

# PAC Strapping Products Inc.

Integrated Strapping Systems & Solutions



## World Class Strapping Tools from PAC Strapping Products & FROMM Strapping Systems

- Highest Quality
- Outstanding Service



PAC BT2450 and BT3920 High Performance Battery Operated Power Tools utilizing the latest in technology, the PAC BT2450 and BT3920 are “best in class” battery tools for all of your strapping needs. These tools cover a wide range of strapping widths from 1/2” (12mm) to 3/4” (19mm). Tension levels range from 550 to 900 lbs. to cover a broad spectrum of applications. These tools are field ready for polypropylene and polyester strapping and will consistently deliver superior performance and reliability for your strapping needs. Both tools are backed by the outstanding PAC Service Department and feature the best warranty in the industry at 6 months of parts and labor\*\*.



**Standard Features of the PAC BT Tools**

- Digital Touch Panel
- Tension, Sealing, are controlled through the touch screen. Battery level, “soft mode”, mode (semi auto or one hand auto) are also accessed through the touch screen.
- Brushless Motors
- German manufactured brushless technology reduces maintenance, and increases reliability.
- Environmentally friendly Lithium Ion batteries can be recharged up to 1,000 times.
- Simple adjustment for different strapping widths.
- Strap width adjustments are simple and can be done at customer’s location.
- Heavy Duty, ergonomic housing design.

**Special Features of the PAC BT**

- Cycle counter
- Panel function lock

**Specifications**

Model Number	BT2450	BT3920
Application	Regular Duty Applications	High Tension Applications
Strap Width*	1/2” – 5/8” (12-16mm)	5/8”-3/4” (16mm-19mm)
Strap Thickness	PPY .022”-.041” (.55-1.05mm) PET .020”- .041” (.50-1.05mm)	.030” - .053” (.75-1.35mm) .023”- .053” (.60-1.35mm)
Tension Range	90-550 lbs. (24-250KG)	130-880 lbs. (60-400Kg)
Welded Joint Strength	to 80%	to 80%
Weight	9.5 lbs. (4.3Kg)	9.7lbs. (4.4 Kg.)
Battery	Li-Ion 18V, 4.0 Ah	
Battery Charger	110-240V 50/60 Hz, Rechargeable 1,000 times, 40 minute recharge time	
Options:	Wear Plate for bottom base Suspension Bracket	

\*Must specify strap width. \*\*Warranty applies to all manufacturing defects.  
 Normal wear and tear and wear parts excluded. Contact Customer Service for details.



# ***Dynamic 2100***

Economical battery powered plastic strapping tool

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## Characteristics

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Strapping qualities:		Polypropylene (PP) and Polyester (PET)
Strapping dimensions:	widths	12.7 – 19.0 mm / 1/2 – 3/4"
	thicknesses	0.40 – 1.27 mm / .016 – .050"
Weight incl. battery:		4.3 kg / 9.5 lbs
Tool sizes with battery:		L346 x W166 x H139 mm / 13.6" x 6.5" x 5.5"
Average seal strength:		up to 75% (dependent on strap quality)
Type of seal:		Friction weld sealing
Strap tension:		650 – 3000 N / 146 – 675 lbs (adjustable)
Tensioning speed:		160 – 230 mm/s / 6.3 – 9 inch/s
Power supply:	Battery	14.4 VDC / 3.0 Ah Li-Ion
Suspension bracket (optional)		

## Advantages

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- Light and versatile strapping tool
- Robust and durable design
- Well proven strapping technology
- Simple one-handed operation
- Excellent cost – performance ratio
- Li-Ion battery technology
- Tension force and sealing time adjustable

# *Dynamic 2100*

## Chart of types Dynamic 2100

Item No.	Model	Strap widths		Strap thicknesses		Max. Tension		Tension speed	
		mm	inch	mm	inch	N	lbs	mm/s	inch/s
43.3191	Dynamic 2100/12.7/0.40-0.64	12.7	½	0.40-0.64	.016-.025	1700	380	160-230	6.3-9
43.3192	Dynamic 2100/12.7/0.65-1.05	12.7	½	0.65-1.05	.026-.041	3000	675	160-230	6.3-9
43.3312	Dynamic 2100/16/0.65-1.05	16.0	5/8	0.65-1.05	.026-.041	3000	675	160-230	6.3-9

