



**BELTING**



# **SOLID WOVEN PVC CONVEYOR BELTING & BUCKET ELEVATOR COMPONENTS**

## **Technical Guide**

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**A DIVISION OF THE BEARING MAN GROUP**

**SANS ISO 9001:2008**

# SW-PVC FIRE RESISTANT CONVEYOR BELTING

## FIRE AND STATIC RESISTANT

Complies with SANS 971 of 2003



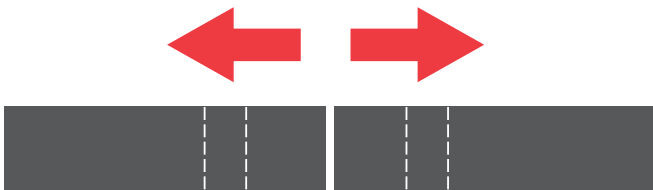
## ABRASION AND IMPACT RESISTANT

The solid weave of the Polyester / Nylon carcass and the high internal adhesive level, through the impregnation of PVC, provides outstanding abrasion and impact resistance properties.



## FASTENER HOLDING ABILITY

The Polyester / Nylon carcass, tightly woven, makes a solid unit giving SW-PVC superior fastener holding ability for a longer splice life



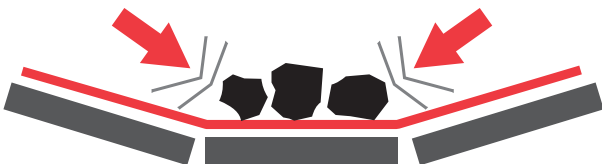
## IMPROVED TROUGHABILITY AND TRAINING CHARACTERISTICS

SW-PVC has superior weave techniques resulting in pliable construction. This means easy troughing with less spillage and increased load carrying.



## IDLER JUNCTION FAILURE

The extra strong Polyester / Nylon carcass of SW-PVC is designed to overcome premature idler junction failure.



## OIL, CHEMICAL AND MOISTURE RESISTANT

Special formulation of the PVC makes SW-PVC resistant to oil, moisture and chemicals. The superior impregnation of the carcass ensures longer life and the complete coverage of the carcass protects the fabrics to prevent wicking



# SW-PVC FIRE RESISTANT CONVEYOR BELTING

## Technical Data

	Units	315	630	800
Minimum Breaking Strength	kN/m	315	630	800
Maximum Recommended Operating Tension	kN/m	31.5	63.0	80.0
Tear resistance	N	2800	5000	5300
Elongation at Break/Warp	%	22	31	38
Elongation at RWT	%	1.0	1.5	2.0
Min. Belt width for troughing empty	20°	450	450	500
	35°	500	500	600
Fastener Retention	%Strength	>80	>80	>80
Nominal Thickness with Specified Covers (mm)	0.0x0.0	4.60	6.30	6.70
	0.8x0.8	5.20	6.90	7.30
	1.0x1.0	6.00	7.70	8.10
Nominal Mass with Specified Covers (kg)	0.0x0.0	5.30	6.60	7.20
	0.8x0.8	6.20	7.60	8.10
	1.0x1.0	7.30	8.70	9.10
Minimum Pulley Diameter (mm)	HeadDrive	250	400	500
	Tail/Take-up	200	315	400
	Snub	160	250	315
Elastic Elongation at RWT	%	0.50	0.50	0.55
Permanent Elongation at RWT	%	0.50	0.50	0.50
PVC Troughability From/To		0.39	0.38	0.38
		0.44	0.42	0.41

As an explanation of the different belt ratings, we offer the following :

- Maximum belt width is 1500mm
- Standard manufactured length is 300m
- RWT is recommended working tension

# HY-PRO ELEVATOR BUCKET

## HIGH SPEED CENTRIFUGAL DISCHARGE

1,5 - 4,6 m/sec

HY-PRO (High Capacity Low Profile ) standard duty elevator bucket has reduced height modification for closer vertical spacing on the belt. The low profile system spaces more buckets per metre of elevator belt. Therefore, the same bucket elevator can move more material.

Considerations must be allowed for increased horsepower requirements if necessary. The buckets is designed with a reinforced front lip and thickened back. The bucket is light weight, tapered for better discharge, and is nestable for easy shipping and storage.






