designing a field test program to investigate the major concern expressed by contractors of "overruns" when coal tar products were used. The test results also illustrate differences in physical properties between bitumens and pitches, which probably have an impact on the performance of a roof. The inadequacies of ASTM Standard D-450-78 as a performance criterion for coal tar bitumen used in roofing, dampproofing and roofing specification, were demonstrated by the test results. Suggestions have been made for modification of the standard by the addition of some performance parameters.

Contractor complaints prompt action

Coal tar products are currently being used in about eight percent of the built-up roof membranes, according to the April 18, 1983 Project Pinpoint data [1]*. The two types of products are described in ASTM Standard Specification D-450 [2] as Type I and III and commonly referred to as "coal tar pitch" and "coal tar bitumen" respectively.

Coal tar pitch has been in use as a roof waterproofing agent in the U.S.A. for over 100 years, with an excellent performance record. Coal tar bitumen was introduced as a "low-fuming" roof waterproofing coal tar bitumen proprietary product during the 1970s. Very little published information is available to describe this product and how it differs from "pitch."

Several contractor members of NRCA have come to

the Association and expressed their concern about the use of coal-tar products and have requested technical assistance. The most common complaint involves overruns in the use of material that, it is alleged, is considerably above the recommendations given in the manufacturer's literature. In several cases, the overruns were reported to be as high as 45 percent above the suggested amounts.

In response to member complaints, the Technical Operations Committee of NRCA directed the staff to pursue a laboratory investigation. The Chicago Testing Laboratory, Inc. was selected to gather data and information about the characteristics of coal tar roofing products as they relate to application and performance in service.

The test results did not give adequate answers to contractor complaints concerning the application of coal tar products and their field performance.

The reasons for conducting the test program were threefold:

1. to provide leads to the cause(s) of the apparent overruns and other alleged problems associated with the use of coal tar products;
2. to measure the physical property difference between pitch and bitumen and how the differences relate to on-the-roof performance and
3. to investigate the strengths and weaknesses of the current ASTM Standard Specification, ASTM D-450, as it relates to performance under service conditions.

Samples tested at Chicago labs

NRCA arranged for selected contractor members to obtain samples of coal tar bitumen and coal tar pitch representing current production. The samples were forwarded to NRCA with information on the origin of the material. The samples were coded by letter and sub-

*Figures in brackets refer to references which are cited at the end of the paper.

mitted to the Chicago Testing Laboratory for testing. The samples submitted consisted of seven coal tar bitumens and three coal tar pitch samples. In addition, the samples contained a duplicate of one coal tar bitumen because the original sample contained excess internal moisture, which interfered with the flash and distillation test.

The chart below gives a breakdown of the samples by type.

Sample Code	Type	ASTM D-450
		Type
A	Bitumen	III
B	Pitch	I
C1	Bitumen	III
C2	Bitumen	III
D	Bitumen	III
E	Bitumen	III
F	Bitumen	III
G	Pitch	I
H	Bitumen	III
I	Pitch	I

The test program was carried out in two phases. In Phase I, each sample was evaluated in accordance with the requirements of ASTM Standard Specification D-450-78. In Phase II, an additional series of test procedures was selected, designed to give data and information consistent with program objectives.

The Phase I tests are described in ASTM D-450 [2]. The Phase II test series was, for the most part, ASTM standard test methods or modifications. The following is a brief description of the additional Phase II test methods:

1. Ductility at 77°F - ASTM D-113.
2. Penetration Tests at 32°, 77° & 115°F - ASTM D-5. Penetration Index (P.I.) was calculated as follows:

$$P.I. = \frac{\text{Pen @ 115°F} - \text{Pen @ 32°F}}{\text{Pen @ 77°F}}$$
3. Thin Film Oven Test, 5 hours at 32°F - ASTM D-1754. The residue from this test was tested for softening point (ASTM D-36) and penetration at 77°F (ASTM D-5).
4. Cold Flow Test at 73°F, 50 percent R.H. at a 75 degree incline. The test specimens were prepared in accordance with ASTM D-1191, Section 5. The panels were placed in a room maintained at 73°F, 50 percent R.H. at a 75 degree incline.

5. Moisture Absorption at 73°F. Thirty grams of material was melted and poured into a 100mm Petri dish resulting in approximately 1/8 inch thickness of test specimen. The Petri dish with the material was weighed, the sample covered with distilled water and a watch glass placed over the dish. The Petri dish with the watch glass was placed in a room maintained at 73°F and periodically weighed (after blotting off the surface of the specimen) to determine the quantity of water absorbed.

6. Heat tests at 425°F.

Condition 1—This test on the five samples was conducted in conformance with ASTM D-3791, except that the oven was maintained at 425°F for five hours. The lid was sealed by pouring a small quantity of the tar sample in the groove around the top of the can. At the end of the five hours, the container was removed from the oven, the lid was removed and the contents examined for skin formation or evidence of coking. A smear of the molten tar was made on a glass slide and examined for evidence of any small insoluble particles. The sample was then allowed to cool slightly and specimens were poured for determining softening points.

Condition 2—These tests were conducted with an open or exposed surface. The test was also conducted to conform to ASTM D-3791, except that a lid was not placed on the can and the oven temperature was 425°F.

Test results varied

Some comments on the test results were prepared in conjunction with representatives of the Chicago Testing Laboratory.

1. Coal Tar Samples B, C-1 and F contained excessive moisture. The moisture in Sample C-1 was internal and could not be removed sufficiently to perform a distillation and flash test without the material foaming excessively. A second sample (C-2) was obtained from the same source. The moisture in Samples B and F was free water. As it was external, the material was allowed to dry in a laboratory atmosphere before the distillation and flash test was conducted.

continued on following page

Coal tar tests

continued

TABLE 1: ASTM D-450 Test Results of Coal Tar Bitumen Samples

Sample Code	A	C-1	C-2	D	E	F	H	ASTM D-450 Type III
ASTM D-450 Spec. Tests								
Water, %	*Trace	†0.6	None	None	None	†1.50	None	None
Specific Gravity @ 77F/77F	1.277	1.26	1.30	1.25	1.27	1.31	1.26	1.22-1.34
Softening Point (R&B) F	147	140	141	145	*152	146	*149	133-147
Flash Point (COC) F	440	-	425	490	415	435	420	248 min.
Total Bitumen Soluble in CS₂, %	73.5	80.8	73.0	84.7	80.1	†70.9	79.2	72-85
Ash, %	0.46	0.12	*0.58	0.16	0.07	0.46	0.11	0.5 max.
Total Distillate, %:								
To 572F	0.0	-	0.0	0.0	0.0	0.0	0.0	0 max
To 599F	0.0	-	0.0	0.0	0.0	*0.21	*0.49	0 max
To 680F	*5.82	-	*7.56	1.78	4.83	4.31	2.56	5 max
Softening Point (R&B)F of Distillation Residue to 680F	182	-	177	161	174	175	168	-

* Denotes that test result is outside of specification limits of ASTM D-450, Type III. Generally, the results are within the reproducibility precision limits of these ASTM Standards.

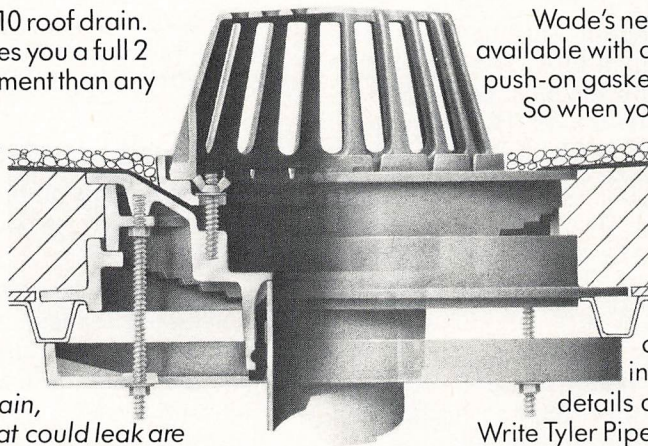
† The Koppers Co. reports that due to the temperatures experienced during the distillation of coal tars, moisture presence is not possible at the time of manufacturing in greater than trace amounts. It is apparent that the moisture observed was induced into the product at a later time.

There's only one roof drain on the market that'll adjust from 1" to 6" without extra parts.

The new Wade W-3010 roof drain.
This unique drain gives you a full 2
inches more height adjustment than any
other drain available.

Adjustment is simple.
To raise or lower the
drain, just turn the roof
drain body. No tools are
required. Adjust the drain
to the desired height and
secure it with the under-
deck clamp. That's it.

Because the
adjustment is under the drain,
extra gaskets and seals that could leak are
totally eliminated.



Wade's new W-3010 roof drain is
available with all popular outlets in 2"-10";
push-on gaskets in sizes 2" through 6".

So when you need a roof drain that can
rise to any occasion, install
Wade's new adjustable
roof drain.

See the W-3010, and all
Wade products, at your
nearest plumbing
wholesaler. Or write for
our 12-page folder that
includes complete installation

details and dimensioned drawings.
Write Tyler Pipe, Box 2027, Tyler, TX 75710.
Or Telex 735410.

Tyler Pipe
Subsidiary of
Tyler Corporation

© 1983 Tyler Pipe Member PDI
All Tyler products are made in the U.S.A.
A patent application has been filed for Wade adjustable roof drains.

Check #629 on Reader Service Card

Commenting on this deficiency, the Koppers Co. claimed that due to the temperatures experienced during the distillation of coal tars, moisture presence is not possible at the time of manufacturing in greater than trace amounts. It is apparent that the moisture measured was induced into the product at a later time.

2. Sample D was the only sample of coal tar bitumen that fully complied with all of the requirements for Type III of ASTM D-450 specification. The test results, however, are generally within the reproducibility precision limits of ASTM standards. The following samples did not comply with the specification requirements as printed:

Sample A, slight excess of distillate off at 680°F.

Sample C-2, slightly high ash and excessive distillate off at 680°F.

Sample E, softening point slightly over maximum specification limit.

Sample F, excessive water, low solubility in carbon disulfide and some distillate off at 599°F.

Sample H, softening point slightly high and some distillate off at 599°F.

All of the coal tar pitch samples complied with the requirements for Type I of ASTM D-450 with the ex-

ception of the small amount of free water (external) found in Sample B.

3. The ductility of the coal tar bitumen samples, with the exception of Sample C-2, was measured at less than one centimeter. All three coal tar pitch samples had ductility values of 63 to 92 centimeters. It should be noted that prior to the introduction of the low fuming coal tar bitumen, the previous ASTM Specification D-450-71 required a minimum ductility at 77°F of 50 centimeters.
4. The penetration test, although not included in the ASTM Standard D-450, indicates the hardness or consistency of a bituminous material at the test temperature. The test results show that coal tar bitumens, as a class, are harder than coal tar pitches at moderate (77°F) and higher (115°F) temperatures, although each material has essentially no ductility at low (32°F) temperature.
The Penetration Index (P.I.) is an indication of the temperature susceptibility of the material; the higher the P.I., the more susceptible the material is to temperature change. The coal tar bitumens appear to be somewhat more susceptible than the pitches.
5. Coal tar pitch samples show a higher mass loss in

continued on following page



OWN A TAURUS TANKER FOR AS LOW AS \$3.60* PER HOUR

*Rate based on 160 hrs. monthly



Using a tank, you eliminate these kettle costs:

- _____ Hourly rate of kettelperson.
- _____ 50% less fuel dollars than a kettle.
- _____ Handling of carton asphalt.
 - unloading at the yard
 - unloading at the jobsite
 - chopping carton asphalt for the kettle
- _____ Jobsite cleanup with kettle & cartons.
- _____ Early morning kettle start-up.
- _____ Wasted manhours of your crew when kettle can't keep up.

Tank rental & financing available.

Contact:

TAURUS

LIQUID ASPHALT SYSTEMS, INC.

2425 Jefferson

Kansas City, Missouri 64108

(816) 474-0448

What is your hourly cost of operating a kettle?

The labor savings (tanker vs. kettle) WILL PAY FOR YOUR TANK WHILE YOU USE IT!

Doesn't It Make Sense To Own A Taurus Tanker?

Check #606 on Reader Service Card

Coal tar tests

continued

the Thin Film Oven Test than do the coal tar bitumen samples.

In the Thin Film Oven Test, specimens of coal tar bitumen and pitch all developed a surface scum during the test which indicates a change within the materials. In accordance with the test procedure, the surface scum was stirred back into the material prior to conducting the penetration and softening point tests.

The Thin Film Oven Tests also produced a significant rise in softening points as well as a significant decrease in penetration at 77°F, which indicates a hardening of both types of coal tar products with a subsequent change in viscosity.

- There was very little change in softening point in the specimens subjected to heating at 425°F in a closed container, although all specimens showed a slight loss in weight. There was no evidence of skin or coke formation on the materials.

Heating the material in an open container at 425°F for five hours showed a rather large weight loss; however, the increase in softening point was small. There was no evidence of any skin or coke formation during the heating.

- The amount of water absorption exhibited by the

other samples was rather insignificant for the period of the test. Differences in amounts absorbed were apparent, however.

- All of the samples exhibited a measurable flow when subjected to the conditions of the tests at a 75° incline. In general, the coal tar pitch samples exhibited more cold flow than the coal tar bitumen samples. This may be indicative of better self-healing properties.

New tests needed

We have interpreted the test findings of the program in terms of the objectives of the study relating to: 1) contractor complaints, 2) apparent differences between pitches and bitumens and 3) the inadequacies of ASTM Standard Specification D-450 as a performance indicator.

- In addressing the contractor complaints involving overruns of materials above the amount specified, heat tests at 325°F and 425°F were conducted. The test results did not provide reasons for the alleged overruns which have occurred. The thin film tests at 325°F produced weight losses amounting to three to

continued, page 56

TABLE 2: Phase II Test Results on Samples of Coal Tar Bitumen

Sample Code	A	C-1	C-2	D	E	F	H
1. Ductility @ 77F, 5cm/min, cm	0.5	-	9.3	0.25	0.0	0.3	0.0
2. Penetration Test:							
@ 32F, 200g/60 sec.	0	1	0	1	0	0	0
@ 77F, 100g/5 sec.	7	8	11	3	2	4	3
@ 115F, 50g/5 sec.	72	106	105	63	45	68	55
Penetration Index	10.3	13.1	9.5	20.7	22.5	17.0	18.3
3. Thin Film Oven Test @ 325F:							
Mass Loss, %	5.37	5.75	6.78	2.52	4.90	5.72	3.05
Softening Point (R&B)F	177	172	174	162	174	174	167
Penetration @ 77F	0	0	1	3	0	0	1
4. Cold Flow in inches after 135 days	0.13	*	0.25	0.08	0.03	0.06	0.07
5. Moisture Absorption after 122 days, %	0.18	*	0.72	0.14	0.26	0.15	0.14
6. Heat Tests @ 425F, 5 hours:							
Condition 1 (closed container)							
Mass Loss, %	0.18	*	0.17	0.18	*	*	*
Softening Point °F	148.5	*	145	147	*	*	*
Evidence of Coking	None	*	None	None	*	*	*
Condition 2 (open container)							
Mass Loss, %	0.98	*	0.78	0.51	*	*	*
Softening Point °F	152	*	147	149	*	*	*
Evidence of Coking	None	*	None	None	*	*	*

*Not Tested

To Life!



© 1983, The American National Red Cross.

Eddie Cruz, Delois Graham, and David Ames give blood regularly through their company blood drives.

Give Blood. Give Life.

Giving blood is everyone's business. After all, company blood drives provide a vital part of our nation's blood supply.

They benefit everyone. Your community gets much needed blood. Your employees get a lift when they give blood. And your company gets the good will.

So please have your firm start planning for a blood drive, today. And you can help save many lives tomorrow.

American
Red Cross



We'll Help. Will You?

Coal tar tests

continued from page 54

seven percent for the bitumens and seven to nine percent for the pitches. The high temperature heat tests at 425°F, which were conducted in both open and closed containers, however, showed losses of about one percent or less despite the 100°F temperature difference over the Thin Film Oven Test.

The question which arises is, "Why?" The variance in mass loss appears to be related to the surface/volume ratio during heating, as only a small loss was measured when the surface/volume ratio was small and rather significant losses of up to 10 percent were experienced when the surface/volume ratio was large.

In relating these results to field conditions, it seems that when heating coal tar products up to 425°F, one should expect only small mass losses as the surface/volume ratio is quite small. This applies to either open (kettle) or closed (tanker) vessels. However, the more significant mass losses experienced in the Thin Film Oven Tests may indicate not only a material property change but also a mass loss during and subsequent to application. It is certainly worth the effort to consider this hypothesis in designing field experiments to address the overrun situation.

The heat tests at 425°F did not have a "coking" of the materials. This method did not simulate a real life situation, however, where the product is in contact with heating tubes reaching temperatures in excess of the 425°F ambient test conditions. This may also be an area which can be researched in a field testing program.

2. The test results showed the difference in physical properties between coal tar pitches and coal tar bitumens, which may be related to the application and performance of the respective products. The chemical properties were not investigated in this study.

The higher range softening point coal tar bitumens, as a class, tend to be harder and more brittle than lower range softening point coal tar pitches at normal temperatures. This conclusion is derived from the softening point results as well as from the penetration tests at 115°F and 77°F. The cold flow

The results did demonstrate some variations in conformance of marketed products with the requirements of D-450 specification.

tests at 77°F also confirm this conclusion, because coal tar pitches, as a class, appear to be more susceptible to flow; thus, they possess better self-healing properties at normal temperatures. On the other hand, the penetration test at 115°F and the flow test results indicate that coal tar pitch products may be more susceptible to membrane slippage problems.

The results of the 32°F penetration tests indicate that both classes of products act as brittle solids and

TABLE 3: ASTM D-450 Test Results of Coal Tar Pitch Samples

Sample Code	B	G	I	ASTM D-450 Type 1
ASTM D-450 Spec. Tests				
Water, %	*0.2	None	None	None
Specific Gravity @ 77F/77F	1.27	1.28	1.26	1.22-1.34
Softening Point (R&B)F	140	134	135	126-140
Flash Point (COC)F	435	430	400	248 min.
Total Bitumen Soluble in CS ₂ , %	80.5	79.7	82.0	72-85
Ash, %	0.06	0.11	0.16	0.5 max.
Total Distillate, %:				
To 572F	1.18	2.67	0.22	10 max.
To 599F	2.06	3.25	0.70	-
To 680F	10.03	9.18	10.38	-
Softening Point (R&B)F of Distillation Residue F:				
To 572F	152	148	143	176 max.
To 680F	179	168	174	-

* Denotes that the test result for water is outside of specification limits of ASTM D-450, Type I. The Koppers Co. reports that due to the temperatures experienced during the distillation of coal tars, moisture presence is not possible at the time of manufacturing in greater than trace amounts. It is apparent that the moisture observed was induced into the product at a later time.

