

# DIEMAKING SUPPLIES

*Since entering the steel rule die industry, Freeman Manufacturing & Supply Company has been constantly expanding its offering to become your one-stop shop for diemaking needs – supplying flat and rotary boards, rule, counterplate, mallets, bits, rubber, and more!*



# DIEBOARDS



## Ultraflat Maple™ Dieboard



- ▶ Thicknesses: from ¼" to 1"
- ▶ Widths: from 27" to 48"
- ▶ Lengths: from 39" to 72"
- ▶ Available with No Coating or UV Coating

The industry's flattest Maple Dieboard is guaranteed flat to IADD specifications and certified stamped flat. This board was developed in response to diemakers' and converters' requests for a flatter maple dieboard.



## Freeman TruForm Dieboard



- ▶ Thicknesses: ¾" to ¾"
- ▶ Widths: 36" or 48"
- ▶ Lengths: 48" or 72"

Freeman's new TruForm Composite Diebase is constructed of polyester resin and cellulose fibre. It was developed to offer diemakers and converters a more laser-friendly alternative to the commonly used gray composite board. TruForm laser-cuts with great consistency, has excellent bridge strength, and a much better grab on the steel rule. Ideal for multiple re-knives, thermal dies, steel counter dies, and all your toughest diecutting applications.

## Freeman Lightweight Composite Diebase



### Epoxy Laminate Panel

- ▶ Thicknesses: from 0.04" to 0.25"
- ▶ Widths: from 30" to 49"
- ▶ Lengths: 60" or 72"

### RenShape 5045

- ▶ Thicknesses: ½" and ¾"
- ▶ Width: 48" Length: 96"

This new lightweight composite diebase is a 3-ply sandwich construction that produces a completely stable steel rule die. Both components are laser-compatible for a fast, easy assembly. The finished die is not only completely stable, but very lightweight - a highly desirable trait among Bobst press operators and safety-minded managers. RenShape 5045 and the Epoxy Laminate Panel are sold separately.

## MDF Dieboard



- ▶ Thicknesses: 8 mm, 5/8", or 3/16"
- ▶ Widths: from 30" to 49"
- ▶ Lengths: from 48" to 97"
- ▶ Available in Maple

Our most economical dieboard for short-run throw away tooling, this MDF material laser-cuts well and lays flat.

## Premium Birch Dieboard



- ▶ Thicknesses: from ¼" to 1"
- ▶ Widths: from 11¾" to 72"
- ▶ Lengths: from 42" to 96"
- ▶ Available in Regular & Long Grain

This Birch is imported from the finest mills to offer a true dieboard grade of laser-quality birch. From cutting dies to stripping and blanking tools, this board is ready for a variety of applications at a great value.

## UV Coated Birch Dieboard



- ▶ Thicknesses: from 5/16" to 1"
- ▶ Widths: from 30" to 60"
- ▶ Lengths: from 48" to 96"
- ▶ Available in Regular & Long Grain

Freeman's lab-tested UV Stabilized Birch provides a very flat and stable cutting die. The completely sealed smooth hard surface is great for strippers and blankers as well.

## DIEBOARDS CONTINUED

### Marco 100% Maple Rotary Dieboard



- ▶ Thicknesses: 1/2" or 5/8"
- ▶ Widths: from 6 1/2" to 26 1/4"
- ▶ Lengths: from 41" to 120"

Marco Premium Rotary is the only rotary in North America constructed of 100% Maple veneers throughout! This proven construction provides you with a smooth Hard Maple face, increased bridge strength, and the toughest dieboard for your most demanding diecutting applications. Each board is hand-inspected for ID tolerance and guaranteed to IADD specifications.

### Freeman Beech/Maple Rotary Dieboard



- ▶ Thicknesses: 1/2" or 5/8"
- ▶ Widths: from 6 1/2" to 26 1/4"
- ▶ Lengths: from 41" to 120"

Freeman's rotary boards are constructed with a beech face and maple inner core offering superior strength and stability. These boards are built to handle even the most demanding rotary applications. Long wrap also available!

