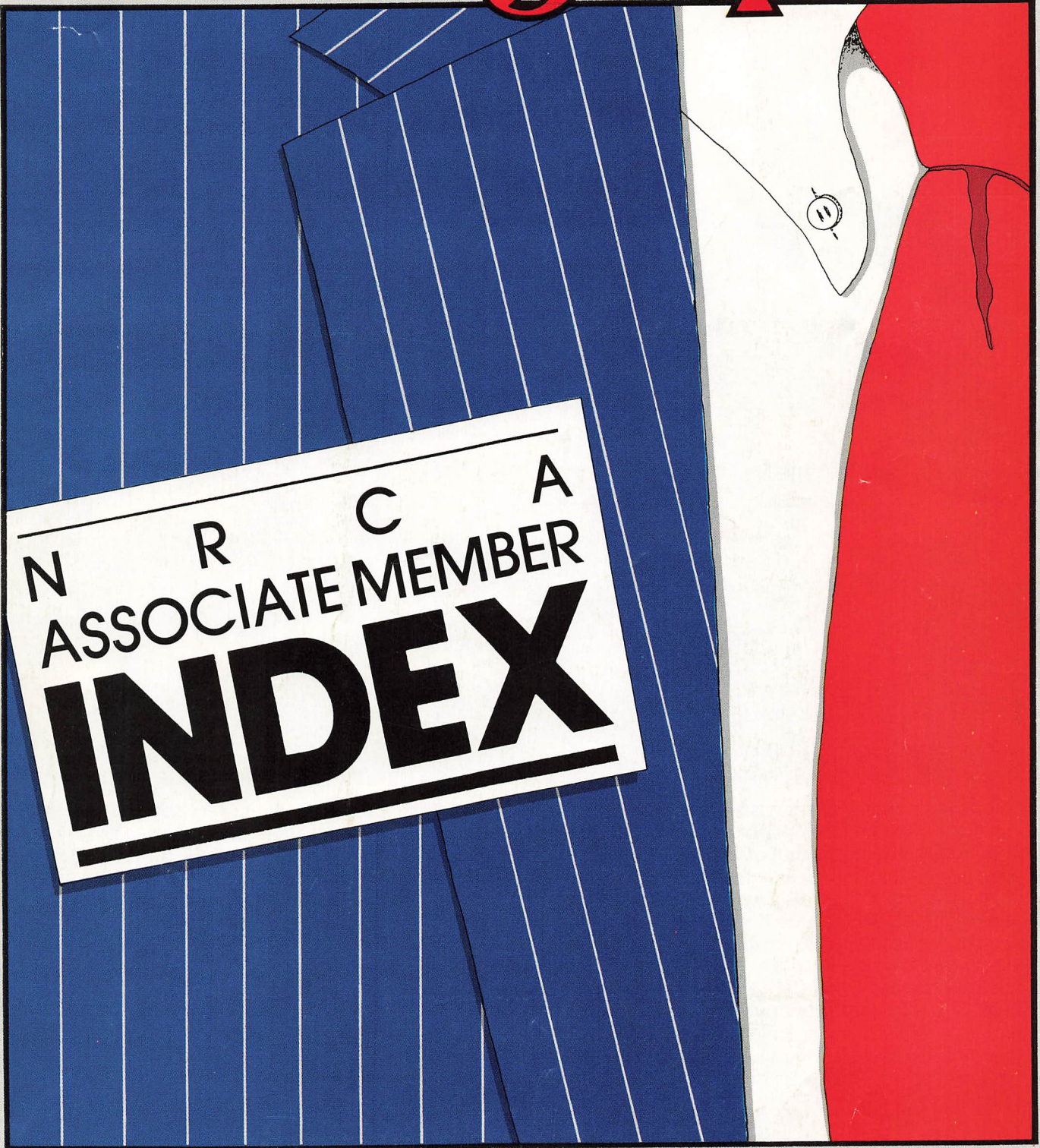


\$2.00

roofing spec

National Roofing Contractors Association

July 1983



N R C A
ASSOCIATE MEMBER
INDEX

**3-TAB ASPHALT
SHINGLES HAVE HAD
THEIR DAY UNDER
THE GUN!**

**NOW,
ELK PRESTIQUE II HAS
U.L. APPROVAL FOR STAPLING
...IN REROOFING AND
NEW CONSTRUCTION!**



The first laminated fiberglass shingle to say that! Now Elk Prestique II has just about every advantage going for it. It makes ordinary asphalt obsolete; Prestique II has the rich appearance that will appeal to the style-conscious homeowner; but at an installed price that's very competitive with 3-tab. Prestique II installs quicker, too; they come 3 bundles to a square for easy handling, and there's no vertical alignment. There's also less waste; the cut-off from the rake edge can start the next course. The random-cut, 3-dimensional style that makes Prestique II so handsome, also makes it ideal for re-roofing. It goes over existing roofs beautifully. And now it goes on with staples! The U.L. gives Prestique II a Class "A" rating for wind resistance, as well as for fire-resistance. Add the 25 year limited warranty, plus increased sales and profit margins for you, and it's obvious . . .

Ennis, Texas, (214) 875-9611 • Stephens, Arkansas, (501) 786-5484
Tuscaloosa, Alabama, (205) 758-2752 • Tempe, Arizona, (602) 831-7399

PRESTIQUE II

**PRESTIQUE II
IS THE
NEW STANDARD
IN ROOFING!**



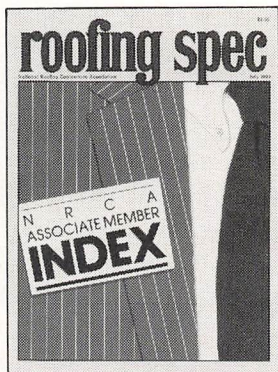
roofing spec

Vol. 11, No. 7

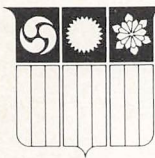
July 1983

Staff

William Good, CAE,
Executive Editor
Michael H. Beightol, Editor
Connie Arkus, Associate
Editor
Martin Eastman, Editorial
Assistant



The *Roofing Spec*/NRCA Associate Member Index is your personal, year-long guide for roofing materials, equipment and systems.



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

- 6 Comment
- 7 Ideas, Notes & Random Thoughts
- 8 National News
- 18 Associate News
- 20 Affiliate News
- 22 Legal
- 64 New Products, Ideas & Publications
- 66 Classified Ads
- 70 Tech Talk

Features

- 24 Contractor's opinions vary on advertising/marketing schemes for roofing businesses.
- 28 NRCA Research Associate William Cullen discusses a performance approach for quality roofing applications.
- 30 Roofing garbage? (An architect raps current design practices.)
- 34 Connie Arkus looks at nondestructive roof tests for possible moisture infiltration.
- 38 The 1983 NRCA Associate Member Index — one-stop shopping for materials, equipment and all the best sold by NRCA Associate members.
- 61 The NRCA Roofing Service Center is growing, growing, growing.

Advertisers

- 12 Aeroil Products Co., Inc.
- 66 American Associated Companies
- 6 Associated Foam Manufacturers
- 53 J.P. Benjamin Equipment Co.
- 51 Benoit, Inc.
- 26 Boato TecSystem s.p.a.
- 69 Carlisle SynTec Systems
- 27 Clearfield Conveyors
- 62 Cleasby Manufacturing Co.
- 33 CNA Insurance
- 2 Elk Roofing Products
- 21 Evans Products Co.
- 66 Evergreen Slate Co., Inc.
- 63 Firestone Industrial Products
- 17 GAF Corporation
- 15 Giuffre Brothers
- 70 W.P. Hickman Co.
- 16 Hindall Products Co.
- 47 Koppers Co., Inc.
- 67 MM Systems Corp.
- 26 Nieman Manufacturing Co., Inc.
- 4 & 5 Owens-Corning Fiberglas
- 14 Parker Sweeper Co.
- 13 Polymer Development Labs
- 27 Polymer Plastics Corp.
- 16 Red Bell, Inc.
- 62 Reeves Roofing Equipment Co., Inc.
- 72 Rmax, Inc.
- 41 Roofmaster Products Co.
- 68 Rubber & Plastics Compound Co.
- 9 Siplast Roofing Systems
- 23 Synthetic Rubber Distributors
- 32 Taurus — Liquid Asphalt (tanker)
- 55 Taurus — Liquid Asphalt (crane)
- 19 Troup Industries
- 71 Trumbull Asphalt
- 10 & 11 Tyler Pipe
- 57 Wausau Tile
- MS Nat'l Rfg. Contractors Assoc. (kettles)
- 49 NRCA Rfg. Materials Reference & Guide

OWENS-CORNING

Fiberglas[®]

Roofing

Coated Glass fiber roof

YOUR REPUTATION WILL HOLD UP ONLY AS WELL AS THE ROOFS YOU PUT DOWN.

No matter how good your workmanship, if the roofing products you're using are second-rate, the roof will be, too. And that can mean call-backs.

THE PROOF IS ON THE ROOF

It stands to reason, then, that the most dependable roofs should start with the most dependable roofing materials.

Take Owens-Corning Perma Ply-R® roofing felt. It's the most durable ever developed. Thanks to our unique continuous-strand Fiberglas® mat, Perma Ply-R offers roofing contractors the highest tensile strength, the best tear resistance and unequalled proven in-use performance. Over six billion square feet installed in 18 years.

WE HAVE EVERY ROOF COVERED

And that's just the beginning. Owens-Corning is the single source for the single best line of durable roofing products. For virtually every roofing need. At costs that won't go over your budget.

Perma Ply®-WP, for example, is our newest and most economical

Type IV glass fiber roofing ply. For use in all area specifications.

Or consider Perma Ply No. 28, a glass fiber base sheet used over nailable decks and recover surfaces. It lays smooth and flat where ordinary felts wrinkle and crack.

Or Perma Ply No. 28 Perforated, which can be used over foam insulations to minimize blistering.

Or Perma Plus-2™, a stronger version of the continuous-strand mat used in Perma Ply-R. This unique two-ply roofing system offers lower installed costs and improved productivity.

A real competitive edge in bidding jobs.

THE ONLY 3-PLY SINGLE-PLY ROOF

Derbigum® HPS is the first and only roofing system that combines the strength of three-ply, built-up roofing with the ease and low-cost installation of a single-ply.

This unique system is a modified bitumen with a top layer of glass fiber mat for weathering and stability and a base mat of polyester for elongation and puncture resistance. Sandwiched between is a glass fiber web that provides increased tensile strength. The result: a high-performance, long-lasting roof.

In addition, it is also a highly flexible system. Derbigum excels

not only as new and re-roof membranes, but, due to its strength and elasticity, it forms superior flashing systems.

It's no wonder that with over 1.5 billion square feet installed in over 17 years, Derbigum is one of the world's best-proven, single-ply roofs.

THE BEST FOUNDATION FOR ANY ROOF

Because it's underneath where it can't be seen, the benefits of roof insulation are too often overlooked. But using the right insulation can mean the difference between life and death for a roof.

Owens-Corning's Fiberglas® and FURI® roof insulations, while providing a full range of thermal values, offer excellent dimensional stability, resilience and ventability.

And no other roof insulations conform as well to minor deck irregularities.

In addition, a double layer of Fiberglas roof insulation can add years to the life of a roof. By offsetting the second layer so the joints never line up, continuous vertical gaps are eliminated. So heat loss is minimized and membrane stress is reduced by as much as 10%.

Let Owens-Corning roofing products and technical expertise help the jobs you do hold up. After all, it's our reputation, too.

For more information, contact your Owens-Corning sales representative or distributor.

OWENS/CORNING
FIBERGLAS
TRADEMARK ®

THE TOP ROOF FOR ANY BOTTOM LINE

Check #417 on Reader Service Card

Comment

Selling Yourself

Among the most successful recent convention programs have been those where roofing contractors discuss marketing and advertising programs. Common sense tells us these sessions should be well attended. When the competitive bidding process brings in dozens of bids, it leaves dozens bidless, and one way to get more work is to let folks know you're capable of doing it.

We've noticed a few things each time a group of NRCA members discusses marketing and advertising. One is there is not unanimous support for the proposition that roofing contractors ought to advertise and promote. There are those in the industry who rely on reputations and word-of-mouth advertising for a good part of their business. Other thrive on the bidding process, specializing, for example, in government work.

Also there is no distinguishable correlation between the size of a contractor's business and his inclination toward advertising. There are large,

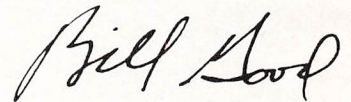
successful firms that do little; there are small, successful firms that do lots.

Of course, how a firm approaches its advertising and promotion depends upon its marketing strategy and its budget. Today, however, there is an added dimension to the business of self-promotion, and that dimension is — survival.

Roofing contractors no longer compete just with roofing contractors. We all know of cases where general contractors, other subcontractors, or even owners have decided to apply roofs. It's situation we expect will persist for a while — at least until some of the problems that are bound to occur begin to occur.

In the meantime, survival demands getting a story told; advertising in the broadest sense of the word that the professional roofing contractor is the one who can do the best job.

You'll be hearing a lot on this theme from NRCA in the next few months. We believe it's a theme that will directly affect the future of our industry.



**“FINALLY! A TAPERED INSULATION SYSTEM WITH A NEW ANGLE”...
CONTOUR TAPER TILE®**

Contour Taper Tile® is a high performance expanded polystyrene (EPS) roofing system designed for fast and easy installation. Save time and money by eliminating on the job fitting. The factory pre-cut pieces are lightweight and easy to handle. Single layer, preformed crickets, saddles, valleys and ridges simplify even the most complex installations.

Our experienced team of field engineers are always available to give “on the job” assistance when requested. Contour Taper Tile® is clearly the best choice for high performance and easy installation in a roof drainage system!

Call or write today for more information.



**ASSOCIATED
FOAM MANUFACTURERS**

P.O. Box 14518 • Lenexa, KS 66215 • 1-800-255-0176

Check #398 on Reader Service Card



Ideas, notes and random thoughts

This is it — the *Roofing Spec*/NRCA Associate Member Index, our comprehensive listing of manufacturers and marketers of roofing materials and equipment. The listing, compiled by Editorial Assistant Martin Eastman with help from scores of NRCA Associate Members, is your year-long reference guide for instantly locating important addresses, phone numbers, reps and products for any variety of roofing needs. Additional copies are available at the cover cost of only \$2.

m.b

As we go to press, NRCA is gearing up for this year's MidYear Meeting, July 13-16 in Chicago. New NRCA President Burton Karp, the Executive Committee and the NRCA staff have put together a busy, active agenda of meetings and events. Look for a full MidYear report in the September *Roofing Spec*.

Sure, we all know last year was lousy, but *Standard & Poor's* has released a few preliminary numbers that indicate just how hard the housing industry was hit: In 1982 the industry may have earned only a half cent on each dollar of sales.

And if 1982 was scary, George Orwell's "1984" is only six months away. *The Wall Street Journal* reports that a flurry of Orwellian articles, discussions, conferences and the like will soon help bring in the ominous year. Many scholars scoff at the notion of Big Brother, the Thought Police, Newspeak and the Anti-Sex League, saying major Free World leaders and countries bear scant resemblance to any of this. Others, however, point at the

rapid emergence of computers and the growing bureaucracy as pulling us much closer to "1984" than we realize.

Nations of the world can cooperate more effectively, says British Prime Minister Margaret Thatcher, when they are running their economies in "a sound way."

"You simply cannot get an international formula which will overcome any lack of running our own economy in a sound way — there's just no substitute. It's absolutely vi-

tal for us to jointly pursue policies which enable us to get and keep interests down and to keep inflation rates down."

Acid rain hurts roofs, too. But you'd never know it from the reports coming from Geneva, Switzerland following a conference conducted by delegations from the U.S., Canada, and Western and Eastern Europe. Talks centered on the harm done to lakes, streams, crops and animal life, with very little mention of the billions of dollars of damage done to structures, rooftops included.

Again we proclaim, it's never too early to talk about the next NRCA Annual Convention & Exhibit. Next year's February fest finds NRCA in peachy Atlanta, and the NRCA Meetings and Conventions Department is planning new and innovative programs. Topping the list is a proposal for "NRCA TV Today," a morning television talk-show carried by cable to every hotel room booked by NRCA. Staff Director Guy DiCara recently sent informational packets to all exhibitors already booked for '84. For more information on this exciting new NRCA offering, contact DiCara soon.

Talk is heating up in Washington on the matter of balancing the federal budget which continues to spiral out of control. Representative Jim Sensenbrenner (R-Wis.) said recently an amendment to balance the budget is needed to limit the growth of government spending and produce a balanced budget for the future.

"There is only one good, knowledge, and one evil, ignorance."

Socrates

National Roofing Foundation Update

The National Roofing Foundation wishes to thank its newest Friends for their support

Slatile Roofing & S/M Inc.
Jerry Longerot
South Bend, Ind.

Wood Roofing & S/M Inc.
Don Parsons, Jr.
Des Moines, Iowa

You can become a Friend of the Foundation by donating \$50 annually. Your tax-deductible contribution will help The Foundation in its efforts to improve the roofing industry. Your funding will help provide scholarships and be used for the development and promotion of educational materials.

For more information contact the NRF headquarters, 8600 Bryn Mawr, Chicago, Ill. 60631.

NATIONAL NEWS

April Construction Slows, But Four-Month Total Still Ahead of '82

April contracting for new construction eased a seasonally adjusted two percent following a strong advance in March, according to the F.W. Dodge Division of McGraw-Hill Information Systems Co. The latest month's contracts, which totaled \$16.3 billion, remained well above the year-earlier level, however.

After reaching a peak of 131 in March, the Dodge Index of total construction contract value settled back to 129 in April after seasonal adjustment, as the housing recovery lost its momentum. In other building markets, April data showed strength in heavy construction and continued weakness in commercial and industrial building.

"There's still room for further improvement for the construction industry in the balance of 1983, but

some slackening of the recent brisk pace of contracting was inevitable," noted George A. Christie, vice president and chief economist for F.W. Dodge.

"The residential building market has responded eagerly to the sharp decline of mortgage rates, but the opportunity for expansion there is approaching its limit," Christie said. "In the absence of another breakthrough in interest rates, housing starts will plateau in the range of 1.5 to 1.6 million units and the next wave of recovery will have to come from other areas. In the second half of 1983, the most likely source of strength will be public works construction. In 1984 it will be commercial and industrial building."

April contracts for residential building totaled \$7.7 billion for a de-

cline of five percent, after seasonal adjustment, from the March rate of building.

"Again in April, as during the earlier months of the year, one-family homebuilding continued to hover close to one million units, while the smaller but more volatile multifamily market determined the direction of total housing starts," Christie said. Nonhousekeeping residential building (hotels, motels, and dormitories) was down sharply in April, following a surge in March.

Contracting for nonresidential building, totaling \$4.5 billion in April, was down eight percent after adjustment for seasonality.

"Declines among the various categories of nonresidential building were widespread in April," Christie said. "In contrast to recent improvement in consumer spending and industrial production, contracting for commercial and industrial building continued to weaken in the latest month. Since January, when the economy's recovery first became apparent, the rate of commercial and industrial building has declined by 20 percent."

April contracts for nonbuilding construction (public works and utilities) jumped a seasonally adjusted 39 percent as the start of two electric power plants in the Southwest swelled the month's value to \$4.1 billion.

Apart from the two utility projects — one in Texas and the other in Arizona — April's nonbuilding construction work remained close to the March rate of contracting. Road-building contracts rose sharply in

MONTHLY SUMMARY OF CONSTRUCTION CONTRACT VALUE

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

	April 1983 Construction Contract Value (000,000)	Seasonally Adjusted Percent Change From Previous Month		
Nonresidential Building	\$ 4,549.0	- 8		
Residential Building	7,667.4	- 5		
Nonbuilding Construction	4,120.0	+ 39		
Total Construction	\$16,336.4	- 2		
	4 Mos. 1983 (000,000)	4 Mos. 1982 (000,000)	Cumulative Percent Change	
Nonresidential Building	\$18,433.6	\$20,519.7	- 10	
Residential Building	25,343.4	15,268.9	+ 66	
Nonbuilding Construction	11,304.7	12,636.1	- 11	
Total Construction	\$55,081.7	\$48,424.7	+ 14	

DODGE INDEX

(1977 = 100, SEASONALLY ADJUSTED)

February 1983	119
March 1983	131
April 1983	129

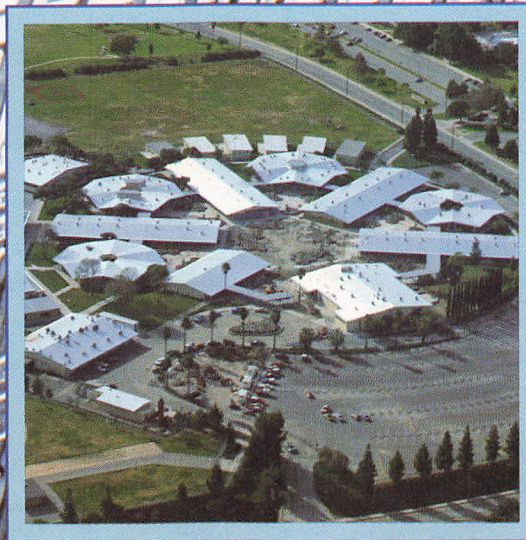
continued, page 12

patented Design

Veral roofing and flashing is different. It has a patented design incorporating a fiberglass reinforced modified asphalt base and a factory laminated foil shield that work together against the elements.

proven performance

Veral, time-proven for over two decades in the world's climatic extremes, provides a tough, lightweight, weather-tight seal appropriate for a variety of roof designs and substrates.



Dramatic Results

As handsome as it is durable, Veral is available in copper, aluminum or chemical resistant stainless steel foil finishes. All are guaranteed against leaks for 10 full years.

Call Today

For more information on the engineered excellence of Veral or any of SIPLAST's time-proven roofing systems call:

1-800-643-1591

In Arkansas, Call Collect:

501/246-8094

SIPLAST

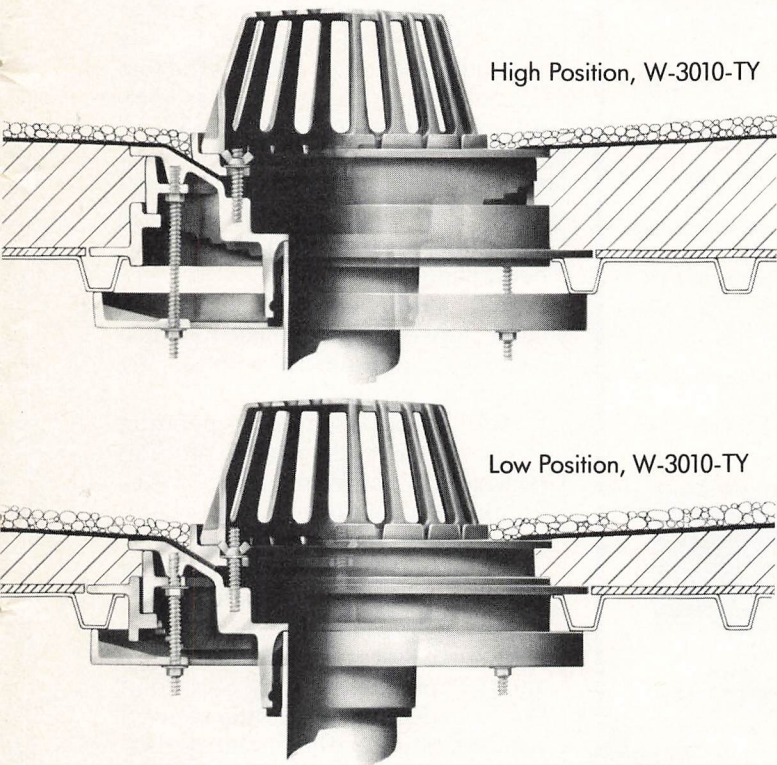
Hwy 67S, Arkadelphia, AR 71923



Introducing the drain that'll keep you from fiddling on the roof.

The W-3010 adjustable roof drain series from Wade allows you to easily raise the drain height from 1" all the way to 6" at no additional cost. That's room for 2 more inches of roof than any other drain on the market – without paying extra for add-ons.

You don't waste time installing the drain, either. After you adjust the drain to the desired height, just secure it with an under-deck clamp. That's all there is to it. There's no bearing pan to mess with or cups or recesses to fill with tar.



It's easy to adjust, too. Just turn the roof drain body to raise or lower the drain. No tools are required. The stair-step adjustment assembly allows you to move the drain in quarter-inch increments in either direction.

Plus, the adjustment is under the drain instead of on top or internally. So extra gaskets and seals that could leak are completely eliminated. With our new roof drain, the only clamping device is the one that fastens the membrane to the drain body.

And because the body is adjusted upward, you get more room for downspouts between the deck and suspended ceiling.

After adjustments, you can connect the storm drainage piping anytime (with push-on gaskets, you may not need a ladder).

This new W-3010 roof drain is available with all popular outlets in 2"-10"; push-on gaskets in sizes 2", 3", 4" and 6".

So when you need a roof drain that can rise to any occasion, specify Wade's new adjustable roof drain. It's reaching new heights in specification drainage products.

For more information about Wade's new roof drains, write us for a free 12-page technical package. It includes everything from complete installation details to dimensioned drawings. Write Tyler Pipe, Box 2027, Tyler, TX 75710. Or Telex 735410.

Tyler Pipe
Subsidiary of
Tyler Corporation

NATIONAL NEWS

continued from page 8

April to the highest rate so far in 1983, but sewer, water and other public works construction declined.

Regionally, the West and Midwest were the places where construction was happening and not happening in April. Helped by a sizable utility project, the Western region showed a

17 percent seasonally adjusted gain in the latest month. The Midwest, with its sagging commercial and industrial building market, slipped 16 percent. Elsewhere, April contracting was down seven percent in the Northeast, and up five percent in the South.

At the end of four months, the value of all new construction started in 1983 was \$55.1 billion, a gain of 14 percent over the same months of 1982.

The accompanying chart is a summary of the latest month's Dodge construction statistics. These contract-award statistics, prepared and issued by the F.W. Dodge Division of McGraw-Hill Information Systems Co., measure the value of newly started construction that will be brought to completion over the months ahead. They indicate the amount and direction of future expenditures of this major sector of the economy.

New Development On Retainage Issue

by Connie Arkus

The Associated General Contractors (AGC) will soften its longtime retainage policy. AGC is now recommending five percent retainage for a contract's duration. Previously, AGC called for ten percent through half a contract and none thereafter.

The announcement was made at the semi-annual joint conference with the American Subcontractors Association (ASA) and the Associated Specialty Contractors (ASC).

ASA applauded the change, remarking that "ten percent retainage at the start of the job was a greater cash flow burden" than the five percent retainage.

AGC and ASA continue to disagree, however, on the need for legislation to bar automatic withholding in federal construction.

ACG is opposed to a pending House bill which would prohibit contracting officers from withholding any retainage if work is progressing satisfactorily.

"Retainage is a basic and prudent business practice" in the construction industry, according to AGC.

In other news, the introduction of another retainage bill by Sen. John Danforth (R-Mo.) apparently spurred administrative action on the original retainage legislation.

After waiting four months for the Office of Management and Budget (OMB) to decide on a retainage poli-

continued, page 14

Melts More Hot Per Hour Than Any Kettle Of Same Size ...

E-Z Load Heet-Master Kettles

Capacities From 240 To 900 Gallons...

Aeroil's reputation for making Roofers' Kettles that out produce and outlive all others is legendary, now the E-Z Load Kettles are our newest legend.



EZ-Load 240



EZ-Load 400

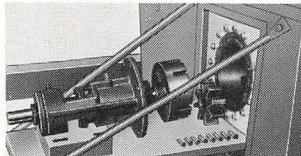


EZ-Load 600



EZ-Load 900

- Equipped with heavy duty EZout submerged Gear Pump.
- Patented heat-riser cuts morning heat up time in half.
- Break-away-lever-action cover makes opening a cinch.
- Insulated with heat resistant hi-temperature glass fibre.
- Kettles mounted on trailer with full length steel channel frame, with leaf springs, drop center axle, high speed bearings, wheels and tires.
- Removable/adjustable tow hitch and double tow chains standard equipment.
- Choice of L.P.G. or Kerosene heating system.



Easyout Submerged Gear Pump is easily serviced from outside the kettle. Pump never needs preheating because it's submerged in the hot. Pumps up to 150 ft. plus at 35 GPM.

Write for Complete Free Illustrated Catalog ...



AEROIL PRODUCTS CO., INC.

69 Wesley St. • S. Hackensack, NJ 07660
Phone: (201) 343-5200

Check #396 on Reader Service Card

Important Notice to Polyurethane Roofing Contractors...

On March 4, 1983 Polymer Development Laboratories, Inc. Changed the Polyurethane Roofing Industry FOREVER.

INSURED WARRANTY... UNEQUALED IN THE INDUSTRY!

Workmen's Insurance Company, an experienced Underwriter with BEST Insurance Guide "A-10" rating, now offers each building owner registered RIMSPRAY™ ROOFING SYSTEM PRODUCT WARRANTY INSURANCE which provides for repair or replacement of the product or its parts due to break-down. No more question or doubt as to whom has warranted what; the entire RIMSPRAY™ ROOFING SYSTEM (including THERMASTER™ foam, RIMSPRAY™ and RIMCOAT™) can now be INSURED AGAINST FAILURE. There's nothing else like it in the industry!

RIMSPRAY™ SEAMLESS MEMBRANE... UNRIVALED IN THE INDUSTRY!

Workmen's Insurance Company underwrote PDL RIMSPRAY™ ROOFING SYSTEM because it had confidence in PDL's ability to design a superior polyurethane roofing system:

- RIMSPRAY™ SEAMLESS MEMBRANE is a tough, 100% solids elastomeric sprayed-in-place barrier (similar in physical characteristics to automotive fascia) that protects the "R" value of the foam by eliminating old-style fragile coating problems.
- RIMSPRAY™ ROOFING SYSTEM is sandwich-core engineered to provide a strong "boat-hull" roofing composite...allowing a minimum of two (2) pounds per cubic foot density THERMASTER™ foam to be utilized and still maintain a minimum of 100 psi composite compressive resistance.
- Since 1980, Urethane Contractors have experienced up to 50% labor savings when comparing RIMSPRAY™ installation costs to installation expenses of old-style urethane roofs.

So, unlike its major competition, Single-ply, a RIMSPRAY™ ROOFING SYSTEM is manufactured on-site following PDL's "Quality Assurance" Program. It's a membrane with no seams that doesn't require adhesives or ballast to keep it in place. There's nothing else like it in the industry!

"QUALITY ASSURANCE"... UNPARALLELED IN THE INDUSTRY!

PDL represents the building owner. No longer does an owner have to accept promises that may not be kept. He knows what to expect because we ARE him! PDL "QUALITY ASSURANCE"

Program guarantees:

- I. PDL APPROVAL OF SPECIFICATION
For Each Building
- II. PDL APPROVAL OF CONTRACTOR
For Each Building
- III. PDL MONITORING OF THE APPLICATION
For Each Element of the Composite System
- IV. PDL INSPECTION OF THE FINISHED ROOF
Prior to Issuance of Warranty.

Any one of the steps not recorded in writing voids Warranty. It's as simple as that...There's nothing else like it in the industry!

WHAT YOU DO NOW... WILL LET YOU STAND ALONE IN THE INDUSTRY!

Expedite the following:

1. Write or call PDL for copy of minimum acceptable specification criteria.
2. Incorporate specifications on your next job.
3. Complete PDL RIMSPRAY™ Training Program.
4. Offer Insured Warranty to Building Owner.
5. Follow PDL "Quality Assurance" Program.
6. Co-sign PDL Warranty.

Then relax. Your RIMSPRAY™ roof is automatically insured. There's nothing else like it in the industry!

Transcend your competition. Be proud to be part of a team that changed the polyurethane roofing industry. FOREVER!



RIMSPRAY™

**POLYMER
DEVELOPMENT
LABORATORIES
INC.**

CORPORATE HEADQUARTERS
POLYMER DEVELOPMENT LABORATORIES, INC.
212 West Taft Avenue • Orange, CA 92665
(714) 921-2300

POLYMER DEVELOPMENT LABORATORIES, NE., INC.
69-83 Dickson Street • Newburgh, New York 12550
(914) 561-5500

NATIONAL NEWS

continued from page 12

cy, Danforth introduced a bill nearly identical to a 1982 bill barring automatic retainage on federal civilian construction projects.

