

MODI RUBBER CONVEYORS

FABRIC RUBBER CONVEYOR BELTS

SPECIAL CONVEYOR BELTS

PVC CONVEYOR BELTS

CONVEYOR SYSTEM COMPONENTS



MODI - PLUS
SINCE 1977

Conveyor Belt Which Save Energy and Money

There has been significant technical progress in the transport of bulk materials in the last several years. The next step to improved conveyor efficiency is the reduction of power required to operate these high performance systems. Just as same tyres provide lower rolling resistance, depending upon their construction and compounds, similarly a conveyor belt can also be designed to provide lower resistance as it rolls over the support idlers. The power required to operate a typical conveyor belts has been studied, both theoretically and dynamically. As the belt passes over an idler, the pully cover rubber passes through a compression/rebound cycle that absorbs power. It has been determined that on long center horizontal conveyors, the rolling resistance power lost due to the indentation effect can reach upto 61% of the total system power.

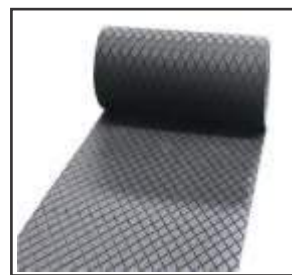
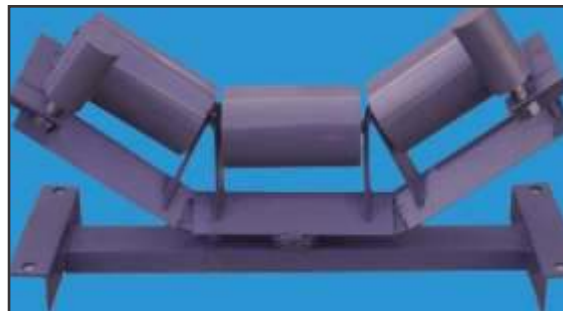


Causes For Power Loss

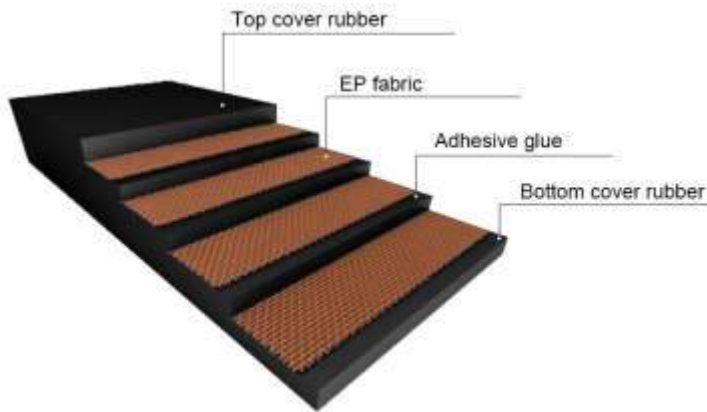
Indication rolling resistance	61%
Bearing resistance	6%
Flexure resistance of belt	5%
Secondry resistance	9%
Flexure resistance of material	18%
Extraordinary resistance	1%

- ✦ Using specialized botom rubber compounds, our belts will help in reducing total systems power (based on field measurement test)
- ✦ Our belts will reduce the power consumption upto 12% Thus savings will continue year after year resulting in lower operating cost.

CONVEYOR ACCESSORIES & COMPONENTS



CONVEYOR BELT CONSTRUCTION



Top Cover

Designed to protect the carcass from conditions like oil, heat, abrasion, etc.

Skim Coat

Compounded for excellent adhesion between plies for protection against ply separation.

Carcass

Extremely low stretch characteristics of fabric and high trough ability

Bottom Cover

Excellent in abrasion and flexibility, provides wearing surface against pulleys and idlers.

