



Wear is unlimited...

"Jyoti Cero Products" brings it within limits™



Government of India  
Ministry of Micro, Small & Medium Enterprises  
**NATIONAL AWARDEE - 2009**  
Outstanding Entrepreneurship & Research & Development

**MOTTO : INNOVATE TO PROTECT™**

# HYBRID IDLER™



*Innovate to Protect*

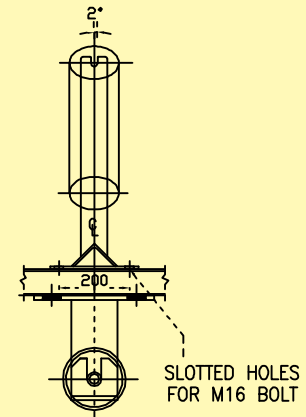
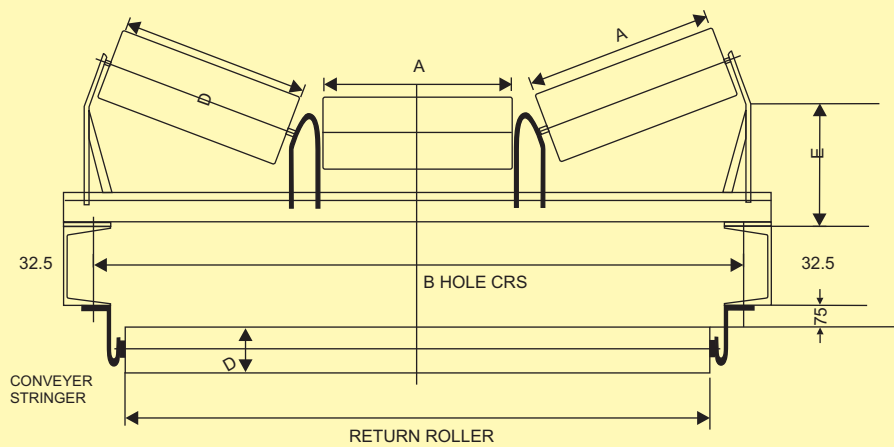
Joint Patent with Tata Steel Ltd. (Patent Application No. 404/KOL/2009)

**Jyoti Cero Rubber** an ISO 9001 : 2008 Company

# Carrying & Return Idler for Belt Conveyor

## CARRYING & RETURN IDLER FOR BELT CONVEYOR

As per the IS-8598 well known in the prior art. JYOTI CERO also design and manufacture all types of rollers to suit your specific requirement and to suit your existing Idler frame.

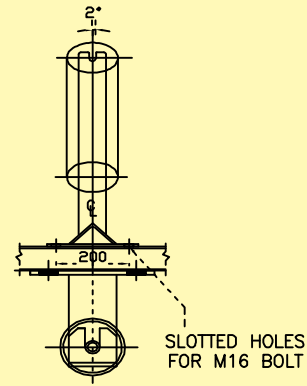
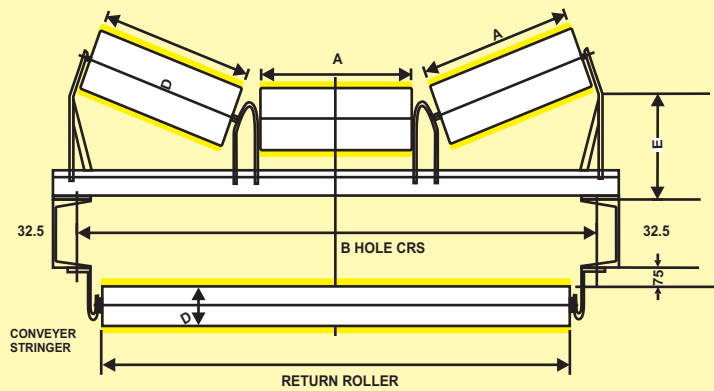


