

**YOUR  
GLOBAL  
PARTNER  
IN  
INDUSTRIAL  
PACKAGING**



**m p s**®  
Metal Plastik Sanayi

**ENDÜSTRİYEL PAKETLEME ÇÖZÜMLERİ  
INDUSTRIAL PACKAGING SOLUTIONS**



**SIGNODE**

**MIMA FILMS**

**Octopus**

## STEEL STRAPPING

### Steel Strapping

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

- 1 - The strapping's function or purpose,
- 2 - The package characteristics and,
- 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, 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 and receiver; and where and how it's stored.

If you have questions regarding your specific application, call your MPS - Signode sales representative for help in determining your strapping requirements.



Mill Wound



Ribbon Wound

### SIGNODE APEX STEEL STRAPS

Strap Size		Average Strength		m/kg	Coil Winding	Strap Finish
mm	inch	N/mm <sup>2</sup>	N			
12.7 x 0.5	1/2 x .020	870 N / mm <sup>2</sup>	5.635 N	20,2	Mill Wound	Blued Painted Zinc Painted
12.7 x 0.6	1/2 x .023	860 N / mm <sup>2</sup>	6.335 N	16,8		
16 x 0.4	5/8 x .015	900 N / mm <sup>2</sup>	5.438 N	21,0		
16 x 0.5	5/8 x .020	870 N / mm <sup>2</sup>	7.055 N	16,0		
16 x 0.6	5/8 x .023	860 N / mm <sup>2</sup>	7.931 N	13,3		
19 x 0.4	3/4 x .015	900 N / mm <sup>2</sup>	6.515 N	16,9		
19 x 0.5	3/4 x .020	870 N / mm <sup>2</sup>	8.452 N	13,5		
19 x 0.6	3/4 x .023	860 N / mm <sup>2</sup>	9.502 N	11,0		
19 x 0.64	3/4 x .025	870 N / mm <sup>2</sup>	10.441 N	10,7		
19 x 0.7	3/4 x .028	840 N / mm <sup>2</sup>	11.361 N	9,4		
19 x 0.8	3/4 x .032	830 N / mm <sup>2</sup>	12.491 N	8,4		
19 x 0.9	3/4 x .035	800 N / mm <sup>2</sup>	13.564 N	7,5		
25,4 x 0.7	1 x .028	840 N / mm <sup>2</sup>	15.149 N	7,2		
25,4 x 0.8	1 x .031	830 N / mm <sup>2</sup>	16.665 N	6,3		
25,4 x 0.9	1 x .035	800 N / mm <sup>2</sup>	18.085 N	5,6		
31.75 x 0.7	1 1/4 x .028	840 N / mm <sup>2</sup>	18.936 N	5,6		
31.75 x 0.8	1 1/4 x .031	830 N / mm <sup>2</sup>	20.818 N	5,0		
31.75 x 0.9	1 1/4 x .035	800 N / mm <sup>2</sup>	22.606 N	4,4		
31.75 x 1.0	1 1/4 x .040	800 N / mm <sup>2</sup>	25.400 N	4,0		

\*All types are waxed

### SIGNODE SUPER APEX / MANGUS STEEL STRAPS

Strap Size		Average Strength		m/kg	Coil Winding	Strap Finish
mm	inch	N/mm <sup>2</sup>	N			
12.7 x 0.5	1/2 x .020	1.025 N / mm <sup>2</sup>	6.500 N	20,2	Mill Wound	Blued* Painted* Zinc Painted*
16 x 0.5	5/8 x .020	1.025 N / mm <sup>2</sup>	8.200 N	16,0		
16 x 0.6	5/8 x .023	1.022 N / mm <sup>2</sup>	9.800 N	13,3		
19 x 0.64	3/4 x .025	1.022 N / mm <sup>2</sup>	12.300 N	10,7		
19 x 0.8	3/4 x .031	1.020 N / mm <sup>2</sup>	15.500 N	8,4		
25,4 x 0.8	1 x .031	1.018 N / mm <sup>2</sup>	20.700 N	6,3	Ribbon Wound, Jumbo Coil, Super Jumbo Coil	
31.75 x 0.8	1 1/4 x .031	1.000 N / mm <sup>2</sup>	25.400 N	5,0		
31.75 x 1.0	1 1/4 x .040	1.000 N / mm <sup>2</sup>	31.750 N	4,0		

\*All types are waxed

### SIGNODE USLM STEEL STRAPS

Strap Size		Average Strength		m/kg	Coil Winding	Strap Finish
mm	inch	N/mm <sup>2</sup>	N			
31.75 x 1.12	1 1/4 x .044	1.030 N / mm <sup>2</sup>	40.200 N	3,6	Mill Wound	Painted*
31.75 x 1.27	1 1/4 x .050	1.030 N / mm <sup>2</sup>	45.600 N	3,0		

\*All types are waxed

## 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. Speeds the strapping operation.

### Push-type Seals

Used where strap is tensioned by butting the nose of the tensioner against the seal. Overlapping flanges withstand the higher stress.

### Nestack® Seals

Held together by interlocking nibs. This Signode development permits loading partial stacks into magazines of seal feed combination tools and power strapping machines.

### 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 power. \*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 source of friction.



## SEALS FOR STEEL STRAPPING

Seal Name	Strap Size		Seal Type	Joint Type	Tool Name	Seal Length		Standart Package	Approximate Shipping Weight/Kg
	inch	mm				inch	mm		
12 SPC	172	12,7	Push	Single Reverse Notch	PNSC-2-12, SRC-1223	1,047	26,6	9000	32
58/34 AMP	5/8	15,9	Nestack	Double Notch	AM-58, AM-34, AMP-1-34	1,120	28,5	4000	18
58 SPC			Push	Single Notch	PNSC-2-58, SRC-1223	1,047	26,6	7500	35
34 C	3/4	19,0	Snap-on	Double Notch	C-3423	1,250	31,8	4000	21
34 HOC			Push		PRHM-34, PRHR-34, RCD-3431, RCNS-34, RCND-34	2,200	55,9	1500	33
34 MNT			Nestack	AHP-34	1,500	38,1	2400	22	
34 SPC			Push	Single Notch	PNSC-2-34, SRC-3423	1,047	26,6	5000	26
114 A	1-1/4	31,8	Nestack	Double Notch	AH-114, AHP-2-114	1,500	38,1	1150	15
114 P			Push		C-1431, PRHR-114, RCD-1431, RCNS2-114, RCND-114	2,200	55,9	1000	27
117 HDG OF	1-1/4	31,8	Open Flange	Double Crimp	N-1444-50LSH	2,937	74,6	500	19

## POWER STRAPPING MACHINE (PSM) SEALS

Seal Name	Strap Size		Seal Type	Joint Type	Tool Name	Seal Length		Standart Package	Approximate Shipping Weight/Kg
	inch	mm				inch	mm		
12MNA	12,7	1/2	Nestack	Single Notch	M20, M200	0,750	19,0	5400	13
34 MB	19	3/4	Nestack	Double Notch	M20, M200	0,984	24,9	3000	17
34 MNK				Single Notch	M22-34, M220	0,750	19,0	3700	17
114 M	1-1/4	31,8	Nestack	Double Notch	M400, M410	2,000	50,8	1000	27