Rubber Cover Thickness

Condition		Moderately Abrasive	Abrasive	Highly Abrasive	Extremely Abrasive
Material Carried		Fine Coal, Grain Wood Chips, Ash, Cement, Etc.,	Sand, Coal Clay, Salt, etc.,	Limestone, Crushed Stone, Coke, etc	Ores, Slag, Cullet, etc
Belt Cycle (Second)	Lump Size	0-2" (0-50mm)	2'-6" (50-150mm)	6"-10" (150-250mm)	8"-12" (200-300mm)
	Inch				
	Inch	1/16 - 1/8 (1.5-3.0mm)	1/8-3/16(3.0-5.0mm)	3-15 - 1/4(5.0-6.0mm)	1/4-5/16(6.0-8.0mm)
	Inch	1/16-3/32 (1.5-2.5mm)	1/8-3/32(1.5-2.5mm)	3/16-1/4(5.0-6.0mm)	1/4-5/16(6.0-8.0mm)
0-20	Inch	1/16-7/32 (1.5-0.8mm)	1/16-3/32(1.5-2.5mm)	1/8-3/16(3.0-5.0mm)	3/16-1/4(5.0-6.0mm)
20-60	Inch				
60-300	Inch				

Abrasion Resistant

Rubber Cover Grade "RMA, DIN, BS, AS, JIS, IS

Cover Grade	Tensile Strength Min. (Mpa)	Elongation Min. (%)	Abrasion Loss Max. (mm)
DIN-X	25	450	120
M-24	24	450	150
N-17	17	450	200

GENERAL CONVEYOR BELT

There are two types of fabrics used in conveyor belt construction namely polyester and nylon. They are highly impact and damage resistant and are suitable for transportation of materials like ore, crushed stones, gravel, sand etc., We use combination of both the fabrics to make best use of their properties.



NYLON FABRIC (NN) CONVEYOR BELT

Special Features

- Exceptionally shock & impact resistance to the carrying surface
- Excellent troughability and flexibility
- High resistance to water and mildew
- Superior in fastness holding ability
- Ability to run on smaller diameter pulleys

Grade		NN100	NN120	NN150	NN200	NN250	NN300	NN350	NN400
Min. Tensile Strength	Kg/cm-ply	100	120	150	200	250	300	350	400
Working Tension Rating (Vulcanized)	Kg/cm-ply	8.4	10.0	12.5	16.7	20.8	25.0	29.2	33.3
Approx. Gauge per Ply with skim coat.	mm	0.9	1.0	1.1	1.2	1.4	1.6	1.8	2.0

POLYESTER FABRIC (EP) CONVEYOR BELT

The Combination of polyester in wrap and nylon in filling provides technically low-stretch and high impact resistance

Special Features

- High Tensile Strength
- Outstanding dimensional stability
- Provides complete protection against mildew & water
- Low Elongation
- Highly impact resistant

Grade		EP100	EP120	EP150	EP200	EP250	EP300	EP350	EP400/400
Min. Tensile Strength	Kg/cm-ply	100	120	150	200	250	300	350	400
Working Tension Rating (Vulcanized)	Kg/cm-ply	10.0	12.5	15.0	20.0	25.0	30.0	35.0	40.0
Approx. Gauge per Ply with skim coat.	mm	0.9	1.0	1.1	1.2	1.4	1.6	1.8	2.0

Carcass Grade (EP & NN)

Grade	160	200	250	315	400	500	630	800	1000	1250	1600	2000
2ply	160/2	200/2	250/2	315/2	400/2							
3ply			250/3	315/3	400/3	500/3	630/3	800/3	1000/3	1250/3		
4ply					400/4	500/4	630/4	800/4	1000/4	1250/4	1600/4	
5ply						500/5	630/5	800/4	1000/5	1250/5	1600/5	2000/5
6ply							630/6	800/6	1000/6	1250/6	1600/6	2000/6

FLAME RESISTANT CONVEYOR BELT

It is designed for the best service conditions of coal mining Industries. It Suitable for mining, power plant, electric utilities, coal cleaning plants The different rubber compounds are available in accordance with



FR-MOR

Fire Resistant with medium oil, resistance in accordance to USMSHA (Mine Safety and Health Administration). It is recommended for the typical applications like oil treated coal and grain industries requiring fire & oil resistance and static conductivity

FR-SBR

Fire Resistant rubber cover in accordance to USMSHA requirement (Mine Safety and Health Administration). It is highly resistant to lower and cold.