Belt Width (mm)	A Carrying Roller Length	B Hole Crs.	C Return Roller Length	D Roller Dia.	E		
					6204 OR	6205 OR	6206 OR
					420	420	420
					204	205	206
400	160	640	500	88.9	188	188	-
				114.3	200	200	-
				139.7	243	243	-
450	190	690	550	88.9	188	188	-
				114.3	200	200	-
				139.7	243	243	-
500	200	740	600	88.9	188	188	-
				114.3	200	200	-
				139.7	243	243	-
600	235	840	700	88.9	188	188	188
				114.3	200	200	200
				139.7	243	243	243
650	250	890	700	88.9	188	188	188
				114.3	200	200	200
				139.7	243	243	243
750	290	990	850	88.9	188	195	195
				114.3	200	207	207
				139.7	243	250	250

Belt Width (mm)	A Carrying Roller Length	B Hole Crs.	C Return Roller Length	D Roller Dia.	E					
					6204 OR	6205 OR	6206 OR	6306	6307	6308 OR
					420	420	420			420
					204	205	206			308
800	315	1040	950	114.3	200	207	207	-	-	-
				139.7	243	250	250	-	-	-
				152.4	249	256	256	-	-	-
				159	253	260	260	-	-	-
900	350	1140	1050	114.3	208	207	210	-	-	-
				139.7	250	250	253	-	-	-
				152.4	256	256	259	-	-	-
				159	260	260	263	-	-	-
1000	380	1240	1150	114.3	207	210	217	217	220	225
				139.7	250	253	260	260	265	270
				152.4	256	259	266	266	270	276
				159	260	263	270	270	277	282
1050	400	1290	1200	114.3	210	210	217	-	-	-
				139.7	253	253	260	-	-	-
				152.4	259	259	266	-	-	-
				159	263	263	270	-	-	-
1200	465	1450	1400	114.3	217	217	225	225	228	235
				139.7	260	260	268	268	270	276
				152.4	266	266	274	274	278	280
				159	270	270	278	278	280	285
1400	530	1690	1600	114.3	217	225	225	225	228	235
				139.7	260	268	268	270	270	276
				152.4	266	274	274	278	278	280
				159	270	278	278	280	280	285

# Hybrid Carrying & Hybrid Return Idler for Belt Conveyor

All the dimension and specification of Hybrid Idler confirming IS-8598 accept dia-'D'

