



A Packaging Partnership

We are a multinational manufacturer of steel and plastic strapping, along with the application equipment and accessory products for each. Our products are used throughout the world in a broad range of industries to secure every load type, from cotton bales and newspapers to steel coils and corrugated cartons.

Through a firm commitment to research and development, we have earned a reputation for being at the forefront of packaging innovation. We provide our customers with advanced solutions that increase production efficiency, improve load integrity and reduce operating costs. We continuously refine our existing products and create new ones to take advantage of evolving technologies and to meet our customers' ever-changing needs. That responsiveness has made Signode the industry leader in protective packaging systems.

World-Class Quality

We use Statistical Process Control (SPC) methods in our plants that take measurements on our product during (not after) the manufacturing process to achieve and sustain the highest levels of quality assurance. In addition, all of our plastic and steel manufacturing plants are International Organization for Standardization (ISO) certified. That means they meet 18 strict criteria for excellence in the areas of process and quality control as set by the ISO. The ISO includes members from over 90 countries. Achieving certification confirms our long-term commitment to continuous quality improvement.

Protecting People-Ours and Yours

We are committed to providing our employees and yours with a safe, accident-free work environment. To accomplish this goal, we have instituted several comprehensive and innovative customer and employee safety programs. And we are continuously identifying new ways to improve our operating procedures and packaging equipment.

Building Safety Into Our Products

We manufacture our steel strapping with smooth, rolled edges and design power equipment with extensive safety features, including emergency stops, lockout systems, and guarding. To ensure that our customers know how to safely and correctly operate our equipment, we provide operator training and mandatory safety seminars with each installation. We also supply our customers with Signode Safety Kits, which include videos and written instructions on how to properly operate our hand tools and power strapping equipment.

Preserving Our Environment

We believe that businesses, like consumers, must act responsibly to help make the world a safer, cleaner place. That means carefully evaluating how our products are used, manufactured and disposed of; and utilizing those methods and products that preserve our resources, energy, and environment. Several feet of Signode steel or plastic strapping will often replace bulky containers, cartons, bags, stuffing, styrofoam and other packaging and reinforcing materials. We also use fewer packaging materials in our own shipments, recycle the materials we do use, and use recycled materials in many of our products. In addition, we routinely redesign our own packaging to utilize the least amount of packing material.



At Signode, we are committed to preserving and protecting the environment, from energy conservation to managing the waste we generate, as well as that of the customers we serve.

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For reference only

Steel strap

Coil winding

Signode strapping is produced in two basic coil windings:

SIGNODE®

Mill wound

The strapping is oscillated uniformly and tightly across the 2-1/2" (63.5 mm) width of the coil.

Ribbon wound

Each layer is wound directly over the one below it so that the width of the strapping is the width of the coil.





Mill wound

Ribbon wound

Coil sizes

Inside diameter: 16" (406.4mm)

Outside diameter: Mill wound coils measure 23" (584.2mm). Ribbon wound coils vary from 23-1/2" to 27" (596.9mm to 685.8mm) depending on strap size.

Standard multi-coil skids

Twelve mill wound coils make up a standard skid. The number of ribbon wound coils will vary with strapping width.





Ribbon wound skid

Mill wound skid



Anchor strapping

The standard or stocked version of punched strapping comes in two sizes: 3/4" x 0.017" (19.0 x 0.43 mm) Apex Plus with in-line 0.145" (3.5 mm) holes on 3/4" (19.0 mm) centers and a strap strength of 1,255 lbs. (5 583 N). 1-1/4" x 0.029" (31.8 x 0.74 mm) Magnus

1-1/4" x 0.029" (31.8 x 0.74mm) Magnus with staggered 0.240" (6.1mm) holes on 1-1/2" (38.1 mm) centers and a strap strength of 4,020 lbs. (17 881 N).

Standard strap finishes

Signode produces three different steel strapping finishes. Each is tailored to the requirements of particular tensioning methods, sealing devices and packaging applications.

Painted

Painted strapping is coated to offer corrosion resistance. Available in a wide range of Magnus strapping sizes, it is used in crimp-type seal systems to produce high joint strength.

Painted and waxed

Painted and waxed strapping also provides corrosion resistance. Available in all Apex Plus and Magnus strap sizes, it can be used in notch or crimp-type seal systems. Its primary advantage is improved tension transmission around load corners.

Waxed strapping is required for feedwheel-type tensioners.

Zinc painted and waxed

Zinc finish strapping is waxed and has a zinc-enriched coating to provide outstanding resistance to rust. Available in a variety of Apex Plus and Magnus sizes, it has the same improved tension transmission characteristics as the painted and waxed strapping. Zinc finish protects where it is needed most—at points of surface damage and scratches.

Sealless joint types

Sealless joints can be made with Signode manual or pneumatic combination tools. Using interlocking keys, the sealless joints provide static joint strength equal to that of notch-type joints. The reverse lock sealless joint features one reversed interlocking key for added security in impact conditions.



Three key sealless joint



Four key, reverse lock, sealless joint

Basic seal joint types Notch joint

One way to lock strap ends is to cut, or "notch" the seal and the strapping it joins to form tabs at the edges. These tabs are bent down (down notch joint) or bent up (reverse notch joint). The strength of the notch joint comes from the mechanical interlock between the seal and strapping. Notch joints are typically used on waxed strapping in packaging and unitizing applications.



Down notch joint



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Crimp joint

Another way to seal the ends of strapping is to press or "crimp" undulations into the seal and strapping ends. The strength of the crimp joint comes from the deformed seal creating high frictional forces. Crimp joints produce high static and dynamic joint strengths and are used on applications like carloading in which the strapped load is subject to severe impact.



PACKAGE SURFACE

Steel Strapping

For uncompromising quality and packaging effectiveness

Consistent high quality makes Signode steel strapping the first choice among packaging professionals worldwide. Purchasing professionals also prefer Signode strapping because it's made to the most exacting tolerances, so it goes further and stretches their strapping dollars.

Signode offers two basic types of steel strapping: Apex, Apex Plus and Magnus. Each is specially formulated to meet the demands of a particular range of applications.

Apex[™] and Apex Plus[™] strapping

A cold-rolled, low carbon steel strapping. Manufactured with superior edge conditioning and coating.

Magnus® strapping

A cold-rolled, medium carbon steel strapping. Heat-treated with a Signode process that combines fine surface and controlled physical properties with high strength and excellent shock resistance.

The particular type of strapping best suited to a specific application generally depends on three factors:

- 1) Strapping function or purpose
- 2) Package characteristics
- 3) Shipping or handling considerations

In a specific application, strapping may perform one or more of the following functions: package reinforcement, carton closure, securement, unitization, baling, bundling, bracing, palletization, compression retention and pilferage reduction.

Package characteristics that influence strap selection are: weight, stability, rigidity, integrity and sharpness of the edges (sharp edges may demand heavier strapping or corner protection).

Shipping considerations that affect the choice of strapping include: how far the package is shipped; how it's handled by both the shipper and receiver; and where and how it's stored.

Together, these various factors tend to narrow the choice to a particular set of strap characteristics. Your sales representative can help you determine your strapping requirements, such as width, thickness, finish, type of steel and tensile strength.

									<u> </u>	CIT	
	Str	ap Size			Ave	rage	v	ald		Coil	
Wic	lth	Thic	kness	Part	Strei		YI	eld	Coil Winding	Weight	Strap Finish
inch	mm 	inch	mm		lbs	N	ft/lb	m/kg		153	
Apex s	trappii	ng									Orange d Educa
3/8	9.5	0.015	0.38	085012	730	3 250	54.2	35.2	Mill	105	Curved Edge Painted & Waxed
3/8	9.5	0.020	0.51	085003	900	4 000	39.3	26.4	Mill	105	Painted & Waxed
3/8	9.5	0.020	0.51	085013	900	4 000	39.3	26.4	Mill	105	Curved Edge Painted & Waxed
1/2	12.7	0.020	0.51	085009	1,170	5 200	29.4	19.8	Mill	105	Painted & Waxed
1/2	12.7	0.023	0.58	085200	1,300	5 780	25.6	17.2	Mill	105	Painted & Waxed
5/8	15.9	0.020	0.51	085203	1,460	6 490	23.6	15.9	Mill	105	Painted & Waxed
5/8	15.9	0.023	0.58	085204	1,670	7 430	20.5	13.8	Mill	105	Painted & Waxed
3/4	19.0	0.020	0.51	085206	1,750	7 780	19.6	13.2	Mill	105	Painted & Waxed
3/4	19.0	0.023	0.58	085207	1,950	8 670	17.1	11.5	Mill	105	Painted & Waxed
Apex F	Plus str	apping									
3/8	9.5	0.017	0.43	2X1503	975	4 340	46.1	31.0	Mill	105	Curved Edge Painted & Waxed
1/2	12.7	0.020	0.51	2X1174	1,475	6 560	29.4	19.7	Mill	105	Zinc
3/4	19.0	0.017**	0.43	2X1506	1,900	8 450	23.1	15.5	Mill	105	Painted & Waxed
Magnu	ıs strap	ping			1	1	1		1		
1/2	12.7	0.020	0.51	085604	1,540	6 850	29.4	19.7	Mill	105	Painted & Waxed
5/8	15.9	0.020**	0.51	085644	1,920	8 540	23.6	15.8	Mill	105	Painted & Waxed
5/8	15.9	0.023	0.58	088432	2,200	9 790	20.5	13.7	Mill	105	Painted & Waxed
3/4	19.0	0.020	0.51	089397	2,300	10 230	19.6	13.1	Mill	105	Painted & Waxed
3/4	19.0	0.023	0.58	089370	2,640	11 740	17.1	11.5	Mill	105	Painted & Waxed
3/4	19.0	0.025**	0.64	085684	2,870	12 770	15.7	10.5	Mill	105	Painted & Waxed
3/4	19.0	0.029	0.74	2X1424	3,350	14 900	13.5	9.1	Mill	105	Painted & Waxed
1-1/4	31.8	0.025	0.64	089367	4,800	21 350	9.4	6.3	Ribbon	110	Painted & Waxed
1-1/4	31.8	0.029	0.74	2X1268	5,600	24 910	8.1	5.5	Ribbon	110	Painted & Waxed
1-1/4	31.8	0.029	0.74	2X1296	5,600	34 910	8.1	5.5	Ribbon	110	Zinc
1-1/4	31.8	0.035	1.12	0X4985	6,660	29 630	6.7	2.0	Ribbon	110	Painted & Waxed
1-1/4	31.8	0.044	1.12	2X1438	8,450	37 590	5.3	3.5	Ribbon	110	Painted & Waxed
2	50.8	0.044	1.12	2X1439	13,200	58 720	3.3	2.2	Ribbon	120	Painted & Waxed
Ancho	r strap	ping — A	pex Plus								Dointed 9
3/4 Ancho:	19.0	0.020	0.51	2X1509	1,255	5 580	19.6	13.1	Mill	105	Painted & Waxed
Ancho	strap	ping — M	iagnus								Deinted 0
1-1/4	31.8	0.029	0.74	2X1421	4,020	17 880	8.1	5.5	Ribbon	110	Painted & Waxed

SIGNODE[®]

^{*} Strap break strengths are listed as averages. Always use American Society for Testing Materials (ASTM D-3953) minimum break strengths for package design/safety factor purposes. For proper strap selection, contact your Signode sales representative.

