

The Institute of Materials Handling



Client logo

Data sheet Apron feeder

Project name
Project no.
Tag no.
Tag description

Document no.
Revision no.
P&ID no.
Status

| | Originator | Date | Checked by | Date |
|------------------------|------------|------|-------------------------------|------|
| Process | | | | |
| Mechanical | | | | |
| Electrical | | | | |
| Approved by | | Date | Professional registration no. | |
| Client (if applicable) | | | | |
| Lead engineer | | | | |

General information

| | |
|----------------------------|-----------------------|
| Corrosion protection | Reference drawing no. |
| Engineering specifications | Service |
| Installation | |
| Remarks | |
| | |

Site

| | | | |
|--|-----|---------------|----------|
| Altitude(AMSL) | m | Location | |
| Ambient temperature maximum | °C | Rainfall | mm/y |
| Ambient temperature minimum | °C | Wind velocity | km/h |
| Barometric pressure | kPa | Humidity | % |
| Underground atmospheric classification | | Class | Division |

Process

| Material handled | | | |
|-----------------------|-------------------------|-------------------------|-------------------|
| Capacity maximum | tph | Particle density | kg/m ³ |
| Capacity normal | tph | Bulk density | kg/m ³ |
| Temperature | °C | Particle shape | |
| Feed from static head | | Angle of repose | degree |
| Drop height | mm | Angle of surcharge | degree |
| Feed type | continuous/intermittent | Moisture content (free) | %/m |
| Covered | yes/no | Particle size maximum | mm |
| No. of feed points | | Particle size median | mm |
| Drive type | | Particle size minimum | mm |

Material characteristics

| | | | |
|-------------|--------|-------------|------------------|
| Abrasive | yes/no | Erosive | yes/no |
| Combustible | yes/no | Flowability | free/poor/sticky |
| Corrosive | yes/no | Friable | yes/no |
| Dusty | yes/no | Hygroscopic | yes/no |
| Explosive | yes/no | Toxic | yes/no |

Feeder containment

| | |
|------------|----------|
| Dust tight | Enclosed |
|------------|----------|



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Mechanical

| Design data | | | |
|---|-----|----------------------------------|-----------|
| Maximum capacity | tph | Horizontal pulley centres | mm |
| Maximum temperature | °C | Angle of inclination | degree |
| Maximum loading | % | Slope at feed point | degree |
| Apron speed maximum | m/s | Slope at maximum | degree |
| Apron speed minimum | m/s | Idler spacing carrying | mm |
| Apron width | mm | Idler spacing return | mm |
| Apron length | mm | Idler spacing loading point | mm |
| Height of lift / fall | mm | Power absorbed | kW |
| Information to be supplied by the vendor | | | |
| Apron data | | | |
| Flight width | mm | Total apron length | mm |
| Flight thickness | mm | Spillage scraper | yes/no |
| Flight pitch | mm | Material of construction | |
| Flight rib height | mm | | |
| Pulley data | | | |
| Drive bearings diameter | mm | Bearings type | |
| Tail bearings diameter | mm | Bearings centers | mm |
| | | Bearing manufacturer | |
| Pulley diameter | | | |
| Drive pulley diameter | mm | Tail diameter pulley | mm |
| Drive pulley shaft diameter | mm | Tail pulley shaft diameter | mm |
| Drive pulley profile | | Tail pulley profile | |
| Drive pulley width | mm | | |
| Pulley materials of construction | | | |
| | | Material | Thickness |
| Shell | | | mm |
| Discharge | | | mm |
| Shaft | | | |
| Roller data | | | |
| Type | | Bearings type | |
| Quantity | | Bearings centers | mm |
| | | Bearing manufacturer | |
| Roller diameter | | | |
| Carrying roller diameter | mm | Return roller diameter | mm |
| Carrying roller shaft diameter | mm | Return roller shaft diameter | mm |
| Carrying roller spacing | mm | Return roller spacing | mm |
| Carrying roller shell thickness | mm | Return roller shell thickness | mm |
| Chain drive data | | | |
| Casing dust tight | mm | Chain drive casing oil tight | yes/no |
| No. of strands | | Chain drive casing weather tight | yes/no |
| No. of teeth for driven sprocket | | Chain drive casing dust tight | yes/no |
| No. of teeth for drive sprocket | | Size | |
| Service factor | | | |