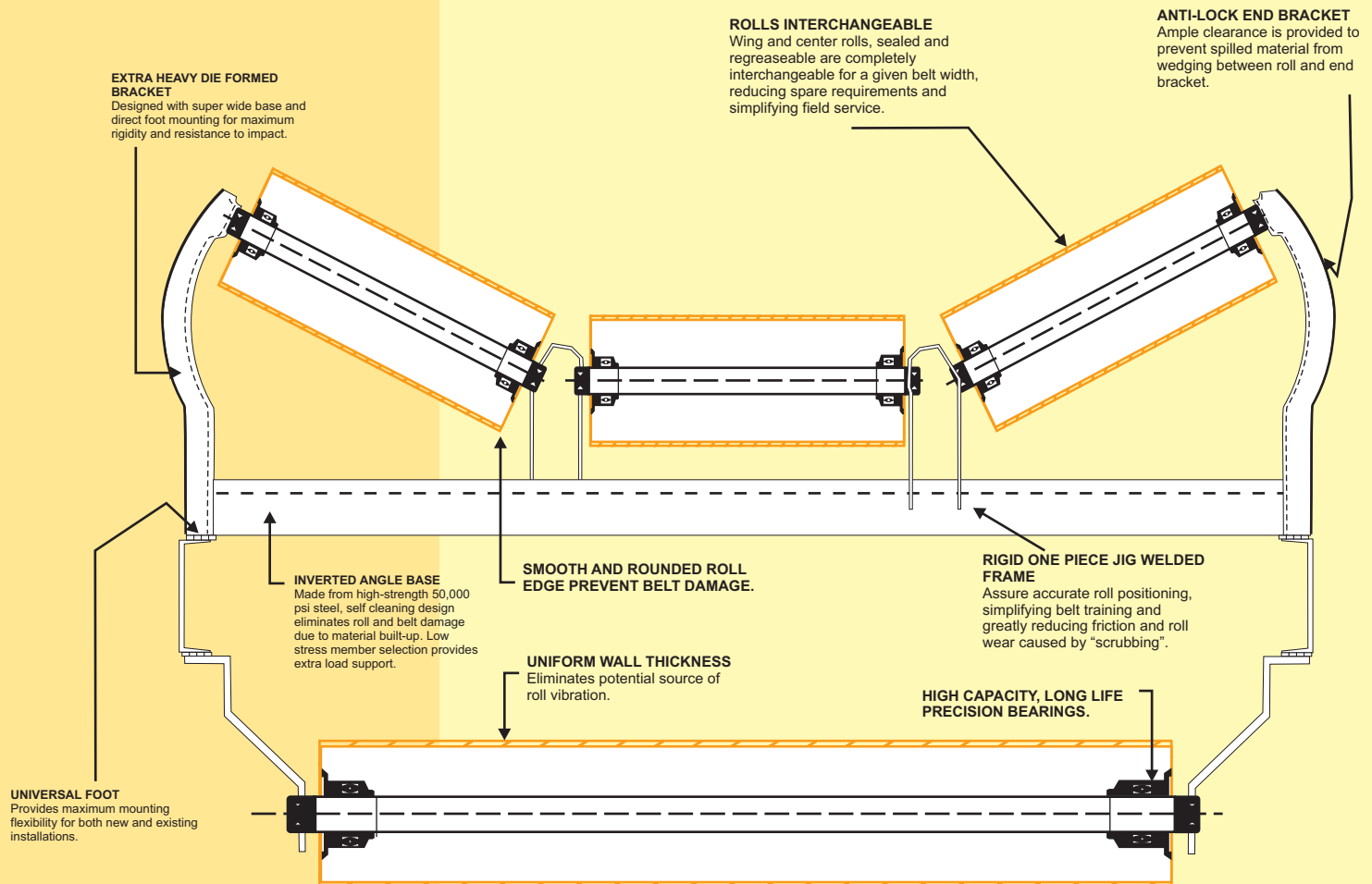


Belt Width (mm)	A Carrying Roller Length	B Hole Crs.	C Return Roller Length	D Roller Dia.	E		
					6204 OR 420	6205 OR 420	6206 OR 420
					204	205	206
400	160	640	500	96.9	188	188	-
				122.3	200	200	-
				147.7	243	243	-
450	190	690	550	96.9	188	188	-
				122.3	200	200	-
				147.7	243	243	-
500	200	740	600	96.9	188	188	-
				122.3	200	200	-
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600	235	840	700	96.9	188	188	188
				122.3	200	200	200
				147.7	243	243	243
650	250	890	700	96.9	188	188	188
				122.3	200	200	200
				147.7	243	243	243
750	290	990	850	96.9	188	195	195
				122.3	200	207	207
				147.7	243	250	250