### Freeman XP Rotary Dieboard



- ▶ Thickness: 1/2"
- ▶ Diameter: 19 3/16"
- ▶ Lengths: from 60" to 118"

Freeman XP Rotary Dieboard is constructed utilizing a High Density Overlay face and back. The HDO faces provide a surface layer that improves dimensional stability and is 35-50% more dense than hardwood veneer. Constructed with Beech and Maple inner plies for strength. Priced similar to wood veneer rotary Dieboards for better performance at a great value.

### Pentabox Rotary Dieboard



- ▶ Thicknesses: 1/2" or 5/8"
- ▶ Widths: from 6 1/2" to 26 1/4"
- ▶ Lengths: from 41" to 120"

"Freeman's new Prime™ rotary dieboard is constructed of 11 layers of 100% Beech veneer, resulting in a very strong and very stable rotary dieboard. Available with or without a protective Gray moisture barrier. Imported.



## STILL NOT SURE?

### Try a Dieboard Sample Kit!

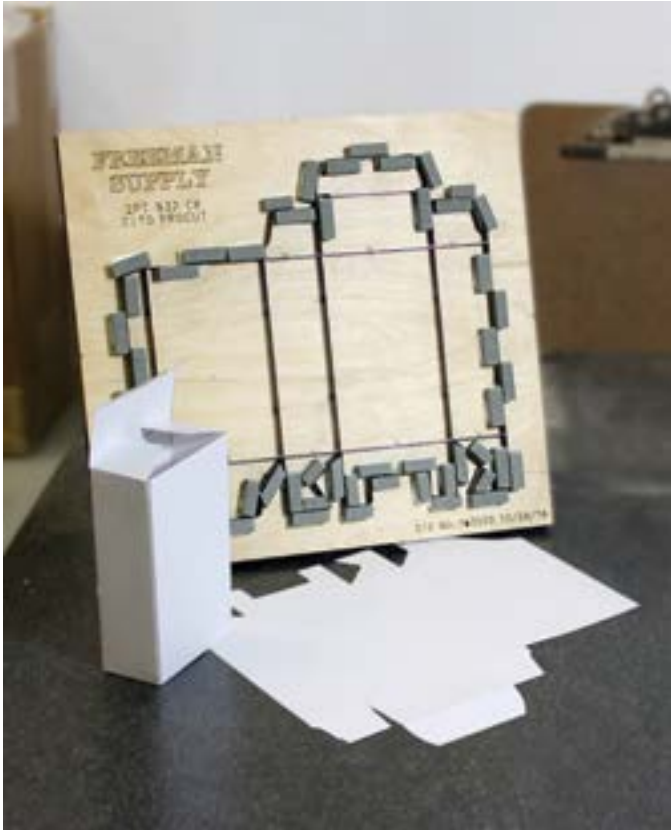
This sample pack offers you the opportunity to evaluate a variety of dieboard and diebase materials to determine the best choice for your application.

#### This kit contains 3" x 5" samples of:

- ▶ Premium Birch Dieboard
- ▶ UV Coated Birch Dieboard
- ▶ Ultraflat Maple Dieboard
- ▶ Freeman Rotary Dieboard
- ...and more!



# HS CITO STEEL RULE



HS CITO Steel Rule and Freeman Ejection Rubber are used here on Freeman's UltraFlat Maple Dieboard to create a die for a reverse tuck box.

## HS CITO Steel Rule

HS CITO steel rule is manufactured using high-quality Japanese steel combined with an EBNER Austrian heat treat. The result is a premium cutting rule with a hardened edge for long life



on-press and outstanding bendability due to the deep decarburization of the body. There is no cracking during the bending process. HS CITO Creasing Rule is differentiated by a variety of characteristics, including the smooth surface of the crease top, no sharp edges, and excellent thickness and height tolerances.