TABLE 4: Phase II Test Results on Samples of Coal Tar Pitch

Sample Code	B	G	I
1. Ductility @ 77F, 5cm/min, cm	63	89	92
2. Penetration Test:			
@ 32F, 200g/60 sec.	0	12	0
@ 77F, 100g/5 sec.	7	15	14
@ 115F, 50g/5 sec.	111	165	157
Penetration Index	15.9	10.2	11.2
3. Thin Film Oven Test @ 325F:			
Loss, %	7.0	7.8	9.3
Softening Point (R&B)F	162	174	175
Penetration @ 77F	1	0	0
4. Cold Flow in inches after 135 days	0.14	0.34	0.29
5. Moisture Absorption after 122 days, %	0.13	0.18	0.12
6. Heat Tests @ 425F, 5 hours:			
Condition 1 (closed container)			
Mass Loss, %	0.21	0.20	*
Softening Point °F	141	135	*
Evidence of Coking	None	None	*
Condition 2 (open container)			
Mass Loss, %	1.14	0.96	*
Softening Point °F	146	140	*
Evidence of Coking	None	None	*

*Not Tested

exhibit little or no visco-elastic characteristics below freezing temperatures.

The most obvious differences between the bitumens and pitches appeared as a result of the ductility and total distillate tests. The ductility at 77°F—the ability of a material to extend without rupture—of coal tar pitches was much higher than that of the bitumen samples. It is generally recognized that ductility testing of bituminous materials is susceptible to slight variations in procedures and techniques. From a performance viewpoint, a higher value may be more desirable.

The total distillate to 680°F is an indicator of the volatiles emitted from coal tar products during heating. The results show that bitumens give off less than half the volatiles of the pitches. From a pollution and probably a safety viewpoint, it is recognized that a lower value is more desirable.

A low moisture absorption value is an important characteristic of any waterproofing component of a roof system. The test results indicate that both classes of products have low values, with only small differences on an overall basis.

The test program has established that there are differences between coal tar pitches and coal tar bitumens. These differences may well affect performance on the roof, although this is yet to be deter-

mined. It also pointed out that more uniformity of characteristics within classes is desired.

- Test results show that only one of seven samples of coal tar bitumen submitted fully complied with all the requirements for Type III of ASTM Standard D-450, which is considered by the author to be a minimum specification. Considering the test reproducibility precision statements in the applicable ASTM standards, however, only one of these samples should be considered suspect. Two of the three coal tar pitch samples complied fully with the requirements for Type I materials.

The perceived field problems and an analysis of test results again point out that ASTM Standard D-450 is not necessarily indicative of product quality and not necessarily a performance indicator. The requirements in ASTM D-450 merely describe a bituminous material in terms of some physical characteristics that, it is hoped, will insure that the materials can be handled, applied and will stay in place on the roof. How the products perform under actual field conditions is the only way to determine if the physical characteristics, as described in ASTM, are performance indicators.

A specification based on material properties and performance parameters probably will not provide a panacea for all current deficiencies. It will, however, improve the chances of better and more uniform quality for the materials and better performance in roofing applications. Obviously, the data and information developed during this program is far too limited to suggest requirements and assign

Specifications and standards should contain some performance parameters, with the ultimate aim of improving the performance of the end product—the roofing system.

bench mark values for a new or revised specification. The producers of these products should provide the leadership and the technology to seek an improved standard under the auspices of ASTM or other recognized standard generating bodies. The "status quo" is no longer acceptable to the roofing industry.

This study does suggest several criteria which may be considered to describe quality products. In addition to

continued on following page

Coal tar tests

continued

the requirements of the current standard, requirements and test methods that are related to performance might be taken under study. For example:

- Ductility
- Heat Exposure
- Thin Film Oven Exposure
- Flow Properties
- Viscosity at Several Temperatures
- Penetration
- Temperature Susceptibility
- Water Absorption
- Coking Resistance
- Self-Healing Ability
- Aging, together with instrumental analysis procedures, to determine relative durability.

The test program results and their analysis did not explain the causes of problems perceived and reported by NRCA contractor members. The results did demonstrate some variations in conformance of marketed products with the requirements of D-450 specification.

The data and its analysis suggests the need for some field research to address the contractor "overrun" complaints and the need for improved specifications and standards. The specs and standards should contain some performance parameters, with the ultimate aim of improving the performance of the end product—the roofing system. These goals can be achieved with the current state-of-the-art and are consistent with the growing professionalism of all segments of the roofing community.

The author expresses his sincere appreciation to the many people who made significant contributions to the program, especially: Bob LaCosse, NRCA director of Technical Services; Conway Burton, Chicago Testing Laboratory, Inc. and Jim Spencer of the Kopper's Co.

References

- [1] Project Pinpoint Data, NRCA, April 1983.
- [2] ASTM D-450-78, Standard Specification for Coal Tar Bitumen Used in Roofing, Dampproofing and Waterproofing, 1980 Annual Book of Standards, Page 298.



SINCE 1900

AMERICAN ASSOCIATED COMPANIES, INC.

P.O. Box 4056 Atlanta, Georgia 30302
404-522-7060
Toll Free 1-800-241-2570

MOST COMPLETE ROOFER'S STOCK IN THE SOUTHEAST

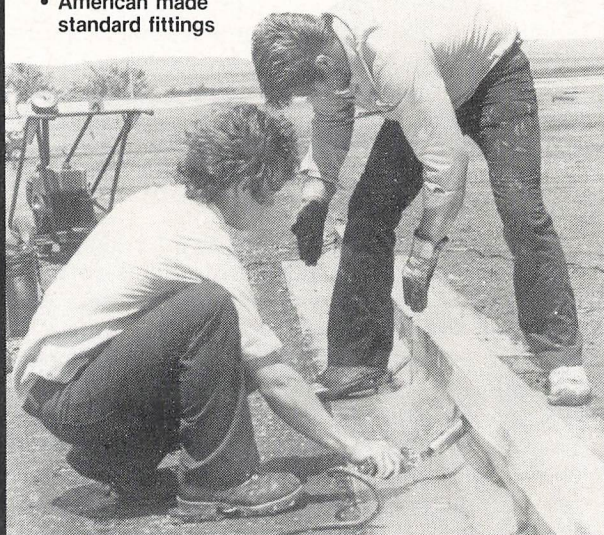
- GARLOCK'S FULL LINE—SWEDE Kettles & "On-Deck" Equipment
- TARZAN complete line of roofer's mops, yarns and handles
- Vacuum Engineering Roof Vacuum
- Liquid Asphalt Systems tankers, yard storage & job tanks
- Smith Hoist, Clearfield & Garlock Conveyors, R & G Hoists
- "Power Claw" Roof Remover, JET SPRAY, Louisville Ladders
- E.S., ZONOLITE, SIMPLEX, FEDERAL, Lexsuco, E.G., Maze Nails
- Membrane, flashing, roof vents, rope
- Gloves, brooms, brushes, knives

CATALOG MAILED UPON REQUEST

Red Dragon Torches . . . SEAMS SO EASY!

Full line of torches for modified bitumen application—
from hand held torches to full roll applicator.

- Wide range of BTU capacities
- Available in complete kits
- American made standard fittings



FLAME ENGINEERING, INC.
P.O. Box 577, LaCrosse, KS 67548
913-222-2873(KS) 800-255-2469 (USA)





you should get
acquainted with us!

manufacturers of the best
FIBERGLASS BUILT-UP ROOFING!
"PROVEN IN USE"

- SUPER II Modified Bitumen Glass Polyester Fiberglass B.U.R. Systems
- SYSTEMS IV Fiberglass B.U.R. Systems
- INSULATION—Fiberglass B.U.R. Systems
- CONCOAT Smooth Surface Fiberglass B.U.R. Systems
- CONSHIELD Ceramic Surface Fiberglass B.U.R. Systems
- GUARANTEES to Cover All B.U.R. Systems
- COMPLETE Line of Cold Process Adhesives and Coatings
- APPROVED Applicator Program
- COMPLETE Library of Specification Catalogs
- ARCHITECTURAL Isometric Drawings Available
- SALES Technicians Always at Your Service

come see us at the NRCA in ATLANTA

BUR
Built-Up Roofing. A System Above The Rest.

CONGLAS®

CONSOLIDATED FIBER GLASS PRODUCTS CO., INC.
3801 STANDARD STREET/BAKERSFIELD, CALIFORNIA 93308/PH. (805) 323-6026

Check #591 on Reader Service Card

When You Buy Globe's **BUR** Products Globe Delivers Peace of Mind

MEETS OR SURPASSES THE ROOFING INDUSTRY'S HIGHEST STANDARDS

Isn't it reassuring to know that every product you use in applying a BUR system meets ASTM's and UL's highest standards... that Globe endorses the NRCA's recommendations outlining the best Built Up Roofing practices... conforms to ARMA and NRCA Committee's concept of identification for mopping asphalts?

That's what you get from Globe. It's the same dedication to quality and service that has marked Globe's continuous growth for 50 years.

Build up your roofing sales with Globe's Built-Up Roofing products. Get referral "call ups" instead of "call backs." Contact us today. Ask for our "Built-Up Roofing Specifications" Catalog.



GLOBE BUILT-UP ROOFING PRODUCTS INCLUDE:

- GLOBE-GLAS Asphalt Coated Fiber Glass Ply Felt
- 43 lb. BASE & CAP Black Back Felt available in 1½ sq. and 2 sq. rolls
- 33 lb. Coated Black Back Multi-Purpose Felt
- 30 lb. AIR-FLOW Perforated Felt
- 15 lb. AIR-FLOW Perforated Felt
- QUALITY Mopping Asphalts to meet ASTM D-312 Type I, II, III and IV



GLOBE INDUSTRIES, INC.

2638 EAST 126TH STREET • CHICAGO, ILLINOIS 60633
(312) 646-1300



Agency mock-ups of advertisements to be placed during the campaign provide a glimpse of future publicity activities.

Changing our image

New program tells public, "We know what's going on"

You plod up your front walk after a particularly rough day at the shop. You pick up the evening paper from the doormat and let yourself in the house, heading for the kitchen. Cold beverage firmly in hand, you move on to the family room and turn on the television, hoping to catch the tail end of the news. You sink into your favorite chair.

Suddenly, the screen is filled with dramatic, sweeping aerial views of rooftops. The camera swoops in so tight you can see every shingle on an old schoolhouse. The room is wall-to-wall sound as a dozen studio singers belt out an unfamiliar (but catchy) lyric:

"Covering the country
Where you work, where you play
Where you shop, where you stay
Where you learn, where you pra-a-a-y-y
A professional roofing contractor
Knows what's going on!
All over America, all over America, all over
America . . ."

Kinda makes you tingle, doesn't it?

This scene may be a reality before long as NRCA rolls out a national public relations program for roofing contractors. The theme of the campaign is "Changing our Image—Protecting Our Future."

The program will be launched at the NRCA convention, Feb. 14-17 in Atlanta, and culminate in a series of special events for the Association's centennial celebration in 1986. The announcement was made by NRCA President Burton Karp and Executive Director Bill Good.

According to Karp, research reveals that the roofing contractor's role is not well understood even by those in the construction community, not to mention the general public. Messages will be aimed at architects, developers and general contractors as well as building owners.

NRCA has retained Gulf State Advertising Agency, Inc., Houston, Texas, to coordinate the program. The firm was selected from a field of seven agencies screened by a special committee at NRCA headquarters in October.

The ultimate goal of the program, as stated by the agency, is to show the public that professional roofing contractors complete jobs on time and are fairly priced, technically competent, safe and ethical.

continued on following page

PR program

continued

How it started

Two years ago, the NRCA Long Range Planning Committee members discussed problems they foresaw for roofing contractors over the ensuing five years. One main point emerged from the study: if the Association did not take steps to educate the general and construction publics, roofing contractors could lose business to inexperienced people who were entering the market with little education in the field. This eventually led to the decision to mount a public education program.

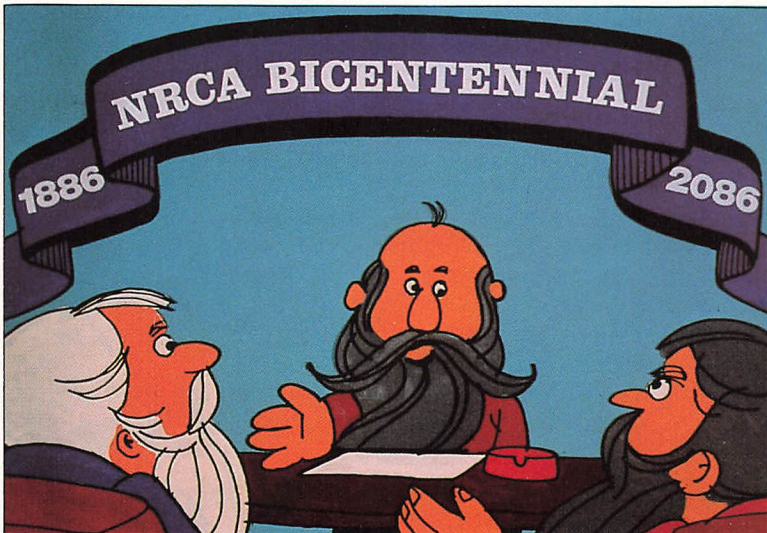
The price tag: a cool \$1 million. NRCA members are being asked to donate \$340 each to support the educational activities. The amount can be paid at one time, or in three yearly installments.

"That member who contributes \$340 is going to get a lot more, dollar for dollar, than he ever could if he spent the same amount on individual advertising," Good says with certainty.

In search of . . .

The first item on the agenda was the research to which Karp refers. An attitude and opinion survey was ordered by Gulf State; the results were compiled in December. NRCA members, architects, general contractors and developers were questioned about their knowledge of the industry and its representative organizations. As Karp reports, the need for roofing education was apparent.

A total of 100 consumers was randomly selected and telephoned. They were asked one question: "Which of these three names best expresses trust, quality and integrity—National Roofing Contractors Association, American Roofing Contractors Association or Professional Roofing Contractors of America?" The consumers overwhelmingly chose the third term. So, the key words in this campaign became *professional* and *America*.



Schedule of events

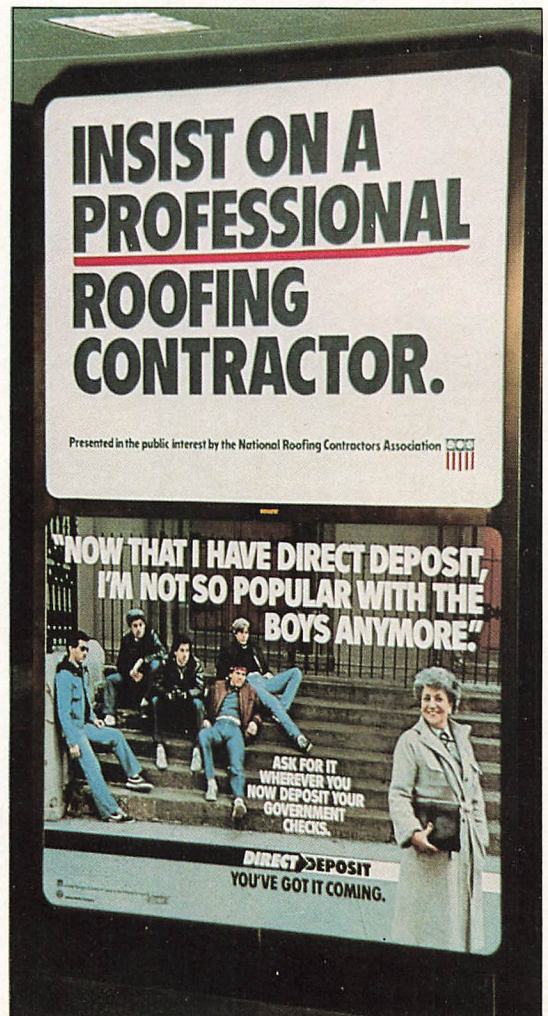
The 1984 activities are intended to instill in the roofing contractors an awareness of the importance of their function and pride in their profession.

"Before widespread public education is conducted, the contractors must have a thorough understanding of the program and be prepared to put their best foot (feet?) forward," Larry Sachnowitz, president of Gulf State, says.

The kickoff at the convention is the first step. The session is Wednesday, Feb. 15 at 2:30 p.m. in the Georgia World Congress Center auditorium. Contractors will hear testimonials from their colleagues active in NRCA, see a brief film and be introduced to the campaign's theme song.

"We are very enthused about this," Sachnowitz says excitedly. "We believe in what you do and we want you to believe in it, too," he adds.

Throughout the year, NRCA leaders will be talking with local associations, generating support and enthusiasm for the public relations program. A seminar on



media relations is tentatively planned in Chicago during the summer, where affiliate members will receive additional training in developing news releases, establishing media contacts, buying advertising space and placing industry spokespersons.

The activities of the second year will focus on reaching specialized publics in the building industry. Gulf State cites development of trade press relations, third party endorsements of the professional roofing contractor, locally-based public education programs and talk show placements as potential projects.

The general population is the target for 1986, the year of NRCA's 100th anniversary. It is hoped that advertising, public service announcements and press coverage generated from contractors' work on various historical sites will increase the public's understanding of the profession.



Picture this

As the program elements proceed from concept to implementation, the excitement of the NRCA officers and staff grows.

To date, the following projects have been completed:

- the initial surveys conducted;
- a press release announcing the program distributed to public and trade media;
- brochures and buttons sent to all NRCA members;
- a "musical identity piece" written and recorded and
- a documentary film on roofing contractors written, filmed and edited.

The following activities will be addressed as work progresses:

- identification, training and placement of spokespersons on talk shows;
- composition and distribution of public service spots for broadcast media;
- development and distribution of feature stories on roofing to consumer press;
- promotion of roofing education in institutional settings, and drafting of accompanying material;
- establishment of a toll-free NRCA roofing information telephone line;
- development of advertisements for billboards, newspapers, and magazines;
- establishment of "famous buildings" project, where contractors are used to restore historical sites and
- preparation and updating of industry fact sheets and position papers.

Measuring success

Informal and formal research will continue to be conducted throughout the program. NRCA recently contracted with a clipping service, which will allow the Association to monitor both public and trade press coverage of the campaign. Radio and television monitoring services will also be used.

Other informal research will include examination of correspondence, telephone requests, petitions and res-

continued on following page



Looking ahead to emphasize "Protecting Our Future;" an airport billboard in Houston, Texas brings home NRCA's message; Wayne Mullis, senior vice president, is readied for a taping session; the Association's centennial logo announces the 100th anniversary.

PR program

continued

olutions regarding NRCA from other groups, and opinion panels.

Formal research could entail the use of mail and telephone questionnaires, personal interviews, and motivation research on what public attitudes are and how they were formed.

No pickups here

"NRCA members are not roofers who operate out of pickup trucks," Good stresses. "The average member has been in business for 35 years, has 40 employees, and has an annual sales volume approximating \$3 million. Most are leaders in community activities and business affairs in their cities."

Convincing those that are responsible for handing business to the contractors of this truth is the key to the Association's public education efforts.

"We're committed to your success in this," Sachnowitz says once more with feeling. "The roofing contractor is going to be known as the protector of America."



Premiering in Atlanta...

