

# BHAJJANKA ISPAT PVT. LTD.

( An ISO 9001 : 2008 Registered Company )





## Bhajjanka

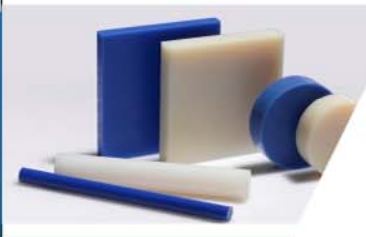
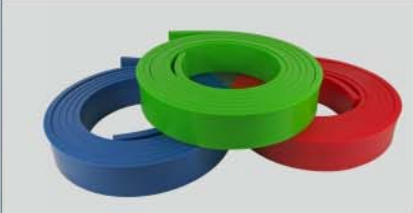


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### BHAJJANKA ISPAT PVT. LTD.

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## Dewatering screen designed by Bhajjanka Ispat pvt ltd

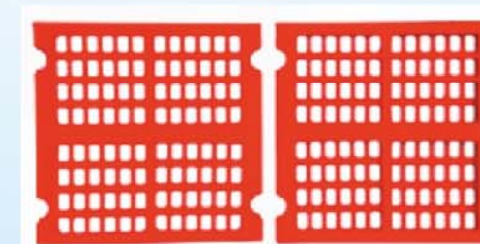
We at BHAJJANKA ISPAT PVT LTD believe in innovating the design to provide our customer the best usage quality and life. Our dewatering screen are specially designed to give better life by simple but effective use of technology and knowledge combined, some of which are:

- Modular design – Easy to fit and remove.
- Shear Stress - Our design of the screen comes with a special design which reduces the shear stress on the edges considerably and thus increasing the life of the same.
- Blow holes - Considering the width of the aperture in the dewatering screen if even a small blow holes appear on the surface it will immediately affect the life of the screen, with our design we have successfully removed all blow holes from the surface .
- Tapered aperture - Taper in the aperture opening provides clearance of the screening material which in turn increases your productivity.
- Shore Hardness - We have all types of shore hardness to cater to our customers as per their requirements.
- Color - As desired by the customers.

## Our Range of Polyurethane screen panels :

- Flip Flop Panels
- Dewatering Panels
- Screening panels
- Anti Clogging Panels
- Zig Zag Panels
- Bucket Panels
- Inclined aperture panels
- Tear Drop Design Panels
- Customised Panels As per the requirement

Other than the imported raw material from world renowned sources used in the production the above mentioned features adds quality to our product and thus making it a design which stands apart from the usual design available.



Hydrocyclones, commonly referred to as cyclones, have been extensively utilized in the classification of particles in comminution circuits. The practical range of classification for cyclones is 40 microns to 400 microns, with some remote applications as fine as 5 microns or as coarse as 1000 microns.

Cyclones are used in both primary and secondary grinding circuits as well as regrind circuits.

During operation, the feed slurry enters the cyclone under pressure through the feed pipe into the top of the cylindrical feed chamber. As the feed enters the chamber, a rotation of the slurry inside of the cyclone begins, causing centrifugal forces to accelerate the movement of the particles towards the outer wall. The particles migrate downward in a spiral pattern through the cylindrical section and into the conical section. At this point the smaller mass particles migrate toward the center and spiral upward and out through the vortex finder, discharging through the overflow pipe. This product, which contains the finer particles and the majority of the water, is termed the overflow and should be discharged at or near atmospheric pressure. The higher mass particles remain in a downward spiral path along the walls of the conical section and gradually exit through the apex orifice. This product is termed the underflow and also should be discharged at or near atmospheric pressure.

## BASIC PARAMETERS FOR STANDARD CYCLONE

The definition of a "standard cyclone" is that cyclone which has the proper geometrical relationship between the cyclone diameter, inlet area, vortex finder, apex orifice, and sufficient length providing retention time to properly classify particles.

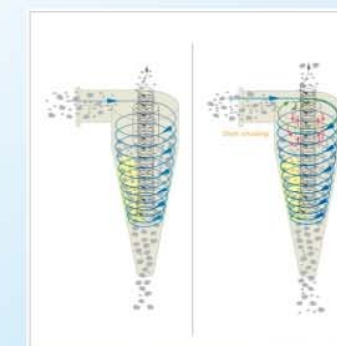
**Feed Chamber** - The first area where the slurry enters the hydrocyclone

**Vortex Finder** - The primary function of the vortex finder is to control both the separation and the flow leaving the cyclone.

**Cylindrical Section** - The cylindrical section is the next basic part of the cyclone and is located between the feed chamber and the conical section. Its Function is to lengthen the cyclone and increase its retention time.

**Conical Section** - The next section is the conical section, typically referred to as the cone section and its main function is also to increase the retention time.

**Apex** - The termination of the cone section is the apex orifice and the critical dimension is the inside diameter at the discharge point. The size of this orifice is determined by the application involved and must be large enough to permit the solids that have been classified to underflow to exit the cyclone without plugging.