Danforth said that OMB's Office of Federal Procurement Policy (OFPP) published a proposed policy letter on retainage in November, 1982.

After redrafting the letter in January, 1983, no new information was

forthcoming.

"Since then (January) nothing has come from the people in OMB who think (Congress) should not get involved in this retainage question," Danforth said.

He explained that this was the reason he introduced his new bill, "Construction Contract Payment Procedures Act of 1983."

Shortly after Danforth proposed the new bill, OFPP announced retainage can no longer be held without cause from the start of federal construction contracts.

The OFPP document states, "Retainage should not be used as a substitute for good contract management, and contracting officers should not withhold funds without cause."

Decisions are to be made on an individual level, based on the contracting officer's assessment of past performance and future performance, according to the OFPP document.

The American Subcontractors Association is pleased with the decision against automatic progress payment deductions.

"Essentially OFPP has reversed the current presumption," said Arthur C. Meushaw, ASA federal liaison committee chairman.

"Where contracting officers now presume poor contractor performance and automatically deduct retainage, henceforth, they will make progress payments in full until poor contractor performance necessitates its imposition," Meushaw said.

The OFPP document pertains to direct contractual relationships only. The next step for ASA is "to assure that subcontractors enjoy like retainage terms."

In state news, four bills designed to reform payment and bidding practices on state projects have been approved by the Connecticut Senate Government Administration and Elections Committee.

The bills, introduced by the Subcontractors Association of Connecticut (SAC), must now be approved by the full state senate.

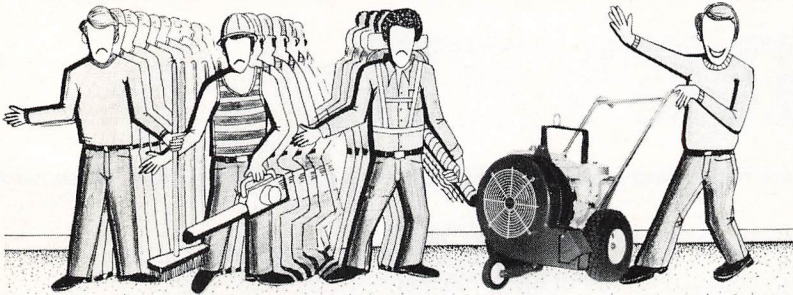
Bill 739 would mandate 17 construction trades that general contractors must list under the state's year-old bid statute.

State agencies would be required to pay their contractors within 30 days or be assessed six percent interest per annum under Bill 749.

In Bill 1064, retainage on state projects would be halved from the current five percent limit to two-and-a-half percent.

The fourth bill, number 501, contains several proposals. The bill would provide for interest on retainage, subcontractor notification that the state has paid the general contractor and a reduction from 45 to 30 days for the time limit on subcontractor payment.

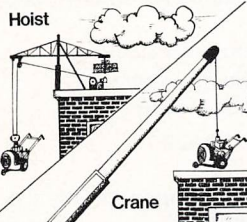
HOW LONG WILL IT TAKE YOU TO PREPARE FOR YOUR NEXT JOB?



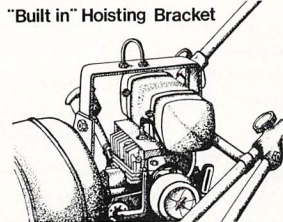
PARKER SAVES THE TIME. YOU SAVE THE MONEY.

When compared to crews using brooms, handheld, or backpack blowers, the PARKER HURRICANE is one investment that will quickly pay for itself when you consider today's ever-increasing labor costs. The HURRICANE generates both a high velocity and large volume of air for a faster and more efficient cleaning job. Constructed to take the roughest use with a minimum of maintenance, the HURRICANE is the only blower which has been specifically designed for the roofing industry.

THE PARKER HURRICANE 8 ROOF BLOWER



- 8 H.P. Aluminum or Cast Iron Engine
- Center Balanced Hoisting Bracket
- Adjustable Air Deflector
- 1 Gal. Gas Tank
- Plow-type Handles
- 178 M.P.H. Velocity



Use the coupon below to send for your FREE information sheet and name of your nearest PARKER distributor.

Yes, I want to save time and money!

Name _____ Phone _____

Company _____ Address _____

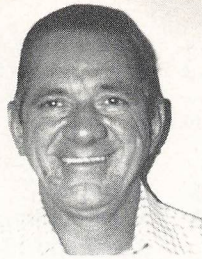
City _____ State _____ Zip _____



Parker Sweeper Company
Box 1728, Dept. R-82
Springfield, Ohio 45501-1728

Check #418 on Reader Service Card

"My choice?... a Giuffre Bros. truck-crane Roofer's Package!"



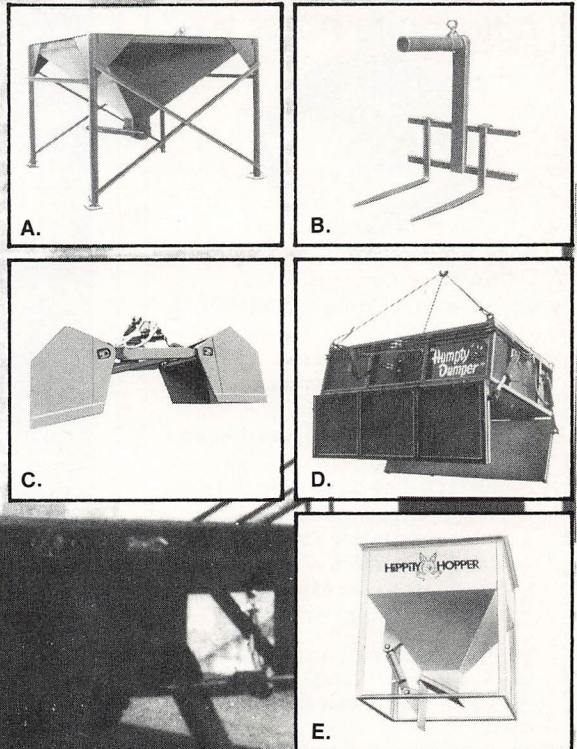
We asked **Charlie Gumingo**, President of G & S Roofing in Minneapolis, why he bought a crane from Giuffre Brothers.

"Being a small roofing contractor, with one crew ranging from 3 to 6 men, I never believed I could afford, much less justify a crane in my business. But Giuffre Brothers made it easy for me. First, they rented their 'Roofer's Package' to me, and spent time training my crew. We soon became skilled operators, and found the Giuffre System made us extremely efficient on the job. We completed jobs quicker, allowing us to pass along the savings to our customers. When I decided we had to own it, Giuffre Brothers again came forward providing a reasonable financing plan tailored just for us. Now our increased volume more than covers the monthly payment. We couldn't be happier."

**SPECIALISTS
SERVING
A
VERY
SPECIAL
INDUSTRY**

- Originators of job-proven, heavy duty crane accessories.
- Package is designed for **RO Cranes**, but is compatible with **ANY** make.
- Immediately available for purchase, rent or lease.
- Multiple sales to other satisfied roofers.
- Over 100 national service centers provide local service.

The **EXCLUSIVE** Giuffre Brothers Roofer's Package includes: A. 1½ yard hopper for gravel/stone, B. a special adjustable pallet fork for shingles/insulation, etc., C. ¾ yard clam bucket, D. the patented 3½ cubic yard "Humpty Dumper" with hydraulic bottom doors, E. the new ¾ cubic yard "Hippy Hopper" and a pair of 24 foot 4,000 lb. nylon lifting slings.



**9770 So. Ridgeview Dr. • Oak Creek, WI 53154
(414) 761-2300 • RO Crane Distributor**

NATIONAL NEWS

continued from page 14

Entries Sought For Fiberglas Competition

Entries are now being accepted for the Twelfth Annual Energy Conservation Awards program sponsored by Owen-Corning Fiberglas.

The program, established in 1972, recognizes architects, engineers and building owners who made significant contributions to energy conservation.

The awards jury will examine building design in six categories: Commercial, governmental, industrial, institutional and two new categories, residential and commercial retrofit.

Vivian E. Loftness was appointed chairman of the seven-member jury.

She is a principal of VLH Associates and adjunct associate professor at Carnegie-Mellon University, Pittsburgh, Pa.

Jurors include: Larry W. Bickle, Ph.D., P.E., president of The Bickle Group, Houston; Helmut Jahn, AIA, president of Murphy/Jahn, Chicago; George M. Notter, Jr., FAIA, president of Anderson Notter Finegold, Inc., Boston; William Turnbull, Jr., FAIA, principal of MLTW/Turnbull Associates, San Francisco; August J. Vercruyssen, P.E., chief mechanical engineer, Daniel, Mann, Johnson & Mendenhall, Los Angeles; and Barry L. Wasserman, FAIA, former California State Architect, Sacramento.

The competition is open to all registered architects and professional engineers practicing in the United States. Entries must be received by Owen-Corning by August 26, 1983.

Judging will take place in New York City, September 14-16.

To receive a copy of the entry kit, write B.M.C. Meeks, Owens-Corning Fiberglas Corp., Fiberglas Tower, T12, Toledo, Ohio 43659.

Roof Coatings Manufacturers Meet in Miami

The first annual meeting of the newly formed Roof Coatings Manufacturers Association (RCMA) was held recently in Miami, Fla.

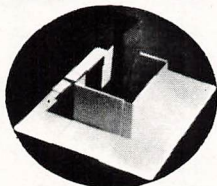
More than 100 roof coatings manufacturers and suppliers attended the two-day program, featuring the Executive Director of the Asbestos Information Association B.J. Pigg.

Special sessions on retailers' and contractors' experience with roof coatings were presented as well as a government relations panel on product liability concerns.

RCMA was formed in 1982 to serve the cold process protective roof coatings industry. More than 40 members actively participate in association activities.

Membership information is available from RCMA headquarters at 8600 West Bryn Mawr Ave., Suite 720-South, Chicago, Ill. 60631; 312/693-0990.

HINDALL UNIVERSAL Adjustable Pitch Pan



Fully Adjustable to 10" x 10", of fiberglass polyester.

Unlike Metal Pans, the HINDALL Pitch Pan has:

- Negligible expansion
- High impact resistance
- High flex strength
- Total resistance to weather and ultraviolet
- Surface bonding with fill and stripping material
- Total resistance to electrolysis and corrosion
- Eliminated takeoff sizing, W.O. and shop fabrication

THE INDUSTRY STANDARD can be stocked in your warehouse for LESS than your own metal and fabrication costs.

Hindall Products Co.

823 Independence Ave., S.E.
Washington, D.C. 20003

(202) 547-0537

Check #413 on Reader Service Card

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 #421 on Reader Service Card

Morrison Named CSI Region Director

Robert W. Morrison, a resident of Milwaukee and marketing manager, F.J.A. Christiansen Roofing Company, Inc, NRCA member roofing contractors and consultants, has been elected Director, North Central Region of The Construction Specifications Institute. He assumed office July 1, 1983.

The Construction Specification Institute is a national technical society, with headquarters in Alexandria, Va. The organization has more than 17,200 members in 132 cities of the United States and is dedicated to the improvement of construction documentation, specifications and communications and includes in its membership architects, engineers, specification writers, construction product manufacturers and contractors.



Single Ply Roofing

isn't as simple as some
people would lead you
to believe.

Some people would have you believe that single ply roofing is a cure-all for any roofing condition.

'Taint necessarily so!

There are times single ply will do the job and times it won't. It takes a qualified roofing company that supplies both single ply and built-up roofing to make the judgement of which system is most economical for you.

And, if single ply *is* the answer, it takes a totally engineered single ply roofing system, not just a membrane, to give you the assurance you need.

What it takes is GAF.

GAF is a major supplier of both built-up roofing and single ply systems. We've been in the roofing business for almost 100 years, and our GAFPLY EP™ Single Ply membranes have demonstrated superior weatherability in continuous roof exposure for over 15 years.

GAF supplies technical support from start to finish, totally engineered systems, time-tested performance, and the most comprehensive guarantee in the industry.

Experienced roofing people are always on call at (212) 621-5129.

GAF CORPORATION
Building Materials Group
140 West 51 St., New York, NY 10020



GAFPLY EP™
Single Ply
Roofing Systems



Associate News

New Officers For G-P

The Georgia-Pacific Corp. recently elected four new officers. President and Chief Operating Officer T. Marshall Hahn Jr. is now chief executive officer, succeeding Robert E. Flowerree who continues as chairman. Robert B. Claytor, Norfolk Southern Corp., was elected to the Board of Directors. John F. Razor was named vice president of the company's recently created Mid-Continent Wood Products Manufacturing Division, and James C. Van Meter was selected as executive vice president — finance and chief financial officer.

Georgia-Pacific is a manufacturer and distributor of building products, pulp, paper and chemicals.

Manville Promotes Five

The Manville Corp. has tapped five employees for new management position in the company.

Four promotions occurred in the Roofing Systems Division, Manville Products Group: Stella Anderson has been promoted to Market Manager, while Robert K. Hawkes is now the General Sales Manager for the Roofing Systems Division; Robert J. Graboski was selected Pricing and Specialty Products Merchandising Manager, and William S. Young was named Manager of Advertising and Sales Promotion.

In the Building Materials Marketing Div., Jerry L. Burnett has been named Manager for National Accounts.

Carlisle Announce New Warranties

Carlisle SynTec Systems has introduced one new warranty and expanded another, covering all roofing installations inspected and approved by the company.

The new Carlisle Golden Seal™ is a 15-year warranty on all materials used in the Sure-Seal™ Total Roofing System.

Carlisle's 10-year watertight warranty has been revised to include an optional five-year extension and is now called the "Sure-Seal Membrane Systems Warranty."

The company has over 20 years experience as a material supplier in the roofing, waterproofing and lining markets.

New Service Available From Futura Coatings, Inc.

Futura Coatings, Inc. is now offering a computer energy-analysis brochure for calculating heat loss and gain through various roof composites.

Although calculations may be self-computed through the information provided, a return analysis form is included that can be returned to Futura for fast, in-depth computer calculation.

The company provides this service to illustrate the advantages of a polyurethane foam and elastomeric-coated roof in comparison to other available systems.

Pair Promoted By GAF Corp.

The GAF Corp. recently promoted two of its employees to management positions.

Joseph J. Rajewski is now the manager of the South Brook building materials plant in New Jersey. Rajewski, who joined GAF in 1968, was previously acting manager of the Erie Lake plant.

Ralph R. Faroulo was named group product manager for building materials. Before his promotion, Faroulo was product manager for built-up roofing. He joined GAF in 1976 as an assistant product manager.

GAF produces building materials and specialty chemicals.

* SPEED BEAD

LAP SEALANT APPLICATOR

* PAT. PEND.

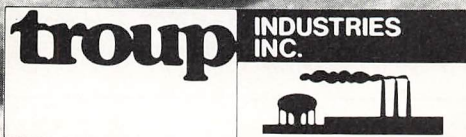


A ROOFER APPLYING LAP SEALANT WITH A HAND-HELD CAULKING GUN MIGHT AS WELL CRAWL. SO WHY CRAWL WHEN YOU CAN WALK? AS YOU WALK BEHIND THE SPEED BEAD YOU LAY DOWN A PERFECTLY EVEN, STRAIGHT BEAD OF LAP SEALANT. YOU NOT ONLY SAVE ON LABOR YOU ALSO SAVE ON MATERIALS.

LAP SEALANT IN 5-GAL. PAILS IS HALF THE PRICE OF SEALANT IN TUBES.

CALL US FOR THE REST OF THE STORY

TOLL-FREE 1-800-222-1144
CALL COLLECT
IN MICHIGAN 1-906-228-7043



444 E. CRESCENT ST. • MARQUETTE, MI 49855

Check #430 on Reader Service Card

Affiliate News

New Board Elected In Minnesota

The Sheet Metal, Air Conditioning & Roofing Contractors Association of Minnesota, Inc. recently announced its 1983 Board of Directors.

The roster includes President Alan E. Hiley, Rochester; Immediate Past President William H. Galewski, Winona; Director-at-Large: Michael E. Elnicky, Minneapolis; James I. Parson, St. Paul; Gordon B. Rustad, Minneapolis, and vice president Thomas B. Sedgwick, Minneapolis; Division Chairmen: George J. McDowall, St. Cloud, Central Division; Thomas R. Lee, Hibbing, Northern Division, Secretary-Treasurer; and Alan E. Hiley, Rochester, Southern Division; Panel Chairmen: Vernon A. Larson, St. Paul, Architectural & Roofing; Michael J. Wilhelmson, St. Paul, commercial and industrial; Philip B. Krinkie, St. Paul, residential and John P. McGrath, St. Paul, specialty, general job and manufacturing; and Ex Officio: William R. Forder, New Brighton, Chapter Councillor to SMACNA and Alan E. Malley, Chairman of the Sheet Metal Industry Fund of Minnesota.

Maryland Holds Elections

The Associated Roofing Contractors of Maryland, Inc. elected a new slate of officers and directors for 1983.

Mickey Kirby, A. Kirby & Son, Inc. was elected president; Lee Goldhammer, R.D. Bean, Inc., vice-president; Tom Appel, Wallace & Gale Co., secretary and Steve Krupnik, Krupnik Bros., Inc., treasurer.

Elected to three year terms on the Board of Directors were Herman Frederick, M.J. Frederick & Brother; John McDermott, Wm. C. McDermott & Son, and Frank Zappacosta, Allied Roofing & Building Products, Inc.

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:

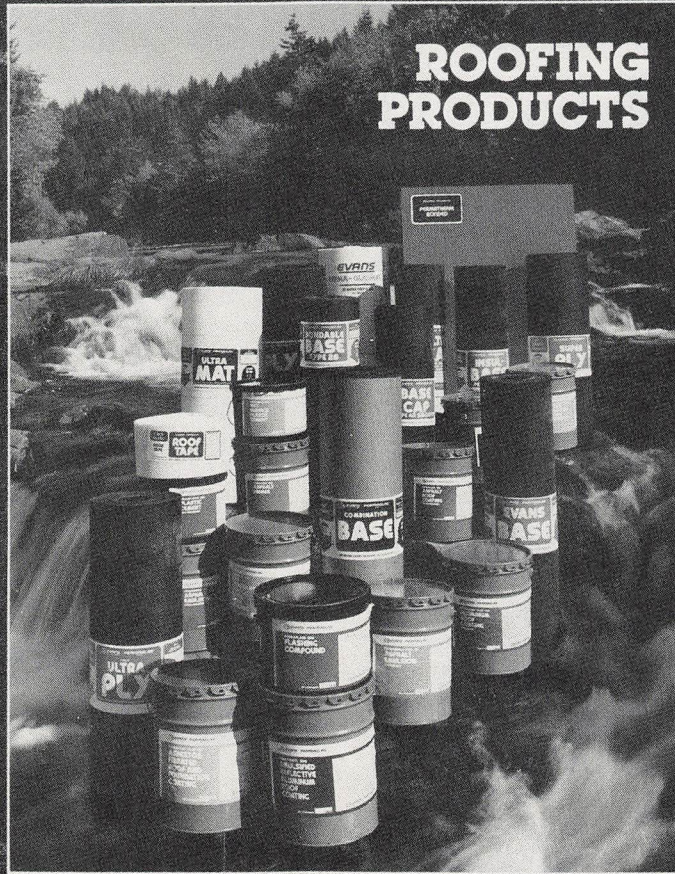
- Waterproofing
- Steep Roofing
- Built-up Roofing (with two chapters on single-ply)
- Handbook of Accepted Roofing Knowledge
- Construction Details
- Technical Bulletins
- Glossary
- Appendix

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

NOTE: THE CURB, WOOD NAILER, INSULATION AND SEAL STRIP ARE TO BE SUPPLIED BY THE CURB MANUFACTURER. THE NOMINAL 14\"/>



EVANS / PERMAGLAS
PRODUCTS COMPANY DIVISION



*Call or write for our new brochure on
built-up roofing products.*

EVANS / PERMAGLAS
PRODUCTS COMPANY DIVISION

Evans Products Company/Permaglas Division • P. O. Box "E" • Corvallis, Oregon 97330
Phone 503/753-1211



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

Prehire Labor Pacts Are Enforceable, But Voidable

The controversy over the extent to which construction industry collective bargaining agreements can be enforced before the union demonstrates majority support among the covered employees has now been settled by the U.S. Supreme Court's April 27, 1983 decision in *Jim McNeff, Inc. v. Todd*, No. 81-2150. The Court has ruled that such "prehire" labor agreements are enforceable by the parties (and the trustees of fringe benefit funds) unless and until the contractor/employer specifically repudiates the agreement, even if the union does not have the support of a majority of the covered employees.

"Prehire" labor agreements are collective bargaining agreements entered into between employers and unions in the building and construction industry before the applicable union has established majority status (support) among the contractor's employees of that particular craft. Most collective bargaining agreements in the construction industry start out as prehire agreements. Where a construction employer maintains a regular complement of employees in a craft covered by an area-wide prehire agreement, that agreement matures into a fully enforceable collective bargaining agreement when a majority of those employees support the union.

Prior to the Supreme Court's ruling in *Jim McNeff, Inc. v. Todd*, the federal courts had sharply disagreed concerning whether and to what extent prehire labor agreements are enforceable before the union achieves majority support, based upon differing interpretations of the Supreme Court's earlier decision in *NLRB v. Local 103, Ironworkers*, 434 U.S. 335 (1978), commonly referred to as the "Higdon" decision. The Court made it clear in *Higdon* that the employer's duty to honor the terms of the collective bargaining agreement is contingent on the union's attaining majority support of the employer's employees at the various construction sites:

- As viewed by the Board, a "prehire" agreement is merely a preliminary step that contemplates further action for the development of a full bargaining relationship.

The Court's decision in *Higdon* thus indicated that prehire agreements are at least *voidable* until the union achieves majority status. However, *Higdon* concerned recognitional picketing, not a breach of contract allegation. After *Higdon*, the Fifth and Eleventh Circuits ruled that a prehire agreement is unenforceable in a breach of contract suit, prior to the demonstration of a majority support.

The other Circuits disagreed concerning the application of the *Higdon* rule. The Ninth Circuit's decision, which was appealed to the Supreme Court as *McNeff v. Todd*, was that prehire agreements are voidable at any time prior to the union's achieving majority support, but enforceable until repudiated by the employer. *Tood v. Jim McNeff, Inc.*, 667 F.2d 800 (9th Cir. 1982). The Court of Appeals for the District of Columbia later adopted the same view in *Washington Area Carpenters Welfare Fund v. Overhead Door Co.*, 681 F.2d 1 (D.C. Cir. 1982). In contrast, the Tenth Circuit interpreted the *Higdon* rule as applicable to unfair labor practice cases, but not to breach of contract suits by pension funds.

Final Rules For Affirmative Action

A final draft of new regulations enforcing Executive Order 11246, requiring affirmative action in employment by federal contractors, has been sent by the Labor Department to the Equal Employment Opportunity Commission and the Office of Management and Budget for review. The new rules, which will become final within a few months, ease the burdens of compliance on federal contractors, especially those whose federal contracts amount to less than \$500,000. The key provisions are summarized below:

Coverage of Construction Contractors;

(a) Contractors with contracts exceeding \$10,000, but less than \$100,000, must take affirmative action not to discriminate in employment, but will be *no longer* required to meet specific percentage work force goals for minorities and women.

(b) Contractors with contracts exceeding \$100,000 with less than 100 employees must meet specific percentage work force goals, in addition to the basic non-discrimination obligation.

(c) Contractors whose contracts exceed \$100,000 with more than 100 employees must also file a written "short form" affirmative action plan.

(d) Contractors with contracts exceeding \$500,000 and more than 250 employees must comply with all the above requirements and file a "long form" affirmative action plan. Separate establishments of the same company will be combined to determine the amount of fed-

eral contracts and number of employees.

□ **Work Force Goals and Job Groups;**

The current regulations establish certain percentage goals for the utilization of women and minorities in the contractor's work force. For the first time, the new regulations expressly state that goals are not "rigid quotas" but "targets to be affirmatively pursued," and that no contractor will be found to have violated the law solely because of nonachievement of these goals. The factors used to determine available ability of women and minorities for the work force have been simplified and reduced. Whereas current regulations establish for individual contractors a 6.9 percent goal for women in construction on each trade, the new rules apply this 6.9 percent goal to the entire on-site work force as a whole, thus permitting some variation within particular trades.

□ **Back Pay as a Remedy For Discrimination;**

Back pay is retained as a remedy for discrimination by contractors, but is limited to a period no more than two years prior to the date that the contractor is notified of a potential discrimination problem and is to be awarded only to "identifiable victims" of discrimination.

□ **Subcontractor Certification Eliminated;**

The current regulations require a certification by contractors and subcontractors in their bids with regard to affirmative action plans and other aspects of compliance. The subcontractor certification requirement is eliminated in the new final rules. Also, prime contractors are no longer required to report their covered subcontracts.

Erosion of Contract "Retainage" Continues

Construction contracts, both public and private, customarily provide for periodic progress payments to be made to the contractor based on an estimate of work completed during the relevant period. In most federal government contract situations, 10 percent of each pay request due the contractor is held as "retention" until completion of the work and acceptance of the project by the government, or some other designated "milestone" of performance. The contracting officer does have the discretion to pay the full amount due if he determines that the contractor has made satisfactory progress. However, this discretionary authority is not often exercised. As a result, retainage has been the standard practice on federal jobs, regardless of the contractor's actual performance.

In response to pressure from construction industry and governmental agency representatives, the Office of Federal Procurement Policy issued Policy Letter No. 83-1 on May 6, 1983. The Policy Letter presents a new federal policy for retainage, effective July 5, 1983, that is intended to change existing practices significantly. The Letter states that "retainage should not be used as a substitute for good contract funds *without cause*." (Emphasis added.) Determinations whether retainage should be used and the amount to be withheld should be

made on a case-by-case basis, depending on the contracting officer's assessment of past performance and expectations of future performance. The Policy Letter also emphasized that, even if retainage is used, it should be reduced or eliminated as the contractor progresses and his performance improves. Final payment will be made upon completion of all contract requirements.

Once it is in effect, this new retainage policy should be beneficial to all contractors. Elimination of retainage will accelerate payment and improve contractors' cash flow significantly. While the direct and immediate benefit inures only to prime contractors, the policy change can and should ultimately benefit subcontractors as well who satisfactorily perform their obligations. However, any "pass through" of the benefits of elimination of retention from prime contractors to subcontractors will be dependent upon the contractual terms and conditions between them.

In this regard, the Associated General Contractors of America's Building Division recently modified its stance on "retention" in a manner which should facilitate "pass through." At its March, 1983 convention, the AGC adopted a policy that retention of subcontract funds should be done in the same manner as the owner retains the general contractor's funds on a given project, provided that the subcontractor's progress is satisfactory and that he has given the general contractor a performance and payment bond or other appropriate security or assurance of performance.



There has never been anything like SRD



... At last a company that remembers the contractor when they price their products.

"Give me a call today"
Connie Driver



OUR FLUID ROOFING SYSTEMS ARE SIMPLE - QUICK - SUCCESSFUL

They waterproof, decorate, and preserve a wide variety of substrates including built-up roofs, urethane foam, plywood, metal roofs, composition shingles, slate & tile roofs and more.

- System I** **Super Acrylic** There is no better acrylic in the land (68% solids). This thick and rich coating cures to a firm and tack-free film. A two coat system; first coat gray and second coat white.
- System II** **Neoprene/Acrylic** A popular two coat system. First coat-black neoprene; second coat Super Acrylic.
- System III** **Aluminum Neoprene** This is an all neoprene system. First coat black neoprene; second coat aluminum neoprene.
- System IV** **Neoprene/HYPALON*** An outstanding system complementing two remarkable synthetic rubbers. First coat black neoprene; second coat white Hypalon. (B.U.R. needs a barrier coat)

Also we sell 100% Polyester Fabric
Call (800) 231-0460 / (713) 778-1812

SRD

P. O. Box 35129, Houston, TX 77235

*Trademark of E. I. duPont deNemours & Co.

Check #427 on Reader Service Card

Advertising For Roofing Firms:

For What It's Worth

by *Connie Arkus*

One way to generate business is through advertising. Catchy radio jingles, sharp newspaper ads or memory-imprinting commercials are three very popular forms of advertising.

But do roofing contractors consider this type of advertising a profitable method of increasing business and raising the bottom line?

Not all of the NRCA contractors contacted in the Chicago-metropolitan area agreed with the concept of a media blitz. In fact, many do not use any formal advertising methods at all.

The majority of the companies have built their business clientele through years of service to the com-

“You need to advertise in the good times so you can generate business to carry you through the bad times.”

munity and by personally calling prospective contacts.

Several companies that employ the services of an advertising agency, however, are Maco Coatings, Empire Roofing Co. and Esko & Young Inc.

Maco Coatings, Inc., Wheeling, is a 13-year old company specializing in industrial and commercial roofing.

Advertising agency Jeffers & Associates was hired to research the roofing market for Maco, studying demographics and taking surveys.

The results of the agency research indicate television, radio and billboards are good mediums for selling consumer products, but not necessarily good for selling the services of this roofing company, according to Maco Vice President Dennis Yohe.

Maco places ads in certain newspapers only, like *Crain's Chicago Business* and *The Wall Street Journal*.

Yohe explained that a great deal of work was put into developing a print advertisement that has appeared in *Crain's Chicago Business*, a weekly newspaper.

“We spend a lot of time finding the right model and the right facial expression to appeal to a particular audience without being insulting,” he said.

Seventy percent of Maco's advertising effort is targeted to the spring months, with the remaining 30 percent starting in August.

People who live in Chicago are familiar with the jingles for Empire

Roofing Co., Chicago. The 44-year old company, which specializes in commercial and industrial work, has used an advertising agency for four years.

Empire's Gene Scott said that advertisements are placed in local newspapers, *Crain's* and on radio.

Scott said that advertising is good for recognition. “Someone may use

said. “It's the contacts we make, the engineers, architects and our 44 years of experience — that's where the work comes from.”

Ira Rosenberg from Esko & Young Inc., Chicago, has hired an agency, but agrees with using the personal touch.

Who needs leaks?
Let Maco inspect your roof today, for FREE.

One out of every five roofs FAIL prematurely and that may mean leaks. Leaks that damage machinery and office space.
But MACO'S FREE Engineered roof analysis can keep you and your roof out of trouble. Not just a "visual" inspection, we take core samples, insulation values, contaminant readings and more.
It's the smart Administrator who keeps his facility—and himself—well covered.
Take advantage of this rare opportunity and call Maco today.
Call (312) 541-3900 extension 11. ask for Greg Pacer

MACO "The Roofing Engineers..."
225 Industrial Lane,
Wheeling, IL
60090

the yellow pages to look for “that Empire Company” or tell us, “I heard your ad.”

Overall, however, Empire looks at

Not all of the NRCA contractors contacted agreed with the concept of a media blitz.

advertising in a different way.

“If we had to rely on radio, we would be out of business,” Scott

“We do very little advertising, we don't believe in it,” Rosenberg said. “I did a lot with a previous company and it attracted the wrong customers; we're highly selective.”

As a result, Esko & Young develops contacts on an individual level.

“The best advertising you get is the customer who's happy with your work,” said William Matthews of Matthews Roofing Co., Inc., Chicago. “The radio and TV ads just didn't work out.”

Matthews feels, however, that advertising in *Crain's* and other select newspapers and billboards is a good investment for the 45-year old firm.

He concentrates his advertising ef-

continued on following page

Advertising

continued

forts in spring and fall; when business is bustling or bottoming out.

"I used to believe that you advertise in the slow times and hold back in the good, but you need to advertise in the good times so you can generate business to carry you through the slow times," Matthews said.