Belt Width (mm)	A Carrying Roller Length	B Hole Crs.	C Return Roller Length	D Roller Dia.	E					
					6204 OR 420	6205 OR 420	6206 OR 420	6306	6307	6308 OR 420
					204	205	206			308
800	315	1040	950	122.3	200	207	207	-	-	-
				147.7	243	250	250	-	-	-
				160.4	249	256	256	-	-	-
				167	253	260	260	-	-	-
900	350	1140	1050	122.3	208	207	210	-	-	-
				147.7	250	250	253	-	-	-
				160.4	256	256	259	-	-	-
				167	260	260	263	-	-	-
1000	380	1240	1150	122.3	207	210	217	217	220	225
				147.7	250	253	260	260	265	270
				160.4	256	259	266	266	270	276
				167	260	263	270	270	277	282
1050	400	1290	1200	122.3	210	210	217	-	-	-
				147.7	253	253	260	-	-	-
				160.4	259	259	266	-	-	-
				167	263	263	270	-	-	-
1200	465	1450	1400	122.3	217	217	225	225	228	235
				147.7	260	260	268	268	270	276
				160.4	266	266	274	274	278	280
				167	270	270	278	278	280	285
1400	530	1690	1600	122.3	217	225	225	225	228	235
				147.7	260	268	268	270	270	276
				160.4	266	274	274	278	278	280
				167	270	278	278	280	280	285

# A Better Conveyor Hybrid Idler for Heavy Duty Applications

400MM TO 1600MM BELT WIDTH AND MORE WIDER BELT WIDTH



## Introduction

**JYOTI CERO** introduce Hybrid Idler which follow all parameter of IS 8598 in addition to counter the very high wear and abrasion of idler pipe surface. Idler pipe surface coated with special type of Polymer [**JCR-1000CERO ZIP**]. Idler's roller with coating of "JCR-1000 CERO ZIP" Polymer which is very high abrasion resistance properties and very low co-efficient of friction. It is coated on the Idler by casting material as integral part of Idler to achieve the long life without change the prior art and reduce down time with MOTTO to "**Fit it forget it.**" At least from 1<sup>st</sup> planned shut down to 2<sup>nd</sup> planned shut down for transporting the bulk material from one place to another place.

**JYOTI CERO** Idler series has proved to be extremely durable in the toughest field conditions and under the most greueling of laboratory tests. The Proprietary design and construction of the Hybrid rollers provides conveyor owner and operator with unparalleled value and extended periods of trouble-free service. The Hybrid idler Series, Without doubt, provided one of the best available to the market today.

**JYOTI CERO** Idler is a heavy duty, precision idler, ideal for today's higher capacity applications.

**JYOTI CERO** Idler are offered in both in-line and offset configurations, from 400 mm belt width, in 20°, 35°, 45° troughing angle with 88.9mm, 114.3mm, 139.7mm and 152.4mm diameter rolls. Grease sealed for life designs are available. In garland idlers, adjustable transition troughing and adjustable impact troughing idlers, "V" return idlers, and rubber returns, removable end bracket idlers and specially reinforced impact frames for unusual and severe applications are available.

Idler frames are jig welded for accuracy with formed end brackets and inverted cross angle of high strength steel. The universal foot provides maximum mounting flexibility for both new and existing installations. Rolls are interchangeable and secured to the frame with a steel retainer.

