FROMM | PACKAGING SYSTEMS

Accessory Products

Wire/
Plastic
Buckles

Edge
Protectors

Seals
for Plastic
Strapping

Strapping
Dispensers

Seals
for Steel
Strapping

Buckles

PAC have been manufacturing metal buckles for over 34 years. They use first grade raw materials and rigid process controls to produce an excellent metal buckle that is easy to thread, consistent, and yields superior holding power. Used throughout the world, PAC metal buckles are the standard in the strapping industry. All PAC wire buckles are manufactured to meet ASTM Standard D3950.

Regular Duty Metal Buckles

Our patented PAC design metal buckle is engineered for easy threading and features our exclusive "S" lock to maximize holding power.
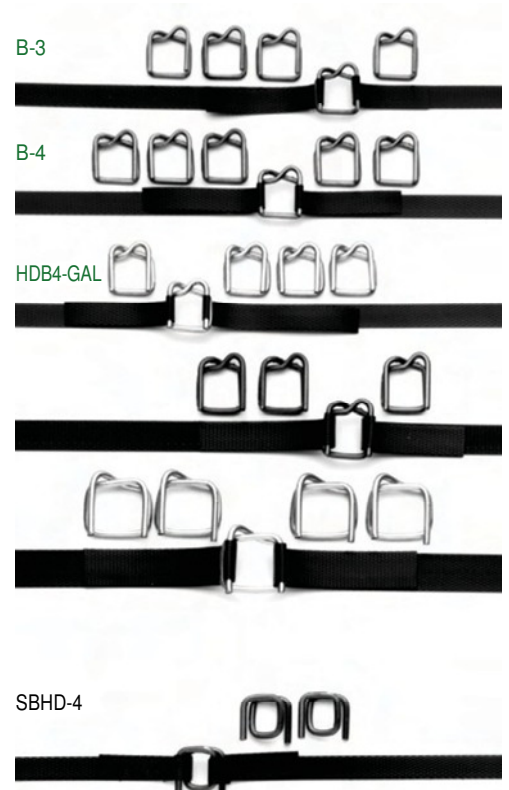
PRODUCT	STRAP SIZE (inches)	WIRE DIAMETER (inches)	FINISH	SHIPPING WGT. (lbs./M)
B-3	3/8	.092	Bright Basic	10
B-4	1/2	.105	Bright Basic	14
B-4L	1/2	.092	Bright Basic	11
SB-4*	1/2	.105	Bright Basic	11
B-5	5/8	.120	Bright Basic	20
B-6	3/4	.120	Bright Basic	23

*Square Design

Heavy Duty Metal Buckles

Heavy duty buckles are available in two designs. The square design is made especially for thicker gauge strap and heavy tension applications. The regular design is there own PAC design made from heavier gauge wire. PAC design heavy duty buckles are available in regular and galvanized finishes.

PRODUCT	STRAP SIZE (inches)	WIRE DIAMETER (inches)	FINISH	SHIPPING WGT. (lbs./M)
HEAVY DUTY - PAC DESIGN				
HDB-4	1/2	.120	Bright Basic	18
HDB-4GAL	1/2	.120	Galvanized	18
HDB-5	5/8	.135	Bright Basic	22
HEAVY DUTY - SQUARE DESIGN				
SBHD-4	1/2	.120	Bright Basic	16
SBHD-4.135	1/2	.135	Bright Basic	19
SBHD-5	5/8	.135	Bright Basic	20
SBHD-6	3/4	.135	Bright Basic	21

B-3

B-4

HDB4-GAL

SBHD-4

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Phosphate Coated Buckles

Phosphate coated buckles are generally used in polyester cord and rayon cord heavy duty applications. The phosphate coating affords some additional protection against corrosion, and also significantly improves joint efficiency when properly applied.

XHDB-6PHOS

PRODUCT	STRAP SIZE (inches)	WIRE DIAMETER (inches)	FINISH	SHIPPING WGT. (lbs./M)
XHDB-6 PHOS	3/4	.160	Bright Basic	43
XHDB-125 PHOS	1 1/4	.240	Bright Basic	37
XHDB-150 PHOS	1 1/2	.275	Bright Basic	31

Galvanized Buckles

Galvanized buckles are frequently used with composite cord strapping and any applications where rusting will create a problem.


