



**Liquid jet
solids ejectors**
mobile or stationary

Körting

THE EJECTOR COMPANY

Bulk material conveying
with Körting jet ejectors

Superior durability and low-maintenance operation

Liquid jet solids ejectors

APPLICATIONS

The mobile liquid jet solids ejector is used for conveying granular materials and particles (max. particle diameter 8 mm). The material is incorporated and conveyed with the motive water when mixing- or rinsing-water is added at the same time.

Liquid jet solids ejectors are used for filling, cleaning, and emptying water treatment plants, conveying gravel, sand and salts – as well as granulated slag and ash in ash removal plants, etc.

DESIGN

The solids ejector's core component is the jet ejector housing, which includes the connection for the rinsing fluid. All components are fitted to this housing.

The technical data sheets (see pages 4 - 7) show the external dimensions.

MATERIALS

Körting's liquid jet solids ejectors are made of the following materials:

- The jet ejector housing of nodular cast iron or stainless steel
- Replaceable mixing section of nodular cast iron or stainless steel
- Motive and rinsing water nozzle of bronze or stainless steel
- Funnel of PE
- Push rods of galvanised steel tubing
- Connection hose couplings of special alloy brass or stainless steel

SPARE PARTS

All components are available as spare parts. Because of the inherent wear and tear, we recommend keeping spare motive nozzles and mixing sections in stock.

When applications involve exceptionally abrasive and erosive materials, our mixing section made of oxide ceramics is ideal.

PERFORMANCE

Jet ejector design is governed by the quantity of solids, their density, granularity, height at which they're conveyed and the motive water pressure available.

The table on the next page shows the performance data for the standard version. The density of the solids was based on a figure of 2 kg/dm³.

PRICES

The costs are based on the current price list. Contact us if you'd like to know more.



For more detailed information and practical questionnaires to complete so that you can request a quote quickly, go to: [koerting.de/en/liquid-jet-solids-ejector.html](https://www.koerting.de/en/liquid-jet-solids-ejector.html)