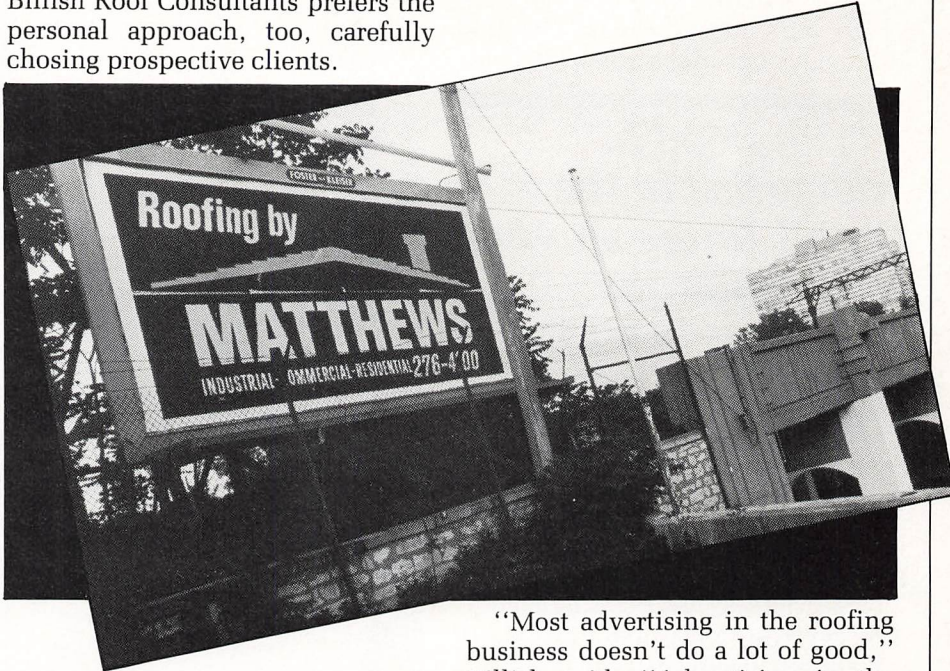
Personal contract and reputation are the keys to success for the Knickerbocker Roofing/Paving Co., Inc., Harvey, according to Christopher Cronin.

A one-to-one selling effort directed towards owners of large buildings and word-of-mouth referrals from one plant manager to another, generate business for the 96-year old company.

"People buy our expertise and our company, not just our price," Cronin said.

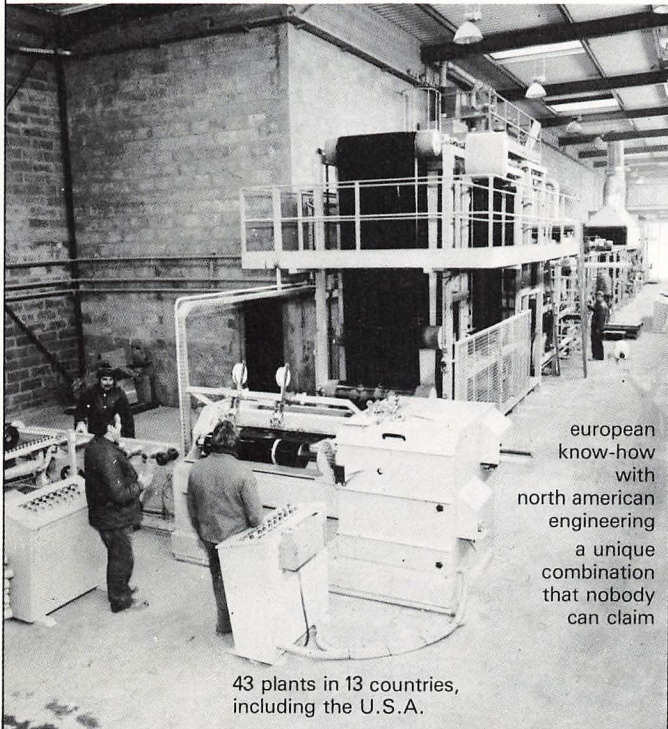
Chris Cronin's father, Robert, is involved in numerous civic organizations which also heightens awareness of Knickerbocker services.

Thomas P. Billish of Thomas P. Billish Roof Consultants prefers the personal approach, too, carefully choosing prospective clients.



"Most advertising in the roofing business doesn't do a lot of good," Billish said. "Advertising in the newspaper or phonebook is hit or

modified bitumen membrane plants



european know-how with north american engineering a unique combination that nobody can claim

43 plants in 13 countries, including the U.S.A.



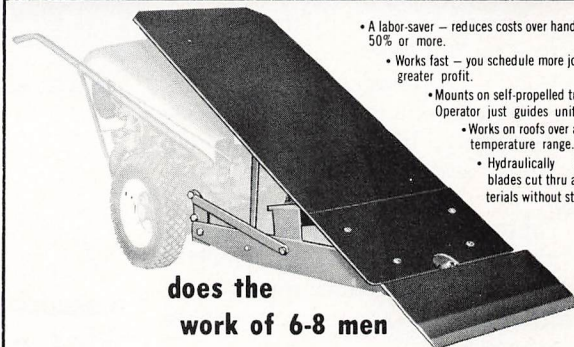
boato tecsystem s.p.a.

v. Grado - Zona Industriale 34074 Monfalcone (Italy)
tel. (0481) 45501 - 45502 telex 460416 Boato I

Check #401 on Reader Service Card

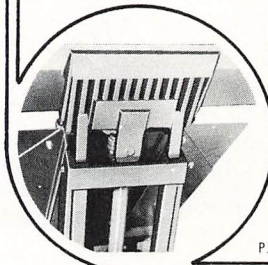
Nieman Power Roof Remover...*

*Patent No. 3,779,605



does the work of 6-8 men

- A labor-saver — reduces costs over hand labor 50% or more.
- Works fast — you schedule more jobs for greater profit.
- Mounts on self-propelled tractor. Operator just guides unit.
- Works on roofs over a wide temperature range.
- Hydraulically driven blades cut thru all materials without stalling.



POWER ROOF REMOVER is equipped with two cutting tools to remove roofing down to the insulation or down to the decking, even if the insulation is solid matted. A toothed blade (left) is used on most roof removing jobs when job conditions require its bull-dozing action. The wide cutting blade (above) is used mostly when removing fiberglass insulation and when removing roofing down to the insulation.

Nieman
MANUFACTURING COMPANY, INC.

P. O. Box 64, New Prague, MN 56071 Telephone: (612) 758-4791

Check #416 on Reader Service Card

miss; most people who consult one of those is usually looking for a lot of bidders.”

He works especially hard in the winter months because “business is slower and people are more likely to talk.”

Robert Ettema at Stewart Roofing & Construction in Chicago, finds the neighborhood church bulletins and adbooks effective ways to advertise.

The 56-year old, family-owned business is a frequent sponsor of church activities.

“The people who attend the churches are supportive of the advertisers who are loyal to their churches,” Ettema said.

While newspaper, TV and radio advertising are obvious outlets there are more creating avenues to follow for increasing contracts. Maco Coatings Inc. uses newspaper advertising to boost its business, but the company does not rely solely on print promotions.

Twice a year, Maco conducts a multi-media presentation on roof systems for plant engineers and corporate engineers.

The Maco name is not mentioned; it's strictly an informational session,

The media approach doesn't appear to be a hot seller these days in the roofing industry.

yet the session has proven to be lucrative, according to Yohe.

He follows up the presentation by taking participants up on top of a roof, so they can see firsthand the various components of the roofing system.

The company also uses mailings to promote the seminars and business in general, Yohe said.

Clean buildings, clean equipment, artist-painted logos on the trucks and company uniforms boost recognition of the Maco name.

The media approach doesn't always appear to be a hot seller these days in the roofing industry. New business comes through yearlong, personal effort and quality work.

“We try to provide the type of service that will make our customer satisfied,” said Richard Rosenow of Hans Rosenow Roofing Co., explaining his firm's most productive form of advertising.

Reputation and pavement pounding have kept roofing companies strong in shaky times — they remember that the customer's needs come first.

These companies make money the old fashioned way — they earn it.



LN-77 CONVEYOR

- THE GIANT OF THE INDUSTRY
- DISCHARGE HEIGHT 53 FT.
- MORE FEATURES STANDARD THAN ANY CONVEYOR ON THE MARKET.
- UNDER \$23,000

WE ARE OPEN FOR DEALERS AND REPRESENTATIVES - CALL US TOLL FREE



CLEARFIELD CONVEYORS, INC.
362 South Main Clearfield, Utah 84015
Telephone 801 773-1311
1-800-453-2446

POLYBRANE 186

- Single component
- Versatile UL790 Fire Rated
- Durable, long-lasting
- Waterproof-weather resistant
- Economical, energy-efficient

POLYBRANE 186 is a liquid, single component, elastomeric polyurethane roofing system, formulated to achieve a water proof coating over most roofing substrates.

POLYBRANE 186 is manufactured in Aluminum (186AL) and White (186WH), formulated to reflect light and provide superior resistance to deterioration caused by ultraviolet light.



Polymer Plastics Corp.

65 DAVIDS DRIVE • HAUPPAUGE, N.Y. 11788

516-231-1300

800-645-5007

Check #403 on Reader Service Card

Check #420 on Reader Service Card

A Performance Approach to *Quality* Roofing Membranes

by William Cullen
NRCA Research Associate

Editor's note: This article is excerpted from a paper delivered by Mr. Cullen at the Fifth International Congress on Waterproofing, June 1-3, 1983, sponsored by the International Waterproofing Association, Brussels, Belgium.

Roofing technology has advanced more in the past two decades than it has over the entire history of roofing. The developments in this technology and their application to the solution of problems has resulted in improved performance of bituminous built-up roofing and in the introduction of innovative materials as alternatives to bituminous built-up roofing.

In spite of advances and improved performance, problems still occur.

The application of a performance approach to complement the advancing technology provides a logical and systematic approach for development of performance criteria for roofing. Further, it offers a mechanism to translate information obtained as a result of in-service experience and research programs from technical curiosity to the bottom line of good performance on the roof.

It is time for the roofing industry to take a positive approach. The industry should seek a goal of zero defects in roofing performance rather than to address problems as they occur.

Roofing Performance

The following listing is a hierarchy of four levels of restrictions as examples for roofing system performance. The levels of restrictiveness were originally by David Hemenway in "Performance vs. Design Standards."

Level 1. Given a goal of providing a means to protect a building's interior from the weather, a performance document may be prepared to cover any and all means of successfully separating the building's interior from the exterior environment.

Level 2. A more restrictive performance document may be written which covers all means of using a roofing system to protect a building's interior from the weather.

Level 3. An even more restrictive performance document could describe the on-the-roof performance required of a specific component of a roofing system, e.g., the roofing membrane, the thermal insulation, etc.

Level 4. The most restrictive performance document might be a design specification which lists materials and their properties as well as gives assembly instructions for a specific component of a roofing system.

Once the level of restrictiveness to be attained has been selected, a set of elements is available which has been found to be useful in the application of the performance approach to roofing. They are more or less sequentially developed and become more difficult to achieve at each stage of their development.

The U.S. roofing industry appears to be content to remain at the Number 4 Level of Restrictiveness, using archaic design and application documents for specifying roofing membranes of both multi-ply bituminous and single-ply types. This is indeed unfortunate since the technology exists to meet the less restrictive Level 3. Some progress has been made, however, a greater commitment on the part of the manufacturing segment of the roofing industry is required.

In my opinion, the development of a performance document for a total roofing system at Level 2 is not achievable at this time due to the lack of data and information essential to advance. The required information includes a knowledge of the location and magnitude of strains and stresses which occur within and between components of a roof system.

The development of this information requires research, simulation modeling and *in situ* measurements of the reaction of real roof systems to moisture and temperature changes, building movements, wind, rain and other conditions due to man and nature.

The development of a performance document at Level 1 presents an idealistic rather than a realistic goal that cannot be attained by the roofing industry.

There exist current activities pursued by the industry in an effort to upgrade roof system performance.

Current Trends

When using the performance approach to upgrade the quality of roofing performance, it is useful to have knowledge of the trends and problems taking place in the industry. The National Roofing Contractors Association (NRCA) conducted a Project Pinpoint survey in 1982.

The baseline results of 259 reported jobs in progress on October 18, 1982 indicated that only about 25 percent of the jobs were new while over 65 percent of the projects involved reroofing. Approximately 80 percent of the roofs surveyed contained insulation as a base for the membrane. In about 50 percent of the applications, the membrane was the multi-ply bituminous type while single-ply membranes accounted for approximately 35 percent of those applied.

An additional 1982 Project Pinpoint survey of 156 roofs which experienced problems indicated that blistering and splitting were still the more predominant occurrences among the multi-ply bituminous membranes.

In the case of single-ply membranes, lap-joint deficiencies were reported to occur more frequently than

other defects. In all cases, the data shows that 80 percent of all problems reported were observed within the first three years.

Built-Up Goals

For over 100 years, bituminous built-up roofing membranes have been specified by design and application

Built-up criteria has been based on 100 years of in-service performance.

specifications at the Number 4 Level of Restrictiveness.

In 1974, I suggested a set performance criteria to describe a quality roofing membrane. This was the first time the required characteristics, which were defined 10 years earlier, by the National Academy of Sciences, were quantified. The approach was directed toward the Number 3 Level of Restrictiveness rather than the more difficult Level 2 because of resource limitations.

In retrospect, this was a correct approach since even at today's state-of-the-art, very little data is available to achieve or even attempt a Level 2 effort.

A key point in the development of the 1974 criteria was the positive approach which was pursued. The values for each attribute were based on the measured characteristics of bituminous built-up membranes which had a history of good performance in service for almost 100 years. The criteria were not based on perceived or actual problems.

Single-Ply Goals

Although single-ply membranes make up 35 percent of the roofs surveyed in NRCA's 1982 Project Pinpoint data, there are no consensus standards currently available in the United States.

This is of major concern to the roofing industry when there are well over 100 products available to purchase, according to NRCA's 1982 publication, "*The Single-Ply Roofing Membrane.*"

In addition, there is no criteria to identify a quality product for the owner or specifier. Efforts are now underway in ASTM to develop prescriptive standards for generic product types such as vulcanized and non-vulcanized elastomers, as well as polyvinyl chloride sheet-applied membrane materials. These proposed standards may describe good generic materials, such as rubber and PVC, but not necessarily good roofing membranes.

In recent years, the Canadian General Standards Board (CGSB) has promulgated consensus standards for

continued on following page

Performance Approach

continued

MRCA is involved in an ambitious project to develop performance criteria for all types of single-ply roofing membranes.

elastomeric, polyvinyl chloride, and modified bituminous sheet-applied materials. These standards are for the most part, prescriptive oriented, although they do define limiting values for certain performance parameters such as lap-seam strengths, puncture resistance and others.

The Midwest Roofing Contractors Association (MRCA) has embarked on an ambitious program to develop performance criteria for polyvinyl chloride, elastomeric, and modified bituminous single-ply roofing systems. The first two documents were published in 1981 and 1982 respectively, while the third document is expected to be available in 1983.

This is the first attempt to develop and publish per-

formance-oriented criteria at a Number 3 Level of Restrictiveness with respect to single-ply roofing in the United States.

The MRCA approach is a novel and logical one. In recommending criteria, three separate and distinct activities in roof construction were identified which include the manufacturing process, application procedures and on-the-roof performance. These activities must occur sequentially and the success of each preceding step is vital to the success of the next.

The MRCA documents give testing procedures and assign limiting values for criteria to describe quality generic roof membrane products.

It is hoped that the data and information contained in these documents will be used as a basis for developing realistic and meaningful performance standards.

Summary and Comment

The complexity of identifying and quantifying performance characteristics required for the myriad of bituminous and single-ply products now available is the major constraint to the development of realistic prescriptive standards.

Large gaps exist between the selected property values

Roof Garbage & Other Architectural Atrocities

The late and famed architect-designer Walter Gropius once observed: "If you want to see how well a building is designed, go around to the back door."

Today, Ken Poole, an architect and director of the GKA Property Development Group at Grayson Kleypas Associates Inc., Belmont, Mass. said recently you can make a similar determination by looking to the roof line of many buildings from the sidewalks and roadways of America.

What one sees is a startling contrast between where the architecture ends and the engineering begins. And this interdisciplinary void is symbolic of the metamorphosis that has been wrought by architects and design engineers in the design of roof tops for varying types of structures in this country.

"What has come about is what I term 'roof garbage' — a mish-mash of Space Age technology running amok," Poole said. "Increasing costs of labor and materials, focusing attention on the need to produce the maximum space for the minimum expense, has led inevitably to these and other architectural shortcomings."

Such roof garbage really became quite prevalent

during the latter part of this century.

"What we saw was an erosion, a callous surrender to the economics of the building sciences — especially in the design of the all too visible rooftops," Poole said. "Rooftop units, exhaust fans, soil and smoke stacks, vents and exhausts, as well as air conditioners — located exactly where the 'immediate response' is required and assembled without any forethought, have resulted in too many instances of roof top chaos."

Historically, Poole noted. "There was a time when roofs only had to provide shade or cover and deal with the shedding of rain or snow. They were simple, direct and singular in purpose."

In ancient times it must have been a delight to view the external expression of Greek and Roman architecture with roof lines impeccably pure and uncluttered in form. The historic Pantheon in Rome was so bold as to express an oculus — an opening in the roof some 20 - 25 feet in diameter — to allow for natural light and ventilation.

Humidification, whether mist or rain, entered through the oculus and evaporated in the immense volume of inner space before ever reaching the floor.

and the quality of the membrane performance on the roof. Because these gaps are often so wide, the usefulness of prescriptive material standards to describe satisfactory in-service performance is questioned.

On the other hand, prescriptive standards do serve to identify good rubbers, good PVC's and the like, and can complement performance standards.

In the area of single ply, however, ASTM has been slow in developing prescriptive standards. Moreover, ASTM's efforts in translating available technical information to performance-oriented standards is essentially at a standstill.

In the U.S., MRCA has taken the lead in producing performance-oriented documents to serve as the basis for single-ply standards.

Suggested performance criteria for bituminous built-up roofing membranes are currently available, however, all attempts to incorporate these criteria into performance standards for the U.S. roofing industry have not been successful. The industry appears to be quite content with using archaic and often inadequate prescriptive standards to specify and apply bituminous roofing membranes.

Prescriptive standards do serve to identify good materials and can complement performance standards.

Available Technology

The technology is available to attain improved performance, and the performance approach offers a realistic means of putting this technology to work.

On the international scene, the efforts of the European Union of Agreement, the various national standards organizations and others in the private and public sectors will pay large returns in performance standards development.

A joint committee on single-layer roofing has been co-sponsored by RILEM (International Union of Testing and Research Laboratories for Materials and Structures)

continued on following page

Dehumidification was accomplished on cool interior walls which used the earth as a repository for cool temperature storage at night.

Roman temples demanded more, however, than their Greek forebears' because a northern exposure necessitated a more controlled or responsive interior environment. The Romans became skilled at designed hypocausts or stone-line ducts to carry heat from community fires to the floors beneath their manors.

In more modern times Victorian England "probably enjoyed the greatest success in the design and engineering of rooftops," Poole said. "From what we can observe today in extant Victorian housing, it must have been a joy to view the many types of chimneys resplendent in frets and flutes and outfitted in oxidized copper flashing."

The advent of rooftop chaos began when the bathrooms moved inside. Water piping for this new luxury ran haphazardly up the exteriors of Victorian England structures only to be joined with soil stacks indiscriminately poking through those magnificent steep roofs.

Poole said that he is concerned by the highly visible and chaotic assemblage of rooftop equipment. And his concern goes back years.

"Architects and mechanical engineers are going to have to work in unison to resolve the problem," he said. "We should not have to convince the client that

he has to spend more to eliminate roof garbage. The tough nut is for us to do better for less.

"We tend to design buildings and then put in the equipment. We should take a more direct approach and think of the equipment up front just like we think initially about the people who are going to use the building. Equipment needs its own space, its own definition and expression."

In many high-rises, the upper floor houses or hides equipment. Unfortunately, in most low-rise structures, the equipment is on the roof for all to see. It is not part of the essential design expression.

Poole, a member of the American Institute of Architects with two architecture degrees from the University of Illinois, is optimistic the day will come "when we won't need camouflage to hide this assemblage of equipment."

"That will be the day when the equipment is totally encompassed as an integral part of the structure and is no longer a visible eyesore," Poole said. "Just like the involvement of the computer, this equipment will become more compact and yet provide a more significant range of environmental control."

Ultimately, architects and engineers might go back in time to review some of the discarded ideas of the past and examine more closely those few shining examples where design and engineering skills came together to express a totally unified solution, according to Poole.



Performance Approach

continued

and CIB (International Council for Building Research Studies and Documentation). The aims of the committee are: 1) To determine the current state-of-the-art of sheet-applied single-layer roofing with respect to standards, test methods and evaluation criteria; and, 2) To develop recommendations for performance standards for these materials.

Close international cooperation is needed to develop performance standards to improve roofing quality.

Interest in the activity has exceeded expectations. Thirty-five members, representing 14 countries, have agreed to contribute their knowledge and expertise to assist the committee in meeting its objectives.

Recently, the National Roofing Contractors Association announced the publication of the *NRCA Roofing Materials Reference & Guide* as a service to all segments of the roofing industry. *The Guide* is a comprehensive report containing technical data and other pertinent information on both bituminous and single-ply sheet-applied roofing and waterproofing membrane products.

The basis for providing uniform technical data for multi-ply bituminous membranes is both ASTM Material Standards and selected test procedures described in NBS Science Series BSS No. 55. In the case of the single-ply membranes, test methods described in the Canadian General Standards Board Standards 37-GP-52 for Elastomeric Membrane, 37-GP-54M for Polyvinyl Chloride Membranes and 37-GP-56M for Modified Bituminous Membranes were selected for use. *The Guide* is published three times each year.

In conclusion, close international cooperation is, and continues to be, both desirable and necessary in the development of information and performance standards to improve the quality of roofing.



TAURUS

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 kettleperson.
- _____ 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 #428 on Reader Service Card

What makes the NRCA-sponsored Business Insurance Program a smart buy? Group Buying Power

When it comes to getting the most for your business insurance dollar, you can't do better than your NRCA-sponsored Business Insurance Program from CNA Insurance. The group buying power of your association is one major reason why.

Designed specifically for the roofing industry, the NRCA-sponsored program is the only General Business Insurance your association sponsors. It offers the comprehensive protection you need for your business. And, best of all, it provides this outstanding protection at affordable group premium rates—rates lower than you might pay individually for the same protection.

Group buying power is only one of the many features your NRCA-sponsored program provides. You also receive comprehensive coverage, including property, liability, and Workers' Com-

pensation, as well as specialized coverages designed for the roofing contractor—virtually every coverage you're likely to need. And as part of the program's loss control services, there's a renewal guarantee which includes a special alert list that gives members advanced assistance when a severe loss record endangers insurability.

See why your NRCA-sponsored General Business Insurance Program is the smart answer to your insurance needs. Contact the NRCA Insurance Advisor today:

Walter Derk or Dick Lietz

Fred S. James

230 West Monroe Street
Chicago, Illinois 60606
1-312-346-3000



INSURANCE FROM
CNA

The NRCA-sponsored General Business Insurance Program is underwritten by Continental Casualty Company or Transportation Insurance Company, two of the CNA Insurance Companies.

Nondestructive Testing:

How To See What's Ailing The Roof

by Connie Arkus



NRCA Vice President Mike Promen, (Clark Roofing, Broadview, Ill.) recently purchased an electric capacitance moisture detector. Promen uses the devices in testing roofs where moisture infiltra-

tion is suspected. In beginning a test operation, Promen must calibrate both the hand-held detector and the large detector. This is done by locating a dry part of the roof.

Wet insulation can be disastrous to a roof.

The condition is not always easily recognizable to the eye. Similar to periodic health physicals, a moisture survey spots potential problems in an early stage, before damage is severe. At worst a moisture survey is the first diagnosis for a roof in a terminal state.

To ensure long roof life, a good, preventive maintenance program should include a detailed history of the roof (what system, how many plies, how was it attached), yearly on-site inspections and test cuts.

And now, contractors can add one more aspect to roof inspections — nondestructive moisture detection surveys.

Three popular techniques for nondestructive surveying are infrared scanning (thermography), nuclear and electrical. The methods are labeled nondestructive because they do not puncture or in any way damage the roof system.

Use of any three of the moisture detection instruments can assist roofing contractors in many areas.

A roof that looks dry could actually have wet insulation. Detected in the early stages, small problems can be corrected before excessive damage occurs and repair costs become prohibitive.

Financial priorities can be established and budgets devised to incorporate costs over a period of time, benefiting both the building owner and roofing contractor.

“From the roofer’s standpoint, he can quote a job close to the bones with our (infrared) report,” said Peter Jacobsohn of Energy Conservation Consultants, Inc. (ECC) of Bloomington, Minn.

He added that moisture detection can prevent the roofing contractor from taking off good insulation or a good roofing system by enabling him to zero in on the effected areas.

By studying the survey results, contractors will know exactly where to take core samples.

“Wet insulation actively conducts heat, adding significantly to the building owner’s energy bills,” said Paul Grover, Infraspection Institute, Shelburne, VT. “Water can structurally damage the roof deck and unless all the wet insulation is located and removed, roof repairs or a new single-ply membrane system can fail prematurely.”

Several options are available to roofing contractors who want to use nondestructive surveys.

Infrared heat detection scanning or thermography was first employed by the military to detect far-off enemy aircraft and used by fire departments nationwide to rescue victims.

To ensure a long life for a roof, a good, preventive maintenance program is necessary.

“Infrared can see energy-wasting moisture in the insulation of a roof by measuring electromagnetic energy,” Jacobsohn said.

A thermogram, the photograph taken by an infrared



The larger electric capacitance moisture detector rolls over a roof area emitting tones when passing over a saturated area.



The smaller, hand-held model registers moisture infiltration by indicating variances on a meter.

scanning camera, is the key component in the scanning procedure. The thermogram indicates energy loss from wet insulation.

The best time for conducting infrared scans is during the evening hours when “reflected solar radiation, which distorts surface-temperature readings,” is not a factor, according to C.W. Griffen in his book, *Manual of Built-Up Roof Systems*.

“The radiative subcooling of roof surfaces on clear nights — with little or no cloud cover to absorb and re-radiate escaping infrared radiation beamed out into space — provides the biggest contrast between wet and dry roof area temperatures,” according to Griffen.

“When the temperature difference between the wet and dry areas is the greatest, the contrast between the dark and light (wet and dry) images is the most obvious

continued on following page

Testing

continued

in the photograph.

"Judged from extensive experience, a clear cool night after a clear sunny day — several hours after sunset to several hours before sunrise — is the best time to run a thermographic moisture-detection survey," Griffen states in his book.

The nuclear moisture detection technique operates on the principle of neutron moderation.

"Fast neutrons emitted by a radioactive source are slowed by hydrogen in the roof," according to Troxler Electronic Laboratories, Inc., Research Triangle Park, N.C.

The three most popular methods for nondestructive moisture detection are infrared, nuclear and electrical.

Troxler is a manufacturer of a nuclear roof moisture gauge.

"Slowed neutrons are detected and counts displayed are proportional to moisture (hydrogen) content," according to Troxler.



Promen plots out a roof, indicating those areas where moisture may have infiltrated.

Often, a grid patten is laid out on the roof area for a nuclear survey. A typical grid size in 10' x 10'. Nuclear moisture counts are taken at each grid intersection.

Radioactive materials are used in the nuclear devices and a special U.S. Nuclear Regulatory Commission license is required in order to operate the detector.

On the other hand, an electrical roof moisture detector picks up the electrical impulses reflected through roof waterproofing.

This method can also use grid markings. Unlike nuclear, where readings are taken only at specific locations, the electrical device sweeps across a wider area, emitting a continuous readout on moisture content.

"With its inevitable impurities, water is a good conductor, and electrical resistance in nonconductive insulating materials varies inversely with their moisture content," according to Griffen.

Infrared, nuclear and electrical moisture detectors can be very useful to roofing contractors and building owners as a diagnostic tool for determining where invisible problems are located.

A major advantage to infrared is that the process scans a larger area and does not necessitate gridding.

The cost of infrared can be a drawback, though, with prices ranging from \$40,000 to \$60,000.

Also, the best condition to conduct the surveys is at night, a time not always convenient or safe for the operators. In addition, the test data must be interpreted by experienced infrared technicians to figure the margin of error.

Nuclear equipment is available in a more affordable price range of \$3,000 to \$4,000. Testing can be conducted at any time.

This method does require a grid layout for measurements and works best on smaller areas, taking samples of only one section at a time.

Nuclear detection requires an operator's license because of the radioactive material present in the device.

Like infrared, data from the survey must be interpreted by experts.

This is due to the fact "Hydrogen atoms abound in hydrocarbon bituminous roofing materials . . . this additional source of hydrogen atoms complicates the correlation of hydrogen atom count with the quantity of water," according to Griffen.

"In more or less uniform cross sections, however, a datum level of hydrogen atoms can be established for dry areas and the excess count assumed to indicate water," Griffen added.

Electrical detectors are also closer in line with the small business owner's budget; \$400 for a hand-held model and \$4,000 for a scanner designed for larger roof areas.

With minimal instruction, a member of a roofing crew can operate the battery-operated machine, and read the results immediately.

An electric detector can be used at anytime of day. Gridding can be done, but is not necessary.

The electrical device must be used in dry conditions only — all ponded water should be swept clear before the surveying.

The method is also limited to certain roof systems that do not have metal trace elements contained within

them. Rubber roofs also pose problems.

"A system like EPDM is conductive enough to act like a metal," said Dick Fricklas, director of the Roofing Industry Educational Institute (RIEI). "It could short circuit the equipment."

Roofing contractor Cy Tilsen of Tilsen Roofing Co., Madison, Wis. has worked with building owners who use infrared scanning services.

The results of the thermographic surveys are then turned over to Tilsen Roofing for confirmation.

"It's (thermography) a useful tool, but the results need to be verified by taking core samples of the roof," Tilsen said.

He explained that there are many "variables" with the method, in particular, the expertise of the equipment operator and those who interpret the results of the scan.

Infrared heat detection was first employed by the military for spotting far-off enemy aircraft.

"Human error has to be factored into thermography," Tilsen said.

Cliff Johnson of Empire Roofing & Insulation Co., Tulsa, Okla., uses an electronic capacitance meter to check for moisture on roofs rather than infrared scanning machines.

"Infrared has too many limitations," Johnson said. "It doesn't have the ability to tell you if you have moisture between the felts."

The electric capacitance meter can measure moisture in four stages or varying degrees of wetness. The meter can detect moisture in one ply or pore coating (stage one); two or more plies (stage two); insulation (stage three); and, totally saturated (stage four).

"We use the meter because it can measure the moisture between layers of felt before the water gets into the insulation," Johnson said.

He cautioned that when using thermography, a contractor should test each area indicated as wet (on the thermogram) to make sure the "wet" reading "is not actually heat buildup from inside the building."

The wet reading could be the result of "hot lights, a boiler system or a parapet wall which absorbs heat during the day and emits heat at night," Johnson said.

Nuclear moisture detection operates on the principle of neutron moderation.

Bill Stender, maintenance manager for G.D. Searle Co. in Skokie, Ill., hired ECC to conduct an infrared survey of two built-up roofs.

"With nuclear, a section in the middle of the grid could be wet and we wouldn't know," Stender said. "Infrared gave us the whole picture."

Stender recommends infrared surveys. "Thermography told us where the insulation was wet and how badly it was in need of repair," he said.

Mike Promen of Clark Roofing Co., Broadview, Ill., uses an electrical moisture detection device.

After analyzing all three methods, he came to these conclusions.

"Infrared is expensive, you have to use it at night, it's humidity sensitive and must be read by experts," Promen said.

"Nuclear must also be read by experts, it's radioactive, gives a very slow reading, and reads only where it is placed."

The problem with the latter is that the reading picks up "anomalies."

"An anomalie, such as too much asphalt, could interfere with an accurate reading," Promen said.

With his handheld and larger size models, Promen and an assistant can survey a roof in 20 minutes to an hour, depending on the size of the area analyzed.

"You don't have to grid or hire special personnel to operate and interpret the equipment," Promen said.

Fricklas also has an opinion on the three options: "All can give satisfactory results, all have limitations and all must be verified by a physical means," he said. "Verification is the critical step."

Fricklas recommends that roofing contractors familiarize themselves with all three types.

"Contractors should know what they (the surveys) can and cannot do if called in to do a repair job after a building owner had a survey conducted," he said.

Fricklas sees an economic benefit to moisture detection surveys for roofing contractors interested in expanding the range of services they offer to clients.

An electrical scanner sweeps across a wide area, emitting a continuous readout on moisture content.

"They provide an opportunity for a roofing contractor to expand his business," he said. "The surveys are a good marketing tool. Contractors can now sell surveys and enhance their chances of doing maintenance work."

Nondestructive moisture detection is a good addition to the roofing contractors' preventive maintenance plan.

"It's an impressive tool," Promen said. "Up until recently, you had to tear off at least the top layer of the roof" if wetness was suspected.

In any event, all roofing contractors should study each method — its benefits and limitations — before purchasing equipment or hiring a service.

Whether the selection is infrared, nuclear or electrical, the last word is verification — preferably by core sample test cuts.