### 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.



### 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.

### 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 Down notch joint is subject to severe impact.

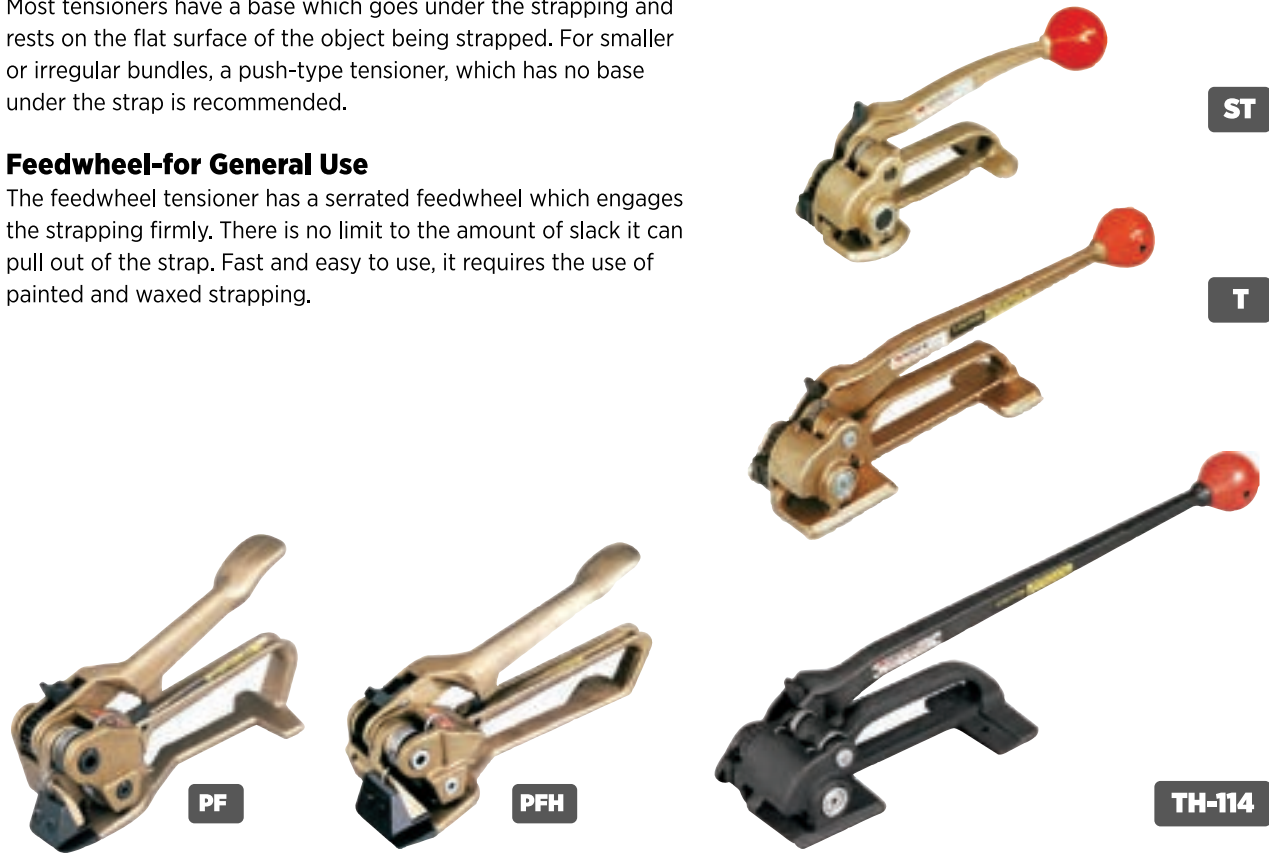


## MANUAL TENSIONER

Signode hand tensioners allow operators to bring strap to desired tension with minimal interruption, effort and strap waste. Most tensioners have a base which goes under the strapping and rests on the flat surface of the object being strapped. For smaller or irregular bundles, a push-type tensioner, which has no base under the strap is recommended.

### Feedwheel-for General Use

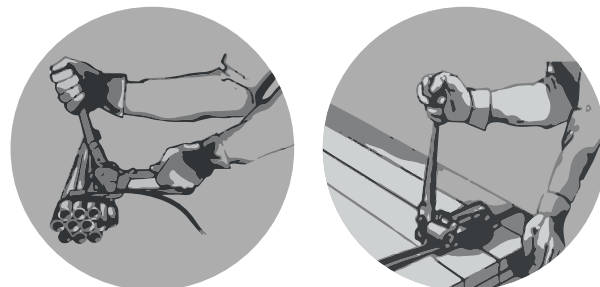
The feedwheel tensioner has a serrated feedwheel which engages the strapping firmly. There is no limit to the amount of slack it can pull out of the strap. Fast and easy to use, it requires the use of painted and waxed strapping.



Model	Strap Size				Strap Type	Strap Finish
	Width		Thickness			
	mm	inch	mm	inch		
<b>Feedwheel Tensioners</b>						
ST	9.5-19.00	3/8-3/4	0.43-0.58	0.017-0.023	Apex Mangus	Blued, Painted, Zinc Painted
T	15.9-19.0	5/8-3/4	0.43-0.64	0.017-0.035		
TH-34-114	31.8	3/4-1-1/4	0.74-0.89	0.029-0.035	Mangus	

### PUSH - TYPE FEEDWHEEL TENSIONERS

Model	Strap Size				Strap Type	Strap Finish
	Width		Thickness			
	mm	inch	mm	inch		
PF	9.5-19.00	3/8-3/4	0.43-0.58	0.017-0.023	Apex, Mangus	Blued, Painted, Zinc Painted
PFH	19.00-31.8	3/4-1-1/4	0.64-0.89	0.025-0.035		



## MANUAL SEALERS

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

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

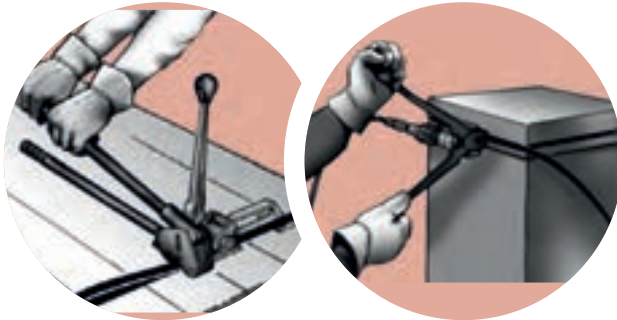
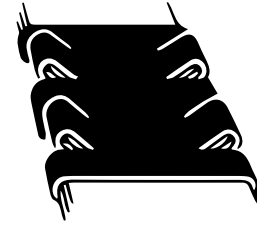
### Two sealer types Side-action and front-action

#### 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.

#### 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.



Model	Strap Size				Working Position	Seal Name	Joint Type
	Width		Thickness				
	mm	inch	mm	inch			
<b>Regular - Duty Sealers - Front and Side - Action</b>							
C-3820	9.5	3/8	0.43-0.51	0.017-0.020	Front	38 C	Double Notch
C-1223	12.7	1/2	0.43-0.58	0.017-0.023	Front	12 C	Double Notch
C-5823	15.9	5/8	0.43-0.58	0.017-0.023	Front	58 C	Double Notch
C-3423	19.0	3/4	0.43-0.58	0.017-0.023	Front	34 C	Double Notch
<b>Heavy - Duty Sealers - Side - Action</b>							
RCD-3431	19.0	3/4	0.64-0.79	0.025-0.031	Side	34 HOC	Dble. Rev. Notch
RCD-1431	31.8	1-1/4	0.74-0.79	0.029-0.031	Side	114 OF, 114 P	Dble. Rev. Notch