## Battery chargers for Dynamic 2100

Item No.	Model	Charging type	Tension	Countries
N5.4462	Battery standard charger	Li-Ion	120 V / 50-60 Hz	BR, C, CDN, CO, CR, DOM, EC, GCA, J, JA, KSA, LB, MEX, NIC, PA, Puerto Rico, RC, RP, USA, YV

## Battery for Dynamic 2100

Item No.	Model	Tension	Power
N5.4345	Accu Li-Ion	14.4 VDC	3.0 Ah

## Accessories

P32.0112	Standard suspension bracket
P32.0137	Suspension bracket for alternating positions
P32.0127	Wearing plate for rough surfaces
P32.1129	Turning button kit

**Battery powered plastic strapping tool**

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**Characteristics**

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Strapping qualities:	Polyester (PET) and Polypropylene (PP) plain and embossed
Strapping dimensions:	width 12.0 – 16.0 mm thickness 0.40 – 1.05 mm / .016 – .041"
Weight incl. battery:	4.3 kg / 9.6 lbs
Tool size with battery:	L351 x W134 x H143 mm / 13.8" x 5.3" x 5.6"
Type of seal:	Friction weld sealing
Average seal strength:	approx. 75% (dependent on strap quality)
Tension force:	250 – 2600 N / 56 – 585 lbs (adjustable)
Tension speed:	67 – 124 mm/s / 2.6 – 4.9 inch/s
Power supply:	Battery Li-Ion 18VDC / 4.0 Ah
Suspension bracket:	optional

**Advantages**

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- High tension force up to 2600N / 585 lbs
- Tension force and sealing time adjustable with simple knobs
- Tool in both semi-automatic and automatic (single button) version available for efficient operation
- Brushless motor for less maintenance and improved life time
- Improved plates and guides – less effort to remove the tool from the strap
- No tension rocker – easier to remove tool from small package surfaces
- Motor temperature monitoring to protect motor from overheating
- Cycle counter included (special reader required)
- Battery well protected
- Battery charge indicator included
- Simple one-handed operation
- Tool is fully covered for finger protection
- Optional motor cooling fan available to reduce overheating risk

**Chart of types model P328**

Item no.	Model	Strap widths		Strap thicknesses		Max. tension		Tension speed	
		mm	inch	mm	inch	N	lbs	mm/sec.	inch/sec.
43.2423	P328/12.7/0.4-0.64	12.7	½"	0.40-0.64	.016-.025	2600	585	67-124	2.6-4.9
43.2462	P328/16/0.65-1.05	16	5/8"	0.65-1.05	.026-.041	2600	585	67-124	2.6-4.9

**Battery chargers for model P328**

Item no.	Model	Voltage / frequency	Countries
N5.4447	Li-Ion battery charger	120 V / 50-60 Hz	BR, C, CDN, CO, CR, DOM, EC, GCA, J, JA, KSA, LB, MEX, NIC, PA, Puerto Rico, RC, RP, USA, YV

**Battery for model P328**

Item no.	Battery	Voltage	Capacity	Charging time
N5.4349	Accu Li-Ion	18VDC	4.0 Ah	approx. 80 min.

**Accessories**

- P32.0223 Suspension bracket (pivoted)
- P32.0231 Suspension bracket (fixed)
- P32.0224 Wearing plate (metal) for rough and hard surfaces
- P32.0225 Protection plate (metal) to protect complete bottom side
- P32.0228 Motor cooling fan
- P32.2061 Turning button kit



