### Material Handling: Capacity & Other Features of Some Travelling Trippers

<table>
<thead>
<tr>
<th>Material Handled</th>
<th>Capacity TPH</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>360</td>
<td></td>
</tr>
<tr>
<td>Iron Ore</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Limestone</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>Coke</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Crushed Lime</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>LCS/DOLO</td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>Crushed Middlings</td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>MIDDLINGS</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>COAL</td>
<td>20 mm</td>
<td></td>
</tr>
<tr>
<td>(-) 6 mm</td>
<td>20 mm</td>
<td></td>
</tr>
<tr>
<td>(-) 8 mm</td>
<td>(-) 20 mm</td>
<td></td>
</tr>
<tr>
<td>(-) 25 mm</td>
<td>(-) 50 mm</td>
<td></td>
</tr>
<tr>
<td>(-) 50 mm</td>
<td>(-) 20 mm</td>
<td></td>
</tr>
<tr>
<td>(-) 100 mm</td>
<td>(-) 50 mm</td>
<td></td>
</tr>
<tr>
<td>(-) 100 mm</td>
<td>(-) 20 mm</td>
<td></td>
</tr>
<tr>
<td>(-) 20 mm</td>
<td>(-) 150 mm</td>
<td></td>
</tr>
<tr>
<td>(-) 5 mm</td>
<td>(+) 5 mm</td>
<td></td>
</tr>
<tr>
<td>(+) 5 mm</td>
<td>(-) 50 mm</td>
<td></td>
</tr>
<tr>
<td>(-) 50 mm</td>
<td>(-) 20 mm</td>
<td></td>
</tr>
</tbody>
</table>

**Features:**
- Manufactured as one-way chutes, two-way chutes & three-way chutes
- Up to 2000 mm belt
- Material handled: coal, iron ore, limestone, etc. to fill the bunker or pile of mounted on ground
- Driven electrically
- To minimize the over hang of belt, the tripper structure is geared motor with an inbuilt brake.
- Station with selector switch or both.
- The machine can be provided with cradle assembly, single actuator either by using special link mechanism or by Alternately geared motor may also be provided with hollow shaft connected with the tripper's main body with a torque arm.
- Bunker Belt Sealing
  - The entire bunker opening is sealed by covering with a belt.
  - The covering belt is deflected in a particular profile with the help of a set of idlers and it is mounted on the tripper chute.

**Travelling Trippers**

- Motorised trippers move on independent electric motors. It is important that material at the desired location on the conveyor with the help of limit switches carried on each end of its travel with the help of limit switches.
- The entire system is regulated by the tripper. The tripper can be moved either when the conveyor belt is moving or stationary. Each tripper is provided with cradle assembly, single actuator either by using special link mechanism or by Alternately geared motor may also be provided with hollow shaft connected with the tripper's main body with a torque arm.
**Travelling Trippers**

The tripper is provided in the conveying system to stack the material at the desired location on the conveyor with the help of chutes/chylines fitted to the tripper. The tripper is provided with wheels, which move on rails, placed parallel to conveyor on each side. These trippers have a rigid welded steel frame to resist shock and minimize distortion.

**Motorised Tripper**
Motorised trippers move on independent electric motors. It is used where continuous and uniform distribution of material along the conveyor is required or where the tripper is moved back and forth frequently. It can be automatically reversed at each end of its travel with the help of limit switches mounted on the tripper and actuated by stops placed where desired along the runway. Push buttons are provided for manual control to regulate the tripper. The tripper can be moved either when the conveyor belt is moving or stationary. Each tripper is provided with a hand operated powerful, quick action rail clamp for holding it in a fixed position. The tripper is provided with a platform for the operator.

**Long Travel Drive Assembly**
Travel drive is through direct wheel axle design. A hollow shaft mounted gear box is placed directly on the wheel axle. The input of gearbox is coupled with an electric motor. The brake is mounted on the rear extended shaft of the motor or between input shaft of gearbox and motor shaft. All drive components are mounted on a common drivebase which is connected with the tripper’s main body with a torque arm. Alternately geared motor may also be provided with hollow shaft with inbuilt brake and torque arm arrangement to overcome space constraint. The power is supplied by a cable reeling drum mounted on tripper body or festooning cable arrangement, if the travellength is small.

**Flapper Gate Drive Assembly**
The gate drive is through electro mechanical linear actuator fitted with link mechanism. The actuator is supported on a transom-mounted bracket. In a three-way chute two flap gates are required. Both can be operated by a single actuator either by using special link mechanism or by individual actuators whichever is required by the customer.

**Bunker Belt Sealing**
The entire bunker opening is sealed by covering with a belt. The covering belt is deflected in a particular profile with the help of set of idlers and is mounted on the tripper chute.

By virtue of such a belt profile, the bunker opening below the chute discharge is cleared automatically to drop the material into bunker.