# PNEUMATIC & BATTERY POWERED TENSIONERS & SEALERS

## 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.

## 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.



Model	Strap Size				Strap Type	Strap Finish	Maximum Strap Tension	
	Width		Thickness				N	lbs
	mm	inch	mm	inch				
<b>Feedwheel Tensioners</b>								
FN-114-T	19.0-31.8	3/4-1-1/4	0.79-1.12	.031-.044	Mangus	Blued, Painted, Zinc Painted	13.350	3.000
HN-1-114	31.8	1-1/4	0.74-1.12	.029-.044	Apex, Mangus		12.454	2.800
<b>Push-type Tensioners</b>								
PN-2-114	19.0-31.8	3/4-1-1/4	0.51-1.12	.020-.044	Mangus		7.117	1.600



FN-114T



HN-1-114



PN-2-114

Model	Strap Size				Seal Name	Joint Type
	Width		Thickness			
	mm	inch	mm	inch		
<b>Sealers</b>						
RCNS2-34	19.0	3/4	0.64-0.79	0.025-0.031	34 HOC, 34 SHOC	Single Rev. Notch
RCNS-114	31.8	1-1/4	0.64-1.12	0.025-0.040	114 I, 114 OF, 114 TO	Dble. Rev. Notch
RCNS-250	50.8	2	1.12-1.27	0.044-0.050	208 TO	Single Rev. Notch
N-1444-50LSH	31.8	1-1/4	1.12-1.27	0.044-0.050	117 HDG OF	Double Crimp

## Battery - Operated Tools

Model	Strap Type	Seal Type	Applied Tension	Description
Grippack Tensioner	19-32 mm APEX, SUPER APEX & MANGUS	-	3.600-6.670 N	Battery Operated, Manual and Automatic Modes
Grippack Sealer 19 mm	19 mm APEX, SUPER APEX & MANGUS	Signode 34 HOC (Double Reverse Notch)	-	
Grippack Sealer 32 mm	32 mm APEX, SUPER APEX & MANGUS	Signode 114P, Signode 114 P/I (Double Reverse Notch)	-	



RCNS2-34  
RCNS2-114  
RCNS-250



N-1444-50LSH



GripPack Tensioner



GripPack Sealer

Break free from the lack of portability and high weight associated with pneumatic tools. Our latest innovations, the GripPack 114 steel strap tensioner and sealer, provide the low weight and portability that operators need but can't get with pneumatic tools. Plus they deliver maximum power and performance without the air generation costs and inconsistencies of pneumatically driven tools. The GripPack tools' lightweight, durable design makes them easy to handle and operate. With one-button operation and performance enhancing features not found on pneumatic tools, they vastly improve productivity for the application of steel strapping in heavy-duty hand tool applications. All pneumatic sealers require an air filter and regulator.

## BATTERY POWERED COMBINATION TOOL

### Features and Benefits

#### Provides Real-time Information

Integrated Bluetooth technology with a mobile application allows operators to wirelessly lock in operational settings across multiple shifts. To maximize tool longevity, the mobile application monitors cycle counts then provides ongoing alerts to ensure proactive maintenance.

#### Improves Reliability

Manufactured with Signode proven components, the GripPack SLB has fewer moving parts and requires less maintenance than pneumatic tools.

#### Maximizes Productivity

Complete with the latest "fast charge" lithium ion technology, the GripPack SLB battery can perform up to 100 tensioning, sealing and cutting cycles per charge and is fully recharged in just 30 minutes.

An optional 18 Volt 4.0 Ah battery can extend operation from 100 to 200 cycles per charge.

GripPack SLB Technical Specifications				
Tool Model	SLB-12HS	SLB-58HS	SLB-34HS	SLB-34HT
Part Number	801234	801233	801232	801231
Kit Number	110 Volt	801234K1	801233K1	801232K1
	220 Volt	801234K2	801233K2	801232K2
Performance	High speed			High tension
Adjustable Tension	Up to 1,000 lbs (4448 N)			Up to 1,500 lbs (6672 N)
Strap Type	Apex® and Magnus® steel strap			
Strap Width	1/2" (12 mm)	5/8" (16 mm)	3/4" (19 mm)	
Strap Gauge	.017" - .025" (0.43 mm - 0.63 mm)			
Seal Type	Sealless strap joint			
Joint Type	3-key			
Cycles per Charge	100+			
Battery*	18v 2Ah Lithium Ion			
Recharge Time	Full: 30 mins; 80%: 20 mins			
Tool Weight	14 lbs (6.35 kg) including battery			
Dimensions	14.5" x 6.88" x 5.25"			
	368.3 mm x 174.75 mm x 133.35 mm			

\* Tool kits include two standard batteries and charger  
 + Upgrade to the optional 18 Volt 4.0 Ah battery (200 cycles per charge)



**GripPack SLB  
 Battery - Powered Combination Tool  
 For Steel Strapping**

## BATTERY POWERED TENSIONER

### Signode GripPack 114

#### Battery Powered Tensioner for Steel Strapping

Break free from the lack of portability and high weight associated with pneumatic tools. Our latest innovations, the GripPack 114 steel strap tensioner and sealer, provide the low weight and portability that operators need but can't get with pneumatic tools. Plus they deliver maximum power and performance without the air generation costs and inconsistencies of pneumatically driven tools.



The GripPack tools' lightweight, durable design make them easy to handle and operate. With one- button operation and performance enhancing features not found on pneumatic tools, they vastly improve productivity for the application of steel strapping in heavy-duty hand tool applications.

#### Technical Specifications

<b>Strapping</b>	Mangus <sup>®</sup> or Apex Plus <sup>™</sup> Steel strapping
<b>Strapping size</b>	3/4" -1-1/4" x 0.025" to 0.031" (19mm to 32mm x 0.64mm to 0.80mm)
<b>Tension</b>	Adjustable from 800 to 1.500 lbs. (3 600 to 6 670 N)
<b>Seal Type</b>	114 P, 114 OF
<b>Weight</b>	8.5 lbs. (3.8 kg)



**GRIP PACK**

Lightweight design and ergonomic handle reduces operator fatigue

One-touch operation

Light indicates charge level

Adjustable tension

18 volt lithium-ion battery for long-lasting operation

120 cycles per charge

**WORLD'S MOST POWERFUL BATTERY-DRIVEN STEEL STRAPPING TOOLS**



## BATTERY POWERED SEALER

### Signode GripPack 114

#### Battery Powered Sealer for Steel Strapping

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#### Technical Specifications

<b>Strapping</b>	Mangus <sup>®</sup> or Apex Plus <sup>™</sup> Steel strapping
<b>Strapping size</b>	1-1/4 x 0.25" to 0.031" (32 mm x 0.64 mm to 0.79 mm)
<b>Joint Type</b>	Single Reverse Notch
<b>Seal Type</b>	114 P, 114 OF
<b>Weight</b>	7.0 lbs (3.0 kg)
<b>Part No</b>	800250



**SIGNODE GRIP PACK**  
BREAK FREE!™

- Lightweight design and ergonomic handle reduces operator fatigue
- LED light illuminates seal area
- Green/red LED battery light indicates charge level
- Maximum portability... no cord, no hose
- One-button operation
- 240 single notches per charge
- 18 volt lithium-ion battery for long-lasting operation
- Strap detection system eliminates accidental cycling

**WORLD'S MOST POWERFUL BATTERY-DRIVEN STEEL STRAPPING TOOL**

## BATTERY POWERED COMBINATION TOOLS FOR STEEL STRAPPING

### Signode BPT-H32

#### Battery Powered Combination Tools for Steel Strapping

##### Maximizes Reliability

Maximizes reliability No more variation due to fluctuations in the air system – high performance battery and brushless motor technology provides an electronically controlled and reproducible strapping process. Intelligent features include real time indication of the strapping status and visual and acoustic signals.