**Battery powered plastic strapping tool for demanding applications**

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**Characteristics**

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Strapping qualities:	Polyester (PET) and Polypropylene (PP) plain and embossed
Strapping dimensions:	width 16.0 – 19.0 mm / 5/8 – 3/4" thickness 0.65 – 1.35 mm / .026 – .053"
Weight incl. battery:	4.3 kg / 9.6 lbs
Tool size with battery:	L351 x W134 x H143 mm / 13.8" x 5.3" x 5.6"
Type of seal:	Friction weld sealing
Average seal strength:	approx. 75% (dependent on strap quality)
Tension force:	500 – 4000 N / 112 – 900 lbs (adjustable)
Tension speed:	49 – 79 mm/s / 1.9 – 3.1 inch/s
Power supply:	Battery Li-Ion 18VDC / 4.0 Ah
Suspension bracket:	optional

**Advantages**

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- High tension force up to 4000N / 900 lbs
- Tension force and sealing time adjustable with simple knobs
- Tool in both semi-automatic and automatic (single button) version available for efficient operation
- Brushless motor for less maintenance and improved life time
- Improved plates and guides – less effort to remove the tool from the strap
- No tension rocker – easier to remove tool from small package surfaces
- Motor temperature monitoring to protect motor from overheating
- Cycle counter included (special reader required)
- Battery well protected
- Battery charge indicator included
- Simple one-handed operation
- Tool is fully covered for finger protection
- Optional motor cooling fan available to reduce overheating risk

### Chart of types model P329

Item no.	Model	Strap widths		Strap thicknesses		Max. tension		Tension speed	
		mm	inch	mm	inch	N	lbs	mm/sec.	inch/sec.
43.2522	P329/16/0.65-1.05	16	5/8	0.65-1.05	.026-.041	4000	900	49-79	1.9-3.1
43.2533	P329/19/1.06-1.35	19	3/4	1.06-1.35	.042-.053	4000	900	49-79	1.9-3.1

### Battery chargers for model P329

Item no.	Model	Voltage / frequency	Countries
N5.4447	Li-Ion battery charger	120 V / 50-60 Hz	BR, C, CDN, CO, CR, DOM, EC, GCA, J, JA, KSA, LB, MEX, NIC, PA, Puerto Rico, RC, RP, USA, YV

### Battery for model P329

Item no.	Battery	Voltage	Capacity	Charging time
N5.4349	Accu Li-Ion	18VDC	4.0 Ah	approx. 80 min.

### Accessories

P32.0223	Suspension bracket (pivoted)
P32.0231	Suspension bracket (fixed)
P32.0224	Wearing plate (metal) for rough and hard surfaces
P32.0225	Protection plate (metal) to protect complete bottom side
P32.0228	Motor cooling fan
P32.2061	Turning button kit

**Battery powered plastic strapping tool for heavy duty applications**

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**Characteristics**

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Strapping qualities:	Polyester (PET) plain and embossed
Strapping dimensions:	width 19.0 – 32.0 mm / 3/4 – 1 1/4" thickness 0.60 – 1.53 mm / .024 – .060"
Weight incl. 4.0 Ah battery:	6.5 kg / 14.5 lbs
Tool size with battery:	L396 x W166 x H175 mm / 15.6" x 6.5" x 6.9"
Type of seal:	Friction weld sealing
Average seal strength:	approx. 75% (dependent on strap quality)
Tension force:	1200 – 7000 N / 270 – 1575 lbs (adjustable)
Tension speed:	39 – 63 mm/s / 1.5 – 2.5 inch/s
Power supply:	Battery Li-Ion 36VDC / 2.5 or 4.0 Ah
Suspension bracket:	optional

**Advantages**

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- Battery powered combination tool for strap sizes up to 32 mm / 1 1/4"
- High tension force up to 7000N / 1575 lbs
- Brushless motor for less maintenance
- Tool in automatic version available for more efficient operation
- Well balanced tool for all strapping positions
- Up to 370 strap cycles per battery charge
- Tool welds without tension (strap repair)
- Quick battery exchange

### Chart of types model P331

Item no.	Model	Strap widths		Strap thicknesses		Max. tension		Tension speed	
		mm	inch	mm	inch	N	lbs	mm/sec.	inch/sec.
43.0276	P331/19/1.20-1.53/7.0	19	3/4	1.20-1.53	.047-.060	7000	1575	39-63	1.5-2.5
43.0286	P331/25/1.20-1.35/7.0/7.0	25	1	1.20-1.35	.047-.053	7000	1575	39-63	1.5-2.5