PRODUCT	STRAP SIZE (inches)	WIRE DIAMETER (inches)	PACKAGING PCS/CASE	SHIPPING WGT. (Lbs./Case)	CASES PER PALLET	SHIPPING PER PALL
XHDB-5-GALV	5/8	0.140	1000	26.40	44	1162
XHDB-6-GALV	3/4	0.160	1000	38.06	44	1675
XHDB-8-GALV	1	0.200	500	40.92	44	1801
XHDB-125-GALV	1 1/4	0.275	250	47.30	44	2082

Plastic Buckles

Designed for light duty applications where corrosion resistance and / or a non- scratch product is important, PAC manufactures a range of plastic buckles to fit your demanding applications. For superior holding power and convenience, the patented "Bucklelok" design "locks" each leg into position to allow for pre-threading.

| PRODUCT	STRAP SIZE (inches)	SHIPPING WGT. (lbs./M)
PLB-4	3/8 and 1/2	5
PLB-15HD	1/2 and 5/8	6
Bucklelok™	1/2	7
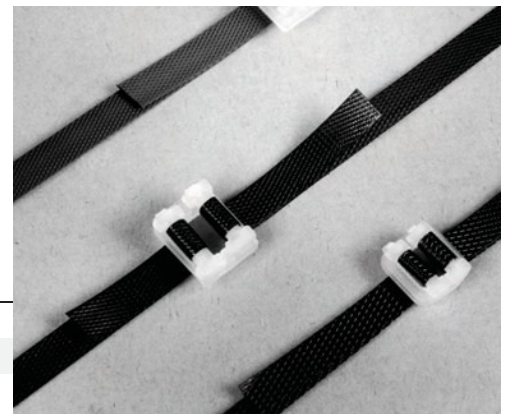
Seals

Seals for Plastic Strapping

PAC Seals are manufactured from the finest raw materials under carefully controlled conditions. They are known throughout the industry for quality, consistency and reliability. All standard open and closed seals are made to ASTM Standard D3950.

PRODUCT	STRAP SIZE (inches)	THICKNESS (inches)	SHIPPING WGT. (lbs./M)
OPEN SEALS			
S-30	3/8	.020	8
S-40	1/2	.025	12
S-40L	1/2	.020	10
S-50	5/8	.025	15
S-50L	5/8	.020	12
S-60	3/4	.025	18
CLOSED SEALS			
CS-40	1/2	.020	11
CS-50	5/8	.025	15

OPEN SEALS

CLOSED SEALS

COMBINATION SEALS

SERRATED SEALS

Seals for Combination Tools

Combination Seals are designed for use in specific tools. When ordering, please specify tool or comparable competitive seals. In addition to the stock sizes listed below, we carry a full line of seals for competitor's tools.

PRODUCT	STRAP SIZE (inches)	DESCRIPTION	SHIPPING WGT. (lbs./M)
CCP481	1/2	Orgapack Combination Tools	20
HSS-4	1/2	Serrated Seals	13
HSS-5	5/8	Serrated Seals	22
HSS-6	3/4	Serrated Seals	42
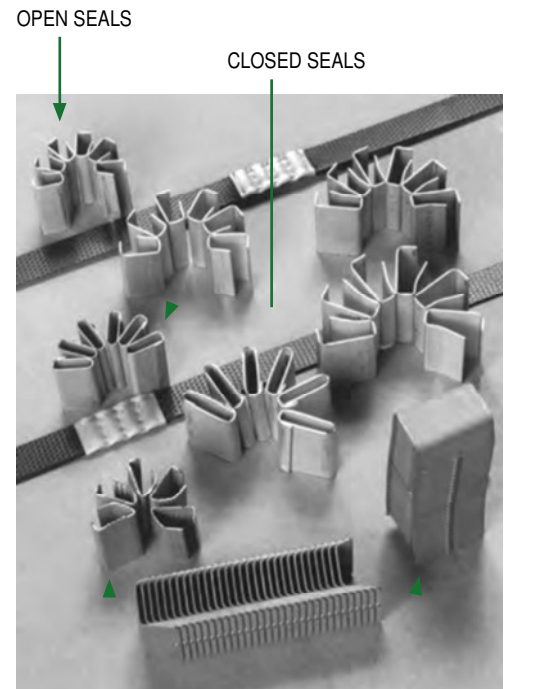
APPLICATION TIPS
PLASTIC STRAPPING SEALS

OPEN SEALS
(S-30 through S-60) The most common plastic seal, open seals allow you to place the seal on after tensioning has occurred.

CLOSED SEALS
(CS-40, CS-50) Closed seals must be threaded onto the strap before tensioning. They are used most frequently with round packages or bundles.

SERRATED SEALS
(HSS-4 through HS5-6) These seals are made with "teeth" that actually grip the strap, yielding higher joints than traditional seals.

