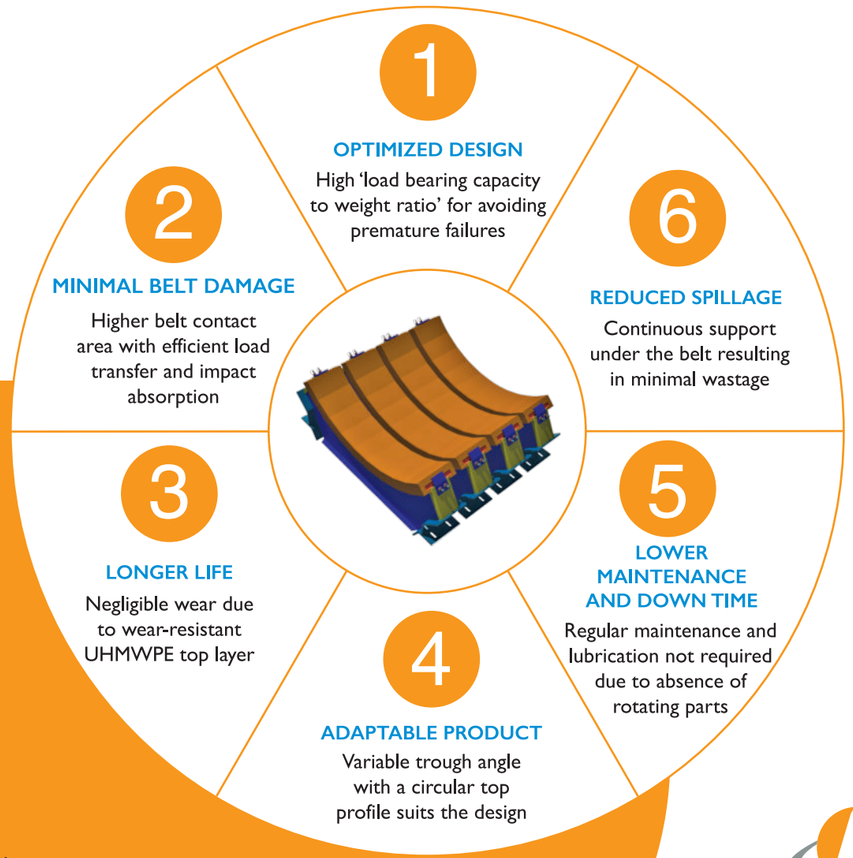
JUMBO: IMPACT BED SYSTEM

The conventional impact idlers, sheathed in rubber sleeves or rings, are not always sufficient to absorb the impact energy of the heavy falling materials at the loading zone of the conveyor. The heavy impact load often damage the belt due to line contact. The idlers being a rotating part are also susceptible to damage and failure of bearings due to accumulation of dust and grime. The malfunctioning of these idlers cause frequent conveyor breakdown and require repeated maintenance. JUMBO impact bed systems are designed to work in such adverse conditions by effectively dampening the impact of heavy materials. Being a non-rotating part, JUMBO impact bed requires zero maintenance thus decreasing downtime, increasing operational efficiency and lowering maintenance cost.

JUMBO impact bed system comprises of impact saddles and frame, which is custom designed as per the application severity and duty conditions. TEGA impact saddles is made of UHMWPE (Ultra High Molecular Weight Poly-Ethylene) for smooth gliding of the conveyer belt.

The support frame is usually made of mild steel. A spring mechanism along with rubber is squeezed between the frame structure and saddle to fully utilize the elasticity of the spring and rubber. The low-friction feature of the UHMWPE always ensures smooth conveyor movement, with minimal wear of belt bottom cover.