### Battery chargers for model P331

Item no.	Model	Voltage / frequency	Countries
N5.4455	Li-Ion battery charger	120 V / 50-60 Hz	BR, C, CDN, CO, CR, DOM, EC, GCA, J, JA, KSA, LB, MEX, NIC, PA, Puerto Rico, RC, RP, USA, YV

### Replacement battery for model P331

Item no.	Battery	Voltage	Capacity	Charging time
N5.4337	Accu Li-Ion	36VDC	2.5 Ah	approx. 86 min.
N5.4341	Accu Li-Ion	36VDC	4.0 Ah	approx. 135 min.

### Accessories

P33.0216	Standard suspension bracket
P33.0214	Wearing plate (metal) for rough and hard surfaces
P33.0215	Protection plate (plastic)

**The universal strapping tool for PET an PP strapping**

The excellent mechanical features of Polyester strapping often allows the substitution of the traditional steel strapping used in many industries. The outstanding elongation of PET strapping offers a high shock absorption capacity during transportation as well as during handling of the goods. Used in combination with our new plastic strapping tool, model P355, Polyester strapping up to 16.0 mm<sup>5</sup>/<sub>8</sub>” width and 1.05 mm/.041 “ thickness can be applied. A high seal efficiency is guaranteed an depending on the quality of the strapping, tension up to 2100 N can be reached.



**Characteristics**

Strapping qualities:	Polypropylene (PP) and Polyester (PET)	
Strapping dimensions:	widths	10.0 – 16.0 mm / 3/8 – 5/8”
	thicknesses	0.40 – 1.05 mm / .016 - .041”
Tool sizes:	Without suspension bracket	With suspension bracket
	Length	305 mm / 12”      356 mm / 14”
	Width	104 mm / 4.1”      104 mm / 4.1”
	Height	151 mm / 6”      252 mm / 9.9”
Weight:	4.75 kg / 10.5 lbs	
Average seal strength:	approx. 75% of strap breaking strength (dependent on strap quality)	
Sealing method:	Friction weld seal	
Tension:	400 - 2100 N / 90 - 470 lbs, adjustable (max. tension is dependent on strap quality)	
Tension speed:	approx. 250 mm / s / 10 inch / s (dependent on strap quality)	
Air consumption:	approx. 8NI/0.30 cu.ft per second (when motor is running)	
	approx. 4 - 20 NI/0.15 - 0.75 cu.ft per seal (~ 8 NI per second)	
Max. air pressure:	6.0 bar / 87 psi	
Working pressure:	5.5 bar / 80 psi	

**Advantages**

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- Easy strap threading – both straps are inserted together
- Sealing time, strap tension and tensioning speed are adjustable – which guarantees a high sealing efficiency, appropriately tensioned straps, resulting in perfectly secured packages
- Adjustable strap thickness allows an individual setting for the specific strap quality in use
- Pneumatically powered, very reliable and maintenance-friendly
- The compressed air can be connected to the tool either on top of the main housing or at the rear end of the main handle
- Suitable for multiple applications due to the use of the universal suspension bracket, available as accessory
- For packages with a rough and hard surface, a bottom-base wearing protection plate is available as accessory
- This tool is ideal for a wide variety of vertical and horizontal strapping positions, suitable for almost all applications in various industries

**Chart of types model P355**

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Item No.	Model	Strap widths		Strap thicknesses		Max. Tension		Tension speed	
		mm	inch	mm	inch	N	lbs	mm/sec.	inch/sec.
49.0323	P355/12.7/0.64	12.7	½"	0.40-0.64	.016-.025	2100	470	250	10
49.0324	P355/12.7/1.05	12.7	½"	0.65-1.05	.025-.041	2100	470	250	10
49.0361	P355/16/0.64	16	5/8"	0.40-0.64	.016-.025	2100	470	250	10
49.0362	P355/16/1.05	16	5/8"	0.65-1.05	.025-.041	2100	470	250	10