FR-SBR

Fire Resistant rubber cover in accordance to USMSHA requirement (Mine Safety and Health Administration). It is highly resistant to lower and

FR-GR

Specially compounded SBR Rubber cover for under-ground operations requiring fire resistance and static conductivity. The important characteristic is self extinguishable rubber

Flame Resistant

Rubber Cover Grade : USMSHA, DIN, CAN AS, etc

Type	COVER RUBBER		
	Application Grade	Min. Tensile Strength	Min. Elongation (%)
FR-MOR	MSHA/MOR(USA)	150 2100	400
FR-SBR	MSHA/SBR(USA)	140 2000	400
FR-GR	ISO, DIN, JIS, KS	140 2000	400

Certified USA FR-MOR(MSHA/MOR/SC) USMSHA. No. 28-85/6

FR-SBR(MSHA/SBR) USMSHA No. 28-85/5

RUSSIA FR-MOR POCC KK BO 1408

FR-SBR POCC KR BO 1324



HEAT RESISTANT CONVEYOR BELT

It is suitable for critical applications like hot sintered ore, hotm pellete, hot clinker, hot chemical, fertilizer, hot cement, etc.



Standard Specifications

Carcass	: Steel cord, Nylon, Polyester
Tensile Strength	: 100-6 000N/mm
Belt Width	: 300-2400mm
Length	: Steel cor belt 50m and over, fabric belts 10m and over
Rubber Cover	: T1, T2, T3

Selecting the right heat-resistant belt

The surface temperature of the belt varies with the type and size of the material being carried. Like large lumps (e.g. sintered oared, coke), which allow air to circulate, the belt surface, would be cooler than lumps. In the case of powdery or similar materials. Such as cements, alumina, carbon, black, etc., there is almost no temperature difference between material and belt surface. Therefore, in selecting a belt, it is necessary to know not only the temperature of the material to be carried but also have an accurate idea of the surface temperature (the belt will be operating at.)

HEAT BELSTS AND FEATURES

Tempeature	Type	Colour	Temperature range of matwerials	Belt surface temperature range	Features	Application
Low Tempeature	T1	Black	Lumpy materials 70-200°C powdery materials 70-150°C	60-120°C	Heat Hardining type	Suitable for low-medium temperature materials which are abrasive Coke, Sintered Products, etc.
High Tempeature	T2	Black	100-200°C	60-150°C	Heat softing type Almost non crack cover suitable for powdery materials	Suitable for high temperature materials which are medium abrasive Sintered Ore Products, Cement Clinker Hot Powdery materials, etc.
	T3	Black	100-250°C	60-200°C	Excellent wear resistant cover under high temperature. Suitable for lumpy materials	Suitable for high temperature materials which are very abrasive Cokes, Sintered Ore Products, etc.,

For Attention of The User

The temperature of material being transported and the belt's surface temperature vary according to the material and shape. For instance, when materials have a temperature of 150°C (such as coke or sintered ore) and have a relatively small contact area, belt's surface temperature could remain at 60-80°C. In contrast, when powdered material like cement is being conveyed, the material and the belt surface temperature do not differ so greatly. The lifetime of the heat resistant belt is largely affected by the belt's surface temperature during operation.

Characteristics of Heat Resistant Belt

Rubber cover and carcass should not deteriorate due to heat. (Rubber cover on carcass should maintain excellent properties, even at high temperatures and good adhesion to form one unit, even when they are exposed to high temperatures.

The surface temperature of heat resistant belt varies with the material type, belt speed, loading rate and size depending on circumstances. In order to select the proper heat resistant belt, it is necessary to consider not only the temperature of the material to be conveyed but also the surface temperature of the belt