COMBINATION SEALS
For use in combination tools, these seals are tool-specific and have to be matched to the proper tools.

Seals for Steel Strapping

All PAC steel strapping seals are made from precision tested galvanized steel. Engineered for high joint efficiency with regular duty and heavy duty steel, all PAC seals meet federal government standards, along with ASTM Standard D3953. In addition to the stock sizes listed, we can also supply steel seals for many combination tools, including Signode.

Regular Duty

PRODUCT	STRAP SIZE (inches)	SEAL LENGTH (inches)	THICKNESS (inches)	SHIPPING WGT. (lbs./M)
OPEN SEALS				
OST38	3/8"	1.125	.020	5
OST48	1/2"	1.25	.020	6
OST58	5/8"	1.25	.020	8
OST68	3/4"	1.25	.020	10
CLOSED SEALS				
CST38	3/8"	1	.020	5
CST48	1/2"	1	.020	7
CST58	5/8"	1	.020	8
CST68	3/4"	1	.020	9
OVERLAP SEALS (PUSH TYPE)				
PT38	3/8"	.875	.025	7
PT48	1/2"	.875	.025	9
PT58	5/8"	.875	.025	10
PT68	3/4"	.875	.025	12

Heavy Duty

PRODUCT	STRAP SIZE (inches)	SEAL LENGTH (inches)	THICKNESS (inches)	SHIPPING WGT. (lbs./M)
OPEN SEALS				
OST68HD	3/4	1 3/4	.030	25
OST125HD	1 1/4	2 1/4	.030	47
CLOSED SEALS				
CST68HD	3/4	1 3/4	.030	25
CST125HD	1 1/4	2 1/4	.030	47
OVERLAP SEALS (PUSH TYPE)				
PT68HD	3/4	1 3/4	.030	34
PT125HD	1 1/4	2 1/4	.030	68
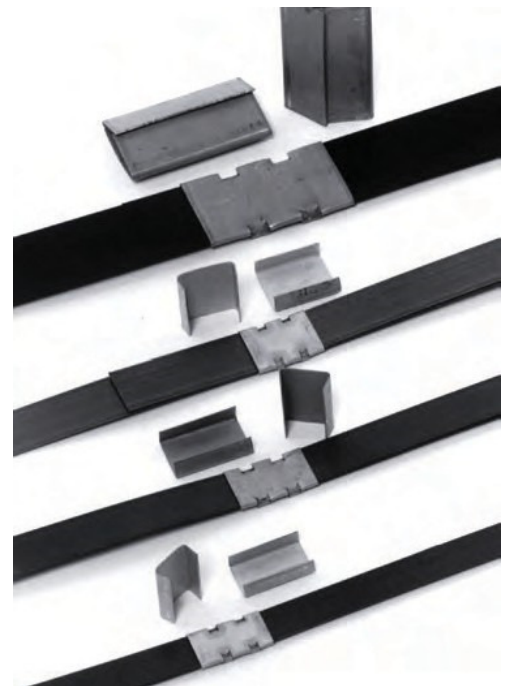
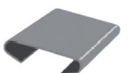## APPLICATION TIPS
PLASTIC STRAPPING SEALS

OPEN SEALS

(OST Type) The most common seal for regular-duty applications, open seals allow you to place the seal on after tensioning has occurred. Also occasionally referred to as snap-on seals.

CLOSED SEALS

(CST Type) Closed seals must be threaded onto the strap before tensioning. They are rarely used in regular-duty applications.

PUSH TYPE

(PT Type) Sometimes called full overlap seals, push type seals are used with round bundles, and with pusher tools in heavy-duty applications. These seals must be threaded on prior to application.

Edge Protectors

Fromm Packaging Systems, Inc. manufacturers the broadest line of plastic edge protectors in the industry.

For use with both steel and plastic strapping, PAC corners cushion your product and allows the strap to be tightened to its maximum tension without damaging the package. Each plastic corner is constructed from a specially formulated resin and is ribbed to hold the strapping firmly in place. Steel corners meet all Federal and GSA specifications.

Colors: Stock plastic corners are white or black. Both CP- 75's and CP-125's are also available in blue, red, or yellow, subject to a 50 case minimum. Please specify color when ordering.

