SLIDE LAGGING



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SLIDE LAGGING





Elastotec Slide Lagging is a quick replaceable lagging system that has been designed to service a wide range of applications.

This system is specially designed to increase conveyor availability as it is applied directly onto the pulley shell. The slide lagging pads slide into retainers that have been welded or bolted into the pulley shell. New pads can be easily replaced without removing the pulley from the conveyor.

Elastotec Slide Lagging can be specified when there is a requirement for:

- Easy installation
- Quick lagging replacement
- Increase productivity

The Elastotec Slide Lagging range is available in a range of rubber compounds including Natural, FRAS, Oil Resistant or EXTREME rubber, and also rubber backed ceramic in both Natural and FRAS.

Slide Lagging is suitable for low tension applications where a fabric conveyor belt is used.



Elastotec Slide Lagging is used in applications that require an easy installation and operation. Benefits include the application and removal of the lagging without removing the drum from the conveyor system and no need to sandblast pulley shell before application, Slide lagging products are recommended for the mining, quarry, grain and cement industries.

Slide lagging kits are supplied pre-cut to pulley size for fast and easy installation.





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KEY FEATURES AND BENEFITS

- Available in a range of rubber and ceramic options.
- \checkmark Supplied in kits to suit custom pulley diameters and face widths for easy installation.
- Easy installation and quick replacement without removing the pulley.
- Available with crowned end pieces to assist with belt tracking
 - High quality steel plates formed at the factory to fit the curved surface for each individual pulley diameter.
 - Rust resistant metal retainers permanently welded or bolted to the pulley shell to secure the lagging pads in place.
 - Products are colour coded to easily identify the rubber compound.



Elastotec Slide Lagging steel plates are 135mm wide to ensure easy handling and application and it is 15mm thick. Slide Lagging pads are available in 1687mm length as standard but complete installation packages cut to size can be supplied. Pads are shaped to meet each pulley diameter. Designed for direct application to the pulley. The plates slide in and out of special retainers which are securely welded to the pulley shell.





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Elastotec Slide Lagging has specially designed elastomers moulded under high pressure to heavy duty steel plates, which are shaped and cut to fit each pulley diameter and face. The plates slide in and out of steel retainers which are welded to the pulley shell.

DESIGN

There are multiple designs for both rubber and ceramic slide lagging, all moulded under pressure to the steel plates to ensure no separation between the steel and the compound. Elastotec Slide Lagging steel plates are 135mm wide to ensure easy handling, with 5mm of exposed steel at each side to slide between the retainers. Rubber Slide Lagging is 15mm thick and Ceramic Slide Lagging is 18mm thick. Pad length is 1687mm and can be cut and bent to suit the pulley size.





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SLIDE LAGGING

RUBBER SPECIFICATIONS

Typical values

	NAT	FRAS	OIL RESISTANT	EXTREME	EPDM
Polymer	SBR/Natural	Blend	Polychloroprene	Proprietary Blend	EPDM
Tensile strength (MPa) min ISO37	20.0	18.0	17.0	16.0	10.0
Elongation min ISO37	550%	500%	500%	500%	350%
Hardness (shore A) ISO868	65+/-5	65+/-5	65+/-5	60+/-5	70+/-5
Abrasion resistance max vol. loss ISO 4649 method A (non-rotating)	70mm ³	150mm ³	140mm ³	29mm ³	140mm ³
Heat Ageing: Tensile Strength (TS) Elongation (EL) Hardness (HD)	TS +3% EL -15% HD +2 points	TS +3% EL -6% HD +2 points	TS +5% EL -1% HD +3 points	TS +1% EL +2% HD +3 points	TS +5% EL -1% HD +3 points
Continuous Operating Temperature	-40/+70°C	-40/+70°C	-40/+120°C	-40/+70°C	-40/+150°C
Logo Colour Coding					

* Heat ageing results at 70°C after 70 hours.