NRCA TV TODAY

A daily convention television program featuring:

- ▶ Interviews with industry leaders
- ▶ Panel discussions on hot topics
- ▶ Sneak preview of upcoming events
- ▶ Review of educational workshops

6:00-9:00am each morning

Sponsored by:

Carlisle Syntec Systems
DuPont Company
Firestone Industrial Products
Koppers Company

Georgia pledges \$1000 to p.r. campaign

NRCA President Burton Karp received the following letter recently from the Roofing and Sheet Metal Contractors Association of Georgia, Inc., Atlanta:

Dear Burt:

Our Association wishes to demonstrate its support of NRCA's Centennial Program by pledging a contribution of \$1,000. . . We hope this will be of help and that it is only the first of such contributions from other affiliates.

A resolution is attached which articulates our commitment to the Centennial Program. This was passed at our fall Board of Directors meeting on October 8 following a presentation by Melvin Kruger that outlined the program. It should also be noted that many of our NRCA members asked for pledge cards and indicated that their companies would make contributions to the program.

Please accept our thanks for NRCA's efforts to improve the image of the roofing industry.

Sincerely,
Stanley M. Gerson
President

Be It Resolved

That the Roofing and Sheet Metal Contractors Association of Georgia supports action by the National Roofing Contractors Association to promote good roofing practice,

That we believe legitimate roofing contractors are professionals who provide their customers with a quality product,

That we support the National Roofing Contractors Association Centennial Program,

That every effort must be expended to improve the public image of roofing contractors,

That in support of the National Roofing Contractors Association Centennial Program, a donation in the sum of \$1,000 is pledged. . . with the hope that others will follow.

Resolved, this 8th day of October, 1983, by the Board of Directors of the Roofing and Sheet Metal Contractors Association of Georgia, Inc.

A better anchor for a better roof.

General Tire's EPDM has proved itself to be a better roof. Now there's a better way way to anchor our better roof: the General Tire disc anchoring system.

Each 8" high-alloy aluminum disc is fastened to the roof deck by a single bolt. The GTR disc system can secure a typical single-ply roof with fewer penetrations than mechanical fasteners. Installation is speeded, costs reduced and exposure to system failure lessened.

The GTR disc anchor is part of General Tire's complete single-ply EPDM roofing system: the proven system designed to carry a **UL Class A** rating and backed by General Tire's limited warranty for up to **15 years**.* Find out more. Call or write us for full details.

*Get complete warranty details from GTR.



General Tire Building Products Company
The General Tire & Rubber Company
P.O. Box 875
Toledo, Ohio 43696-0875
(419) 729-3731

*All the roofing assurance
you need.*

©1983, General Tire Building Products Company

This magazine's got your name, your rank and your number.

The better we know you, the better our chances of writing articles you'll find relevant and useful. The same holds true for our advertisers.

Knowing who you are (your name, job title, company and industry) enables them to more easily develop messages which meet your informational requirements.

Circulation information helps advertisers determine who you are, what to say and where to say it. And since advertisers support our publication and allow us to keep bringing you high quality editorial, we think they deserve the most reliable and current circulation facts and figures available.

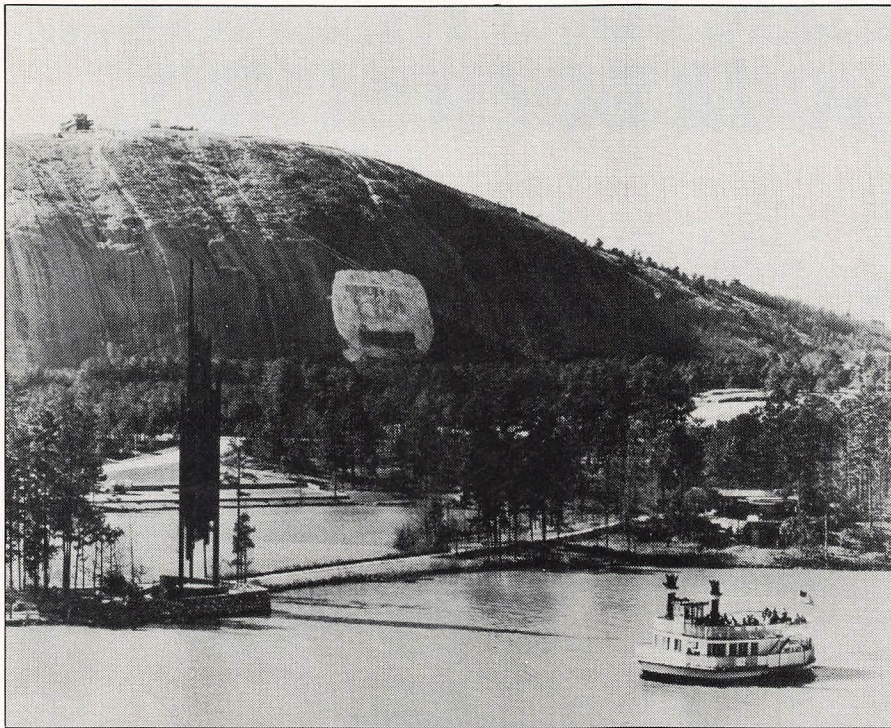
BPA (Business Publications Audit of Circulation, Inc.) helps us provide it. An independent, not-for-profit organization, BPA audits our circulation list once a year to verify that it's accurate and up to date.

The BPA audit makes sure our advertisers get the readers they pay for. And when advertisers get the readers they pay for, chances are they get the results they pay for, too.

BPA. For readers it stands for meaningful information. For advertisers it stands for meaningful readers. Business Publications Audit of Circulation, Inc.
360 Park Ave. So., New York, NY 10010.



We make sure you get what you pay for.



The paddlewheeler Henry W. Grady steams past Stone Mountain, the largest exposed mass of granite in the world, 16 miles east of Atlanta.

All photos courtesy of the Atlanta Convention and Visitors Bureau.

Atlanta: where the Old South meets the Sunbelt

Welcome to Atlanta, the heart of Dixie.

Ever since a certain damnyankee general passed through on his way to the sea, people from all over America have had a burning desire to visit this southern belle of a city.

Atlanta has always been the cultural, economic and political hub of this corner of the world. Its hospitality and charm embody the spirit of the Old South, while its gleaming megastructures and multinational corporations make it the shining showcase of the Sunbelt.

The city started as a Creek Indian settlement called Standing Peachtree. This first settlement has been memorialized in countless street, shop and building names in the Atlanta area. One theory, however, suggests the Indians may have had more in common with waterproofers than fruit growers. According to some, the word peachtree is really a misinterpretation of the Creek word for pitch. The Indians got pitch from pine trees and used it to waterproof their canoes.

The early 1800s saw Atlanta quickly grow to an important southern crossroads. The razing of the city by General Sherman during his decisive Civil War campaign is ghastly testimony to the city's importance as a geographical and cultural center for the South.

(One also can't help but wonder if the tide of the war might have been turned if Atlantans had used Class A rated roofing.)

After Atlanta was rebuilt from the ashes, it grew steadily into a city of nearly half a million. But it wasn't until the 1960s that Atlanta exploded into the metropolis it is today. As businesses and northern immigrants moved into warmer climes, Atlanta's population swelled to 2 million.

Today, regional headquarters for over 430 of *Fortune's* 500 largest companies are located here. And several multinational corporations such as Coca-Cola and Georgia-Pacific call Atlanta home.

The rapid growth and new prosperity hasn't made the city forget her past, however. There's plenty of

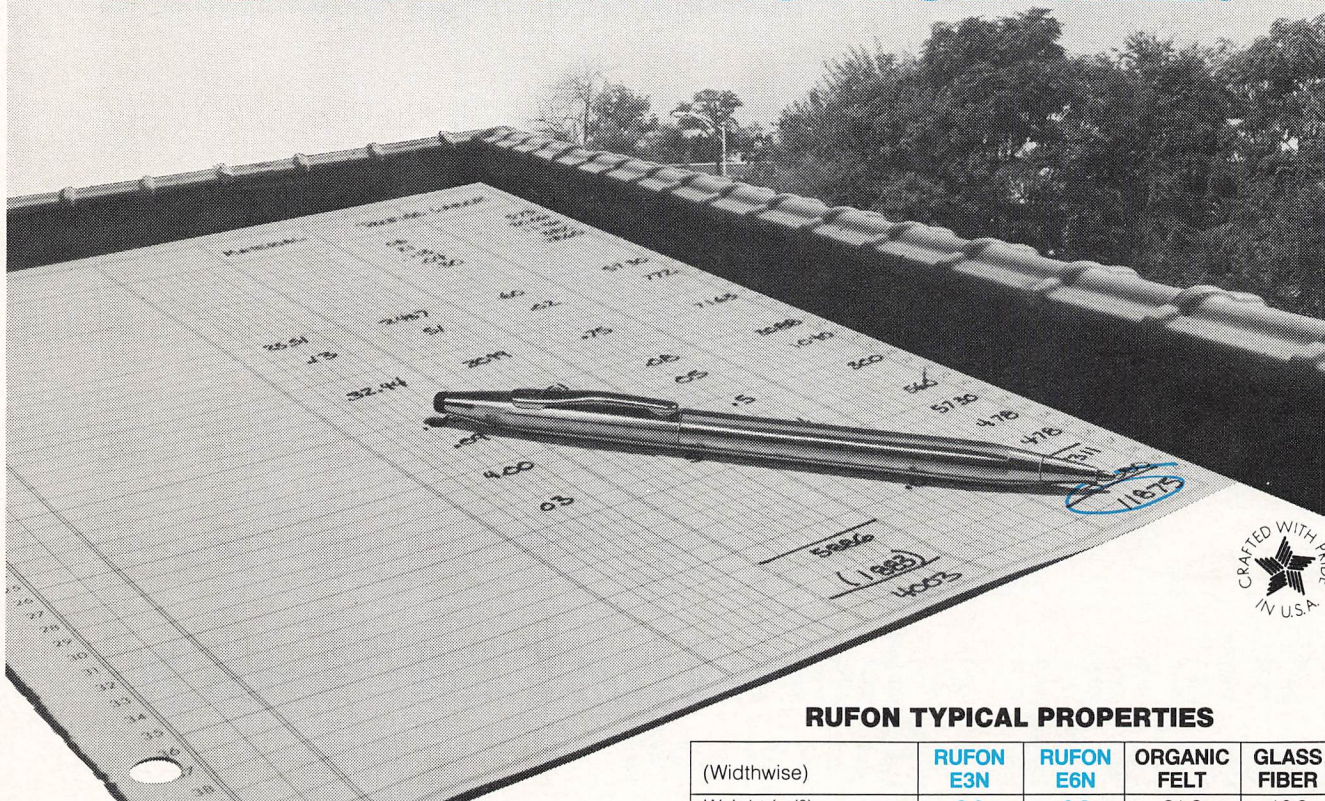
Antebellum charm in the city's tree-lined streets and gracious mansions. But underneath her crinolines she's all business.

For the first-time visitor, Peachtree Street, running through the heart of downtown Atlanta, can be a helpful reference point. As you orient yourself, be careful not to get confused, though. This is one city that takes its sobriquet to heart. There are a couple of dozen streets, roads, ways and boulevards bearing some variation of the Peachtree moniker. To further complicate things, most streets in Atlanta follow the original Indian paths and might be logical for tracking game but not for driving a car.

The Peachtree Street you want is four blocks east of the Georgia World Congress Center. On its way through downtown it runs past the shimmering Peachtree Plaza. The 73-story glass cylinder that dominates the Atlanta skyline is the tallest hotel in the world. Peachtree Street

continued, page 69

RUFON® FABRIC TOPS THEM ALL... DOWN TO YOUR BOTTOM LINE.



RUFON TYPICAL PROPERTIES

(Widthwise)	RUFON E3N	RUFON E6N	ORGANIC FELT	GLASS FIBER
Weight (yd ²)	3.0	6.0	21.2	16.3
Ultimate Strength (lb.)	70	135	64	65
Tear Strength (lb.)	35	55	.05	.02
Elongation (%)	60	55	.05	.01
Mullen Burst (psi)	140	250	30	19
Puncture (lb.)	35	70	20	10

RUFON®

Selecting a roofing fabric is a matter of product performance as well as economics. And that's why so many of today's contractors are taking a close look at Rufon® nonwoven fabric, the cost-effective reinforcing mat that easily outperforms all alternatives: Organics. Fiberglass. Even other polyesters.

UNPARALLELED PERFORMANCE.

For single or multi-ply cold roofing, Rufon has been engineered by Phillips Fibers Corporation for extraordinary performance. Just check the figures on strength, elongation, mullen burst and puncture resistance. This needle-bonded, thermal set synthetic tops them all — and won't separate, fuzz up or delaminate. Rufon will also form and fit easily, stays flexible in low temperatures and won't swell, rot or mildew.

EXCEPTIONAL ECONOMY.

Rufon offers attractive cost benefits, because cold coating application has never been this easy. Combined with a

suitable mastic, lightweight, easy-to-handle Rufon goes down faster, with less manpower and delivers exceptional, long term performance. When you consider total applied cost, Rufon's advantages can add up to important savings on your bottom line.

MORE INFORMATION.

Rufon® nonwoven fabric is available in weights of 3.0 oz. (E3N) and 6.0 oz. (E6N) per square yard, pre-marked with overlap guides in 36' x 375' standard put up rolls. With so many performance benefits, cost-effective Rufon is today's optimal solution to roofing failure. Learn more about Rufon: For the name of your nearest distributor contact Phillips Fibers Corporation.



PHILLIPS FIBERS CORPORATION
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY
TEXTILE NONWOVEN FABRICS MARKETING
P.O. BOX 66, GREENVILLE, SC 29602, (803) 242-6600

MAN MADE FIBERS/LIFE MADE BETTER

*Trademark Phillips Petroleum Company

EXHIBITING AT
NATIONAL ROOFING CONTRACTOR'S ASSOCIATION
BOOTH NO. 70-71, ATLANTA, GA., FEBRUARY 14-17

Call your RUFON Distributor Today.

For more information on these cold-applied roofing products, contact one of the Phillips Fibers authorized distributors listed below:

Daly Protective Coating Co.

124-137th St.
Hammond, Indiana 46327
Terry Quinn
800/348-6446

Flexguard Corp.

3209 Highway 231
Panama City, Florida 32405
Jeff Peterson
904/769-3404

Flex-Shield Corp.

PO Box 200
636 W. Commerce
Gilbert, Arizona 85234
Charles Carroll
602/892-3030

Geotextile Systems, Inc.

N. 15th W. 24817 Hwy. JJ
Pewaukee, Wisconsin 53702
Robert M. Groh
414/542-5523

Fields Products, Inc.

703 S. Bridges Ave.
Kent, Washington 98032
John Fields
206/852-3460

Gibson-Homans

1755 Enterprise Parkway
Twinsburg, Ohio 44087
216/425-3255

Karnak Chemical Corp.

330 Central Ave.
Clark, New Jersey 07066
Jerry Mills/Arthur Purdy
800/526-4236

Perma Glas-Mesh Corp.

180 West Broadway
Dover, Ohio 44622
Lou Settimio
216/343-4441

Gilsonite, Inc.

2946 N.E. Columbia Blvd.
Portland, Oregon 97211
Clair Bartel
503/288-5454

Gulf States Asphalt Co., Inc.

601 Jefferson, Suite 535
Houston, Texas 77002
Bill King
713/651-1507

Seaboard Asphalt Products Company

3601 Fairfield Road
Baltimore, Maryland 21226
Loran Van Brackel/Dick Campbell
301/355-0330

Henry Company

5608 Soto Street
Huntington Park, California 90255
Ed Batson
213/583-4961



FIBERS

Check #617 on Reader Service Card

Atlanta

continued from page 67

also takes you past the Hyatt Regency Hotel and the Merchandise Mart.

Further north, Peachtree Street turns into Peachtree Road and runs through Buckhead, a posh residential and shopping area. The area is full of "Gone With The Wind" estates and fun night spots. If you have extra time, you might take a side trip to the neighborhood to see its beautiful mansions maintained by the Atlanta Historical Society.

There are dozens of other things to see and do in Atlanta. An idle hour or two between meetings or an extra day after the convention might be the perfect time to take in some of the city's sights.

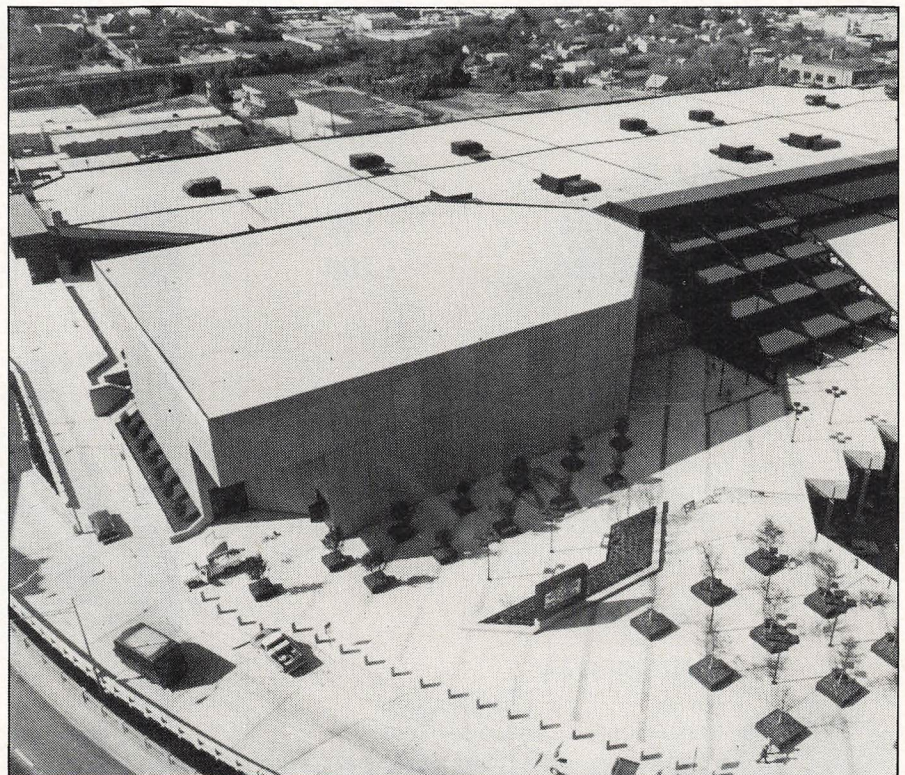
Even the hotels themselves are tourist attractions in this convention city. Both the Peachtree Plaza and the Hyatt Regency are the work of Atlanta architect John Portman. Their soaring atria helped set the architectural style of the 1980s.

The Omni Complex, integrated with the World Congress Center, is a 5.5-acre megastructure containing a hotel, meeting areas, restaurants, movie theaters, shops, a sports arena and an ice skating rink. Visitors can spend an entire day exploring this edifice and still not see it all.

In addition to these breathtaking buildings there are several museums and art galleries to help you browse your idle time away. Some museums preserve Atlanta's Old South past. The Gone With the Wind gallery memorializes the book and the movie most closely associated with the city.