SELECTION PF HEAT-RESISTANT GRADE

Materials Carried	Temperature of Materials Carried	Belt Surface Temperature	Heat Resistant Conveyor Belt Grade
Sintered Ore	200°C downward	50-100°C	T1
	200°C upward	100°C downward (Lump Condition)	T1
		100-130°C	T2
		130-180°C	T3
Return of Sintered Ore	150°C downward	30-80°C	T1
	150°C upward	80°C downwards (Lump Condition)	T1
		80-130°C	T2
		130-180°C	T3
Spherica Ore	120°C upward	120°C downward	T1
	120°C downward	120°C upward	T2
Pellet	150°C downward	100°C downward	T2
	200°C downward		
Coke	60-400°C	100°C downward	T1
Cement	120°C downsard	50-80°C	T1
	120°C upward	80-100°C	T2
		130-180°C	T3
Dried Lime Dried Clay	120-150°C	100°C upwards	T2
	200°C downward	50-1000°C	T1
	500°C upward	100-130°C	T2
		130-180°C	T3
Cement, Steel Mills, Chemicals Fertilizers	80°C downward	50-70°C	T1
	80°C upward	70-120°C	T2
		120-180°C	T3
	120°C downward	50-100°C	T1
	120°C upward	100-120°C	T2
		120-180°C	T3

Restictions on the use of heat resistant belt.

resistant belt Do not use SBR heat resistant belt] when:

- Powdered material is over 70°C
- Strong acid or alkaline is used
- Oil products and oil-stained substances are used.
- The operation site or the materials requires flame-resistant belts.

EPDM Heat-resistant belt

Do not use EPDM Heat-resistant belts when:

- Powdered Material is over 180°C
- Oil products and oil-stain other than vegetable oil are present.
- The location of the materials requires flame-resistant belts.

OIL/HEAT & OIL RESISTANT CONVEYOR BELT

This cover grade is specially made up of blended synthetic rubber compounds and it is designed to give very high resistance to mineral, vegetable & animal oil & fata



OR-100

It is resistant to moderate Oil operations like wood chips, linseed, cottonseed and whole soybeans where static conductivity is needed.

OR-200

It has superior, oil resistance to various kinds of animal and vegetable with serve cold temperatures.

OR-300

It has excellent resistance to the toughest oil applications such as oil-treated coal and petroleum based oils.

HTN/HOT

It is recommended for conveying hot asphalt with material temperature up ty max. 175°C (in normal conditions) where both oil & heat resistance are required.

Type	Min Tensile Strength		Min Elongation (%)	Volume Charge(%) ASTM#3 Oil	
OR-100	100	1400	Min. 350	Max. 150	Wood chip, Lindeed, cottonseed, kernel corn and whole soybeans, static, conductivity and moderate oil resistance.
OR-200	120	1700	Min. 350	Max. 90	Oil treated material and for carryin oily metal turnings and shavings, crushed soybeans, animal or vegetable fats.
OR-300	120	1700	Min. 400	Max. 20	Oily metal parts, crushed soybeans, automatic hydrocarbons such as benzol, toluene and petroleum based oils.
MTN/HOT	120	1700	Min. 400	Max. 60	Hot asphalt and other oil & heat resistance applications.



QUARRY SUPREME CONVEYOR BELT

It is suitable for transportation of quarry. It is specially designed for the primary conveyor lines and to make transportation easier.



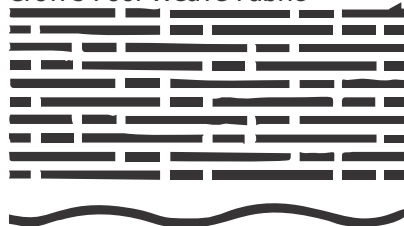
CROW'S FOOT WEAVE FABRIC

The specially designed Crow's Foot Weave fabric used in "Quarry Supreme" belt has extremely high tear strength up to 5 times compared with a plain woven standard fabric which has an excellent faster holding ability.

CFW Fabric Grade & Cover Rubber

Specification		CFW 50X2P	CFW 250X3P	CFW 315X2P	CFW 315X3P	CFW 315X4P	CFW 350X3P	CFW 350X4P
No. of Plies		2	3	2	3	4	3	4
Working Tension Rating	(kg./cm)	50	75	63	95	126	105	140
		280	420	350	530	700	580	780
Thickness		3/16" -1/4"	1/4"-5/16"	1/4"-5/16"	1/4"-5/16"	5/16"-3/8"	5/16"-3/8"	5/16"-1/2"

Crow's Foot Weave Fabric



Wrap Yarn

Weft Yarn

Extra Cut Resistance Rubber Cover

This rubbercover grade is made especially for operation requiring extreme resistance from cutting & gouging for sharp, jagged and abrasive materials.