BHAJJANKA Conveyor Impact Beds are located beneath the conveyor belt at loading or transfer points and are designed to absorb impact forces from material-flow or lumps impacting with the belt.

Impact beds are generally fitted in place of impact idlers, thus eliminating damage to bearings and other moving parts.

Using robust construction methods, large sized steel sections, fully welded and galvanized components, BHAJJANKA is able to design an impact bed to suit almost any location and impact load.

BHAJJANKA Conveyor Impact Beds are available as Standard, Heavy Duty, Hybrid designs or can be custom designed to meet your specific requirements.

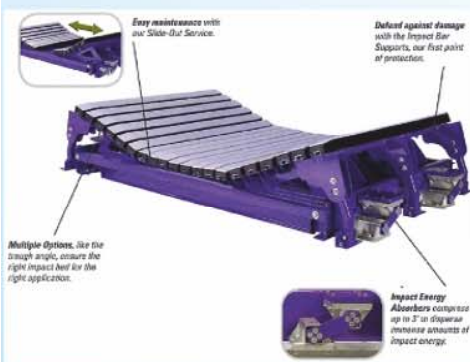


## BHAJJANKA ADVANTAGES

- Superior UHMWPE/PU Topped Impact bars minimize belt wear
- Impact beds can be up to 1500 mm long
- Beds can be serviced from either side of the conveyor
- Impact bars are individually designed to match the adjacent idlers improving skirt sealing

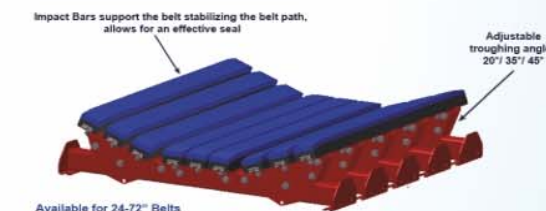
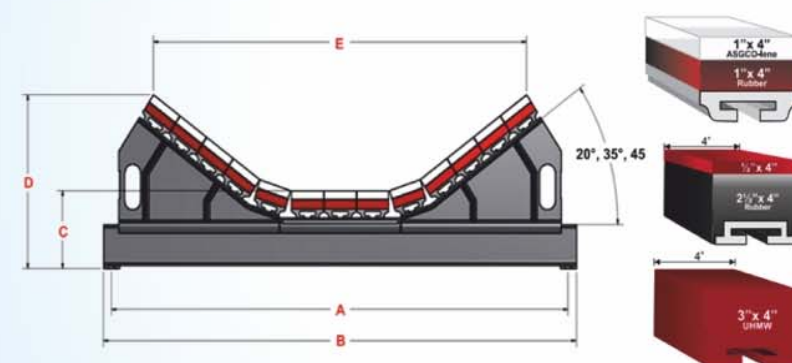
## Custom Impact Beds

BHAJJANKA can custom design and manufacture Impact Beds to suit any application. Custom designed impact beds can be finished with any protective coating system.



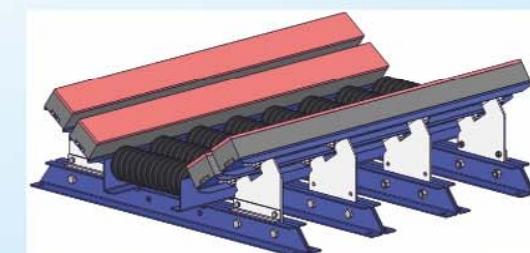
## Standard Impact Beds

- Impact beds are used in place of impact idlers under the belt at loading points.
- It absorbs the transfer forces imparted from bulk and lump material onto the conveyor.
- Totally eliminates damage typically caused to rollers, bearings and idler frames.
- Impact Beds incorporate robust steel construction, a modular pin-lock system, and high absorbent impact bars, to form a complete belt support system in the loading area.
- Can be designed to suit all combination of fall height and lump size.
- Unique design for easy replacement of worn out bars.
- No tools required for removing the pins and removing the bed.
- Saves time and money.



## Hybrid Impact Beds

- Hybrid Impact beds are positioned under the belt where the materials are small to fine in size.
- Replacement for standard impact idlers .
- Impact bars along the side of the bed provides good control of the belt edge.
- Reduces material leakage and dust emission.
- Steel Construction, Impact rollers through middle of the bed eliminates belt slag and movement due to load shift.
- Can be customised for each application.



# PRIMARY BELT SCRAPER

The best way to reduce maintenance and the associated costs is to specify components that don't require constant attention. Efficient operations require components that consistently perform. BHAJJANKA can help your operations run more profitably because we design engineered solutions that are built for exceptional wear life in severe applications and are easy to install and maintain.

We know less maintenance allows you to be more profitable. When belt cleaning problems are effectively solved, you can put the focus back where it belongs, on productivity!

With the BHAJJANKA Belt Cleaner in place, your immediate return on investment is a clean and dry return belt. Additionally, belts free from carryback mean saved components and clean work areas.

The primary cleaner that is installed on the head pulley. It's design uses self-adjusting cleaning pressure and specially formulated blades to resolve the problem of carryback.

Belt and splice friendly, the high abrasion resistance Polyurethane blades allow mechanical splices to pass by while debris and carryback are stopped.

