

TOTAL

CONVEYOR BELT MANAGEMENT

A complete package of **PRODUCTS & SERVICES**




SYNERGY

www.synergyispl.com



SYNERGY

CORPORATE PROFILE

WELCOME TO SYNERGY

Synergy Industrial Services Pvt. Ltd. was incorporated in 1996 with the purpose of offering “TOTAL CONVEYOR BELT MANAGEMENT” services to the Belt Conveyor users. Our services encompass delivering top quality Conveyor Belts, Spillage control conveyor accessories, Steep Angle Belt systems, Portable Belt Vulcanizing Press, Belt Changing Equipment, Conveyor Belt Monitoring System and Design & Engineering solutions related to Belt Conveyors. With sustained innovative efforts today Synergy delivers products & services to Global companies like Tata Steel, JSW, ThyssenKrupp, Takraf-Tenova, FL-Smidth, Larsen & Toubro, Lafarge, HINDALCO and Reliance. The Indian mining sector, power plants, ports, steel plants are among the major clients of Synergy. Synergy products have reached overseas market in Europe, Africa & Middle-east Asian countries.

OUR MISSION

Our basic philosophy is to obtain Total Customer Satisfaction through transparent business practices and our mission is to have all people who interact with us, regard us as a good company to work for, to buy from and to sell to. Our mission is to bring about all round development of the people who work with us.



PORTABLE BELT VULCANIZING PRESS

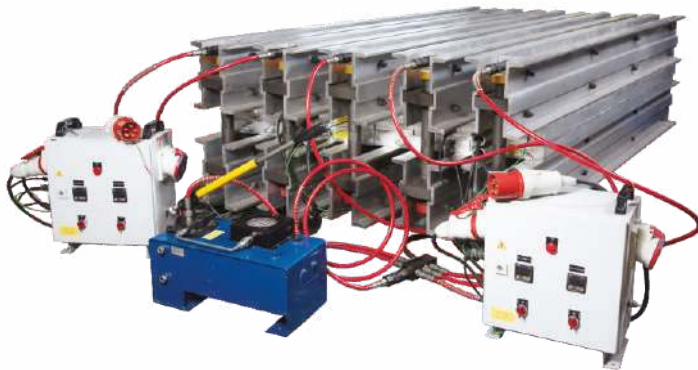
A major product from Synergy portfolio, portable belt vulcanizer, widely used for conveyor belt splicing, vulcanizing and repair, emanated from the brand 'Dattar' which is popular in India for the last 50 years.

Our range of press includes:

- Belt vulcanizing press Hydraulic type
- Belt vulcanizing press Pressure Bag type
- Belt repair press for longitudinal cuts with sliding beam technology
- Belt patch repair press, C-Clamp type

Platen Cooling Type :

- Ambient air cooling
- Compressed air cooling
- Water cooling



RECOMENDED SPLICE LENGTH

EP/NN		STEEL CORD	
Belt Type	Splice Length (mm)	Belt Type	Splice Length (mm)
315/3	300	ST 800	600
400/3	400	ST 1000	600
500/3	400	ST 1250	650
630/4	600	ST 1600	750
800/4	750	ST 2000	1150
1000/5	1000	ST 2500	1350
1250/5	1000	ST 3150	1650
1600/5	1200	ST 3500	2350
2000/5	1200	ST 4000	2650
2500/5	1400	ST 4500	2800

For determining the splice length of belt not listed in the chart, please refer to us or the belt manufacturer