* Oil Resistant rubber compound has Fire Retardant and Anti-Static properties, but it is not FRAS / MSHA certified. If the application requires FRAS / MSHA certified lagging, then the FRAS compound must be ordered.

* EPDM has resistance to some acids and chemicals. Contact your Elastotec representative to confirm its suitability for your application.

CERAMIC SPECIFICATIONS

Typical values

Aluminium oxide	96%
Specific gravity g/cm ³	3.7
Vickers hardness HV (10)	1000 plus
Flexural strength (Mpa)	300
Compressive strength (Mpa)	1800
Fracture Toughness (Mpa m1/2)	3.5





SLIDE LAGGING

ORDERING SLIDE LAGGING FOR A SPECIFIC PULLEY SIZE

Slide lagging is inventoried in standard factory produced lengths to minimise stock keeping. There are two ways of applying slide lagging and this will affect the way it should be ordered.

1. The butt seam method

This method is designed to be the most economic option. Pads are cut to fit the pulley face width and the remaining ends of each cut pad are used butted together. Some pad rows are provided with full face width pads and some are provided with pad sections that make up the full face width.

Use the 1687mm pads to make up the pieces for the different rows. Pieces shorter than 100mm should be discarded. The number of 1687mm pads required for butt seam application for most common pulley diameters can be obtained from the table below or use the formula presented.

						В	UTT SE	AM ME	THOD							
								PULLEY	FACE	NIDTH						
		200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
	200	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3
	300	1	1	2	2	2	3	3	3	3	4	4	4	5	5	5
	400	1	2	2	3	3	3	4	4	5	5	5	6	6	7	7
5	500	2	2	3	3	4	4	5	5	6	6	7	7	8	9	9
	600	2	2	3	4	4	5	6	6	7	8	8	9	10	10	11
	700	2	3	4	4	5	6	7	7	8	9	10	11	11	12	13
NN	800	2	3	4	5	6	7	8	9	9	10	11	12	13	14	15
ž	900	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
E	1000	3	4	5	6	7	8	10	11	12	13	14	15	16	17	19
ಷ	1100	3	4	5	7	8	9	10	12	13	14	15	17	18	19	20
	1200	3	5	6	7	9	10	11	13	14	15	17	18	20	21	22
	1300	3	5	6	8	9	11	12	14	15	17	18	20	21	23	24
	1400	4	5	7	9	10	12	13	15	17	18	20	21	23	25	26
	1500	4	6	7	9	11	13	14	16	18	19	21	23	25	26	28
	1600	4	6	8	10	12	13	15	17	19	21	23	24	26	28	30

EXAMPLE PULLEY DIAMETER 600MM FACE WIDTH 1000MM

 Multiply the pulley diameter by 3.14 and divide this by 160mm (135mm pad width + 25mm allowance for retainer) Diam mm x 3.14 / 160 mm. Round down to the closest whole number.

Example pulley 600mm diam (600mm x 3.14) / 160mm = 11 rows.

 Multiply the number of rows of pads by the pulley face width Number of pads x pulley face width (mm)

Example pulley 1000mm face width 11 x 1000mm = 11000mm

3. Divide by 1687mm to determine the quantity of full length pads needed. Round up to the next full length.

Total length required (mm) / Pad length (mm) Example pulley 1000mm / 1687mm = 6.5 pads or 7 full length pads required.

2. The full width method

This method provides no vertical butt seams. Each pad row is provided with full face width pads that have no butt seams.

When no butt seams are desired, the number of full length pads required will depend entirely on the pulley size and the quantity of face width pad lengths that can be cut from one standard length pad.

The number of 1687mm pads required for full width method application for most common pulley diameters can be obtained from the table below or use the formula presented.