PIPE CONVEYOR BELT

It is suitable for resistance to flex fatigue and abrasion by materials to be carried with superior ply adhesion.



Special Features

Covered transportation in order to prevent materials from overflowing, drop-down, scattering and mixing with foreign materials from outside.

It is economical for cure (45° -90°) and incline (up to 30) transportation due to easy design of conveyor line and limited space.

Pipe Diameter mm, Ø	Cross Section Area (75%)	Belt Speed (m/min)	Capacity (m³/hr)	Material Size (mm)	Comparison with Standard C/Belt (mm)
150	0.013	120	95	30-50	300-500
200	0.023	130	180	50-70	500-600
250	0.041	140	344	70-90	600-750
300	0.049	145	441	90-100	750-900
350	0.066	175	693	100-120	900-1,050
400	0.108	200	1,296	120-150	1,050-1,200
500	0.155	225	2,093	150-200	1,200-1,500
600	0.216	250	3,240	200-250	1,500-1,800
700	0.290	275	4,620	250-300	1,800-2,000
850	0.404	300	7,272	300-400	2,000-2,200

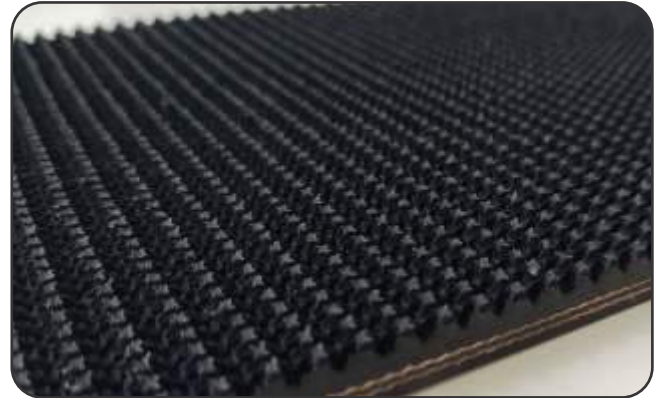
ROUGH TOP CONVEYOR BELT

This belt has been designed for transporting fragile or easily deformed goods such as glass, paper bags, cartoons box, etc.,
The slip resistant surface is ideal for steep incline/decline applications.



Special Features

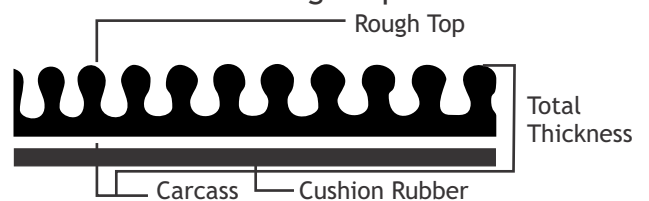
- Cushioning effect absorbs vibration and reduce slippage.
- Usable at the angle of 25-35 degrees, depending on goods to be carried.
- Low friction coefficient with bare back bottom.
- Two or three plies of synthetic fabrics provide high strength and flexibility



Type of Tough Top Belt

2ply	Black	Rough Top x Bare
	Tan	Rough Top x Bare
3ply	Black	Rough Top x Bare
	Tan	Rough Top x Bare
	Brown	Nitrile Rough Top x Bare
	Blue	Nitrile Rough Top x Bare

Structure of the Rough Top



COAL FEEDER CONVEYOR BELT

This belt is used for feeding system controlling input quantity accurately of materials.



Proven reliability and long life in numerous applications
Technically superior design

Feeding System

It is mechanically sliced, single ply feeder belt that enhances long term feeder accuracy and can be easily installed



INCLINE (CHEVRON CLEATED) CONVEYOR BELT

It is suitable for conveying sand, fine coal and grain materials by using steep inclines. Chevron-Cleats increase the quantity of granular materials in Fabric incline application.