Core sampling is "messy and time consuming, but if the survey is not verified, you're not converting good data to good information," Fricklas said.



INDEX

THE ROOFING INDUSTRY IS RAPIDLY CHANGING AND EXPANDING. MANUFACTURERS AND SUPPLIERS ARE REGULARLY ADDING NEW PRODUCTS AND SERVICES TO their lines. Keeping track of who markets what can be a difficult if not impossible task.

The Associate Member Index was designed for the architect, specifier or contractor trying to sort through the thousands of products available to the roofing industry.

The format of the Index is simple and easy-to-use. Roofing products and services have been divided into 16 categories. Under each category is a list of NRCA Associate Members who manufacture or supply that product. This information was requested of each NRCA Associate Member. Over 220 companies responded and have been included in this listing.

In a separate alphabetical listing, the names, addresses, phone numbers and representatives of all 357 Associate Members are given. In a third listing, the names of wholesalers, jobbers and suppliers who offer a broad range of roofing supplies are listed geographically.

We hope the index will become an important resource you will turn to again and again for information.

The Index will be updated and reprinted each year. If you have suggestions for improving the Index, please send your comments to the *Roofing Spec* offices.

Note: NRCA has exercised due care in accurately recording the data as supplied by its Associate Members, but is not responsible for the accuracy or completeness of the information submitted. NRCA sought to obtain information from each of its Associate Members for inclusion in this edition of *Roofing Spec*. Setforth below is the information we have obtained from those Associate Members who have responded to the NRCA requests for information.

PRODUCTS

Under each product category the names of NRCA Associate Members who manufacture or supply those products are listed alphabetically.

Information for this listing was provided by the companies themselves.

The product categories are: **Accessory Hardware** (cant strips, fasteners,

flashings, etc.), **Aggregates, Asphalt, Consultants/Designers, Felts, Insulation (Insulation board), Insulation (Tapered insulation board), Insulation (Other), Liquid-Applied Materials, Machines and Equipment, Metal Roofing, Raw Materials, Shingles, Single-Ply Membranes, Solar Systems and/or Accessory Hardware, Tools, Vapor Barriers.**

ACCESSORY HARDWARE

Manufacturers

Associated Foam Manufacturers, Inc.
AEP-Span Buildex
Carlisle SynTec Systems
Construction Fasteners, Inc.
Envirospec, Inc.
ES Products, Inc.
Fabco Fastening Systems
Firestone Industrial Products Co.

Fortifiber Corp.
Gates Engineering Co., Inc.
B.F. Goodrich Engineered Products Group
Grefco Building Products
GAF Corporation
Hillsdale Industries, Inc.
International Permalite, Inc.
IPW Interplastic
J & P Petroleum Products
Kendall
Leigh Products, Inc.
MM Systems Corp.
Naturalite, Inc.
Olympic Fasteners

Onduline USA, Inc.
Owens-Corning Fiberglas Corp.
Republic Powdered Metals, Inc.
Roof Systems, Inc.
Rubber & Plastics Compound Co.
Super 'K' Industries
Three-E Corp.
Tremco, Inc.
The Tru Fast Corp.
York Manufacturing, Inc.

Wholesalers, Jobbers and Distributors

Adobe Building Centers, Inc.
Arby Construction Enterprises, Inc.
Architectural Products Co.
B.H.N. Corp.
Lee R. Ballard & Associates
Baron/Wheeler, Inc.
Bear Systems, Inc.
Julien P. Benjamin Equipment Co.
Bishop Wholesale, Inc.
Lyle Bolster Products, Inc.
Brauner Equipment Co., Inc.
De Soto Cant Strip Supply Co.
Fischer Air Supply
Frank P. Frey & Co.
Giles Sales Co., Inc.
Heeley-Brown Co., Inc.
E.L. Hilts & Co.
Hilts Southern Equipment Co.
Carl Hudson & Associates
Lucas Sales Co., Inc.
Madison Sales Corp.
Marcor Associates, Inc.
Hugh McNiven Co.
Mid-Continent Roofing Supply
J.R. Morton Assoc.
Newman Wholesale, Inc.
Newport Fastener Co., Inc.
Nicholas Wholesale Roofing Supply Co., Inc.
Louis T. Ollesheimer & Son, Inc.
Pan Am Distributing, Inc.
Pro Fastening Systems
Reese Central Wholesale, Inc.
Richards Building Supply Co.
Roofing & Contractors Equipment Co.
Roofing Equip. & Spec. Co., Inc.
Roofmaster Products Co., Inc.

Schultz Roofing & Supply Co.
Sheffield Insulations Corp.
Steel & Roof Structures Corp.
Stetson Building Product
Styro Systems, Inc.
United Asphalt Co.
Valley Wholesale Co.
Vincent Brass & Aluminum Co.
Warrior Hinkle, Inc.
Westover Products, Inc.
Wilson Enterprises, Inc.
Wilson Sales Associates, Inc.

AGGREGATES

Manufacturers

Karnak Chemical Corp.
Pawelko-Frenzel, Inc.
Republic Powdered Metals, Inc.

Wholesalers, Jobbers and Distributors

A.H. Bennett Co.
Dealers Supply Co.
E.L. Hilts & Co.
iBEX Industries, Inc.
L/P Building Supply
Litsco Supply Corp.
John McDaniel Supply
Hugh McNiven Co.
Railton, Inc.
Southern Distributors Corp.

ASPHALT

Manufacturers

Bituminous Materials Co., Inc.
Evans Products Co.
Genstar Building Materials Co.
Gulf States Asphalt Co., Inc.
GAF Corp.
Karnak Chemical Corp.
Koch Asphalt Co.
Koppers Co., Inc.
Owens-Corning Fiberglas Corp.
Tamko Asphalt Products, Inc.
Tosco Corporation
Tremco, Inc.
Trumbull Asphalt

Wholesalers, Jobbers and Distributors

Adobe Building Centers, Inc.
Atlantic Asphalt & Equip. Co., Inc.
Lee R. Ballard & Associates
Bishop Wholesale, Inc.
Carolina Atlantic Dist., Inc.

Cronin Asphalt Corp.
Georgia-Pacific Corp.
Heeley-Brown Co., Inc.
Hugh McNiven Co.
Mid-Continent Roofing Supply
J.R. Morton Assoc.
Newman Wholesale, Inc.
Nicholas Wholesale Roofing Supply Co., Inc.
Louis T. Ollesheimer & Son, Inc.
Reese Central Wholesale, Inc.
Richards Building Supply Co.
Riffe Petroleum Co.
Roofing Equip. & Spec. Co., Inc.
Schultz Roofing & Supply Co.
Sheffield Insulations Corp.
United Asphalt Co.
Valley Wholesale Co.
Warrior Hinkle, Inc.
Wilson Enterprises, Inc.

Consultants/Designers

Jackson G. Smith Associates, Inc.

FELTS

Manufacturers

Evans Products Co.
Genstar Building Materials Co.
GAF Corp.
Karnak Chemical Corp.
Koppers Co., Inc.
Mineral Fiber Mfg. Corp.
Owens-Corning Fiberglas Corp.
Phillips Fibers Corp.
Tamko Asphalt Products, Inc.
Tremco, Inc.
Tropical Industrial Coatings, Inc.

Wholesalers, Jobbers and Distributors

Atlantic Asphalt & Equip. Co., Inc.
Lee R. Ballard & Associates
Bishop Wholesale, Inc.
Carolina Atlantic Dist., Inc.
Georgia-Pacific Corp.
Heeley-Brown Co., Inc.
Carl Hudson & Associates
Hugh McNiven Co.
Mid-Continent Roofing Supply
J.R. Morton Assoc.
Newman Wholesale, Inc.
Nicholas Wholesale Roofing Supply Co., Inc.

Louis T. Ollesheimer & Son, Inc.
Pan Am Distributing, Inc.
Reese Central Wholesale, Inc.
Richards Building Supply Co.
Roofing Equip. & Spec. Co., Inc.
Schultz Roofing & Supply Co.
Stetson Building Products
Valley Wholesale Co.
Warrior Hinkle, Inc.
Wilson Enterprises, Inc.

INSULATION-Insulation Board

Manufacturers

American Hoechst Corp.
Apache Building Products
Arco Chemical Co.
Associated Foam Manufacturers, Inc.
Benoit, Inc.
Carlisle SynTec Systems
Dyplast Industries
Evans Products Co.
Gates Engineering Co., Inc.
Genstar Building Material Co.
GAF Corporation
International Permalite, Inc.
Karnak Chemical Corp.
Koppers Co., Inc.
NRG Barriers, Inc.
Oakway Manufacturing Co., Inc.
Owens-Corning Fiberglas Corp.
Rmax, Inc.
Super 'K' Industries
Tamko Asphalt Products, Inc.
Thermo Materials, Inc.
Toyad Corp.
Tremco, Inc.
The Upjohn Co.

Wholesalers, Jobbers and Distributors

Adobe Building Centers, Inc.
Arby Construction Enterprises, Inc.
Atlantic Asphalt & Equip. Co., Inc.
B.H.N. Corp.
Lee R. Ballard & Associates
Baron/Wheeler, Inc.
Bear Systems, Inc.
Bishop Wholesale, Inc.
Lyle Bolster Products, Inc.
Carolina Atlantic Dist., Inc.
C.B.G. Associates, Inc.

continued on next page

ASSOCIATE INDEX

continued

Dunne Co., Inc.
Fischer Air Supply
Paul A. Fox & Assoc., Inc.
Georgia-Pacific Corp.
Giles Sales Co., Inc.
Halm Building Specialties
Hamre Associates
Heeley-Brown Co., Inc.
Carl Hudson & Associates
Industrial Cork Co.
Lucas Sales Co., Inc.
Marcor Associates, Inc.
Hugh McNiven Co.
Mid-Continent Roofing
Supply
J.R. Morton Assoc.
Newman Wholesale, Inc.
Nicholas Wholesale
Roofing Supply Co., Inc.
Louis T. Ollesheimer & Son,
Inc.
Pan Am Distributing, Inc.
Reese Central Wholesale,
Inc.
Richards Building Supply
Co.
Roofing Equip. & Spec.
Co., Inc.
Schultz Roofing & Supply
Co.
Sheffield Insulations Corp.
Steel & Roof Structures
Corp.
Stetson Building Products
Styro Systems, Inc.
U.S. Gypsum Co.
Valley Wholesale Co.
Warrior Hinkle, Inc.
Westover Products, Inc.
Wat-Pro, Inc.
Wilson Enterprises, Inc.

INSULATION- Tapered Insulation Board

Manufacturers

Arco Chemical Co.
Associated Foam
Manufacturers, Inc.
Benoit, Inc.
Carlisle SynTec Systems
Dyplast of Industries
Genstar Building Materials
Co.
International Permalite,
Inc.
Karnak Chemical Corp.
NRG Barriers, Inc.
Oakway Manufacturing
Co., Inc.
Super 'K' Industries

Toyad Corp.
The Upjohn Co.

Wholesalers, Jobbers and Distributors

B.H.N. Corp.
Lee R. Ballard &
Associates
Baron/Wheeler, Inc.
Bear Systems, Inc.
Bishop Wholesale, Inc.
Lyle Bolster Products, Inc.
C.B.G. Associates, Inc.
Carolina Atlantic Dist., Inc.
Paul A. Fox & Assoc., Inc.
Georgia-Pacific Corp.
Giles Sales Co., Inc.
Hamre Associates
Industrial Cork Co., Inc.
International Roofing
Systems, Inc.
Lucas Sales Co., Inc.
Madison Sales Corp.

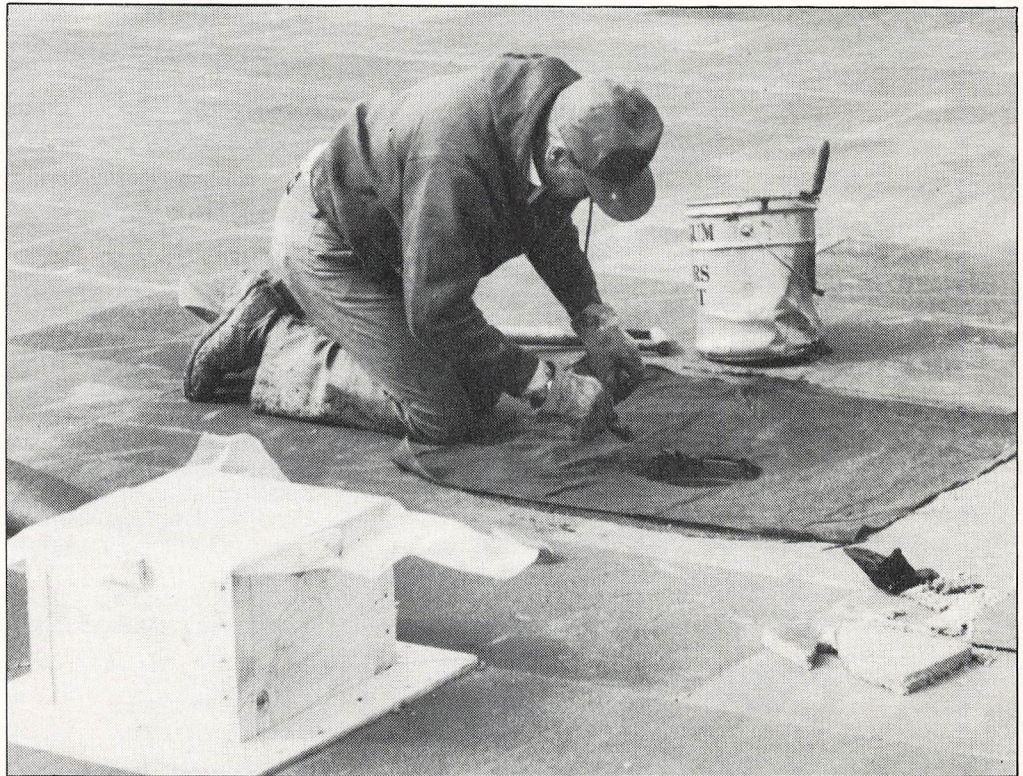
Schultz Roofing & Supply
Co.
Steel & Roof Structures
Corp.
Stetson Building Products
Styro Systems, Inc.
U.S. Gypsum Co.
Valley Wholesale Co.
Warrior Hinkle, Inc.
Wat-Pro, Inc.
Westover Products, Inc.
Wilson Enterprises, Inc.
Wilson Sales Associates,
Inc.

INSULATION-Other

Manufacturers

Karnak Chemical Corp.
Koppers Co.
The Upjohn Co.
Zonolite

Consolidated Protective
Coatings Corp.
The Enterprise Companies
Evans Product Co.
Gates Engineering Co.,
Inc.
Genstar Building Materials
Co.
Gilsolite Inc.
Gulf States Asphalt Co.,
Inc.
GAF Corp.
J&P Petroleum Products
Karnak Chemical Corp.
Kendall
Kold King, Inc.
Koppers Co., Inc.
Monsey Products Co.
Republic Powered Metals,
Inc.
Rubber & Plastics
Compound Co.



Marcor Associates, Inc.
Hugh McNiven Co.
Mid-Continent Roofing
Supply
J.R. Morton Assoc.
Newman Wholesale, Inc.
Nicholas Wholesale
Roofing Supply Co., Inc.
Louis T. Ollesheimer & Son,
Inc.
Pan Am Distributing, Inc.
Reese Central Wholesale,
Inc.
Richards Building Supply
Co.
Roofing Equip. & Spec.
Co., Inc.

Wholesalers, Jobbers and Distributors

Arzee Supply Corp of N.J.
Bear Systems, Inc.
Lyle Bolster Products, Inc.
L/P Building Supply
Railton, Inc.
Wilson Enterprises, Inc.

LIQUID-APPLIED MATERIALS

Manufacturers

Bituminous Materials Co.,
Inc.
Carlisle SynTec Systems

Southwestern Petroleum
Corp.
Tamko Asphalt Products,
Inc.
Thermo Materials, Inc.
Three-E Corp.
Tosco Corp.
Tremco, Inc.
Tropical Industrial
Coatings, Inc.

Wholesalers, Jobbers and Distributors

Adobe Building Centers,
Inc.
Arby Construction
Enterprises, Inc.

Atlantic Asphalt & Equip.
Co. Inc.

Lee R. Ballard &
Associates

Baron/Wheeler, Inc.
Bear Systems, Inc.
BehStev Corp.

Bishop Wholesale, Inc.
Lyle Bolster Products, Inc.

Dubois Chemicals
Fischer Air Supply
Flex-Shield Corp.

Georgia-Pacific Corp.
Giles Sales Co., Inc.

Heeley-Brown Co., Inc.
E.L. Hilts & Co.

Hilts Southern Equipment
Co.

Carl Hudson & Associates
Lucas Sales Co., Inc.

Hugh McNiven Co.
Mid-Continent Roofing
Supply

J.R. Morton Assoc.
Newman Wholesale, Inc.

Louis T. Ollesheimer & Son,
Inc.

Pan Am Distributing, Inc.
Reese Central Wholesale,
Inc.

Richards Building Supply
Co.

Roofing Equip. & Spec.
Co., Inc.

Schultz Roofing & Supply
Co.

Stetson Building Products
Styro Systems, Inc.

United Asphalt Co.
Valley Wholesale Co.

Warrior Hinkle, Inc.
Westover Products, Inc.

Wilson Enterprises, Inc.

MACHINES AND EQUIPMENT

Manufacturers

Aeroil Products Co., Inc.
Blackwell Burner Co.

Eliminator Vac Systems
Garlock Equipment Co.

B.F. Goodrich Engineered
Products Group

Graco, Inc.
International Permalite,
Inc.

IPW Interplastic
Kold King, Inc.

The Lutravil Co.
Morgen Manufacturing
Co.

P.A.L. Development Corp.,
Inc.

Parker Sweeper Co.
Reeves Roofing
Equipment Co., Inc.

Reimann & Georger, Inc.
Smith Hoist Manufacturing
Co., Inc.

Troup Industries, Inc.
Vacuum Engineering
Corp.

Wholesalers, Jobbers and Distributors

Atlantic Asphalt & Equip.
Co., Inc.

Lee R. Ballard &
Associates

Baron/Wheeler, Inc.
Bear Systems, Inc.

Julien P. Benjamin
Equipment Co.

Bishop Wholesale, Inc.
Brauner Equipment Co.,
Inc.

Cleasby Manufacturing
Co., Inc.

Fischer Air Supply
Heeley-Brown Co., Inc.

E.L. Hilts & Co.
Hilts Southern Equipment
Co.

Russ Hines & Associates,
Inc.

Lucas Sales Co., Inc.
Manchester Ladder Co.,
Inc.

Hugh McNiven Co.
Newport Fastener Co.,
Inc.

Louis T. Ollesheimer & Son,
Inc.

Roofing & Contractors
Equipment Co.

Roofing Equip. & Spec.
Co., Inc.

Roofmaster Products
Co., Inc.

Runnion Equipment Co.
Schultz Roofing & Supply
Co.

Stetson Building Products
Warrior Hinkle, Inc.

Westover Products, Inc.
Brian R. White Co., Inc.

METAL ROOFING

Manufacturers

ARMCO Building Systems
AEP-Span

Ball Metal & Chemical
W.P. Hickman Co.

Howmet Aluminum Corp.
Monsey Products Co.

MM Systems Corp.
Roof Systems, Inc.

Thermo Materials, Inc.

Wholesalers, Jobbers and Distributors

Arzee Supply Corp. of N.J.
Atlantic Asphalt & Equip.
Co., Inc.

AAA Wholesale, Inc.
B.H.N. Corp.

Lee R. Ballard &
Associates

Baron/Wheeler, Inc.
Beacon Sales Co., Inc.

Bradco Supply Corp.
C.B.G. Associates, Inc.

Cambridge Lee Industries,
Inc.

The Cassady-Pierce Co.,
Inc.

Paul A. Fox & Assoc., Inc.
Georgia-Pacific Corp.

Giles Sales Co., Inc.
Guggenheim International
Corp.

Hamre Associates
N.B. Handy Co., Inc.

Hinkle Metals & Supply
Co., Inc.

Carl Hudson & Associates
IBEX Industries, Inc.

Jayfour, Inc.
L/P Building Supply

Litsco Supply Corp.
Lucas Sales Co., Inc.

Marcor Associates, Inc.
W.F. Martin Co.

McClure-Johnston Co.
Mid-Continent Roofing
Supply

J.R. Morton Assoc.
Newport Fastener Co.,
Inc.

Passaic Metal Products
Co.

Rollins Supply Co., Inc.
Roofers Mart, Inc.

Standard Roofings, Inc.
Steel & Roof Structures
Corp.

Vincent Brass & Aluminum
Co.

Warrior Hinkle, Inc.
Wholesale Roofing
Supply, Inc.

Wilson Sales Associates,
Inc.

RAW MATERIALS

Manufacturers

Celanese Fibers
Operations

Mobay Chemical Corp.
Norton Services and
Consulting Corp.

Polysar, Inc.
Ben Templin & Associates,
Inc.

SHINGLES

Manufacturers

Ball Metal & Chemical

continued on next page

AWA A New Generation of
Vertical Lift Equipment

Aluminum - Hydraulic - Telescoping - Hoist

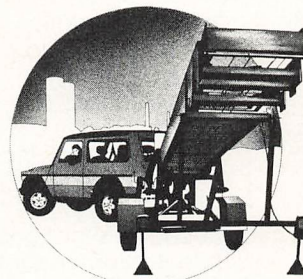
Used Extensively by

THE GENERAL CONTRACTOR, MASONRY SPECIALIST,
FURNITURE MOVERS, RENTAL YARDS,
AND THE ENTIRE ROOFING INDUSTRY.

This hoisting system integrates interchangeable components,
utilizes a 10 hp Honda engine to power the hydraulic system.

Included in the Complete System:

- a gravel bucket attachment, electric lights, tool box,
mechanical two-way brakes, adjustable tongue hitch,
and a multi-position material carriage.



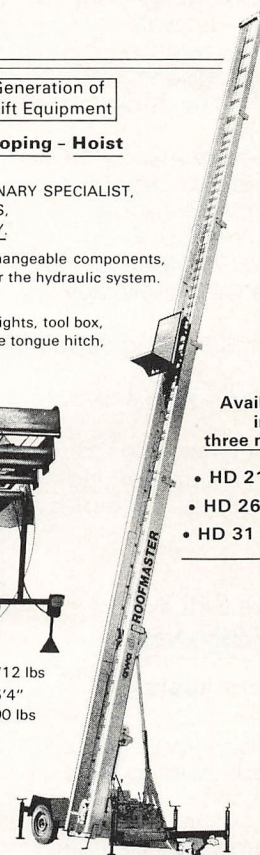
Towing Weight _____ 2712 lbs
Towing Length _____ 25'4"
Load Limit _____ 500 lbs

The Partner Behind it All ...

ROOFMASTER
PRODUCTS COMPANY

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

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



Available
in
three models

- HD 21 - 68'
- HD 26 - 82'
- HD 31 - 102'

ASSOCIATE INDEX

continued

Buckingham-Virginia Slate Corp.
Evergreen Slate Co., Inc.
Genstar Building Materials Co.
Gory Associated Industries
GAF Corporation
W.P. Hickman Co.
Hilltop Slate Co.
Koppers Co., Inc.
Ludowici-Celadon Co.
Monier Co.
Owens-Corning Fiberglas Corp.
Rising & Nelson Slate Co., Inc.
Tamko Asphalt Products, Inc.
Vermont Structural Slate Co., Inc.

Wholesalers, Jobbers and Distributors

Adobe Building Centers, Inc.
B.H.N. Corp.
Lyle Bolster Products, Inc.
Carolina Atlantic Dist., Inc.
Georgia-Pacific Corp.
Hamre Associates
Heeley-Brown Co., Inc.
Hugh McNiven Co.
Mid-Continent Roofing Supply
J.R. Morton Assoc.
Newman Wholesale, Inc.
Nicholas Wholesale Roofing Supply Co., Inc.
Pan Am Distributing, Inc.
Reese Central Wholesale, Inc.
Richards Building Supply Co.
Schultz Roofing & Supply Co.
Valley Wholesale Co.
Wilson Enterprises, Inc.
Wilson Sales Associates, Inc.

SINGLE-PLY MEMBRANES

Manufacturers

Alkor
American Roofing Corp.
Apache Building Products
Benoit, Inc.
Carlisle SynTec Systems
Cooley Roofing Systems, Inc.
Duro-Last Roofing, Inc.
Evans Products Co.

Firestone Industrial Products Co.
Gates Engineering Co., Inc.
General Tire & Rubber
Genstar Building Materials Co.
B.F. Goodrich Engineered Products Group
GAF Corp.
Hyload, Inc.
International Permalite, Inc.
IPW Interplastic
J&P Petroleum Products
Karnak Chemical Corp.
Kelly Energy Systems, Inc.
Kendall
Koppers Company, Inc.
Mineral Fiber Mfg. Corp.
Monsey Products Co.
Otto Fabric, Inc.
Pantasote, Inc.
Plyroof-Plymouth
Republic Powdered Metals, Inc.
Rubber & Plastics Compound Co.
Sarnafil (USA), Inc.
Siplast, Inc.
Southwestern Petroleum Corp.
J.P. Stevens & Co., Inc.
SYenergy Methods, Inc.
Tamko Asphalt Products, Inc.
Teltex, Inc.
Three-E Corp.
Tremco, Inc.
Tropical Industrial Coatings, Inc.
U.S. Intec, Inc.
The Upjohn Co.
York Manufacturing, Inc.
Zonolite

Wholesalers, Jobbers and Distributors

Arby Construction Enterprises, Inc.
B.H.N. Corp.
Lee R. Ballard & Associates
Baron/Wheeler, Inc.
Bear Systems, Inc.
BehStev Corp.
Belroof International, Inc.
Lyle Bolster Products, Inc.
Julien P. Benjamin Equipment Co.
Bowe Co., Inc.
C.B.G. Associates, Inc.
Carolina Atlantic Dist., Inc.
Dunne Co., Inc.
Paul A. Fox & Assoc. Inc.
Giles Sales Co., Inc.
Hamre Associates
Heeley-Brown Co., Inc.
Carl Hudson & Associates

International Roofing Systems, Inc.
Lucas Sales Co., Inc.
Marcor Associates, Inc.
Mid-Continent Roofing Supply
J.R. Morton Assoc.
Newman Wholesale, Inc.
Nicholas Wholesale Roofing Supply Co., Inc.
Louis T. Ollesheimer & Son, Inc.
Pan Am Distributing, Inc.
Reese Central Wholesale, Inc.
Richards Building Supply Co.
Roofing Equip. & Spec. Co., Inc.
Steel & Roof Structures Corp.
Stetson Building Products
Styro Systems, Inc.
Valley Wholesale Co.
Warrior Hinkle, Inc.
Wat-Pro, Inc.
Weather-Shield Systems
Westover Products, Inc.
Wilson Enterprises, Inc.
Wilson Sales Associates, Inc.

SOLAR SYSTEMS AND/OR ACCESSORY HARDWARE

Manufacturers

Carlisle SynTec Systems
B.F. Goodrich Engineered Products Group
Reimann & Georger, Inc.
Three-E Corp.

Wholesalers, Jobbers and Distributors

Baron/Wheeler, Inc.
Julien P. Benjamin Equipment Co.
Lyle Bolster Products, Inc.
Dubois Chemicals
Giles Sales Co., Inc.
Guggenheim International Corp.
Roofing Equip. & Spec. Co., Inc.

TOOLS

Manufacturers

American Associated Co.
Blackwell Burner Co.
Evergreen Slate Co., Inc.
Fabco Fastening Systems
IPW Interplastic
Plyroof-Plymouth
Reimann & Georger, Inc.
Rising & Nelson Slate Co., Inc.

Three-E Corporation
U.S. Intec, Inc.

Wholesalers, Jobbers and Distributors

Adobe Building Centers, Inc.
Arzee Supply Corp. of N.J.
Atlantic Asphalt & Equip. Co., Inc.
AAA Wholesale, Inc.
Lee R. Ballard & Associates
Beacon Sales Co., Inc.
Belroof International, Inc.
Julien P. Benjamin Equipment Co.
A.H. Bennett Co.
Berkheimers, Inc.
Bieler, Inc.
Lyle Bolster Products, Inc.
Brauner Equipment Co., Inc.
The Cassady-Pierce Co., Inc.
Dealers Supply Co.
N.B. Handy Co., Inc.
Hilts Southern Equipment Co.
Hinkle Metals & Supply Co., Inc.
IBEX Industries, Inc.
Jayfour, Inc.
L/P Building Supply
Liquid Asphalt Systems
Litsco Supply Corp.
McClure-Johnston Co.
Hugh McNiven Co.
Newport Fastener Co., Inc.
Passaic Metal Products Co.
Railton, Inc.
Richards Building Supply
Resco, Inc.
Roofmaster Products Co., Inc.
Southern Distributors Corp.
Stetson Building Products
Weather-Shield Systems
West Coast Roofing Supply
Westover Products, Inc.
Brian R. White Co., Inc.
Wholesale Roofing Supply, Inc.

VAPOR BARRIERS

Manufacturers

Fortifiber Corp.
B.F. Goodrich Engineered Products Group
IPW Interplastic
J&P Petroleum Products
Plyroof-Plymouth
Three-E Corp.
York Manufacturing, Inc.

Wholesalers, Jobbers and Distributors

Adobe Building Centers, Inc.
Arzee Supply Corp. of N.J.
AAA Wholesale, Inc.
Lee R. Ballard & Associates, Inc.
Baron-Wheeler, Inc.
Beacon Sales Co., Inc.
Bear Systems, Inc.
A.H. Bennett Co.
Berkheimers, Inc.
Lyle Bolster Products, Inc.
Bradco Supply Corp.
The Cassidy-Pierce Co., Inc.
Dealers Supply Co.
Paul A. Fox & Associates, Inc.
Giles Sales Co., Inc.
N.B. Handy Co., Inc.
IBEX Industries, Inc.
L/P Building Supply
Liquid Asphalt Systems, Inc.
Litsco Supply Corp.
Lucas Sales Co., Inc.
Hugh McNiven Co.
Mid-Continent Roofing Supply
J.R. Morton Assoc.
Louis T. Ollesheimer & Son, Inc.
Pan Am Distributing, Inc.
Passaic Metal Products Co.
Railton Manufacturing Co.

Resco, Inc.
Richards Building Supply Co.
Rollins Supply Co., Inc.
Roofers Mart, Inc.
Roofing Equip. & Spec. Co., Inc.
Southern Distributors Corp.
Valley Wholesale Co.
West Coast Roofing Supply
Wholesale Roofing Supply, Inc.
Wilson Enterprises, Inc.

NRCA ASSOCIATE MEMBERS

The following is an alphabetical listing of all NRCA Associate Members. Unless other information was offered by the company itself, all information was obtained from NRCA membership rolls.

MANUFACTURERS

A.M.A. South Texas Dump Body Mfg.
3813 Pleasanton Rd.
San Antonio, Tex. 78221

Contact:
Henry Acuna
512/924-6482

Aeroil Products Co., Inc.
69 Wesley St.
South Hackensack, N.J. 07606
Contact:
Kenneth L. Gilbert
201/343-5200

Alkor Division of Solvay America Corporation
609 5th Ave.
New York, N.Y. 10017
Contact:
Dr. Rudolf Wonisch
212/935-5458

Allied Roofers Supply Corp.
P.O. Box 511
Route 17 N.
East Rutherford, N.J. 07073

Contact:
George Jones
201/935-0800

American Associated Co.
P.O. Box 4056
Atlanta, Ga. 30302
Contact:
Kathy Reed
404/522-7060

American Hoechst Corp.
289 N. Main St.
Leominster, Mass. 01453
Contact:
James E. Shannon
617/534-2564

American Roofing Corporation
3100 S. California Ave.
Chicago, Ill. 60608
Contact:
Bud Jansen
312/376-1110

Apache Building Products
2025 E. Linden Ave.
Linden, N.J. 07036

Contact:
Robert Finnegan/Membranes
William Hill/Insulation
201/486-6723

ARCO Chemical Company
1500 Market St.
Philadelphia, Pa. 19101
Contact:
David L. Johnston
215/557-2474

ARMCO Building Systems
20 Triangle Park Dr.
Cincinnati, Ohio 45246

Contact:
Howard C. Jackson
513/782-5022

Associated Foam Manufacturers, Inc.
8930 Rosehill Rd.
Lenexa, Kan. 66215
Contact:
Richard H. Nickloy
913/888-4848

Atlas Roofing Contractors, Inc.
P.O. Box 11493
Santurce, P.R. 00910
Contact:
Nicholas Cela
809/782-6133

AEP-Span
P.O. Box 26288
Dallas, Tex. 75226
Contact:
Johnny Meek
214/827-1740

Ball Metal & Chemical
P.O. Box 616
Greeneville, Tenn. 37743
Contact:
E.C. Pejsa
615/639-8111

Benoit, Inc.
635 N. Prior Ave.
St. Paul, Minn. 55104
Contact:
Marc Caputo
612/646-1387

Berryfast, Inc.
c/o Kiesel Co.
1717 Park Ave.
St. Louis, Mo. 63104
Contact:
Pat Kiesel
314/241-6850

Bird & Son, Inc.
Washington St.
East Walpole, Mass. 02032
Contact:
C.B. Fletcher
617/668-2500

Bituminous Materials Co., Inc.
P.O. Box 1507
Terre Haute, Ind. 47808
Contact:
Randy Clark
812/232-0421

Blackwell Burner Company
601 Humble Ave.
San Antonio, Tex. 78225
Contact:
Gordon E. Moerdyk
512/924-6611



continued on next page

ASSOCIATE INDEX

continued

Bond Cote Systems

P.O. Box 729
Pulaski, Va. 24301

Contact:

Wayne Holden
703/980-2640

Buckingham-Virginia Slate Corp.