^{** 300} ft. demonstration coils are available for these sizes.

SIGNODE[®]

Seals

The choice of a specific seal is often most strongly influenced by the type of tool or machine selected to apply it.

Five standard seal types **Snap-on seals**

Placed over the overlapping strap ends either during or after tensioning the strapping. Eliminates pre-threading.

Thread-on seals

Must be threaded over the overlapping strap ends before



the tensioning tool is applied. Generally used on bales, bundles and larger strap sizes.

Open-flange seals

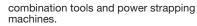
A Heavy-duty version of the snap-on. Requires no pre-threading.

Push-type seals

Used where strap is tensioned by butting the nose of the tensioner against the seal.

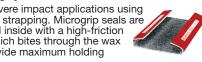
Nestack® seals

Held together by interlocking nibs.This Signode development permits loading partial stacks into magazines of seal feed



Microgrip® seals

For severe impact applications using waxed strapping. Microgrip seals are coated inside with a high-friction grit which bites through the wax to provide maximum holding



Seal Name	Strap	Size	Part Number	Seal Type	Joint Type	Tool Name	Seal L	ength	Standard Package	Ship	ximate ping ight
	inch	mm					inch	mm		lbs	kg
38 AL			000555	Nestack	Double Notch	AL-38	.860	21.8	12,600	34	15
38 C	3/8	9.5	000450	Snap-on	Double Notch	C-3820	1.120	28.5	5,000	28	13
38 SPC			000453	Push	Single Notch	SRC-3820	1.047	26.6	5,000	38	17
12 AL			000554	Nestack	Double Notch	AL-12	.860	21.8	9,100	42	19
12 AMP	1/2	12.7	000512	Nestack	Double Notell	AM-12, AMP-1-12	1.120	28.5	5,700	44	20
12 C	1/2	12.7	000500	Snap-on	Double Notch	C-1223	1.120	28.5	6,000	44	20
12 SPC			000503	Push	Single Reverse Notch	PNSC-2-12, SRC-1223	1.047	26.6	3,000	30	14
58/34 AMP			000567	Nestack	Double Notch	AM-58, AM-34, AMP-1-58, AMP-1-34	1.120	28.5	4,000	40	18
58 C	5/8	15.9	000550	Snap-on	Double Notell	C-5823	1.250	31.8	4,800	45	20
58 SPC			000553	Push	Single Notch	PNSC-2-58, SRC-5823	1.047	26.6	5,000	58	26
34 C			000600	Snap-on		C-3423	1.250	31.8	5,000	55	25
34 HCOF			005256	Open-flange	Double Notch	SYC-3431	2.200	55.9	1,500	50	23
34 HOC			005271	Push	Double Notch	PRHM-34, PRHR-34, RCD-3431, RCNS2-34, MIP-3000-34	2.200	55.9	700	31	14
34 MNT	3/4	19.0	007255	Nestack		AHP-34	1.500	38.1	2,400	48	22
34 PNSC			000572	Push	Cinalo Notoh	PNSC-2-34, SRC-3423	1.047	26.6	4,000	54	25
34 SHOC			005273	Push	Single Notch	RCNS2-34, SYC-3431	1.500	38.1	1,200	31	14
104 DG*			007200	Thread-on	Four Crimp		4.750	120.7	500	53	24
107 DG**	1-1/4	31.8	000575	IIII Gau-oii	Double Crimp	NSP-1435	2.937	74.6	700	46	21
107 DG OF*			000580	Open-flange	Double Grillip		2.937	74.6	500	33	15
114 A			000612	Nestack		AH-114, AHP-2-114	1.500	38.1	1,150	34	15
114 OF			008796	Open-flange	Double Notch	C-1431, RC-1435-50, RCD-1431, RCNS2-114, MIP-3000-114	2.200	55.9	1,000	50	23
114 P	1-1/4	31.8	005269	Push	Double Notell	C-1431, PRHR-114, RC-1435-50, RCD-1431, RCNS2-114, RCND-114	2.200	55.9	700	46	21
114 TO			005267	Thread-on		RCNS2-114	2.200	55.9	1,000	50	23
117 HDG 0F**	1-1/4	31.8	2X2091	Open-flange	Double Crimp	B-1450, N-1444-50LSH, N-1457-LSH-2A	3.250	82.5	500	41	19
117 HDG TO**	1-1/4	31.0	2X2092	Thread-on	Double Gillip	B-1450, N-1444-50LSH	3.250	82.5	500	41	19
208 DG**	2	50.8	000588	Thread-on	Double Crimp	B-250, NS-250-65L	2.937	74.6	300	43	20
208 T0**	_	00.0	001871	IIII Gau-oii	Double Gillip	D LOO, NO-LOU-UOL	2.937	74.6	300	43	20

Power Strapping Machine (PSM) seals

38 MNA	3/8	9.5	000562	Nestack	Single Notch	M2, M5, M200 (300 cap)	.750	19.0	9,000	29	13
12 MNA	1/2	12.7	000563	Nestack	Single Notch	M20, M200 (250 cap)	.750	19.0	5,400	28	13
58 MB	5/8	15.9	000435	Nastaals	Double Notch	M22-58, M200 (300 cap)	.984	24.9	4,000	36	16
58 MNA	3/6	15.9	000565	Nestack	Single Notch	M20-58, M200 (250 cap)	.750	19.0	4,800	30	14
34 MB			000569		Double Notch	M40, M400	.984	24.9	3,000	38	17
34 MNK	3/4	19.0	000566	Nestack	Single Notch	M22-34, M220 (250 cap)	.750	19.0	3,700	37	17
34 MNT			007255		Triple Notch	M20-34, MH-34, M200 (250 cap)	1.500	38.1	2,400	48	22
114 M	1-1/4	31.8	000561	Nestack	Double Notch	M361	2.000	50.8	750	42	19

^{*} All seals designated as "DG" have an aluminum oxide grit glued to the inner face. Grit seals are used in crimp joint systems in conjunction with lubricated strapping to provide a source of friction.

^{**} To be used with two seals - four pairs of notches or crimps.

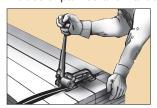
Manual Tensioners

For steel strapping

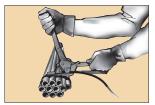
Signode hand tensioners allow operators to bring strap to desired tension with minimal interruption, effort and strap waste.

Feedwheel-for general use

The feedwheel tensioner has a serrated feedwheel which engages the strapping firmly. There is no limit to the amount of slack it can pull out of the strap. Fast and easy to use, it requires the use of painted and waxed strapping.



Push-type feedwheel—for round or irregular bundles



Windlass—for heavy-duty applications

The windlass tensioner simply winds one end of the strapping around a slotted windlass shaft. Used with dry, heavier strapping precut to desired lengths.



Rack-and-pinion—for heavy round or irregular applications

The rack-and-pinion tensioner uses a serrated gripping dog to hold the pulled strap end. It can be used with either dry or lubricated strapping on round or irregular shaped packages. This tensioner has limited take-up.



						MS	IGNO:	D)B	8
			Strap	Size					
Model	Part Number	Widt	Width		Thickness		Tension Level	We	ight
		inch	mm	inch	mm	Туре		lbs	kg
Feedwh	neel tension	ners							
ST	003480	3/8-3/4	9.5–19.0	0.015-0.025	0.38-0.63	Apex, Apex Plus, Magnus	Low	4	1.8
Т	003450	5/8-3/4	15.9–19.0	0.015-0.035	0.38-0.89	Apex, Apex Plus, Magnus	Medium	5	2.3
TH-114	020500	3/4–1-1/4	31.8	0.029-0.035	0.74-0.89	Magnus	High	7	3.2



Push-ty	Push-type feedwheel tensioners											
PF	017900	3/8-3/4	9.5 –19.0	0.015-0.023	0.38-0.58	Apex, Magnus	Medium	4	1.8			
PFH	017930	3/4-1-1/4	19.0-31.8	0.025 - 0.035	0.64-0.89	Apex, Magnus	High	7	3.2			



Windlass	Windlass tensioners											
4A1-114	184125	1-1/4	31.8	0.029-0.050	0.74-1.27	Magnus	High	12	5.4			
4A1-2	184140	2	50.8	0.044-0.050	1.12-1.27	Magnus	High	16	7.3			



Rack-and-pinion tensioners											
PH-2	010065	3/4–1-1/4	19.0–31.8	0.020-0.035	0.35-0.89	Apex, Apex Plus, Magnus	High	7	3.2		



Manual Sealers

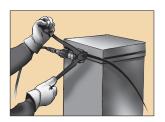
SIGNODE®

For steel strapping

Side-action and front-action

Front-action

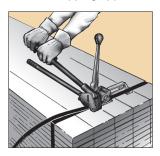
Front-action sealer handles are held perpendicular to the strapping, usually in front of the operator who pushes the handles together close to the chest. Generally for light-duty strapping applications.