**PERFORMANCE DATA FOR THE STANDARD VERSION OF THE
LIQUID JET SOLIDS EJECTOR BASED ON TD 181001/184001**

| p_D | \dot{m}_{SF} | \dot{V}_{SS} | \dot{V}_{Tr} | p_{Tr} | p_D | \dot{m}_{SF} | \dot{V}_{SS} | \dot{V}_{Tr} | p_{Tr} |
|------------|------------------------|---------------------|---------------------|------------|------------|------------------------|---------------------|---------------------|------------|
| [bar abs.] | [10 ³ kg/h] | [m ³ /h] | [m ³ /h] | [bar abs.] | [bar abs.] | [10 ³ kg/h] | [m ³ /h] | [m ³ /h] | [bar abs.] |
| 1.5 | 3.9 | 1.2 | 13.1 | 2.5 | 2.2 | 3.6 | 1.1 | 17.9 | 4.0 |
| | 5.8 | 1.8 | 15.5 | 3.0 | | 5.5 | 1.7 | 19.9 | 4.5 |
| | 7.4 | 2.3 | 17.7 | 3.5 | | 7.1 | 2.2 | 21.6 | 5.0 |
| | 8.5 | 2.6 | 19.4 | 4.0 | | 8.3 | 2.5 | 23.1 | 5.5 |
| | 9.3 | 2.9 | 21.1 | 4.5 | | 9.5 | 2.9 | 24.6 | 6.0 |
| 1.6 | 5.0 | 1.5 | 15.2 | 3.0 | | 10.3 | 3.1 | 25.9 | 6.5 |
| | 6.7 | 2.1 | 17.5 | 3.5 | | 11.4 | 3.5 | 27.3 | 7.0 |
| | 8.1 | 2.5 | 19.3 | 4.0 | | 12.0 | 3.7 | 28.5 | 7.5 |
| | 9.1 | 2.8 | 21.0 | 4.5 | 2.3 | 4.6 | 1.5 | 19.7 | 4.5 |
| | 9.9 | 3.0 | 22.4 | 5.0 | | 6.5 | 2.0 | 21.4 | 5.0 |
| | 10.5 | 3.2 | 23.8 | 5.5 | | 7.8 | 2.4 | 23.0 | 5.5 |
| 1.7 | 4.0 | 1.3 | 15.0 | 3.0 | | 8.9 | 2.7 | 24.4 | 6.0 |
| | 6.0 | 1.9 | 17.3 | 3.5 | | 10.0 | 3.1 | 25.9 | 6.5 |
| | 7.4 | 2.3 | 19.1 | 4.0 | | 10.8 | 3.3 | 27.1 | 7.0 |
| | 8.7 | 2.7 | 20.9 | 4.5 | | 11.8 | 3.6 | 28.4 | 7.5 |
| | 9.6 | 2.9 | 22.3 | 5.0 | 2.4 | 4.0 | 1.3 | 19.5 | 4.5 |
| | 10.4 | 3.2 | 23.8 | 5.5 | | 5.8 | 1.8 | 21.2 | 5.0 |
| 1.8 | 5.3 | 1.6 | 17.0 | 3.5 | | 7.3 | 2.2 | 22.8 | 5.5 |
| | 6.7 | 2.1 | 18.9 | 4.0 | | 8.5 | 2.6 | 24.3 | 6.0 |
| | 8.1 | 2.5 | 20.7 | 4.5 | | 9.5 | 2.9 | 25.7 | 6.5 |
| | 9.3 | 2.9 | 22.3 | 5.0 | | 10.6 | 3.2 | 27.0 | 7.0 |
| | 10.0 | 3.0 | 23.6 | 5.5 | | 11.4 | 3.5 | 28.3 | 7.5 |
| | 10.9 | 3.3 | 25.0 | 6.0 | 2.5 | 5.0 | 1.6 | 21.0 | 5.0 |
| | 11.7 | 3.6 | 26.4 | 6.5 | | 6.7 | 2.1 | 22.7 | 5.5 |
| 1.9 | 4.3 | 1.3 | 16.7 | 3.5 | | 8.0 | 2.4 | 24.1 | 6.0 |
| | 6.1 | 1.9 | 18.7 | 4.0 | | 9.2 | 2.8 | 25.6 | 6.5 |
| | 7.6 | 2.3 | 20.5 | 4.5 | | 10.1 | 3.1 | 26.9 | 7.0 |
| | 8.6 | 2.6 | 22.0 | 5.0 | | 11.0 | 3.4 | 28.2 | 7.5 |
| | 9.9 | 3.0 | 23.6 | 5.5 | 2.6 | 3.7 | 1.2 | 20.6 | 5.0 |
| | 10.6 | 3.2 | 24.9 | 6.0 | | 6.0 | 1.8 | 22.4 | 5.5 |
| | 11.3 | 3.4 | 26.2 | 6.5 | | 7.5 | 2.3 | 24.0 | 6.0 |
| | 12.1 | 3.7 | 27.5 | 7.0 | | 8.6 | 2.6 | 25.4 | 6.5 |
| | 12.6 | 3.8 | 28.6 | 7.5 | | 9.7 | 3.0 | 26.8 | 7.0 |
| 2.0 | 3.4 | 1.1 | 16.5 | 3.5 | | 10.6 | 3.2 | 28.0 | 7.5 |
| | 5.5 | 1.7 | 18.5 | 4.0 | | | | | |
| | 7.0 | 2.2 | 20.4 | 4.5 | | | | | |
| | 8.3 | 2.5 | 21.9 | 5.0 | | | | | |
| | 9.3 | 2.8 | 23.4 | 5.5 | | | | | |
| | 10.3 | 3.2 | 24.9 | 6.0 | | | | | |
| | 11.0 | 3.4 | 26.2 | 6.5 | | | | | |
| | 11.9 | 3.6 | 27.4 | 7.0 | | | | | |
| | 12.5 | 3.8 | 28.6 | 7.5 | | | | | |
| 2.1 | 4.5 | 1.4 | 18.2 | 4.0 | | | | | |
| | 6.3 | 2.0 | 20.2 | 4.5 | | | | | |
| | 7.7 | 2.4 | 21.8 | 5.0 | | | | | |
| | 8.9 | 2.7 | 23.3 | 5.5 | | | | | |
| | 9.8 | 3.0 | 24.7 | 6.0 | | | | | |
| | 10.8 | 3.3 | 26.1 | 6.5 | | | | | |
| | 11.6 | 3.5 | 27.3 | 7.0 | | | | | |
| | 12.2 | 3.7 | 28.5 | 7.5 | | | | | |

p_D Discharge pressure measured just at the outlet nozzle of mixed flow

\dot{m}_{SF} Solid matter content of the suction flow.
The suction flow consists of the solid matter content and the rinsing liquid flow