**Accessories**

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- P32.0111 Bottom-base wearing protection plate
- P35.0125 Universal suspension bracket for vertical as well as horizontal strapping positions

**Manual sealless steel strapping tool with MicroLock™**

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**Characteristics**

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Strapping qualities:	Uniflex and Ultraflex max. 1100 N/mm <sup>2</sup> / 160'000 psi
Strapping dimensions:	widths 9.5 – 20.0 mm / <sup>3</sup> / <sub>8</sub> – <sup>3</sup> / <sub>4</sub> "
	thicknesses 0.38 – 0.63 mm / .015 – .025"
Weights:	4.45 kg / 9.8 lbs Normal-version
	4.7 kg / 10.4 lbs TW-version
Sealless joint:	Fromm MicroLock™
Average seal strength:	approx. 80 %
TW-version available:	Torque wrench tensioning system
Suspension (Optional):	Suspension for vertical and horizontal applications; has to be ordered separately
	Handle for horizontal applications; has to be ordered separately

**Advantages**

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- The MicroLock™ sealless system guarantees a maximum of security of the sealless steel strapping joint against unlocking
- The tool can handle regular duty and high tensile steel strapping
- The tool can handle steel strapping up to a thickness of 0.64 mm / .025"
- Thanks to the special tensioning system (free wheeling) no loss of strap tension
- The sealing mechanism is completely closed
- The adjustment of the cutting and sealing depth is simple
- The feed wheel and the die and cutter support are easy to change

**Chart of types model A337**

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Item No.	Model	Width		Thicknesses		Quality
		mm	inch	mm	inch	
13.1896	A337/16/0.51-0.63/ULT	16	5/8"	0.51-0.63	.021-.025	Ultraflex
13.1916	A337/19/0.51-0.63/ULT	19	3/4"	0.51-0.63	.021-.025	Ultraflex

Uniflex = Regular duty strapping max. 850 N/mm<sup>2</sup> / 123'000 psi  
Ultraflex = High tensile strapping max. 1100 N/mm<sup>2</sup> / 160'000 psi



**Pneumatic pusher type tensioner for round objects**

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**Characteristics**

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Strapping qualities:	Uniflex and Ultraflex max. 1100 N/mm <sup>2</sup> / 160'000 psi
Strapping dimensions:	widths 19.0 – 32.0 mm / 3/4 – 1 1/4"
	thicknesses 0.63 – 1.27 mm / .025 - .050"
Weight:	4.35 kg / 9.6 lbs
Strap tension:	8500 N / 1900 lbs (6 bar / 87 psi)
Seals:	Overlap seals
Sealing:	With separate sealer model A412 or A461
Suspension:	Eye bolt for standard applications is supplied with the tool

**Advantages**

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- Very high strap tension up to 8500 N / 1900 lbs
- After tensioning, the tool stops to tension, but no strap tension ever is lost (free wheeling system)
- For safety reasons, the strap tension can be released at any time by pressing the black safety push button
- The rugged tool permits a high strap tension and is particularly suitable for applications in the steel- and steel processing industries
- The tension speed is very high
- Very silent operation of the tool
- The light tool is ideal for non stationary applications

**Chart of types model A452**

Item No.	Model	Uniflex and Ultraflex max. 1100 N/mm <sup>2</sup> / 160'000 psi				Max. Tension		Tension speed	
		Width		Thicknesses		N	lbs	mm/s.	inch/s.
		mm	inch	mm	inch				
13.4210	A452/19-32/0.63-1.27	19-32	¾ - 1 ¼"	0.63 - 1.27	.025-.050	8500	1900	150	5.9

**Pneumatic sealer**

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**Characteristics**

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Strapping qualities:	Uniflex and Ultraflex max. 1100 N/mm <sup>2</sup> / 160'000 psi
Strapping dimensions:	widths 19.0 – 32.0 mm / 3/4 – 1 1/4"
	thicknesses 0.63 – 1.00 mm / .025 - .040"
Weight:	4.2 kg / 9.3 lbs
Average seal strength:	Approx. 75 %
Seals:	Overlap seals
Type of joint:	Double notch upcut joint
Tensioning:	With separate tensioner model A452
Two different working versions:	Version N = Handle 90° to the strap (normal) Version P = Handle parallel to the strap