##### Simplifies Operation

The BPT tools have an intuitive touchscreen user interface and allow a quick and comfortable adjustment of the strapping parameters depending on the package and even offer selectable manual, semi or fully automatic operation modes and a favourite setting.

##### Increases Efficiency

Up to 500 cycles per battery charge allow seamless and continuous operation with full mobility throughout the plant, not restricted by the reach of air hoses or air quality.

##### Mobile And Reliable Industrial Performance

The BPT tool allows reproducible strapping applications with unlimited mobility and without the tripping hazards and limitations of air systems.

#### Technical Specifications

<b>Strapping</b>	Mangus <sup>®</sup> or Apex Plus <sup>™</sup> Steel strapping
<b>Strapping size</b>	0,80 - 1,00 (.031 - 0.40) / 19, 25, 32 mm
<b>Operation mode</b>	auto / semi / manual
<b>Seal Type</b>	double notch
<b>Weight</b>	8,3 kg
<b>Tension force range</b>	2000 - 7500 N



**BPT-H32**

**BPT-H32**

**NEW GENERATION  
STEEL STRAPPING  
HAND TOOL**

## BATTERY POWERED COMBINATION TOOLS FOR STEEL STRAPPING

### Signode BPT-L19

#### Battery Powered Combination Tools for Steel Strapping

##### Maximizes Reliability

Maximizes reliability No more variation due to fluctuations in the air system – high performance battery and brushless motor technology provides an electronically controlled and reproducible strapping process. Intelligent features include real time indication of the strapping status and visual and acoustic signals.

##### Simplifies Operation

The BPT tools have an intuitive touchscreen user interface and allow a quick and comfortable adjustment of the strapping parameters depending on the package and even offer selectable manual, semi or fully automatic operation modes and a favourite setting.

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##### Mobile And Reliable Industrial Performance

The BPT tool allows reproducible strapping applications with unlimited mobility and without the tripping hazards and limitations of air systems.



#### Technical Specifications

<b>Strapping</b>	Mangus <sup>®</sup> or Apex Plus <sup>™</sup> Steel strapping
<b>Strapping size</b>	0,40 - 0,63 (.015 - 0.24) / 13, 16, 19 mm
<b>Operation mode</b>	auto / semi / manual
<b>Seal Type</b>	single notch
<b>Weight</b>	4,5 kg
<b>Tension force range</b>	400 - 3000 N



BPT-L19

**BPT-L19**

**NEW GENERATION  
STEEL STRAPPING  
HAND TOOL**

## MANUAL & PNEUMATIC

Combination tools function as tensioners, sealers, and cutters. They save time by eliminating the handling of separate tools.

### Manual Seal-feed

Seal-feed combination tools carry a stack of seals in a magazine for fast, easy loading. Manually operated seal-feed combination tools include the AH, AL, and AM 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. Sealless combination tools use interlocking keys to secure the ends of the strap.

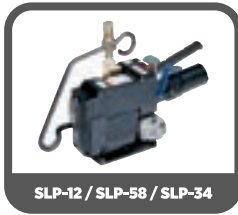
### Pneumatic Sealless

Pneumatic sealless combination tools include the SLP and the SPC.

### 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.



Model	Strap Size				Strap Type	Seal Name	Joint Type
	Width		Thickness				
	mm	inch	mm	inch			
<b>Manual Seal Feed</b>							
AM-12	12.7	1/2	0.43-0.58	0.017-0.023	Apex, Mangus	12 AMP	Double Notch
AM-58	15.9	5/8	0.43-0.58	0.017-0.023	Apex, Mangus	58/34 AMP	Double Notch
AM-34	19.0	3/4	0.43-0.64	0.017-0.025	Apex, Mangus	58/34 AMP	Double Notch
AH-114	31.8	1-1/4	0.79-0.89	0.031-0.035	Mangus	114 A	DRN*
<b>Manual Sealless</b>							
SCM-12	12.7	1/2	0.43-0.58	0.017-0.023	Apex, Mangus	Sealless	3 Key
SCM-58	15.9	5/8					
SCM-34	19.0	3/4					
SCMH-58	15.9	5/8	0.51-0.58	0.020-0.023	Apex, Mangus	Sealless	3 Key
SCMH-34	19.0	3/4	0.58-0.79	0.023-0.031			
<b>Pneumatic Sealless</b>							
SLP-12	12.7	1/2	0.43-0.58	0.017-0.023	Apex, Mangus	Sealless	3 Key
SLP-58	15.9	5/8	0.43-0.58	0.017-0.023			
SLP-34	19.0	3/4	0.43-0.64	0.017-0.025			
SPC-114	31.8	1-1/4	0.64-0.79	0.025-0.031	Mangus	Sealless	4 Key
<b>Pneumatic Push - Type</b>							
PNSC 2-12	12.7	1/2	0.43-0.64	0.017-0.025	Apex, Mangus	12 SPC	Single Reverse Notch
PNSC 2-58	15.9	5/8				58 SPC	
PNSC 2-34	19.0	3/4				34 PNSC	
PNSC 2-34HT						34 PNSC	
PNHM -34	19.0	3/4	0.64-0.79	0.025-0.031	Mangus	34 HOC	DRN*
PRHR-34	19.0	3/4	0.64-0.79	0.025-0.031	Mangus	34 HOC	DRN*
PRHR-114	31.8	1-1/4	0.64-0.89	0.025-0.035	Mangus	114 P	DRN*

\* DRN: Double Reverse Notch

## PLASTIC STRAPPING

### Tenax® Polyester Strapping

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



### Polypropylene (PP) Strapping

Polypropylene strapping is designed for light and medium-duty applications, including palletizing, unitizing, bundling, carton closure and reinforcement. It resists splitting and has a smooth, uniform surface so it performs reliably in power strapping machines and hand tools. PP strap has "elastic memory" which absorbs shock and keeps strapping tight during handling and shipping.

### POLYPROPYLENE STRAPPING

Strapping Material	Material	Surface	Metre Coil
5.0 x 0.30 mm	PP	Waffled	9.900
5.0 x 0.35 mm	PP	Waffled	7.000
5.0 x 0.40 mm	PP	Waffled	8.500
5.0 x 0.42 mm	PP	Waffled	6.000
5.0 x 0.45 mm	PP	Waffled	7.500
5.0 x 0.50 mm	PP	Waffled	5.300
7.0 x 0.60 mm	PP	Waffled	5.000
8.0 x 0.55 mm	PP	Waffled	4.000
8.0 x 0.60 mm	PP	Waffled	4.000
8.0 x 0.70 mm	PP	Waffled	3.500
9.0 x 0.50 mm	PP	Waffled	4.500
9.0 x 60 mm	PP	Waffled	3.600
10.0 x 0.6 mm	PP	Waffled	3.600
11.0 x 0.9 mm	PP	Waffled	2.000
12.0 x 0.5 mm	PP	Waffled	3.000
12.0 x 0.6 mm	PP	Waffled	3.000
12.0 x 0.65 mm	PP	Waffled	2.700
12.0 x 0.70 mm	PP	Waffled	2.500
12.0 x 0.75 mm	PP	Waffled	2.000
12.0 x 0.80 mm	PP	Waffled	2.200
12.0 x 0.85 mm	PP	Waffled	2.000
12.0 x 0.90 mm	PP	Waffled	1.800
16.0 x 0.80 mm	PP	Waffled	1.400

## PLASTIC STRAPPING

### Polyester Strapping

In order to obtain optimum price performance breakdown we do produce a wide range of PET straps (as listed in the table below) for applications not requiring as much as strength and elongation recovery as our TENAX straps ensure. We have possibility to supply color varieties other than green such as white, black and brown...