### FEATURES

- Light weight
- Shape memory
- Cleaner discharge
- Reinforced corners and lip
- Tapered end cap design
- Nestable shape
- Non-corrosive, non-sparking

### BENEFITS

- Increases overall elevator capacity
- Lowers elevator maintenance
- Extends bucket life
- Decreases elevator down-time
- Corrosion resistant
- Reduces energy usage
- Lowers freight rates by efficient packaging
- Resists hang-ups

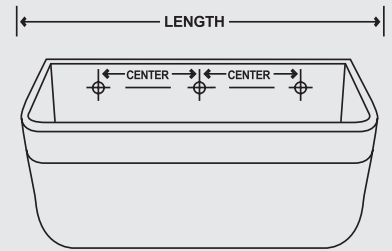
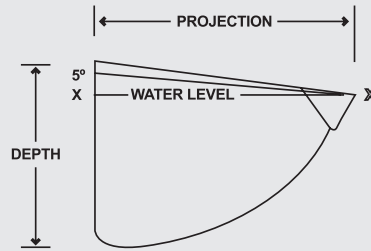
Materials	HD Polyethylene	Nylon	Urethane	Special Resins
<b>COLOUR</b>	 <b>WHITE</b>	 <b>TAN</b>	 <b>GREEN</b>	As available
<b>APPLICATION</b>	Grain and food products	Hot, high impact abrasive dense products	Heavy abrasion, sticky materials	Product conditions not suitable for In stock bucket materials
<b>TEMPERATURE RANGE</b>	-120°F to +180°F (210°F intermittent)	-60°F to +300°F (350°F intermittent)	-120°F to +180°F (210°F intermittent)	As required
<b>FDA APPROVED MATERIAL</b>	Yes	Available on request	Yes	As required
<b>COMMENTS</b>	Economical high-density polyethylene FDA approved material for handling food grade products	Best for high heat applications, with tough impact and abrasion needs	Most flexible and abrasion resistant, Resists product sticking and sharp cutting particles	For specific requirements such as extreme temperature, abrasion, colour or product discharge

### SOME OF THE MANY USES RECOMMENDED FOR THESE SPECIFIC AGRICULTURAL PRODUCTS:

Recommended but not restricted to handling these specific products:

- Barley
- Beans
- Bone meal
- Coffee
- Cotton seed
- Corn
- Feed
- Fertilizer
- Flour
- Food products
- Grains
- Grass seed
- Malted barley
- Meat scraps
- Minerals
- Nuts
- Oats
- Pellets
- Perlite
- Potash
- Rice
- Salt
- Sawdust
- Seeds
- Sugar
- Sunflower
- Wheat

# HY-PRO ELEVATOR BUCKET



MOUNTING HOLES AND VENTING TO YOUR SPECIFICATIONS

## HY-PRO ELEVATOR BUCKETS

Bucket Size	Bucket Width (mm)	Bucket Projection (mm)	Bucket Depth (mm)	Nylon Bucket Mass (kg)	HDPE Bucket Mass (kg)	Urethane Bucket Mass (kg)	Bucket Capacity Water Level X-X (liter)	Bucket Capacity 5° over X-5° (liter)
3x2	83	59	57	0.06	0.05	0.07	0.11	0.13
4x3	108	83	70	0.10	0.09	0.12	0.25	0.29
5x4	133	114	83	0.21	0.19	0.25	0.60	0.66
6x4	159	114	89	0.25	0.21	0.29	0.74	0.83
7x4	184	114	89	0.27	0.23	0.32	0.90	1.00
6x5	154	140	102	0.30	0.25	0.35	1.09	1.20
7x5	183	143	102	0.35	0.29	0.41	1.34	1.50
8x5	205	143	102	0.39	0.32	0.45	1.50	1.66
9x5	230	143	102	0.44	0.36	0.51	1.70	1.92
10x5	254	143	114	0.51	0.44	0.60	1.92	2.12
11x5	279	143	114	0.57	0.49	0.66	2.22	2.45
12x5	305	143	114	0.63	0.54	0.73	2.46	2.69
8x6	214	167	121	0.49	0.42	0.59	2.20	2.50
9x6	229	176	114	0.48	0.42	0.59	2.40	2.77
10x6	278	175	133	0.66	0.56	0.78	3.18	3.60
11x6	279	167	121	0.61	0.54	0.72	2.98	3.28
12x6	308	168	127	0.75	0.65	0.87	3.25	3.80
13x6	332	171	127	0.78	0.68	0.90	3.66	4.18
10x7	270	197	140	0.84	0.71	0.96	3.60	4.14
11x7	292	194	117	0.89	0.77	1.04	4.22	4.63
12x7	308	197	146	0.98	0.81	1.16	4.64	5.25
13x7	335	191	152	1.02	0.87	1.18	4.76	5.44
14x7	360	203	152	1.27	1.08	1.45	5.92	6.52
15x7	389	197	146	1.14	0.97	1.36	5.31	6.00
16x7	419	197	156	1.47	1.31	1.76	7.08	8.00
11x8	289	225	152	1.19	1.03	1.39	5.20	5.70
12x8	318	225	152	1.25	1.08	1.46	5.32	5.82
13x8	346	225	168	1.55	1.34	1.81	6.66	7.42
14x8	368	229	152	1.23	1.07	1.47	7.28	8.12
16x8	419	229	152	1.40	1.24	1.66	7.60	8.42
18x8	467	225	152	1.65	1.44	1.94	8.69	9.58

\*Can be modified to lesser projections. \*\*Actual dimensions may vary slightly in all elevator buckets, depending on specified resins.