BELT CHANGING DEVICE

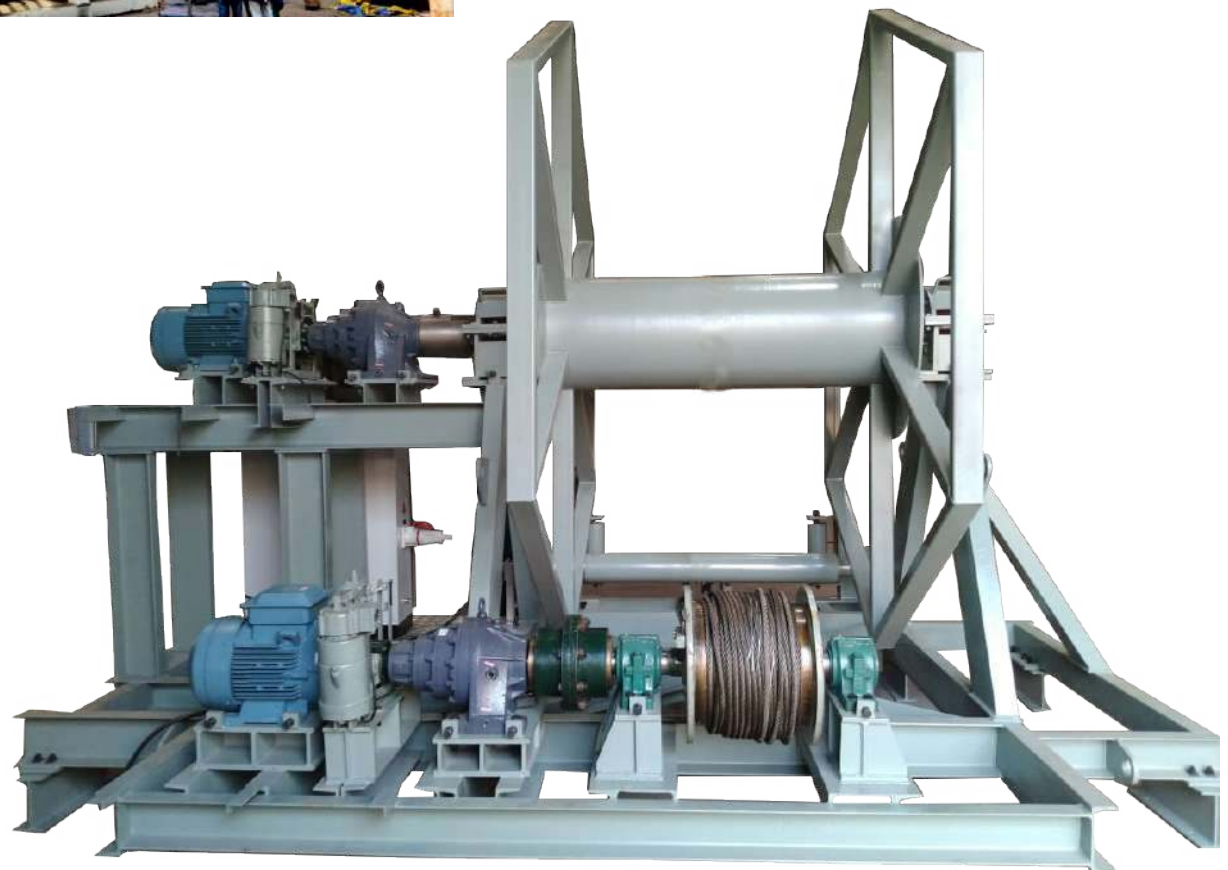


This equipment, also known as Belt Reeler or Belt Coiler & De-Coiler, is used for replacing an old belt from the conveyor systems with a new one. The replacement is done with a constant linear speed, which is achieved through Variable Voltage Variable Frequency (VVVF) Drive.

The major component includes **Motorised Drive unit complete with Planetary Gearbox (Direct /Chain Drive), Drive Shaft, Control Panel (VVVF/DOL) , self-adjustable Guide roller and accessories.** The equipment could be Skid mounted or Trailer mounted on a solid frame as per customer preference.

Additional accessories, such as, electrical winch with wire ropes, cable reeling drum with ropes. Belt Clamping Device can be provided to match the operating site conditions.

The equipment can be designed for any possible belt type and width.



STEEP ANGLE CONVEYOR

For vertical conveying of bulk material over a significant height or carrying a material at a steep angle, belt with side walls and cleats are employed on a modular system called steep angle conveyor. These conveyors can carry the material up to 90 degrees vertical. Synergy engineers and supplies the complete system that includes sidewall belt coupled with Mechanical components consisting of pulleys, deflection wheels, guide wheels & special idlers and technological structures.

The main users of this Belt is

- ❖ FGD Projects in Power Plant
- ❖ Steel Plant
- ❖ AFR-RDF Projects of Cement Plant
- ❖ Fertilizer