4110 Fitzhugh Ave.
Richmond, Va. 23230

Contact:

Charles A. Saunders, Jr.
804/355-4351

Buildex, Division of I.T.W.

940 Industrial Dr.
Elmhurst, Ill. 60126

Contact:

Ted Swiff
312/595-3500

Cal Gas Corp.

P.O. Box 28397
8401 Gerber Rd.
Sacramento, Calif. 95828

Contact:

Ed Anderson
916/423-2010

Carlisle SynTec Systems

P.O. Box 7000
Carlisle, Pa. 17013

Contact:

Kem W. Scott
717/245-7000

Celanese Fibers Operations

P.O. Box 32414
Charlotte, N.C. 28232

Contact:

John T. Wilson
704/554-2963

The Celotex Corp.

P.O. Box 22602
Tampa, Fla. 33622

Contact:

Al Spingler
813/871-4584

CertainTeed Corporation

Box 860
Valley Forge, Pa. 19482

Contact:

Ack Blocher
215/687-5000

Clearfield Conveyors, Inc.

362 S. Main
Clearfield, Utah 84015

Contact:

Randy Porter
800/453-2446



Columbia-Abece, Inc.

107 Grand Blvd.
Vancouver, Wash. 98661

Contact:

Frank H. Willows
206/694-3801

Columbine International

5836 Motherlode Dr.
Placerville, Calif. 95667

Contact:

Frank Sinclair
916/622-2791

Conklin Co., Inc.

4660 W. 77th St.
Suite 310
Minneapolis, Minn. 55435

Contact:

LeRoy Gall
612/831-4044

Consolidated Fiberglass Products Company

3801 Standard St.
Bakersfield, Calif. 93388

Contact:

Dwain Bouton
805/323-6026

Consolidated Protective Coatings Corp.

1801 E. 9th St.
Suite 202
Cleveland, Ohio 44114

Contact:

F.P. Malloy
216/771-3258

Construction Fasteners, Inc.

Dekfast Product Group
P.O. Box 6326
Wyomissing, Pa. 19610

Contact:

Dennis Mehigan
215/376-5751

Cooley Roofing Systems, Inc.

50 Esten Ave.
Pawtucket, R.I. 02860

Contact:

John Dixon
401/724-0490

CNA/Insurance

CNA Plaza
310 S. Michigan Ave.
Chicago, Ill. 60685

Contact:

Rosita Steele
312/822-7166

Derbigum America Corp.

4821 Chelsea
Kansas City, Mo. 64130

Contact:

Michael Reid
816/921-0221

Dow Chemical Company

2020 Dow Center
Midland, Mich. 48640

Contact:

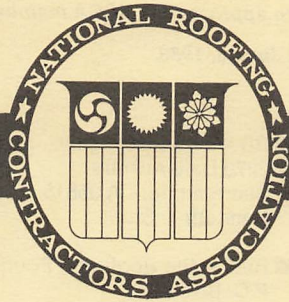
Douglas L. Senecal
517/636-1000

DuPont Company

MCD N-2425
1007 Market St.
Wilmington, Del. 19898

Contact:

J.H. Vicary
302/774-7248



Member Profile

Member Becomes Armco Metal Roof System Contractor

Beldon Roofing & Remodeling Co. has become an Armco roofing contractor, announced Michael Beldon, president, and Robert Young, district manager for Armco Building Systems.

Beldon Roofing and Remodeling, 5039 West Avenue, San Antonio, supplies and installs roofing materials to the commercial, industrial and residential markets. More than 80 percent of the firm's annual sales volume comes from roofing and reroofing, with the remainder generated by remodeling.

"We look forward to working with Armco Building Systems," said Beldon. "The company has wall, roof and structural systems which are highly regarded by architects and engineers."

Armco Building Systems, based in Cincinnati, Ohio, has been a leader in the metal building industry. Its products include standing-seam metal roof systems with concealed fasteners for weathertight seals.

Beldon has been a major roofer and remodeler in the San Antonio area for 37 years. The firm employs about 200 people.

Armco will conduct a construction seminar to help Beldon train its employees in metal roofing installation

techniques. Such assistance is available to all new Armco roofing contractors.



Left to right: Howard Jackson, Armco Building Systems; Michael Beldon; Robert Young, Armco Building Systems.

New Members

The following have been approved for NRCA membership
between March 10 and June 8, 1983.

CONTRACTORS

- A & A Roofing & Cont. Corp.
290 River Road
Bogota, NJ 07603
Adam Aib
- Amer-Tex Roofing Inc
13710 Newton
Dallas, TX 75234
Greg O'Neal
- Arlington Roofing & Sheet Metal Co.
1228 No. Irving Street
Arlington, VA 22201
Charles Perkins
- Associated Roofing Contractors Inc.
501 Leitchfield Road
Owensboro, KY 42301
J.R. Egen
- Beta Constructions Co.
5605 I Gen'l Washington Drive
Alexandria, VA 22312
Daniel Gordon
- R.A. Bousquet Inc.
P.O. Box 37
Fanwood, NJ 07023
Ray Bousquet
- C & H Construction Co.
2449 South Blvd
Houston, TX 77098
Bobby Hicks
- Cellular Product Services Inc.
3125 N. El Paso
Colorado Springs, CO 80907
Philip K. McClain
- Delta Roofing Inc.
6657 West Highway 60
Brookline, MO 65619
Jim Spears
- The Eagle Group Inc.
110 Reed Ave.
West Hartford, CT 06110
Burton J. Karp
- Emory Dollar Roofing Inc.
322 East Church Street
Sandersville, GA 31082
Emory Dollar
- Engineered Roof Systems
2440 W. Mission Lane
Suite 1
Tempe, AZ 85021
Theodore J. Kilponen
- G & T Roofing Company
P.O. Box 2091
1101 E. 19th Street
Roswell, NM 88201
Stanley Griffin
- Gough & Bros.
4135 Du Bois Blvd.
Brookfield, IL 60513
Earl F. Gough
- Industrial Roofing Inc.
P.O. Box 1064
Tucker, GA 30084
Lynn Keeney
- INRI Inc.
6404 55th Street Court West
Tacoma, WA 98467
Verstle R. Coggans
- J & P Rfg. Inc.
P.O. Box 501
Rte. 150
Mansfield, IL 61854
Paul A. Stauffer
- Jim's Service Inc.
103 E. South Avenue
Vinita, OK 74301
Harold E. Cheek
- Keasler Roofing Co. Inc.
430 Old Charlotte Road
Concord, NC 28025
Linda S. Keasler
- A. Lavin Roofing Co.
4848 N. Clark
Chicago, IL 60640
Armand Brodsky
- Mage Inc.
1779 Tribute Road
Suite B
Sacramento, CA 95815
Mike Krug
- Marathon Roofing Co. Inc.
1760 109th Street-Gulf Marathon
Marathon, FL 33050
John Burns
- McKinney Roofing & S/M Inc.
511 Industrial Blvd.
P.O. Box 17368
Austin, TX 78745
J.M. McKinney
- Missoula Sheet Metal
P.O. Box 4005
736 South 1 Street West
Missoula, MT 59806
Howard W. Daley
- National Roof Care Corporation
909 S.E. Everett Mall Way #B-200
Everett, WA 98204
Victor B. Manfredi
- Performance Roofing Inc.
4269 Snelson Drive
St. Louis, MO 63129
Steven E. Hoff
- Piper & Associates Inc.
8701 N. Lamar Blvd.
Austin, TX 78753
Larry G. Piper
- River City Roofing Inc.
2270 Dale Avenue
Sacramento, CA 95815
Kenneth T. Stone
- Rubbertite Roofing & Foundation
P.O. Box 101
403 5th Street North
Northwood, IA 50359
Thomas H. Johnson
- Sernat Roofing Co. Inc.
2731 Overbrook Terrace
P.O. Box 187
Ardmore, PA 19003
John Serke
- Slidell Roofing & Sheet Metal Inc.
Box 26 Hwy. 190 W.
Slidell, LA 70458
William H. Heffley II
- Southwestern Sheet Metal Works
1930 Magoffin
El Paso, TX 79901
C.W. Cooper
- SSS Roofing & Sheet Metal
P.O. Box 9692
St. Thomas U.S. V.I. 00801
Steve Schuler
- Thomas Roofing Inc.
22 W 535 Butterfield Plaza
Glen Ellyn, IL 60137
Thomas Coputo
- Watertite Roof Co. Inc.
2224 N. Mason
Appleton, WI 54914
Gene Kaddatz

ASSOCIATES

- American Steinweg Company Inc.
6920-A Peachtree Industrial Blvd.
Norcross, GA 30071
Faye R. Garner
- Berryfast Inc.
c/o Kiesel Co.
1717 Park Avenue
St. Louis, MO 63104
Pat Kiesel
- Celanese Fibers Marketing Company
P.O. Box 32414
Barclay Downs Drive
Charlotte, NC 28232
John T. Wilson
- Columbia-ABECE Inc.
107 Grand Blvd.
Vancouver, WA 98661
Frank H. Willows
- Cristalhope Inc.
23011 Moulton Pkwy. #G-B
Laguna Hills, CA 92653
Herman Smet

■ Dunlop Construction Products Inc.
2055 Flavelle Blvd.
Mississauga, Ontario
Canada L5K 1Z8
D. Brazier

■ Elk Corp. of America
6750 Hillcrest Plaza Dr.
Suite 218
Dallas, TX 75230
Jack Pariseau

■ Fox & Company CPA's
P.O. Box 1595
15 S. 7th Street
Colorado Springs, CO 80901
Don Prosser

■ FLA Roof Sales
1248 Shadow Lane
Fy. Meyers, FL 33901
Dan Travis Jr.

■ FSC
PO Box 5347
1980 Atlanta Avenue
Riverside, CA 92507
Michael J. Warmer

■ Gulfside Supply Inc.
2814 N. 36th Street
Tampa, FL 33605
J.S. Resch

■ Kokem Products Inc.
6221 N.E. 92nd Drive
Portland, OR 97220
Roy Ko

■ R.M. Lucas Co.
3211 S. Wood Street
Chicago, IL 60608
John L. Barry

■ Pacer Corporation
P.O. Box 912
35 South 6th Street
Custer, SD 57730
J. Fred Miller

■ Roof Engineering Inc.
P.O. Box 335
Hobbs, NM 88240
Jim Koontz

■ Sandra Corporation
P.O. Box 216
198 Harrison Street
North Prairie, WI 53153
Sandy Mangino

■ U.S. Gypsum Co.
101 S. Wacker Drive
Chicago, IL 60606
James A. Nelli

■ Wholesale Roofing Supply Inc.
P.O. Box 565
1527 South Second Street
Ironton, OH 45638
R. Brian Morrison

■ Wimsatt Brothers Inc.
P.O. Box 32488
Louisville, KY 40232
J.H. Wimsatt

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 DAL SIN
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 Secretaries
SANDY HOSHELL
CONNIE LESSNER

Technical Services
ROBERT LaCOSSE, CAE
Director

JEFF LOWINSKI
Manager

WILLIAM CULLEN
Research Associate

KARLA VINCI
Secretary

**National Roofing Listing
Service**
NORMAN BULLOCK
Director

LYNN KEEFE
Secretary

Meetings and Convention
GUY DiCARA
Director

GALE KIESEL
Manager

MELODY LEJCAR
Coordinator

Education
ALAN GRAYSON
Director

LEISA BRUNSEN
Administrative Assistant

Administration
ROBERT McADAM
Director
BARBARA FALCO
Administrative Assistant

BEA McSHEFFREY
Manager, Roofing
Service Center

JOHN MEESE
Roofing Service
Center Assistant

JOANNE WAWRZYNIAK
Receptionist

Member Services
PATRICIA APPELHANS
Director

ANNA LEONHARDT
Program Manager

BENNETT BROWN
Assistant Manager

PATTY CLARK
Secretary

YVONNE PEPLOS
Member Secretary

Communications
MICHAEL BEIGHTOL
Director

CONSTANCE ARKUS
Coordinator

MARTIN EASTMAN
Editorial Assistant

JOAN APPELHANS
Secretary

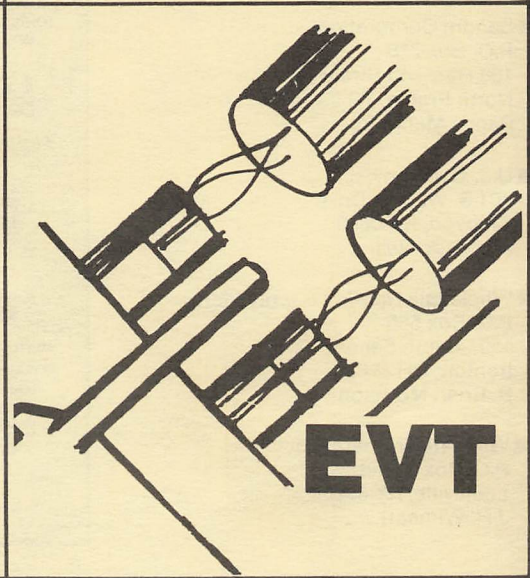
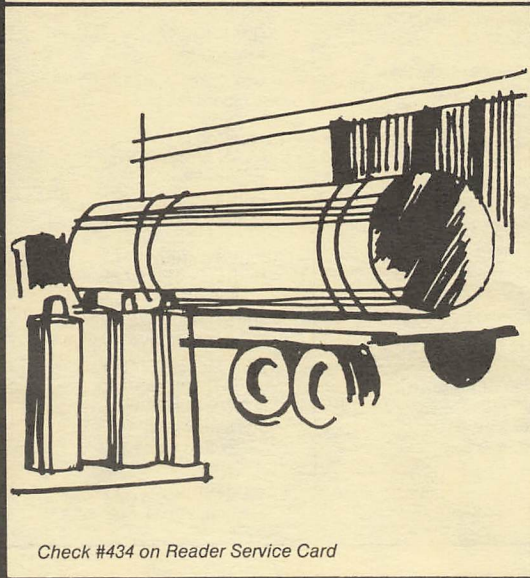
Now available from NRCA is a worker training program — **Kettles, Tankers and Bitumen Heating**. This four-part audiovisual program covers everything workers need to know for correct bitumen heating and operation and maintenance of heating equipment.

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



Dunlop Construction Products, Inc.

2055 Flavelle Blvd.
Mississauga, Ont.
Canada L5K 1Z8

Contact:
D. Brazier
416/823-8200

Duro-Last Roofing, Inc.

525 Morley Dr.
Saginaw, Mich. 48601

Contact:
Bill Frederick
517/753-6486

Dynamit Nobel of America, Inc.

10 Link Dr.
Rockleigh, N.J. 07647

Contact:
G.B. Elder
201/767-1660

Dyplast Industries

1020 S.W. 69th Ave.
Miami, Fla 33144

Contact:
Joe Moon or Max Calland
305/261-4637

Elastizell Corp. of America

P.O. Box 1462
267 Collingwood
Ann Arbor, Mich. 48106

Contact:
Leo A. Legatski
313/761-6900

Eliminator Vac Systems

2609 S. Raritan
Englewood, Colo. 80110

Contact:
Robert Dolby
303/922-8355

Elk Corp. of America

6750 Hillcrest Plaza Dr.
Suite 218
Dallas, Tex. 75230

Contact:
Jack Pariseau
214/934-9540

The Enterprise Companies

1191 S. Wheeling Rd.
Wheeling, Ill. 60090

Contact:
G.R. Brudenell
312/541-9000

Envirospec, Inc.

P.O. Box 119 Ellicott
Station
Buffalo, N.Y. 14205

Contact:
Robert DeClute
416/252-2090

Evans Products Co. Permaglas Division

P.O. Box E
1115 S.E. Crystal Lake Dr.
Corvallis, Ore. 97339

Contact:
James M. Compton
503/753-1211

Evergreen Slate Company, Inc.

68 Potter Ave.
Granville, N.Y. 12832

Contact:
R. Clark Hicks
518/642-2530

ES Products, Inc.

30 Pleasant St.
New Rochelle, N.Y. 10801

Contact:
Robert L. Hallock, Jr.
914/235-1700

Fabco Fastening Systems

Townsend Division of
Textron, Inc.
Water St.
West Newton, Pa. 15089

Contact:
John Stargle
412/872-6200

Firestone Industrial Products Co.

1700 Firestone Blvd.
Noblesville, Ind. 46060

Contact:
Dave Moorhead or Hig
Dillinger
317/773-0650

Fortifiber Corp.

4489 Bandini Blvd.
Los Angeles, Calif. 90023

Contact:
T. E. Gallivan
213/268-6783

Fox & Company CPA's

P.O. Box 1595
15 S. 7th St.
Colorado Springs, Colo.
80901

Contact:
Don Prosser
303/475-9850

FSC

P.O. Box 5347
1980 Atlanta Ave.
Riverside, Calif. 92507

Contact:
Michael J. Warmer
714/684-8333

Gardner Asphalt

P.O. Box 50054
Tampa, Fla. 33675

Contact:
E.W. Lanctot, Jr.

Garlock Equipment Company

2601 Niagara Lane
Plymouth, Minn. 55441

Contact:
Bob Hanson
612/553-1935

Gates Engineering Co., Inc.

100 S. West St.
Wilmington, Del. 19899

Contact:
Neil Thomas
302/656-9951

General Tire & Rubber

P.O. Box 875
Toledo, Ohio 43696

Contact:
Alan S. Clapperton
419/729-3731

Genstar Building Materials Co.

P.O. Box 2580
580 Decker Dr.
Irving, Tex. 75062

Contact:
D.R. Hughes or C.T. Derry
214/659-9800

Gerard Tile Co. U.S.A., Inc.

730 South Lugo St.
San Bernardino, Calif.

92408
Contact:
Eddie Elrick
298-4229

The Gibson-Homans Co.

1755 Enterprise Parkway
Twinsburg, Ohio 44087

Contact:
Ken Kaiser
216/425-3255

Gilsonite, Inc.

P.O. Box 11242
Portland, Ore. 97211

Contact:
Clair H. Bartel
503/288-5454

Giuffre Brothers Crane Service

9770 S. Ridgeview Dr.
Oak Creek, Wis. 53154

Contact:
Frank Giuffre
414/761-2300

B.F. Goodrich Engineered Products Group

500 S. Main St.
Akron, Ohio 44318

Contact:
See Sweet's Listing
216/374-2146 (technical)
216/374-2128 (orders)

The Goodyear Tire & Rubber Co.

1745 Cottage St.
Ashland, Ohio 44805

Contact:
W.R. Schmitz
419/289-9588

Gory Associated Industries

1773 N.E. 205th St.
North Miami, Fla. 33179

Contact:
Robert D. Pike
305/651-7611

Graco, Inc.

60 11th Ave. N.E.
Minneapolis, Minn. 55440

Contact:
Robert Quirk
612/623-6914

Gulf States Asphalt Co., Inc.

601 Jefferson
Suite 535
Houston, Tex. 77002

Contact:
Julio Rivas
713/651-1507

GAF Corporation

140 W. 51st St.
New York, N.Y. 10020

Contact:
W.J. Woodring
212/621-5000

W.P. Hickman Co.

P.O. Box 15005
Asheville, N.C. 28813

Contact:
Thomas B. Cadwallader
704/274-4000

Hillsdale Industries, Inc.

5049 S. National Dr.
Knoxville, Tenn. 37914

Contact:
J.C. Veen, Jr.
615/637-1711

Hilltop Slate Company

Rt. 22A
Middle Granville, N.Y.

12849
Contact:
Everest Tatko
518/642-2270

Howmet Aluminum Corporation

Building Specialties
Division

P.O. Box 163
227 Town East Blvd.
Mesquite, Tex. 75149

Contact:
V. Srinivasan
214/285-8811

continued on next page

ASSOCIATE INDEX

continued

Hyload, Inc.

1006B McKnight Park Dr.
Pittsburgh, Pa. 15237

Contact:

Alex W. Harkness
412/367-0633

Inryco, Inc.

P.O. Box 393
4101 W. Burnham
Milwaukee, Wis. 53201

Contact:

T.H. Konopasek
414/383-4030

International Permalite, Inc.

300 N. Haven Ave.
Ontario, Calif. 91764

Contact:

Arthur H. Schneider
714/983-9591

International Tile & Supply Corp.

1288 S. La Brea
Los Angeles, Calif. 90019

Contact:

Ben Malloy
213/931-1761

C. Itoh & Co. (America), Inc.

Room 1904
One Cascade Plaza
Arkon, Ohio 44308

Contact:

Yoshihiko Matsubara
216/253-9103

IPW Interplastic

156 Ludlow Ave.
Northvale, N.J. 07647

Contact:

Mitchell Haas
201/767-8073

J&P Petroleum Products

P.O. Box 4206
2715 S. Westmoreland
Dallas, Tex. 75208

Contact:

B. Pedigo
214/331-5401

Fred S. James & Co.

230 W. Monroe St.
Chicago, Ill. 60606

Contact:

Walter Derk
312/346-3000

Phil Johnson Sales Company, Inc.

Box 811
Grand Rapids, Mich.
49508

Contact:

Philip L. Johnson
616/452-8747

Karnak Chemical Corp.

P.O. Box 738
330 Central Ave.
Clark, N.J. 07066

Contact:

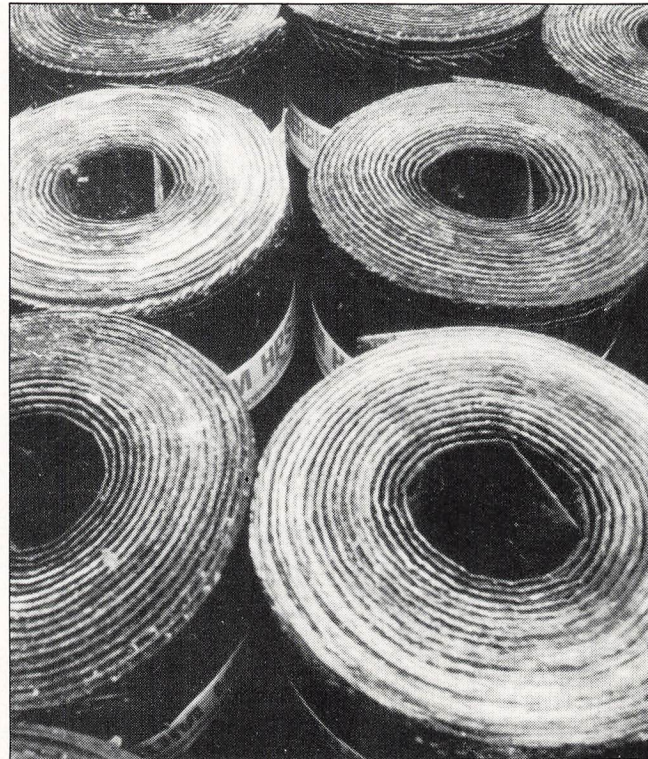
Jerry Mills
201/388-0300 or
800/526-4236

Kelly Energy Systems, Inc.

P.O. Box 2583
Waterbury, Conn. 06723

Contact:

Steve Griffin
203/575-9220



Kendall

One Federal St.
Boston, Mass. 02101

Contact:

Kenneth F. Coffey
617/423-2000

King Asphalt Products

2724 Wesley Chapel Rd.
Decatur, Ga. 30034

Contact:

Jim Watson
404/288-0226

Koch Asphalt Co.

P.O. Box 2338
Wichita, Kan. 67201

Contact:

Paul R. Wheeler
316/832-5606

Kold King, Inc.

Box 22341
Denver, Colo. 80222

Contact:

Dick Simmonds
303/741-5757

Koppers Company, Inc.

1900 Koppers Building
Pittsburgh, Pa. 15219

Contact:

Drew Bachman
412/227-2000

Leco Sales Corporation

3801 Jensen Dr.
Houston, Tex. 77026

Contact:

Karl Pratt
713/222-8541

Ludowici-Celadon Company

Div. of CSC, Inc.
P.O. Box 69
New Lexington, Ohio
43764

Contact:

E.E. Ryser
614/342-1995

The Lutravil Company

1 Federal St.
Boston, Mass. 02110

Contact:

Robert Haggerty
617/451-0925

Manville Roofing Syst. Division

Ken Caryl Ranch
P.O. Box 5108
Denver, Colo. 80217

Contact:

R.K. Hawkes
303/987-3832

Marathon Equipment Ltd.

88 Signet Dr.
Weston, Ontario
Canada

Contact:

Ralph E. Ayers

Merchant & Evans Industries, Inc.

100 Connecticut Dr.
Burlington, N.J. 08016

Contact:

Horace Long
609/387-3033

Mineral Fiber Mfg. Corp.

313 S. Sixth St.
Coshocton, Ohio 43812

Contact:

Robert S. Simpson
614/622-2645

Mobay Chemical Corp.

Penn Lincoln Parkway, W.
P6H
Pittsburgh, Pa. 15205

Contact:

Donald Durdan
412/777-2637

Modern America Corp.

5310 Harvest Hill Rd.
Suite 260
Dallas, Tex. 75230

Contact:

C. Gene Thompson
214/934-0075

Modern Materials, Inc.

6280 Artesia Blvd
Buena Park, Calif. 90620

Contact:

S.H. Anderson
714/523-9500

continued on page 48

Count the ways you can use **KMM**[®] All-Climate, Multi-purpose Membrane



AS A LOOSE-LAID ROOFING SYSTEM

AS A COLD- OR HOT-APPLIED ADHERED SYSTEM

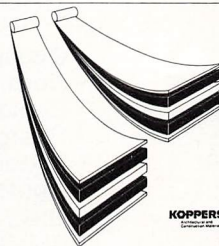
AS AN INSULATED ROOF MEMBRANE SYSTEM

AS A HORIZONTAL WATERPROOFING SYSTEM

AS A VERTICAL WATERPROOFING SYSTEM

AS A FLASHING SYSTEM

KMM...
all-climate, modified bitumen,
single-ply, roofing/waterproofing systems



And KMM's versatility doesn't end here. This single-ply, multi-purpose membrane can be used for both new construction or reroofing. It's an all-weather, time-saving, modified bitumen, roofing/waterproofing material that puts your job "in the dry" faster, and more efficiently.

Our new KMM brochure covers the many ways you can use KMM Membrane to help satisfy all your roofing and waterproofing needs. Use the accompanying coupon to get your free copy.

KMM from Koppers . . .
the roofing people.

Send to:

Koppers Company, Inc.
Building Materials Division
Dept. 3D-4
1901 Koppers Building
Pittsburgh, PA 15219

T29-8301

- Please send me your KMM brochure.
 Also, have a Koppers representative contact me.

Name _____

Title _____

Address _____

City _____

State _____

Zip _____

Area Code _____

Phone _____

KOPPERS

Architectural and
Construction Materials

ASSOCIATE INDEX

continued from page 46

Monier Company

P.O. Box 5567
1091 N. Batavia St.
Orange, Calif. 92667
Contact:
Anthony F. Gillett
714/538-8822

Monsey Products Company

Box 368
Cold Stream Rd.
Kimberton, Pa. 19442
Contact:
Michael P. Manning
215/933-8888

Moppo Products, Inc.

P.O. Box 240913
4701 Sweden Rd.
Charlotte, N.C. 28224
Contact:
John Bayne
704/554-7006

Morgen Manufacturing Company

P.O. Box 160
117 W. Third St.
Yankton, S.D. 57078
Contact:
Marlin Slagle
605/665-9654

MM Systems Corp.

4520 Elmdale Dr.
Tucker, Ga. 30084
Contact:
Bob Davis
404/938-6570

National Roof Deck Cont. Assn.

221 N. LaSalle
Room 2026
Chicago, Ill. 60601
Contact:
Natalie Holmes
312/346-1600

Naturalite, Inc.

P.O. Box 472267
3233 W. Kingsly Rd.
Garland, Tex. 75047
Contact:
Louis Mohn
214/278-1354

Norton Services and Consulting Corp.

15 E. Madison St.
Lombard, Ill. 60148
Contact:
Ray Norton
312/620-7250

NRG Barriers, Inc.

61 Emery St.
Sanford, Maine 04073
Contact:
Roy S. Pittman
207/324-7745 or
800/343-1285

Oakway Manufacturing Co., Inc.

Box 676
556 N. Saginaw St.
Pontiac, Mich. 48054
Contact:
Tom Meyers
313/335-9476 (in Mich.)
800/521-1059

Olympic Fasteners

P.O. Box 408
Springfield, Mass. 01101
Contact:
Art Jacobson
800/633-3800

Onduline USA, Inc.

Box 195
Route 9
Fredericksburg, Va. 22401
Contact:
Joe Miles
703/898-7000

Otto Fabric, Inc.

P.O. Box 18361
Wichita, Kan. 67218
Contact:
John Sweeney
316/686-2010

Owens-Corning Fiberglas Corp.

Commercial Roofing Div.
Fiberglas Tower
Toledo, Ohio 43659
Contact:
Greg Faherty or
J.M. Sattler
419/248-8000

P.A.L. Development Corp., Inc.

5560 N. Park Dr.
Butler, Wis. 53007
Contact:
John G. Probst
414/781-6870

Pacer Corporation

P.O. Box 912
35 S. 6th St.
Custer, S.D. 57730
Contact:
J. Fred Miller
605/673-4419

Pantasote, Inc.

26 Jefferson St.
Passaic, N.J. 07055
Contact:
Joseph C. Coppola, Jr.
201/777-8500

Parker Sweeper Company

P.O. Box 1728
Springfield, Ohio 45501
Contact:
Len Arnold
513/323-4901

Pawelko-Frenzel, Inc.

750 Richard Lane
Elk Grove, Ill. 60007
Contact:
Robert Pawelko
312/364-4633

Perlite Institute, Inc.

45 W. 45th St.
New York, N.Y. 10036
Contact:
Robert S. Milanese
212/382-0070

Petersen Aluminum Corp.

3825 N. Willow St.
Schiller Park, Ill. 60176
Contact:
Maurice R. Petersen
312/671-2510

Phillips Fibers Corp.

P.O. Box 66
Greenville, S.C. 29607
Contact:
John S. Gentry
803/242-6600

Pi-Pet Chemical Corp.

124 E. 40th St.
New York, N.Y. 10016
Contact:
John Raggio
212/867-9170

Pittsburgh Corning Corp.

800 Presque Isle Dr.
Pittsburgh, Pa. 15239
Contact:
Carl Olm

Plymouth Foam Products

1800 Sunset Dr.
Plymouth, Wis. 53073
Contact:
Tec Roberts
414/893-0535

Plyroof-Plymouth

Plymouth Rubber
Company, Inc.
104 Revere St.
Canton, Mass. 02021
Contact:
Charles Taft
617/828-0220

Polymer Building Systems

2422 Sunset Dr.
Riverside, Calif. 92506
Contact:
Daniel V. Pofelski
714/687-7070

Polysar, Inc.

1501 Commerce Dr.
Stow, Ohio 44224

Contact:

James W. Puse
216/688-9418

Reeves Roofing Equipment Co., Inc.

Route 17, Box 300
San Antonio, Tex. 78228
Contact:
I.C. Reeves
512/695-3567

Reimann & Georger, Inc.

P.O. Box 681
Buffalo, N.Y. 14240
Contact:
William L. Krawczyk
716/895-1156

Republic Powdered Metals, Inc.