### POLYESTER STRAPPING

Strapping Material	Material	Surface	Metres Coil
15.5 x 0.90 mm	PET	Flat	1.300
16.0 x 0.80 mm	PET	Flat	1.600
19.0 x 1.00 mm	PET	Flat	1.000
19.0 x 1.27 mm	PET	Flat	800
9.0 x 0.65 mm	PET	Waffled	3.000
9.0 x 0.60 mm	PET	Waffled	3.000
10.0 x 0.52 mm	PET	Waffled	3.350
10.0 x 0.67mm	PET	Waffled	2.800
12.0 x 0.60 mm	PET	Waffled	2.400
12.0 x 0.70 mm	PET	Waffled	2.000
13.0 x 0.72 mm	PET	Waffled	2.000
15.0 x 0.70 mm	PET	Waffled	2.000
15.5 x 0.90 mm	PET	Waffled	1.200
15.0 x 0.80 mm	PET	Waffled	1.500
16.0 x 0.60 mm	PET	Waffled	1.330
16.0 x 0.70 mm	PET	Waffled	1.400
19.0. x 0.80 mm	PET	Waffled	1.200
19.0 x 0.90 mm	PET	Waffled	1.100
19.0 x 1.00 mm	PET	Waffled	1.000

### TENAX POLYESTER STRAPPING

Strapping Material	Material	Surface	Size	Metre Coil
Tenax 1616 Green	PET	Flat	0.92 x 0.52 mm	4.050
Tenax 1716 Green	PET	Flat	10.50 x 0.52 mm	3.350
Tenax 1718 Green	PET	Flat	10.50 x 0.61 mm	2.743
Tenax 1818 Green	PET	Flat	11.90 x 0.52 mm	2.743
Tenax 1822 Green	PET	Flat	11.90 x 0.71 mm	1.981
Tenax 2030	PET	Flat	15.62 x 0.76 mm	1.600
Tenax 2040	PET	Flat	15.62 x 0.89 mm	1.300
Tenax 2220 Jumbo	PET	Flat	19.05 x .0.89 mm	3.100
Tenax 2220 Super Jumbo	PET	Flat	19.05 x 0.89 mm	5.100
Tenax 2222	PET	Flat	19.05 x 1.00 mm	1.000
Tenax 2222 Jumbo	PET	Flat	19.05 x 1.00 mm	3.000
Tenax 2225	PET	Flat	19.05 x 1.27 mm	800
Tenax 2225 Jumbo	PET	Flat	19.05 x 1.27 mm	2.200
Tenax 1616 Embossed	PET	Waffled	8.92 x 0.56 mm	3.700
Tenax 1818 Embossed	PET	Waffled	11.90 x 0.56 mm	2.800

TOUCH THE FUTURE



# BXT3

HAND TOOL FOR PLASTIC STRAPPING

INNOVATIVE  
INTELLIGENT  
INTUITIVE

## COMBINATION TOOLS

### Combination Strapping Tools

Combination tools function as tensioners, sealers and cutters. They save time by eliminating the handling of separate tools. Seal-feed combination tools carry a stack of seals in a magazine for fast, easy loading. Sealless combination tools use friction to weld the strap ends together, creating a secure joint.

### Pneumatic Friction-weld

The model VT-10 and VT-13 combination tools apply Contrax, Dymax and Tenax strapping. Strap ends are joined with Signode's patented 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.



**VT-16HD  
VT-19HD  
VT-25HD**



**VT-32HD**

### BATTERY - POWERED TOOLS

#### New Generation BXT3 Battery Hand Tool

Leading in technology and design Increased productivity and performance

### INNOVATIVE

For outstanding reliability and top ergonomics

- Industry proven high quality tool
- Protective design
- Lightweight and perfectly balanced
- Extremely easy cleaning by pressurized air



**BXT3-13, BXT3-16, BXT3-19**

### INTUITIVE

For easy and fast operation

- Variable tension speed controlled by finger pressure
- Digital user interface with touch pad adjustment
- Favorite strapping function

### INTELLIGENT

For excellent and consistent performance

- Real time indication of applied tension force
- E-controlled strapping process
- Strap alignment indication

Model	Strapping	Seal	Joint Type	Applied Tension	Description
VT-Briect	Tenax 2030, 2038B	None	Friction Weld	300 kg - 600 lbs	Pneumatic
VTI-16	Tenax 2030,2040			-	Pneumatic
VTI-19	Tenax 2220,2222,2225			400 kg 800 lbs	Pneumatic
VTI-25	Tenax 2480,10050				
VT-16HD	Tenax 2030,2040				
VT-19HD	Tenax 2220,2225				
VT-25HD	Tenax 2480,10050				
VT-32HD	Tenax 2625, 2680				

Model	Strap Type PET & PP	Joint Type	Applied Tension	Description
BXT3-13	8-13 mm PET & PP	Friction Weld	150-1.200N	Battery Operated, Full Automatic with Touchscreen Setting
BXT3-16	13-16 mm PET & PP		400-2.500N	
BXT3-19	16-19 mm PET & PP		400-4.500N	



## ACCESSORIES



**DF - 10RW**

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



**DC - 1A**

Built-in strap cutter for pre-cutting.  
Holds any ribbon wound coils.



**DF - 16A**

Designed for use with polyester strapping.



**10FLR - 15FLR**

10FLR  
1.8-4.5 kg (4-10 lbs), 2.4 m (8 ft.) cable travel  
3.6-6.8 kg (8-15 lbs), 2.4 m (8 ft.) cable travel



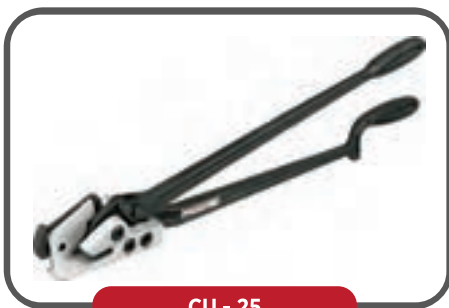
**FILTER - REGULATOR**

Safety Lockout Valve  
Regulator and Filter Lubricator



**CU - 30**

Lightweight. One-hand operation.  
Cuts strap through 31.8 x 0.89 mm (1-1/4" x 0.035").  
Shipping weight: 1.35 kg (3 lbs).



**CU - 25**

For strap removal or cutting strap to length.  
Replaceable blades.  
Cuts strap through 50.8 x 1.27 mm (2" x 0.050").  
Shipping weight: 3.6 kg (8 lbs.).  
Available with extra long handles;  
Part No. 0X1528; for 2" x 0.050".



**KB 19 - 32**

Plastic Edge Protector

## ENGINEERING SOLUTIONS

The key to being competitive in today's conditions is to increase the efficiency and productivity, brand awareness and packaging quality in the process that transforms raw materials into products. Packaging processes, which constitute the last steps of the production process, assume a key role. In packaging, we serve our customers with our wide range of products in strapping and wrapping/stretching machines, as well as offering turnkey packaging solutions including stacking and handling processes.

### **With the packaging and handling solutions we aim the followings;**

Occupational safety,  
Productivity,  
Efficiency  
Brand awareness,  
Packaging quality and standardization,  
Minimizing the proportion of products damaged by handling, stocking, and packaging during transportation and providing our customer with a cost advantage by increasing efficiency.

We also provide spare parts and service for all machines in our product. Therefore, thanks to this service, our machines have been showing high performance for many years.

In addition to all these, we also produce the consumables used in production and packaging lines and in line with our "System Approach" policy, we collect all components from technology to consumables under one roof and present them to our customers.