Special Features

- High quality fabric with low stretch.
 - Cleat angle and pitch are designed for smooth travel conveyor return idlers.
 - Higher angle of 17-30 degree of incline.
- Wear resistant and oil resistant black rubber quality is available.

Types of Designs



SIDE WALL CONVEYOR BELT

It is suitable for conveying sand, fine coal and grain materials by using steep inclines. Chevron-Cleats increase the quantity of granular materials in Fabric incline application.

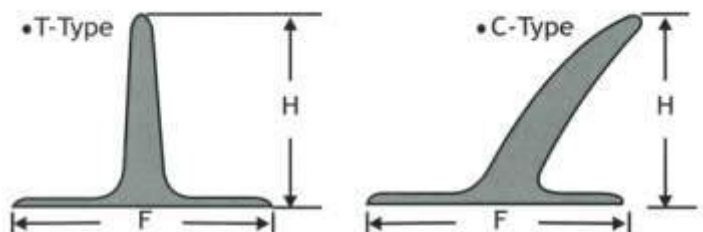


Special Features

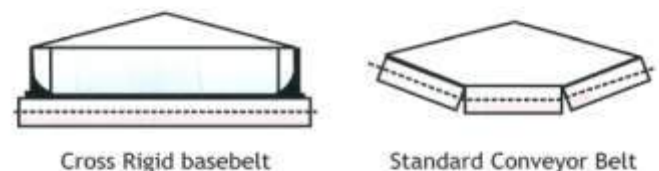
- Increases the transporting capacity to 4 times compared to standard conveyor belts.
- Save installation space due to the possibility of increasing the angle of inclination upto 90°
- Protect the material from friction by solid cleats mounted on the belt