						Fl	JLL WIG	OTH ME	THOD							
							F	ULLEY	FACE	NIDTH						
		200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
	200	1	1	1	1	2	2	2	3	3	3	3	3	3	3	3
	300	1	1	2	2	3	3	3	5	5	5	5	5	5	5	5
	400	1	2	2	3	4	4	4	7	7	7	7	7	7	7	7
	500	2	2	3	3	5	5	5	9	9	9	9	9	9	9	9
5	600	2	3	3	4	6	6	6	11	11	11	11	11	11	11	11
	700	2	3	4	5	7	7	7	13	13	13	13	13	13	13	13
DIA	800	2	3	4	5	8	8	8	15	15	15	15	15	15	15	15
X	900	3	4	5	6	9	9	9	17	17	17	17	17	17	17	17
E	1000	3	4	5	7	10	10	10	19	19	19	19	19	19	19	19
R	1100	3	5	6	7	11	11	11	21	21	21	21	21	21	21	21
	1200	3	5	6	8	12	12	12	23	23	23	23	23	23	23	23
	1300	4	5	7	9	13	13	13	25	25	25	25	25	25	25	25
	1400	4	6	7	9	14	14	14	27	27	27	27	27	27	27	27
	1500	4	6	8	10	15	15	15	29	29	29	29	29	29	29	29
	1600	4	7	8	11	16	16	16	31	31	31	31	31	31	31	31

EXAMPLE PULLEY DIAMETER 600MM FACE WIDTH 1000MM

 Multiply the pulley diameter by 3.14 and divide this by 160mm (135mm pad width + 25mm allowance for retainer)

Diam mm x 3.14 / 160mm. Round down to the closest whole number. Example pulley 600mm diam (600mm x 3.14) / 160mm = 11 rows.

2. Calculate how many full width sections you can get from a standard size pad. Divide the standard pad length by the pulley face width.

1687mm / 1000mm = 1.7 Round down to the closest whole number. This means that you cannot get more than 1 full row length pad from each standard pad. Divide the amount of rows by the amount of full widths you can get out of one pad.

Example pulley 11 / 1 = 11 full length pads required.



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SPECIFICATIONS – RUBBER SLIDE LAGGING

RUBBER SLIDE LAGGING – NATURAL

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/pad
Diamond Rubber NAT	ELA-SLIDE-DIA-SAR-15-1687	135 mm	15mm	1687mm	-

RUBBER SLIDE LAGGING – FRAS

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/pad
Diamond Rubber FRAS	ELA-SLIDE-DIA-FRAS-15-1687	135 mm	15mm	1687mm	-

RUBBER SLIDE LAGGING – OIL RESISTANT

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/pad
Diamond Rubber FOR	ELA-SLIDE-DIA-FOR-15-1687	135 mm	15mm	1687mm	-

RUBBER SLIDE LAGGING – EXTREME

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/pad
Diamond Rubber EXT	ELA-SLIDE-DIA-EXT-15-1687	135 mm	15mm	1687mm	-

RUBBER SLIDE LAGGING – EPDM

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/pad
Diamond Rubber EPDM	ELA-SLIDE-DIA-EPDM-15-1687	135 mm	15mm	1687mm	-





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SPECIFICATIONS – CERAMIC SLIDE LAGGING

CERAMIC SLIDE LAGGING – NATURAL

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	kg/pad
Ceramic DRIVE	ELA-SLIDE-SRC-N-18K-SQ-01687	135mm	17mm	1687mm	-
Ceramic NON DRIVE	ELA-SLIDE-SRC-N-18P-SQ-01687	135mm	17mm	1687mm	-

CERAMIC SLIDE LAGGING – FRAS

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	kg/pad
Ceramic DRIVE	ELA-SLIDE-SRC-F-18K-SQ-01687	135mm	17mm	1687mm	-
Ceramic NON DRIVE	ELA-SLIDE-SRC-F-18P-SQ-01687	135mm	17mm	1687mm	-

CERAMIC SLIDE LAGGING – OIL RESISTANT

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	kg/pad
Ceramic DRIVE	ELA-SLIDE-SRC-FOR-18K-SQ-01687	135mm	17mm	1687mm	-
Ceramic NON DRIVE	ELA-SLIDE-SRC-FOR-18P-SQ-01687	135mm	17mm	1687mm	-





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