Madel Part			Sti	rap Size				Weight	
Model	Part Number	Wic	lth	Thick	ness	Seal Name	Joint Type	Wei	ght
		inch	mm	inch	mm		3,00	lbs	kg
Regular-du	ıty sealers-	-front-ac	tion						
C-3820	008600	3/8	9.5	0.017-0.020	0.43-0.51	38 C	Double Notch		
SRC-3820	008620	3/6	9.0	0.017-0.020	38 SPC Single Reverse Notch				
C-1223	008605	1/2	12.7	0.017-0.023	0.43-0.58	12 C	Double Notch		
SRC-1223	008625	1/2	12.7	0.017-0.023	0.43 - 0.36	12 SPC	Single Reverse Notch		
C-5823	008610	F (0	45.0	0.047.0.000	0.40 0.50	58 C	Double Notch	3	1.4
SRC-5823	008630	5/8	15.9	0.017-0.023	0.43 – 0.58	58 SPC	Single Reverse Notch		
C-3423	008615	3/4	19.0	0.017-0.023	0.43-0.58	34 C	Double Notch		
SRC-3423	008635	3/4	19.0	0.017-0.023	0.43-0.36	34 PNSC	Single Reverse Notch		

Side-action

The side-action sealer's lower handle can be rested on the flat surface of the unit being strapped. Operators can apply much of their weight with both hands on the upper handle. Generally for heavier strapping applications.



Signode manual sealers provide positive sealing action with minimal effort. Light and durable, they lock strap ends into a high strength joint. Notchtype sealers cut into the seal and outer edges of the strapping, turning tabs down (down notch) or up (reverse notch).





Model	Part	Wid	dth	Thickr	ness	Seal	Joint	We	ight					
Wiodei	Fait	inch		inch	Name mm		Туре							
										mm inch mm			lbs	kg
Heavy-duty	y sealers	-side-	action											
RCD-3431	020560	3/4	19.0	0.025-0.031	0.64-0.79	34 HOC	Double Reverse Notch	7	3.2					
B-1431	020380	1-1/4	31.8	0.029-0.031	0.74-0.79	104 DG, 107 DG	Single Crimp	6	2.7					
RC-1435-50	004050	1-1/4	31.8	0.029-0.044	0.74-1.12	114 OF, 114 P	Single Reverse Notch	7	3.2					
RCD-1431	020350	1-1/4	31.8	0.029-0.035	0.74-0.89	114 SP, 114 TO	Double Reverse Notch	7	3.2					
B-250	020530	2	50.8	0.044-0.050	1.12-1.27	208 DG	Single Crimp	12	5.4					

Strap Size



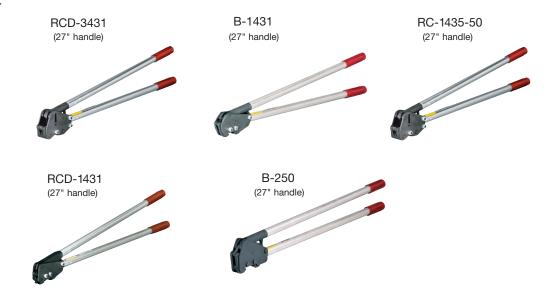
PACKAGE SURFACE



Reverse notch joint

Crimp-type sealers press the edges of the strapping and seal into wavy crimps specially shaped to produce maximum frictional forces on the strapping.



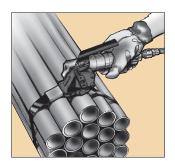


Pneumatic Tensioners & Sealers

For steel strapping

Tensioners

Signode pneumatic tensioners take most of the effort out of strapping large or compressible packages. They also make tensioning uniform and precise through adjustment of the air pressure regulator.



All pneumatic tensioners, except the WP-2, have unlimited strap take-up. It is essential that an air filter-regulatorlubricator assembly be installed ahead of the tool on the air line. See page 14 for pneumatic tool accessories.

Sealers

Signode pneumatic sealers let compressed air do most of the work. They are used to achieve high production on heavy strapping, especially when seals are in awkward positions or whenever productivity must be maximized.

These labor-saving sealers come in two basic styles. Those featuring pistol grips are lightweight for easy one-hand operation. Diaphragm types are for heavier-duty applications such as carloading.



All pneumatic sealers are furnished with a quick-disconnect plug. An air filter and regulator are necessary. A lubricator in the air line is not required. See page 14 for pneumatic tool accessories.

Model Part Number			Stra	ap Size		Maxi	mum			
	Wi	dth	Thick	ness	Strap	Strap Tension		Weight		
	Number	inch	mm	inch	mm	Type	lbs	N	lbs	kg
Feedwhe	Feedwheel tensioners									

SIGNODE

	FN-114T	008810	3/4 -1-1/4	19.0 –31.8	0.031-0.044	0.79 -1.12	Magnus	3,000	13 350	24	10.9	
	HN-1-114	027050	1-1/4	31.8	0.029-0.050	0.74 -1.27	Apex, Magnus	4,000	17 293	18	8.2	





Push-type feedwheel tensioners

PN2-114	423500	3/4 - 1-1/4	19.0–31.8	0.020-0.044	0.51-1.12	Magnus	1,600	7 117	8.1	3.7
PN2-2	428360	2	50.8	0.044	1.12	Magnus	1,600	7 117	8.1	3.7





Windlass to	ensioners
-------------	-----------

WP-2	023070	2	50.8	0.044	1.12	Magnus	8,000	35 590	23	10.4				



				Strap Size				Weight	
Model	Part Number	Wic	lth	Thick	ness	Seal Name	Joint Type	we	ight
		inch	mm	inch	mm			lbs	kg
Heavy-duty sea	alers								
RCNS2-34	424200	3/4	19.0	0.025-0.031	0.64-0.79	34 HOC, 34 SHOC	Single Reverse Notch	9	4.1
N-1444-50LSH**	024271			0.044-0.050	1.12–1.27	117 HDG OF	Double Crimp	22	10.0
N-1457-LSH-2A**	423810	1-1/4	31.8	0.050-0.057	1.27-1.45	117 HDG OF	Double Crimp	32	14.5
NSP-1435	015600			0.029-0.035	0.79-0.89	107 DG, 107 DG OF	Single Crimp	9	4.1
RCNS2-114	424125	1-1/4	31.8	0.025-0.031	0.64-0.79	114 OF, 114 P, 114 TO	Single Reverse Notch	9	4.1
NS-250-65L	014360			0.044-0.050	1.12-1.27	208 DG	Single Crimp	22	10.0
RCNS-250	RCNS-250 046840		50.8	0.044-0.050	1.12–1.27	208 TO	Single Reverse Notch	10	4.5

^{**} Three grit type seals are required per joint. Used in USLM applications.

Pistol grip NSP-1435 RCNS2-34, 114 RCNS-250



Large diaphragm N-1444-50LSH N-1457-LSH-2A NS-250-65L



Combination Tools

SIGNODE®

For steel strapping

Combination tools function as tensioners, sealers and cutters. They save time by eliminating the handling of separate tools. But weighing more than such tools, they should be placed as close as possible to the position where they will be used.

Manual seal-feed

Manually operated seal-feed combination tools include the AL, AM and AH series models.



Manual sealless

The SCM and SCMH sealless combination tools require no metal seals, saving time and money. Production interruptions for reloading are eliminated, along with the purchasing, inventorying and loading of seals.



				Strap Size					Weight		
Model	Part Number	Wic	dth	Thickness		Strap Type	Seal Name	Joint Type	we	ignt	
		inch	mm	inch	mm	-3/1-2		-3,1	lbs	kg	
Manual seal-feed											
AL-38	023380	3/8	9.5	0.017-0.020	0.43-0.51	Apex	38 AL	Double Notch	8	3.6	
AL-12	023300	1/2	12.7	0.017-0.020	0.43-0.51	Apex	12 AL	Double Notch	8	3.6	
AM-12	023230	1/2	12.7	0.017-0.023	0.43-0.58	Apex, Apex Plus, Magnus	12 AMP	Double Notch	14	6.4	
AM-58	023220	5/8	15.9	0.017-0.023	0.43-0.58	Apex, Apex Plus, Magnus	58/34 AMP	Double Notch	14	6.4	
AM-34	023200	3/4	19.0	0.017-0.025	0.43-0.64	Apex, Apex Plus, Magnus	58/34 AMP	Double Reverse Notch	14	6.4	
AH-114	015700	1-1/4	31.8	0.031-0.035	0.79-0.89	Magnus	114 A	Double	25	11.3	







			S	Strap Size						
Model	Part Number	Width		Thickness		Strap Type	Joint Type	We	ight	
		inch	mm	inch	mm		.,,,,	lbs	kg	
Manual sealless										
SCM-12	424350	1/2	12.7	0.015-0.023	0.38-0.58	Apex, Apex Plus, Magnus	3 Key	8.4	3.8	
SCM-58	424358	5/8	15.9	0.015-0.023	0.38-0.58	Apex, Apex Plus, Magnus	3 Key	8.4	3.8	
SCMH-58	424510	5/8	15.9	0.020-0.023	0.51-0.58	Apex, Apex Plus, Magnus	3 Key	8.4	3.8	
SCM-34	424334	3/4	19.0	0.015-0.025	0.38-0.64	Magnus	3 Key	11	5.0	
SCMH-34	424500	3/4	19.0	0.023-0.031	0.58-0.79	Magnus	3 Key	11	5.0	





Combination Tools

For steel strapping

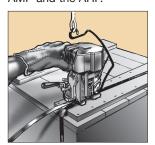
Pneumatic push-type

Pneumatic push-type combination tools, including the PNSC and PRH-Series models, are used with push-type seals on irregular-shaped packages. Air power tensions, seals and cuts the strapping.



Pneumatic seal-feed

Using applied air pressure as a power source, pneumatic seal-feed combination tools quickly and effortlessly tension, seal and cut the strapping. These tools include the AMP and the AHP.



Pneumatic sealless

Pneumatic sealless combination tools include the SLP and the SPC.