**Advantages**

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- The pneumatic sealer can be used easily with one hand only
- The safe upcut double notch joint is accomplished in one strike
- The seal safety mechanism prevents poor seal joints as a result of faulty operation of the tool by the user
- The tool can be supplied with the handle in a 90° angle to the strap (N-version) or with the handle parallel to the strap (P-version), the user may select the right tool for his application

**Chart of types model A461 – Version N = Handle 90° to the strap**

Item No.	Model	Width		Uniflex		Ultraflex	
				Thicknesses		Thicknesses	
		mm	inch	mm	inch	mm	inch
13.4310	A461/19/0.63-0.70/N	19	¾"	0.63-0.70	.025-.028	0.63-0.70	.025-.028
13.4510	A461/32/0.80-0.90/N	32	1 ¼"	0.80-0.90	.031-.035	0.80-0.90	.030-.035

Uniflex = Regular duty strapping max. 850 N/mm<sup>2</sup> / 123'000 psi  
 Ultraflex = High tensile strapping max. 1100 N/mm<sup>2</sup> / 160'000 psi

**Pneumatic pusher type combination steel strapping tool**

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**Characteristics**

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Strapping qualities:	Uniflex and Ultraflex max. 1100 N/mm <sup>2</sup> / 160'000 psi
Strapping dimensions:	widths 10.0 - 19.0 mm / <sup>3</sup> / <sub>8</sub> - <sup>3</sup> / <sub>4</sub> "
	thicknesses 0.38 – 0.63 mm / .015 - .025"
Weights:	4.5 kg / 9.9 lbs without suspension 4.6 kg / 10.1 lbs with suspension
Average seal strength:	approx. 75 %
Seals:	Overlap seals, see chart
Type of joint:	Single notch joint
Strap tension:	The tool is available for two different stages of strap tension, see chart
Suspensions (Optional):	Suspension bracket for standard and vertical applications is supplied with the tool suspension bracket for horizontal and vertical applications; have to be ordered separately, see accessories

**Advantages**

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- Very suitable for strapping of bars, bundles, pipes, coils and packages having a small surface
- If used for stationary operation the tool may be suspended on a spring loaded balancer using a suspension bracket (see suspensions)

**Chart of types model A480**

Item No.	Model	Uniflex and Ultraflex max. 1100 N/mm <sup>2</sup> / 160'000 psi				Max. Tension		Tension speed	
		Width		Thicknesses		N	lbs	mm/sec.	inch/sec.
		mm	inch	mm	inch				
13.4072	A480/13/0.38-0.63/2.5	13.0	1/2"	0.38-0.63	.015-.025	2500	560	180	7.1
13.4092	A480/16/0.38-0.63/2.5	16.0	5/8"	0.38-0.63	.015-.025	2500	560	180	7.1
13.4112	A480/19/0.38-0.63/2.5	19.0	3/4"	0.38-0.63	.015-.025	2500	560	180	7.1

Uniflex = Regular duty strapping max. 850 N/mm<sup>2</sup> / 123'000 psi  
 Ultraflex = High tensile strapping max. 1100 N/mm<sup>2</sup> / 160'000 psi

**Accessories**

A48.1304 Suspension bracket for horizontal and vertical applications

**Recommended seals**

Width mm	Inch	Dimensions (W, L, T)	
		mm	inch
10	3/8"	10 x 22 x 0.6	3/8 x 7/8 x .024
13	1/2"	13 x 22 x 0.6	1/2 x 7/8 x .024
16	5/8"	16 x 22 x 0.6	5/8 x 7/8 x .024
19	3/4"	19 x 22 x 0.6	3/4 x 7/8 x .024

Tensile strength of the seal material: 600 N/mm<sup>2</sup> / 87'000 psi