P.O. Box 724
2628 Pearl Rd.
Medina, Ohio 44256
Contact:
Joseph C. Chew
216/225-3192

Rising & Nelson Slate Co., Inc.

West Pawlet, Vt. 05775
Contact:
James M. Mertz
802/645-0150

Roof Engineering, Inc.

P.O. Box 335
Hobbs, N.M. 88240
Contact:
Jim Koontz
505/393-8949

Roof Systems, Inc.

5380 36th S.E.
Grand Rapids, Mich. 49508
Contact:
Bart Stephens or
Gary DeVries
800/253-8148

Rubber & Plastics Compound Co.

3615 23rd St.
Long Island City, N.Y. 11106
Contact:
Alfred B. Farbish
212/392-6780

Rmax, Inc.

13524 Welch Rd.
Dallas, Tex. 75234
Contact:
Dan Ousley
800/527-0890

San Joaquin Refining Co., Inc.

Box 1960
359 San Miguel, Suite 204
Newport Beach, Calif. 92663

Contact:

Carol Prentiss
714/644-1865

Sarnafil (USA), Inc.
Box 380
Canton Commerce
Center
Canton, Mass. 02021
Contact:
Ruth Warshaw
617/828-5400

**Shelter-Rite Roofing
Systems**
Div. of the Seaman Corp.
102 B. N. Washington St.
Millersburg, Ohio 44654
Contact:
Samuel R. Eisen trout
216/674-0121

J.E. Shomo & Son, Inc.
P.O. Box 277
Somers Point, N.J. 08244
Contact:
J.E. Shomo, Jr.
609/927-5511

Siplast, Inc.
Highway 67 S.
Arkadelphia, Ark. 71923
Contact:
James N. Mollenhoff
501/246-8094

**Jackson G. Smith
Associates, Inc.**
501 Keith Ave.
Anniston, Ala. 36201
Contact:
Jackson G. Smith
205/236-3689

**Smith Hoist
Manufacturing Co., Inc.**
P.O. Box 205
M-62 S.
Cassopolis, Mich. 49031
Contact:
Paul Tillman
616/445-2433

Southwest Distributing
P.O. Box 1422
222 S. Date St.
Mesa, Ariz. 85201
Contact:
Larry Perkins
602/969-5966

**Southwestern Petroleum
Corp.**
P.O. Box 789
Fort Worth, Tex. 76101
Contact:
Jim Ashworth
817/332-2336

J.P. Stevens & Co., Inc.
26 Payson Ave.
Easthampton, Mass.
01027
Contact:
Bruce J. Abbott
415/527-0700

Super 'K' Industries
5260 N. Genesee Rd.
Flint, Mich. 48506
Contact:
Kevin Groves
313/736-9550

SYenergy Methods, Inc.
1367 Elmwood Ave.
Cranston, R.I. 02910
Contact:
Thomas J. Petrarea
401/467-2600

**Tamko Asphalt Products,
Inc.**
220 W. 4th St.
Joplin, Mo. 64801
Contact:
Jerry Pearman
417/624-6644

Tech Specialties Co.
P.O. Box 186
8380 Cerritos Ave.
Stanton, Calif. 90680
Contact:
Jerry Eason
714/828-0032

Tellex, Inc.
Rhoflex Division
Commerce Dr.
North Branford, Conn.
06471
Contact:
Gardner C. Rowbotham
203/481-5588

**Ben Tempin & Assoc.,
Inc.**
P.O. Box 862
Lago Vista, Tex. 78641
Contact:
E.B. Templin
512/267-1937

Thermo Materials, Inc.
P.O. Box 9454
San Diego, Calif. 92109
Contact:
Orland Bonaquidi
619/272-0061

Three-E Corp.
P.O. Box 177
401 Kennedy Blvd.
Somerdale, N.J. 08083
Contact:
Harvey Liss
609/784-8200

Tosco Corporation
Exchange Building
El Dorado, Ark. 71730
Contact:
N.V. Abernathy
800/643-1506

Toyad Corp.
P.O. Box 266
Latrobe, Pa. 15650
Contact:
R. Patrick Campbell
412/537-9305

Tremco, Inc.
10701 Shaker Blvd.
Cleveland, Ohio 44104
Contact:
Robert Jonas
216/229-3000

**Tropical Industrial
Coatings, Inc.**
P.O. Box 444
Brunswick, Ohio 44212
Contact:
Jerry Matthews
216/273-2564 (in Ohio)
800/321-8353

Troup Industries, Inc.
601 Hampton St.
Marquette, Mich. 49855
Contact:
Leon M. Troup
906/228-7043

The Tru-Fast Corporation
Route 4
Bryan, Ohio 43506
Contact:
Duane Spangler
419/636-6715

Truck Equipment Co.
3400 Burris Rd.
Fort Lauderdale, Fla.
33314

Contact:
Charles Traficant
305/791-9470

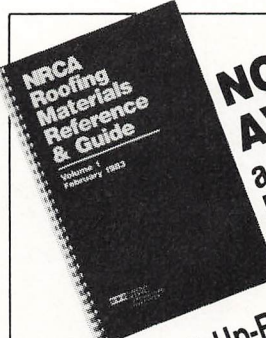
Trumbull Asphalt
59th and Archer Rd.
Summit, Ill. 60501
Contact:
Mike Mitchell
312/458-2424

U.S. Intec, Inc.
1212 Brai Dr.
Port Arthur, Tex. 77640
Contact:
Bailey King
800/231-4631

The Upjohn Co.
CPR Division
555 Alaska Ave.
Torrance, Calif. 90503
Contact:
Ernie Karwatt
213/320-3550

**Vacuum Engineering
Corp.**
3374 W. Hopkins St.
Milwaukee, Wis. 53216
Contact:
Richard Kamber
414/444-4010

continued on next page



NOW AVAILABLE...
a comprehensive
**Roofing Materials
Reference & Guide**
for Built-Up-Roofing and Single-Ply Materials

- Updated 3 times per year
- Comparative technical data
- Application information
- Dozens of manufacturers
- Hundreds of specs & products
- Easy to use format

Architects
Specifiers
Contractors
Engineers
Utilities
Building Owners
Shopping Malls
Bldg. Code Groups
Real Estate Mgrs.

Send for a Free Brochure

name _____
company _____
address _____
city/state/zip _____

Mail to: Nat'l Roofing
Contractors Assn.
8600 Bryn Mawr
Chgo. 60631

Check #435 on Reader Service Card

ASSOCIATE INDEX

continued

Vermont Structural Slate Co., Inc.

3 Prospect St.
Fair Haven, Vt. 05743

Contact:
James Foley
802/265-4933

WASCO Products, Inc.

P.O. Box 351
Sanford, Maine 04073

Contact:
Robert C. Roeger
207/324-8060

Watersaver Company, Inc.

P.O. Box 16465
Denver, Colo. 80216

Contact:
Bill Reetz
303/623-4111

Wilco Manufacturing/ King Kotten Manufacturing

430 Englewood Ave.
Atlanta, Ga. 30315

Contact:
Joseph Wilco
404/622-1551

York Manufacturing, Inc.

P.O. Box 1009
Sanford, Maine 04073

Contact:
Dick Lolley
207/324-1300

Young Refining Corp.

P.O. Box 796
Huey Rd.
Douglasville, Ga. 30133

Contact:
Jim Young
404/942-2343

Zonolite

Division of W.R. Grace
62 Whittemore Ave.
Cambridge, Mass. 02140

Contact:
Jesse A. Stewart
617/876-1400

WHOLESALE, JOBBER AND DISTRIBUTORS

A & B Equipment Company

P.O. Box 50339
2101 Riverside Dr.
Fort Worth, Tex. 76105

Contact:
Joe McMurray
817/332-8361

A.L.L. Rfg. & Bldg. Matl. Corp.

1212 West 58 St.
Los Angeles, Calif. 90037

Contact:
Jerry Lessel
213/753-1277

Adobe Building Centers, Inc.

2056 Scott St.
Hollywood, Fla. 33020

Contact:
Chuck Mills
305/921-2620

Allied Roofer Supply Corp.

1121 N. Ellis
Bensenville, Ill. 60106

Contact:
Vince Mancini
312/766-3464

Allstate Supply, Inc.

P.O. Box 6415
9957 Medford Ave. -6
Oakland, Calif. 94603

Contact:
James C. Hofmeister
415/569-1495

Anderson Roofing Supply Co.

Rt. 22 - Soo Line Tracks
Prairie View, Ill. 60069

Contact:
Everett Wilson, Jr.
312/634-0750

Arby Construction Enterprises, Inc.

3990 Lafayette Blvd.
Fredericksburg, Va. 22401

Contact:
Richard M. Bacik
703/898-1712

Architectural Products Company

2644 Crescent Springs Rd.
Covington, Ky. 41017

Contact:
Richard Maier
606/341-1171 or
800/354-9788

Arzee Supply Corp. of N.J.

15 E. Fredericks Pl.
Mahwah, N.J. 07430

Contact:
Charlie Mueller
201/267-1576

Atlantic Asphalt & Equip. Co., Inc.

146 Railroad St.
Revere, Mass. 02151

Contact:
Colin Cash
617/289-6788

AAA Wholesale, Inc.

14805 East Moncrieff
Place
Aurora, Colo. 80011

Contact:
Don Douglass
303/371-2990

B & F Supply Co., Inc.

P.O. Box 667
Daytona Beach, Fla.
32015

Contact:
Earl R. Blank
904/255-1411

B.H.N. Corp.

P.O. Box 12263
2400 Poplar Ave. - Suite
326

Memphis, Tenn. 38112
Contact:
Paul G. Norman
901/458-7105 or
800/238-9046

Bailey Roofing Co., Inc.

119 West 25 St.
Norfolk, Va. 23517

Contact:
Robert W. Barnaby
804/622-4879

Lee R. Ballard & Associates

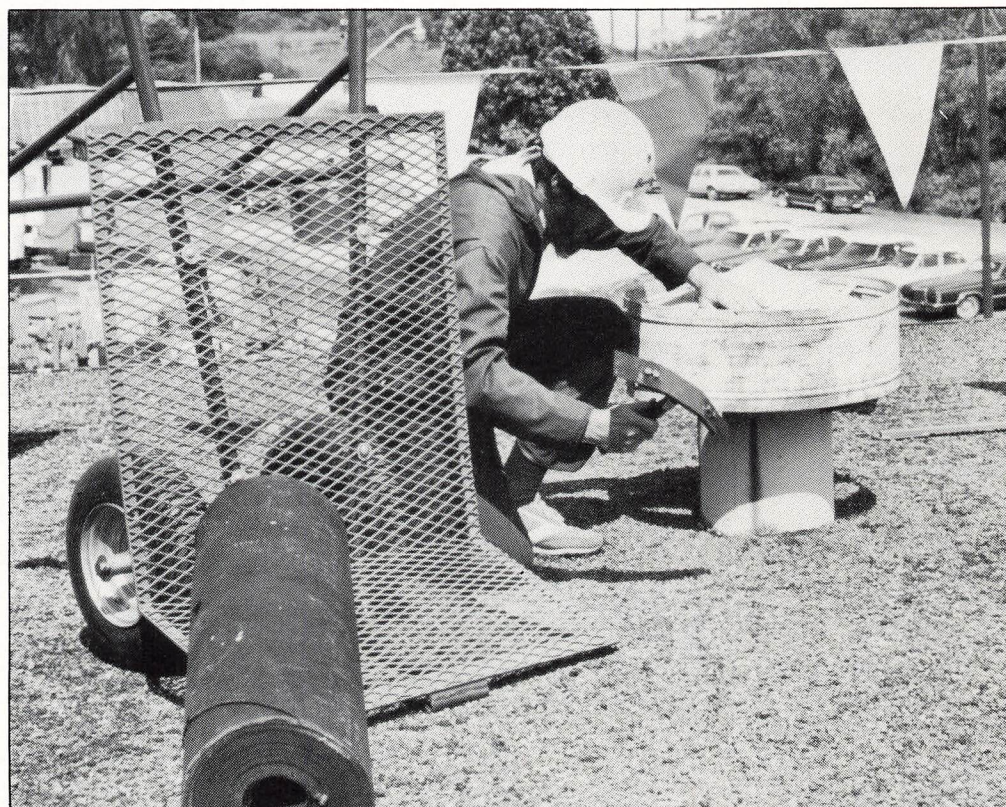
859 Mull Ave.
Akron, Ohio 44313

Contact:
Lee R. Ballard
216/867-3078

Baron/Wheeler, Inc.

3171 Babcock Blvd.
Pittsburgh, Pa. 15101

Contact:
Paul Baron
412/364-3887



Leo Witt photo

continued on page 52

TAPERED BenCore^{Plus}TM

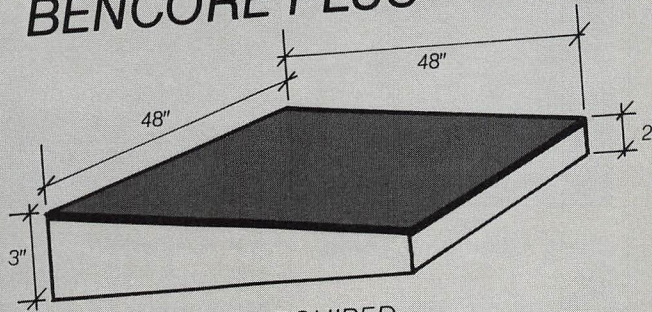
Roof Insulation

A Comparison with Perlite at Average R-20

MAXIMUM BOARD
SIZE 4" x 48" x 48"

PROVIDES MINIMUM
LAYERING AND
HANDLING.

BENCORE PLUS*



AVERAGE 2 1/2" REQUIRED

WEIGHT:
2 LB./CU. FT.
R VALUE/
INCH: 8.33**

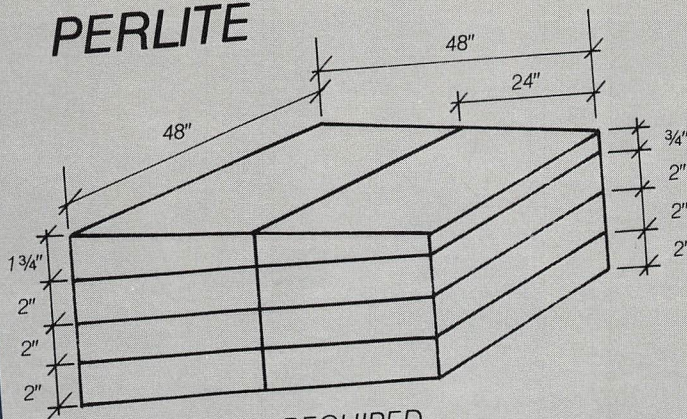


Both
Systems
Are
Approved

MAXIMUM BOARD
SIZE 2" x 24" x 48"

REQUIRES EXTENSIVE
LAYERING AND
HANDLING.

PERLITE



AVERAGE 7 1/4" REQUIRED

WEIGHT:
10.8 LB./CU. FT.
R VALUE/
INCH: 2.78

* Isocyanurate Foam Core
** As Manufactured

BenCore^{Plus}TM does a lot more with a lot less!

FROM BENOIT YOU ALWAYS GET: ■ Complete Pricing FOB Jobsite ■ All Pieces Color Coded
■ Easy to Read Shop Drawings ■ Pre-cut Corners Ready for Installation



A product of
Benoit[®] Inc.
635 North Prior Avenue
St. Paul, Minnesota 55104
Inter State 1-800-328-1436
Intra State (612) 646-1387

Manufactured by
Benoit[®]
INDUSTRIES, INC. San Antonio, Texas
A Wholly Owned Subsidiary of Benoit Inc.

ASSOCIATE INDEX

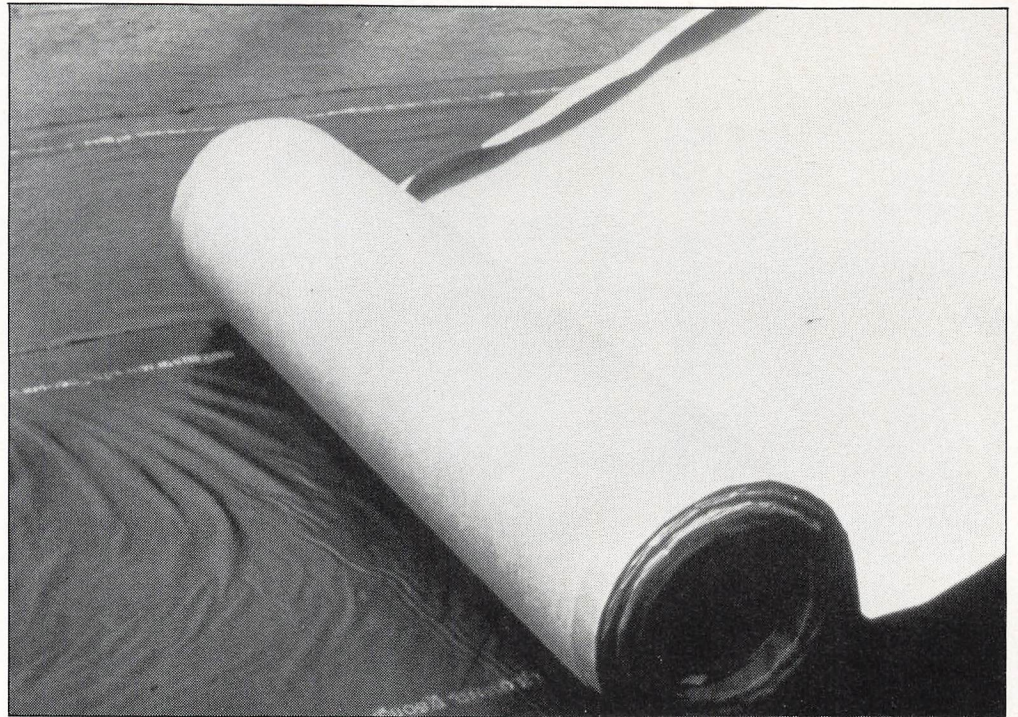
continued from page 50

Beacon Sales Co., Inc.
50 Webster Ave.
Somerville, Mass. 02143
Contact:
Donald Swansburg, Sr.
617/666-2800

Bear Systems, Inc.
11496 Luna Rd.
Suite B
Dallas, Tex 75234
Contact:
William A. Martin
214/869-0361

BehStev Corporation
3651 Pomona Blvd.
Pomona, Calif. 91768
Contact:
Robert Moore
714/594-3200

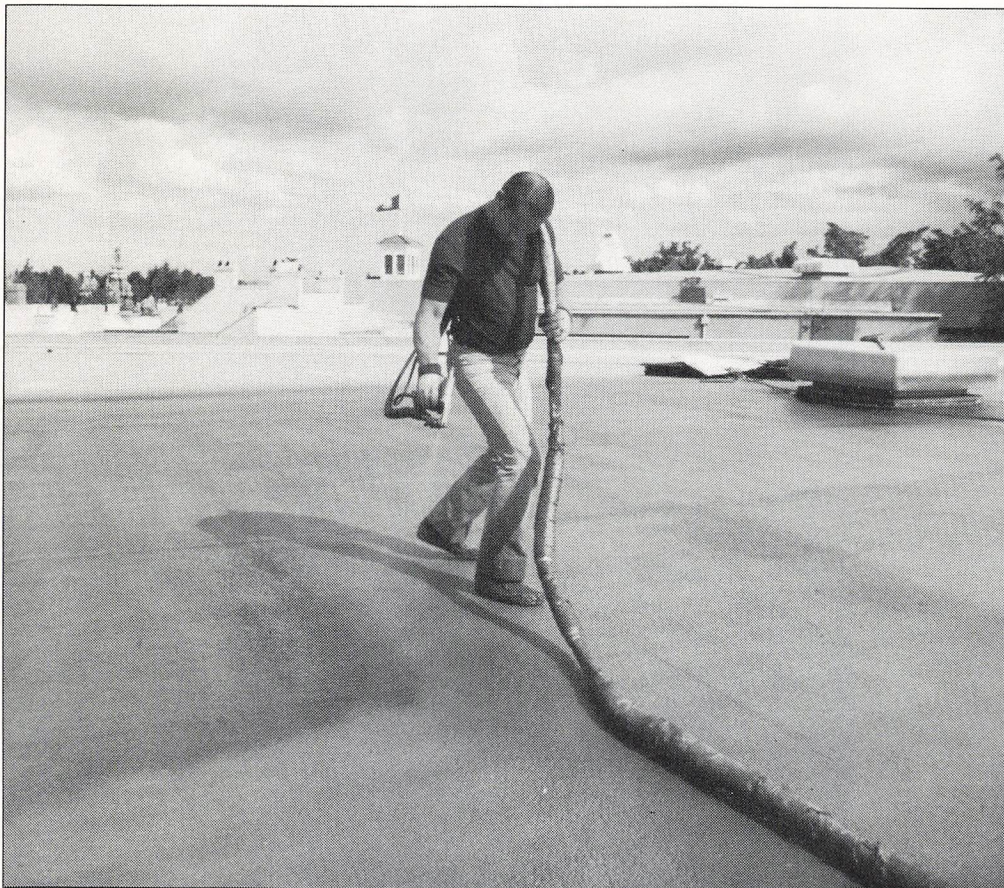
Belroof International, Inc.
P.O. Box 77
50 South Main St.
Salt Lake City, Utah 84144
Contact:
Dennis Chambers
801/322-1090



Julien P. Benjamin Equip. Co.
2300 McCoys Blvd.
Jacksonville, Fla. 32203
Contact:
Walter Valeski
904/387-5581

A.H. Bennett Company
900 Glenwood Ave.
Minneapolis, Minn. 55405
Contact:
Brian Bennett
612/374-3444

Berkheimers, Inc.
P.O. Box 17125
Portland, Ore. 97217
Contact:
John Burkitt
503/285-6611



Polymer Development Laboratories photo

Bieler, Inc.
3700 N.W. 62nd St.
Miami, Fla. 33147
Contact:
Bill Bieler
305/633-7100

Bishop Wholesale, Inc.
4233 Alhambra Way
Martinez, Calif. 94553
Contact:
John Blasi
415/372-8300

The Bituminous Emulsion Co.
P.O. Box 2799
Baltimore, Md. 21225
Contact:
Vernon Dasey
301/354-0600

Lyle Bolster Products, Inc.
3 North 188 West Mary
Lane
St. Charles, Ill 60174
Contact:
Lyle Bolster
312/584-5596

Bowe Co., Inc.
219 Saddle River Rd.
Saddle Brook, N.J. 07662
Contact:
W. Whitley
201/845-5900

Bradco Supply Corp.
23 Production Way
Avenel, N.J. 07001
Contact:
John Wagner
201/382-4242

Brauner Equipment Co., Inc.
1105 S. Dukeland St.
Baltimore, Md. 21223
Contact:
Richard Brauner
301/945-0200

Builders Products, Inc.
P.O. Box 10852
Houston, Tex. 77292
Contact:
Frank A. Korenek
713/686-8203

C.B.G. Associates, Inc.
100 E. Glenside Ave.
Glenside, Pa. 19038
Contact:
Alan Gross
215/885-6910

Cambridge Lee Industries, Inc.
500 Lincoln St.
Boston (Allston), Mass.
02134
Contact:
James Crothers
617/783-3100

Capen Wholesale, Inc.
1313 Circle Ave.
Forest Park, Ill. 60130
Contact:
Charles D. Capen, Jr.
312/771-1717

Carolina Atlantic Dist., Inc.
P.O. Box 2580
Sanford, N.C. 27330
Contact:
Lloyd M. Tice
919/776-0721

Carpenter Ins. & Ctg. Co.
4443 Bronze Way
Dallas, Tex. 75236
Contact:
Wayne P. Gray
214/330-0357

The Cassady-Pierce Co., Inc.
2295 Preble Ave.
Pittsburgh, Pa. 15233
Contact:
Tom Jewell
412/321-8987

Central New York Bldg. Prod., Inc.
P.O. Box 149
East Syracuse, N.Y. 13057
Contact:
John C. Extale
315/437-1379

Christensen Roofing, Inc.
184 Carter St.
Princeton, N.J. 08540
Contact:
David Christensen
609/921-1277

Cleasby Manufacturing Co., Inc.
1414 Bancroft Ave.
San Francisco, Calif.
94124
Contact:
Dick Isaacs
415/822-6565

Consolidated Roofing & Supply Co.
P.O. Box 614
Phoenix, Ariz. 85001
Contact:
Edgar D. Williams
602/253-6123

Crestline Supply Corp.
2987 S. 300 West
Salt Lake City, Utah 84115
Contact:
Guy O. Woodward
801/487-2233

Cristalhope, Inc.
23011 Moulton Pkwy. -G-8
Laguna Hills, Calif. 92653
Contact:
Herman Smet
714/855-0260

Cronin Asphalt Corp.
P.O. Box 4257
East Providence, R.I.
02914
Contact:
R.J. Cronin
401/434-5252

CRS, Inc.
P.O. Box 48183
Atlanta, Ga. 30362
Contact:
Dick Phillips
404/458-0539

D.J., Inc.
P.O. Box 825
Putney Rd.
Brattleboro, Vt. 05301
Contact:
Herbert Lavertue
802/254-6023

Dallas Wholesale Bldrs. Supply, Inc.
Roofing Division
P.O. Box 11390
627 E. 15th St.
Dallas, Tex. 75223
Contact:
Mike Cornett
214/826-1930

De Soto Cant Strip Supply Co.
7403 Getwell Rd.
Olive Branch, Miss. 38654
Contact:
Doug Mahan
601/393-3145

Dealers Supply Co.
110 S.E. Washington
Portland, Ore. 97214
Contact:
David Starbuck
503/236-1195

Design Containers
2913 Westside Blvd.
Jacksonville, Fla. 32209
Contact:
Barri Vickers
904/764-6541

Drake Mop Co.
P.O. Box 373
Hialeah, Fla. 33011

Contact:
B.A. Drake
305/885-8073

Dry Roof, Inc.
P.O. Box 3162
Brownsville, Tex. 78520
Contact:
Don Tabor
512/350-4930

Dubois Chemicals
511 Walnut St.
Cincinnati, Ohio 45242
Contact:
Bert Downing
513/762-6828

Dunne Co., Inc.
2741 Satsuma
Suite 107
Dallas, Tex. 75229
Contact:
William P. Dunne
214/241-7936

Dutona Roofing Systems, Inc.
5951 N.W. 151st St.
Miami Lakes, Fla. 33014
Contact:
Peter G. Laughlin
305/825-8928

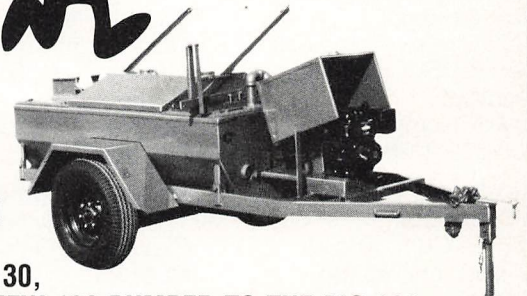
continued on next page

See
page 16
for
details



**BENJI DOES IT AGAIN...
TOMORROW'S PRODUCT
TODAY!**

**WE
HAVE
THEM
ALL
THE 130,
THE NEW 190 PUMPER TO THE BIG 900**



BLACKWELL

the "Cadillac" of Pumper Kettles

- 8 hp heavy duty engine
- Heavy duty engine supports
- Diamond shape flus
- Lighting wand for burner
- Heavy duty truck tires
- Stainless steel thermometer

FOR MORE INFORMATION WRITE OR CALL:

JULIEN P. BENJAMIN EQUIPMENT CO.
2300 McCoy's Blvd. • Jacksonville, Florida 32203
904-387-5581 1-800-342-2370 (FL) 1-800-874-1151



Check #399 on Reader Service Card

ASSOCIATE INDEX

continued

Eagle Supply, Inc.

P.O. Box 75305
13th St. & 4th Ave.
Tampa, Fla. 33675

Contact:

Robert L. Noojin
813/248-4911

East Tennessee Roofing Supply, Inc.

540 S. Ocoee St.
Cleveland, Tenn. 37311

Contact:

Allen McCowan
615/479-4226

Edmier, Inc.

1500 S. Cicero Ave.
Chicago, Ill. 60650

Contact:

Jack Edmier
312/242-3600

Engineered Specialty Products

11743 South West
Highway
Palos Heights, Ill. 60462

Contact:

William Van Arkel
312/361-5060

Fischer Air Supply

2674 Nicholson St.
San Leandro, Calif. 94577

Contact:

Dennis Church
415/352-6820

Flemmer Johnson & Associates

2425 S. Colorado Blvd.
Denver, Colo. 80222

Contact:

Lowell Flemmer
303/692-9720

Flex-Shield Corp.

P.O. Box 200
636 W. Commerce
Gilbert, Ariz. 85234

Contact:

Charles O. Carroll
602/892-9320

Florida Roof Sales

1248 Shadow Lane
Ft. Meyers, Fla. 33901

Contact:

Dan Travis, Jr.
813/936-0040

Jack Forcica Associates

5500 Lincoln Dr.
Suite 195
Edina, Minn. 55436

Contact:

Jack Forcica
612/935-9800

Fowler & Peth, Inc.

P.O. Box 16551
Denver, Colo. 80216

Contact:

William Peth
303/388-6493

Paul A. Fox & Assoc., Inc.

P.O. Box 125
Dumont, N.J. 07628

Contact:

Paul Fox
201/384-2622

Frank P. Frey & Co.

1329 N. 31st Ave.
Melrose Park, Ill. 60160

Contact:

John Vietmeyer
312/344-6690

G & L Associates, Inc.

1831-A Hicks Rd.
Rolling Meadows, Ill.
60008

Contact:

Dennis B. George
312/991-8530

GEMCO Wholesale Roofing, Inc.

2902 S. 21st Ave.
Broadview, Ill. 60153

Contact:

Steve Vombrack
312/344-3070

General Builders Supply Corp.

1150 N.W. 23 Ave.
Fort Lauderdale, Fla.
33311

Contact:

Don Davis
305/584-3633

Georgia-Pacific Corp.

133 Peachtree St.
Atlanta, Ga. 30303

Contact:

George C. Fisher
404/521-5164

Gibson Equipment Co.

17701 Pennsylvania Ave.
Cleveland, Ohio 44137

Contact:

Christopher C. Gibson
216/475-3900

Giles Sales Co., Inc.

610 Kentucky St.
Scottsdale, Ga. 30079

Contact:

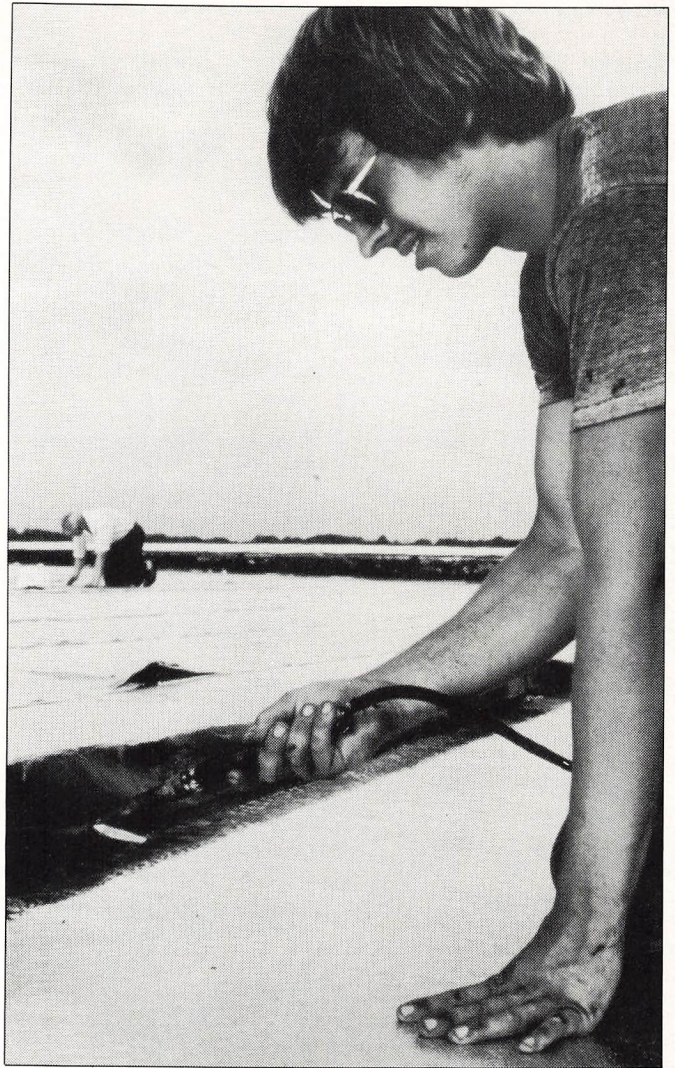
Bill H. Giles
404/292-8888

Glesby Building Materials Co., Inc.