				Strap Size		Stron	Cool		1	imum	\A/-	
Model	Part Number	Wie	dth	Thick	ness	Strap Type	Seal Name	Joint Type	Strap Tension		Weight	
		inch	mm	inch	mm				lbs	kg	lbs	kg
Pneumatic Push-type												
PNSC 2-12	422495	1/2	12.7	0.017-0.023	0.43-0.58		12 SPC	Single Reverse Notch	700	3 114	9.5	4.3
PNSC 2-58	422496	5/8	15.9	0.017-0.023	0.43-0.58	Apex,	58 SPC	Single Reverse Notch	700	3 114	9.5	4.3
PNSC 2-34	422497	3/4	19.0	0.017-0.025	0.43-0.64	Magnus	34 PNSC	Single Reverse Notch	700	3 114	9.5	4.3
PNSC 2-34HT	422881	3/4	19.0	0.017-0.025	0.43-0.64		34 PNSC	Single Reverse Notch	1,000	4 448	9.5	4.3
PRHM-34	306700	3/4	19.0	0.025-0.031	0.64-0.79		34 HOC	Single Reverse Notch	1,600	7 117	16	7.3
PRHR-34	424234	3/4	19.0	0.025-0.031	0.64-0.79	Magnus	34 HOC	Single Reverse Notch	1,600	7 117	34	15.4
PRHR-100	424225	1	25.4	0.025-0.035	0.64-0.89	waynus	100P	Single Reverse Notch	1,600	7 117	34	15.4
PRHR-114	423570	1-1/4	31.8	0.025-0.035	0.64-0.89		114 P	Single Reverse Notch	1,600	7 117	34	15.4







SIGNODE

Pneumatic seal-feed												
AMP-1-12	024780	1/2	12.7	0.020-0.023	0.51-0.58	Magnus	12 AMP	Double Notch			22	10
AMP-1-58	024770	5/8	15.9	0.020-0.023	0.51-0.58		58/34 AMP	Double Notch	1,600	7 117		
AMP-1-34	024760	3/4	19.0	0.020-0.025	0.51-0.64	Apex, Magnus	58/34 AMP	Double Notch				
AHP-34	023700	3/4	19.0	0.031	0.79	Magnus	34 MNT	Double Notch	2 000	10.045	40	18.1
AHP-2-114	015650	1-1/4	31.8	0.025-0.035	0.64-0.89		114 A	Double Notch	3,000	13 345	40	10.1



AHP Series



		Strap Size						Maximum		14/-:I-4	
Model	Part Number	Wi	idth	Thickr	ness	Strap Type	Joint Type	Strap Tension		Weight	
		inch	mm	inch	mm	.,,,,,	.,,,,	lbs	N	lbs	kg
Pneumatio	sealless										
SLP-12	422350	1/2	12.7	0.017-0.023	0.43-0.58	Apex Plus, Magnus		500	2	15	6.4
SLP-58	422355	5/8	15.9	0.017-0.023	0.43-0.58	Apex Plus, Magnus	3 Key	1,200	5	15	6.4
SLP-34	422360	3/4	19.0	0.017-0.025	0.43-0.64	Apex Plus, Magnus		1,200	5	15	6.4
SPC-3431	422446	3/4	19.0	0.025-0.031	0.64-0.79	Magnus	4 Vou	1,600	7	24	10.8
SPC-114	423125	1-1/4	31.8	0.025-0.031	0.64-0.79	Magnus	4 Key	3,000	13	37	16.8









Battery-powered Tools

For steel strapping **SIGNODE**° Strap Size **Applied** Weight Part Strap Seal Joint Width **Thickness** Model Tension Number Type Name Type lbs inch mm inch lbs kg 0.64 - 0.79 GripPack 114 Sealer 800250 1-1/4 31.8 0.025 - 0.031AP, M 114 P, 114 OF SRN 7.5 3.4 GripPack 114 Tensioner 800441 19 – 31.8 3/4 - 1-1/4 0.025 - 0.0310.64 - 0.79AP, M 1,500 5.7







Battery and Charger

	Model	Part
GripPack Kit	GripPack Sealer, Battery and 110 volt Charger	800464
	GripPack Sealer, Battery and 220 volt Charger	800465
	GripPack Tensioner, Battery and 110 volt Charger	800466
	GripPack Tensioner, Battery and 220 volt Charger	800467

	Model	Part
GripPack	110 Volt Battery and Charger	800521
Accessories	Battery	800293
	110 Volt Charger	800294
	220 Volt Battery and Charger	800544
	220 Volt Charger	800543

Dispensers

For steel strapping

SIGNODE°

Model	Part Number	Strap S	Size	Coil Wi	nding	Weight		
Model	Part Number	inch	mm	Mill	Ribbon	lbs	kg	
DF-15*	273725	3/8-3/4	9.5-19.0	•	-	54.5	24.7	
DF-10RW	020420	3/4-1-1/4	19.0-31.8	•	•	94	43	
DF-23	024200	3/8-3/4	9.5-19.0	•	-	35	16	
DM-23	_	_	_	_	_	_	_	
DTR-3	164520	3/4-2	19.0-50.8		•	110	50	
DT-1-10RW	011442	5/8-1-1/4	15.9-31.8	•	•	125	57	
DH-1-34	047538	3/4	19.0	-	•	46	21	
DH-1-114	047537	1-1/4	31.8	_	•	46	21	
DH-1-2	047539	2	50.8	_	•	46	21	

^{*} Dispenser can be used with both steel and plastic strapping

^{**} Makes the DF-23 mobile. (Part No. 017000)



DF-15 For typical shipping room. Easily loaded with mill wound coils.



DF-10RW Accepts mill wound or ribbon wound coils 3/4" and 1-1/4" in width.



DF-23
Fits almost anywhere. Pays off from the inside of the coil. Mobile with optional DM-23 cart. Cover required for strap over 0.023" (0.58mm). Cover sold separately (Part No. 024219).



DM-23 Makes the DF-23 mobile (Part No. 017000).



DTR-3 Heavy-duty carloading. Rubber tires for easy mobility. Holds one coil 3/4", two coils 1-1/4", and one coil 2" strapping.



DT-1-10RW Heavy-duty dispenser. Ideal for outdoor use in rough terrain.



DH-1-34, DH-1-114, DH-1-2 For use with heavy-duty strapping.

SIGNODE[®] For steel strapping

Model	Part Number	Strap	Coil W	inding	Weight		
Model	Part Nulliber	inch	mm	Mill	Ribbon	lbs	kg
DA-34-114	020400	3/4-1-1/4	19.0 or 31.8	-	•	131	59
DF-1-12	031317	3/8-3/4	9.5-19.0	•	-	95	43
DF-X*	429220	1/2-3/4	12.7-19.0	•	-	58	26
DP-1-12R	040900	3/8-3/4	9.5-19.0	•	-	170	77
DC-1A	005720	3/4-2	19.0-50.8	-	•	97	44
DPCL	083001	3/8-2	9.5-50.8	•	•	450	204

^{*} Dispenser can be used with both steel and plastic strapping



DF-1-12 For power equipment only. Dancer arm of coil and brake. Base sold separately Part No. 024360).



DA-34-114 Heavy-duty dispenser. Pays off from inside of coil.



DF-X An all purpose, easy loading dispenser for mill wound coils.



DP-1-12R Pneumatic reversing dispenser. Generally for power strapping machines with large chute systems.



DC-1A Built-in strap cutter for precutting. Holds any two ribbon wound coils.



DPCL wCuts strapping automatically up to 100 ft. in length.

Pneumatic Accessories

For steel and plastic strapping

Pneumatic accessories



Note: Only use lightweight air tool oil in lubricator, such as Non-fluid Oil No. LO713-54 (Part No. 008556).

A filter-regulator-lubricator (FRL) assembly (Part No. 429141, with 1/2" I.D. hose) or (Part No. 429130, without hose) is needed with all pneumatic tools and equipment. Additional pneumatic accessories are available from Signode, such as those shown on right, to help provide optimum operation. Please contact your local Signode sales representative for more information on the proper fittings for your specific tool or equipment.

Check the air pressure at the tool with a separate air gauge to verify proper air pressure.



Standard air gauge. (Part No. 425238)



Quick-connect safety socket for standard air supply. (Part No. 429134)



Quick-connect plug for low standard air supply. (Part No. 020704)



High air flow gauge. (Part No. 429127)



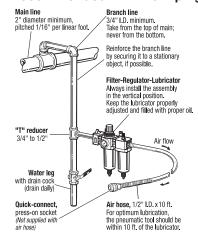
Quick-connect socket for high flow air supply. (Part No. 015294)



Quick-connect plug for high flow air supply. (Part No. 015293)

Recommended Air Line Piping

SIGNODE





Bi-directional 360° swivel connector for increased operator control and maneuverability. (Part No. 426903)



Filter bushing (Part No. 024631) Screened bushing reduces air line particles from entering the tool.

Steel Strapping Accessories

Coil Lifter

Capable of lifting up to 125 lb. strap coils, the standard coil lifter is designed for easy dispenser loading, both vertically and horizontally. Accommodates both mill and ribbon wound steel strap coils as well as standard plastic coils.





Portable model Part No. 424700



Stationary model Part No. 424700

Strapping Cutters



Model CU-25
Part No. 005740
For strap removal or cutting strap to length. Replaceable blades. Cuts strap through 2" x 0.050" (50.8 x 1.27 mm). Shipping weight: 8 lbs. (3.6 kg)



Model CU-25LH
Part No. 0X-1528
Extra long handle cutter.
Replaceable blades. Cuts strap through 2" x 0.050"
(50.8 x 1.27 mm).
Shipping weight: 8 lbs. (3.6 kg)



Model CU-30
Part No. 005899
Lightweight. One-hand
operation. Cuts strap through
1-1/4" x 0.035" (31.8 x 0.89 mm).
Shipping weight: 3 lbs. (1.35 kg)



Model CY-30
Part No. 426010
Heavy-duty alloy steel. Cuts strap through 1-1/4" x 0.035" (31.8 x 0.89 mm).
Shipping weight: 3 lbs. (1.35 kg)

For reference only

SIGNODE°

Three types for a wide range of applications

Signode plastic strapping is manufactured for use with hand tools and high-production power strapping machines. All types have controlled surface properties that minimize tensioning effort, increase tension-transmission around corners and improve operating efficiency. All are split-resistant to increase

reliability in tools and power equipment.

Specifications for all varieties of Signode plastic strapping along with general methods of application for each type are detailed in the following tables.

Tenax Strapping

Tenax polyester strapping can be tensioned to a higher percentage of its break strength than any other strapping material. It provides



Tenax®

superior retained tension under hot, humid conditions and is more resistant to such environments than other plastic strapping. It also provides greater load stability during storage and shipping.