The cultural events, cuisine and night life in Atlanta are just what you would expect from a world-class city. Symphonies, theaters, cabarets, restaurants and night clubs offer a wide variety of entertainment and dining experiences. More specific informa-

continued on following page



The Georgia World Congress Center, part of the 5.5-acre Omni Complex and site of the 97th Annual National Roofing Contractors Association Convention.



The modern architecture of downtown Atlanta creates a dramatic skyline. Atlanta architects such as John Portman have helped make the city a showcase of the South.

Atlanta

continued

tion on times and events can be found in the free literature available in most hotel lobbies.

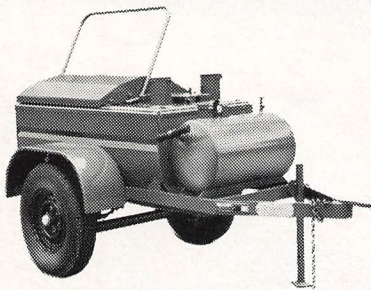
If you're feeling adventurous, you might rent a car and drive to the Stone Mountain Memorial Park. Stone Mountain is the largest exposed granite hill in the world. A recently-finished relief carving depicting the heroes of the confederacy is its face. In addition, there are craft shops and museums to explore and the world's largest electronic carillon to listen to.

Getting around downtown Atlanta during the convention should be painless. A shuttle bus service will transport you between your hotel and convention activities. The buses will be running on a regular and frequent schedule.

MARTA, Atlanta's transit authority, can take you to and from other

★ Heavy Duty Kettles ★★

Available from 100 to 1500 gallon capacity



"Little-Maxi"

3 Sizes

- 100
- 140
- 200

For small to medium jobs, these heavy duty kettles can't be beat. Heavy duty channel iron frame, immersion tube unit and 2½ inch draincock. 1 Burner heating unit, Kerosene or LP.

Available on skids

Call Toll Free...

Texas 1-800-292-5104
National 1-800-531-5606

REEVES

ROOFING EQUIPMENT CO., INC.

(512) 695-3567 • ROUTE 17, BOX 300 • SAN ANTONIO, TEXAS 78228

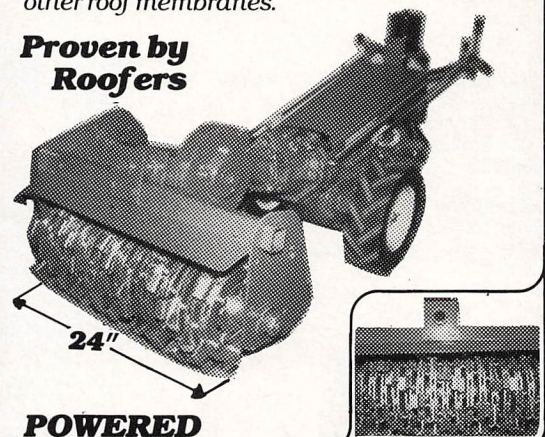
Check #620 on Reader Service Card

NEW! ROCK-BUSTER The Roof Gravel Scratcher

The Industry's first Self-Propelled Gravel Scratcher attachment, easily attaches to a self-propelled tractor. You will scratch more squares per hour because of the 24" cutting width and the power drive feature that permits the operator to walk and steer.

Due to the unique Cutter Blade design, you will experience far less damage to felt and other roof membranes.

**Proven by
Roofers**



POWERED

TAURUS

DIVISION OF LIQUID ASPHALT SYSTEMS, INC.
2425 Jefferson, Kansas City, Missouri 64108
(816) 474-0448

Check #606 on Reader Service Card

sites around the city. In addition to its 142 public bus lines, the transit authority is putting the finishing touches on a 53-mile, 41-station rail system.

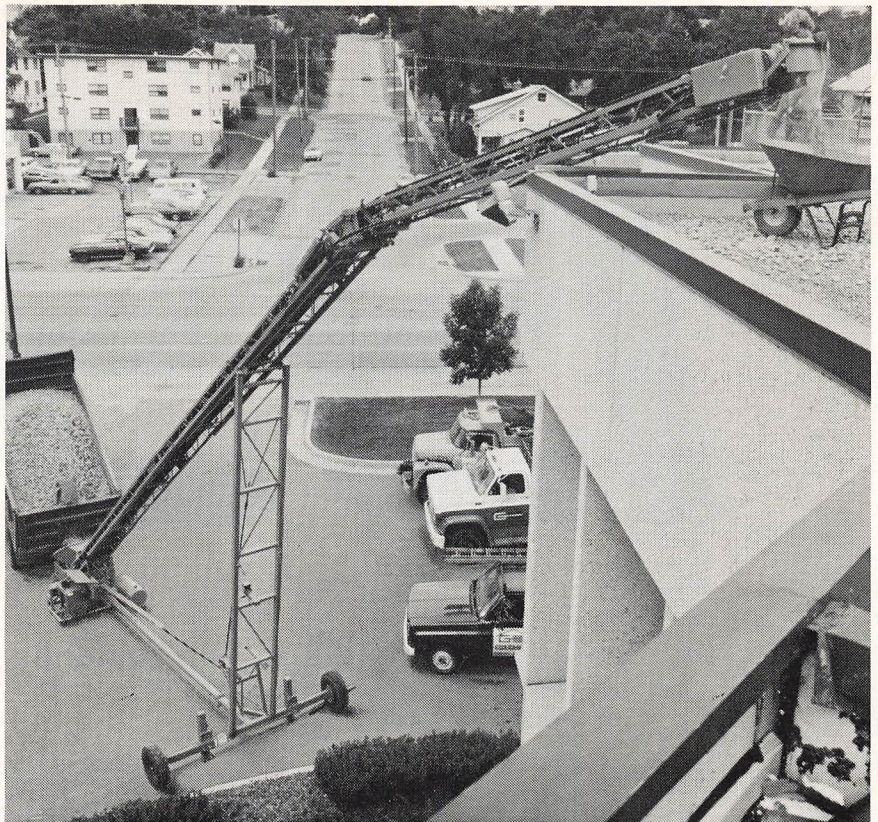
During the day, you might enjoy a walk around downtown Atlanta. After dark, it's suggested you take a taxi.

As you're packing for your trip keep in mind that the normal high in February in Atlanta is 54 degrees. It might be a good idea to bring along some warmer clothes for the chilly nights. Atlanta is a casual city so feel free to dress in comfortable clothes for convention business sessions. The NRCA dinner dance on Friday night is semi-formal-suits for men and dresses for women.

We hope you have a pleasant and memorable time in Atlanta. Whether you take in its uptown cosmopolitan ambience or its down-home Southern hospitality, Atlanta offers a fine mix of city lights and country sights to entice you and keep you amused.



Guests enjoy the atrium lobby of Atlanta's Peachtree Plaza, the world's tallest hotel.



First roofers conveyor to *effectively* elevate gravel and rock up to 45°!

Until now, roofers conveyors were self-defeating when it came to height, especially with large stone. As the angle of elevation increased, roll-back increased so production decreased.

Dramatic design changes now let Morgen offer a 68-foot conveyor that effectively elevates gravel and rock as high as 47½ feet.

We've done it with two-inch high cleats spaced one foot apart — specially designed cleats molded to the belt. They give you 40% more capacity than 1½" cleats and more than double that of chevron belts.

Then we've designed a telescoping axle that extends to 12 feet wide for stability at such high angles. The conveyor can be moved about the job with the axle extended. Conventional outriggers must be retracted for each move, just when you most need increased stability.

A proportional hydraulic valve cushions the belt start and stop.

Combined with all the other features of MORGEN articulated boom conveyors, the Super High Reach becomes the most practical conveyor you can buy. Write or call for complete information.

MORGEN MANUFACTURING CO.

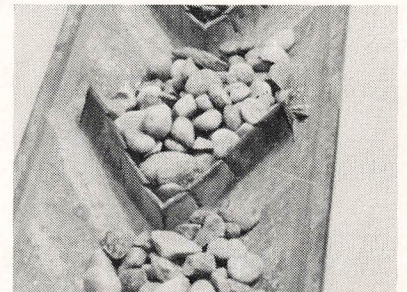
Box 160 Yankton, SD 57078
Phone 605-665-9654 Telex II 910-668-3601



Super High Reach Roofers Conveyor



Built-in jacks take the weight off the wheels so telescoping axles can be pulled out.

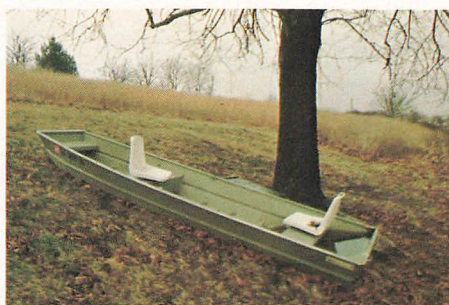


Check #612 on Reader Service Card

1999

The next year you'll even need to *think* about your new Bond Grey™35 roof.

And maybe not even then. Bond Cote System's Bond Grey™35 single-ply membrane roofing system now has a Fifteen-Year watertight warranty, covering materials and labor.



Fix leaks here instead.

Bond Grey™35 resists UV rays, chemicals and microorganisms, and withstands an awe-inspiring temperature range. There are no weather restrictions for installation.

This is strong stuff. Bond Grey™35's unique Nitrile Thermoplastic Alloy/Celanese Fortrel® Polyester composition, manufactured with our outstanding Fiber-Loc™ weave technology, is backed by more than a third of a century of research, development and testing in our U.S. Government approved laboratories*.

But wait — it gets better...

When you consider that Bond Grey™35 single-ply membrane roofing is the adaptable system — the one you can use on existing structures or on new ventures in ways limited only by your imagination.

Let us introduce you to Bond Grey™35, your next long-time friend. And we'll talk with you about roofing again some time in the next century.

BOND GREY™

35

SINGLE PLY MEMBRANE

Bond Cote Systems

CELANESE
FORTREL POLYESTER

SPRI

*QLL-2906

P.O. Box 1084 Pulaski, Virginia 24301 703-980-2262 • 1-800-368-2160

CELANESE FORTREL POLYESTER Fortrel is a registered trademark of Fiber Industries, Inc., a subsidiary of Celanese Corporation.

J1.1H1A2.AM

Factory Mutual System
Approved



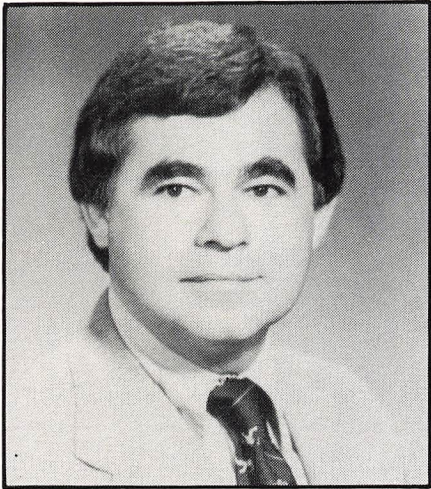
R-10197

Check #586 on Reader Service Card

***A*NNUAL *R*EPORT**

1982-83





John W. Bradford
President 1982-83

*Bradford Roofing
and Insulation Co.,
Billings, Mont.*

The National Roofing Contractors Association is a progressive association. And we realized years ago that it is no longer enough just to stay current, we must *lead* the roofing industry with the future clearly in mind.

In order to fulfill this role for its members, NRCA is emphasizing contractor professionalism—with worker training programs leading to highly skilled personnel and resulting in more business—and increased communication with other contracting trades—sharing information and providing one strong voice on construction issues.

The Accredited* Roofing Contractors program was developed and implemented to enhance the professionalism of the contractor. The influx of new products within the last 10 years requires that new technologies and application skills be learned. The recently established continuing education recognition program will keep roofing contractors up-to-date with the rapid changes in the roofing market. NRCA-sponsored workshops and seminars do the same.

NRCA's commitment to increased liaison activity with manufacturers and other construction trades was evident during the past year.

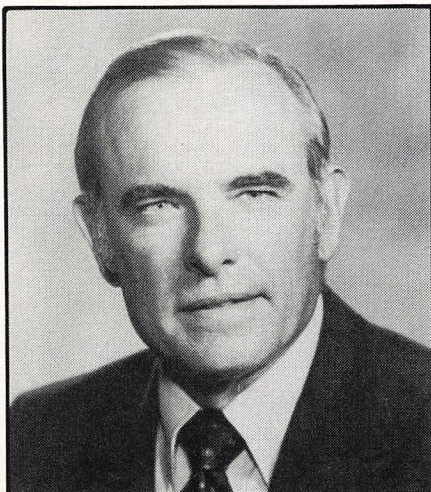
The Roofing Systems Technical Committee, composed of NRCA members and representatives from the Asphalt Roofing Manufacturers Association (ARMA), met to re-establish the reputation of built-up roofing. As a result, an ARMA task force is developing a systems standards approach for built-up roofing.

In addition, NRCA continued its liaison involvement with the Thermal Insulation Manufacturers Association (TIMA); the American Institute of Architects (AIA); Associated General Contractors (AGC); The EPS Block Molders, the Single-Ply Roofing Institute (SPRI); the Urethane Foam Contractors Association (UFCA) and others.

We improve our ability to develop longer lasting roofing systems by keeping the lines of communication open between the trades.

Association strength lies in knowledge and in numbers. We must continue to concentrate on areas that will develop our membership into an informed, responsive and unified voice for the roofing industry.

*Currently named the Academy of Roofing Contractors



Burton J. Karp
Senior Vice President
1982-83

*The Eagle Group,
West Hartford, Conn.*

NRCA is committed to the roofing contractor as an individual and as part of a collective force that will shape the construction industry. We have demonstrated our vital role in many ways.

Roofing contractors are faced with revenue loss because of the major misconception that Elasto/Plastic materials can be installed with little or no roofing expertise. Only a responsible roofing contractor has the knowledge to use the right materials in the correct manner to produce the best possible roof system. We at NRCA are determined to spread the word about the integrity of our roofing contractors.

The NRCA Long Range Plan laid the foundation for a public relations/advertising campaign designed to polish the image of the roofing contractor. By the NRCA Centennial year, 1986, there will be no doubt in the minds of consumers as to the important role roofing contractors play in protecting America.

In the short term, NRCA is concerned with the development of the individual

contractor. A series of worker training programs was instituted. One and two-day seminars, audio-visual programs and publications are now available.

Education is vital to making intelligent choices about roofing systems, materials and products. NRCA is meeting the needs of its constituency by providing programs to help contractors and their customers make these informed decisions.

Two editions of the *NRCA Roofing Materials Reference & Guide* were published in the first half of 1983. The *Guide* is the industry's most comprehensive, single-source document on built-up and single-ply roofing membranes. A general category lists product usage and background data, while the technical section reports test results based on referenced standards and criteria.

We must not let rapid change leave us behind. We must be on the leading edge of the industry and find the recognition that's rightfully ours as roofing contractors.

It is gratifying to me and to all of your staff, as I'm sure it is to you, to note the enthusiasm and importance that your elected leaders feel towards the National Roofing Contractors Association.

As you read the comments of your top elected officers, you sense their dedication to NRCA and this great roofing industry. From time to time you may disagree with certain programs and specific actions, but you need not be concerned with the motivation behind these endeavors. We are all trying to improve the industry and your role as roofing contractors.

I am particularly pleased to report to you the exciting feeling that I have about your NRCA staff. You will find your various NRCA departments competent and prepared to serve you in any way they can. You are often told to call NRCA for assistance whenever you have a question or problem. I join in this message and urge you to give your staff the opportunity to serve you.

Financially, the year 1982-83 was satisfactory. We did not add to our equity position, but we did not suffer any deficit. Considering the economic times, and the fact that your officers and Board established new programs and services, we did very well indeed.

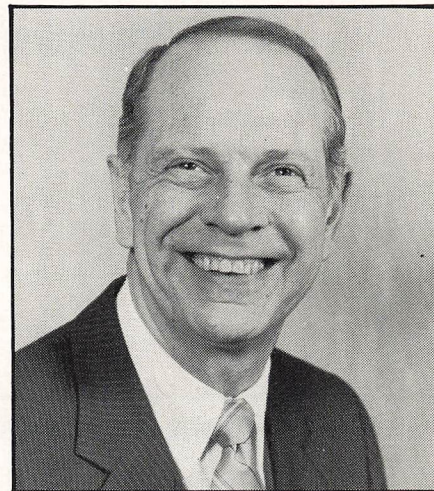
Our membership continues to grow, our dues remain at a very economical

level, our new Education Department is in place and the *NRCA Materials Reference & Guide* is an on-going valuable publication. Improvements have been made in many areas of activity and I, for one, feel that NRCA became an even more important tool for you during the past year.

Contractor membership dues currently provide about one-fourth of NRCA's total income. The rest of our income comes from sales of materials, subscriptions, conferences, the annual convention and other sources. I point this out so you will realize that new services and programs do not mean an automatic increase in dues.

Your Budget & Finance Committee meets quarterly, at which time there is a thorough review of all NRCA operations. These meetings cover a two-day period and involve discussion with each NRCA department as well as a thorough discussion with Bill and me concerning general operations. You can be assured and confident that all budgets, income sources and expenses are being carefully reviewed on a continuing basis. We are sure this is the way you want NRCA to operate.

I look forward to seeing as many members as possible at our upcoming convention. And, again, I urge each of you to be in frequent contact with your association—NRCA.



Fred Good
Executive Vice President

Director Bob McAdam reports that 650 NRCA members are enrolled in some phase of the CNA-NRCA Insurance Program. And, the Insurance Committee recently published two booklets for contractors, *The Basic Guide to Insurance for Roofing Contractors* and *Practical Guidelines to Control Water Damage*.

The Health and Safety Committee revised the section on Elasto/Plastic Materials in *Health Guidelines. Passport to Safety* is in the final editing stage

and the Committee continues to monitor OSHA problems within the roofing industry.

In addition, the Cold Applied Liquid Systems Committee has developed a work procedure document that has been turned over to the NRCA Technical Operating Committee for comments.

Finally, the NRCA Roofing Service Center is handling larger quantities of mail and information as NRCA membership continues to expand.

Administration

Roofing Spec applied for and received membership in the Business Publications Audit (BPA), an organization that certifies magazines' circulation. The audit provides specific demographic information to advertisers.

The Starch INRA Hooper, Inc., readership survey, conducted in the fall of 1982, indicates that *Roofing Spec* is widely read. In addition, its readers give top marks to the publication's technical articles.

Advertising revenue for the maga-

zine increased 26 percent over the previous fiscal year.

Plans were made for the Professional Roofing Contractor program, a national public relations campaign that will enhance the image of the roofing contractor. The program is one of many projects scheduled for the NRCA Centennial celebration in 1986.

Convention Spec was the only newspaper covering all four days of convention activities in San Antonio, Texas. It drew a readership of over 2,500.

Communications

Education

The Education Department was established in June 1982, with Alan Grayson as director.

The Roofing Systems Conference was held four times, attracting 300 participants.

The new, one-day Reroofing Conference was developed and conducted twice, attracting 150 attendees. Also new was the Foremen & Superintendents Conference on Productivity. This

seminar was held three times. The Convention Foremen & Superintendents Conference on Workmanship drew 200.