## Advantages of Hybrid Idlers

High Abrasion resistance

High wear resistance

Non-sticky

Low coefficient of friction

Trouble Free Conveyor System

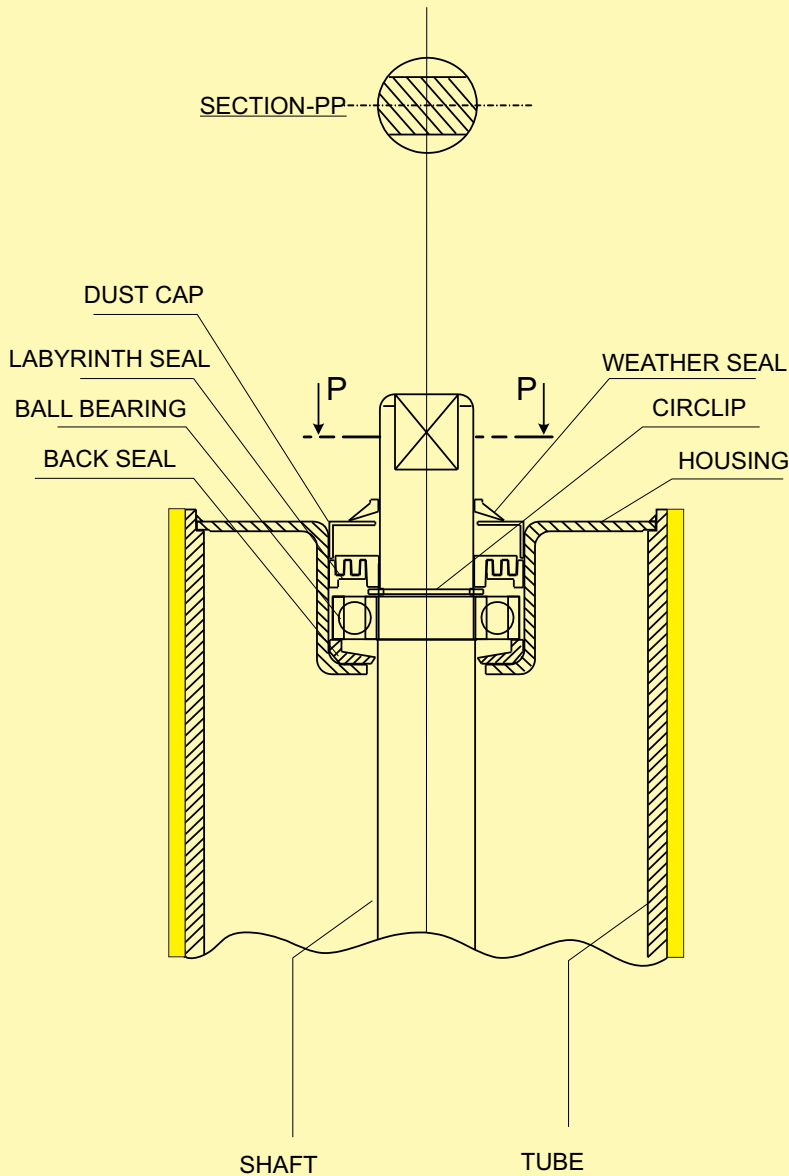
Less Power consumption

Noise reduction

Increased Belt Life



# Seven Secrets of Hybrid Superiority



## HEAD CONCENTRICITY ENSURED

Full section pressed steel heads manufactured by proprietary technic. Provide a centered product for a true roll. P. L. C. Controlled bead electric weld unitises the shell and ensures concentricity. Concentricity range between shaft to shaft 0.01 to 0.03mm.

## SEIZE RESISTANT BALL BEARINGS

Specially developed seize resistant ball bearings provide more bearing contact area spreading the load over a large area. This relieves stress and enhances bearing life under heavy loads and impact.

## COMBINATION LIP AND LABYRINTH SEAL

The double multi labyrinth seal ensures optimum protection against the entry of dust and dirt into the bearings.

## ROLLER BODY

The shell is made of precision smooth surface ERW steel tube as per IS 9295.

## SPINDLE

The shaft is very precise at the point of contact with the bearing. This minimises the opportunity for bearings to turn on the shaft. Lubricated for life: High lithium based grease is filled in measured quantities in bearings and rollers are sealed for life.

## LUBRICATION

During assembly the idler rollers are lubricated with Hi-Lithium and Barium based grease to minimize rolling resistance. Its temperature resistance upto 250°C