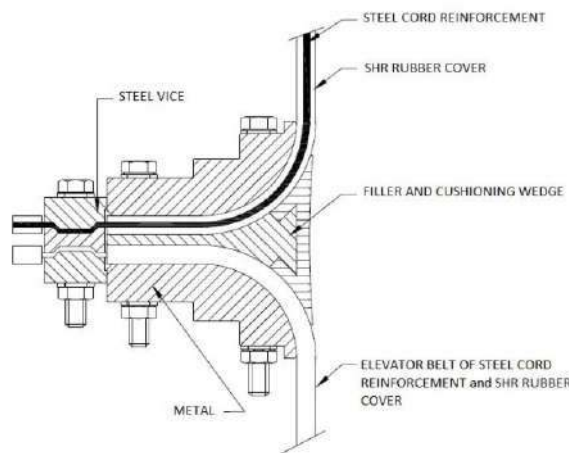
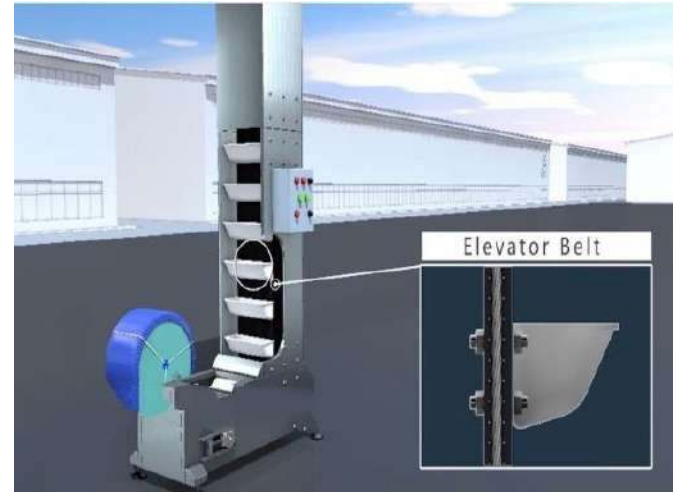
The biggest Steep angle conveyor, designed and engineered by Synergy is for a capacity of 450 TPH Coke, employing 2000 mm wide cross rigid belt.



BUCKET ELEVATOR CONVEYOR

SYNERGY offers Bucket Elevators for Cement Plants & Sand Plants as a complete package that constitutes Two major components:

- ❖ High Heat-Resistant Conveyor Belts with cross rigid steel-cord reinforcement as strength member
- ❖ Technological structure together with Mechanical Components, Buckets, Drive System, Design Engineering, Erection-Commissioning and Belt End lessing



General Specification of Bucket Belt in use in Indian Cement Plants

Belt Width (mm)	Belt Tensile Strength	Covers & Grade
450	ST800	4+4 SHR
450	ST1000	4+4 SHR
550	ST1250	4+4 SHR
650	ST1000	4+4 SHR
680	ST1000	4+4 SHR
680	ST1600	4+4 SHR
850	ST2000	4+4 SHR
1300	ST1600	4+4 SHR



PULLEY & LAGGING

Synergy designs and manufactures high quality conveyor Pulleys / Drums as per customer requirement. Our stringent quality process ensures top quality product for use as Drive Pulley, Head Pulley, Return Pulley, Tail Pulley, Take up Pulley, Snub Pulley, Bend Pulley, Deflector Pulley, Beater Pulley, Guide Wheel covering all conveyor applications.



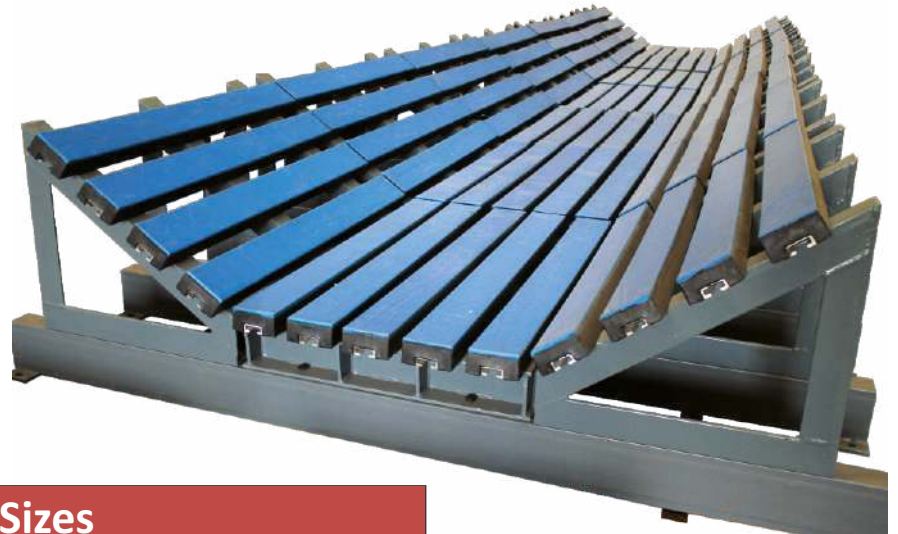
These Pulleys come generally with Lagging (Ceramic or Rubber) as per client's preference.

