

## Conveyor Idlers

The idlers are very important component of belt conveyor. They are present along the entire length of the conveyor, supporting the belt and moving the materials loaded on the belt. The idler's diameter could be correctly selected to comply with the belt width and travel speed. The correct idler length could be selected according to belt width and rollers type. General steel idlers consist of idler shells, spindles, bearings, bearing houses, seals and axial fixed units.



### INSIDE STRUCTURE

Idlers consist of idler shells, spindles, bearings, bearing houses, seals and axial clips.

#### Seals

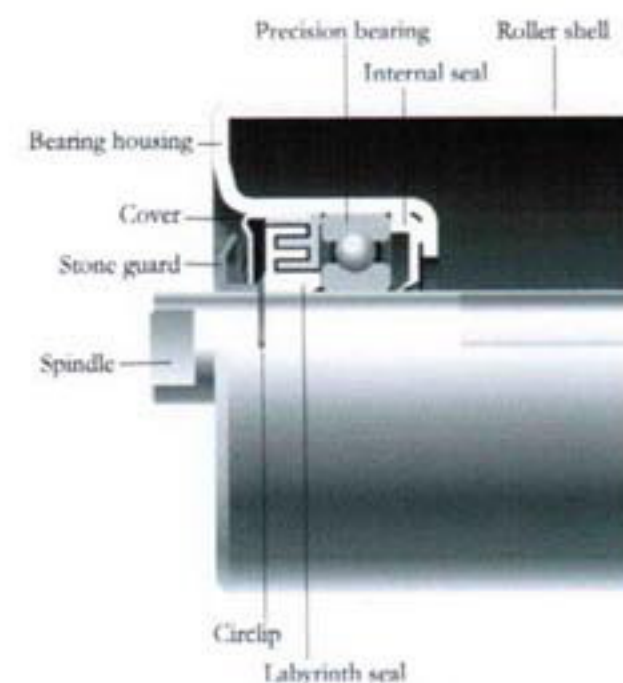
We adopt untouched multi-labyrinth seal structure, a complex, bend and narrowed labyrinth channel is formed between the inner seal and outer seal. The channel is filled with grease. Precisely designed and manufactured labyrinth seals are the guarantee on the normal running of the rollers. Its perfect water and dust proof and wear resistance effectively protect the bearing from being damaged.

#### Bearing

Our idlers choose C3 serials ball bearings, adopt double sealed structure to improve the water and dust proof ability.

#### Idler Shell, Spindle and Bearing House

The idler pipe and spindle comply with industry standard. The T'I'R, roundness, straightness and outline dimension comply with high grade requirement. The bearing house, stamped by good quality steel, is welded to idlers shell by automatic machine hand with precision which ensures the whole strength of the idlers.



### TYPES

#### Carrying Idlers

- Trough Idlers
- Impact Idlers
- Trainer Idlers
- Self-aligning Idlers

#### Return Idlers

- Flat Single Return Idlers
- V Type Return Idlers
- Cleaning Type Return Idlers



## Trough Idlers

A trough idler, which is the most common idlers used on high capacity belt conveyor, is mounted on the carrying side. Generally it consists of 3 rollers in equal length. The two outer rollers are inclined upward and the middle one is horizontal. The inclined degree can be 30°, 35° and 45°, some can be up to 60° in suspended type. There are two basic types: standard type and ahead inclined type. The latter can also be present all through the conveyor to prevent the belt from sideslip.



## Self-aligning Idlers

The trainer idlers were fixed to keep belt running in correct line. When belt runs to one side, the structure frame will turn to opposite side.



## Self Cleaning Idlers

Self cleaning idlers are fixed on the return side of the conveyor to clean off the materials that stuck to the belt working surface. They could be identified as following types:

Flat Comb Type, V Comb Type and Flat Spiral Type. Generally, 1 set of spiral idlers would be set closed to the end drum and 5 or 6 sets of comb type return idlers followed.