PRODUCT	STOCK COLOR	WIDTH (inches)	LEG LENGTH (inches)	MAXIMUM STRAP SIZE	SHIPPING WGT. (lbs./M)
CP-75	White	1 3/8	1	3/4	8
CP-125	White	2 1/2	2	1 1/4	30
CP-100*	Black	5 1/4	2	1 1/4	100
CP-101	Black	5 1/4	2	1 1/4	100
CP-122	Black	2 1/2	1 3/4	1 1/4	27
CP-200	White	2 1/2	6 (Flat)	2	40
SCP125HD**	(Steel)	3	2	1 1/4	140

*CP-100 corners have four inside points which penetrate the outside layer of your carton to hold the corner in place
**Steel corner protector

CP-100/101   CP-75   CP-122   CP-200   CP-7
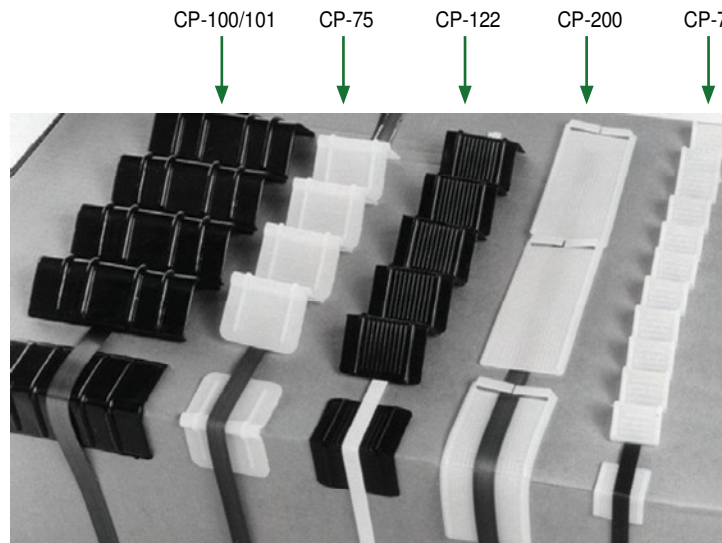
EcoGuard™

The "Green" Solution to Unitizing and Edge Protection

ECOGUARD™ is manufactured from 100% recycled high density polyethylene. It can also be recycled, and contains no glues, adhesives, inks or other non plastic contaminants that hinder recyclability. It is also designed to be re-used. In addition to being a "green" alternative to paper or laminated products, EcoGuard™ has characteristics that make it the preferred alternative to other forms of edge and corner protection.

Characteristics and benefits are listed below:

- **Moisture and Weather Resistant**
  Unlike paper products, EcoGuard™ is waterproof and will not break down when stored outside. It continues to protect your product in all types of climates.

- **Unitizes Your Shipment**
  Used in conjunction with strap or stretch film, EcoGuard™ unitizes smaller packages on your pallet reducing pilferage and damage.

- **Improved Stacking Strength**
  Vertical application of EcoGuard™ reinforces loads allowing them to be stacked higher and more effectively using warehouse space.

- **Better Tension Distribution**
  Used with strap, either plastic or steel, EcoGuard**™** disburses tension around the load increasing package integrity and reducing strap and shipping damage.

- **Custom Sizes**
  In addition to stock sizes, EcoGuard™ can be custom produced in various weights and lengths to fit specific loads.

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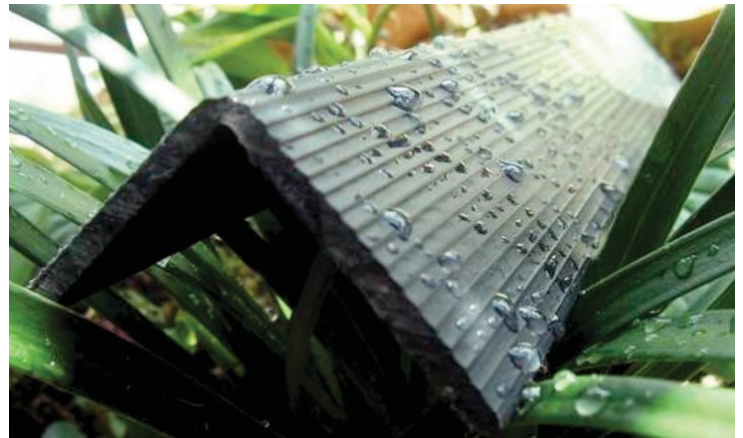
The best protective packaging to give you peace of mind
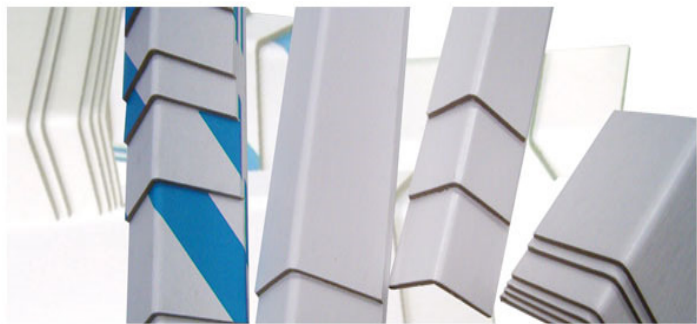
Angle Board / Edge board