### Cutting Rules

- ▶ 2 pt. or 3 pt.
- ▶ 0.918" - 0.937"
- ▶ Shaved or Ground Edge
- ▶ Coils ACW or CCW
- ▶ Boxed Strips
- ▶ 42°, 52°, or Long Center Bevel

### Creasing Rules

- ▶ 2 pt. or 3 pt.
- ▶ 0.003" thick
- ▶ Widths of 36" to 60"
- ▶ Coils ACW or CCW

### Sword Cut

- ▶ 2 pt.
- ▶ 0.937" thick
- ▶ Ground and Polished Edge
- ▶ Coils ACW

# MALLETS

## Rawhide Mallets

Our Rawhide Mallets are constructed from the finest materials and manufactured in the USA. Freeman's innovative #4 Long Rawhide Safety Mallet offers a 4<sup>3</sup>/<sub>4</sub>" head – compared to the traditional 3<sup>1</sup>/<sub>2</sub>" – providing an additional level of safety and longer life. Our #2 and larger mallets are available with energy-absorbing foam grips for improved ergonomics and comfort.

SKU	Size	Diameter	Length
081028*	#0	1"	2"
081029*	#1	1 <sup>1</sup> / <sub>4</sub> "	2 <sup>1</sup> / <sub>2</sub> "
080997	#2	1 <sup>1</sup> / <sub>2</sub> "	3"
080998	#3	1 <sup>1</sup> / <sub>4</sub> "	3 <sup>1</sup> / <sub>2</sub> "
080999	#4	2"	3 <sup>1</sup> / <sub>2</sub> "
081002	#4 Long Head	2"	4 <sup>3</sup> / <sub>4</sub> "
081003	#4 Long Head & Handle	2"	4 <sup>3</sup> / <sub>4</sub> "
081000	#5	2 <sup>3</sup> / <sub>4</sub> "	4 <sup>1</sup> / <sub>4</sub> "
081001	#6	2 <sup>3</sup> / <sub>4</sub> "	4 <sup>3</sup> / <sub>4</sub> "

\*Grips not included



Regular and Safety Mallets

## Elastomer Mallets

These heavy-duty mallets are constructed with an advanced elastomer resin for durability and toughness. This innovative #4 Long Elastomer Safety Mallet offers a 5" head – compared to the traditional 3<sup>1</sup>/<sub>2</sub>" – providing an additional level of safety. All of our elastomer mallets are supplied with durable foam grips for improved ergonomics, comfort and grip.

SKU	Size	Diameter	Length
081010	#4	2"	3 <sup>1</sup> / <sub>2</sub> "
081012	#4L Long	2"	5"
081014	#5	2 <sup>3</sup> / <sub>4</sub> "	4 <sup>1</sup> / <sub>4</sub> "
081016	#6	2 <sup>3</sup> / <sub>4</sub> "	4 <sup>3</sup> / <sub>4</sub> "

## Vaughan Rawhide Mallets

Vaughan Rawhide Mallets deliver firm blows from a larger striking face and have a proportionately longer handle. Rawhide heads made in

SKU	Size	Diameter	Length
081010	#4	2"	4 <sup>3</sup> / <sub>4</sub> "
081012	#5	2 <sup>1</sup> / <sub>2</sub> "	4 <sup>3</sup> / <sub>4</sub> "
081014	#4 w/Grip	2"	4 <sup>3</sup> / <sub>4</sub> "
081016	#5 w/Grip	2 <sup>1</sup> / <sub>2</sub> "	4 <sup>3</sup> / <sub>4</sub> "

England are compressed under hydraulic pressure, and then seasoned for durability. The mallets are assembled in the USA with top quality hardwood handles. Available with optional foam grips for added comfort and grip.