Tenax strap is strong, yet resilient enough to perform smoothly and reliably in power strapping machines and hand tools. And it's more tear and snag resistant than other plastic strapping.

Contrax Strapping

Contrax
polypropylene
strapping is a
good choice for
light and
medium-duty
applications,
including
palletizing,
unitizing,
bundling, carton
closure and



Contrax®

reinforcement. It resists splitting and has a smooth, uniform surface so it performs reliably in power strapping machines.

Contrax strapping has "elastic memory" which absorbs shock and keeps strapping tight during handling and shipping.

Empax Strapping

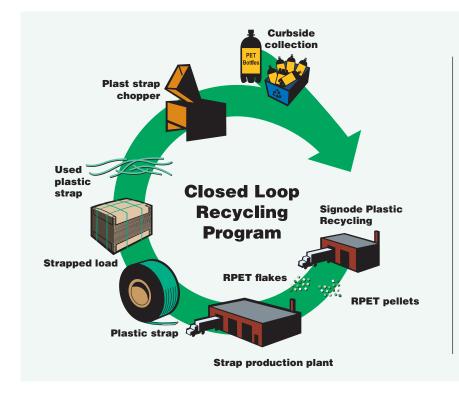
Empax waffled strapping is designed to perform in hotknife sealing machines that require embossed strapping. It is a good choice for many light and medium-



Empax"

duty applications. A variety of coil sizes are available for use in many power strapping machines.

Empax has "elastic memory" to keep straps tight, and features consistent width and gauge control to run smoothly in your strapping machine. It is an economical choice for many applications.



Plastic Strap Recycling Program

Signode is committed to being a leader in sustainability for the packaging industry. In addition to our ongoing development of higher strength, lower weight strapping to reduce raw material requirements, we also operate a strap reclamation program.

Our Closed Loop Recycling Program, aimed at limiting waste, collects our customers' used green PET strapping for use in the manufacture of new strapping. As a result of our recycling operation, Signode Tenax strapping contains more than 85% recycled content.

Plastic Strapping

																	SIGNODE	
				Size	Ave Strer	rage	App	rox. ength		rox. Vidth		x. Coil de Dia.	Core		Coil	Standard	Strap	
Strap Name	Strap Color	Part Number	Wi	dth	Suei	igui"	COIL	engui	COII	WIGHT	Outsit	JE DIA.	IIISIU	o Dia.	Weight	Coils/	Application	
Humo	GOIOI	Number	inch	mm	lbs	N	ft	m	inch	mm	inch	mm	inch	mm	lbs	Pallet	Method	
Tenax® S	trappi	ng				,												
1612		2X2218			260	1 157	18,000	4 877							49	24	HBX Large frame PSM	
1614S		2X2226	3/8	9	300	1 334	18,000	4 877	6	152	24	609	16	406	54	24	MH-VM side seal PSM	
1616ELC		2X2015			425	1 890	14,500	4 420						57	12	MH-VM side seal PSM		
1716LC		2X1488	7/40	40.5	475	2 110	11,550	3 520	_	450	04	C00	10	400	55	24	MILL VIM aids and DOM	
1718LC	Green	2X1498	7/16	10.5	550	2 450	9,900	3 445	6	152	24	609	16	406	53	_	MH-VM side seal PSM	
1816		010379			500	2 220	10,500	3 200							51	12		
1818		010361	1/2	12	600	2 669	9,000	2 743	6 1	152	24	609	16	406	51	40	Hand tools - metal seals MH-VM / Friction-weld	
1822		010355			800	3 560	6,500	1 980							50	12	mii viii / i i i dudii-weid	
High-Stre	ength	Tenax [®] S	trapp	ing	,													
2030	Green	2X1365			1,100	4 890	4,600	1 404	6	152	24	609	16	406	48	24		
2040**	Green	2X1369			1,400	6 227	4,000	1 219	6	152	24	609	16	406	49	24	Hand hada da Sanad	
2040**	Green	2X2222	- 10	45.0	1,400	6 227	4,000	1 219	6	153	24	609	16	406	49	24	Hand tools designed specifically for use with	
2040HG	Green	2X1889	5/8	15.6	1,400	6 227	4,000	1 219	6	153	24	609	16	406	49	24	High-strength Tenax	
2040J**	Green	2X1474			1,400	6 227	12,500	3 810	7.5	190	24	609	16	406	153	4	Power strapping machines	
2040H**	Green	2X1460			1,600	7 117	4,000	1 219	6	153	24	609	16	406	56	24		
2220**		2X1888	3/4	19	1,900	8 451	3,000	914	6	152	24	609	16	406	52	24		
2225**	Green	2X1847	3/4	19	2,500	11 120	2,400	732	6	153	24	609	16	406	52	24		
2480**		2X1851	1	25	2,200	11 120	2 ,200	671	6	153	24	609	16	406	50	24	Power strapping machines	
10050**	Green	2X1842	1	25	3,000	13 344	1,800	2 012	6	153	24	609	16	406	52	24	Hand tools designed specifically fo use with High-strength Tenax	
2680**		2X2207	1-1/4	32	3,200	14 234	1,800	2 012	6	153	24	609	16	406	52	24	use with high-strength lenax	
2625**	Green	2X2208	1-1/4	32	4,000	17 792	1,500	1 372	6	153	24	609	16	406	54	24		
Tenax® Er	nboss	ed — po	lyeste	er														
3/8X017 EMB		1935010L	3/8	9	360	1 601	13,500	4 115	6	152	24	609	16	406	50	24		
3/8X020 EMB	Green	1935002	3/8	9	470	2 091	12,500	3 801	6	152	24	609	16	406	50	24		
7/16X022 EMB	Green	2X2230	7/16	10.5	550	2 224	10,500	3 200	6	152	24	609	16	406	50	24	Hand tools designed specifically fo use with Tenax	
1/2X022 EMB		2	1/2	12	625	2 780	9,300	2 835	6	152	24	609	16	406	49	24	uso Willi Icliax	
1/2X028 EMB	Green	2X2228	1/2	12	800	3 336	7,200	2 195	6	152	24	609	16	406	50	24		
High-stre	ngth	Tenax [®] E	mbos	sed -	– poly	ester												
5/8X030 EMB		2X2232	5/8	15.6	1,100	4 893	4,600	1 402	6	152	24	609	16	406	42	24		
2040 EMB		2X2011 EMB	5/8	15.6	1,300	5 782	4,000	1 219	6	152	24	609	16	406	45	24		
2040 EMB AAR	Green	2X2229	5/8	15.6	1,400	6 227	4,000	1 219	6	152	24	609	+	406	46	24	Hand tools designed specifically fo	
2X2237**		2X2237*	5/8	15.6	1,600	7 117	4,000	1 219	6	152	24	812	16	406	49	24	use with High-Strength Tenax	
3/4X040 EMB	Green	2X2233	3/4	15.6	1,900	8 451	3,000	914	6	152	24	609	16	406	46	24		

^{*} Strap break strengths are listed as averages. Always use American Society for Testing Materials (ASTM D-3950) minimum break strengths for package design/safety factor purposes. For proper strap selection, contact your Signode sales representative.

^{**} AAR printed

Plastic Strapping

SIGNODE[®] **Strap Size** Approx. Coil **Core Size** Average Approx. Approx. Inside Dia. Coil Standard Strength* **Coil Length Coil Width** Outside Dia. Strap Width Strap Strap **Part Number** Weight Coils/ **Application** Color lbs **Pallet** Method inch lbs N ft inch inch inch mm mm m mm mm **Light Duty Contrax** LB 112 2X1844 Clear LBX 3/16 5 100 445 30,000 9 146 7.8 198 16 406 7.8 200 28 36 **PSM** LB 112 2X1870 LB 212 2X1845 LBX 1/4 6 150 667 24,000 7 317 7.8 198 16 406 7.8 200 27 36 **PSM** LB 212 2X1848 Yellow LB 113 2X1601 Clear 120 530 25,000 7 622 7.8 198 16 406 7.8 200 28 LB, SP & SureTyer LB 113 3/16 5 Yellow 2X1709 36 LB 116 Clear 2X1875 150 667 23,000 7 010 7.8 198 16 406 7.8 200 29 SP 216 Clear 2X1606 LB & SureTyer 1/4 6 200 890 18,000 5 488 7.8 198 16 406 200 27 36 7.8 **PSM SP 216** Yellow 2X1607 **General Duty Contrax** HB 612 2X1738 Clear HBX 9 3/8 225 1 000 16,000 4878 7.8 198 16 406 7.8 200 29 36 **PSM** HB 612 2X1727 Black 2X1885 **HB 812** Clear нвх 12 300 1 330 12,000 3 659 7.8 198 406 200 27 36 16 7.8 **PSM** 2X1886 **HB 812** Black **SP 616** Clear 2X1608 HB, SP & SureTyer 3/8 9 300 1 330 12.000 3 659 198 16 406 7.8 7.8 200 27 36 **SP 616** Black 2X1609 SP 719 2X1614 Clear HB, SP & SureTyer 7/16 10.5 400 1 780 9,000 2 744 7.8 198 16 406 7.8 200 28 36 **PSM** SP 719 2X1615 Black 2X1616 **SP 723** Clear HB, SP & SureTyer 7/16 500 10.5 2 220 7,500 2 287 7.8 198 16 406 7.8 200 28 36 **SP 723** 2X1617 Black **Heavy Duty Contrax** 1 780 2X1610 12,000 3 659 HD 719 Clear 400 39 MH-VM HD 723 2X1613 7/16 10.5 500 2 220 9,000 2 744 6 152 24 609 16 406 34 24 **Pneumatic friction-weld tools** Black HD 729 2X1622 600 2 670 7,700 2 348 37 Hand tools / seals / Black 010366 1/2 500 8,000 2 439 609 406 816 12 2 220 152 24 16 32 24 friction-weld **Empax** M09250WH8 16 406 8 203 30 White 3/8 9 250 1 330 12,900 3 930 8 203 24 M09250WH9 17 432 9 229 30 16 406 8 203 28 M12350WH8 1 557 350 White 1/2 12 9,900 3 020 8 203 24 M12350WH9 1 557 432 229 28 Hot-knife PSM 17 9 350 **Empax** that require embossed 2 669 M12600BK6-7500 600 7.500 2 286 6 152 24 610 16 406 30 strapping 24 16 23 H12300BK6 300 1 334 9,000 2 743 6 152 610 406 Black 1/2 12 24 H12500BK6 500 2 224 7,200 2 195 6 152 24 610 16 406 29 H12600BK6 600 2 669 7,200 2 195 6 152 24 610 16 406 29

^{*} Strap break strengths are listed as averages. Always use American Society for Testing Materials (ASTM D-3950) minimum break strengths for package design/safety factor purposes. For proper strap selection, contact your Signode sales representative.