The first worker training program, Kettles, Tankers, and Bitumen Heating, was developed.

In addition, the Accredited Roofing Contractor (ARC) program was introduced and the Speakers Bureau was formalized and actively promoted.

Government Relations

In keeping with its goal to present a unified voice for the roofing industry in Washington, NRCA established its Government Relations Department in 1983.

Director Ken Nyquist is presently organizing the NRCA Political Action Committee fundraiser, "A Night at the Races," to be held at the 97th Annual Convention & Exhibit.

Nyquist is also developing the Second Annual NRCA Legislative Conference to be held April 1-4, 1984, in Washington, D.C. He is encouraging NRCA affiliates to become actively involved in the session.

Other department projects include the monthly government relations newsletter and the quarterly publication, *Congressional Review*.

Materials Reference and Guide

In February 1983, the first issue of the *NRCA Roofing Materials Reference & Guide* was published with 44 manufacturers listing 179 products. The October 1983 issue included 72 manufacturers and over 380 BUR specifications and single-ply products.

An advisory panel to the Materials Guide Committee was established and includes manufacturer representatives and members from the National Bureau of Standards, Single-Ply Roofing Institute, American Institute of Architects, Roofing Industry Educational Institute and the Building Offi-

cials and Code Administrators.

Plans are being finalized for including roofing insulation board materials starting in the August 1984 issue, according to Director Norm Bullock.

The first round of "Comparative Testing" has been completed, and the results from this testing program will be printed in the February 1984 issue. This data will provide assurance to the user of the *Guide* that its information is consistent with products currently being delivered to the field and confirms data previously reported by manufacturers and suppliers.

Meetings and Conventions

NRCA's 96th Annual Convention & Exhibition in San Antonio, Texas, topped last year's figures. Attendance soared to over 5,500 while exhibit space increased to 535 booths, representing 263 companies.

Nearly 600 booths were sold at San Antonio for the 1984 convention in Atlanta, Ga.

The convention keynote speaker was former President Gerald R. Ford

who addressed the issue of global politics. Other featured speakers were Dr. Barry Asmus, a convention favorite; Charles Kuralt and Mike Vance.

The Convention Department's new computer program is now underway, according to Director Gale Kiesel, simplifying the housing and exhibitor update process, which was manually maintained.

Technical Services

Director of Technical Services Robert LaCosse reports that the Technical Operations Committee was involved in numerous projects, several of which are described here.

Application tolerances for built-up roofing were submitted to the U.S. Air Force for approval and inclusion in

AFM 91-36 on Real Property Operation and Maintenance for BUR Management Program; application tolerances for EPDM, modified bitumen and PVC membranes are complete and now must be approved by the NRCA Executive Committee; coal tar bitumen and coal tar pitch tests were conducted at

Chicago Testing Laboratories (see Bill Cullen's report in this issue); the second, expanded list of manufacturers of liquid-applied products was released to help contractors distinguish between the various products and their application, and the Roofing Consultants List was updated.

Also, NRCA published joint releases with ARMA on the Asphalt Sampling Test Program and Lightweight Insulat-

ing Concrete Decks; revisions were made to the Built-Up Roof section of the *Handbook of Accepted Roofing Knowledge* (HARK) and the Steep Roofing section of the *NRCA Roofing & Waterproofing Manual* and releases were distributed on the reduction of plywood decking for low-sloped roofs from nominal 1/2" thickness to nominal 5/32" thickness.

Technical Services

continued

We have examined the accompanying balance sheet of National Roofing Contractors Association at May 31, 1983 and the related statements of revenue, expense and changes in fund balance and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards and included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the statements mentioned above present fairly the financial position of National Roofing Contractors Association at May 31, 1983, and the results of its operations and changes in financial position for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Doty, Jarrow and Co., Chicago, Ill.
June 22, 1983

National Roofing Contractors Association Balance Sheet May 31, 1983

ASSETS

Current Assets

Cash and cash equivalents	\$ 260,662
Accounts receivable, less allowance for doubtful accounts of \$2,000	35,752
Inventory	14,031
Other current assets	18,875
Total current assets	<u>329,320</u>

Due from Officer 25,000

Furniture, Fixtures and Autos, at cost, less accumulated depreciation of \$66,035 76,142

Equipment Under a Capital Lease, less accumulated amortization of \$16,761 25,141

Other Assets, deposits 6,322
\$ 461,925

LIABILITIES AND FUND BALANCE

Current Liabilities

Accounts payable	\$ 141,752
Current portion of obligation under a capital lease	8,380
Total current liabilities	<u>150,132</u>

Obligation Under a Capital Lease 14,600

Fund Balance 297,193
\$ 461,925

National Roofing Contractors Association Statement of Revenue, Expense and Changes in Fund Balance Year Ended May 31, 1983

Revenue

Membership dues	\$ 925,617
Convention income	830,931
Resale publications and films	133,665
Roofing manual	182,008
Advertising and subscriptions	301,978
Conferences	193,121
Interest income	31,538
Department of Energy contract	49,967
Litigation center, administrative fees	44,000
Insurance program	70,817
Education foundation, administrative fees	3,000
Roofing material reference guide	97,396
Miscellaneous	19,212
	<u>\$2,883,250</u>

Expense

Convention	542,782
Non-departmental	903,002
Technical research	210,683
Education	186,200
Administrative and operating expenses	384,829
Member services	290,198
Communications	285,896
Roofing material reference guide	88,383
	<u>\$2,891,973</u>

Excess of expense over revenue (8,723)

Fund Balance, beginning 305,916

Fund Balance, ending \$ 297,193

The Tough One

Hi-Tuff® single-ply membrane roofing is tough all over – on the surface, at the seams, and inside the sheet.

Hi-Tuff is made from DuPont's "Hypalon" synthetic rubber, known for its long-term weatherability and elasticity. There's no shrinkage or embrittlement with Hi-Tuff.

And, even though Hi-Tuff

is rubber, it can be hot-air welded on the roof, unlike conventional vulcanized rubber membranes with cemented seams.

Hi-Tuff membrane, internally reinforced with high-strength scrim, is mechanically-attached and needs no ballast. It's quickly installed and can be easily inspected at any time.

Owners like its reliability, and many choose it for its white surface and light weight. Hi-Tuff is a complete, carefully-engineered roofing system.

For complete information and a free sealed sample of Hi-Tuff Roofing, contact Roofing Systems, J.P. Stevens & Co., Inc., Easthampton, MA 01027. (413) 527-0700.

Hi-Tuff® Roofing

Everything a roofing system should be.

JP Stevens

[®]Hypalon is a Du Pont registered trademark.

New Products, Ideas, & Publications

Randustrial Offers Repair Kit

The Wet Surface Repair Kit being offered by the Randustrial Corporation contains all the materials needed to patch roofs regardless of weather conditions.

The kit contains Shield-Tite Wet Surface Coating (brush grade), Shield-Tite Wet Surface Cement (trowel grade), roofing membrane, trowels and brushes.

The materials supplied in the kit adhere to wet surfaces at any temperature.

More information on the kit, as well as information on other Randustrial products, may be found in the 1984 Randustrial Maintenance Catalog being offered by the company.

Check #138 on Reader Service Card

Hyster Features Lift Platforms

A complete line of mobile, aerial work platforms and rough terrain high-lift trucks has been added to the Hyster Company family of products.

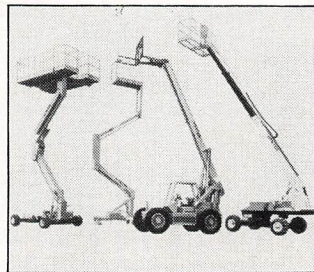
The lifts are based on the Fabtek line. Hyster acquired Fabtek in 1983.

Hyster is featuring 11 models of self-propelled, telescoping and manual machines with lifting capacities of 2,000 pounds and working heights to 76 feet. Three models of rough terrain, high-lift trucks are also available with lifting capacities of 6,600 to 9,000 pounds.

Former Fabtek dealers have been reappointed Hyster dealers to serve the new line. Additional dealers are also being appointed.

More information may be obtained from Hyster Co., Construction Equipment Division.

Check #139 on Reader Service Card



Wilson to Distribute Proveil Membrane

A high-strength, low-cost polyester roofing membrane manufactured by International Paper is being introduced by Wilson Distributing.

Proveil, a non-woven polyester membrane, can be used on single or multi-ply cold roofing applications. It features 40 percent elongation and 40 pounds grab tensile strength. Each 1,725-square-foot roll weighs only 27 pounds.

The product will be distributed through Wilson's six established warehouses located throughout the country.

For more information, Wilson is offering a free booklet, titled "Profiting With Polyester," which includes case histories, industry technical advice and other information.

Check #140 on Reader Service Card

Class B Rated Roofing Available From Masonite

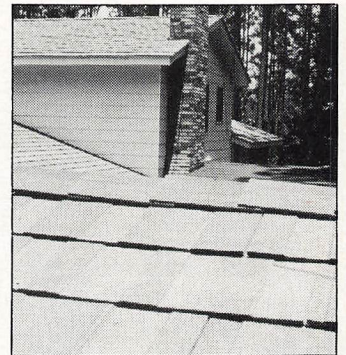
Masonite brand Woodruf Rustic Flame Test roofing is now available in a Class B fire rated system.

The upgraded fire rating is achieved by using Woodruf Rustic Flame Test Class B material over 2-mil-thick plastic coated steel foil and Type 15 asphalt roofing felt, purchased separately.

The system does not require asbestos underlayment and no interweaving of the foil is needed.

The product weathers to a silver-gray color.

Check #141 on Reader Service Card



Safway Offers Outrigger Frame

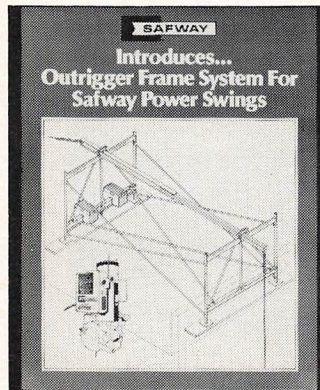
Safway Steel Products is introducing a five-piece outrigger frame system with a 1000-pounds-rated load.

The system features a support frame with built-in header beam and counter-weight support member. Compatible steel or aluminum outrigger beams allow for an overhang of up to four feet.

The system may be used with parapet walls up to nine feet high. It is adaptable to stationary or rolling conditions and offers an optional direct anchoring system.

Safway is a Figgie International Company.

Check #142 on Reader Service Card



Hot-air Gun Available from Columbine Int'l

The Zinser hand-held, hot-air sealing gun is being introduced by Columbine International, Ltd.

The K-5 gun is designed for operator comfort and ease of use. The brushes are easily changed from the handle and the simple circuitry minimizes downtime and repair costs.

The 110-volt heating elements plug in and are available in 800, 1300 and 1600 watts.

The equipment is also available in complete kits for particular applications.

Check #143 on Reader Service Card

Iris Corporation Introducing Roll-on Insulation

The Iris Corporation is introducing a West German Roll-on Insulation to the American market.

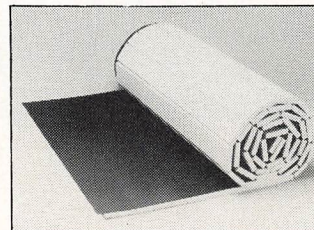
The product, called Iriroll, features a water-repellent base sheet bonded to a rigid insulating panel. The panel is then cut into strips and the insulation and base sheet system is rolled into 120-square-foot units. Each unit weighs about 60 pounds.

Iriroll is heat and UV resistant and may be used with hot or cold applications. It is engineered to accommodate deck movement and applicator abuse.

Similar products are used extensively for retrofit in western Europe, according to the manufacturer.

Iris Corporation is a manufacturer of integrated roof insulation systems for retrofit and new construction.

Check #144 on Reader Service Card



BASF Wyandotte Upgrades Protected Membrane System

An Intermediate Roofing System (IRS) has been introduced by BASF Wyandotte Corp.

The system upgrades the cost effectiveness and long-term R-value performance of Inverted Roof Membranes or Protected Membranes.

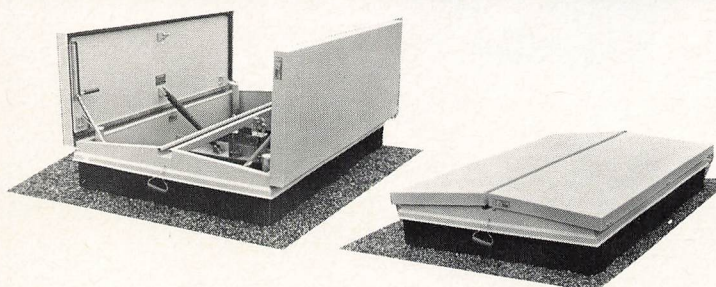
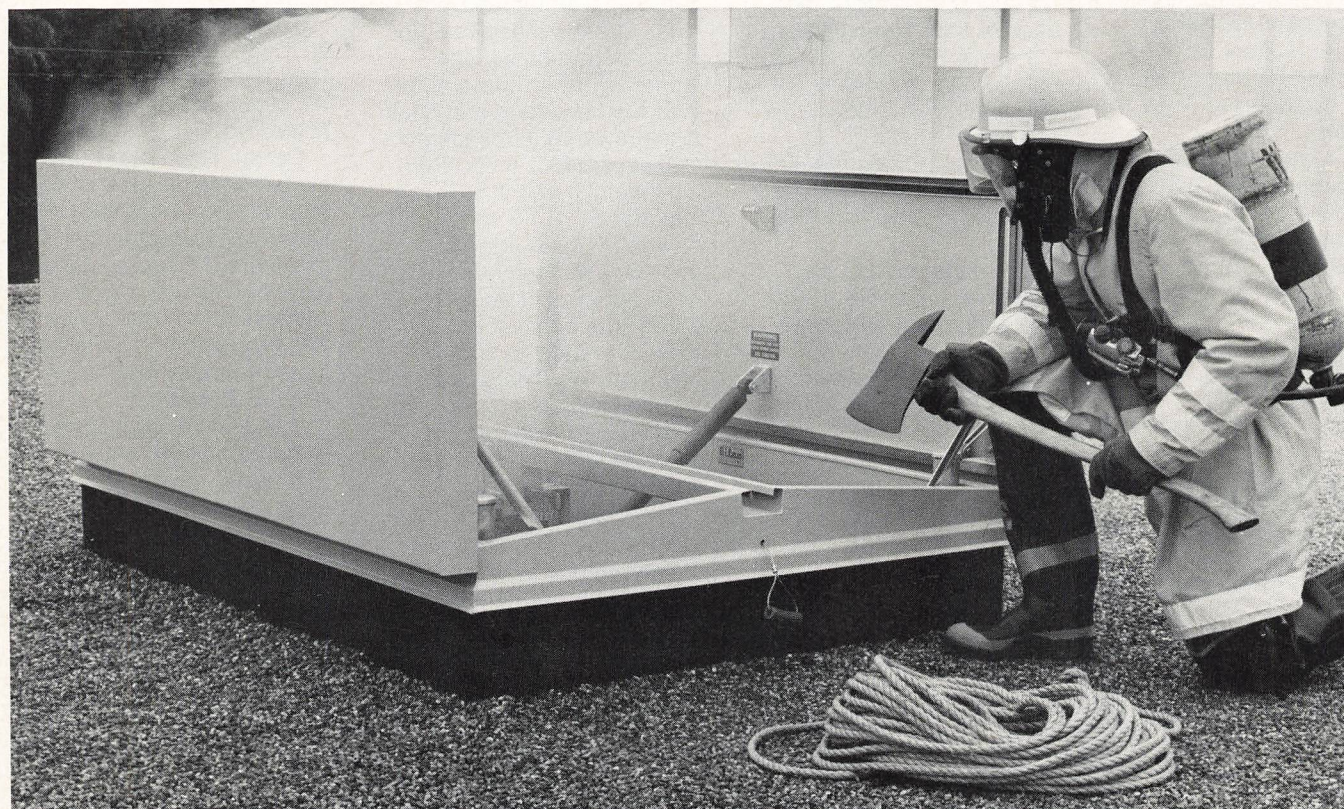
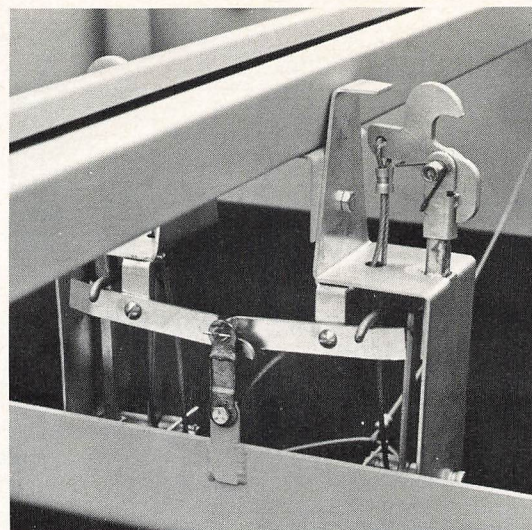
Design elements of the system include tapered EPS insulation below a BUR or single-ply system and a minimum thickness of extruded polystyrene board protecting the roof covering. The protection board is ballasted to resist buoyancy and wind uplift.

The system is designed to control water ponding and flowing under the insulation in the winter.

Technical information and construction guidelines are available from BASF Wyandotte. Complete details may also be obtained from EPS manufacturers throughout the country.

Check #145 on Reader Service Card

The Bilco Automatic Fire Vent. Designed to Work. Built to Last.



Send for a copy of Bilco's Automatic Fire Venting Guide. Answers questions about venting, helps you determine vent sizes and spacing.

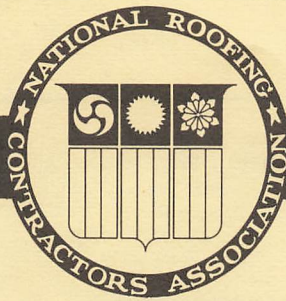
When you specify a Bilco automatic fire vent, you call for an insulated, gasketed, heavy gauge product that is built to last . . . a vent equipped with the patented Bilco Thermolatch™ mechanism.

The Thermolatch™ mechanism assures prompt release when activated in an emergency. And, just as important, it prevents accidental opening at other times due to wind uplift forces or vibrations. This is Bilco quality, the quality that means dependability, long service-life and complete satisfaction for your client.

Sixteen standard types and sizes of thermally activated vents with UL and FM labels are available, as well as custom sizes, and many designs and modifications for special requirements.



The Bilco Company, P.O. Box 1203, Dept. RS-24, New Haven, CT 06505



The 97th Annual Convention: Good says it better be the best

WELCOME to NRCA's 97th Annual Convention. As a member of NRCA, this convention is designed for you. The Convention Committee and the NRCA staff have endeavored to put together the kind of business programs, trade show, and social events that you will find valuable. We want you to leave saying "this was the best ever."

The theme this year is "GO FOR THE GOLD." It's an appropriate theme for 1984. To me, "Go for the Gold" means the personal pursuit of professionalism and excellence. In this context, it's an appropriate theme for every year, not just for the year of the Olympics.