# PLATES & BITS

## PLATES & SHEET MATERIALS



### Black Maxx Counterplate

- ▶ 1.3 mm – 4 mm
- ▶ 42" x 42" sheet size
- ▶ Tightest thickness tolerances
- ▶ Easy-adhere back side
- ▶ Made in Germany

Black Maxx Counterplate has the tightest thickness tolerance in the industry of  $\pm 0.03$  mm, allowing for board-to-board and channel depth consistency. One side of the board has a "structured surface" that allows adhesive to easily bond without affecting the thickness tolerance. When

milled, this mixture of phenolic resin and phenolic paper produces a clean channel for precise creasing. Produced in Germany with the highest quality materials, this counterplate offers the reliability every diemaker needs.

## BITS & HARDWARE

### Kerf Bits for Steel Rule Dies

- ▶ From 2 pt. to 6 pt.
- ▶ 1/8" Perimeter Cutters
- ▶ 0.240" Clean Out Bits
- ▶ 5 flute geometry cuts clean & stays cool for long life

These high-performance bits last longer and have the lowest deflection of any other bit on the market. The improved 5-flute geometry keeps the bit cool so the edges stay sharp. An overheated bit

causes the edges to round-over and tear the wood fiber, causing poor kerf quality, extra clean-out, and premature bit breakage.

### MatchPlate Bits

Our MatchPlate bits are specifically designed for our MatchPlate counterplates. These bits will drop production time significantly with single pass on most sizes.

### Spiral Contour Cutters

- ▶ 2-flute End-Mill PreciseBIT
- ▶ 1/8" diameter

The flute geometry on these cutters produce clean, accurate sidewalls at very high chip loads (150 - 175 in./min @ 40 KRPM).

The aggressive flute geometry is also very effective at cutting ejection rubber for increased machine utilization.

### Chamfering / Cutout Tools

- ▶ 2-flute Spiral "V" Point
- ▶ 1/8" (3.18mm) shank

These tools were designed with the assistance of numerous steel rule die shops that needed low-cost, high-speed tools for chamfering counter board channels and for depaneling the finished counters.

### Freeman MatchPlate

Our work-hardening MatchPlates start at a Rockwell hardness of approximately 22, allowing faster machining. The surface hardens over time to 46 Rockwell hardness, extending the life of the plate. Counterplates are readily available for your Bobst, Kama, Iberica, Brause, Heidelberg, and many other die cutters. Customized plates are available upon request.

### Mylar®

- ▶ 150 ft. or 300 ft. rolls
- ▶ Thicknesses of .003" or .005"
- ▶ Matte on one side for perfect plotting
- ▶ No edge curl
- ▶ Roll widths of 36", 42", 48", or 60"



Freeman Premium Mylar is manufactured with a precise thickness tolerance and unrolls easily with no edge curl or memory. Matted one side, it readily accepts all plotter ink with minimal smudging.

### Contour Cutters / Alignment Pin Drills

- ▶ 3-flute Up-Cut
- ▶ Mill and Drill with the same tool!

These tools are used for cutting shapes out of plywood for cabinetry, shelving and steel-rule die boards. (Applications where splintering and fuzzing of the top, or bottom surface

has to be minimized.) They are also used for drilling precision registration holes in die boards and counter boards.

### Skiving Tools

- ▶ 4-flute Up-Cut
- ▶ 3/8" (9.53mm) shank

The center-cutting WhisperCut is the first skiving tool specifically tuned to cut composite and laminated counterboard substrates. The high-rake, 4-flute geometry insures thousands of inches of clean, smooth skiving at a fraction of the noise produced by conventional cutters.

### Steel Pinch Dogs

- ▶ Forged tool-steel
- ▶ Sold individually
- ▶ Lengths: from 3/4" to 3 1/2"



### Corrugated Fasteners

- ▶ Sold by the box (100/box)
- ▶ Depths: from 1/2" to 5/8"
- ▶ Corrugations: 5



# EJECTION RUBBER

## OPEN CELL EJECTION RUBBER

### Freeman F-65

- ▶ Black
- ▶ Medium Density
- ▶ Thicknesses of 1/4", 3/8" or 1/2"
- ▶ Sheets, Strips, or Blocks

This medium-firm density rubber is used for flat die applications, offering a durometer "00" scale reading of 55-65.