## ENGINEERING SOLUTIONS

### Sectoral Solutions

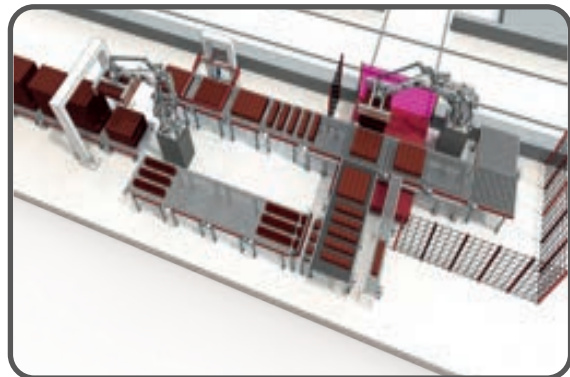
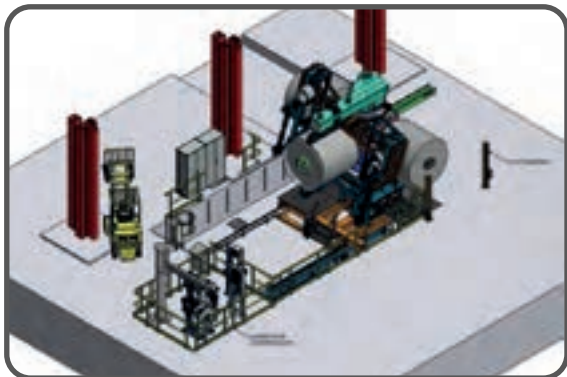
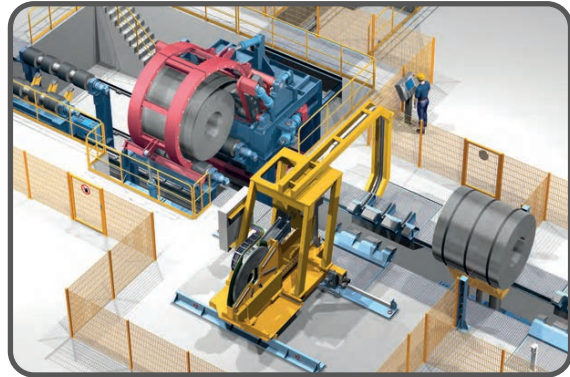
Press/Newspaper  
White Goods, Brown Goods  
Glass  
Non-Ferrous Metals  
Iron-Steel  
Fiber&Textile  
General Industry  
Construction, Bims, Ceramic, Brick & Briquette, Vitrification  
Timber-Tree, MDF, Parquet  
Logistics Storage and Distribution Channels  
Corrugated Cardboardvccv  
Automotive

We have a comprehensive product range for industries.

As MPS Engineirig Solutions, we produce solutions for our customers by blending the experience and products of our partner Signode, which is the world leader in its sector, with the expectations of the geography we serve. Our main goal in the solutions we offer is to help our customers protect their products, increase occupational safety, and reduce production costs by providing quality packaging products, high technology systems and expert service.

MPS Engineering Solutions designs projects that increase the efficiency of the customer, have high reliability, have a short payback period and are customer-oriented.

For all packaging solutions we offer, we fully perform maintenance agreements, installation, spare parts supply, workplace inspections and audits and all necessary technical services.



## POWER APPLICATION EQUIPMENT

### SGP 2000 Series Automatic and Semiautomatic Strapping Systems

The SGP 2000 Series is the fast, reliable and economical solution to a wide range of general purpose strapping applications. Three models are available to suit all requirements, from stand fully automatic machines integrate with production conveyors.

Every aspect of the SGP 2000 Series is designed to maximise productivity. All the machines feature automatic strap feed and ejection, with strap tension easily adjustable via a push button touch panel. Additionally a 'soft' tension setting is available for strapping delicate products. Simple coil changeovers speed up throughput even further. Operation is exceptionally easy and the SGP 2000 Series can initiate up to 70 cycles per minute with very high levels of reliability. Minimal service and maintenance is required making the SGP 2000 Series the ideal solution for light to medium packaging requirements. A range of options is also available to enable the machine to be easily integrated into existing production facilities.

#### **New generation. Higher productivity. Lower maintenance.**

##### **Manual and fully automatic models**

Stand-alone machines or fully automatic models with integrated adjustment height conveyor

##### **Maximum productivity**

Up to 70 strapping cycles per minute

##### **Easy operation**

Strap tension and program selection via touch panel

##### **Simple technology**

Few moving parts for reliability maintenance requirements

##### **Constant strap tension**

Safe, secure strapping for every package

##### **Maximum uptime**

Automatic strap end ejection, easy coil automatic strap re-feed



## POWER APPLICATION EQUIPMENT

### SGP 4000 Series Automatic and Semiautomatic Strapping Systems

Designed for use with Signode 9/12mm Dylastic® strap, the SGP 4000 series offers strapping for a wide range of packages across medium and heavy duty applications. The range includes operator-controlled stand alone machines and fully automatic operatorless models for integration with conveyor handling systems.

Every aspect of the 4000 Series is designed to achieve maximum productivity. All the machines feature automatic strap feed and ejection, with strap tension easily adjustable via a push button touch panel, which also includes a 'soft' tension setting for strapping delicate products. Operation is exceptionally easy the SGP 4000 can complete upto 65 strap cycles per minute. With high levels of machine reliability, and minimum service and maintenance requirements, the SGP 4000 is the high performance machine for general packaging. Additionally, range of options is also available to enable the SGP 4000 Series to be easily integrated into existing production facilities.

**New generation. Higher productivity. Lower maintenance.**

**Stand alone and fully automatic models**

Choice of manual or fully automatic machines with integral adjustable height conveyor

**High productivity**

Up to 65 strapping cycles per minute

**User friendly**

Exceptionally easy operation with fast set-up and program selection via touch panel

**Consistent strap tension**

Strap tension easily adjusted with press button

**Maximum uptime**

Automatic strap end ejection, easy coil change and automatic strap re-feed

**Easy fault clearance**

Simple troubleshooting and maintenance without tools



## POWER APPLICATION EQUIPMENT

### ISB In-line Bundle Squarer/Strapper

#### Function and Operation

Extensively proven worldwide, with approaching 2000 successful machine placements, Signode ISB machines are universally acknowledged as the 'industry standard' bundle/squaring/strapping machine, both in terms of performance and reliability. Now, the new generation ISB offers casemakers even greater production efficiency combined with the reliable, high-speed, low-maintenance operation, for which ISB is renowned. The ISB automatically squares and straps up to bundles per minute, strapping in the flute direction. Now featuring even simpler construction and more durable parts, the ISB offers outstanding reliability – all in a more compact footprint reducing floor space requirements by 30% to accommodate longer casemaking lines.

#### ISB Machine Range

ISB has been designed around a revolutionary new modular system to make it easier to choose the ideal system specification to suit customer requirements. The range comprises three primary models, the ISB 13,16 and 20 to accommodate all FFG widths. Models range from single pusher/single head economy model, to dual-headed machines with two independent pushers and fully automatic coil change, providing continuous availability.