Type of pulleys	Range of pulleys	Type of lagging
Drive/ Head Pulley	Shell Diameter 193.7 ~ 1600 mm	Rubber with Ceramic tiles impregnation
Return/ Tail Pulley	Shaft Diameter 45 ~ 400 mm	Rubber – diamond, herringbone & plain type
Take up Pulley	Face Width 300 ~ 2200 mm	Thickness: 8 ~ 25 mm
Snub/ Bend Pulley	Shell Thickness 6 ~ 28 mm	Width: 500 ~ 2000 mm
Deflector Wheel/ Beater Pulley		Bonding layer: with or without CN

IMPACT PAD

Synergy designs, manufactures and supplies such Impact Pads with Cradles. The pads are manufactured using a combination of impact resistant rubber topped with UHMWPE, which gives these Impact Pads a very low friction top surface.

Synergy Impact Pads come with a T- bolt fastening system, which enables variable fixing points throughout the length of the pads. The pads are constructed with aluminum channel at the bottom to ensure sliding and easy installation.



Standard Sizes

100mm X 1220mm
100mm X 1500mm
125mm X 1220mm
125mm X 1500mm
150mm X 1220mm
150mm X 1500mm

100mm X 1220mm
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125mm X 1220mm
125mm X 1500mm
150mm X 1220mm
150mm X 1500mm

125mm X 1220mm
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150mm X 1220mm
150mm X 1500mm



SKIRT SEALING SYSTEM

Synergy offers a technically superior, better designed, skirt sealing system to meet stringent operational requirement.



TWIN LIP SKIRT SEALING SYSTEM

Twin Lip Skirt is recommended for applications which encounter fine dust materials. The profile is available with wear resistant rubber as well as PU coupled with the mechanical structure to match.

BELT SCRAPER

Efficient conveyor belt cleaning is essential today with the advent of high speed conveyor carrying sticky materials.

Specialities of Starclean Scraper

- Both perfect cleaning
- Efficient maintenance
- Gentle, belt-saving operation

Synergy caters to the Indian mining industry supplying this globally known Starclean range of Belt Scraper of German origin for efficient cleaning with extended service life.

The series of Starclean includes:

- 1 Primary scraper with PU blade**
- 2 Primary scraper with TC blade**
- 3 Secondary scraper with TC blade**
- 4 Scraper for Reversible belts**
- 5 Scraper for high speed application**
- 6 Scraper for Heat Resistant application**

We also manufacture Rotary Chain Scraper



ELECTRICAL WINCH

Synergy offers high quality industrial heavy duty electrical winches that are used in industries for lifting and hauling heavy loads. Our winches are rugged in construction, but convenient in design which makes them efficient in carrying heavy load.

FEATURES:

- ❖ Robust & compact in construction.
- ❖ Easy to operate.
- ❖ Low maintenance cost.



SYNCLASP - BELT CLAMPING DEVICE

Synergy Belt Clamp – SYNCLASP offers clamping for all types of conveyor belt namely Trough Belt, Sidewall Belt & Chevron Belt .

Belt Clamps are available in 2 types:

SC-6T : (6 Tons) for medium duty Conveyor Belt with Max Belt Thickness: 30 mm

SC-8T: (8 Tons) for heavy duty conveyor belts with max Belt Thickness: 55 mm

UNIQUE FEATURES :

- ❖ Portable, light weight, user-friendly and.
- ❖ Easy to use
- ❖ Clamp end screws offers superior grip strength
- ❖ Safety feature - Acme thread allows slow release of the belt
- ❖ Shock-absorbing end caps for protection





ENGINEERING SERVICES

Synergy products enumerated in the foregoing pages have come to a client with engineering support and service back –up. Our engineering team is equipped to offer any design support for critical equipment employed in conveyor belt system and management.

While procuring any Synergy product a user receives relentless technical support which is why Synergy have gained wide acceptance in the material handling sector as a reliable support provider.

Even the overseas customers of critical equipment such as Belt reelers, steep angle conveyors and belt vulcanizers are offered post-supply services. Driven by efforts of gaining export market, our application engineers are geared to take up site visit in overseas countries and recommend tailor-made product suitable for specific application.



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