**Features**
- To minimize the over hang of belt, the tripper structure has been designed with concave and convex curves.
- There are options of drive system. Drives with chain and sprocket, direct drive with hollow shaft mounted gearbox along with motor and brakes.
- Direct drive is also given with hollow shaft mounted geared motor with inbuilt brakes.
- The machine can be controlled either by local operation from the machine or by remote operation from control station with selector switch/selector.
- The machine has been provided with all safety controls and limit switches, such as over travel limit switch, chute-panning switch, etc.
- The machine can be provided with chute assembly, mounted on the machine to protect the conveyor belt from damage due to the impact of discharged material.

**Material Handling, Capacity & other features of some Travelling Trippers:**

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>FREE-CHUTE</th>
<th>COAL</th>
<th>LIME</th>
<th>IRON ORE</th>
<th>CLEAN COAL</th>
<th>CRUSHED COKE</th>
<th>FLUX</th>
<th>CHAR</th>
<th>CRUSHED FLUX</th>
</tr>
</thead>
<tbody>
<tr>
<td>MM</td>
<td>700</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>CAPACITY</td>
<td>1000</td>
<td>1100</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
</tbody>
</table>

**TECHNICAL SPECIFICATIONS**

- Gearbox alongwith motor and brake.
- Travel drive is through direct wheel axle drive design. A hollow shaft mounted gear box is placed directly on the wheel axle. The input of gearbox is coupled with an electric motor.
- The gate drive is through electro mechanical linear actuator fitted with link mechanism. The actuator is supported on a transom-mounted bracket. In a three-way chute two flap gates are required. Both can be operated by a single actuator either by using special link mechanism or by individual actuators whichever is required by the customer.

**Press releases and other information:**

- Himalaya House, 2 x 3.7 KW
- 2 x 5.5 KW
- 1 x 7.5 KW
- 2 x 5.5 KW
- 2 x 3.7 KW
- 2 x 2.2 KW
- 2 x 3.7 KW
- 2 x 2.2 KW
- 2 x 2.2 KW

**TRAVEL DRIVE**

<table>
<thead>
<tr>
<th>TRAVEL DRIVE</th>
<th>TRF</th>
<th>650</th>
<th>800</th>
<th>650</th>
<th>800</th>
<th>800</th>
<th>1000</th>
<th>1000</th>
<th>1200</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 3.7 KW</td>
<td>650</td>
<td>800</td>
<td>650</td>
<td>800</td>
<td>800</td>
<td>1000</td>
<td>1000</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td>2 x 5.5 KW</td>
<td>650</td>
<td>800</td>
<td>800</td>
<td>1000</td>
<td>1200</td>
<td>1600</td>
<td>1600</td>
<td>1800</td>
<td></td>
</tr>
<tr>
<td>1 x 7.5 KW</td>
<td>800</td>
<td>1000</td>
<td>1000</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>2 x 5.5 KW</td>
<td>800</td>
<td>1000</td>
<td>1000</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>2 x 3.7 KW</td>
<td>1000</td>
<td>1200</td>
<td>1200</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
</tr>
<tr>
<td>2 x 2.2 KW</td>
<td>1000</td>
<td>1200</td>
<td>1200</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
</tr>
</tbody>
</table>

**CHUTE TYPE**

- Bulk Material Handling Equipment
- 2 WAY CHUTE
- 3 WAY CHUTE

**MUMBAI**

- Narottam Morarji Marg, Ballard Estate, Ph: +91-22-22616853 / 22641320
- Phone: +91-657-3046500/ 598
- Fax: +91-22-22614085
- e-mail: r.k.shukla@trf.co.in

**HYDERABAD**

- Flat No. 601, 6th Floor, Phone: +91-40-23297630 / 23297631
- Fax: +91-657-2345214
- e-mail: r.k.shukla@trf.co.in
Travelling Trippers

The tripper is provided in the conveying system to stack the material at the desired location on the conveyor with the help of chutes which are tilted to the tripper. The tripper is provided with wheels, which move on rails, placed parallel to conveyor on each side. These trippers have a rigid welded steel frame to resist shock and minimize distortion.

Motorised Tripper

Motorised trippers move on independent electric motors. It is used where continuous and uniform distribution of material along the conveyor is required or where the tripper is moved back and forth frequently. It can be automatically reversed at each end of its travel with the help of limit switches carried on the tripper and actuated by stops placed where desired along the runway. Push buttons are provided for manual control to regulate the tripper. Each tripper is provided with a hand operated powerful, quick action rail clamp for holding it in a fixed position. The tripper is provided with a platform for the operator.

Long Travel Drive Assembly

Travel drive is through direct wheel axle design. A hollow shaft mounted gear box is placed directly on the wheel axle. The input of gearbox is coupled with an electric motor. The brake is mounted on the rear extend shaft of the motor or between input shaft of gearbox and motor shaft. All drive components are mounted on a common driveline which is connected with the tripper main body with a torque arm. Alternatively, geared motor may also be provided with hollow shaft with integral brake and torque arm arrangement to overcome space constraint. The power is supplied by a cable rolling drum mounted on tripper body or by motorizing cable arrangement. If the travel length is small, the gate drive is through electric motor with transmission.

