

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/dm<sup>3</sup>.

#### **PRICES**

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



You can find more information about liquide jet solids ejectors and a practical questionnaire here.

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

P <sub>D</sub>	ṁ <sub>sF</sub>	<b>V</b> <sub>ss</sub>	<b>V</b> <sub>Tr</sub>	P <sub>Tr</sub>
[bar abs.]	[10 <sup>3</sup> kg/h]	[m³/h]	[m <sup>3</sup> /h]	[bar abs.]
1.5	3.9	1.2	13.1	2.5
	5.8	1.8	15.5	3.0
	7.4	2.3	17.7	3.5
	8.5	2.6	19.4	4.0
	9.3	2.9	21.1	4.5
1.6	5.0	1.5	15.2	3.0
	6.7	2.1	17.5	3.5
	8.1	2.5	19.3	4.0
	9.1	2.8	21.0	4.5
	9.9	3.0	22.4	5.0
	10.5	3.2	23.8	5.5
1.7	4.0	1.3	15.0	3.0
	6.0	1.9	17.3	3.5
	7.4	2.3	19.1	4.0
	8.7	2.7	20.9	4.5
	9.6	2.9	22.3	5.0
	10.4	3.2	23.8	5.5
1.8	5.3	1.6	17.0	3.5
	6.7	2.1	18.9	4.0
	8.1	2.5	20.7	4.5
	9.3	2.9	22.3	5.0
	10.0	3.0	23.6	5.5
	10.9	3.3	25.0	6.0
	11.7	3.6	26.4	6.5
1.9	4.3	1.3	16.7	3.5
	6.1	1.9	18.7	4.0
	7.6	2.3	20.5	4.5
	8.6	2.6	22.0	5.0
	9.9	3.0	23.6	5.5
	10.6	3.2	24.9	6.0
	11.3	3.4	26.2	6.5
	12.1	3.7	27.5	7.0
	12.6	3.8	28.6	7.5
2.0	3.4 5.5 7.0 8.3 9.3 10.3 11.0 11.9	1.1 1.7 2.2 2.5 2.8 3.2 3.4 3.6 3.8	16.5 18.5 20.4 21.9 23.4 24.9 26.2 27.4 28.6	3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5
2.1	4.5 6.3 7.7 8.9 9.8 10.8 11.6 12.2	1.4 2.0 2.4 2.7 3.0 3.3 3.5	18.2 20.2 21.8 23.3 24.7 26.1 27.3 28.5	4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5

P <sub>D</sub>	ṁ <sub>sF</sub>	<b>V</b> <sub>ss</sub>	<b>V</b> <sub>Tr</sub>	P <sub>Tr</sub>
[bar abs.]	[10 <sup>3</sup> kg/h]	[m <sup>3</sup> /h]	[m³/h]	[bar abs.]
2.2	3.6	1.1	17.9	4.0
	5.5	1.7	19.9	4.5
	7.1	2.2	21.6	5.0
	8.3	2.5	23.1	5.5
	9.5	2.9	24.6	6.0
2.3	10.3	3.1	25.9	6.5
	11.4	3.5	27.3	7.0
	12.0	3.7	28.5	7.5
	4.6	1.5	19.7	4.5
2.3	4.0 6.5 7.8 8.9 10.0 10.8 11.8	2.0 2.4 2.7 3.1 3.3 3.6	21.4 23.0 24.4 25.9 27.1 28.4	5.0 5.5 6.0 6.5 7.0 7.5
2.4	4.0	1.3	19.5	4.5
	5.8	1.8	21.2	5.0
	7.3	2.2	22.8	5.5
	8.5	2.6	24.3	6.0
	9.5	2.9	25.7	6.5
	10.6	3.2	27.0	7.0
	11.4	3.5	28.3	7.5
2.5	5.0	1.6	21.0	5.0
	6.7	2.1	22.7	5.5
	8.0	2.4	24.1	6.0
	9.2	2.8	25.6	6.5
	10.1	3.1	26.9	7.0
	11.0	3.4	28.2	7.5
2.6	3.7	1.2	20.6	5.0
	6.0	1.8	22.4	5.5
	7.5	2.3	24.0	6.0
	8.6	2.6	25.4	6.5
	9.7	3.0	26.8	7.0
	10.6	3.2	28.0	7.5