For plastic strapping

SIGNODE®

Plastic joint types

Normal packaging rates for any application influence both the choice of strap and its joining methods. For low-volume, low-tension strapping of lightweight packages or bundles, Signode Steelock™ or Dylock™ buckles are probably the most economical method of joining strap, since they require no special sealing tool.

Seals for hand tool application

All types of 12mm Signode plastic strapping as well as 16 mm and 19 mm High-Strength Tenax strapping can be sealed with hand tools using metal seals. Signode manufactures snap-on seals for manual sealers and Nestack seals for use in combination strapping tools with seal magazines.

Snap-on seals

Signode snap-on seals use a grit coating on the inside to increase friction between the strapping and the seals. Snap-on seals are placed on overlapping strap ends during or after strap tensioning. These seals generally reduce application time.

Nestack® seals

Nestack seals use steel teeth to grip the strapping. They are stacked and held together by plastic filaments. Designed for use in seal magazines of combination strapping tools, they are packaged in trays that can be conveniently placed at any strapping station.

Seal and joint strength

To ensure positive joint strength on all four types of plastic strapping, Signode steel seals and special sealers are used to form crimp joints. Crimp joints are formed by compressing the seal onto overlapping straps. The holding power of the joint is generated by squeezing the straps and the seal together.

Friction-weld® sealless joint

The Friction-weld® process. developed by Signode, positively joins plastic strapping without the use of seals or applied heat.

	Seal Name	Part Number	Seal Type	Seal Length		Strap Size		Tool Name	Approx. Shipping Weight		Standard Package
				inch	mm	inch	mm		lbs	kg	
-	Dylock™	& Steeld	ock™ buck	des				`			

50 DL	000470	Dylock	20.6	.885	1/2	12	DLT	23	10.4	5,000
50 SL	000472	Steelock	23.8	.937	1/2	12	DLT	52	23.6	2,500



Seal Name	Part Number	Seal Type	Seal Length		Strap Size		Tool Name	Approx. Shipping Weight		Standard Package
Name			inch	mm	inch	mm	1	lbs	kg	
Snap-on	Snap-on seals									
50 DYS	000465		3/4	19.0	1/2	12	D-504	40	18.1	3,100
EO DV	000400	1	4 4 /0	00.0	4 /0	40	D 504 D 500	40	40.4	2 500

50 DYS	000465		3/4	19.0	1/2	12	D-504	40	18.1	3,100
50 DY	000466	Grit	1-1/8	28.3	1/2	12	D-504, D-506	42	19.1	2,500
58 DY	2X1672	uni	1-1/2	38.1	5/8	16	D-58	28	12.7	1,000
34 DY	2X1795		2-1/8	55.9	3/4	19	D-34	45	20.4	1,000



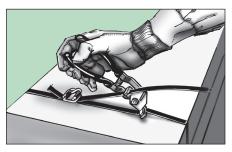
Seal Name	Part Number	Seal Type	Seal Length		Strap Size		Tool Name	Approx. Shipping Weight		Standard Package	
			inch	mm	inch	mm		lbs	kg		
Nestack	Nestack seals										
50 ASD	000531	Conneted	1-1/8	28.3	1/2	12	AMPT-12, AST	41	18.6	2,000	
58 AMT	2X1303	Serrated	1-1/8	28.3	5/8	16	AMT-58	33	15.0	1,440	



Manual Tensioners & Sealers

SIGNODE[®]

For plastic strapping



Model	Part Number		Strap	Туре			Approx. Shipping Weight		
		Cor	itrax	Tei	nax	Description			
		inch	mm	inch	mm		lbs	kg	
DLT	023930	1/2	12.7	_	_	Gripper / cutter for 50SL, 50DL buckles	1	0.45	

Walking gripper tensioner

Lightweight tensioner/cutter designed for buckle applications with plastic strapping. Provides maximum tension with Steelock or Dylock buckles.

* Tool may be used with 816, 818 Contrax strapping, but only with the 50DL buckle (Not the 50SL).

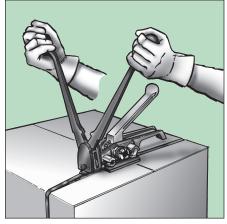


			Strap	Туре			Approx.			
Model	Part Number	Contrav			nax	Description		ing Weight		
		inch	mm	inch	mm		lbs	kg		
STD	257080	1/2	12.7	1/2	12.7	Feedwheel with cutter	4	1.8		

Feedwheel tensioner

A serrated feedwheel grips the strapping and rotates to take up slack. Fast and easy to position and use. Take-up is unlimited, and strapping may be used directly off the coil.





	Mod
	D-504
-	D-506
	D-58
	D-50



Sealers

Model D-504, D-506 and D-58 front-action sealers have handles that are perpendicular to the strapping. To operate, spread the handles, grip the seal between the sealer's jaws and push the handles together.

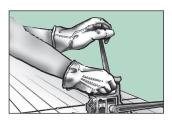


Combination Tools

For plastic strapping

SIGNODE°

Combination tools function as tensioners, sealers and cutters. They save time by eliminating the handling of separate tools. But because they weigh more than such tools, they should be placed as close as possible to the position where they will be used. Seal-feed combination tools carry a stack of seals in a magazine for fast, easy loading.



Manual

The AST manual seal-feed combination tool uses Contrax and Tenax strapping.
The AMT-58 is the ideal tool for High-Strength Tenax strapping.

Pneumatic Friction-weld®

The model VFX-9/13 combination tool applies Contrax and Tenax strapping. Strap ends are joined with Signode's friction-weld process, eliminating the need for metal seals.

The VTI-16, VTI-19 and VTI-25 pneumatic friction welding tools are used in baling applications. The lightweight VT-16HD, VT-19HD, VT-25HD and VT-32HD tools apply High-Strength Tenax strapping at higher tension levels. Ideal for use in both horizontal and vertical applications.

				Stra	р Туре						App	
Model	Part Number	Con	Contrax Tenax		nax	High-Strength Tenax		Description	Seal Type	Joint Type	Shipping Weight	
		inch		inch	mm	inch mm					lbs	kg
Manual												
AST	422950	1/2	12	1/2	12.7	_	-	Seal Feed	50 ASD	Crimp	11.5	5.2
AMT-58	306930	_	_	_	_	5/8	15.9	Seal Feed	58 AMT	Crimp	14	6.4



				Stra	р Туре			Maximum		App	
Model	Part Number	Con	trax	Tei	nax	"	trength nax	Tension lbs.	Joint Type	Ship Wei	ight
		inch	mm	inch	mm	inch	mm			lbs	kg
Pneumatic								,			
VFX-9/13	429276	3/8	9	3/8	9			180	Friction-weld	5	2.3
VFA-9/13	429270	1/2	12.7	1/2	12.7			100	rricuon-weiu) 	2.3
VTI-16	427110	_	_	_	_	5/8	15.9	_	Friction-weld	6	2.7
VTI-19	427993	_	_	_	_	3/4	19.0	_	Friction-weld	6	2.7
VTI-25	427988	_	_	_	_	1	25.4	_	Friction-weld	6	2.7
VT-Brick	427130		-	_	_	5/8	15.9	600	Friction-weld	10.5	4.8
VT-Brick HS	425230	_	_	_	_	5/8	15.9	600	Friction-weld	10.5	4.8
VT-16/19/25 FBR	425240	_	_	_	_	5/8	15.9	600	Friction-weld	10.5	4.8
VT-16HD	427280	_	_	_	_	5/8	15.9	800	Friction-weld	10.5	4.8
VT-19HD	426160	_	_	_	_	3/4	19.0	800	Friction-weld	10.5	4.8
VT-25HD	423992	_	_	_	_	1	25.4	800	Friction-weld	10.5	4.8
VT-32HD	428225	_	_	_	_	1-1/4	32	800	Friction-weld	10.5	4.8









Battery-powered Tools

SIGNODE[®]

For plastic strapping

Battery-Operated Friction-weld

The BXT2 combination tools apply polypropylene or polyester strapping, utilizing friction weld joint technology to join strap ends. Automatic weld function speeds up cycle time. The battery-operated BXT2 has a simple two-button process and ergonomic design to reduce operator fatigue.

Model	Part Number	Con	Stra trax	np Type Tei	nax	Description	App Ten: Ib	sion	Joint Type	Appi Shipi Wei	ping
		inch	mm	inch	mm		lbs	N	71	lbs	kg
BXT2-10	800570	3/8-1/2	9-15.9	3/8-1-2	9-15.9	Battery	275	1 223	Friction-weld	7.5	3.4
BXT2-16	428340	5/8	15.6	1/2-5/8	12.7-15.9	Battery	550	2 446	Friction-weld	9	4.1
BXT2-19	428350	3/4	19.0	5/8-3/4	15.9-19.0	Battery	880	3 914	Friction-weld	9	4.1
BXT2-25	2640315	_	_	1	25.4	Battery	1,460	6 494	Friction-weld	14.3	6.5
BXT2-32	2640325	_	_	1-1/4	32	Battery	1,460	6 494	Friction-weld	14.3	6.5



BXT2-10





BXT2-19

BXT2-25/32

Dispensers

Model	Part Number	Strap) Size	Core Size I.D.	Dispenser Weight		
model	T dit Hallison	inch	mm	0010 0120 1151	lbs	kg	
DD-1A	024520	7/16–1/2	10.5–12	16"	48	22	
DF-16A	422300	3/8–3/4	9–19.0	16"	62	28	
DF-1-12D	031318	3/8–3/4	9–19.0	16"	97	44	
DF-X	429220	1/2-3/4	12.7-19.0	16"	58	26	

DD-1A Floor model with straptroller. Can be suspended overhead.



