

ORIENTAL

CONVEY | ALL | THE | WAY



THE

ALL ROUNDER

MAXX **ROUND**[®]
Pipe Conveyor Belts

Product Feature:

Belt Conveyors have been in use for over 100 years and have evolved overtime in order to overcome the challenges faced in conveying different material over varying and sometimes difficult terrains. More recently, the need for preserving the environment has become the main criteria for design and installation of conveyor systems.

Pipe conveying systems have proven that using the right technology and by sourcing the right components, they are an extremely efficient and reliable form of conveying materials and present several advantages over conventional troughed conveyors.

Designers and users have observed the following advantages of a pipe belt:

- Runs in the shape of a pipe as an enclosed belt, thereby preventing spillage
- Negotiates sharper curves and traverse difficult and restricted terrain
- Eliminates transfer points
- Saves space and structural costs
- Can carry material on return conveyor
- Prevents material pilferage

With an experience in designing and manufacturing pipe belts for over fifteen years, ORIENTAL has been taking a proactive role in promoting the use of Pipe belts which are tailor-made to suit the installation requirement.

ORIENTAL designs pipe belts with wide range of reinforcement (textile and /or steel) to meet the customer demands. We also offer vast range of cover grades with different levels of Powersave properties to bring uniqueness and versatility to the product.

MAXX ROUND® pipe belt is the true ALL ROUNDER

The design of a pipe conveyor system is a recent phenomenon but is the fastest developing segment in the material handling industry. This has also meant that ORIENTAL has had to move with the times and we have expanded our portfolio to make our MAXX ROUND® belts with following capabilities:

Material	Reinforcement	Cover Grades
Coal	MAXX STEELFLEX™	Abrasion Resistant
Lignite	MAXX ARMOUR™	Fire Resistant
Rock Phosphate	MAXX ROCK®	Heat Resistant
Fertilizer	Polyester - Nylon	Oil Resistant
Gypsum	Nylon - Nylon	Fire + Oil Resistant
Iron Ore		Oil + Heat + Fire resistant
Filter cake		Powersave (LRR)
Alumina Clay		
Lime Stone		
Ash		
Soya Grain		
Sugar		



**MANY OPTIONS,
ONE VERSATILE
BELT**

The following materials are all being conveyed in our **MAXX ROUND®** belts in various installations the world over.

Pipe Diameter, (mm)	Remarks
150	Complex Fertilizer
150	Wet Fly Ash Gypsum
200	Complex Fertilizer
200	Coal Lignite
200	Limestone Dolomite Iron Ore
225	Wet Fly Ash Gypsum
225	Rock Phosphate
250	Limestone
300	Complex Fertilizer
300	Complex Fertilizer
300	Alumina Red Clay
350	Complex Fertilizer
350	Coal Lignite
400	Limestone Dolomite Iron Ore
400	Petcoke
400	Fly Ash
400	Sugar Soya
450	Filter Cake fines
550	Coal Lignite
700	Sugar Soya

Product Characteristics:

Common Widths	: 500 mm to 2600 mm (20" to 102") for EP/NN 800 mm to 2400 mm (32" to 94") for ST
Carcass Variety Available	: EP / NN, MAXX ROCK®, MAXX ARMOUR™, MAXX STEELFLEX™
Common Belt Rating	: 250 to 3150 kN/m (150 to 1800 PIW) ST500 to ST5400 kN/m (270 to 3000 PIW)
No. of Plies	: 1 ply to 5 ply
Rubber Cover Compounds	: M24, DIN W, DIN X, High Abrasion Resistant (HAR), Super Abrasion Resistant(SAR) and Other grades as per request.
Rubber Cover Thickness	: 2 mm to 25 mm (1/16" to 1")
Angle of Inclination*	: Upto 26°
Edge	: Moulded Edge
Splicing Method	: Hot
Belt Identification	: Unique Product Identification Number (PIN) at every 10 Mtr (33')

* For higher angle of Inclination refer ORIENTAL Technical Service Representative

Product Application:

Pipe belt is applicable to all industries. Tonnage of material to transport, types of material to handle, availability of space, angle of inclination decide pipe diameter, cover grades and suitability of specific reinforcement materials. Normally industries like Cement, Chemical & Fertilizers, Power & Steel, Ports, Mines are common user's of Pipe belts.

