

Steel strap packaging

Coil winding

Signode strapping is produced in two basic coil windings:

Mill wound

The strapping is oscillated uniformly and tightly across the 2-1/2" (63.5mm) 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 0.43mm)
Apex Plus with in-line 0.145" (3.5mm) holes on 3/4" (19.0mm) centers and a strap strength of 1,255 lbs. (5 583 N).

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

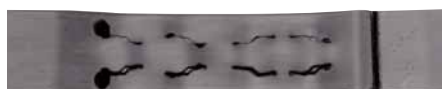
Zinc finish strapping is waxed and has a zinc enriched coating to provide outstanding resistance to rust. Available in a variety of Apex Plus and Magnus sizes, it has the same improved tension transmission characteristics as the painted and waxed strapping. Zinc finish protects where it is needed most—at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

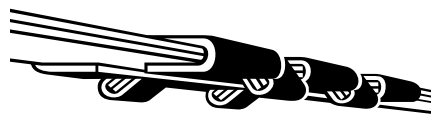
Basic seal joint types

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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Reverse notch joint



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.



Crimp joint



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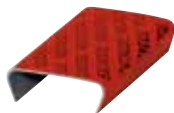
Seals

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.



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.



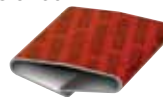
Open-flange seals

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



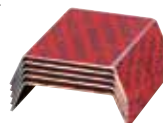
Push-type seals

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



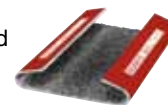
Nestack® seals

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.



| Seal Name | Strap Size | | Part Number | Seal Type | Joint Type | Tool Name | Seal Length | | Standard package | Approximate Shipping Weight | |
|-------------|-------------|--------------------------|-------------|---|---|-------------------------------------|-------------|--------------------------|------------------|-----------------------------|-----|
| | inch | mm | | | | | inch | mm | | lbs | kg |
| 38 AL | 3/8 | 9.5 | 000555 | Nestack | Double Notch | AL-38 | .860 | 21.8 | 12,600 | 34 | 15 |
| 38 C | | | Snap-on | C-3820 | | 1.120 | 28.5 | 5,000 | 28 | 13 | |
| 38 SPC | | | Push | SRC-3820 | 1.047 | 26.6 | 5,000 | 38 | 17 | | |
| 12 AL | 1/2 | 12.7 | 000554 | Nestack | Double Notch | AL-12 | .860 | 21.8 | 9,100 | 42 | 19 |
| 12 AMP | | | Nestack | AM-12, AMP-1-12 | | 1.120 | 28.5 | 5,700 | 44 | 20 | |
| 12 C | | | Snap-on | C-1223, YC-1223 | 1.120 | 28.5 | 6,000 | 44 | 20 | | |
| 12 SPC | | | Push | PNSC-2-12, SRC-1223 | 1.047 | 26.6 | 3,000 | 30 | 14 | | |
| 58/34 AMP | 5/8 | 15.9 | 000567 | Nestack | Double Notch | AM-58, AM-34, AMP-1-58, AMP-1-34 | 1.120 | 28.5 | 4,000 | 40 | 18 |
| 58 C | | | Snap-on | C-5823, YC-5823 | | 1.250 | 31.8 | 4,800 | 45 | 20 | |
| 58 SPC | | | Push | PNSC-2-58, SRC-5823 | 1.047 | 26.6 | 5,000 | 58 | 26 | | |
| 34 C | 3/4 | 19.0 | 000600 | Snap-on | Double Notch | C-3423, YC-1-3425 | 1.250 | 31.8 | 5,000 | 55 | 25 |
| 34 HCOF | | | Open-flange | SYC-3431, RCND-34 | | 2.200 | 55.9 | 1,500 | 50 | 23 | |
| 34 HOC | | | Push | PRHM-34, PRHR-34, RCD-3431, RCNS2-34, SYC-3431, RCND-34 | 2.200 | 55.9 | 700 | 31 | 14 | | |
| 34 MNT | | | Nestack | AHP-34 | 1.500 | 38.1 | 2,400 | 48 | 22 | | |
| 34 PNSC | | | Push | PNSC-2-34, SRC-3423 | 1.047 | 26.6 | 4,000 | 54 | 25 | | |
| 34 SHOC | | | Push | RCNS2-34, SYC-3431 | 1.500 | 38.1 | 1,200 | 31 | 14 | | |
| 104 DG* | | | 1-1/4 | 31.8 | 007200 | Thread-on | Four Crimp | B-1431, B-1450, NSP-1435 | 4.750 | 120.7 | 500 |
| 107 DG* | Thread-on | Double Crimp | | | B-1431, B-1450, NSP-1435 | 2.937 | 74.6 | 700 | 46 | 21 | |
| 107 DG OF* | Open-flange | B-1431, B-1450, NSP-1435 | | | 2.937 | 74.6 | 500 | 33 | 15 | | |
| 114 A | 1-1/4 | 31.8 | 000612 | Nestack | Double Notch | AH-114, AHP-2-114 | 1.500 | 38.1 | 1,150 | 34 | 15 |
| 114 OF | | | Open-flange | Double Notch | C-1431, C-1450, RC-1435-50, RCD-1431, RCNS2-114, RCND-114 | 2.200 | 55.9 | 1,000 | 50 | 23 | |
| 114 P | | | Push | Double Notch | C-1431, C-1450, PRHR-114, RC-1435-50, RCD-1431, RCNS2-114, RCND-114 | 2.200 | 55.9 | 700 | 46 | 21 | |
| 114 TO | | | Thread-on | Double Notch | RCNS2-114, RCND-114 | 2.200 | 55.9 | 1,000 | 50 | 23 | |
| 117 HDG OF* | 1-1/4 | 31.8 | 2X2091 | Open-flange | Double Crimp | B-1450, N-1444-50LSH, N-1457-LSH-2A | 3.250 | 82.6 | 500 | 41 | 19 |
| 117 HDG TO* | | | Thread-on | Double Crimp | B-1450, N-1444-50LSH | 3.250 | 82.6 | 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 TO | 2 | 50.8 | 001871 | Thread-on | Double Crimp | B-250, NS-250-65L | 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 |
| 38 MN MNS | 3/8 | 9.5 | 000462 | Nestack | Single Notch | M2, M25 | .680 | 17.2 | 9,000 | 25 | 11 |
| 12 MNA | 1/2 | 12.7 | 000563 | Nestack | Single Notch | M20, M200 (250 cap) | .750 | 19.0 | 5,400 | 28 | 13 |
| 12 MN MNS | 1/2 | 12.7 | 000515 | Nestack | Single Notch | M2, M4, M5, M6, M25 | .680 | 17.2 | 8,400 | 26 | 12 |
| 58 MB | 5/8 | 15.9 | 000435 | Nestack | Double Notch | M22-58, M200 (300 cap) | .984 | 24.9 | 4,000 | 36 | 16 |
| 58 MNA | 5/8 | 15.9 | 000565 | Nestack | Single Notch | M20-58, M200 (250 cap) | .750 | 19.0 | 4,800 | 30 | 14 |
| 34 MB | 3/4 | 19.0 | 000569 | Nestack | 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 | 3/4 | 19.0 | 007255 | Nestack | 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.