DF-16A Designed for use with high-strength polyester strapping.



DF-1-12D For power equipment. Dancer arm and brake. Base sold separately (Part No. 024360).



DF-X An all purpose, easy loading dispenser for mill wound coils.



Pneumatic tool accessories



See Page 14 for additional fittings.

A filter-regulator-lubricator (FRL) assembly is needed with all pneumatic tools and equipment. Additional pneumatic accessories are available from Signode to help provide optimum operation. Please contact your Signode sales representative for more information on the proper fittings for your specific tool or equipment.

Note: Only use light weight air tool oil in lubricator, such as Non-fluid Oil No. LO713-54 (Part No. 008556) or equivalent.

General Purpose Equipment

For plastic strapping

SIGNODE°

TTX

Strapping System



The Economical TTX is the ideal plastic strapping system for low volume users. Its simple open cabinet, bottom seal design makes it ideal for strapping bundles, cartons or coiled products. Strap tension and length are fully adjustable.

- Low cost
- Easy to operate
- Reliable

Specifications

Package size:Minimum: 3-1/2"W x 2"HStrap tension:Adjustable from 10 lbs. to 80 lbs.Strapping:6mm (1/4"), 9mm (3/8"),

ing: 6mm (1/4"), 9mm (3/8"), 12mm (1/2") Empax polypropylene strapping.

Electrical: 120 VAC, 1 phase, 60 Hz.

Shipping weight: 185 lbs.

TableTyer™

Strapping System



The low-cost TableTyer™ is the ideal plastic strapping system for low to moderate volume users. No adjustments, 24 VDC motors eliminate belts, solenoids and idler pulleys. Simple electronic design makes for trouble-free operation.

- Portable
- · Ready to operate in seconds

Specifications

Maximum package

weight: 125 lbs.

Strap tension: Adjustable from 10 lbs. to 100 lbs.

Strapping: 5 mm-12 mm Empax

polypropylene strapping.

Machine dimensions: 33-1/2" L x 22" W x 30-3/4"H (adjustable up to 37-1/2"H).

(851mm L x 559mm W x 781mm H, adj. up to 953mm).

Electrical: 120 VAC, 1 phase, 60 Hz.

Shipping weight: 185 lbs.

MOD-GPX

Semiautomatic and Automatic Strapping System



The MOD-GPX plastic strapping machine provides the highest available speed, most reliable performance and lowest maintenance operation of any general-duty strapping machine on the market today. With timesaving features, the MOD-GPX simplifies operation and maintenance to save you time and money.

- Jam-resistant technology
- Automatic loading
- Automatic cut-off and refeed option
- Fully accessible strap path
- Lubrication-free operation

Specifications

Chute inner dimensions:

	inch	mm	inch	mm								
W	16*	406	20	510	28	710	33	840	48	1220	48	1220
Н	10*	254	15	380	20	510	30	760	20	510	48	1220

Cycle rate: Up to 70 straps per minute.

Strap tension: Adjustable from 2 lbs. to 60 lbs.

Strapping: Signode Contrax

polypropylene strapping

5 mm, 6 mm, 9 mm and 12 mm.

Tabletop height: Adjustable from 26" to 40" (660 mm to 1015 mm).

120 VAC, 60 Hz: 3 phase

voltage optional.

Shipping weight: 600—700 lbs. *Available on semiautomatic models only.

MOD-GPX

Semiautomatic and Automatic Stainless Steel Strapping System



The MOD-GPX plastic strapping machine provides the highest available speed, most reliable performance and lowest maintenance operation of any general-duty strapping machine on the market today. With timesaving features, the MOD-GPX simplifies operation and maintenance to save you time and money.

- Jam-resistant technology
- Automatic loading
- Automatic cut-off and refeed option
- Fully accessible strap path
- Lubrication-free operation

Specifications

Chute inner dimensions:

	inch	mm
W	28	710
Н	20	510

Tabletop height:

Electrical:

Electrical:

Cycle rate: Up to 70 straps per minute.

Strap tension: Adjustable from 2 lbs. to 60 lbs.

Strapping: Signode Contrax

polypropylene strapping

5 mm, 6 mm, 9 mm and 12 mm.

Adjustable from 26" to 40"

(660 mm to 1015 mm). 120 VAC, 60 Hz: 3 phase

voltage optional.

Shipping weight: 600-700 lbs.

LBX-2000

Semiautomatic Strapping System



The high speed LBX-2000 plastic strapping machine combines jam-resistant technology and lubrication-free operation to maximize strapping operations. Ideal for high-volume applications with varying package or bundle types and sizes.

- Jam-resistant technology
- Lubrication-free operation
- Variable tension
- Fully accessible strap path
- Easy coil loading
- No adjustments necessary

Specifications

Chute size (maximum package size):

20" W x 15" H (510mm x 380mm).

28" W x 15" H (710mm x 380mm).

Minimum package size: 2"W x 1"H (50 mm x 25mm).

Cycle rate: Up to 70 straps per minute.

Strap tension: Adjustable from 2 lbs. to 60 lbs.

Strapping: Signode Contrax polypropylene strapping 5 mm, 6 mm.

Tabletop height: 34" (865 mm).

Machine dimensions: 31

31" W x 21" L x 57" H (790mm W x 530mm L x

1450mm H).

Electrical: 120 VAC, 60 Hz.

Shipping weight: 540 lbs.

LBX-2300/2330

Semiautomatic and Automatic Strapping Systems



Models: LBX-2300 semiautomatic LBX-2330 automatic LBX2300/2330 large frame

The LBX-2300 Series plastic strapping machines provide reliable, high speed performance for heavy-duty applications, such as meat packaging, general distribution and the bundling of hardwood flooring. With a number of timesaving features, the LBX Series strapping machines simplify operation and maintenance.

- Jam-resistant technology
- Bi-directional strap loading
- Out-of-strap feature
- Automatic cut-off and refeed option
- Fully accessible strap path
- Lubrication-free operation
- Variable speed reversible conveyor

Cycle rate: Up to 70 straps per minute. Actual rate will vary depending on package size, chute size and operator dexterity.

Specifications

Small frame - chute inner dimensions:

					inch mm						
					28 710						
Н	10	250	15	380	20 510	30	760	20	510	48 12	220

Large frame - chute inner dimensions:

	inch	mm
W	65	1650
Н	20	510

Minimum package size: 4"W x 4"H non-compressible package on flat tabletop.

Maximum package weight: 100 lbs. on machine or conveyor. May increase depending on weight distribution.

Tension: Adjustable from 2 lbs. to 200 lbs.

Strapping: Signode 9 mm and 12 mm Contrax

polypropylene strapping.

Electrical: 120 VAC, 60 Hz; 3 phase voltage optional. **Shipping weight:** Small frame: 600-700 lbs.

Large frame: 900-1,100 lbs.

LBX-2300/2330

Semiautomatic and Automatic Stainless Steel Strapping Systems



Models: LBX-2300 semiautomatic LBX-2330 automatic

The LBX-2300 Series stainless steel plastic strapping machines are designed for reliable packaging under harsh conditions. Built with stainless steel components, they are ideal for packaging applications where corrosion resistance is necessary in the meat, poultry and seafood industries. With a number of timesaving features and options, the LBX Series strapping machines simplify operation and maintenance.

Features include: Stainless steel frame, table top, chute arch, legs, front and rear panels, dispenser door, electrical door and splash guard. Corrosion resistant strap path and fasteners

- Jam-resistant technology
- Bi-directional strap loading
- Out of strap feature
- Automatic cut-off and refeed option
- Fully accessible strap path
- Lubrication-free operation
- Variable speed reversible conveyor

Specifications

Chute size: 28"x 20" (710 mm x 510 mm)

Cycle rate: Up to 70 straps per minute. Actual production will vary depending on package size, chute size and experient develority.

chute size and operator dexterity.

Maximum package weight: 100 lbs. on machine or conveyor.

conveyor.

Tension: Adjustable from 25–200 lbs.

Strapping: 5 mm and 6 mm Contrax polypropylene strapping

Electrical: LBX-2300 Semiautomatic: 120 V, 1 phase, 60 Hz; LBX-2330 Automatic: 120 V, 1 phase, 60 Hz or 208 V; 230 V; 460 V; 575 V, 3 phase, 60 Hz

Shipping weight: 1,100 lbs.

HBX-4300

Semiautomatic Strapping Machine for Small Bundles



The HBX-4300 Small Anvil plastic strapping machine, designed for small, irregular packages, provides reliable bundling for a wide range of applications. Built with a number of standard features to simplify maintenance and operation, the HBX-4300 Small Anvil maximizes production to save you time and

- Jam-resistant technology
- Bi-directional strap loading
- Out-of-strap feature
- Fully accessible strap path
- Lubrication-free operation

Specifications

Maximum package size: 16" W x 10" H Minimum package size: 2-3/4" W x 3/4" H Maximum package weight: 100 lbs. Tension: Adjustable from 2 lbs. to 200 lbs.

Strapping: 9 mm or 12 mm Contrax polypropylene strapping.

Electrical: 120 volt, 60 Hz, 3 phase voltage

optional.

Shipping weight: 600-700 lbs.

HBX-4300/4330

Semiautomatic and Automatic Strapping Systems



Models: HBX-4300 semiautomatic HBX-4330 automatic HBX4300/4330 large frame

The HBX-4300 Series plastic strapping machines provide reliable, high speed performance for heavy-duty applications, such as meat packaging, general distribution and the bundling of hardwood flooring. With a number of timesaving features, the HBX Series strapping machines simplify operation and maintenance.

- Jam-resistant technology
- Bi-directional strap loading
- Out-of-strap feature
- Automatic cut-off and refeed option
- Fully accessible strap path
- Lubrication-free operation
- Variable speed reversible conveyor

Cycle rate: Up to 70 straps per minute. Actual rate will vary depending on package size, chute size and operator dexterity.

Specifications

Small frame - chute inner dimensions:

										mm		
												1220
Н	10*	250	15	380	20	510	30	760	20	510	48	1220

Large frame - chute inner dimensions:

	inch	mm	inch	mm
W	65	1650	90	2286
Н	20	510	15	380

Minimum package size: 4"W x 4"H non-compressible package on flat tabletop.