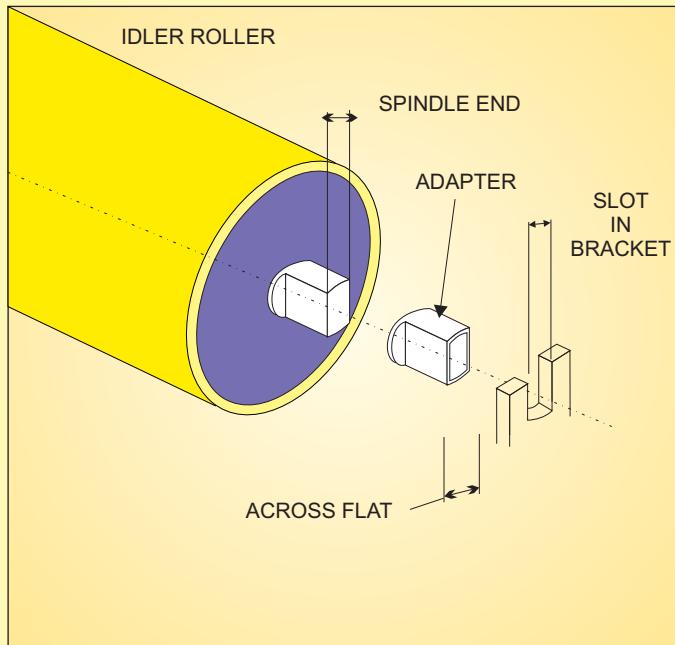
## COATING

Very high abrasion resistance "JCR 1000CERO ZIP" Polymer Lining as integral part of roller to achieve the TIR limit within 0.1 mm



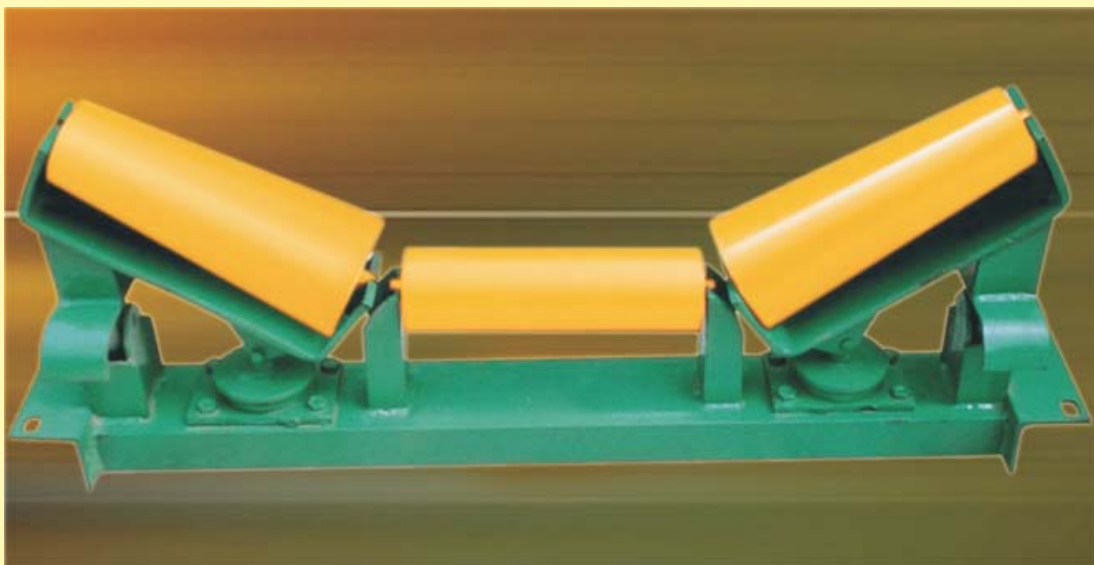


# Universal Design- Rollers to Suit Existing Frame Brackets



This design is to cater to our customers demand to fix our standard rollers on their existing conveyor frame brackets having non standard slots of different sizes- by means of an adaptor.

This special feature has been introduced in our Idler roller design, whereby it is possible for us to supply spare rollers to suit existing installations of any Idler frames. Sketch alongside shows the adaption of this special feature, due to which, the existing idler frames need not to be changed . Time and cost will be saved much more by this modification.



WE ARE THERE  
FOR YOU



We have the technology,

We have the expertise,

We have the experience,

*Trust us with your technical problems in connection  
with wear and abrasion*



**M/s Jyoti Cero Rubber**

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