## Impact Idlers

Impact idlers with rubber rings of high shock absorbing quality are fixed under the feed system. The rubber rings would absorb the impact by falling materials to prevent the belt and idler body from damaging.

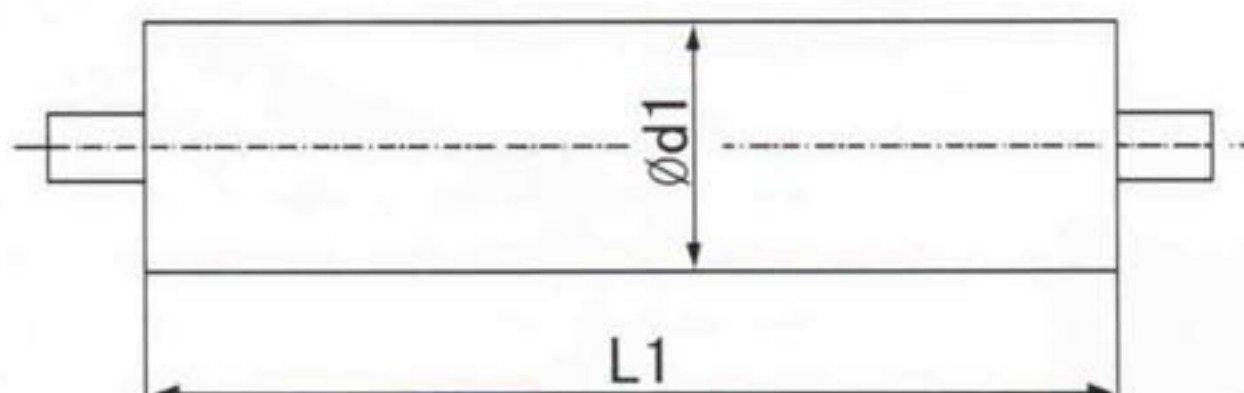


## Flat Return Idlers

They are adopted to support the conveyor belt on return side.







## SPECIFICATIONS

| Belt Width<br>B | Diameter<br>d1 | Length<br>L1       | Belt Width<br>B | Diameter<br>d1 | Length<br>L1        |
|-----------------|----------------|--------------------|-----------------|----------------|---------------------|
| 500             | 76             | 200                | 1600            | 133            | 600                 |
|                 | 89             | 315                |                 | 152            | 900                 |
|                 | 102            | 600                |                 | 159            | 1800                |
|                 | 108            |                    |                 | 194            |                     |
| 650             | 76             | 250                | 1800            | 152            | 670<br>1000<br>2000 |
|                 | 89             | 380                |                 | 159            |                     |
|                 | 102            | 750                |                 | 178            |                     |
|                 | 108            |                    |                 | 194            |                     |
| 800             | 89             | 315                | 2000            | 219            | 750<br>1110<br>2200 |
|                 | 102            | 465                |                 | 152            |                     |
|                 | 108            | 950                |                 | 159            |                     |
|                 | 127            |                    |                 | 178            |                     |
|                 | 133            |                    |                 | 194            |                     |
| 1000            | 102            | 380                | 2200            | 219            | 800<br>1250<br>2500 |
|                 | 108            | 600                |                 | 245            |                     |
|                 | 127            | 1150               |                 | 159            |                     |
|                 | 133            |                    |                 | 178            |                     |
| 1200            | 127            | 465                | 2400            | 194            | 900<br>1400<br>2800 |
|                 | 133            | 700                |                 | 219            |                     |
|                 | 152            | 1400               |                 | 245            |                     |
|                 | 159            |                    |                 | 159            |                     |
| 1400            | 127            | 530<br>800<br>1600 | 2400            | 178            | 900<br>1400<br>2800 |
|                 | 133            |                    |                 | 194            |                     |
|                 | 152            |                    |                 | 219            |                     |
|                 | 159            |                    |                 | 245            |                     |
|                 | 194            |                    |                 |                |                     |



Idler Frame available on your request