Maximum package weight: 100 lbs. on machine or conveyor. May increase depending on weight distribution.

Tension: Adjustable from 2 lbs. to 200 lbs.

Strapping: Signode 9 mm and 12 mm Contrax polypropylene strapping.

Electrical: 120 VAC, 60 Hz; 3 phase voltage

optional.

Shipping weight: Small frame: 1,100 lbs.

Large frame: 900-1,100 lbs.

HBX-4300/4330

Semiautomatic and Automatic Stainless Steel Strapping Systems



Models: HBX-4300 semiautomatic HBX-4330 automatic

The HBX-4300 Series stainless steel plastic strapping machines are designed for reliable packaging under harsh conditions. Built with stainless steel components, they are ideal for packaging applications where corrosion resistance is necessary in the meat, poultry and seafood industries. With a number of timesaving features and options, the HBX Series strapping machines simplify operation and maintenance.

Features include: Stainless steel frame, table top, chute arch, legs, front and rear panels, dispenser door, electrical door and splash guard. Corrosion resistant strap path and fasteners.

- Jam-resistant technology
- Bi-directional strap loading
- Out-of-strap feature
- Automatic cut-off and refeed option
- Fully accessible strap path
- Lubrication-free operation
- Variable speed reversible conveyor

Specifications

Chute size: 28"x 20" (700 mm x 510 mm)

Cycle rate: Up to 70 straps per minute. Actual production will vary depending on package size, chute size and operator dexterity.

Maximum package weight: 100 lbs. on machine or

conveyor.

Tension: Adjustable from 25-200 lbs. Strapping: 9 mm and 12 mm Contrax polypropylene strapping

Electrical: 120 volt, 60 Hz, FLA 9.0 amp; 208 volt, 60 Hz, FLA 5.2 amp; 230 volt, 60 Hz, FLA 4.7 amp; 460 volt, 60 Hz, FLA 2.3 amp; 575 volt, 60 Hz, FI A 2.0 amp

Shipping weight: 600-700 lbs.

^{*} Available on semiautomatic model only.

Vertical Side-Seal - Coupled Machine Configuration



The MH-VM side seal plastic strapping machine, available with hot knife sealing technology or friction-weld technology, combines modularity with high speed reliable operation to maximize productivity. Simple to operate and easy to maintain, the MH-VM features a modular head with separate feeding and sealing modules that are easy to access and can be changed out quickly for routine maintenance. The MH-VM is available in 69 standard chute sizes and uses Contrax polypropylene or Tenax polyester strapping.

- Automatic strap loading
- 50% fewer moving parts than any competitive machine
- Simplified maintenance
- Automatic refeed
- Quick-change technology

Specifications

Chute size: Available in chutes sizes to accommodate any combination of the following widths and heights:

Maximum width: 18", 24", 30", 36", 48", 60", 72", 84", 96", 108"

Maximum height: 24", 30", 36", 48", 60", 72", 84". 96". 108"

Cycle rate: Up to 19 straps per minute on friction weld; up to 32 straps per minute on hot knife. Actual production will vary depending on package and chute size, operator dexterity and material handling equipment.

Tension: Adjustable from 25-200 lbs.

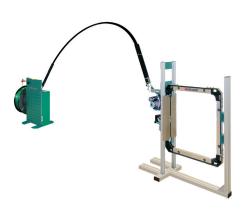
Strapping: Signode Contrax polypropylene or Tenax polyester strapping

Electrical: 120 V, 1 phase, 60 Hz or 230 V; 400 V; 460 V; 575 V; 3 phase,60 Hz

Shipping weight: 800 lbs.

MH-VM

Vertical Side-Seal - Remote Machine Configuration



The MH-VM side seal plastic strapping machine, available with hot knife sealing technology or friction-weld technology, combines modularity with high speed reliable operation to maximize productivity. Simple to operate and easy to maintain, the MH-VM features a modular head with separate feeding and sealing modules that are easy to access and can be changed out quickly for routine maintenance. The MH-VM is available in 69 standard chute sizes and uses Contrax polypropylene or Tenax polyester strapping.

- Automatic strap loading
- 50% fewer moving parts than any competitive machine
- Simplified maintenance
- Automatic refeed
- Quick-change technology

Specifications

Chute size: Available in chutes sizes to accommodate any combination of the following widths and heights:

Cycle rate: Up to 19 straps per minute on friction weld; up to 32 straps per minute on hot knife. Actual production will vary depending on package and chute size, operator dexterity and material handling equipment.

Tension: Adjustable from 25-200 lbs.

Strapping: Signode Contrax polypropylene or Tenax polyester strapping

Electrical: 120 V, 1 phase, 60 Hz or 230 V; 460 V; 575 V; 3 phase,60 Hz

Shipping weight: 800 lbs.

MH-EX

Export hay machine



The MH-EX export hay strapping machine, available with hot knife sealing technology or friction-weld technology, combines modularity with high speed reliable operation to maximize productivity. Simple to operate and easy to maintain, the MH-EX features a modular head with separate feeding and sealing modules that are easy to access and can be changed out quickly for routine maintenance.

- Automatic strap loading
- 50% fewer moving parts than any competitive machine
- Simplified maintenance
- Automatic refeed
- Quick-change technology

Specifications

Chute size: 18" W x 20" H (457 mm x 510 mm), 18" W x 25" H (457 mm x 635 mm) or 18" W x 30" H (457 mm x 726 mm)

Cycle rate: Up to 19 straps per minute on friction weld; up to 32 straps per minute on hot knife. Actual production will vary depending on package and chute size, operator dexterity and material handling equipment.

Tension: Adjustable from 25-200 lbs.

Strapping: Signode Contrax polypropylene or Tenax polyester strapping

Electrical: 120 V, 1 phase, 60 Hz or 230 V; 460 V; 575 V; 3 phase, 60 Hz

Shipping weight: MH-EX Dual headed 1,500 lbs. (680 kg); MH-EX Quad headed 1,600 lbs. (726 kg)

MH-VR & MH-VRB

Side Seal Strapping Machine



The MH-VRB side seal plastic strapping machine applies consistent, high strap tension to palletized loads in a wide range of sizes. The MH-VRB can be used with Contrax polypropylene or Tenax polyester strapping to accommodate a variety of load types, including cartons, palletized products, appliances, bulk bins, bales and bundled items.

- Automatic refeed
- Low maintenance. Few wearing parts to replace
- High tension
- Easy access to strap path
- Quick-change technology

Specifications

Chute size: Contact your Signode sales representative for chute sizes.

Strapping: Signode 9mm-16 mm Contrax polypropylene or 9mm-16 mm Tenax polyester strapping.

Strap tension: Adjustable from 17 lbs. to

Electrical: 230 V; 480 V; 3 phase **Shipping weight:** 1,100 lbs.

MH-11/16-HT

Side Seal Strapping Machine



The MH-11/16-HT side seal plastic strapping machine, available with hot knife sealing technology or friction-weld technology, combines modularity with high speed reliable operation to maximize productivity. Simple to operate and easy to maintain, the MH-11/16-HT features a modular head with separate feeding and sealing modules that are easy to access and can be changed out quickly for routine maintenance. The MH-11/16-HT is available in 69 standard chute sizes and uses Contrax polypropylene or Tenax polyester strapping.

- Automatic strap loading
- 50% fewer moving parts than any competitive machine
- Simplified maintenance
- Automatic refeed
- Quick-change technology

Specifications

Chute size: Available in chutes sizes to accommodate any combination of the following widths and heights:

Maximum width: 18", 24", 30", 36", 48", 60", 72", 84", 96", 108"

 $\begin{array}{l} \textbf{Maximum height:} \ 24", \ 30", \ 36", \ 48", \ 60", \ 72", \\ 84", \ 96", \ 108" \end{array}$

Cycle rate: Up to 19 straps per minute on friction weld; up to 32 straps per minute on hot knife. Actual production will vary depending on package and chute size, operator dexterity and material handling equipment.

Tension: Adjustable from 25–200 lbs.

Strapping: 1/2" or 5/8" Tenax polyester strapping

Electrical: 230/460 V, 3 phase, 60 Hz

Shipping weight: 750 lbs.

МН-Н

Automatic Horizontal Strapping Machine



The MH-H automatic horizontal strapping machine applies consistent, high strap tension to palletized loads in a wide range of sizes. The MH-H can be used with Contrax polypropylene or Tenax polyester strapping to accommodate a variety of load types, including cartons, palletized products, appliances, bulk bins, bales and bundled items.

- Automatic refeed
- Low maintenance. Few wearing parts to replace
- High tension
- Easy access to strap path
- Quick-change technology

Specifications

Dimensions: 38" (965 mm) W x 51" (1295 mm) L to 61" (1549 mm) W x 75" (1905 mm) L

Strapping: Signode 9 mm-16 mm Contrax polypropylene or 9 mm-16 mm Tenax polyester strapping.

Strap tension: Adjustable from 8 lbs. to 200 lbs.

Electrical: 208 V; 220 V; 460 V, 3 phase, 50/60 Hz

Shipping weight: 1,100 lbs.

Economic Evaluation Summary

SIGNODE°

Customer				Date		
Annual Costs		F	Present	F	roposed	
Package container costs (If applicable)						
a		\$		\$		
b						
C						
d						
		Ψ		- Ψ		
Reinforcement/closure cost						
a						
b						
C		\$				
d		\$		\$		
abor cost						
a		\$		\$		
b						
C		\$		_ \$		
d						
Other costs						
		¢		ф.		
a b						
b				φ		
C.		Φ.		φ		
d <u>.</u>				Φ		
	Total cost:	\$		_ \$		
. Estimated annual savings: (Present minus proposed)			\$		_	
nvestment						
2. Equipment			\$			
Едартен			Ψ			
3. Approximate annual depreciation			\$			
 Approximate annual depreciation (Line 2 divided by 8 years) 			τ			
Annual savings after depreciation (Line 1 minus line 3)			\$			
i. Profit after taxes (Line 4 x 34% and state tax)			\$			
5. Approximate annual cash savings (Line 5 + line 3)			\$			
. Payback period (Line 2 divided by line 6)					Years	
Comments:						