\dot{V}_{SS} Rinsing liquid flow; it is led into the hopper through the rinsing nozzle

\dot{V}_{Tr} Motive water flow including rinsing liquid flow

p_{Tr} Motive pressure measured just at the motive nozzle



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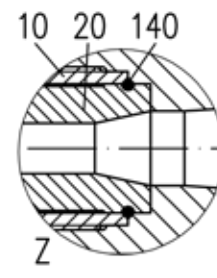
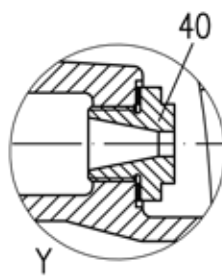
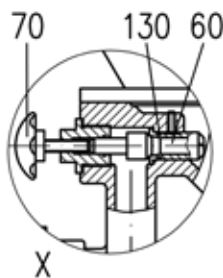
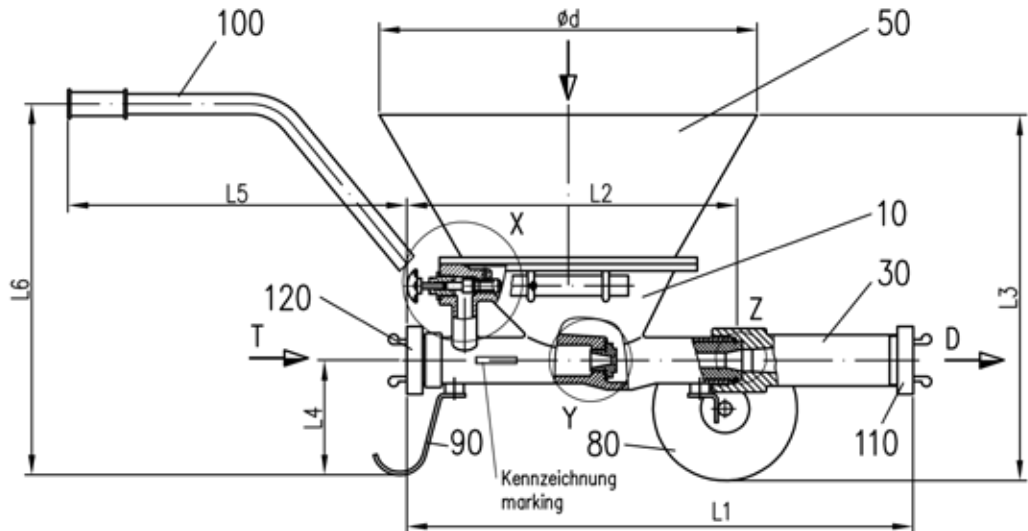
Flüssigkeitsstrahl-Feststoffpumpe (FFeP)
 aus CrNi-St, fahrbar

Liquid jet solids ejector (FFeP)
 made of stainless steel, mobile

Technisches Datenblatt
 Techn. Data Sheet

TD 181001

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| Bestell- Nummer requisition no. | Festkupplung DN rigid coupling | | Baumaße dimensions | | | | | | | Spurweite gauge | Gewicht weight [kg] |
|---------------------------------------|-----------------------------------|-------------|-----------------------|----------------|----------------|----------------|----------------|----------------|-----|--------------------|---------------------------|
| | T | D | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | L ₆ | Ød | | |
| 181001 473120 | C | C DIN 86204 | 630 | 482 | 570 | 164 | 570 | 550 | 554 | 500 | 42,0 |
| 181001 473130 | DIN 86204 | B DIN 86205 | 750 | | | | | | | | 44,0 |