Fromm Packaging Systems edge board products provide protection, stability, strength, and savings. Use them in conjunction with strapping and stretch film for maximum product safety and pallet integrity.

• Customize edge board lengths and thicknesses for your needs

2x2		
2-1/2 x 2-1/2	Range 080 - 300	Available in pieces of 2 in. Length up to 144 inches
3 x 3		

• Laminated and treated to form rigid shapes
• Made from recycled materials

Applications in different industries

Our edge board, also known as corner protectors, corner boards, angle boards or edge protectors, are used in a wide variety of industries, such as steel, aluminium, beverages, doors and windows, electronics, paper, consumer goods, personal care and also in the agricultural sector. The possibilities are endless! To find the right product for your purposes, we can test the strapping and compression strength in order to find the right solution for you.

Steel industry
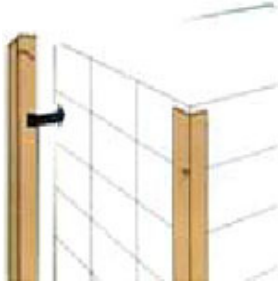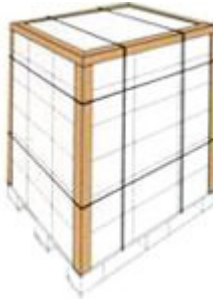
Aluminium industry

Mineral wool industry
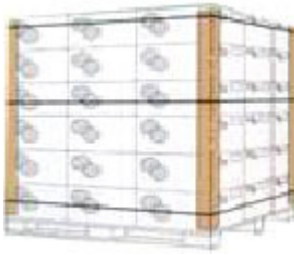
Agriculture

New possibilities with edgeboards

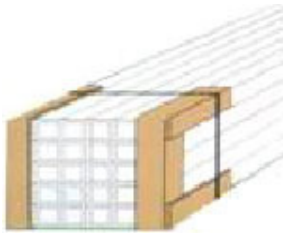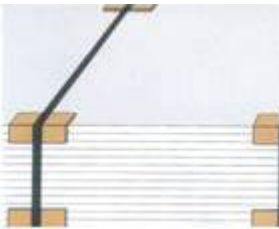- Increases vertical strength for multi-pallet stacking to reduce transportation costs
- Improves safety and prevents load from shifting in transit
- Avoids costly damage to products during transportation and storage
- Allows for bulky products to be easily unitized improving productivity by reducing pallet packing and unpacking time

TYPICAL USES FOR EDGE PROTECTION

Edge Board, the protective packaging supplies, protects and supports products during all handling operations.	The Stacking Strength can be improved by reinforcing boxes internally with Edge Board.	Protection Frame Board is available for standard sized pallets or can be custom made.	Edge-board is supplied, cut to specified packaging lengths or in longer lengths allowing the user to cut to the required size.
The Angle Protective Packaging Board prevents shifting of the palletized goods and provides protection during all operations	The flexible Wrap-around Edge Board is easy to use for inside or outside protection.	Protects the product against strapping damage	Protects the product against strapping damage
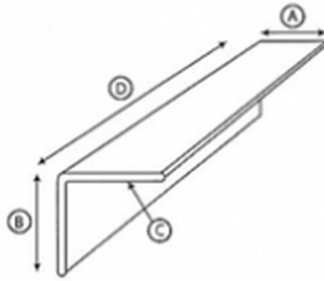
Corner boards are ordered by leg length, caliper and length and are priced by the piece, and sold by case or skid quantitiy.

Corner Board – How to Measure

To accurate measure your cornerboard, use the following:

Corner boards are ordered by leg length, caliper and length and are priced generally by the piece, and sold by case or skid quantity.
Corner Board Specifications:
A – Leg Length One – available from 1.5″ to 3″
B – Leg Length Two – available from 1.5″ to 3″
C – Caliper – available from .100″ to .250″
D – Length – available from 6″ to 240″

Strapping Dispensers
Plastic and Steel

All PAC strapping dispensers are manufactured utilizing the highest quality material and workmanship. High yield structural tubing, heavy load bearing wheels and solidly constructed brake assemblies result in dispensers that will give you years of dependable performance.