### Freeman F-70

- ▶ Pink
- ▶ Firm Density
- ▶ Thicknesses of 1/4", 3/8" or 1/2"
- ▶ Sheets, Strips, or Blocks

Freeman F-70 is a firm density rubber for flat die applications, offering a 65-70 durometer "00" scale reading.

### Freeman F-70P

- ▶ Red
- ▶ Firm Density
- ▶ Thicknesses of 1/4", 3/8" or 1/2"
- ▶ Sheets, Strips, or Blocks

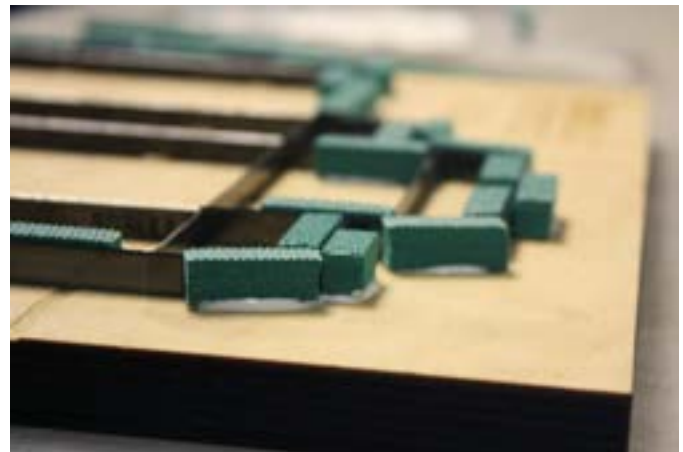
F-70P Ejection Rubber is a premium firm density rubber offering a more uniform cell structure and a 65-70 durometer "00" scale reading. It is available with or without PSA.

### Freeman F-75

- ▶ Dark Red
- ▶ Extra Firm Density
- ▶ Thicknesses of 1/4", 3/8" or 1/2"
- ▶ Sheets, Strips, or Blocks



This extra-firm density rubber is used for flat die applications, offering a 70-75 durometer "00" scale reading. It is available with or without PSA.



### Freeman G-75

- ▶ Green
- ▶ Extra Firm Density
- ▶ Thicknesses of 1/4", 3/8" or 1/2"
- ▶ Sheets, Strips, or Blocks

Ejection Rubber is a green open cell extra-firm density rubber used for flat die applications, offering a durometer "00" scale reading of 70-75.

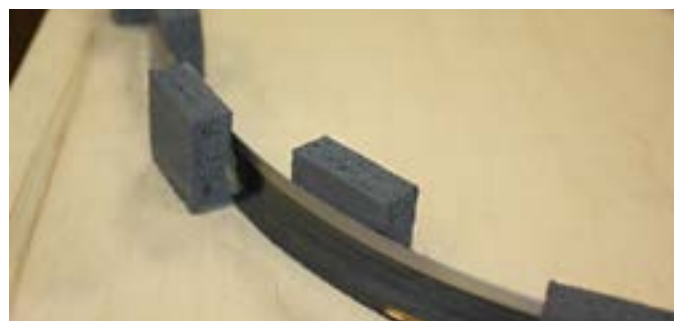
### Freeman Guide Strip™

- ▶ Dark Red
- ▶ Extra Firm Density
- ▶ 3/8" x 3/8" x 18 1/2"
- ▶ Strips with Guide Points

Made with F-75 rubber, these strips are water-jet cut to ensure exact widths. This results in consistent ejection properties across the entire cutting die. The strips are available with or without adhesive.



## CLOSED CELL EJECTION RUBBER



### Freeman F-257

- ▶ Gray
- ▶ Medium Density
- ▶ Thicknesses from 1/4" to 3/4"
- ▶ Sheets, Strips, or Blocks

This gray, closed cell, medium-density rubber is primarily used on rotary die applications, as well as some flat die applications. It is available with or without PSA.