#### ISB Options

- Second independent pusher for high speed application
- Dual head system for simultaneous application of two straps
- Compacting belt for mini-stack applications
- Entry and exit conveyors
- Auto splice system for automatic coil change over



### GCU Compression Strapping Station

#### Function and Operation

The GCU is a new generation of compression strapping stations with a revolutionary modular design that offers maximum productivity and machine availability. At the heart of the GCU are two strapping systems, designed around a unique, 'intelligent' strap dispenser system. The MHC strap feed and tension module is located directly on the dispenser M-63 system which incorporates both strap coil and accumulator box. This module transports strap around the circuit, and to the welding module by means of a flexible tube and tensions the strap around the load, before the welding unit securely seals the strap ends by way of a vibration joint. 100NDES The strap dispenser system can be mounted at floor level or on the bayonet box, for easy accessibility to the feed and tension module and strap coil. The MHC modules are compact and lightweight and, for routine maintenance, can be exchanged for spare units within seconds, without the use of tools or maintenance personnel, thus ensuring maximum up time. The strap dispenser system enables fast and



easy strap coil changeovers. Strap loading is by a simple push button facility and Signode patented Automatic Re-feed system rewinds and rethreads strap around the circuit should a miss feed occur, reducing both down time and the cost of wasted strap. Flexible strap tubes are another Industry first, and facilitate the smooth transport of strap from the dispenser system, around the circuit and to the welding head. This flexible design enables the strap dispenser unit to be positioned almost anywhere, to suit installation requirements.

#### Options

- Entry conveyor with pallet centralizer
- Pallet turning cross or turn square
- One to four chute systems available
- Machine frame colour to customer choice (Green RAL as standard)

## POWER APPLICATION EQUIPMENT



### MHG Signature Bundling Machine

The MHG Signature Bundling Machine is simpler to operate and maintain than any other signature bundling system currently on the market. The MHG combines fewer parts with a streamlined design to help lower maintenance costs and improve signature quality. Easily adaptable to your stacker specifications as a self-contained unit with a moveable cart or a bolt-on unit with adapter plates.

- Accommodates vertical or horizontal applications
- Custom chute sizes available
- Fully accessible strap path
- Two position strap dispenser
- Modular head technology

#### SPECIFICATIONS

Minimum center to center: 8.5" Minimum package size: 15"  
 Feed rate: 12 feet per second Module Weight: Feeder module: 20 lbs  
 Sealer module: 30 lbs Tension: Up to 30 lbs.  
 Strapping: 7/16 or 1/2" polyester or polypropylene  
 Electrical: 208, 230, 400, 440, 460 or 480 volt; 3 phase, 50/60HZ; 575 volt,  
 3 phase, 60HZ optional Shipping weight: Dependent on unit  
 configuration



### MOD -710 Side Seal Strapping System

The MOD-710 side seal plastic strapping machine combines quick-change technology with high speed reliable operation to maximize productivity. Simple to operate and easy to maintain, the MOD-710 features a modular head with separate tensioning and sealing modules that are easy to access and can be changed out quickly for routine maintenance. The MOD-710 is available in 69 standard chute sizes and uses Dylastic polypropylene or Tenax polyester strapping. Made in the U.S.A.

- Side seal joint
- Few wearable parts to replace
- Quick-change technology
- Smart-weld technology

#### SPECIFICATIONS

Chute size (maximum package size):  
 Available in chute 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"  
 Production rate: Up to 1,150 straps per hour.  
 Actual production will vary depending on package and chute size, operator dexterity and material handling equipment.  
 Tension: Adjustable from 20 to 200 lbs. Strapping: Signode Contrax polypropylene or Tenax polyester strapping.  
 Electrical: 230/460 volts, 3 phase, 60HZ.  
 Shipping weight: 750 lbs."



### M-634 Automatic Down-packing Strapping System

Signode's fully automatic down-packing strapping system is designed to reduce maintenance costs and accommodate faster production speeds. Featuring a modular design that simplifies maintenance, the system is simple to operate and easy to maintain, maximizing productivity and decreasing downtime. The M-634 system features a separate feed/take-up module and sealing module. All modules are lightweight, easy to access and slide out quickly for routine maintenance, minimizing downtime. Sealing modules can be removed and replaced between bales, enabling operators to perform maintenance while continuing to operate at full capacity.



- Designed specifically for baling operations
- All-electric operation
- Patented Z-weld sealless joint approved by the National Cotton Council

## POWER APPLICATION EQUIPMENT

### M-634 Automatic Up-packing Strapping System



## POWER APPLICATION EQUIPMENT



### AK-SVA Slit Coil Strapping Machine

The SVA model can be equipped with up to three strapping heads, depending on line throughputs so can accommodate up to 30 coils per minute with two straps per coil on a twin headed SVA-2 model. The SVA Model can be equipped with spot weld steel strapping head and as seal head, but also with a vibration weld strapping head for 19-32 mm wide high-performance Tenax Polyester plastic strapping.

The Signode SVA slit coil strapping machine has been designed as a modular unit with a range of machine options to suit most customer needs & is designed to take into account the metals service centre industry's current and future needs for:

- High production throughputs in continuous slit-coil production operation
- Maximum machine up-time with Signode 19-32 mm steel and polyester strap head technology most customers needs
- Increased flexibility with option modules – creates a system to suit
- Improved package stability- high consistent strap tension onto load
- Lower cost of ownership with easy service & maintenance



## POWER APPLICATION EQUIPMENT



### M410-CH Circumferential Strapping Machine

M410 CH3A here located on the exit of the rolling mill on a high speed, high throughput steel strapping application. The CH3A is designed to apply steel strapping to varying coil sizes & coil widths produced on the mill, to hot coils with coil surface temperatures of up to 750°C.

The M410 CH3A circumferential steel strapping machine can be equipped with a seal, seal less and M410 steel strapping head for hot strip mill operations depending upon customer choice and application. also a spot weld version of the The Signode CH3 A circumferential coil strapping machine has been designed as a modular unit with a range of machine options to suit most customer needs and is designed to take into account the steel industry's current and future needs in hot coil rolling mill operations for: ·

- High production throughputs in continuous hot rolling coil production operations
- Maximum machine up-time with Signode's 19-32 mm steel strap head technology
- Increased flexibility with option modules-creates a system to suit most customers needs
- Improved package stability-high consistent applied and retained strap tension onto hot coils
- Lower cost ownership with easy service & maintenance



### M410-BRP Long Products Strapping Machine

The M410-BRP-12 steel strapping machine is designed to secure square and hexagonal pipe or as here for profile bundles and can be easily integrated into customer stacking and packaging lines. The Signode M-410 bar, rod, pipe and profile heavy duty steel strapping machine has been designed as a modular unit with a range of machine options to suit most customer needs and is designed to take into account the metals industries needs today and tomorrow for:

- High production throughputs in continuous pipe production and stacking operations
- Maximum machine up-time due to reliable M-410 strapping head technology
- Increased flexibility due to wide range of option modules available
- Improved package stability-high consistent strap tension onto load
- Lower cost ownership with easy service & maintenance

## POWER APPLICATION EQUIPMENT



### PSF-34-114 CH Power Strap Feeder

Signode PSF Power Strap Feeders bridge the gap between manual hand strapping and fully automatic power strapping machines for medium to high throughput applications. On some models the PSF enables one operator to strap coils with steel and/or PET strapping. The strapping can be applied with a pneu above shows optional steel strap seal applicator/bender unit.



### ACU CH3 Circumferential Strap Removal Robot

ACU-CH3 robot for automatic removal of steel strap applied circumferentially to steel coils is available for both hot and cold rolled coil applications. The units works fully automatically and eliminates the need for operators to perform the sometimes dangerous task of removing tensioned steel strapping.



### MPT-32 TSM

Signode strapping machine Mod.M PT 32 TSM (Push type) automatically applies 1,1/4" steel strap on round or square or hex bundles of pipes and/or bars. Its special sealing method allows to strap also little bundle and have good strap tension on them.