DSP HD Deluxe Dispenser

The DSP HD is a heavy duty dispenser designed for use with all oscillated wound steel coils and 16" plastic coils. In addition to a convenient tray for tools and seals, and 8" wheels, it features the exclusive strap roller payoff system to prevent kinks and strap spill-over.

DSP STD Standard Dispenser

Our best selling model, the DSP STD can be used for both steel and nonmetallic strapping. Features include an automatic brake, heavy duty 6" wheels, and a tool tray. This cart is extremely versatile and accepts 3", 6", and 8" face coils as well as 16" and 8" cores.

DSP OSC Heavy Duty Dispenser

This unit has a continuous handle heavy duty tubular frame. It comes complete with a large tool tray, automatic brake, and 10" semi-pneumatic wheels. It accepts 16" core coils in face sizes up to 6" and is compatible with steel and nonmetallic strapping.

DSP HD

DSP-STD

DSP OSC

#RWD125 Ribbon Wound Dispenser

This is a heavy duty, continuous handle, tubular constructed dispenser. Designed for use with ribbon wound 1 1/4" steel, this unit is complete with 10" semi-pneumatic wheels, and an extra large tool tray.

#RWD2020 Strap Truck

Designed for ribbon wound steel, the RWD 2020 holds up to 3 ribbon wound coils, has space to store heavy duty tools and seals, and oversized wheels for ease of handling. This is a well constructed heavy duty cart suitable for the most demanding applications.

RWD125

PRODUCT	CORE SIZE	STRAP TYPE	SHIPPING WGT. (lbs./M)
965 HD	16x3, 16x6	Plastic, Steel, Rubber Wheels	58
DSP CORD	3x6, 4x6	Cord, 6" Plastic Wheels	28
DSP ECONOMY CORD	3x6, 4x6	Cord	11
DSP HD	16x3, 16x6	Plastic, Steel, 8" Plastic Wheels	58
DSP OSC	16x3, 16x6	Plastic, Steel, 8" Plastic Wheels	58
DSP STD	8x8, 16x3, 16x6	Plastic, Steel, Cord 8" Plastic Wheels	48
RWD125	Ribbon Wound	Steel	74
RWD2020	Ribbon Wound	Steel	54

RWD2020

Strapping Kits

Plastic Strapping Kits

Cord Strapping Kits

Steel Strapping Kits

The PAC family of strapping kits offers wholesalers of both plastic and steel strapping an excellent opportunity to increase sales and profits by efficiently servicing those markets that need a complete strapping set up. With the PAC family of kits, there is no need to inventory separate components, do any packaging, or send a sales rep out to do a demo. PAC kits are available in both steel and plastic and come in several sizes and varieties for a wide range of applications.

We are also happy to build specialized kits for unique applications.

Plastic Strapping Kits

Strap PAC

This basic kit is still our bestselling plastic strapping kit. Available in four different styles, this convenient kit contains everything needed for a complete, self-contained, light duty strapping system. Designed for low volume and multi-station users, the Strap PAC is portable and economical.

Econo PAC

Available in both regular and heavy duty, this complete, self-contained kit contains everything necessary to handle a wide range of applications. Packaged in a double wall self-dispensing carton, Econo PAC's are ideal for first time users and multi- location buyers.

All PAC-Polypropylene

CSS1200
This is the ultimate strapping kit designed for the customer who wants a premium strapping system. The All PAC complete strapping system is equipped with everything needed including a heavy-duty, durable dispenser cart.

All PAC-Polyester

PSK48
The PSK48 is a complete strapping kit for those applications requiring the special characteristics of polyester stap. Everything is included in one carton containing strap, tools, seals, and a dispenser, all matched to give you a complete polyester strapping system.

PSK58
Similar to the PSK48, this version includes extra heavy duty 5/8" polyester for the most demanding applications. All accessories and tools are sized accordingly.

Postal Kit

Postal Kit Plus

This inexpensive kit comes complete with post office recommended white strapping, plastic buckles, and a simple tensioning and cutting tool. It is packaged in a self-dispensing carton, has complete instructions, and contains enough material to strap 500 trays.

Steel Strapping Kits

Portable Steel Kits

PAC portable kits are complete self-contained steel strapping systems. Available in three sizes, these kits are perfect for the occasional to moderate user of steel strapping. All Steel PAC's are completely portable making them ideal for use at remote job sites.