# SPECIALTY EJECTION RUBBER

## Freeman Gum Rubber

- ▶ Cream
- ▶ Closed Cell Slot Rubber
- ▶ Thicknesses of 1/16", 3/32" or 1/8"
- ▶ 12" x 36" Sheets

Gum Rubber is a durable slot rubber, or dense ejection rubber with a 35-45 Shore A hardness, and it used in slots or tight areas on a die. Gum Rubber has been a reliable industry standard for many years.

## Freeman Green Slot Micro Cell

- ▶ Green
- ▶ Micro Cell
- ▶ Thicknesses of 1/8" to 1/2"
- ▶ Wave or Straight Cut Strips



This rubber is manufactured for use in confined areas. These strips are available in straight and wave cut design with a hardness of approximately 45-55 Shore A, 86-96 Shore 00. Our strip sizes are 3/8" x 18" long and vary in thickness.



## Freeman Patriot Blue

- ▶ Blue
- ▶ Medium Density
- ▶ Thicknesses of 1/4", 3/8" or 1/2"
- ▶ Sheets, Strips, or Wave

Freeman Patriot Blue micro-cellular ejection rubber offers diemakers a premium, high-performance, long-life ejection material. It is excellent for flat and rotary applications and is available with or without PSA.

## CITOJECT Green EVA

- ▶ Green
- ▶ Closed Cell
- ▶ Thickness of 3/8"
- ▶ Sheets

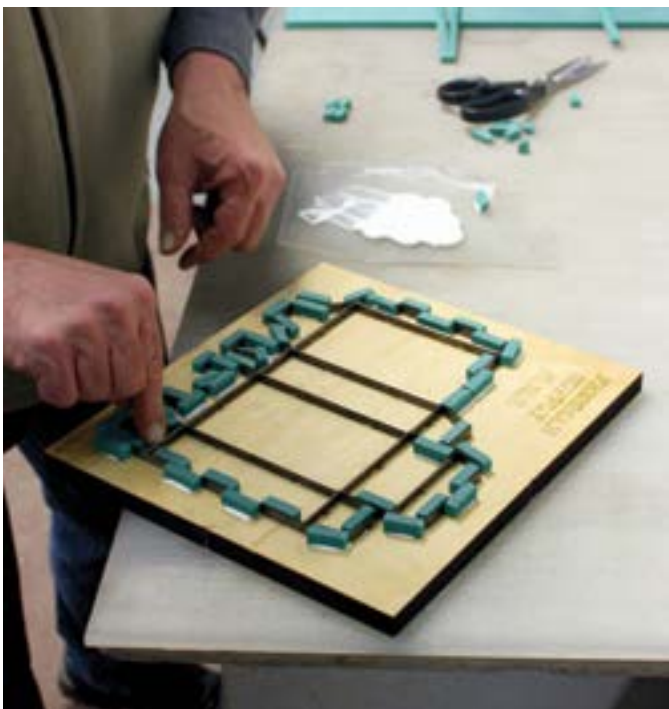
This closed cell rubber has a fine uniform cell structure that allows it to retain its flexibility & resilience, and recover quickly from compression, making it the ideal replacement for open cell T-75. Available in sheets 3/8" x 33" x 39".

## CITO "C" Profile Nick Rubber

- ▶ White
- ▶ Closed Cell
- ▶ Thicknesses of 5mm or 8.5mm
- ▶ With or without adhesive

This white rubber gives uniformly consistent ejection results. It offers 70 Shore A Hardness, excellent aging and UV resistance. Available with or without self-adhering EasyFix. Sold by the box – 100 strips, 27 1/2" long x 3/8" high, per box.

# DIE MAKING ADHESIVES



### Z-Bond™

This water-based PSA adhesive is formulated for slick UV-Coated dieboards. It bonds easily and removes with no residue.

SKU	Size	Net weight (lb.)
055996	8 lb. tub	8
055997	1 lb. bottle	1

### BirchBond™

Birch Bond is an excellent adhesive for bonding birch dieboard. Easily and quickly applied with brush or roller, BirchBond offers a high built-in wet tack that helps prevent board movement during clamping.