I believe that one of NRCA's primary goals is to generate excellence in the roofing contracting profession. As you examine the Association's services in general, and this year's convention program specifically, I think you will agree that all of this activity is geared toward creating professionalism and excellence.

Our conventions are larger now, and it is more important than ever that you extend yourself to renew old friendships, make new friends out of prior acquaintances and meet new colleagues. There is a tremendous wealth of experience, expertise and yes, professionalism right here at our convention. With a little extra effort it's available to you.

Please... enjoy, learn and "Go for the Gold."

Fred Good, Executive Vice-President

**NATIONAL ROOFING
CONTRACTORS ASSOCIATION**



**97th Annual
Convention & Exhibit
Feb. 14-17, '84 Atlanta**

New Members

The following have been approved for NRCA membership between December 13, 1983 and January 5, 1984.

CONTRACTORS

- Chris Andersen Roofing Co., Inc.
P.O. Box 190
575 Sayre Ave.
Perth Amboy N.J. 08861
George Hudak
- Ansley & Associates, Inc.
P.O. Box 1927
Highway 17 & 30
Shallotte N.C. 18459
Robert L. Ansley, Sr.
- Attleboro Rfg. & Construction, Inc.
P.O. Box 934
Attleboro Mass. 02703
David Kingman
- Barnes Tin Shop Rfg. & S/M Co.
Highway 301, N.
Rocky Mount N.C. 27801
L.M. Barnes III
- Colbert Roofing Corporation
7809 Loisdale Road
Newington Va. 22122
Jerry Colbert
- Commercial Roofing, Inc.
1500 W. Littleton Blvd., #140
Littleton Colo. 80120
Bill Barnes
- J.K. Construction Co., Inc.
P.O. Box 20931
5705 N.E. 105th St., Unit B
Portland Ore. 97220
Jim Kenney
- Cornhusker Roofing & Waterproofing, Inc.
P.O. Box 575
305 E. Lincoln
Papillion Neb. 68046
Fred Riebersehl
- Crown Roofing, Inc.
P.O. Box 527 A
Woodsvew Building
Hollsopple Pa. 15935
Dennis R. Markferding
- Dixie Roofing Company
Box 235
Route 2
Winona Miss. 38967
Jerry C. Blakely
- G P Systems
P.O. Box 206
1215 1/2 State St.
Ely Iowa 52227
Thomas M. Tjelmeland
- Mid-West Roofing
225 18th St. S.E.
P.O. Box 710
Mason City Iowa 50401
John D. Drew
- Moisture Barriers, Inc.
P.O. Box C
Altamont N.Y. 12009
Robert G. Nadeau
- Montgomery-Winslow Roofing
P.O. Box 05338
4448 Palm Beach Blvd.
Tice Fla. 33905
Paul H. Winslow
- Mt. Hood Roofing Co., Inc.
P.O. Box 138
1800 Marok Road
Troutdale Ore. 97060
Kenneth M. Gwyn
- Northeastern Builders
Johnson Ave.
Johnstown N.Y. 12095
William Anagnostopoulos
- Pieros Construction Co., Inc.
P.O. Box 235
Raritan N.J. 08835
Richard Pieros
- Poe Roof Co., Inc.
7235 S.W. 42 St.
Miami Fla. 33155
Roger A. Miller
- PRC Roofing Co., Inc.
1012 Lehall
Houston Texas 77030
M. Delgado
- Reliable Roofing Co.
P.O. Box 304
Snyder Okla. 73566
Jesse Stroud
- Segarra Roofing, Inc.
6868 W. Second Court
Hialeah Fla. 33010
Manuel Segarra
- Gary Stewart Roofing, Inc.
801 S. Flower St.
Burbank Calif. 91502
G. Stewart
- Umpqua Roofing Co.
643 Rifle Range Road
P.O. Box 731
Roseburg Ore. 97470
Robert M. Tidrick

- W.J. Wray Roofing & S/M Work
Drawer P
Gaston N.C. 27832
Harold W. Wray

ASSOCIATES

- Binkley Company
Building Products Division
12115 Lackland Road
St. Louis Mo. 63146
Roofing Products Manager
- Building Suppliers Corporation
P.O. Box 14343
7805 Waters Ave. Suite 1219
Savannah Ga. 31416-134
Joseph G. Hall
- Elco Industries, Inc.
1111 Samuelson Road
P.O. Box 7009
Rockford Ill. 61125
George Page
- Insulated Building Systems
1516 Spring Hill Road
McLean Va. 22102
Roofing Products Manager
- W.S. Nielsen Co.
854 N. Atlanta St.
Roswell Ga. 30075
Walt Nielsen
- Nu-Chem
Division of Chemicals & Plastics, Inc.
5481-B Commercial Drive
Huntington Beach
Calif. 92649
William C. Biehl
- Roofblock Limited
232 Lexington St.
Waltham Mass. 02154
Lawrence S. Nicolai
- Tri-R Products Inc.
7401 E. Lincoln Ave.
Madison Heights
Mich. 48071
James M. Rizzo

INDUSTRIAL/INSTITUTIONAL

- Al Gilmore Inc.
5701 Gordon Road
Suite 3D
Mableton Ga. 30059
Albert Gilmore

INTERNATIONAL

- Overseas Waterproofing Corp.
117 Queen's Road-Baldota
Bhavan
2nd Floor
Bombay, India 400 020
M.H. Khatri

On The Roof

Tiny toy maker solves big roofing problem

A manufacturer of miniatures chose a monolithic cocoon to solve its full-scale roof problems. Tonka Toys of Mound, Minn., the famous maker of scale model cars and trucks, recently found itself plagued with leaking roofs.

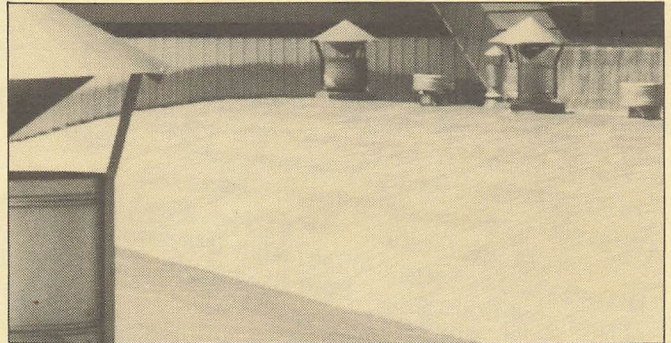
Not only were the decks of its two 20-year-old metal buildings allowing water to seep in, but the marginal roof insulation was letting excessive energy escape.

Both problems were solved with a urethane foam and coating system from Futura Coatings, Inc.

The spray-applied foam and coating system forms a monolithic cocoon over the roof. Leaky fasteners, side-laps and flashing joints are all covered with a solid one-piece membrane.

By insulating the deck from the repeated daily heating and cooling cycles, the system reduces thermal movement and can cut heat loss from the roof by as much as one half, according to the company.

Universal Applicators, Hugo, Minn. was chosen to apply the membrane. They cleaned and primed the metal roofing using Futura-Bond 502. Once primed, a one-inch layer of polyurethane foam was sprayed on to



Tonka Toys stopped leaks and gained R-value with a spray-applied polyurethane roof.

the roof. The foam was coated with 35 mils of Futura-Flex 522/501 urethane.

Flashing was done as part of the roof coating procedure making the operation simple and cost-effective. The foam and coatings were sprayed up to and on the roof penetrations as part of the monolithic blanket.

Materials for the project were distributed by Foam Enterprises, Minneapolis, Minn.

NRCA Membership Honor Roll

NRCA would like to thank the following people for their recruitment efforts.

16 New Members

Gaylord Blue
S. Douglas King

12 New Members

William Fort

11 New Members

Bennett Hutchison III

10 New Members

John Carruth
George Moeller

7 New Members

Frank Hackney
Jay Refieuna

6 New Members

Stanley Gerson

5 New Members

Harry Esbenshade III
Richard Marubio
Dick Zimmermann

4 New Members

Gerald Longerot
Joe Rutkoski

3 New Members

George Gaines
Burton Karp
Martin Keller
Mike Pierce
Charles Raymond

2 New Members

Mike Beldon
Don Bosnick
Robert Harrison
William Kugler
Wayne Mullis

1 New Member

James Ballard
Martin Berger
Larry Burns
Alex Cost
Gene Duke
Doug Douglass

Fred Fickett
Dick Fricklas
Harlan Hanson

Frank Jenkins
Phil Johnson
Donald Klein
William Kulzer

John Lange
Tom Manson
Ken Marshall

Ken Masse
J. Dudley Miles
William Pierce
C.L. Raypfoltz

Ed Ream

Richard Rosenow
Ralph Sanders
Arnie Schmauz
John Stump

Morris Swope
Alan Tillery

John Van Wagoner
Johnny Zamrzla

Now available from NRCA is a worker training program — **Kettles, Tankers and Bitumen Heating**. This four-part audiovisual program covers everything workers need to know for correct bitumen heating and operation and maintenance of heating equipment.

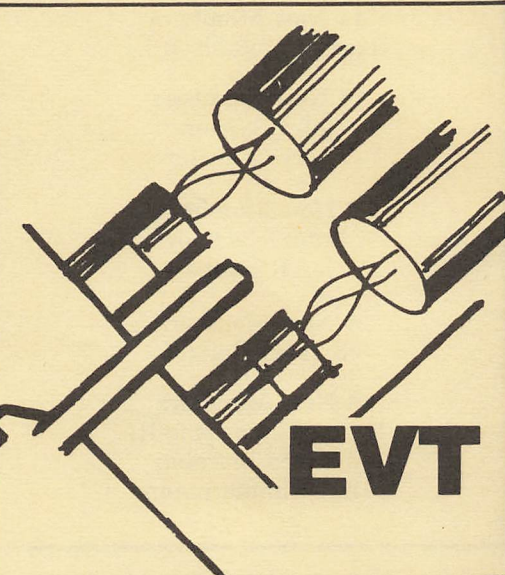
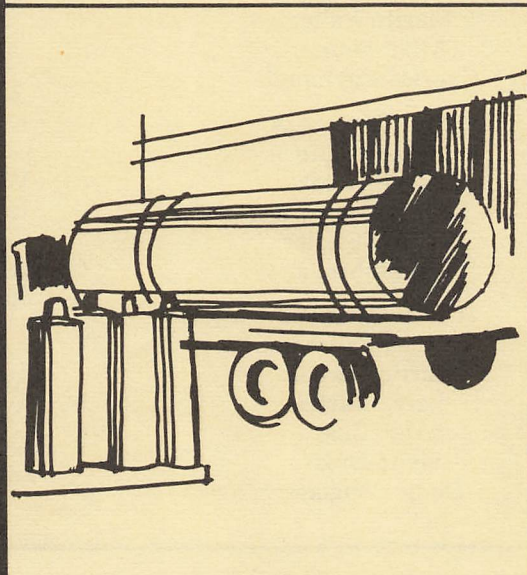
The program, with over 300 slides and a 40-minute soundtrack, depicts the correct procedures for kettle set-up and loading, safety considerations, thawing lines in cold weather, pump operation, the importance of preventive maintenance, and much, much more.

In addition, a comprehensive workbook contains a complete outline of the program with quizzes and tests to gauge worker knowledge.

The program can be used for earning field worker credit in NRCA's Accredited Roofing Contractor program, good for up to five-hours credit.

For more information on **Kettles, Tankers and Bitumen Heating**, contact Alan Grayson, NRCA Director of Education, 8600 Bryn Mawr Ave., Chicago, Ill. 60631.

Kettles, Tankers, and Bitumen Heating



NRCA Officers & Directors

NRCA OFFICERS

President

BURTON KARP
West Hartford, Conn.

Senior Vice President

WAYNE MULLIS
Phoenix, Ariz.

Vice Presidents—Two Years

JOHN CARRUTH, JR.
Miami, Fla.

ROBERT T. HARRISON
Greenville, S.C.

MICHAEL PROMEN
Broadview, Ill.

Vice Presidents—One Year

MICHAEL D. BELDON
San Antonio, Tex.

CYRIL TILSEN
Madison, Wis.

JOHN D. VAN WAGONER
McLean, Va.

Immediate Past President

JOHN BRADFORD
Billings, Mont.

BOARD OF DIRECTORS

Three Year Term

JOE ADLER
Joliet, Ill.

GAYLORD BLUE
San Jose, Calif.

THOMAS E. BROWN, JR.
Detroit, Mich.

JOE CASTRO
San Diego, Calif.

CHRISTOPHER CRONIN
Harvey, Ill.

THOMAS DRAKE
Winter Park, Fla.

WILLIAM FORT, JR.
Sumter, S.C.

JOHN HAUG
Phoenix, Ariz.

FRANK MANFREDONIA
Philadelphia, Pa.

JAMES MANSFIELD
Lyons, Ill.

JAMES McBRADY
South Portland, Maine

DONALD McNAMARA
Carol Stream, Ill.

MONTY MOORE
Seattle, Wash.

SAM PIPER
Greenville, S.C.

HOLLIS PORCHER
Corpus Christi, Tex.

ROGER STEYER
Warren, Mich.

Two Year Term

CHARLES BECHTEL
Dayton, Ohio

DONALD BOSNICK
Tacoma, Wash.

JON CAZEAULT
East Weymouth, Mass.

ROBERT DALVIN
Minneapolis, Minn.

JOSEPH FICK
Baltimore, Md.

ROBERT FIRST
Lima, Ohio

OWEN HAMILTON
Lubbock, Tex.

FRANK JENKINS
Miami, Fla.

MARTIN KELLER
Schenectady, N.Y.

P. F. LaDUKE, JR.
Detroit, Mich.

FRANK LAWSON
San Francisco, Calif.

GEORGE S. MOELLER
Kansas City, Mo.

DON PARSONS, JR.
Des Moines, Iowa

MARLIN POTTEIGER
York, Pa.

ANDY RADONICH
San Jose, Calif.

RICHARD ROSENOW
Chicago, Ill.

One Year Term

R. P. BAXTER
Monroe, N.C.

HAROLD C. BIEBEL
St. Louis, Mo.

W. H. BRANSON, JR.
Houston, Tex.

R. L. BUBENZER
Indianapolis, Ind.

LARRY CARLSON
Rockford, Ill.

ROBERT CLAWSON
Salt Lake City, Utah

ZACH L. ELLIS
Kenner, La.

STANLEY GERSON
Macon, Ga.

THEODORE HOPONICK
Derby, Conn.

WILLIAM KELSO
Noblesville, Ind.

GERALD LONGEROT
South Bend, Ind.

J. D. MILES, III
Chesapeake, Va.

BILL RACKLEY
South Carthage, Tenn.

THOMAS RAMSER
Louisville, Ky.

JOE RUTKOSKI
Tampa, Fla.

E. L. WILLIAMS
Kinston, N.C.

Staff

Executive Vice President
FRED GOOD, CAE

Executive Director
WILLIAM GOOD, CAE

Executive Secretary
CONNIE LESSNER

Finance Secretary
SANDY HOSHELL

Technical Services
ROBERT LaCOSSE, CAE
Director

JEFF LOWINSKI
Manager

WILLIAM CULLEN
Research Associate

JOANNE WAWRZYNIAK
Secretary

National Roofing Listing Service

NORMAN BULLOCK
Director

SUE BUCZKIEWICZ
Administrative Assistant

LYNN KEEFE
Secretary

Meetings and Conventions
GALE KIESEL
Director

BENNETT BROWN
Manager

BEA McSHEFFREY
Coordinator

Education
ALAN GRAYSON
Director

LEISA BRUNSON
Administrative Assistant

Administration
ROBERT McADAM
Director

BARBARA FALCO
Administrative Assistant

JOHN MEESE
Roofing Service
Center Assistant

DIANA BOTALLA
Receptionist

Member Services
PATRICIA APPELHANS
Director

ANNA LEONHARDT
Manager

PATTY CLARK
Administrative Assistant

YVONNE PEPLOS
Secretary

Government Relations
KEN NYQUIST
Director

Communications
CHRISTINE NOLEN TAYLOR
Director

CONSTANCE ARKUS
Assistant Director

MARTIN EASTMAN
Managing Editor

JOAN KRIETE
Secretary

Coming Events

March 8-13

Annual Convention
Associated General
Contractors of America
New Orleans, La.

March 12-13

Commercial Application of Solar
Conference & Exhibit
Mid-Atlantic Solar Energy
Association
Philadelphia, Pa.

March 13-16

Four-Day Basic
RIEI
Chicago, Ill.

March 15

Conference on Reroofing &
Energy Conservation
National Roofing Contractors
Association
White Plains, N.Y.

March 20-21

Roof Inspection, Diagnosis &
Repair Seminar
RIEI
Denver, Colo.

March 22-23

Elasto/Plastic Sheet Applied
Roofing Systems Seminar
RIEI
Denver, Colo.

March 26-27

Elasto/Plastic Sheet Applied
Roofing Systems Seminar
RIEI
San Francisco, Calif.

March 29

Conference on Reroofing &
Energy Conservation
National Roofing Contractors
Association
Indianapolis, Ind.

March 29-30

Roof Inspection, Diagnosis &
Repair
RIEI
San Diego, Calif.

(For inclusion of events, address
all correspondence to:
Roofing Spec "Coming Events"
8600 Bryn Mawr Ave.,
Chicago, Ill. 60631).

Classified Ads

Place a classified ad in *Roofing Spec* for 50 cents per word. There is a minimum charge of \$20. Boxed or display advertisements are available in the classified section for \$40 per inch (one inch minimum). Ads using blind boxes available at no additional charge to NRCA members; non-members add \$10 to total order. Send ad copy and payment to: Advertising Manager,

ROOFING MANAGER

Successful roofing contractor wants to communicate only with the best in the business. Candidates must have a very successful experience in industrial and commercial reroofing sales. Opportunities available on West Coast that are unique and lucrative. Send work history and objectives to Speranza Management Consultants Co., 12 Johns Canyon Road, Rolling Hills, Calif. 90274.

ROOFING CONTRACTORS

Wis. distributor for *DURO LAST*, single-ply roof systems, is seeking dealers in the following areas, *APPLETON, OSHKOSH, GREEN BAY, WAUPACA, SHAWANO, STEVENS POINT, WAUSAU, EAU CLAIRE, LA CROSSE, TOMAH*. Most northern areas open yet. *DURO LAST* is a polyester reinforced trimeric polymer coated membrane. Simple installation, for new or retrofit. Warranted for 20 years by the manufacturer. Call today for free trip to Michigan for factory seminar. GENE or RORY: 414/734-0055, DURO LAST NORTH, 2224 N. Mason St., Appleton, Wis. 54914.

COMMERCIAL/INDUSTRIAL SALESPERSON WANTED

Wish to hire experienced commercial/industrial reroofing salesman. Applicants must be willing to relocate to sunny Arizona. Good salary, auto and company benefits furnished. Send resumes or call Universal Roofers, P.O. Box 20627, Phoenix, Ariz. 85036.