Jumbo Steel Kits

Jumbo Steel Kits are complete steel set ups with everything needed to begin your steel strapping operation immediately. All jumbo steel kits are shipped with full size steel coils, seals, tools, a heavy-duty dispenser, and complete instructions. Jumbo steel kits are available in several different sizes for both flat packages and round bundle applications.* All jumbo steel kits are shipped complete, with steel pre-loaded on the dispenser, and on their own specially designed pallets for easy transport and re-shipping.

Replacement Stock

Steel & Plastic

Strapping and seal replacements kits are available for all Econo PAC's, All PAC's, All PAC's, and Steel PAC's.

*Kits for round bundle applications include pusher tools and seals.

Strap PAC

PRODUCT	CONTENTS	SHIPPING WGT. (lbs./M)
KITS FOR FLAT LOADS		
SP-W	3000ft. light duty strapping 300 wire buckles 1 hand pull tensioner	14
SP-P	3000ft. light duty strapping 300 plastic buckles 1 hand pull tensioner	9
Postal Kit Plus	3000ft. Post Office recommended 1/2" white polypropylene strapping 500 plastic buckles 1 tensioning & cutting tool Complete, simple instructions Packaged in a self-dispensing carton	12

SP-W   EP48

Econo PAC

HP48	9000ft. 1/2" 400lb. strapping 1000 wire buckles 1 hand pull tensioner	38
EP48	9000ft. 1/2" 4light duty strapping 1000 1/2" open seals 1 tensioning tool 1 sealing tool	44
EP48HD	7200ft. 1/2" heavy duty strapping 1000 1/2" open seals 1 heavy duty tensioning tool 1 sealing tool	46

POSTAL KIT PLUS

All PAC

POLYPROPYLENE		
CSS1200	3600ft. 1/2" heavy duty strapping 500 1/2" open seals 1 heavy duty tensioning tool 1 sealing tool 1 mobile strapping dispenser	78
POLYESTER		
PSK48	5800ft. 1/2" 775# polyester strapping 500 high joint strength seals 1 heavy duty tensioning tool 1 polyester sealing tool 1 mobile strapping dispenser	111
POLYESTER		
PSK58	4000ft. 5/8" 1400# polyester strapping 500 high joint strength seals 1 heavy duty tensioning tool 1 sealing tool 1 mobile strapping dispenser	125

CSS1200/PSK48/PSK56

Heavy Duty Cord Kit

Designed to replace steel strapping in many applications, the PAC heavy duty CORDKIT is a complete kit that contains everything needed to start strapping. The CORDKIT is ideal for job sites, lumber and construction applications, as well as a host of applications where steel is too heavy, too costly, and too dangerous. Each kit is packaged in a heavy duty, reusable tool kit and individual replacement components are available from your local distributor.

| Cord Kit	A 250ft. coil of heavy duty (250lbs. break strength) polyester cord	
	1 PST-Cord tensioning tool	20
	50 Heavy duty phosphate coated buckles	
	A reusable tool kit	

Heavy Duty Cord Kit for Round Bundles

Similar to the Heavy Duty Cord Kit, the RB kit is specifically designed for round bundles and hard to get applications. The kit includes an easy to use strapping dispenser with a tray for wire buckles, a special tool with a nose function, heavy duty cord strapping, and phosphate coated heavy duty buckles.

CORDKIT-RB	1 250ft. coil of 3/4" heavy duty (2500lbs. break) Polyester cord strapping	
	1 cord strapping dispenser	
	100 heavy duty phosphate coated wire buckles	16
	1 PST-RB strapping tensioner designed for round or small strapping applications	
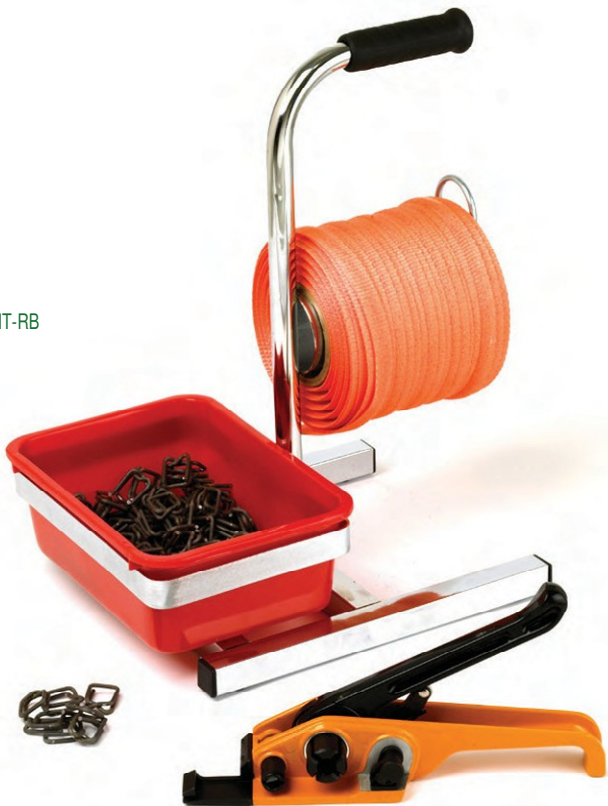
CORDKIT