SKU	Size	Net weight (lb.)
022710	Gallon	9
022715	5 Gallon	45

### DieStrip™ Adhesive

This reliable latex adhesive

for flat die rubber grips securely and strips cleanly when re-rubbing the die. Rubber can easily be pulled off by hand or scraped off with a wood chisel, leaving little to no residue.

SKU	Size	Net weight (lb.)
055994	Gallon	8

# LOCATIONS

## Branch Locations and Public Warehouses

Freeman has strategically placed satellite locations across North America with customer service representatives ready to help. Thousands of products are stocked at these locations as well as public warehouses to reduce your shipping costs.

## Strategic & Effective Stocking

Freeman's inventory staff constantly monitors sales and stocking data across the country to properly provide the right amount of products at each location.

## Worldwide Shipping

Freeman ships orders all across the globe and has various international distributors available to supply customers with top-quality products.



### OHIO (HEADQUARTERS)

1101 Moore Road  
Avon, OH 44011  
TEL 800-321-8511  
TEL 440-934-1902  
FAX 440-934-7200

### ILLINOIS

Marco Chicago  
727 N. Larch Avenue  
Elmhurst, IL 60126  
TEL 630-521-9855  
FAX 440-934-7200

### ONTARIO

3600B Laird Road Unit 8  
Mississauga, ON L5L 6A7  
TEL 800-345-9259  
FAX 586-774-1019

### QUEBEC

3475 boul Pitfield  
Montreal, QC H4S 1H3  
TEL 800-263-7699  
TEL 514-335-3530  
FAX 514-335-3225

### CALIFORNIA

5525 S. Soto Drive  
Vernon, CA 90058  
TEL 800-325-2100  
FAX 440-934-7200

### KENTUCKY

Marco Louisville  
917 Landis Lane  
Mt. Washington, KY 40047  
TEL 502-955-5535  
FAX 440-934-7200

### OREGON

15745 N. Lombard St., Ste. 100  
Portland, OR 97203  
TEL 800-558-0866  
FAX 262-789-5407

### TEXAS

3152 S.E. Loop 820  
Fort Worth, TX 76140  
TEL 800-792-1047  
TEL 817-551-7301  
FAX 817-568-0908

### GEORGIA

5060 N. Royal Atlanta Dr. Ste. 6  
Tucker, GA 30084  
TEL 770-493-4131  
FAX 440-934-7200

### KANSAS

5755 S. Hoover Road Bldg. #5  
Wichita, KS 67215  
TEL 800-792-1047  
FAX 817-568-0908

### NORTH CAROLINA

101 Bailey Street  
Mocksville, NC 27028  
TEL 800-321-8511  
FAX 440-934-7200

### WISCONSIN

4921 South 2nd St.  
Milwaukee, WI 53207  
TEL 800-558-0866  
TEL 262-789-9800  
FAX 262-789-5407

### MICHIGAN

27655 Groesbeck Highway  
Roseville, MI 48066  
TEL 800-345-9259  
TEL 586-774-1210  
FAX 586-774-1019

### PENNSYLVANIA

203 Enterprise Rd.  
Lititz, PA 17543  
TEL 800-631-4230  
TEL 717-653-5300  
FAX 717-653-7372

# TERMS & CONDITIONS

## Returned Goods

To save transportation charges, and facilitate handling of merchandise upon our receipt, we request that no merchandise be returned without prior written authorization.

## Damaged Goods

Merchandise given to a transportation firm is their responsibility to deliver in satisfactory condition. If merchandise is delivered damaged, the customer should note as such on freight bill and file a claim with the delivering carrier. Regulations require that hidden damage, identified upon unpacking, must be reported within ten (10) days of delivery in order to file a proper claim.

## Liability/Warranty Statement

Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. Nothing herein shall constitute a warranty, expressed or implied, including any warranty or merchantability or fitness, nor is protection from any law of patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials and in no event shall we be liable for special, incidental, or consequential damages.

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