Tab.2

T Treibanschluss motive connection
 D Gemischanschluss mixed flow connection

| Pos. item | Benennung | denomination | Werkstoff | material |
|--------------|--------------|-----------------|------------|-------------|
| 10 | Gehäuse | casing | CrNi-St | St-St |
| 20 | Mischstrecke | mixing element | CrNi-St | St-St |
| 30 | Diffusor | diffusor | CrNi-St | St-St |
| 40 | Düse | nozzle | CrNi-St | St-St |
| 50 | Trichter | funnel | PE | PE |
| 60 | Spüldüse | flushing nozzle | CrNi-St | St-St |
| 70 | Ventilkopf | valve head | CrNi-St | St-St |
| 80 | Radsatz | wheelset | C-St/Gummi | C-St/rubber |
| 90 | Fuß | foot | C-St | C-St |
| 100 | Schubstange | piston | C-St verz. | C-St galv. |
| 110 | Festkupplung | rigid coupling | CrNi-St | St-St |
| 120 | Festkupplung | rigid coupling | CrNi-St | St-St |
| 130, 140 | O-Ring (Set) | o-ring (set) | NBR | NBR |
| --- | Dichtung | gasket | SIL | SIL |

Tab.1

Schubstangen werden lose mitgeliefert.
 Pistons are supplied in bulk.



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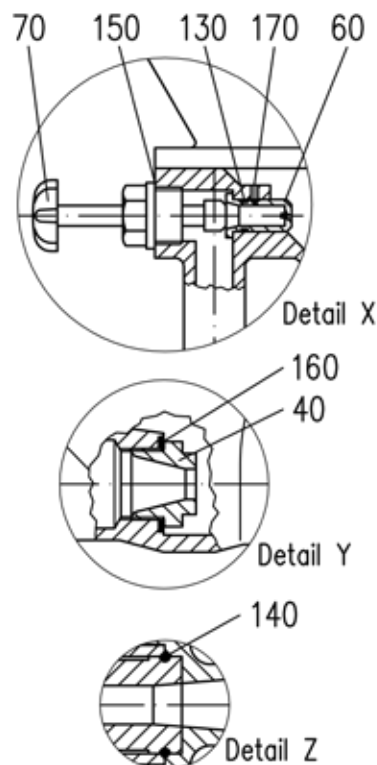
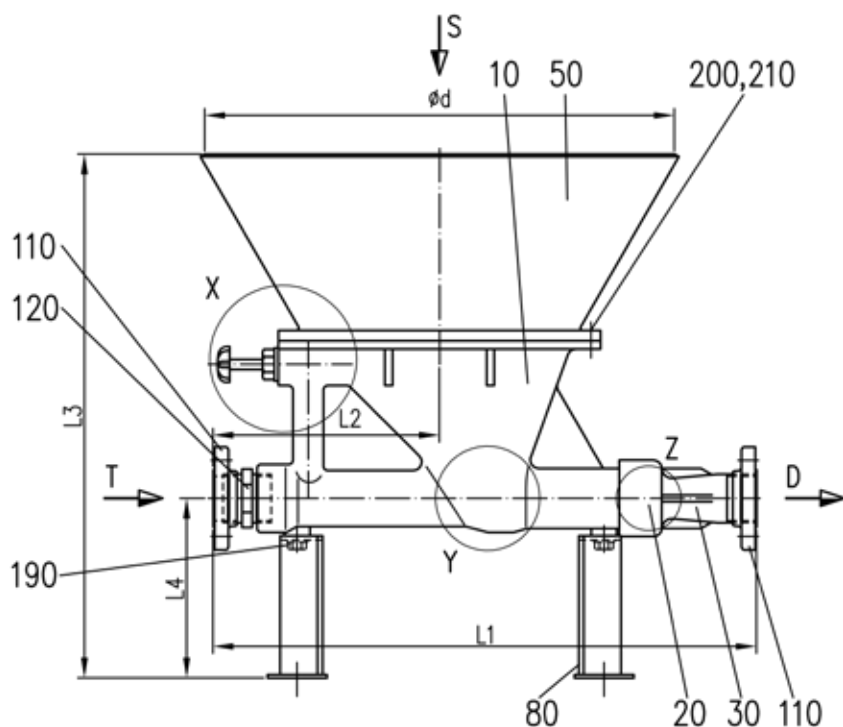
Flüssigkeitsstrahl-Feststoffpumpe (FFeP)
 aus CrNi-St, stationär