CORDKIT-RB

Portable Steel Kits for Flat Loads

PRODUCT	CONTENTS	SHIPPING WGT. (lbs./M)
SK48	Two 200 foot coils 1/2"x.020 steel 500 OST48 Open Steel Seals 1 OM75 Tensioner A480 Double Notch Crimper 1 SC75 Cutter Re-Usable Steel Carrying Case Instructions	35
SK58	Two 200 foot coils 1/2"x.020 steel 500 OST48 Open Steel Seals 1 OM75 Tensioner A580 Double Notch Crimper 1 SC75 Cutter Re-Usable Steel Carrying Case Instructions	39
SK68	Two 200 foot coils 1/2"x.020 steel 500 OST48 Open Steel Seals 1 OM75 Tensioner A680 Double Notch Crimper 1 SC75 Cutter Re-Usable Steel Carrying Case Instructions	39

Portable Steel Kits for Round or Irregular Loads

PRODUCT	CONTENTS	SHIPPING WGT. (lbs./M)
SK48-RB	1 coil 1/2"x.020" Steel (approx. 2942') 500 PT48 Push Type Steel Seals 1 PF-PAC Tensioner 1 S480SN Single Notch Crimper 1 SC75 Cutter 1 DSP HD Heavy Duty Mobile Dispenser Instructions	190
SK58-RB	1 coil 5/8"x.020" Steel (approx. 2353') 500 PT58 Push Type Steel Seals 1 PF-PAC Tensioner 1 S580SN Single Notch Crimper 1 SC75 Cutter 1 DSP HD Heavy Duty Mobile Dispenser Instructions	190
SK68-RB	1 coil 3/4"x.020" Steel (approx. 1961') 500 PT68 Push Type Steel Seals 1 PF-PAC Tensioner 1 S680SN Single Notch Crimper 1 SC75 Cutter 1 DSP HD Heavy Duty Mobile Dispenser Instructions	190

PORTABLE

![FROMM PACKAGING SYSTEMS]

PRODUCT DESCRIPTION		SHIPPING WGT [LBS/M]
JSK-48	A coil of 1/2"x.020" steel strapping (2940ft.) 500 galvanized open seals (OST48) A heavy duty feed wheel tensioner (OM75) A sealing tool (A480) A heavy duty full size strapping dispenser (DSP-HD) Complete instructions	**180**
JSK-58	A coil of 5/8"x.020" steel strapping (2360ft.) 500 galvanized open seals (OST58) A heavy duty feed wheel tensioner (OM75) A sealing tool (A580) A heavy duty full size strapping dispenser (DSP-HD) Complete instructions	**180**
JSK-68	A coil of 3/4"x.020" steel strapping (1960ft.) 500 galvanized open seals (OST68) A heavy duty feed wheel tensioner (OM75) A sealing tool (A680) A heavy duty full size strapping dispenser (DSP-HD) Complete instructions	**180**
RBK-48	1 coil of 1/2"x.020" steel strapping (2940ft.) 1 heavy duty push type tensioner 1 sealing tool designed for round packages 1 steel strapping cutter, 500 push type seals, and instructions. Steel, and contents are pre-loaded on a heavy duty mobile strapping dispenser.	180
RBK-58	1 coil of 5/8"x.020" steel strapping (2360ft.) 1 heavy duty push type tensioner 1 sealing tool designed for round packages 1 steel strapping cutter, 500 push type seals, and instructions. Steel, and contents are pre-loaded on a heavy duty mobile strapping dispenser.	180
RBK-68	1 coil of 3/4"x.020" steel strapping (1960ft.) 1 heavy duty push type tensioner 1 sealing tool designed for round packages 1 steel strapping cutter, 500 push type seals, and instructions. Steel, and contents are pre-loaded on a heavy duty mobile strapping dispenser.	180

JUMBOSTEEL