Material Handling, Capacity & other features of some Travelling Trippers:

<table>
<thead>
<tr>
<th>Material</th>
<th>Belt Size</th>
<th>Belt Width</th>
<th>Belt Thickness</th>
<th>Belt Speed</th>
<th>RPM</th>
<th>HP</th>
<th>Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>600 mm</td>
<td>1200 TPH</td>
<td>100 TPH</td>
<td>2.5 TPH</td>
<td>1600</td>
<td>2.5</td>
<td>1200 TPH</td>
</tr>
<tr>
<td>Coal</td>
<td>1000 mm</td>
<td>1500 TPH</td>
<td>150 TPH</td>
<td>5.0 TPH</td>
<td>3000</td>
<td>5.0</td>
<td>1500 TPH</td>
</tr>
<tr>
<td>Coal</td>
<td>1500 mm</td>
<td>2000 TPH</td>
<td>200 TPH</td>
<td>7.5 TPH</td>
<td>5000</td>
<td>7.5</td>
<td>2000 TPH</td>
</tr>
</tbody>
</table>

Features:

- To minimize the over hang of belt, the tripper structure has been designed with concave and convex curves.
- There are options of drive systems. Drives with chain and sprocket, direct drive with hollow shaft mounted gearbox along with motor and brakes.
- Direct drive is also given with hollow shaft mounted geared motor with optional brakes.
- The machine can be controlled either by local operation from the machine or by remote operation from control station with selector switch or panel.
- The machine has been provided with all safety controls and limit switches, such as over travel limit switch, chute-jamming switch, etc.
- The machine can be provided with cradle assembly, mounted on the machine to protect the conveyor belt from damage due to the impact of discharged material.

Bunker Belt Sealing

The entire bunker opening is sealed by covering with a belt. The covering belt is deflected in a particular profile with the help of a set of idlers and is mounted on the tripper chute. By virtue of such a belt profile, the bunker opening below the chute discharge is closed automatically to drop the material into bunker.
### Technical Specifications

- **Type of Marketing Offices**: 2 Way Chute, 3 Way Chute
- **Application**: Bulk Material Handling Systems
- **Material Handling Capacity**: 
  - (-) 6 mm
  - (-) 3 mm
  - (-) 13 mm
  - (-) 25 mm
  - (-) 20 mm
  - (-) 10 mm
- **Design**: 
  - 825 TPH
  - 150 TPH
  - 230 TPH
  - 1440 TPH
  - 1800 TPH
- **Additional Features**: 
  - Motorised trippers move on independent electric motors.
  - Travel drive is through direct wheel axle drive design.
  - Flapper gate drive assembly is through electro mechanical linear actuator.
  - Gate drive is through hollow shaft mounted gear box placed directly on the wheel axle. The input of gear box is coupled with an electric motor.
  - The gate drive is actuated by stops placed where desired along the conveyor belt.
  - The tripper can be moved when the conveyor belt is moving or stationary.
  - Each tripper is provided with a hand operated powerful, quick action rail clamp for regulating the tripper.
  - Alternately geared motor may also be provided with hollow shaft mounted gear box design.
  - Trippers are made of a common drive base which is mounted on a welded steel frame for the tripper and actuated by stops placed where desired.
  - Motorised trippers are capable of moving in both directions and can be automatically reversed at each end of its travel with the help of limit switches carried on each side. These trippers have a rigid welded steel frame for the tripper and actuated by stops placed where desired along the conveyor belt.
  - The entire bunker opening is sealed by covering with a belt.
  - The covering belt is deflected in a particular profile with the help of a special link mechanism.
  - Bunker belt sealing is provided by a belt which is deflected in a particular profile.
  - Material handling capacity: 
    - 2 x 3.7 KW
    - 2 x 5.5 KW
    - 1 x 7.5 KW
  - **Applications**:
    - 2 x 2.2 KW
    - 2 x 5.5 KW
  - **Capacity**: 3.7 KW, 5.5 KW, 2.2 KW

### Marketing Offices

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  - **Email**: nd@trf.co.in

### Design

- **Motorised Tripper**: Made of special design with concave and convex curve to minimise the unsupported length of belt.
- **Flapper Gate Drive Assembly**: Driven electrically, from the machine or by remote operation from control mounted on the machine to protect the conveyor belt from damage due to the impact of discharged material.
- **Bunker Belt Sealing**: The entire bunker opening is sealed by covering with a belt.
  - The covering belt is deflected in a particular profile with the help of a special link mechanism.
  - Bunker belt sealing is provided by a belt which is deflected in a particular profile.
- **Material Handling Capacity**: 
  - 2 x 3.7 KW
  - 2 x 5.5 KW
  - 1 x 7.5 KW