Typical Width Vs Pipe Diameter - Conveyor Selection Guide:

Belt Width, mm	600	800	1000	1200	1400	1600	1800	2000	2100	2200	2500
Pipe Diameter, mm	150	200	250	300	350	400	475	525	550	600	700
Belt Speed, m/s	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Material density, kg/m³	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Capacity (fill factor 60-70% of pipe dia.), t/hr	105	190	290	420	570	750	1060	1300	1425	1680	2280
Max Lump size, mm	30 - 50	50 - 70	70 - 90	90 - 100	100 - 120	120 - 150	120 - 150	120 - 150	120 - 150	120 - 150	120 - 150

To ensure that there is no environmental contamination, ORIENTAL has developed **MAXX ROUND®**, a conveyor belt, which carries material in the form of a pipe. The material is completely enclosed over the entire length of the conveyor. This belt can take steep angles at both horizontal and / or vertical curves. It offers dust and spillage free transport of material and offers phenomenal savings by way of material savings and installation costs.

Principles of Pipe Conveying:

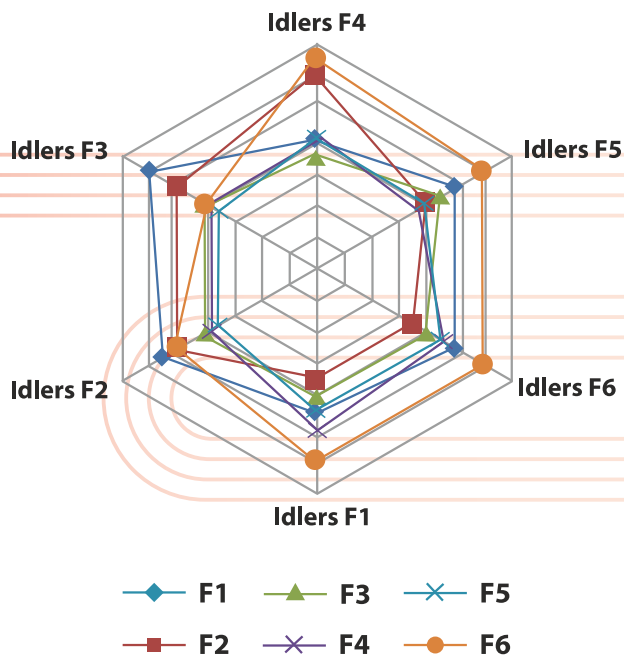
- In loading area the belt acts as a normal trough conveyor. Thereafter, special idlers are used to form an enclosed chamber like pipe.
- Hexagonally arranged idler rolls keep the conveyor belt closed over the track.
- The belt opens at the conveyor head like normal belt to discharge the material.
- On its return, the conveyor belt closes again only to open up at the loading zone at the head conveyor.



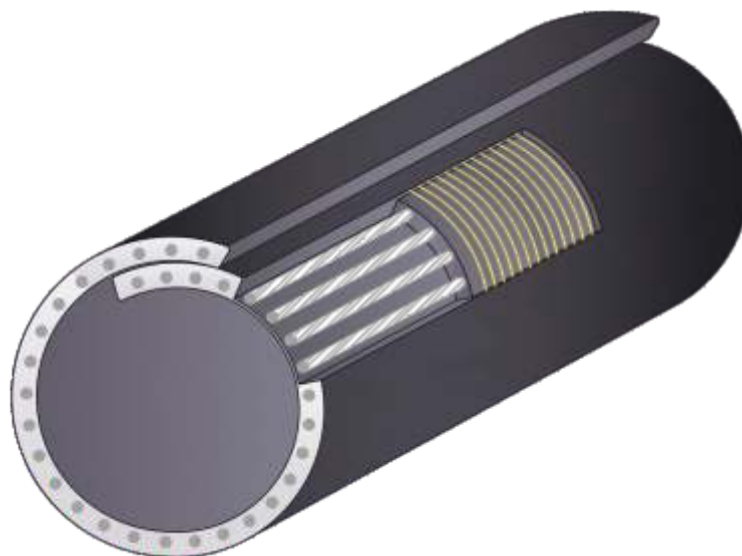
Each new installation of pipe conveyors is unique and presents special design requirements. In order to ensure the compatibility of the belt with the conveyor, the Oriental Technical Team is proactive in carrying out design discussions with the OEMs, which are followed by simulation, prototyping and testing on our live rigs specially designed for this purpose by us.

Due to this care and commitment and our holistic approach, the Oriental **MAXX ROUND®** belt is able to give surety on the satisfactory performance of the belt through it's life cycle.

Forces on Idlers when Pipe is moving



MAXX STEELFLEX™ MAXX ROUND® - Pipe Belts with steel cord reinforcement





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Wear Resistant



Heat Resistant



Fire Resistant



Oil Resistant



Energy Saving

MAXX ROUND[®]
Pipe Conveyor Belts