Liquid jet solids ejector (FFeP)
 made of stainless steel, stationary

Technisches Datenblatt
 Techn. Data Sheet

TD 181001

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| Bestell- Nummer requisition no. | Anschlussmaße Connection dimension DN | | | Baumaße dimensions | | | | | Gewicht weight [kg] |
|---------------------------------------|--|----|---------------|-----------------------|----------------|----------------|----------------|-----|---------------------------|
| | T | D | Norm/standard | L ₁ | L ₂ | L ₃ | L ₄ | ød | |
| 181001 473195 | 50 | 50 | EN 1092-1 | 650 | 265 | 725 | 320 | 554 | 45 |

Tab.2

T Treibanschluss motive connection
 D Gemischanschluss mixed flow connection
 S Zufuhr supply

| Pos. item | Benennung | denomination | Werkstoff | material |
|--------------|-------------------|-----------------|-----------|----------|
| 10 | Gehäuse | casing | CrNi-St | St-St |
| 20 | Mischstrecke | mixing element | CrNi-St | St-St |
| 30 | Diffusor | diffuser | CrNi-St | St-St |
| 40 | Treibdüse | motive nozzle | CrNi-St | St-St |
| 50 | Trichter | funnel | PE | PE |
| 60 | Spüldüse | flushing nozzle | CrNi-St | St-St |
| 70 | Ventilkopf | valve head | CrNi-St | St-St |
| 80 | Rahmen | frame | CrNi-St | St-St |
| 110 | Flansch | flange | CrNi-St | St-St |
| 120 | Doppelnippel | double nipple | CrNi-St | St-St |
| 130, 140 | O-Ring (Set) | o-ring (set) | NBR | NBR |
| 150, 160 | Dichtring | seal ring | SIL | SIL |
| 170 | Gewindestift | setscrew | A2 | A2 |
| 190, 200 | Sechskantschraube | hexagonal bolt | A2 | A2 |
| 210 | Sechskantmutter | hexagonal nut | A2 | A2 |

Tab.1

Änderungen vorbehalten !
 Subject to change !

Schutzvermerk ISO 16016 beachten.
 Refer to protection notice ISO 16016

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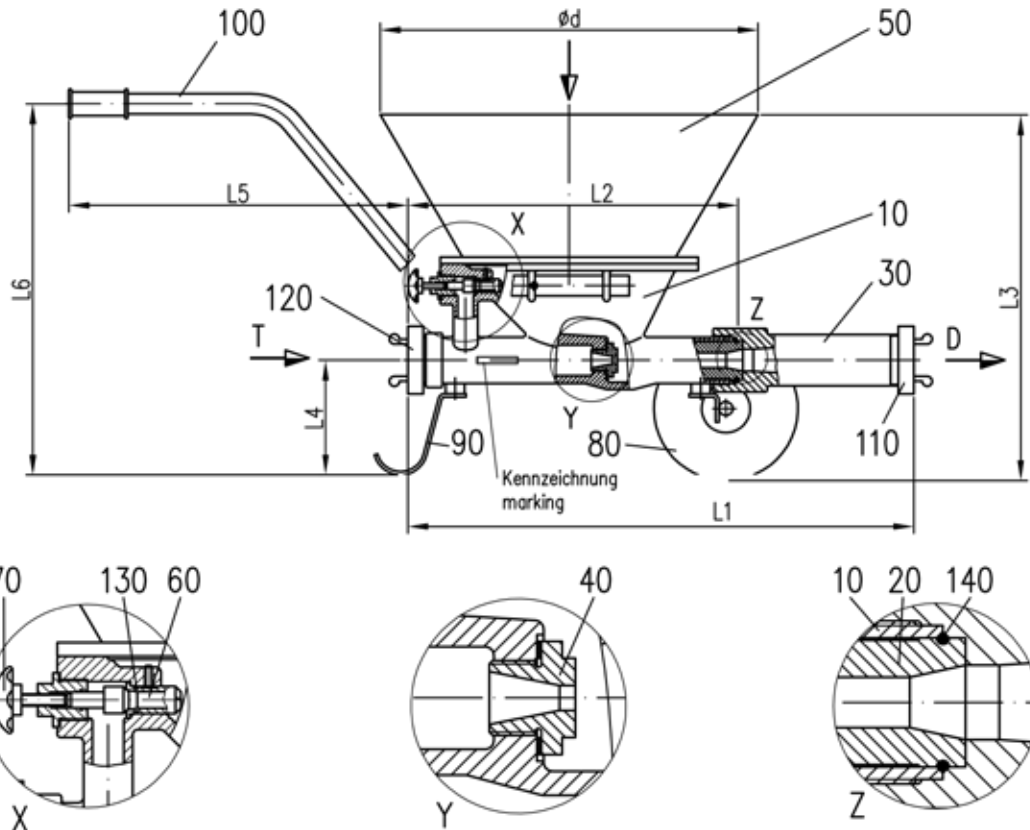
Flüssigkeitsstrahl-Feststoffpumpe (FFeP)
 aus GJS, Treibdüse aus Gussbronze, fahrbar