BRANCH MANAGER WANTED

Wish to hire individual as branch manager for large Arizona contractor. Must have roofing and strong business or marketing experience. Applicant must be willing to relocate to sunny Tucson, Ariz. Good salary, incentive comp plan, auto and co. benefits. Send resume or call Universal Roofers, P.O. Box 20627, Phoenix, Ariz. 85036.

GRAVEL REMOVAL

Power Vacuum removes your roof gravel and dirt into a sealed unit. Prepares your roof for recover, foam or tear-off. Fully insured. References. For Southern California locations and prices—CALL DALE'S ROOF VACUUMING, 714/961-1855.

CRANE FOR SALE

Rofer Special Hydraulic Truck Crane, 1983 National Series 4, 8 Ton Hydraulic truck crane, 94 foot boom, hydraulic clam Bucket, Roof Top Hopper, pallet fork, Humpty Dumper, nylon belts and many extra's mounted on a 1983 IHC truck with 16 foot body. 3000 miles. Want to sell fast! I will rent on a lease-purchase to qualified buyer. \$59,500.00. Call Don at 414/761-2300.

RESIDENTIAL SALESPERSON WANTED

Wish to hire top sales personnel for residential reroofing. Must have experience and willingness to relocate to sunny Arizona. Top compensation plus auto and co. benefits provided. Send resumes or call Universal Roofers, P.O. Box 20627, Phoenix, Ariz. 85036.

REPRESENTATIVES NEEDED

Natural attrition in 100-year-old manufacturing firm has created need for additional sales representatives. If you want to offer a complete line of maintenance products—from single-ply systems to industrial paints—with a reputation for quality and service at a competitive price, you should investigate further. Call toll free (outside of Ohio) 1-800/321-8353 or write: TROPICAL INDUSTRIAL COATINGS, INC., P.O. BOX 444, DEPT. RS2, BRUNSWICK, OHIO 44212.

INTRODUCING THE SINGLE PLY ROOFING FASCIA DESIGNED TO SAVE YOU HOURS AND HEADACHES: SNAP-LOK™ II.

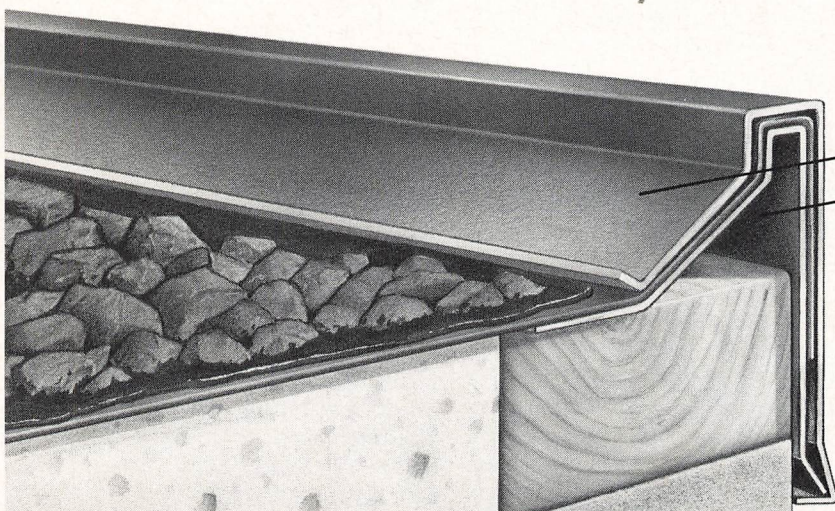
The SLF Series II Snap-Lok™ Fascia System is new from MM Systems. And it really is a snap to install. The formed metal fascia, available in a practical variety of face heights, just snaps onto a galvanized steel cant dam to hold the roofing membrane close, tight and secure. No more bridging headaches for you! Thanks to patented spring action and a specially designed long back fascia leg, you can forget about flashing, too. You don't even have to bond the membrane to the cant. And when you add up all the time and materials you can save on our new formed fascia system, you're sure to form a whole new opinion of fascia installation. So call us or your MM Systems representative now for details on the savings and simplicity of using SLF Series II Snap-Lok Fascia Systems.

Long back fascia leg plus patented spring action hold membrane tight without bonding or flashing.
Simple 2-piece system includes galvanized steel cant dam.



CALL TOLL-FREE 1-800-241-3460

4520 Elmdale Drive/Tucker, Georgia 30084-9990
In Georgia, call collect: (404) 938-7570



Check #609 on Reader Service Card

Commissioned Manufacturer's Reps Wanted

Polyken Roofing Systems

Kendall, an \$800+ million subsidiary of Colgate-Palmolive, recently introduced an EPDM single-ply roofing system to the commercial/industrial market.

Kendall seeks commissioned Manufacturer's Reps with a minimum of 3 years proven successful experience in the sale of roofing materials to contractors, architects and building owners. Sales effort supported by aggressive national advertising campaign.

Protected territories currently available in the South and Southeast.

Interested and qualified candidates should respond in writing, including credentials, to: George R. Sweeney, The Kendall Company, One Federal St., Boston, MA 02101.

KENDALL

a subsidiary of Colgate-Palmolive Company

An Equal Opportunity Employer M/F

CRANE FOR SALE

NATIONAL CRANE, 8 ton Model, 94' sheave height, high speed winch, 1980 Int'l 1824 truck, 16' bed, Ideal ROOFERS CRANE. \$46,000, 312/447-3169.

ESTIMATOR/SALESMAN WANTED

Growing northeastern commercial roofing company seeks an estimator/salesman. Must be thoroughly experienced in all phases of commercial and industrial roofing and sheet metal, as well as reroofing. Excellent opportunity for self-motivated, profit-oriented individual. Please send resume and salary requirements to Box 2 A, Roofing Spec, 8600 Bryn Mawr, Chicago, Ill. 60631.

HIGH PRESSURE ROOF VACUUM MACHINE

High pressure roof vacuum unit coupled with a fully enclosed high pressure water head. System is dust free and non-polluting. Unit will convey wet or dry dirt and gravel up to 600 feet. Machinery all mounted on a newer chassis and is fully portable. Self-contained unit; all hose, pipe, water lines complete and ready to go to work. Call 1-800/328-0744 for more information.

EQUIPMENT WANTED

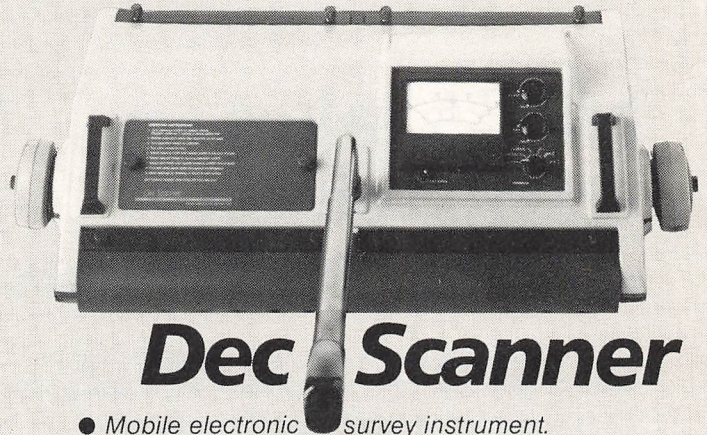
Used kettles (pumpers) and tankers. No junk. For new (used equipment business). Must have bill of sale and title. Call: Tom or Sean —312/652-2588.

ROOFING CONTRACTORS

Distributor for Duro-Last Single-Ply Roofing System is seeking experienced roofing contractors throughout the states of Michigan and Ohio to install our product. Duro-Last is a mechanically fastened, sheet roofing system that is UL and FM approved and carries a 20-year factory warranty. A unique opportunity to enter into the single-ply market. Ohio inquiries to: Joe Gottron, 1600 McPherson Blvd., Fremont, Ohio 43420, 419/332-6111. Michigan inquiries to: Jeff Gottron, 525 Morley Drive, Saginaw, Mich. 48601, 517/753-2186.

TRAMEX

ROOF MOISTURE DETECTION INSTRUMENTS



Dec Scanner

- Mobile electronic survey instrument.
- Detects moisture trapped beneath roof surface.
- Locates boundaries of wet areas in minutes.



LEAK SEEKER

- Traces leaks back to source in built-up roofing.
- Works through ballasted or unballasted surfaces.
- Can pay for itself first time used.

For further details mail the coupon together with your business card.

TRAMEX ELECTRONICS Inc. P.O. Box 1310,
Topanga, CA 90290. Tel. (213) 455-3400
Telex 194728 BVHL.

Company _____

Type of Business _____

Name _____

Title _____

Address _____

City _____

Prov./State _____

Code _____

Check #627 on Reader Service Card



TECH TALK

By Bob LaCrosse, CAE
Director of Technical Services

NRCA takes an active role on ASTM committees

The following list indicates NRCA participation on ASTM committees, subcommittees and task groups.

I. Committee C16 on Thermal Insulation

- (a) Subcommittee C16.22 on Organic and Nonhomogeneous Inorganic Thermal Insulations.
- (b) Subcommittee C16.24 on Health and Safety Hazard Potentials.
- (c) Subcommittee C16.32 on Mechanical Properties.

Committee C16 covers standards development and research of thermal insulation materials, products, systems, services and associated coatings and coverings, not including insulating refractories.

II. Committee C24 on Building Seals and Sealants

- (a) Subcommittee C24.80 on Building Deck Waterproofing Systems.
- (b) Subcommittee C24.86 on Solar Collector Seal Applications.

Committee C24 develops test methods, recommended practices and specifications of materials, products, systems and services for the sealing of building joints and traffic decks that are considered part of a building complex. Building seals and sealants include caulking compounds, putty, elastomeric compounds, glazing compounds, preformed gaskets, sealing tapes for joint applications and membranes and liquid-applied elastomeric sealing compounds for surface applications.

III. Committee D08 on Roofing, Waterproofing, and Bituminous Materials

- (a) Subcommittee D08.02 on Prepared Roofings, Shingles and Siding Materials.
- (b) Subcommittee D08.03 on Surfacing and Bituminous Materials for Membrane Waterproofing and Built-Up Roofing.
 - (1) Task Group on Standard Specification for Viscosity-Graded Asphalt Used in Roofing.
- (c) Subcommittee D08.04 on Fabrics for Bituminous Roofing and Waterproofing.
 - (1) Task Group D08.04.08 on Glass-Based Cap Sheet.
 - (2) Task Group D08.04.11 on Revisions to ASTM D2178 on Glass Fiber Felts.

- (3) Task Group D08.04.22 on Glass Fiber Base Sheet.
- (4) Task Group D08.04.25 on Codification and Inspection.
- (d) Subcommittee D08.09 on Bituminous Emulsions.
- (e) Subcommittee D08.18 on Nonbituminous Organic Roof Coverings.
 - (1) Task Group D08.03 on Foamed Polyurethane Roof Systems.
 - (2) Task Group D08.18.05 on Single-Ply Membranes Overview with Task Forces on PVC, Cured Elastomers, Uncured Flashing, Performance and Non-Vulcanized Elastomers.
- (3) Task Group D08.18.06 on Performance Criteria for Single-Ply Membranes.
- (4) Task Group D08.18.07 on Application of Standards for Single-Ply Membranes.
- (f) Subcommittee D08.20 on Non-Structural Roof Systems.
 - (1) Task Group D08.20.1 on Sampling of New BUR.
 - (2) Task Group D08.20.14 on Performance Tests of BUR Membranes.

NRCA could become active on some of the tests for elastomeric membranes.

- (3) Task Group D08.20.15 on Recommended Practice for Workmanship for Built-Up Roofing Construction.
- (4) Task Group D08.20.20 on Nondestructive Moisture Testing of Roofing Systems.

Committee D08 formulates specifications, test methods, practices, definitions of terms and research of bituminous and polymeric materials for roofing, waterproofing and related industrial uses.

IV. Committee D11 on Rubber

At present, NRCA staff and member contractors are not active on the 26 subcommittees of D11, involving elastomeric single-ply membranes. If necessary, however, NRCA could become active on some of the subcommittees involving test procedures for elastomeric single-ply membranes.

Committee D11 formulates test methods, definitions, specifications, practices and classifications of rubber products, systems and services. Tires, insulated wire and cable, electrical protective equipment and insulated tape are excluded.

V. Committee D20 on Plastics

As with Committee D11, neither NRCA nor its member contractors are active on any of the 65 subcommittees, but could become active on test procedures for plastomeric single-ply membranes.

Committee D20 develops test methods, specifications,

continued, page 88

**"HEY!
YOU GOT SOMETHING
AGAINST MAKING
MORE MONEY???"**



Prestique Laminated Fiberglass is the shingle you'll love as much as your customers do! It's got terrific profit margins for you... plus:

- Random-cut, three dimensional style that goes over existing roofs beautifully.
- Class "A" rating for fire resistance from U.L. None higher!
- 30 year limited warranty! None better!
- Official U.L. approval for staple application!
- 2-ply construction for long life!

ELK
ROOFING
PRODUCTS

AN ELCOR COMPANY

PRESTIQUE SHINGLES

ARE VERY PROFITABLE!

Ennis, TX, 214-875-9611 • Stephens, AR, 501-786-5484 • Tuscaloosa, AL, 205-758-2752 • Tempe, AZ, 602-831-7399 • Mobile, AL, 205-476-6600

Check #593 on Reader Service Card

Tech Talk

continued from page 86

recommended practices, nomenclature, definitions and research relating to plastics, their raw materials, components and compounding ingredients, and to finished products made from plastics such as sheets, rods, tubes, pipes, cellular materials and molded or fabricated articles.

VI. Committee E05 on Fire Standards

- (a) Subcommittee E05.11 on Building Construction.
- (b) Subcommittee E05.13 on Large Scale Tests.
- (c) Subcommittee E05.14 on Roofing.
- (d) Subcommittee E05.31 on Terminology and Editorial.

Committee E05 is responsible for implementing the ASTM Policy on Fire Standards, developing, revising and approving fire standards intended for analysis and assessing the fire performance of materials, products and systems within their environments. In addition, E05 develops, revises, and approves fire test standards intended to measure and describe the response of materials, products and systems to sources of heat or flame

under controlled conditions. The committee also administers and evaluates fire research programs.

VII. Committee E06 on Performance of Building Construction

- (a) Subcommittee E06.21 on Serviceability.
 - (1) Task Group E06.21.02 on Wind Uplift Tests for Roofing Systems.
 - (2) Task Group E06.21.03 on Roof System Assemblies (CORA).

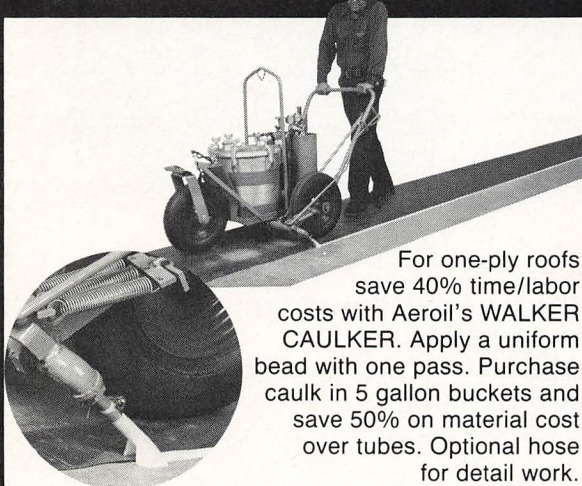
Committee E06 researches and develops standards for building construction.

- (3) Task Group E06.21.07 on Roof System Assemblies Employing Poured In-Place Insulation Fills.

Committee E06 researches and develops standards for building constructions (including housing), elements, connections and assemblies under actual or simulated service conditions. The standards apply to materials, design, construction and fabrication, with special reference to the needs of building codes and other authorities.




CAULK QUICK



For one-ply roofs save 40% time/labor costs with Aeroil's WALKER CAULKER. Apply a uniform bead with one pass. Purchase caulk in 5 gallon buckets and save 50% on material cost over tubes. Optional hose for detail work.

AEROIL PRODUCTS CO., INC.
69 Wesley St.
South Hackensack, NJ 07606
Telephone: (201) 343-5200



Check #580 on Reader Service Card

88-February 1984/Roofing Spec

The Asphalt Roofing Manufacturers Association has launched a national advertising and promotional campaign to inform and educate architects, specifiers and building owners on why built-up roofing is the best roofing system available for any type of building.

On the facing page is ARMA's current advertisement, which is appearing in **Architectural Record, Construction Specifier, Plant Engineering, Roof Design and Buildings**. The member companies

of ARMA are committed to **BUR**, a system above the rest. We thought you'd like to know.

*Come see us at
BOOTH 1320 at the
NATIONAL ROOFING
CONTRACTORS ASSOCIATION
Convention
in Atlanta
Feb. 14*



Built-Up Roofing, A System Above The Rest.

Check #583 on Reader Service Card

	BUILT-UP ROOFING	OTHER SYSTEMS
■ Three or more plies for protection against nature and man	YES ✓	?
■ Meets code requirements	YES ✓	?
■ Meets Underwriters Laboratories fire ratings	YES ✓	?
■ Meets Factory Mutual uplift requirements	YES ✓	?
■ Backed by companies experienced in roofing	YES ✓	?
■ Installed by reputable, professional roofing contractors	YES ✓	?

Built-up roofing delivers the protection you want.

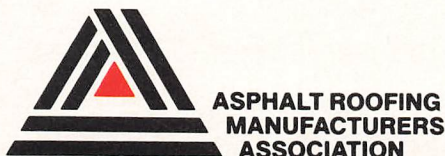
Check it out.

When specifying or installing a commercial roofing system, compare.

Some competitive systems don't check out. And because they don't, they can cause problems and send insurance premiums soaring. Or didn't the salesman tell you?

It takes more than advertising claims to make a good roof. It takes quality materials. Good workmanship. Ongoing research and development. And the know-how only experience can bring.

Built-up roofing delivers what you want in a commercial roofing system. That's why it's a system above the rest. But don't take our word for it. Check it out yourself.



Asphalt Roofing Manufacturers Association

Dept. RS
6288 Montrose Road
Rockville, MD 20852

ARMA, I want to check out today's built-up roofing. Please send information.