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PARTNERSHIPS IN PRACTICE

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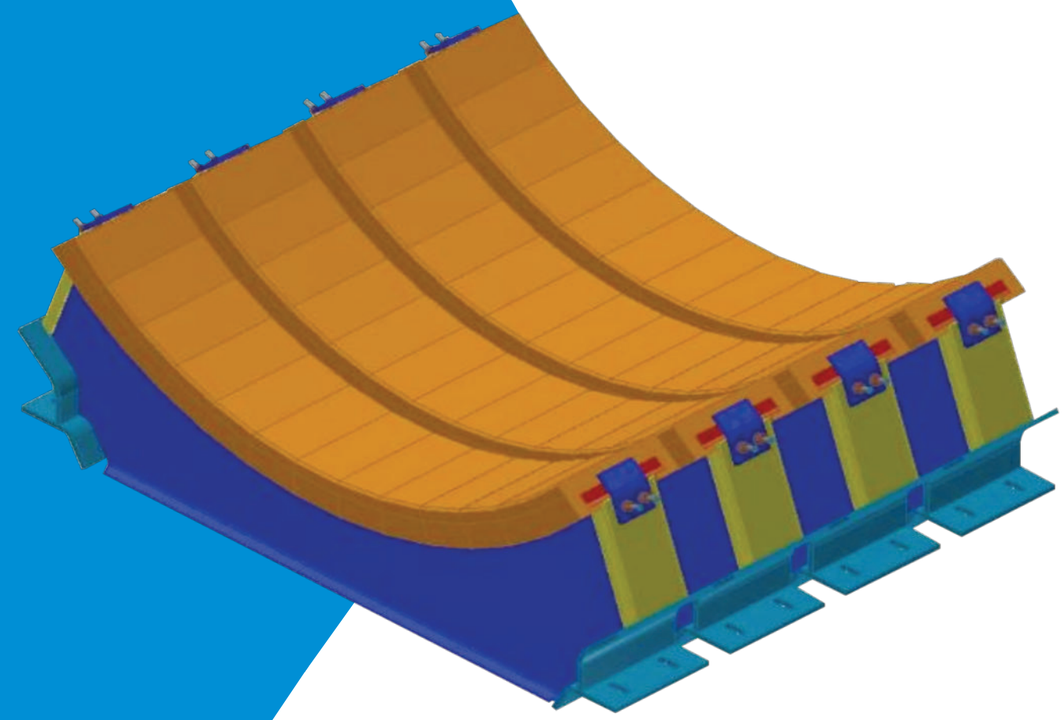
JUMBO IMPACT BED



CLEAN, SAFE, UNINTERRUPTED CONVEYING

DESIGN & SELECTION PROCESS

COLLECTION OF OPERATING PARAMETERS AND GENERAL ARRANGEMENT DRAWING AT LOADING POINT.

ANALYSIS OF DATA & IMPACT FORCE THROUGH TEGA PROPRIETARY SOFTWARE.

BASED ON ANALYSIS, FRAMES ARE DESIGNED AND TESTED THROUGH ANSYS SOFTWARE.

SADDLE

The belt rests on Saddle, which is made of UHMPWE to have minimum frictional wear of the belt. The co-efficient of friction is 0.3. Also, UHMWPE compound used has high wear resistant property that gives the saddle a long life.

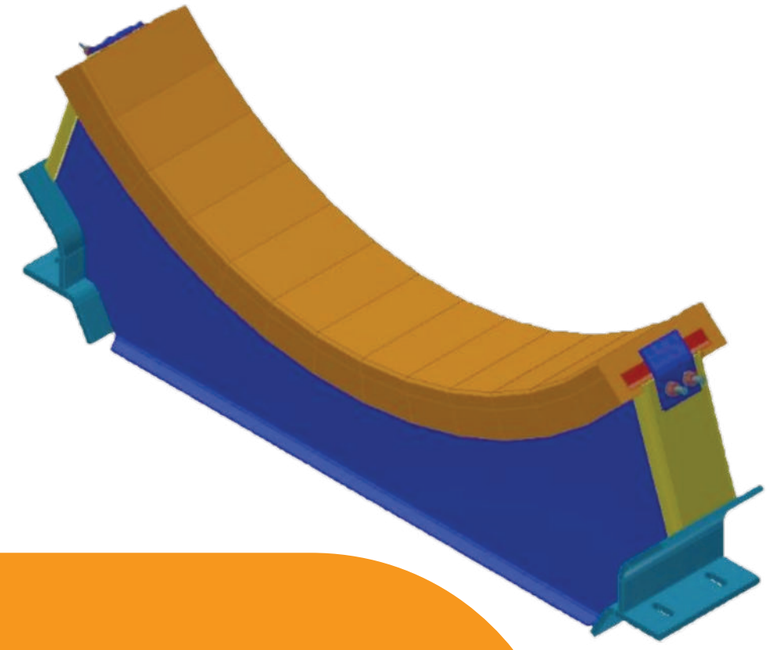
PERFORMANCE

Jumbo impact beds perform outstandingly under heavy impact load and high belt capacity at the loading station. It is specially designed for belts carrying R.O.M (Run of Mines).

MODULAR DESIGN

The impact frames are compact, modular in design and easy to install and maintain. JUMBO impact beds are provided with rubber cushion under the saddles which absorbs the impact energy. The residual energy that does not get absorbed by the rubber is taken care by the spring provided with the steel structure, which makes JUMBO impact beds ideal for extra heavy duty, this is generally encountered while handling 'Run of Mines'. The modular design of the frame is customized to suit the application. JUMBO impact beds can also be used to replace the garland type impact idler at the loading station.

JUMBO impact beds modular frame installation is dependent on the chute opening or material loading length. Based upon the belt width, capacity, chute opening length and free fall height, JUMBO's impact bed saddles & modular frames are selected from different variants.



Based upon the operating parameters, impact force and data are analyzed through TEGA's proprietary software. JUMBO impact bed frames are then designed and tested through ANSYS software.

JUMBO impact bed is designed in a manner to eliminate the frequent maintenance problems and spillage at the loading station, it is crafted to withstand high load capacity and avoid any structural damages at loading station.