Liquid jet solids ejector (FFeP)
 made of nodular cast iron, motive nozzle made of cast bronze,
 mobile

Technisches Datenblatt
 Techn. Data Sheet

TD 184001

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| Bestell- Nummer requisition no. | Festkupplung DN rigid coupling | | Baumaße dimensions | | | | | | | Spurweite gauge | Gewicht weight [kg] |
|---------------------------------------|-----------------------------------|-------------|-----------------------|----------------|----------------|----------------|----------------|----------------|-----|--------------------|---------------------------|
| | T | D | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | L ₆ | ød | | |
| 184001 473140 | C | C DIN 86204 | 630 | 482 | 570 | 164 | 570 | 550 | 554 | 500 | 36,5 |
| 184001 473150 | DIN 86204 | B DIN 86205 | 750 | | | | | | | | 38,0 |

Tab.2

T Treibanschluss motive connection
 D Gemischanschluss mixed flow connection

| Pos. item | Benennung | denomination | Werkstoff | material |
|--------------|--------------|-----------------|------------|-------------|
| 10 | Gehäuse | casing | GJS | GJS |
| 20 | Mischstrecke | mixing element | GJS | GJS |
| 30 | Diffusor | diffusor | GJS | GJS |
| 40 | Treibdüse | motive nozzle | Bronze | cast bronze |
| 50 | Trichter | funnel | PE | PE |
| 60 | Spüldüse | flushing nozzle | Bronze | cast bronze |
| 70 | Ventilkopf | valve head | Messing | brass |
| 80 | Radsatz | wheelset | C-St/Gummi | C-St/rubber |
| 90 | Fuß | foot | C-St | C-St |
| 100 | Schubstange | piston | C-St verz. | C-St galv. |
| 110 | Festkupplung | rigid coupling | Messing | brass |
| 120 | Festkupplung | rigid coupling | Messing | brass |
| 130, 140 | O-Ring (Set) | o-ring (set) | NBR | NBR |
| --- | Dichtung | gasket | SIL | SIL |