NAME/TITLE _____

FIRM _____

ADDRESS _____

CITY _____

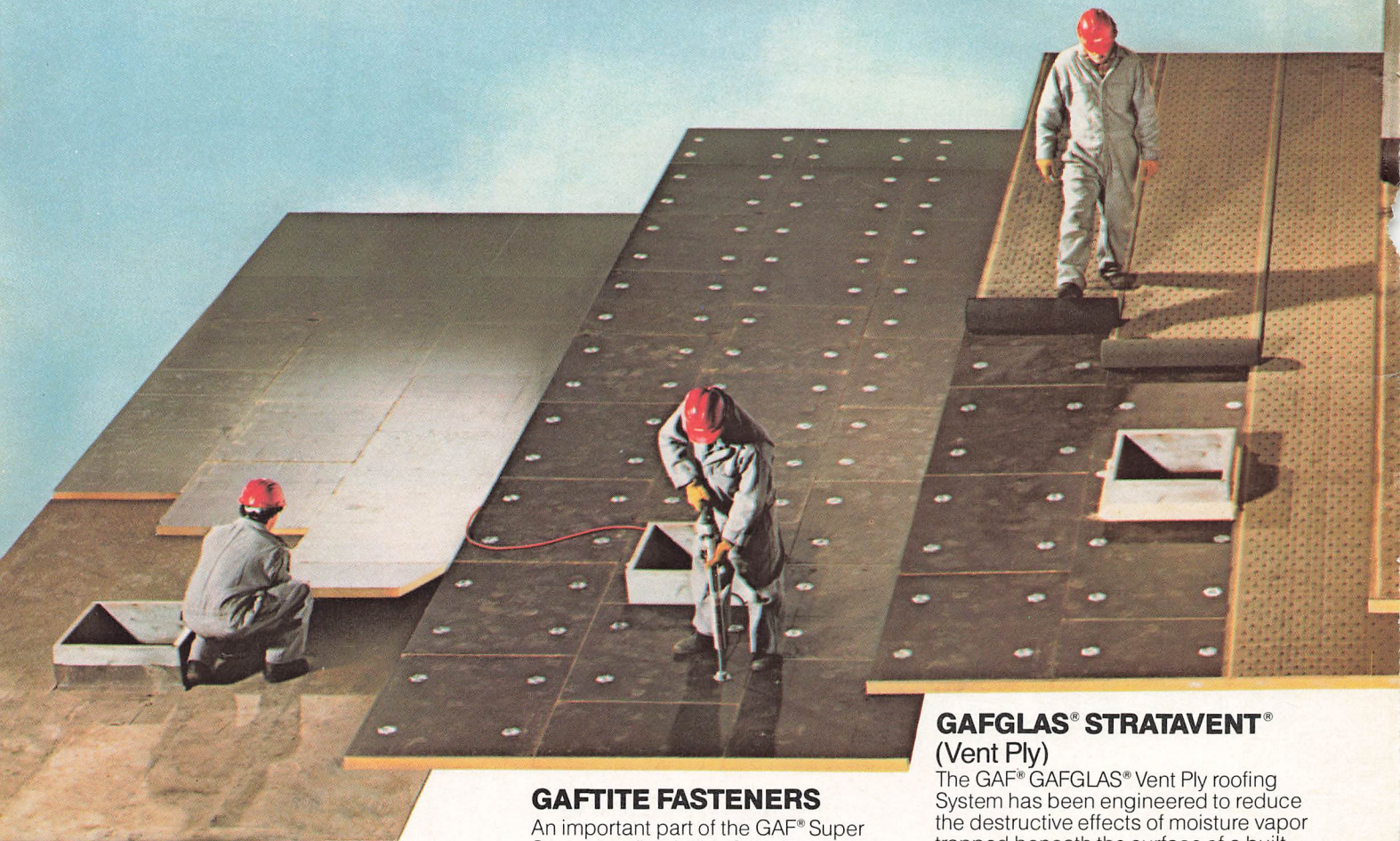
STATE _____

ZIP _____

Type of business (check one):

- Architect Engineer Building Owner
 Contractor Other _____

WE REROOF WHAT OTHERS JUST COVER UP



GAFTEMP® INSULATION

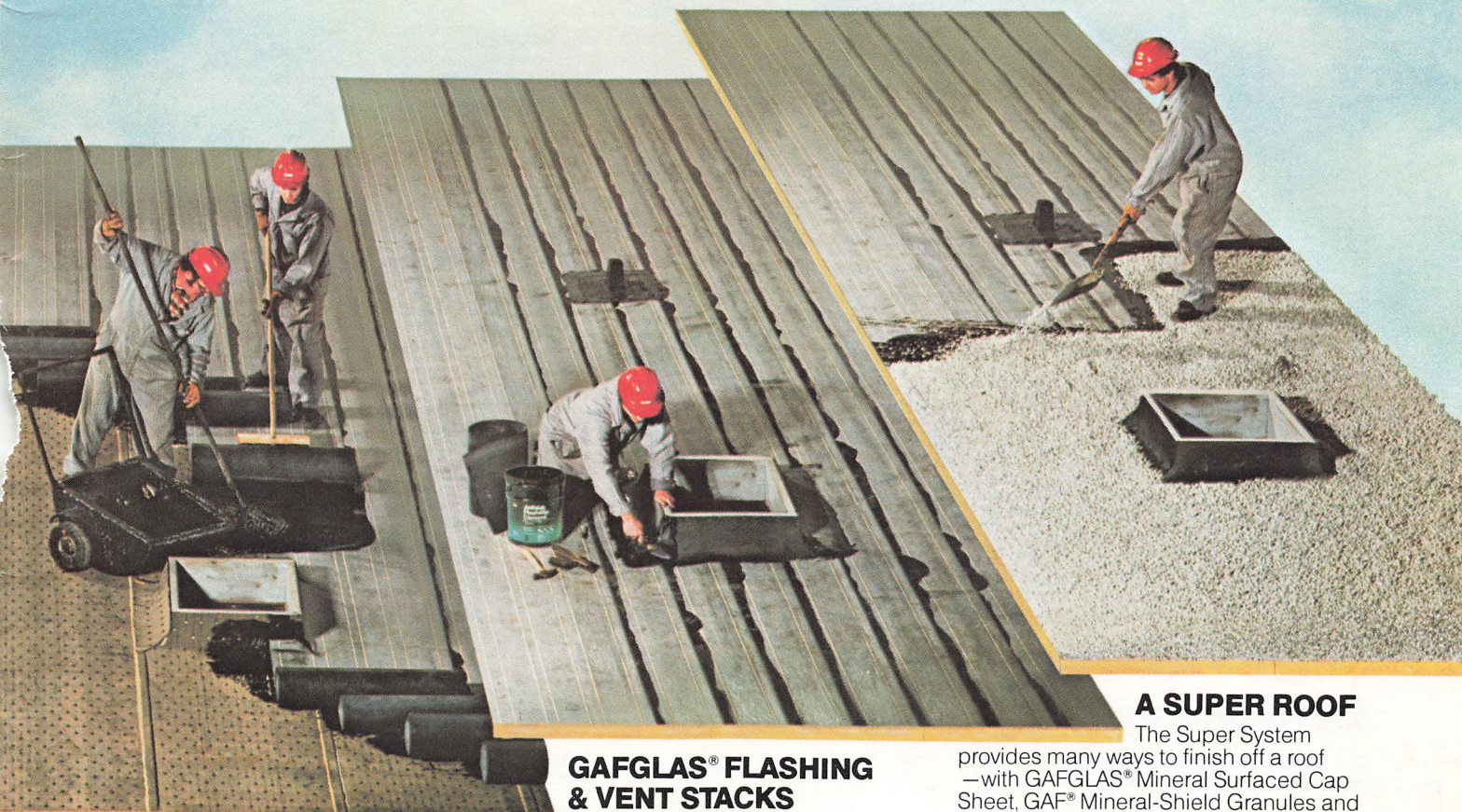
GAF offers one of the widest lines of roof insulation products in the industry. Under the GAFTEMP® name, you'll find six different insulations to choose from as the important first step of the Super System. Here, we're starting with GAFTEMP Isotherm insulation, a non-composite board made up of asphalt-coated facers bonded to a core of isocyanurate foam. No lower "U" value is available in any other FM Class I rated product of equivalent thickness. It's lightweight, easy to handle, and fast to install.

GAF TITE FASTENERS

An important part of the GAF® Super System roofing is the GAF TITE Roof Insulation Fastening System. It's the time-saving, and the money-saving, way to lock insulation down to stay. No more bitumen or other adhesives. No more hot mopping. No more nailing. 50% less labor. Quick and easy installation with half as many fasteners as most traditional nailing methods. Fewer problems during installation and after, with positive protection against wind uplift, vibration, and construction movement. Factory-Mutual Approved Systems.

GAFGLAS® STRATAVENT® (Vent Ply)

The GAF® GAFGLAS® Vent Ply roofing System has been engineered to reduce the destructive effects of moisture vapor trapped beneath the surface of a built-up roof. Granules on the underside of Stratavent Base Sheet provide venting for any trapped moisture vapor. Moisture won't rot, shrink, or expand it. It's easy to apply and can be specified for any type of roof deck. Since it's rolled out dry, it yields significant savings in asphalt and labor. Carries the U.L. Type G 2 BUR label.



A SUPER ROOF

The Super System provides many ways to finish off a roof — with GAFGLAS® Mineral Surfaced Cap Sheet, GAF® Mineral-Shield Granules and Mastic, GAF® Fibered Aluminum coating, GAF® Weather-Coat Emulsion, or GAF® Special Roofing Bitumen or Roofing Asphalt and aggregate. Whichever way you choose, you'll have a Super Roof that solves problems, and not just a cover-up.

GAFGLAS® FLASHING & VENT STACKS

The best roofs deserve the best flashing — GAFGLAS® Flashing. The specially formulated long fiber glass mat and heavy asphalt coating give maximum protection from the elements and insure long lasting strength and durability. It's easy to install using GAF® Jetblack™ Flashtite Cement, the asphalt plastic cement that's unequalled for longlasting adhesion. And for maximum moisture protection, you'll want to install GAF® Vent Stacks that let warm air and vapor from the sun-heated roof out, and keep cool outside air from coming in.

GAFGLAS® PLY 4

GAFGLAS® PLY 4 glass ply roofing sheet is the *superior* membrane for all built-up roofs in all climatic zones. You'll like the ease of application. It's light in weight and rolls out fast, so your labor costs will be lower. It has high tensile strength, great dimensional stability, and resists blistering, fishmouthing and rot. Interply adhesion is excellent. GAFGLAS® PLY 4 roofing sheet meets Fed. Spec. SS-R-620B Type III requirements, and exceeds ASTM D2178 Type IV. It carries the U.L. Type G 1 BUR label.

Reroofing is more than just covering up an old roof with material. It requires a carefully executed plan of determining specific problems, selecting the correct products, and placing the system down with proper application procedures. At GAF, we pride ourselves in re-roofing with a time-proven built-up roofing Super System. Shown here are only a few of GAF's roofing products, which also include complete single-ply roofing systems and residential asphalt roofing shingles.

Write or call today for complete details:
 GAF CORPORATION, Building Materials Group,
 140 West 51 Street, New York, NY 10020.
 Phone: (212) 621-5000.

GAF® SUPER
system
BEST
EVERY STEP
OF THE WAY

The Snap-on Roof is here!



The Mercer Area High School, Mercer, PA
Roofing Contractor: J.A. Burns & Sons, Mercer, PA

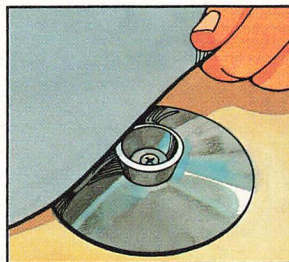
Carlisle introduces America's first mechanically attached single-ply roof that doesn't penetrate the membrane.

It's here...M.A.R.S. Design NP™ (Mechanically Attached Roofing System—Non-Penetrating). This is the ultimate single-ply roof system, combining the lightweight advantage of adhered systems with the low cost holding power of ballasted systems. But with a plus! It also offers the economical advantage of mechanically attached systems *without penetrating the membrane!*

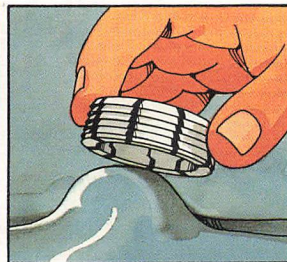
Used in Europe for nearly a decade, this innovative system will save you time, money, materials and weight.

Fast, easy installation.

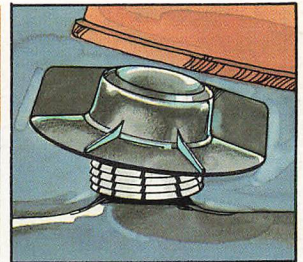
Carlisle's performance-proven Sure-Seal™ membrane is held in place by simple three-part assemblies. These are a snap to install...as easy as one, two, three. No special equipment. Even in marginal weather. A small crew of Carlisle approved applicators can install an entire roof in record time.



1 Roll membrane over knobbed base plate.



2 Roll and snap on white retainer clip.



3 Snap and screw on threaded black cap.

Flexible design.

Goes right over failing built-up roofs and those that can't support much weight. The system fastens to most substrates and can even be moved to another location.

Best of all, it's from Carlisle.

Trust Carlisle to bring you the best and most innovative roofing systems. We

promise single-source responsibility, trained professional applicators and over 20 years experience. Best of all, we offer a watertight warranty of up to 15 years.

For more information on our snap-on roof, call toll-free, (800) 233-0551, in PA (800) 932-4626. Call today, this is one snap decision your roof...and budget...will never regret!

Sure-Seal, M.A.R.S. Design NP and Carlisle are trademarks of Carlisle Corporation. M.A.R.S. Design NP Patent Pending. © 1983 Carlisle Corporation

Call toll-free, 800-233-0551
In PA, 800-932-4626

The roof that's requested by name

CARLISLE

Carlisle SynTec Systems

Division of Carlisle Corporation, P.O. Box 7000, Carlisle, PA 17013

Dear Reader:

This is your copy of **Roofing Spec**, the only monthly magazine devoted exclusively to the roofing and waterproofing industry. We hope you find it useful and interesting. If you'd like an additional subscription for this publication, simply complete and return the postpaid card provided below. If you are currently receiving **Roofing Spec** on a complimentary basis, please return the enclosed card with payment to ensure that you will continue receiving this valuable roofing resource.

In future months we have articles planned on:

- Design considerations for BUR
- Single-ply roofing systems
- Solar installations

Recent issues have featured stories on:

- Architect-Contractor relations
- Problem survey results
- NRCA programs and meetings
- Fiberglass roofing felts
- European roofing experience
- BUR performance tests
- Sprayed-in-place urethane foam roof insulation
- Steep roofing
- Health and Safety

Please enter
my subscription to
Roofing Spec
(only \$15 per year)



My primary business activity:

- Roofing, Waterproofing or Roof Deck Contractor
- Manufacturer, Distributor or Supplier
- Architect, Specifier or Engineer
- General Contractor
- Government, Schools, University or Institutional employee
- Building Owner
- Other _____

Bill me

My check is enclosed

Name _____

Company
Name _____

Address _____

City/State/Zip _____



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

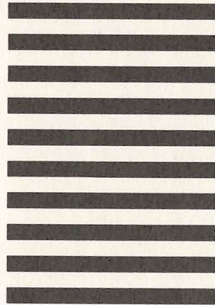
BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 13287

CHICAGO, IL

POSTAGE WILL BE PAID BY

**National Roofing
Contractors Association
8600 Bryn Mawr Avenue
Chicago, Illinois 60631**



FREE LITERATURE!

Use this convenient postcard for more facts on the products described and advertised in this issue. Inquiries will not be processed after 60 days of issue date.

Advertisers	Page	Advertisers	Page
<input type="checkbox"/> 580 Aeroil Products Co., Inc.	88	<input type="checkbox"/> 611 Monsey	35
<input type="checkbox"/> 581 American Associated, Inc.	58	<input type="checkbox"/> 612 Morgen Mfg.	71
<input type="checkbox"/> 582 Annith Engineering	32	<input type="checkbox"/> 613 NRCA TV Today	64
<input type="checkbox"/> 583 Asphalt Roofing Manufacturers Assn.	88	<input type="checkbox"/> 614 NRCA/Kettles	MS4
<input type="checkbox"/> 583 Asphalt Roofing Manufacturers Assn.	89	<input type="checkbox"/> 615 NRCA/RFG & Waterprfg Manual	43
<input type="checkbox"/> 584 Associated Foam Manufacturers	49	<input type="checkbox"/> 616 Owens-Corning Fiberglas	4
<input type="checkbox"/> 585 Bilco	82	<input type="checkbox"/> 617 Phillips Fibers Corp.	68
<input type="checkbox"/> 586 Bond Cote Systems	72	<input type="checkbox"/> 617 Phillips Fibers Corp.	69
<input type="checkbox"/> 587 Carlisle SynTec Systems	92	<input type="checkbox"/> 618 Pittsburgh-Corning	18
<input type="checkbox"/> 588 Celotex	2-3	<input type="checkbox"/> 619 Red Bell	14
<input type="checkbox"/> 589 Clearfield Conveyors	13	<input type="checkbox"/> 620 Reeves Roofing Equip.	70
<input type="checkbox"/> 591 Consolidated Fiber Glass	59	<input type="checkbox"/> 621 Reimann & Georger	33
<input type="checkbox"/> 592 Cooley Roofing Systems	15	<input type="checkbox"/> 622 Roofmaster Products Co.	41
<input type="checkbox"/> 593 Elk Roofing	87	<input type="checkbox"/> 623 Siplast	21
<input type="checkbox"/> 594 Firestone Industrial Prod.	9	<input type="checkbox"/> 624 Soprema France	17
<input type="checkbox"/> 595 Flame Engineering	58	<input type="checkbox"/> 625 J. P. Stevens	79
<input type="checkbox"/> 596 GAF Corporation	90-91	<input type="checkbox"/> 626 Tamko	25
<input type="checkbox"/> 597 General Tire	65	<input type="checkbox"/> 627 Tramex Electronics	85
<input type="checkbox"/> 598 Giuffre Bros. Cranes, Inc.	34	<input type="checkbox"/> 628 Tropical Industrial Coatings	45
<input type="checkbox"/> 599 Globe Industries	60	<input type="checkbox"/> 629 Tyler Pipe	52
<input type="checkbox"/> 600 Goodyear	27	<input type="checkbox"/> 630 US Intec	16
<input type="checkbox"/> 601 International Permalite	46-47	<input type="checkbox"/> 631 Brian R. White	28
<input type="checkbox"/> 602 Jimco	37	<input type="checkbox"/> 632 Wilder Machinery Co.	20
<input type="checkbox"/> 603 Kamak	23		
<input type="checkbox"/> 604 Kendall Company	19	New Products, Ideas & Publications	
<input type="checkbox"/> 605 Koppers Co., Inc.	29	<input type="checkbox"/> 138 Randustrial Corp.	80
<input type="checkbox"/> 606 Liquid Asphalt Systems	70	<input type="checkbox"/> 139 Hyster Co.	80
<input type="checkbox"/> 606 Liquid Asphalt Systems	53	<input type="checkbox"/> 140 Wilson Distributing	80
<input type="checkbox"/> 606 Liquid Asphalt Systems	26	<input type="checkbox"/> 141 Masonite	80
<input type="checkbox"/> 607 Manning Paper	39	<input type="checkbox"/> 142 Safeway Steel Products	81
<input type="checkbox"/> 608 Manville	6-7	<input type="checkbox"/> 143 Columbine International	81
<input type="checkbox"/> 609 MM Systems	84	<input type="checkbox"/> 144 Iris Corporation	81
<input type="checkbox"/> 610 Mobilift	8	<input type="checkbox"/> 145 BASF Wyandotte	81

Name _____

Company _____

Address _____

City / State / Zip _____

February 1984



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 13287

CHICAGO, IL

POSTAGE WILL BE PAID BY

**National Roofing
Contractors Association
8600 Bryn Mawr Avenue
Chicago, Illinois 60631**