FABRIC RUBBER CONVEYOR BELT

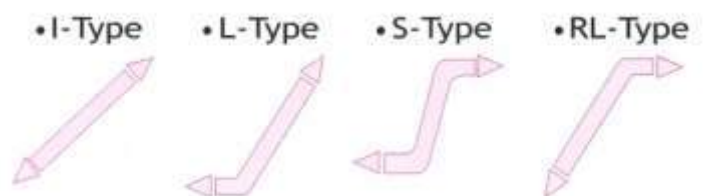
Clean Type



Comparison of Cross Section Area

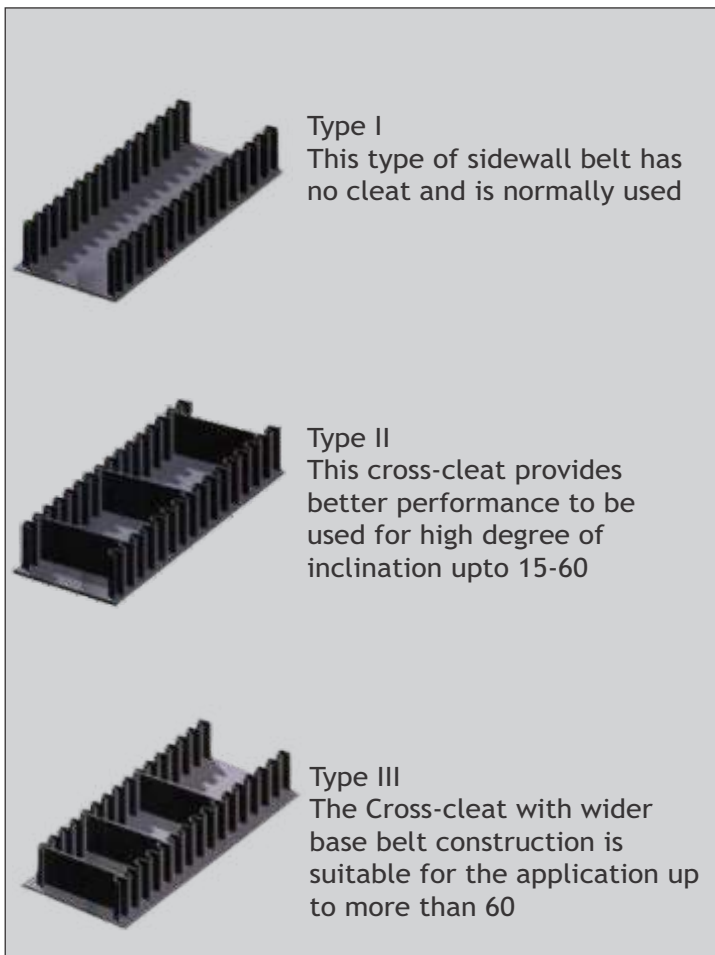


Various Installations



Cross Rigid Basebelt

In order to give maximum stability in the transverse directions, this base belt is reinforced with specially designed filament fabric which provides better return side support, no wear and tear of cleats and rubber cover is available with various compounds like abrasion oil, heat and flame resistance.



SOLID WOVEN PVC/PVG BELTS



PVC (Poly Vinyl Chloride) solid woven conveyor belting offers superior fire and static resistance, improved troughability and is oil, chemical and moisture resistant - giving you a strong, resilient underground belt. Our PVC solid woven belts are developed with a superior weave technique, resulting in a pliable construction. This means easy troughing with less spillage and increased load carrying. The abrasion-resistant PVC covers are ideal for coal, potash, trona and salt mining markets. The applications include: mainline belts, continuous mining equipment, thin seams, medium tension, short center-to-center distances and one or two section mines. PVC belting is an economical alternative to rubber belting.

SMSR GEAR BOX



Models Available :

B,C,D,E,F,H,J @20:1 Ratio

1year replacement guarantee for any defects

IMPACT BED

Our Impact beds are designed and engineered to provide protection for your conveyor belt and system from impact damage caused by the impact of large heavy material falling onto the system. Impact beds are the solution for many conveyor bulk material handling industries including aggregate, cement, metal (copper, gold, iron ore, nickel, zinc,) mining and non-metal (coal, potash, phosphate, gypsum) mining applications.



BELT SCRAPER

High-performing belt cleaners keep belts clean, eliminating carry back and making conveyor systems safer and more productive. we offer belt cleaners that work with all belt sizes and speeds, regardless of industry or type of material. We also offer belt cleaners that work in the most challenging and unique environments, such as on conveyor systems where there's minimal space around the head pulley.



HYGENIC FOOD GRADE CONVEYOR BELT

These Food Grade Conveyor Belt offers options of selecting from cotton canvas, nylon canvas or EP canvas. The belt body has good elasticity and not easily transformed. Cover rubber is made up of natural rubber and non pollutive additives. The cover is white or pale in colour, non pollutive, with no foreign sinell and not influencing food hygiene The product is reasonable in formula design, suitable in colour, confirming to all hygienic Indexes



Application :

Suitable for conveying cereals in bulk, sugar, bales or cases in food industry, cereal industry or Pharmaceutical Industry.

Sample Availability: Yes

Supplier Product Code: 02

Competitive Advantages of the product Durable

Long Lasting Resistant Precisely engineered

Reliable Corrosion resistant

PVC/PU CONVEYOR BELT

PVC / PU CONVEYOR BELT

Nylon reinforced PVC/PU conveyor Belts Are Available For The Various Applications In Food handling, Wood Industry, Corrugated Box Board, Textile Industry, Metal Sheet industry & Packaging.



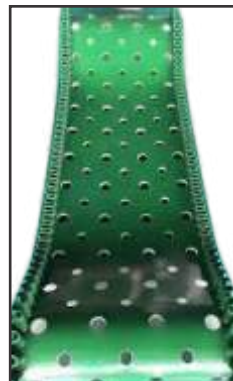
Classification product.

Non pressed PVC type

After dipping with pye paste on the solid woven fabric, add PVC cover on the solid carcass to form the belt.

PVC type

Based on the non pressed pye type, the carcass is covered with top and bottom covers composed mainly of rubber. The belt is then -formed after being pressed.



MODI RUBBER CONVEYORS



MODI
SINCE 1977

Head office Sales :
No. 168, S.P. Road, Bengaluru - 560 002
Mobile : 962-000-000-8
Email : sales.modirubber@gmail.com
Website : www.modiplus.in