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Schubstangen werden lose mitgeliefert.
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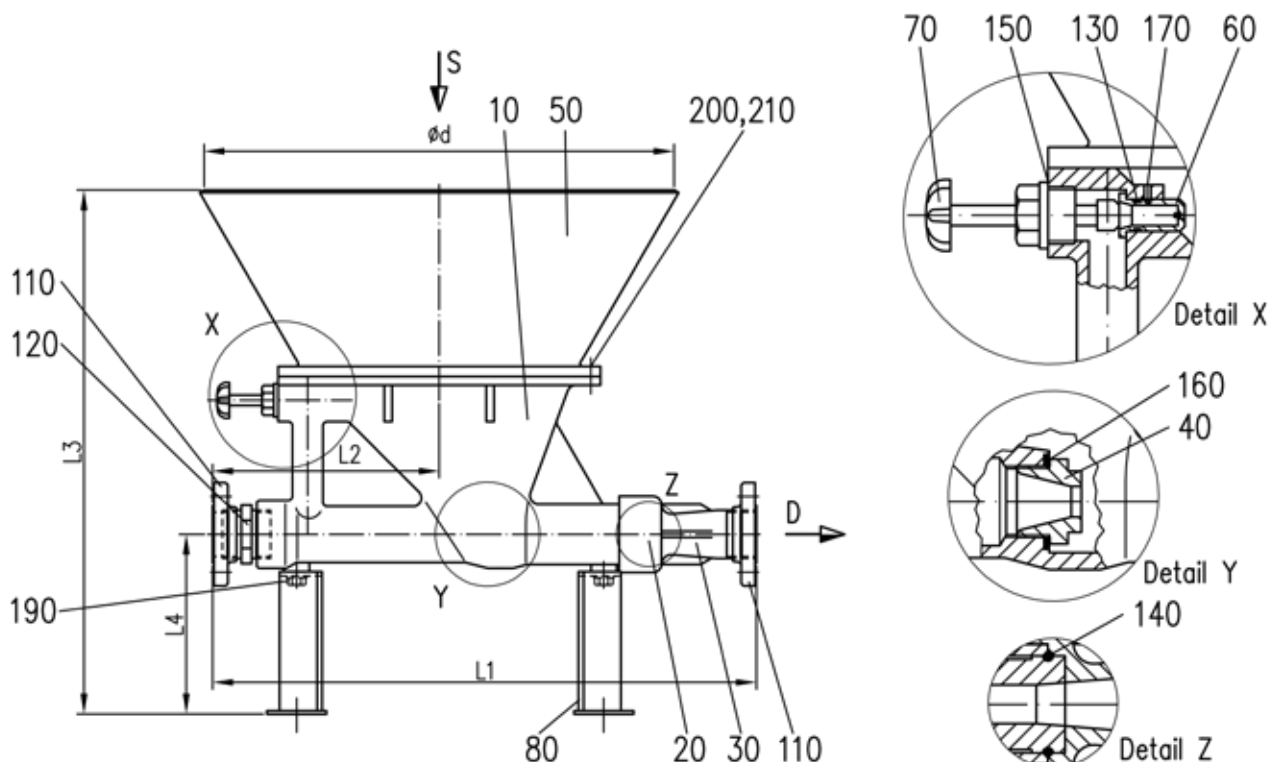
Flüssigkeitsstrahl-Feststoffpumpe (FFeP)
 aus GJS, Treibdüse aus Gussbronze, stationär

Liquid jet solids ejector (FFeP)
 made of nodular cast iron, motive nozzle made of cast bronze,
 stationary

Technisches Datenblatt
 Techn. Data Sheet

TD 184001

Seite/Page 2 2



T Treibanschluss motive connection
 D Gemischanschluss mixed flow connection
 S Zufuhr supply

| Bestell- Nummer requisition no. | Anschlussmaße Connection dimension DN | | | Baumaße dimensions | | | | | Gewicht weight [kg] |
|---------------------------------------|--|----|---------------|-----------------------|----------------|----------------|----------------|-----|---------------------------|
| | T | D | Norm/standard | L ₁ | L ₂ | L ₃ | L ₄ | ød | |
| 184001 | 50 | 50 | EN 1092-1 | 650 | 265 | 725 | 320 | 554 | 39 |

Tab.2

| Pos. item | Benennung | denomination | Werkstoff | material |
|--------------|-------------------|-----------------|------------|-------------|
| 10 | Gehäuse | casing | GJS | GJS |
| 20 | Mischstrecke | mixing element | GJS | GJS |
| 30 | Diffusor | diffuser | GJS | GJS |
| 40 | Treibdüse | motive nozzle | Bronze | cast bronze |
| 50 | Trichter | funnel | PE | PE |
| 60 | Spüldüse | flushing nozzle | Bronze | cast bronze |
| 70 | Ventilkopf | valve head | Messing | brass |
| 80 | Rahmen | frame | CrNi-St | CrNi-St |
| 110 | Flansch | flange | C-St verz. | C-St galv. |
| 120 | Doppelnippel | double nipple | C-St verz. | C-St galv. |
| 130, 140 | O-Ring (Set) | o-ring (set) | NBR | NBR |
| 150, 160 | Dichtring | seal ring | SIL | SIL |
| 170 | Gewindestift | setscrew | 45H gvz | 45H gvz |
| 190, 200 | Sechskantschraube | hexagonal bolt | 8.8 gvz | 8.8 gvz |
| 210 | Sechskantmutter | hexagonal nut | 8 gvz | 8 gvz |

Tab.1

Änderungen vorbehalten!
 Subject to change!

Schutzvermerk ISO 16016 beachten.
 Refer to protection notice ISO 16016

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