## POWER APPLICATION EQUIPMENT



### SIGNODE - COILMASTER

From the simplest configuration to the most complex, our next generation of Coilmaster can be customized to your needs. Also, there are several options which can be added to cover specific customer's requirements ( Small shuttle, twin shuttle, automatic edge protection, multi shuttle change, automatic body wrap.) Coilmaster is a flexible equipment ready to be adjusted with the last generations of Signode films.



### SIGNODE - SENIOR

All types of ring-shaped products from many industrial areas can be wrapped by Senior R 1M VA. This includes for example bearings, steel, wire and plastics coils. The benefits provided by the machine:

- High efficiency- extremely low cost of consumables and energy
- Easy operation
- Divergent products can be packed in bundles or entirely wrapped to convenience
- No set-up times required
- Machine operating at low noise level



### SIGNODE - JUNIOR

Signode Junior/S series machines are efficiently used to wrap all types of long products including long metals, lumber and plastics. The technology of the machine consists of:

- Universal automatic film/paper cutting, clamping and feeding device
- Automatic product detection
- Automatic product transportation by gear motor
- Automatic height adjustment of the wrapping unit
- Automatic wrapping material breakage warning
- Pneumatically operated top pressure rollers at the in feed and out feed-sides.
- High speed process for changing the film/paper rolls
- Infinitely variable transport-speed by frequency inverter
- Infinitely variable tensioning / prestretching of the wrapping film

## PRE-STRETCH FILM

### MIMALITE® - ORIENTED WRAPPING

FILM - offers an ideal solution for ensuring stability of palletized goods during transportation. The product is easy to use simply by applying to the pallet under tension. Product stability is secured without the stretching required by traditional products.

The resulting "belt" effect restricts movement of the wrapped goods during transportation. This approach not only improves pallet stability, but also facilitates pallet loading and unloading. Wrapped and protected in film, your goods travel in complete safety with no risk of falling over or being scattered and damaged. Thanks to the "belt" effect, goods are carried securely and protected from any mishaps.

Reliable and easy to use, cost effective and environmentally friendly, MIMALITE® oriented film not only improves pallet stability, but also cut wrapping costs and waste.

This makes for more regular film consumption and enhanced wrapping quality.

- Highest retention & restoring force ensure better load protection in transit.
- Reduction in film weight can exceed 50%.
- Reinforced roll edges for a better function, highest tear resistance up to the last meter.
- No pre-stretching system required due to optimized film.
- Available for both hand and machine application.

#### 1 - Cost effective

By reducing the quantity of wrap required, the innovative wrapping concept can deliver a significant reduction in cost of wrapping a pallet.

#### 2 - Environmentally Friendly

MIMALITE® is 100% recyclable. Packaging waste can be reduced up

#### 3 - Practical

100% slip on the outside surface facilitates the process of loading and unloading the pallets. The extensive roll length reduces the stock surface need.

#### 4 - Consistency

Regardless of the operator or the wrapping machine, this concept guarantees a constant wrapping quality and cost-optimized pallet security.

#### 5 - User friendly

Light rolls accentuates the work security and improves the packaging process.

#### 6 - Reliable

Secure and controlled wrapping decreases the risk of accidents and damage, not only to the load itself, but also to the people and equipment involved in the supply chain.

MIMALITE® MACHINE FILM	Width 440 mm
	Length from 3,250 m
	Gauge 7 -9 µ
	On Core
	Bulk
MIMALITE® HAND FILM	Blown Film
	Width 390-450 mm
	Length from 300-600 m
	Gauge 7 -10 µ
	On Core
	Bulk or in Boxes
	Blown Film



## POWER APPLICATION EQUIPMENT

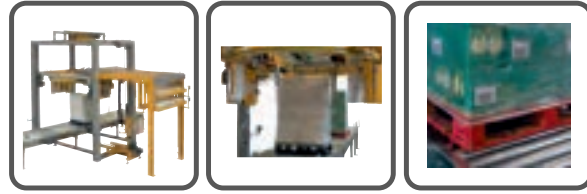
### Octopus CTS

The Octopus CTS is a fully automatic wrapping machine incorporating the latest technology and the famous Octopus ring type method. With integrated top sheet device in Octopus CTS, you can make real splash proof wrapping. Octopus CTS offers more cost-effective solution than rotating arm or rotating table machine, when top sheet is required.



### Octopus Twin

Octopus Twin is developed for high-speed production lines within industries such as food & beverage, construction and tissue. It is equipped with a double film carriage and a seaming unit solution. Both film carriages apply film simultaneously and independently resulting in excellent load containment. With an optional Fast Cycle conveyor solution it is possible to reduce traditional conveying time to half. Due to increased speed, it is possible to use floor space more efficiently for



### Cobra II



#### Flexibility

Thanks to the rotating arm technology the palletized load does not move during the stretch wrapping process. Therefore the Cobra II is ideal for wrapping loads that are unstable, very light or very heavy, odd-sized and of any shape, whatever the type of product is. The Cobra II can be mounted on a wall, to a pillar or can be equipped with an independent floor stand.

#### Efficiency

The motorized Power Pre Stretch System with stepless control of film tension guarantees optimum usage of film. Best possible reduction of film consumption optimizes packaging costs per pallet. Due to the overhead style design minimum space requirement is needed and there's no need for an additional access ramp.

#### Functionality

Four individual wrapping programs can be stored and therefore operation of the machine is very simple. The programs include eight functions which are adjustable to meet precisely the demands of an optimal packaging. The Cobra III wrapping machine has no metal parts touching floor, so it's easy to clean underneath.

### Ecomat FS



Turn table for hand fork lift - new plate structure FS-model is designed for hand fork lift use, and is available to Ecomat Easy and Ecomat Plus models. Tower structure including operating panel is equal between FS- model and Ecomat with standard

turn table.  
Turning of table takes place by two friction wheels, where both have constant contact to table.  
Max. load weight is 1200kg.

### Ecomat Easy

#### Efficiency

- Adjustable mechanical brake
- Variable stretch ratio All types of film can be used

#### Safety

- Film carriage inside the tower
- Safe, fast and easy loading of film
- Control for door opening
- Emergency stop

#### Simplicity

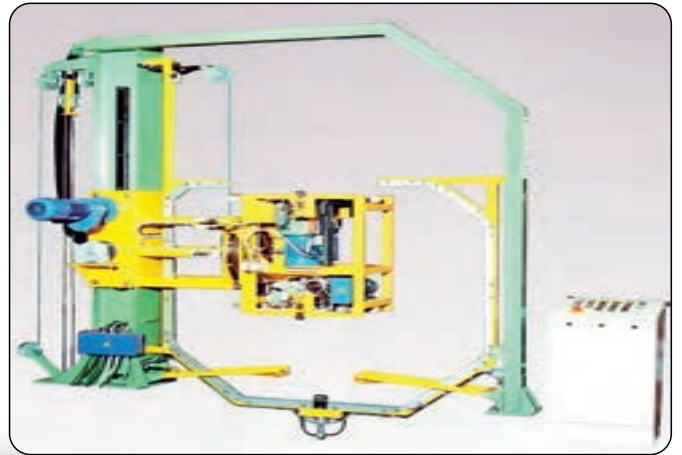
- Fast and simple installation
- Safe transportation (machine packed in a wooden crate)
- Easy maintenance
- Height censoring by photocell

#### Easy to use

- Adjustable number of top and bottom wraps
- Adjustable carriage and turntable speed
- Soft START/STOP Indexed stop
- 3 wrapping programs; single, cross and splash proff (with top sheet)







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**MPS Metal Plastik Sanayi Çember ve Paketleme Sistemleri İmalat ve Ticaret A.Ş.**

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