P.O. Box 230
15119 Oxnard St.
Van Nuys, Calif. 91408

Contact:

George Gottesman
213/785-2166



Greene Roofing

Div. of Philbern Industries,
Inc.

720 Coney Island Ave.
Brooklyn, N.Y. 11218

Contact:

Walter B. Phillips
212/941-1111

Guggenheim International Corp.

215 14th st.
Jersey City, N.J. 07302

Contact:

Robert G. Biehl
201/656-3220

Gulfside Southern Supply, Inc.

1650 N.W. 70th Ave.
Miami, Fla. 33126

Contact:

Edmund Norys
305/592-5313

Gulfside Supply, Inc.

2814 N. 36th St.
Tampa, Fla. 33605

Contact:

J.S. Resch
803/247-3106

Hamre Associates

P.O. Box 489
White Rock, S.C. 29177

Contact:

Ted Hamre
803/781-1628

N.B. Handy Company, Inc.

P.O. Box 11258
Lynchburg, Va. 24506

Contact:

Michael Christian
804/847-4495

Heeley-Brown Co., Inc.

1280 Chattahoochie Ave.
N.W.

P.O. Box 93978
Atlanta, Ga. 30318

Contact:

William H. Brown
404/352-0022

Heritage Wholesalers, Inc.

P.O. Box 362
185 Commercial St.
Malden, Mass. 02148

Contact:
Harry Langburd
617/324-8100

E.L. Hilts & Co.
P.O. Box 1789
1928 Main Ave. N.W.
Hickory, N.C. 28603
Contact:
Charlie Jackson
704/328-8141

Hilts Southern Equipment Co.
553 Amsterdam Ave. N.E.
Atlanta, Ga. 30306
Contact:
Don Lookadoo
404/892-0559

Russ Hines & Associates, Inc.
P.O. Box 657
Bluefield Rd. at W.
Genesee St.
Auburn, N.Y. 13021
Contact:
Russ Hines
315/253-5338
800/962-0347 (In N.Y.)
800/448-1153 (Outside N.Y.)

Hinkle Metals & Supply Co., Inc.
P.O. Box 11441
3300 11th Ave. N.
Birmingham, Ala. 35202
Contact:
Phillip Hinkle
205/326-3300

Holmes Associates, Inc.
25335 Interchange Ct.
Farmington Hills, Mich.
48018
Contact:
Ray R. Rieger
313/478-8800

Carl Hudson & Associates
4000 Wallace Lane
Nashville, Tenn. 37215
Contact:
Carl H. Hudson
615/292-7667

IBEX Industries, Inc.
T/A Washington Roofing
Products Co.
130 Que St. N.E.
Washington, D.C. 20002
Contact:
Jim Kaufmann
202/529-8200

Indiana Supply Corp., Inc.
3835 E. 21st St.
Indianapolis, Ind. 46218
Contact:
H.W. Taylor
317/359-9681

Industrial Cork Co., Inc.
848 Larch Ave.
Elmhurst, Ill. 60126
Contact:
David Lisson
312/832-2802

International Roofing Systems, Inc.
Two W. Blackwell St.
Dover, N.J. 07801
Contact:
Joseph P. O'Doherty
201/328-7297

Jackson Roofing & Supply, Inc.
140 N. Stockton St.
Jacksonville, Fla. 32204
Contact:
Joseph Jackson
317/286-4090

Jayfour, Inc.
1222 E. Washington Ave.
North Little Rock, Ark.
72114

Contact:
James K. "Skeeter" Fraser
501/374-0733

Kokem Products, Inc.
6221 N.E. 92nd Dr.
Portland, Ore. 97220
Contact:
Roy Ko
503/253-9206

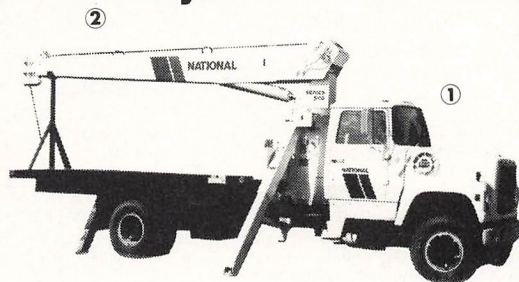
L/P Building Supply
P.O. Box 6247
Albuquerque, N.M. 87197
Contact:
Leroy Wormington
505/345-8061

Leatherback Industries, Inc.
P.O. Box 594
Hollister, Calif. 95023
Contact:
Peter S. Sarian
408/636-5841

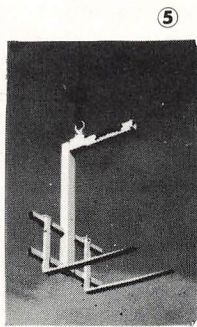
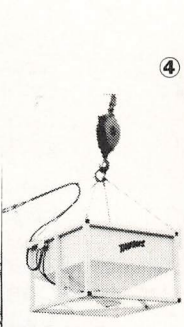
Liquid Asphalt Systems, Inc.
2425 Jefferson
Kansas City, Mo. 64108
Contact:
Mel Stevenson
816/474-0448

continued on next page

Rent to Buy \$10.99 Per Hour



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



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

*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. 5/8 Yd Loose Material Clam Bucket
4. 1 Yd. Loose Material Clam Bucket.
5. 4000# Pallet Fork
6. 2 1/2 Cu. Yd. Steel Tear-Off Material Box.
7. Nylon Lifting Straps.
8. 1 1/8 Yd. Gravel Hopper

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

ASSOCIATE INDEX

continued

Litsco Supply Corp.
Long Island Tin Smith
Supply Corp.
111th St. & Jamaica Ave.
Richmond Hill, N.Y. 11418
Contact:
Bennett Strober
212/847-2900

The J.B. Lovell Corp.
P.O. Box 1076
255 Tidwell Dr.
Roswell, Ga. 30077
Contact:
John Lovell
404/993-2954

R.M. Lucas Co.
3211 S. Wood St.
Chicago, Ill. 60608
Contact:
John L. Barry
312/523-4308

Lucas Sales Co., Inc.
10623 Baur Blvd.
St. Louis, Mo. 63132
Contact:
Charles Lucas
314/993-9610

MacArthur Company
2400 Wycliff St.
St. Paul, Minn. 55114
Contact:
Richard Lockwood
612/646-2773

Madison Sales Corp.
P.O. Box 6048
Miami, Fla. 33154
Contact:
Nathan Manas
305/864-2400

Manchester Ladder Co., Inc.
180 Rockingham Rd.
Windham, N.H. 03108
Contact:
David Lyon
603/434-6911

Marcor Associates, Inc.
P.O. Box 1480
Midlothian, Va. 23113
Contact:
Scott P. Lau
804/794-0202

W.F. Martin Co.
2821 N. Central Ave.
Knoxville, Tenn. 37917
Contact:
Dick Claudy
615/523-0401

McClure-Johnston Company
201 Corey Ave.
Braddock, Pa. 15104
Contact:
Dave McQuiston
412/351-4300

John McDaniel Supply
660 Murphy Ave. S.W.
Atlanta, Ga. 30310
Contact:
John H. Brown
404/755-7713

Hugh McNiven Co.
1021 Mercer St.
Seattle, Wash. 98109
Contact:
Charles K. McMillan
206/382-9189

Mid-Continent Roofing Supply
P.O. Box 453
Summit, Ill. 60501
Contact:
Mike Ross
312/496-2610

Mohr Construction Systems, Inc.
P.O. Box 13436
7911 N.E. 33rd Dr.
Portland, Ore. 97211
Contact:
Ron Mohr
503/281-8201

J.R. Morton Assoc.
P.O. Box 25471
Charlotte, N.C. 28212
Contact:
Jim Morton
704/545-9746

Newman Wholesale, Inc.
P.O. Box 5198
38 Garfield St.
Asheville, N.C. 28813
Contact:
James E. Chapman
704/253-9311

Newport Fastener Co., Inc.
1733Q-Monrovia Ave.
Costa Mesa, Calif. 92627
Contact:
Michael J. Hickey
714/645-7811

Nicholas Wholesale Roofing Supply Co., Inc.
9208 Diplomacy Row
Dallas, Tex. 75247
Contact:
Don Nicholas
214/631-0896

John D. Norman Co., Inc.
P.O. Box 34134
3065 Park Ave.
Memphis, Tenn. 38134
Contact:
John D. Norman
901/458-7104

Louis T. Ollesheimer & Son, Inc.
605 E. Twelve Mile Rd.
Madison Heights, Mich.
48071
Contact:
Doug Stiff
313/544-3900

Pan Am Distributing, Inc.
P.O. Box 1699
423 Hoefgen
San Antonio, Tex. 78296
Contact:
Ken Hamill
512/225-3892

Passaic Metal Products Company
5 Central Ave.
Clifton, N.J. 07015
Contact:
Frank Gurtman
201/546-9000

J.C. Penney Co., Inc.
1301 Avenue of the Americas
New York, N.Y. 10019
Contact:
Charles A. Merritt
212/957-7372

Pennsylvania Supply & Mfg. Co.
P.O. Box 4445
Allentown, Pa. 18105
Contact:
Elwood W. Grube
215/434-5295



C.R. Pidock, Inc.
 d/b/a Sales Reps. Co.
 1914 Beachway Rd., Suite 1F
 Jacksonville, Fla. 32207
Contact:
 Charles Pidock
 904/396-3949

Petrolane Gas Service
 485 N. Willow Springs Rd.
 Willow Springs, Ill. 60480
Contact:
 Ken Stolte
 312/839-6911

Pro Fastening Systems
 215 W. University Dr.
 Arlington Heights, Ill. 60004
Contact:
 Fred Van Riet
 312/577-7185

Prudential Building Material Corp.
 4241 S.W. 70th Crt.
 Miami, Fla. 33155
Contact:
 Robert Kolikof
 305/666-3321

PMS Sucoflex
 21203 A Hawthorne Blvd.
 Suite 5083
 Torrance, Calif. 90503
Contact:
 Steve Becker
 213/320-3142

Radobenko Distributing Co.
 918 S. Park Lane, Suite, 104
 Tempe, Ariz. 85281
Contact:
 William Radobenko
 602/894-9858

Railton, Inc.
 4053 Homestead Rd.
 Houston, Tex. 77028
Contact:
 John B. Thomas
 713/675-0449

Reese Central Wholesale, Inc.
 1155 E. 54th St.
 Indianapolis, Ind. 46220
Contact:
 Dick Sager
 317/251-2256

Resco, Inc.
 5252 Sherman St.
 Denver, Colo. 80216
Contact:
 John Rosasco
 303/296-2222

Richards Building Supply Co.
 5511 S. Cicero Ave.
 Chicago, Ill. 60638
Contact:
 Frederick E. Creed
 312/581-7787

Richards Roofing Co.
 Port Richards
 Savage, Minn. 55378
Contact:
 C.W. Graves
 612/894-8000

Riffe Petroleum Co.
 P.O. Box 45860
 Tulsa, Okla. 74147
Contact:
 Steven Thweatt
 904/350-7600

Rollins Supply Co., Inc.
 1502 Mill St.
 Greensboro, N.C. 27408
Contact:
 Floyd Rollins, Jr.
 919/273-0833
 800/623-0374 (In N.C.)

Roofers Mart, Inc.
 P.O. Box 21945
 Columbia, S.C. 29221
Contact:
 John J. McClellan or
 Dick Sloan
 803/754-8555

Roofers Supplies
 P.O. Box 48
 30 Columbia Ave.
 Bergenfield, N.J. 07621
Contact:
 Philip A. Sommerfeld
 201/384-4224

Roofing & Contractors Equipment Co. - RACE
 330 Meyer Rd.
 Bensenville, Ill. 60106
Contact:
 John W. Webster
 312/766-8434

Roofing & Supply Company
 1409 Fort St.
 Chattanooga, Tenn.
 37402
Contact:
 W.E. Danner
 615/266-8155

Roofing Equip. & Specialty Co., Inc.
 P.O. Box 9246
 2425 S. Third
 Memphis, Tenn. 38109
Contact:
 Bill Hazelrig
 901/948-8572

Roofing Products, Inc.
 1161 Furlong Dr.
 Libertyville, Ill. 60048
Contact:
 Ron Kurucz
 312/680-8877

continued on next page

Design your next roof deck project w/terrings® . . .

- FLEXIBLE—conform to roof slab.
- RESILIENT—withstand shock and reduce sound transmission.
- SELF-DRAINING—grooved bottoms.
- RIBS—divide and accurately align pavers.
- MANY SIZES—w/Leveling Shims.



Write or call about terrings® & paving block available from the "things-that-last" people. . .

WAUSAU TILE
 P.O. Box 1520, Wausau, WI 54401 • 715/359-3121
 P.O. Box 967, Banning, CA 92220 • 714/849-5695

ASSOCIATE INDEX

continued

Roofing Wholesale Co., Inc.

1918 W. Grant St.
Phoenix, Ariz. 85009
602/258-3794

Roofmaster Products Co.

750 Monterey Pass Rd.
Monterey Park (Los Angeles), Calif. 90063

Contact:

Jimmy Yundt or
Greg Clements
800/421-6174 (Continental US)
800/372-6409 (In Calif.)

Roughrider Supply, Inc.

Box 1222
5 N. 23rd St.
Fargo, N.D. 58107

Contact:

Arlin K. Foss
701/280-0440

Runnion Equipment Company

7950 W. 47th St.
Lyons, Ill. 60534

Contact:

Tom Pontious
312/447-3169

Sandra Corporation

P.O. Box 216
198 Harrison St.
North Prairie, Wis. 53153

Contact:

Sandy Mangino
414/392-9126

F.O. Schoedinger, Inc.

P.O. Box 28
Columbus, Ohio 43216

Contact:

Merle E. Roberts
614/221-4166

Schultz Roofing & Supply Co.

211 N. Wayne St.
St. Joseph, Mich. 49085

Contact:

Larry Schultz
616/983-2613

Sheffield Insulations Corp.

4587 Winters Chapel Rd.
Atlanta, Ga. 30360

Contact:

Robert M. Halsell
404/447-6510

Southern Distributors Corp.

11621 Westminster Ave.
Garden Grove, Calif. 92643

Contact:

G.D. (Doug) Page
714/636-1841

Standard Roofings, Inc.

P.O. Box 977
100 Park Rd.
Tinton Falls, N.J. 07724

Contact:

Peter J. McElvoque
201/542-3300

Steel & Roof Structures Corp.

2074 York Ave.
Memphis, Tenn. 38104

Contact:

Mike Moore
901/278-3283

Stelwagon Manufacturing Co., Inc.

381 Baltimore Pike
Springfield, Penn. 19064

Contact:

Robert K. Studenmund
215/355-9660

Stetson Building Products

510 S.W. 9th St.
Des Moines, Iowa 50309

Contact:

Roger Stetson
515/243-6286

Styro Systems, Inc.

1399 Montreal Rd.
Tucker, Ga. 30084

Contact:

Jerry Teitsma
404/493-7610

SSS Roofing & Sheet Metal

P.O. Box 9692
St. Thomas, U.S. V.I. 00801

Contact:

Steve Schuler
809/775-3188

Technicote Corp.

P.O. Box 7262
525 Plum Ave.
Memphis, Tenn. 38107

Contact:

Sam Quartarone
901/527-0301

United Asphalt Co.

Davis Ave.
Cedar Brook, N.J. 08018

Contact:

Mark W. Umosella
609/561-7474

U.S. Gypsum Co.

Dept. 345-3
101 S. Wacker Dr.
Chicago, Ill 60606

Contact:

James A. Nelli
312/321-5695

Universal Supply Co., Inc.

P.O. Box 266
Hammonton, N.J. 08037

Contact:

Joseph Umosella
609/561-1213

Valley Wholesale Co.

P.O. Box 5376
Statesville, N.C. 28677

Contact:

Floyd H. Billings
704/873-4565

Vincent Brass & Aluminum Co.

P.O. Box 360
Minneapolis, Minn. 55440

Contact:

Grant E. Heino
800/328-7772

Rufus A. Walker & Co.

P.O. Box 12368
1350 W. Poplar
San Antonio, Tex. 78212

Contact:

Tim Shlinger
512/736-4431

Warrior Hinkle, Inc.

Birmingham, Ala. 35207

Contact:

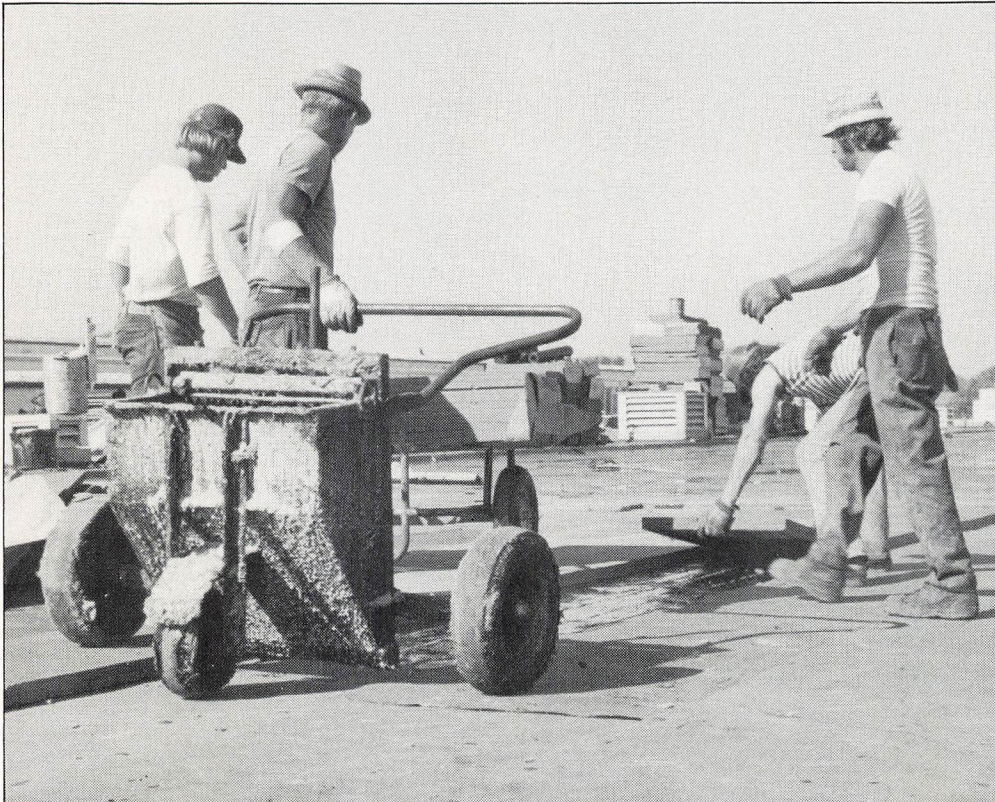
Ray Mumm
205/328-8100

Wat-Pro, Inc.

2517 Hiway 35, Bldg. 5
Manasquan, N.J. 08736

Contact:

Thomas A. Curran
815/469-9127



continued on page 60

We promise to tell the truth the whole truth and nothing but the truth. So help us BPA.

As a member of BPA (Business Publications Audit of Circulation, Inc.) this magazine subscribes to the principle that it takes more than good faith to earn the business of advertisers. It takes good figures.

BPA, an independent, not-for-profit organization, audits our circulation data to make sure that advertisers get exactly what they pay for: you.

Once a year, BPA auditors examine our circulation list to make sure it's correct and up to date.

The audit makes sure you are who we say you are. It verifies your name, your company, your industry and your job title. This information enables our advertisers to determine if they're saying the right thing to the right people in the right place.

It also gives us a precise picture of who you are and, therefore, a good idea of what you want as a reader.

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.

ASSOCIATE INDEX

continued from page 58

Weather-Shield Systems

United States Mineral
Products Co.
Furnace St.
Stanhope, N.J. 07874
201/347-1200

West Coast Roofing Supply

5010 E. Hanna Ave.
Tampa, Fla. 33610

Contact:

Randall Belflowr
813/626-5183

Western Roofing Equip. & Supply Co.

P.O. Box 14874
Portland, Ore. 97214

Contact:

Lewellyn J. Voelz
503/283-2483

Westover Products, Inc.

P.O. Drawer 5583
1240 Oakland Ave.
Greensboro, N.C. 27403

Contact:

J.M. Van Hecke, Jr.
919/274-1151

Brian R. White Company, Inc.

313 Henry Station Rd.
Ukiah, Calif. 95482

Contact:

Tom Garber
707/462-9795

Wholesale Roofing Supply, Inc.

P.O. Box 565
1527 S. Second St.
Ironton, Ohio 45638

Contact:

R. Brian Morrison
614/532-3849

Wilson Enterprises, Inc.

P.O. Box 358
Bensenville, Ill. 60106

Contact:

Everett B. Wilson, Jr.
312/766-7012

Wilson Sales Associates, Inc.

6510 Lorain Ave.
Cleveland, Ohio 44102

Contact:

R.P. Wilson
216/621-4659

Wrisco Industries, Inc.

1089 Route 1 & 9 S.
Avenel, N.J. 07001

Contact:

John Meany
201/750-1660

YK Industries, Inc.

6055 E. Washington Blvd.
Suite 215
City of Commerce, Calif.
90040

Contact:

Y. Kurahashi
213/722-8890

GENERAL DISTRIBUTORS

The following wholesalers and distributors are listed geographically. Each one offers a full line of roofing materials and supplies. Included in their product listings are:
Accessory Hardware, Asphalt, Felts, Insulation Board, Tapered Insulation Board, Liquid-Applied Materials, Machines and Equipment, Shingles, Single-Ply Membranes.

NEW ENGLAND

Massachusetts

Beacon Sales Company

MIDDLE ATLANTIC

New Jersey

Arzee Supply Corporation
of N.J.

Bradco Supply
Corporation

Passaic Metal Products
Company
Standard Roofings, Inc.

New York

Litsco Long Island Tinsmith
Supply Corporation
(LITSCO)

Pennsylvania

The Cassady-Pierce
Company, Inc.
McClure-Johnston
Company

Washington

IBEX Industries, Inc.

SOUTH

Alabama

Hinkle Metals & Supply
Co., Inc.

Arkansas

Jayfour, Inc.

Florida

Bieler, Inc.
West Coast Roofing
Supply

Georgia

John McDaniel Supply

North Carolina

Rollins Supply Company,
Inc.

South Carolina

Roofers Mart, Inc.

Tennessee

W.F. Martin Company

Texas

Railton, Inc.

Virginia

N.B. Handy Co., Inc.

MIDWEST

Minnesota

A.H. Bennett Company

Missouri

Liquid Asphalt Systems,
Inc.
SPEC and Taurus Div.

Ohio

Wholesale Roofing
Supply, Inc.

MOUNTAIN

Colorado

AAA Wholesale, Inc.
Resco, Inc.

New Mexico

L/P Building Supply

PACIFIC

California

Southern Distributors
Corporation

Oregon

Berkheimers, Inc.
Dealers Supply Company





Roofing Service Center An Information Warehouse

What is the proper procedure for base flashing a non-wall supported deck?

How can you calculate potential energy savings for paring heating and cooling costs?

What precautions and application techniques are necessary for steep roofing?

You can have the crew, the equipment and the materials, but one key ingredient is missing if you don't know how to answer these questions. That key ingredient is a library.

Roofing professionals can build a resource collection

One book that no professional should be without is The NRCA Roofing & Waterproofing Manual.

with materials available through the NRCA Roofing Service Center.

Answers to roofing questions are within reach when an office library is equipped with select items from the Center's 90 publications, filmstrips and slide programs.

The Center has the material necessary to keep pace with the roofing explosion. NRCA has already done the hard job of sorting out the specifics of the new systems and improvements in the conventional systems.

Formerly called the NRCA Bookstore, the name was changed during the NRCA headquarters relocation to Chicago in 1981. The name, NRCA Roofing Service Center, more aptly fits its expanding role in the roofing industry.

"The Center is designed to answer the needs and requirements of roofing industry professionals looking for educational and reference materials," said NRCA Director of Administration Bob McAdam.

One book that no professional should be without is an industry standard, *The NRCA Roofing & Waterproofing Manual*.

Published in 1981 and updated in 1983, the 450-page volume contains sections on built-up roofing, steep roofing, waterproofing, elasto/plastic and cold-process roofing.

Specification plates, valuable construction details, NRCA Technical Bulletins, and Factory Mutual and Underwriter's Laboratory information are additional features of the *Manual*. An appendix contains a general guide to mechanical fasteners, roof curb criteria, venting recommendations and metric conversion charts.

The Center has the materials necessary to keep pace with the roofing explosion.

In addition to the *Manual*, the basic books all pros need include *The NRCA/ARMA Manual of Roof Maintenance & Roof Repair*, *The Handbook of Accepted Roofing Knowledge* and a special library package containing *The Roof Deck*, *Roof Insulation*, *The Roofing Membrane* and *Single-Ply Membrane*.

There are four other essential publications that shouldn't be overlooked.

Suggested Guidelines for OSHA Health Inspection and Citations assists the roofing contractor in handling this type of construction "audit."

The popular, pocket-sized *Passport to Safety* provides emergency information as close as a roofing worker's pocket.

The Roofing Contractor Equipment Cost Schedule supplies the information contractors need to know when determining whether to purchase new equipment.

Available on a subscription basis is the *NRCA Roofing Materials Reference & Guide*, published three times per year.

The *Guide* is the industry's most comprehensive, single-source document listing most built-up roofing and single-ply roofing membranes currently available on the market.

New publications now available are *Basic Guide to Insurance for Roofing Contractors*, *Thermal Roof Systems Performance Study* and *Proceedings of the 7th Conference on Roofing Technology*.

A number of filmstrips and slide presentations are also available for purchase.

"The Warning Line" is a 15-minute, 35 mm slide/tape presentation which explains the warning-line system of roof safety.

"Glass Fiber Applications" is an audio-visual adaptation of Dick Baxter's popular booklet, *Application Techniques for Glass Fiber Roofing Felts*.

continued on following page

Service Center

continued

The critical aspects of bitumen heating and cooling and equipment operation and maintenance are covered in "Kettles, Tankers and Bitumen Heating." The 40-minute, four-part audio-visual program is available in slide/cassette or videotape format with a handy workbook.

For members, the walnut-veneer membership plaque, with the gold NRCA seal, adds a note of distinction to the office library as do the embossed foil labels with the NRCA logo.

Another aspect of the Service Center is the informational mailings assembled and mailed from Chicago for

Current statistics show that sales for this year might even quadruple last year's numbers.

distribution to members, affiliates, associates and other roofing professionals. The mailings keep professionals up-to-date on industry happenings and promote NRCA

activities, programs, seminars and services.

This area of the Center has experienced rapid growth. "Five years ago, NRCA membership was at 1,300 and now it's about 2,600," McAdam said. "Three to five years ago as well, outgoing mail was at 300,000 pieces. Now the figure is 750,000."

The direct-mail marketing of NRCA publications has boosted sales for the Center.

Bea McSheffrey, (manager of the Roofing Service Center), handles an average of 175 incoming orders weekly.

McSheffrey, who organized the Center during the NRCA headquarters move from Oak Park, Ill. to Chicago in 1981, has seen the growth of the operation firsthand.

"Sales have tripled since I started," she said. And current statistics show that sales for this year might even quadruple last year's numbers.

"The Center stimulates interest in roofing technology," McAdam said. The expansion of the Center corresponds with the increased educational focus in the roofing industry.

The valuable roofing resources found in the Center can now be on roofing professional's office shelves, available for quick reference.

Successful pros realize the only way to stay on top of business is to stay informed. The best way to be informed is to constantly increase roofing knowledge.

The NRCA Roofing Service Center makes this easy.

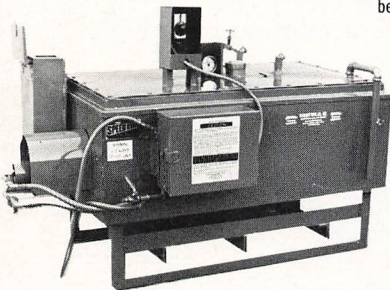


CLEASBY
manufacturing company inc.

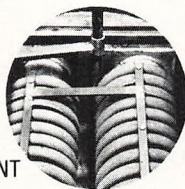
COLD PROCESS MATERIAL WARMER built like a KETTLE!

Built like a kettle, this fully automatic tube fired oil bath warmer is the fastest heating unit available. Approximately 80' of high pressure schedule 80 pipe is coiled around the 6" fire tube and exhaust flue. Tubes & coil are submerged in approximately 40 gallons of high quality heat transfer oil. Cold process material and oil are quickly heated by an automatic LP burner. The hot oil gently warms the material as it is pumped from the barrel to the roof.

Normal working temperatures of 70-80°F are easy to maintain with 8-10 GPM material delivery at the pole gun. The warmer is heavily insulated for heat retention. It is skid mounted and can be mounted on a trailer, or in the bed of a pickup.



CALL OR WRITE
FOR MORE
INFORMATION



ELEMENT

CLEASBY mfg. co. inc.
1414 Bancroft Avenue
San Francisco, CA 94124
(415)822-6565

CLEASBY mfg. of Denver inc.
7150 Newton Street
Westminster, CO 80030
(303) 892-6805/1-800-525-1399

Speed King

3 "Original" Profit Makers..

Reeves now makes 3
Rotary Spudding
Machine Models
differing in
POWER
•
WEIGHT
•
SIZE
•
PRICE



- New "Super-Tex" Heavy Duty 7 H.P. Model for hard-to-do Commercial Jobs.
- "Big-Tex" General Purpose 5 H.P. Model for both Commercial and Residential.
- "Little-Tex" 3½ H.P. Model recommended for Residential and Patch Jobs Only.

REEVES

Send for Brochure 761

ROOFING EQUIPMENT CO., INC.

(512) 695 3567

ROUTE 17, BOX 300

SAN ANTONIO, TEXAS 78228

Check #422 on Reader Service Card

Check #404 on Reader Service Card

EPDM/Firestone

Come up to the top with us.

At Firestone, we're committed to the roofing business. And we're putting our money where our membrane is by constructing a modern, highly-efficient roofing manufacturing facility with an annual production capacity of 400 million square feet. But that's not all.



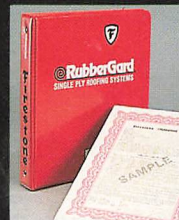
We're helping Firestone roofers get tomorrow's jobs by going after next year's buildings where they start. On the drawing board. In architect's offices. And owner's offices, too.

And we're backing Firestone roofing contractors with comprehensive training programs, hard-hitting sales promotion tools, and responsible warranties that'll help make EPDM/Firestone roofing systems the name to remember.

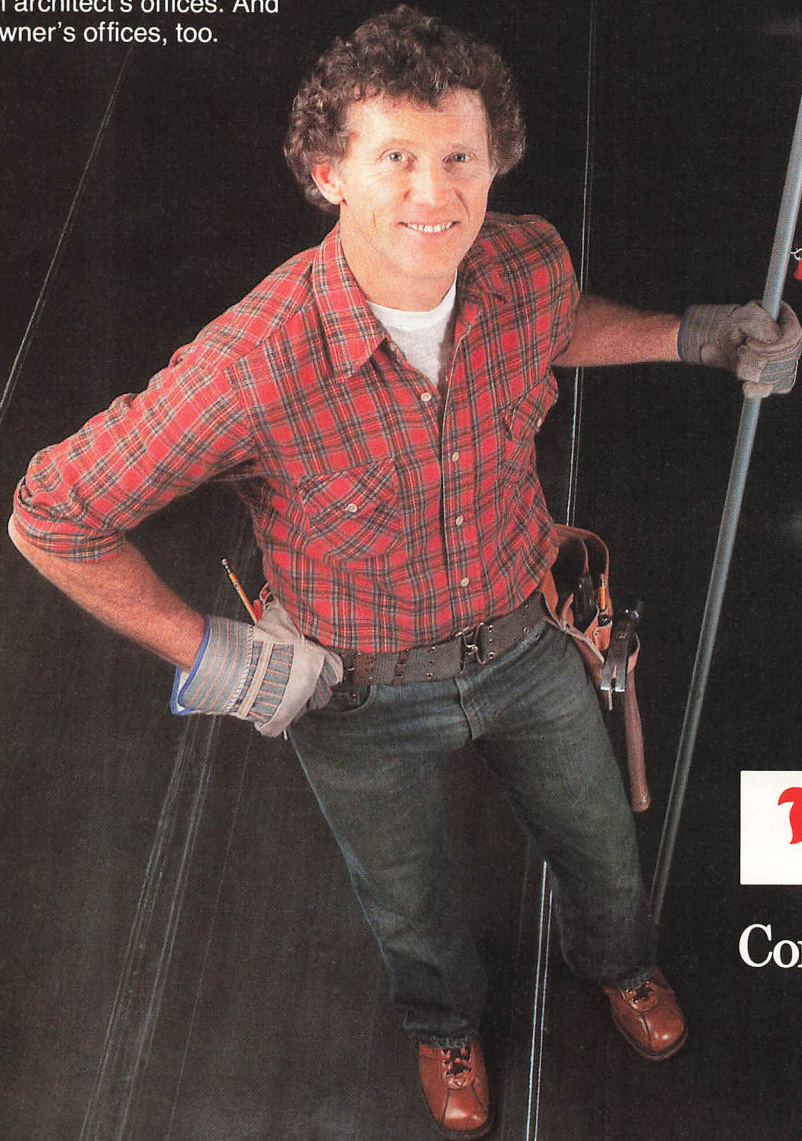
Coming with us?