The heavy duty frame is built for all types of operating conditions including those with highly corrosive materials. The Scraper is designed to meet the production demands of any application.



## WHY A BELT CLEANER IS NECESSARY?

- Research suggests a minimum of 0.1 mm thick layer does not drop at chute
- Assuming a 1200 mm wide conveyor running at 1.5 to 3 Mtrs./Second and that 50% drops at various points in the return side of conveyor, then in 1 day consisting of 20 hrs. of conveyor operations a quantity of 1 Mtr. X 0.05 X 10-3X 2.5 X 60 X 60 X 20 = 9 m3 (Say one Truck Load). For 330 operating Day norms prevalent in the industry, it could be 300 to 350 Truck Loads of dust. A sheer wastes of Material Cost and Cost of Manpower for cleaning the same.
- Process of putting back material is labourious
- Material gets adulterated.



# PRIMARY BELT SCRAPER

## TYPES OF SCRAPER

### PRIMARY SCRAPER :

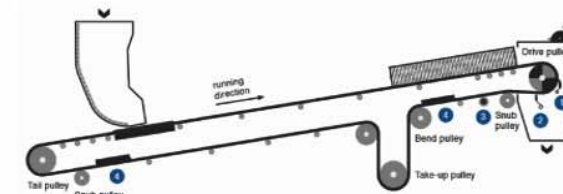
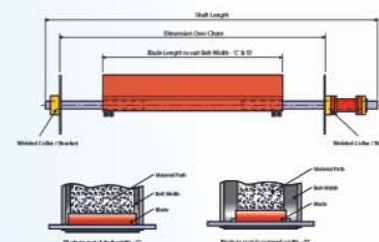
These are designed to be used in the head pulley. They cover the total belt width. Multiple blade design for easy replacement and low cost design. Self adjusting. Breaks the material to material adhesion.

### SECONDARY SCRAPER :

Final and complete cleaning of carrying side of belt. Fitted between head and snub pulley inside the chute so that the material gets scraped inside the chute. Removes the material in form of fine particles adhering to the belt.

### REVERSIBLE SCRAPER :

Compatible for both scrapers for either direction of the belt. Located near end pulley after the tangential take off.



## ADVANTAGES OF BHAJJANKA BELT SCRAPER

- Inclined against the direction of belt
- No pressure and easy removal of carry back material.
- High abrasion resistance blades for all type of material
- Suitable for all belt width
- No corrosion due to S.S. nut bolt and washers
- Compact Design
- Better belt life
- Low maintenance
- Nil material wastage
- Good and clean environment



## SALIENT FEATURES

- Modular Design for easy replacement and low cost maintenance
- High Cleaning efficiency
- Definite Return on investment
- Belt Protection
- Simple installation
- Protects roller from getting damaged



Established in 2004, BHAJJANKA ISPAT PVT LTD. has been producing polyurethane products since over a decade. BHAJJANKA is proud to offer a wide range of products ranging from industry standard products to any customized products. Offering the most advanced range of polyurethane products available we utilize these in conjunction with our technical and processing expertise to design and supply products specific to our customers requirement.

Polyurethanes are chemically formed by the reaction of polyol with isocyanate. Polyols provide the soft qualities and hard segment are provided by the isocyanate. The characteristics of the final product depends upon the ratio of these two components and the mixing and production techniques applied.

Due to the unique property Polyurethane offers it has led to the increase in usage of its products in different industry application. The relatively low processing and tooling costs when compared to alternative materials means that using polyurethane products can also make sound commercial sense.

### INNOVATIONS :

BHAJJANKA ISPAT PVT LTD is constantly looking to innovate and improve the quality and standards of its product line and processes. We closely work with our client and vendor to either innovate a new product, mold or even bring in improvement in the existing products per our customers requirement.

### Features of BHAJJANKA POLYURETHANE PRODUCTS :

- Hardness range from rubber soft to bone hard (10 -15 Shore A to 60 Shore D)
- Abrasion resistance
- Load bearing capacity
- Mechanical Properties
- Tear Strength
- Low Temperature performance
- Water and Oil resistance
- Tensile Strength
- and many more..

### Applications:

Industry	Applications
Agriculture	Scraper Blades, Harvesting wheels, Rods, Tubes, Nozzles, Shock Absorbing components, buffers, seals
Automotive	Custom Molding, Shock Absorbers, Bushes, Stoppers, Mudflaps
Construction	Concrete cast Molds, Gasket, Seals, Scraper Blades, Polyurethane screen panels, Hydrocyclones and its spare parts, Rollers
Industrial Components	Non crush Wheels, Shock Absorbers, strippers, Wedges, Rods, custom Molding, Chute liners, Hopper Liners, Scraper Blades, Screen Panels
Textiles	Loom Pickers, Gears , Pinions
Mines and Minerals	Screen Panels, Chute Liners, Hopper Liners, Scraper Blades, Impact Bed pads, Dewatering panels, Lining jobs,
Steel Plants	Rollers for CRM's , Custom molding components, and other products