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| V-belt drive data | | | |
|--|--------------------|---------------------------------|-----------------|
| Antistatic | yes/no | Type | |
| Guards type | yes/no | Location | |
| Overload protection | yes/no | Supplied by | |
| Pitch diameter | mm | No. of belts | |
| Pitch drive pulley | mm | Section | |
| Pitch driven pulley | mm | Service factor | |
| Supporting structure data | | | |
| Enclosure | yes/no | Frame length | mm |
| Enclosure type | | Frame width | mm |
| Walkway required? | yes/no | Frame height | mm |
| Walkway required on | one side/two sides | | |
| Drive data | | | |
| Type | gear/v-belt/chain | | |
| Gear reducer data | | | |
| Manufacturer | | Base type | |
| Output speed | rpm | Casing material | |
| Power rating | kW | Input/output ratio | |
| Size | | Service factor | |
| Type | | Thermal rating | kW |
| Coupling data | | | |
| Gearbox manufacturer | | | |
| Gearbox input | | Gearbox output | |
| Fitted by | | Fitted by | |
| Size | mm | Size | mm |
| Supplied by | | Supplied by | |
| Type | | Type | |
| Electrical | | | |
| System information | | | |
| Supply voltage | V | Type of system earthing | |
| Voltage variations | V | Area classification (SABS 0108) | |
| Maximum voltage unbalance | % | Hazardous gas/dust | |
| Total voltage harmonic content | % | Cable size | mm ² |
| Supply frequency | Hz | Cable type | |
| Variable speed | yes/no | | |
| Temperature classification of gas/dust | | | |



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| Data to be supplied by vendor | | | |
|--|----|----------------------------------|-------------------|
| Manufacturer | | Equivalent circuit | |
| Frame size | | Winding connection | |
| Year of manufacture | | Insulation class | |
| Serial number | | Insulation type | |
| Rating | kW | Method of cooling (IC Code) | |
| Full load current | A | Method of mounting (IM Code) | |
| Class of rating (IEC 60034-1 class 4 2) | | Lubricant type/grade | |
| Enclosure classification IP code | | Type of explosion protection | |
| Power factor at 100% load | | Efficiency at 100% load | % |
| Power factor at 75% load | | Efficiency at 75% load | % |
| Power factor at 50% load | | Efficiency at 50% load | % |
| Temperature rise | °C | Break away torque | Nm |
| Locked rotor current | A | Pull out torque | Nm |
| Locked rotor power factor | | Pull up torque | Nm |
| Locked rotor withstand time cold | s | Full load torque | Nm |
| Locked rotor withstand time warm | s | Moment of inertia of load (MIL) | kg/m ² |
| Allowable no. of starts per hour cold | | Moment of inertia of motor rotor | kg/m ² |
| Allowable no. of starts per hour warm | | MIL referred to motor shaft | kg/m ² |
| Maximum thrust continuous (down) | | Temperature rating | |
| Maximum thrust momentary (down) | | Sound intensity | db |
| Type of bearing non-drive end | | Type of bearing drive end | |
| Direction of rotation viewed from non-drive end | | | |
| Terminal box position viewed from non-drive end | | | |
| Speed vs. torque curve at full volts required | | | |
| Speed vs. torque curve at 85% full volts required | | | |
| Speed vs. current curve at full volts required | | | |
| Speed vs. current curve at 85% full volts required | | | |
| Speed vs. power curve at full volts required | | | |
| Speed vs. power curve at 85% full volts required | | | |
| Inspection & testing | | | |
| Electrical | | | |
| Shop inspection required | | Type test | |
| Routine test | | | |
| Shipping & installation | | | |
| Information to be supplied by vendor | | | |
| Heaviest lift | kg | Overall height | mm |
| Heaviest maintenance lift | kg | Overall length | mm |
| Weight driver | kg | Overall width | mm |
| Maximum foundation loading | kg | Total shipping weight | kg |
| Net weight | kg | Total shipping volume | m ³ |
| Operating weight | kg | | |