As a responsible, prime-manufacturer supplier of roofing products, we

need roofing contractors who are as committed to the business as we are. If that sounds like you, call . . . Sales: (800) 428-4442, Technical: (800) 428-4511. Together, we'll both come out on top.



Firestone Industrial Products Company, Roofing Products Department, 1700 Firestone Blvd., Noblesville, IN 46060



Firestone
INDUSTRIAL PRODUCTS COMPANY



Division of The Firestone Tire & Rubber Company

Come up to the top with us.

A New Products, Ideas, & Publications

Aluminum Chips Can Be Used As Roof Surfacing

Transmet Aluminum Roofing Chips™ can be used as a lightweight surface covering on the flood coat of the roof membrane in built-up roofing applications.

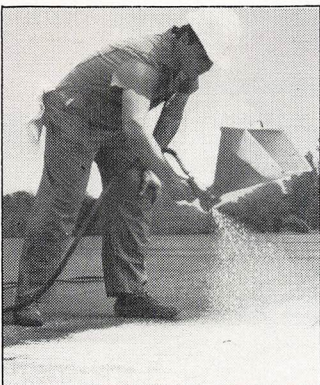
The Chips™ are small, thin rectangles of processed aluminum, measuring about 1/16 inch square. The surface of the product is textured for better adhesion to roofing membranes and preoxidized for long-term retention of high solar reflectance.

The roof covering conserves energy by reducing the flow of heat through the roof membrane. The roofing membrane is protected by the metal which acts as a shield against ultraviolet rays, retarding the photo-oxidation of the surface.

The chips™ are air sprayed dry, directly onto the surface of the flood coat before it congeals, eliminating the compatibility problems of secondary coatings.

As the roof coating sets, the chips lock into place like the scales of a fish, providing a highly reflective and durable surface, according to Transmet.

Check #81 on Reader Service Card



New Ladder Catalog Free From Werner Co.

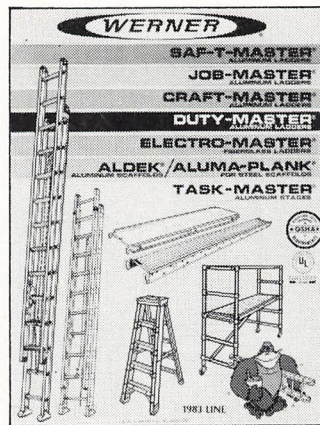
The 1983 Werner catalog of ladders, scaffolds and accessories is now available.

The 12-page, color booklet lists and illustrates household, industrial, commercial and extra heavy-duty industrial aluminum ladders.

New items include an aluminum stepladder series, platform ladders, double step, combination ladders and an expanded line of non-conductive, industrial duty-rated fiber glass ladders.

The scaffold section presents a variety of industrial scaffolds and an extensive group of aluminum stages, planks, handrails and toe-board systems.

Check #82 on Reader Service Card



Manville Offering Fire Data Ratings

A brochure titled "U.L. Fire Classification Ratings of Roofing Materials" is available from Johns-Manville.

The two-page summary includes data on testing and various criteria for roofing materials obtaining a Class C or A rating.

Burning brand test information explains the method of testing and criteria for determining the fire resistance rating.

Brochure #RF-374 is available through the Manville Service Center, 1601 23rd St., Denver, Colo. 80216.

Check #83 on Reader Service Card

A Summary		UL Fire Classification Ratings of Roofing Materials	
<p>UL has designed this ladder book to determine the safety of ladders, scaffolds and accessories in use. These ratings are intended as a guide only. They do not constitute a warranty or a recommendation of any product.</p>			
<p>Class A UL listed against 1000 BTU/hr. flame impingement.</p>		<p>Class B UL listed against 1000 BTU/hr. flame impingement.</p>	
<p>Class C UL listed against 1000 BTU/hr. flame impingement.</p>		<p>Class D UL listed against 1000 BTU/hr. flame impingement.</p>	
<p>Conclusion: Roofing materials are tested in accordance with UL 1818. Class C is minimum acceptable. Class A is superior protection.</p>			
<p>Johns-Manville 1601 23rd St. Denver, CO 80216</p>			

Ten Year Guarantee Offered By IPW

IPW Interplastic, a Div. of Semperit of America, Inc., offers a 10-year guarantee against leaks with the Interroof™ system when used as specified.

Developed by IPW in Austria, the system is being used in Central Europe and the Far East.

The Interroof™ system includes the membrane, the PVC-coated metal, the Interroof™ solvent, Interroof™ tools, the Interroof™ seam sealant and screws to fasten the metal strips into the substrate.

The Interroof™ system can be used for unballasted and ballasted applications.

Check #84 on Reader Service Card

Pneumatic Gun Uses Standard Roofing Nails

The Bostitch Div. of Textron Inc. announces the first pneumatic roofing nailer for standard roofing nails.

The Model N12 Nailer drives full-size, full-head galvanized roofing nails in coils of 120.

The tool allows the operator to lay a full bundle of shingles in one loading, according to the company.

The N12 Nailer operates over a wide range of air pressure (65 to 115 PSI) and features an adjustable gauge for accurate shingle placement.

The air tool accommodates nails from one and one-quarter inches, for all new roofing applications.

Longer length nails, up to one and three-quarters inches, are available for reroofing jobs.

Check #85 on Reader Service Card



Fluid Rubber Roof Based From Polymer Materials

A fluid rubber roof system is being introduced by Elastic Materials, Inc.

Elastic Materials Fluid Rubber Roof System (EMR System) is intended for industrial, commercial and institutional applications.

The system was developed primarily to protect roof surfaces from thermal stress effects due to changing weather conditions.

The fluid rubber system consists of high technology polymer-based materials especially formulated for roofing purposes.

The polymer-based system stretches like rubber to withstand the stress of roof movement and has been successfully tested in temperatures ranging from -20°F to 180°F.

The EMR System can be brushed, rolled or sprayed on to any roof surface.

Check #86 on Reader Service Card

ARMA Has Produced New Built Up Spec Guidelines

The Asphalt Roofing Manufacturers Association (ARMA) recently published, "A Guide to Preparing Built-Up Roofing Specifications."

The booklet reviews the various elements of BUR systems and provides a comprehensive guide to products offered by ARMA manufacturers.

The publication includes sections on the roof assembly, design, materials, roof maintenance, reroofing, standards and codes, reference sources and a glossary of BUR terms.

Check #87 on Reader Service Card

Asphalt Roofing
Manufacturers Association

A GUIDE
TO PREPARING
BUILT-UP ROOFING
SPECIFICATIONS

EBUR
Built-Up Roofing, A System Above The Rest.

Method Fast Seals One-Ply Systems

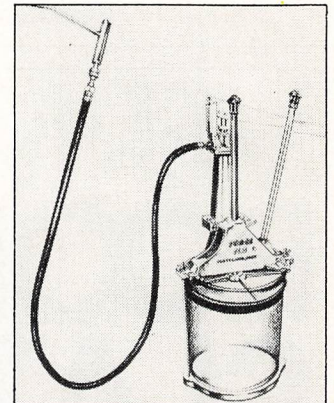
Force-Flo, Inc., is offering a new system for fast sealing of seams on single-ply roofing installations.

The Force-Flo manually-operated pump unit fits directly on a five gallon pail.

Sealing material is directly applied through the unit's six foot hose and nozzle for fast sealing on single-ply roofing sheets.

For more information, contact Force-Flo, Inc., P.O. Box 24228, Cleveland, Ohio 44124.

Check #88 on Reader Service Card



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 \$10.00 to total order. Send ad copy and payment to: Advertising Manager, *Roofing Spec*, 8600 Bryn Mawr Ave., Chicago, Ill. 60631

DISTRIBUTOR WANTED DISTRIBUTORS WANTED FOR EXCLUSIVE TERRITORIES

The best time to join a company is when they are young and fast growing, like us. **SRD** is one of the most competitive priced supply companies in the nation. We presently sell fluid-roofing systems (Acrylic, Neoprene, Hypalon), polyester fabrics, flashing cement, etc. If you are active in the roofing business and would like to acquire an exclusive territory with discounts on all your personal products, plus commission on all orders within your territory, then contact us now. Synthetic Rubber Distributors, P.O. Box 35129, Houston, Tex. 77235

PLANETOR BITS

World's finest precision wood boring system for insulators. For 24-hour ordering and 32 page catalog, call toll free 1-800/243-4728.

Hardware House
PO Box 579
Suffield, Conn. 06078
203/668-2289

ACQUISITION WANTED

Diversified roofing concern in Northeast New York seeks to acquire medium-sized roofing firm. Primary interest in single-ply operations with strong management to remain. Replies will be held in strictest confidence. Reply to Box 5A.

ADVERTISE FOR NEXT TO NOTHING

A classified ad in *Roofing Spec* is the cheapest way to make yourself heard. Sell off unused or unwanted equipment. Solicit new employees, look for a new position or just sound off!! Only 50¢ a word, \$40 an inch, and the roofing world is yours.

SUNBELT COMPANIES SOUGHT

We have cash to buy roofing and sheet metal companies in the Sunbelt. They must have minimum sales of \$1,000,000 and some profit. Will tailor buyout to suit seller. Send replies to Box 6A.

MANAGER SOUGHT

Single-ply operations of large, well-established firm in Albany, New York area. Estimating and managing industrial, commercial and institutional projects through completion. Send resume and salary requirements to Box 5B.

TECH AND SALES PERSONNEL WANTED

J.P. Stevens Hi-Tuff Single Ply Distributor looking for technical and sales personnel for the Alabama and Virginia area. Contact Pre-Engineered Products, Inc. 1-800/845-1486.

VERMONT ROOFING SLATE

All Colors
and
Thicknesses

Semi-Weathering Gray and Green	Mottled Green and Purple	Bangor Blue-Black	Unfading Green
Royal Purple	Vermont Black	Mottled Gray	Rustic
		Red	Flagstone Tile

Full Architectural Service

Also –
*Slate Cutters, Hammers,
Rippers and Slate Hooks.*

"Since
1916"

EVERGREEN SLATE CO. Inc.

Granville, New York, 12832

Quarries: Wells, Vt. • Shipping Station: Granville, N.Y.
Office: 68 Potter Ave. • Telephone: 518-642-2530



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

STAPLES and HOG RINGS

Stainless steel, Monel and galvanized for Bostitch, Duo-Fast, Arrow, Tornado, etc. For information and prices contact: **Branch Staple Supply**, PO Box 422, Hicksville, N.Y. 11802, 516/681-9521.

WORKER TRAINING AID AVAILABLE

The new NRCA audiovisual program — Kettles, Tankers, and Bitumen Heating — is now available. It's the perfect way to train roofing mechanics in the correct usage of kettles and tankers, and the best way to heat asphalt for proper installation. Contact NRCA, Education Dept., 8600 Bryn Mawr Ave., Chicago, Ill. 60631.

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.

STORAGE UNIT FOR SALE

Thirty-seven (37) ton Mreco mobile storage unit. New tires and brakes. Just cleaned, reasonably priced. Call 512/346-3266 or 512/255-1118, or write FIFTH WALL ROOFING SYSTEMS, 11126 Jollyville Rd., Austin, Tex. 78759.

FOR SALE

One of the oldest housing companies in Western Montana. Building Custom homes locally and Modular Homes with market area of Western Montana. Also Retail Building Supply Business. Purchase Inventory, Tools and Equipment at approximately \$90,000 and rent property. Selling because of health. Box 2416, Polson, Mont. 59860. 406/883-6262.

ROOF CORE

ROOF CORE SAMPLER "C.R.R.E.L." type 1 7/8" Core. Hardened Steel Jaws, compact weight less than 6 lbs. For details contact Autrey Steel & Machine, P.O. Box 40304, Tucson, Arizona 85717. Phone 602/623-3444.

DEALERS WANTED

CoolRoof, a computerized evaporative cooling system for roofs. Cuts air conditioning costs to 50%; extends roof life 300% plus. Guaranteed 1 year payback. Write: Free Energy, Box 601, Fairfield, Iowa 52556

WANTED

Metal forming machine for Standing Seam panels. Capable of forming 24 ga. galv. Will pay cash or we have several lift tractors with 28' to 32' reach. Can trade for same. 40' Clearfield roof conveyor, bucket and chain type \$2,500 or make offer. 312/739-2021.

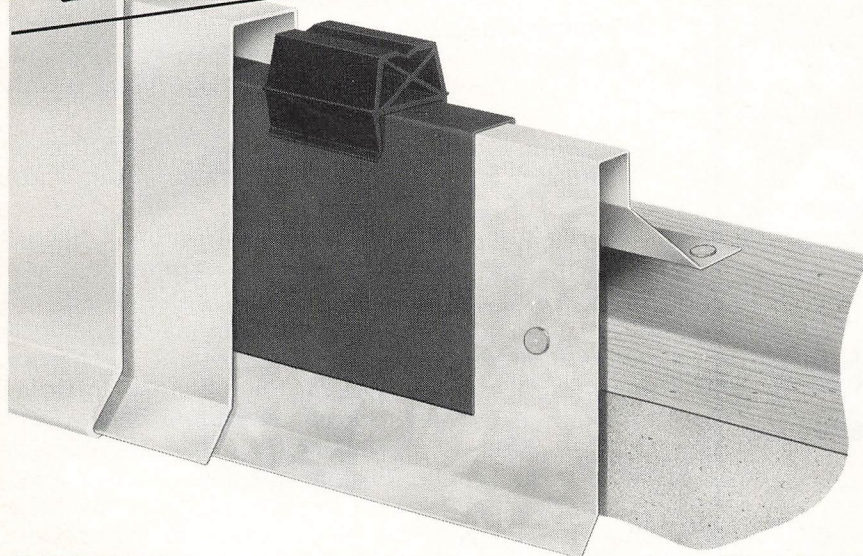
EXCESS EQUIPMENT SALE

1 1976 Taurus 15 Ton Day Tanker. Mounted on 1970 Mack Diesel Tractor, \$9,000. 2 1975 Taurus 50 Ton Bulk Storage Tanks, \$16,000. 1 1976 Blackwelder 52' Roofers Conveyor, \$7,000. *Regan Roofing Company, Inc.*, P.O. Box 1464, Mount Airy, N.C. 27030. 919/789-9038.

ROOFING ESTIMATOR/SALESMAN

Seeking experienced built up roofing and sheet metal estimator for south Florida's east coast. This is a growth position with standard benefits, automobile, profit sharing and future stock purchases. Established firm specializing in larger commercial, industrial and institutional buildings. Send resume to P.O. Box 7051 Boca Raton, Fla. 33431.

The INSIDE STORY... good news for Single Ply Roofs Featuring Snap-Lok™ Fascia



The story begins with MM System's new SLF Snap-Lok Fascia Systems, which are designed for easier and more economical installation with single ply roofing. This extruded aluminum fascia with galvanized steel cant dam has a unique clip with spring-back positive clamping action that assures a functional and attractive installation. This SLF innovation has a concealed splice plate, and the fascia is available in 4 standard face heights in mill and all architectural finishes. Since the SLF series plays a key role in the new IN STOCK program, we have what you need when you need it. That's MM Systems service you can depend on.

Call us for the rest of the story, or the name of your nearest representative.

**CALL TOLL FREE
1-800-241-3460**

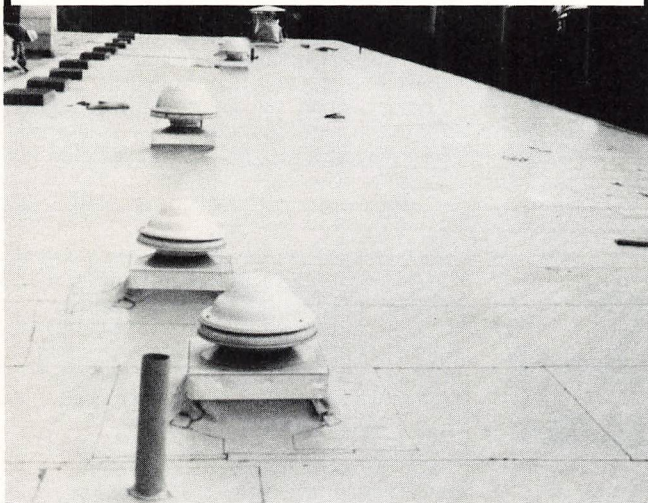


MM Systems Corporation
4520 Elmdale Drive
Tucker, Georgia 30084
Phone (404) 938-7570

Check #415 on Reader Service Card

NEW SINGLE-PLY NERVAPLY® MEMBRANE ROOFING

- goes on faster with perimeter fastening
- resists abrasion, puncture, tears; spreads stresses
- ideal for new and retrofit flat roof applications (1" in 12")
- guaranteed up to 10 years



U.S.-made NERVAPLY reduces installation costs by slashing installation time. An alloy of PVC and other high polymer resins, NERVAPLY is 48 mils thick. It is impervious to water penetration; can't swell or rot; and is stabilized against UV ray deterioration. NERVAPLY remains flexible at low temperatures and retains its dimensional stability.

Available in standard sheets 54" wide by 80 feet long, NERVAPLY may be assembled on site or at the factory to the roof's dimensions.

Check out all the advantages of NERVAPLY in Bulletin 7.1/Ru. WRITE OR PHONE FOR YOUR COPY TODAY.



**RUBBER & PLASTICS
COMPOUND CO., INC.**

36-15 23rd St.
Long Island City, N.Y. 11106
(212) 392-6780

Tech Talk

continued from page 70

- Fiberglass ASTM C726, Standard Specification for Mineral Fiber Roof Insulation Board and Federal Specification HH-I-526C, Insulation Board, Thermal (Mineral Fiber).
- Perlite ASTM C728, Standard Specification for Perlite Thermal Insulation Board.
- Polystyrene, Cellular, Expanded Federal Specification HH-I-524C, Insulation Board, Thermal (Polystyrene), Types I, II and III and ASTM Standard Specification C578, Preformed, Block Type Cellular Polystyrene Thermal Insulation.
- Polystyrene, Extruded Federal Specification HH-I-524C, Insulation Board, Thermal (Polystyrene), Types IV and V.
- Polyurethane and Polyisocyanurate Federal Specification HH-I-1972, Insulation Board, Thermal, Faced, Polyurethane or Polyisocyanurate (supersedes Federal Specification HH-I-530A), Insulation Board, Thermal (Urethane).
- Composite Expanded Polystyrene & Woodfiber Proposed ASTM Standard Specification for Rigid Cellular Polystyrene-Cellulosic Fiber Composite Roof Insulation (Committee C16).
- Composite Expanded Polystyrene & Perlite Proposed ASTM Standard Specification for Perlite Board, Rigid Cellular Polystyrene Composite Roof Insulation Board (Committee C16).
- Polyurethane, Membrane-Faced Proposed Standard Specification for Membrane-Faced Rigid Cellular Polyurethane Roof Insulation (Committee C16).
- Polyurethane, Foil-Faced Proposed Specification for Foil-Faced Rigid Cellular Polyurethane Thermal Insulation Board (Committee C16).
- Phenolic Insulation Proposed Standard Specification Rigid Phenolic Thermal Insulation (Committee C16).

Copies of the ASTM Specifications may be obtained by writing to American Society For Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.

Copies of the Federal Specifications may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402. Copies for bidding purposes are available without charge from General Services Administrative Business Service Centers in Atlanta, Boston, Chicago, Denver, Fort Worth, Houston, Kansas City, Los Angeles, New York, Philadelphia, San Francisco, Seattle and Washington, D.C.



Kodak won't be developing roof problems.

They have a Carlisle single-ply.

Kodak is one of the most progressive companies in the world. Their numerous innovations in camera equipment, film, paper and processing helped bring the magic of photography to the people.

As keen innovators, the people at Kodak are quick to recognize worthy advancements in other areas as well. That's why they were among the first major corporations to use Carlisle single-ply roofing for many of their buildings around the country—including this 5000 square-foot roof on Kodak's General Services Building in Rochester, New York. Here, as in all cases, Kodak had plenty of reasons for putting Carlisle in the picture.

Carlisle helped pioneer single-ply; our first roof installed over twenty years ago is still

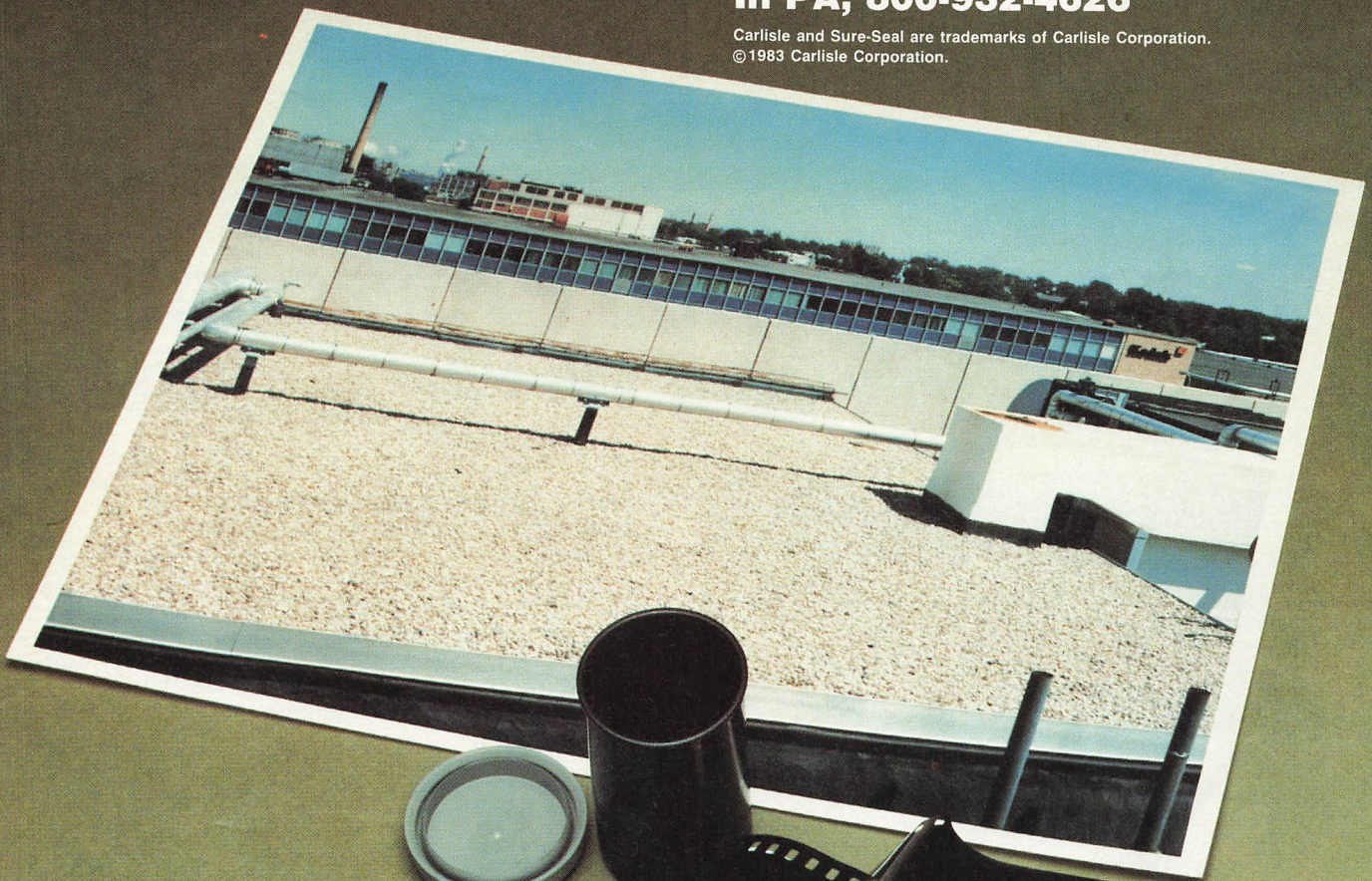
going strong. And Carlisle provides the complete system: EPDM membrane produced in extra-wide widths at our two American plants. EPS insulation. Flashing. Edging. Pre-fab pipe seals. And application materials. We even train our approved single-ply applicators at our school in Carlisle.

What's more, a Carlisle single-ply roof can be easily installed on new decks or right over top of failing built-up roofs. Even in marginal weather. It's virtually maintenance-free. And it can be warranted for up to 15 years.

Call or write today for more information about the single-ply roof that American business is banking on. The Carlisle Sure-Seal™ roof. Carlisle SynTec Systems, Division of Carlisle Corporation, P.O. Box 7000, Carlisle, PA 17013.

**Call toll-free 800-233-0551
In PA, 800-932-4626**

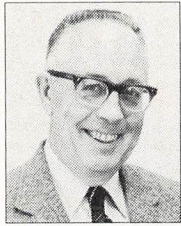
Carlisle and Sure-Seal are trademarks of Carlisle Corporation.
©1983 Carlisle Corporation.



The roof that's requested by name.

Carlisle SynTec Systems

CARLISLE



Tech Talk

By Bob LaCrosse, CAE
Director of Technical Services

Specs Revealed For Board Insulations

The NRCA Technical Services Department is asked many questions on the various kinds of board types of insulation presently being used in all types of roof assemblies, including built-up and single-ply membranes.

With the advent of energy saving and efficient thermal values being specified by the many regulatory bodies, gone are the days of the old standbys of homogeneous fiberboard and fiber glass insulation predominantly used throughout the 1950s and 1960s in roofing assemblies.

This column will not go into the application, composition or thermal values of the many board insulations used today in roofing assemblies as they are detailed in the NRCA Roofing & Waterproofing Manual, the NRCA Energy Manual, NRCA's Roof Insulation and several other handbooks and brochures.

Many of the questions asked of us are what insulation is being used and what standard or specification does the product have to be in compliance with to meet the various physical requirements necessary for the product or products to be an acceptable component of a roofing assembly.

Therefore, the following is a list of all the board types of insulation products used in roofing assemblies with current standards applying to each. In addition, the list includes proposed standards in preparation by the American Society For Testing and Materials (ASTM).

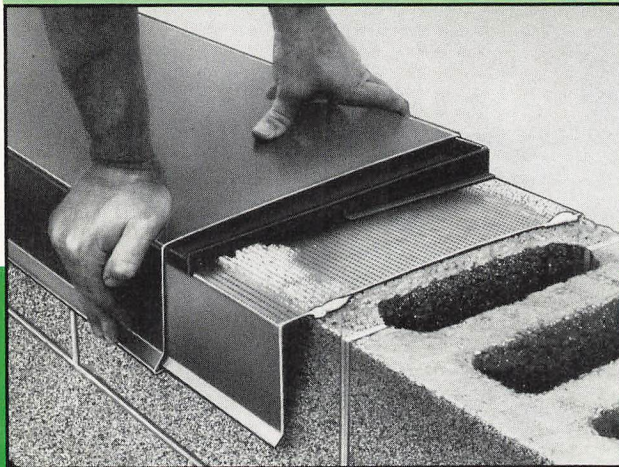
Products	Current Standards
<input type="checkbox"/> Cellular Glass	ASTM C552, Standard Specification for Cellular Glass Block and Pipe Thermal Insulation.
<input type="checkbox"/> Fiberboard	ASTM C208, Standard Specification for Insulating Board (Cellulosic Fiber) Structural and Decorative Roof Insulating Board and Federal Specification LLL-I-535B, Insulation Board, Thermal (Cellulosic Fiber).

continued, page 68

Guaranteed Wall Protection

...with the Hickman Coping System that stops leaks!

Hickman PERMASNAP Coping
...it's a "snap" to install.



After the galvanized cleat and special chair are adhered to the masonry, the Hickman Coping Cover simply "snaps" in place. There are no nails, no wood nailer, no screws no imbedded anchor bolts. The PERMASNAP System is guaranteed water proof...and withstands 60 pounds per foot uplift. For fast, effective protection plus good looks, specify PERMASNAP Coping by Hickman. See us in Sweet's (7.3 Hi).

Call our FREE "Roof-Line"... 1-800-438-3897

Available in Canada

HICKMAN
construction products

W. P. Hickman Company □ 175 Sweeten Creek Road
P.O. Box 15005 □ Asheville, N.C. 28813 □ (704) 274-4000

**The name on this carton says
you got what you wanted.**

FOR SURE

We're now putting our name on our cartons because we're proud of the name and the product. That's for sure! And as an added service to our customers, each new carton will be imprinted with the *local* Equiviscous Temperature (EVT) and flash point.

When you specify Trumbull, you are assured of getting Roofing Asphalt formulated to meet the rigid ASTM D312-78 specifications. And you also get *consistent* quality, service and delivery from twenty-eight plants and shipping points across America.

For over 50 years, Trumbull has delivered the highest quality Roofing Asphalts to America's Roofing Industry. And your satisfaction with Trumbull performance has made us number one.

For information and the plant nearest you, call or write Trumbull General Offices, 59th & Archer Road, Summit, Illinois 60501 (312) 458-2424.

**Trumbull
Asphalt**

Asphalt is *our* business.
Our only business.



Check #431 on Reader Service Card

For total commercial insulation, start shopping with Rmax.[®]

And stop shopping.

Now Rmax offers something no one else can when it comes to specifying commercial board insulation.

Convenience.

Because no other company can supply as complete or as versatile a line of tough, polyisocyanurate insulation products as Rmax. Everything from top to bottom. Ceilings to walls. And all with complete code approvals and fire rating. Take a look for yourself:

Thermasheath: Perfect between perimeter walls and exterior veneer. Both sides are bonded three-ply layers of foil, paper and foil for superior strength.

Thermawall: Foil covered foam is permanently bonded to gypsum board, combining insulation and finish drywall in one product. Perfect for interior walls and ceilings.

Thermarroof Composite: Similar to Thermarroof Standard, with an additional perlite base layer to meet fire resistive requirements.

Ply-I: The newest achievement in single ply roof insulation. Two sides of tough, fiberglass-reinforced aluminum make this the thinnest, lightest way to get a Class I rating.

Thermarroof Plus Composite: A single ply insulation board featuring a perlite base layer bonded to polyisocyanurate and a top skin of aluminum.



Thermarroof Standard: For BUR applications, this product features top and bottom layers of bonded fiberglass roofing felts.

Max-I: Our newest product for Class I BUR applications. Its tough, asphalt-coated fiberglass mat skins make it the lightest, most efficient product of its kind on the market.

Thermarroof Plus: Also for single ply roofing, this incorporates a fiberglass-reinforced top foil and a durable aluminum lower foil.

Available Base: Designed specifically for use where insulation and shingle underlayment are required, this board features a bottom skin of roofing felt bonded to foam and topped with a wooden available base material.

Rmax: The name to look for in dependable, highly efficient insulation products. Both for today's needs, and certainly tomorrow's. For more information, call or write the Rmax plant nearest you. We'll be happy to talk with you. And help you stop shopping.

R MAX[®] Rmax, Inc.
13524 Welch Road, Dallas,
Texas 75234 (214) 387-4500
Toll Free (800) 527-0890

Additional Plant Locations: 210 Lyon Drive, Fernley, Nevada 89408 (702) 575-4849/Route 10 Box 84, Greer, South Carolina 29651 (803) 297-1382
Toll Free (800) 845-4455

TR-0102

Check #423 on Reader Service Card