### OTHER CONSIDERATIONS

**Drilling** : No charge. (On ex-manufacturer basis)

**Venting** : Available as needed. (On ex-manufacturer basis)

**Digger Buckets** : Use slightly larger metal digger elevator buckets to help loosen material in the elevator boot section that has hardened, thereby reducing abrasion on the plastic buckets.

**Spacing** : Please contact your nearest Belting Solutions hub for information

**Installation** : Use a standard elevator bolt for installation. Designed to be used with fender or flat and locking nuts. If buckets are being installed on chain, use hex head bolts, nuts and washers.

**FDA** : Both the urethane and polyethylene are designed to FDA specifications for direct contact with food products.

## MAXI-SPLICE AB

- Non ferrous metal of very high tensile strength
- Usable on belts of up to 1200 PIW (class 2000) tensile
- Non-sparking , non-corroding and non-rusting
- Bronze colour

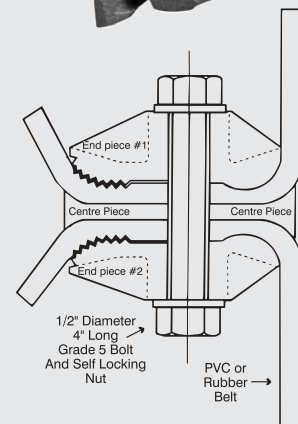
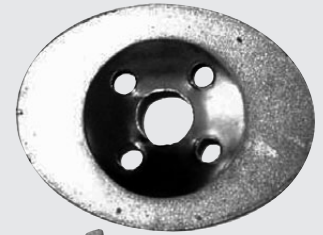
## DESCRIPTION

- The Maxi-splice is a mechanical clamping device with a simple three-piece construction.
- The patented design is for use on PVC and rubber belting.
- It accommodates belts of all thicknesses.
- Standard splice bolts will accommodate up to 12mm thick belting. Longer bolts are available for thicker belts.
- Each splice set accommodates two inches of belt width.
- It is tested and approved by leading manufacturers of PVC and rubber belting.

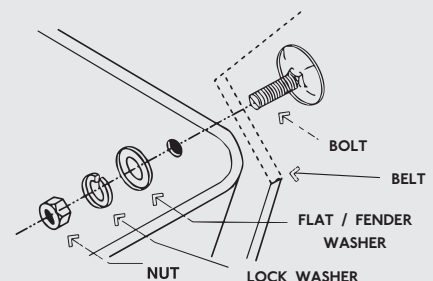
## INSTALLATION

1. First ensure the belt ends are square and even. If using the template tape, apply the tape to mark the punching. Be sure to apply the tape squarely on the belt ends; then proceed to Step 4. If you are not using the tape, go to Step 2.
2. Draw a line approximately 108mm from the belt end to use as the centreline for the hole punching. Proper installation for even width belts will begin just inside the belt edge. Odd belt widths require installation 13mm from the belt edge.
3. Use the Maxi-Splice as a template to mark the hole locations for punching. After marking the first hole, move over 51mm and mark each consecutive hole.
4. Punch both belt ends for 1/2" diameter bolts.
5. The two end plates and centre plate are used for firm belt gripping. The end plates have two gripping areas. The slotted gripping area is mounted toward the face of the belt and is followed by a series of gripping teeth. These teeth are always mounted toward the tail of the belt. The centre plate is symmetrical and cannot be improperly installed.
6. **IMPORTANT:** We have supplied a 1/2" diameter, 102mm long Grade 5 bolt and locking nut. The bolts must be torqued for Maxi-Splice to effectively clamp. The torque requirement is 75 foot pounds for belts up to and including 600 PIW (class 1000). Belts greater than 600PIW (class 1000) tensile require 100 foot pounds of torque.
7. Run the belt for thirty minutes; stop the leg and re-torque the bolts.

## LARGE OVAL WASHERS M6, M8, M10



Recommended bucket installation



\* A locking device should be used on all elevator bucket installations

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