**P**<sub>D</sub> Discharge pressure measured just at the outlet nozzle of mixed flow

**m**<sub>sf</sub> Solid matter content of the suction flow. The suction flow consists of the solid matter content and the rinsing liquid flow

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

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

 $\mathbf{P}_{\mathsf{Tr}}$  Motive pressure measured just at the motive nozzle



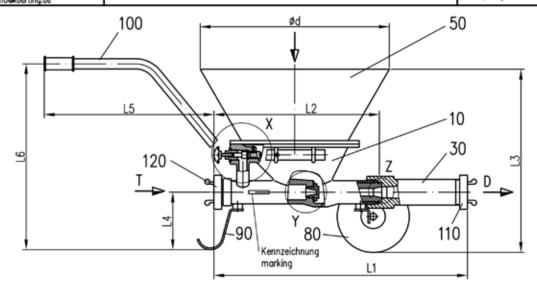
Badenstedter Straße 56 30453 Hannover Telefon +49 5112129-0 Fax -223 E-Mail info@koerting.de Flüssigkeitsstrahl—Feststoffpumpe (FFeP) aus CrNi-St, fahrbar

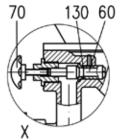
Liquid jet solids ejector (FFeP) made of stainless steel, mobile

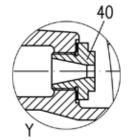
Technisches Datenblatt Techn. Data Sheet

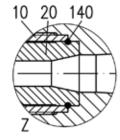
TD 181001

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Bestell- Nummer requisition no.			Baumaße dimensions				Spurweite gauge	Gewicht weight				
T   D		D	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L4	L <sub>5</sub>	L <sub>6</sub>	ød		[kg]	
181001 473120 181001 473130	C DIN 86204	C DIN	86204 86205	630 750	482	570	164	570	550	554	500	42,0 44,0

T Treibanschluss motive connection

D Gemischanschluss mixed flow connection

Tab.2

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	0-Ring (Set)	o-ring (set)	EPDM <sup>1)</sup>	EPDM
	Dichtung	gasket	SIL 1)	SIL

Schubstangen werden lose mitgeliefert. Pistons are supplied in bulk.

1) Trinkwasser zugelassen nach KTW/DVGW W 270 Approved for drinking water applications acc. to KTW/DVGW W 270

Tab.1

Änderungen vorbehalten ! Subject to change ! Schutzvermerk ISO 16016 beachten. Refer to protection notice ISO 16016 CKörting Hannover GmbH

Ausgabe: 2025-01-14

Issue:



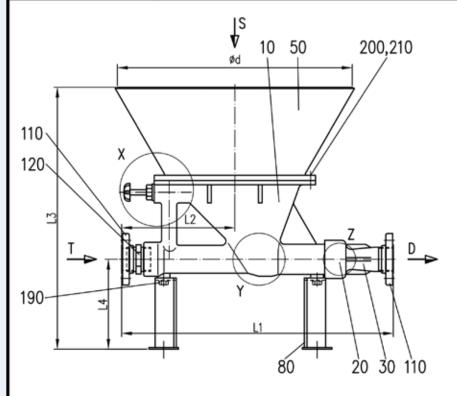
Badenstedter Straße 56 30453 Hannover Telefon +49 5112129-0 Fax -223 E-Mail info@koerting.de Flüssigkeitsstrahl-Feststoffpumpe (FFeP) aus CrNi-St, stationär

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

Technisches Datenblatt Techn. Data Sheet

TD 181001

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TTV/
Detail X
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40
140
Detail 7
160

Beste Numn requis		10.		nschlussmaße onnection dimension DN			Baumaße dimensions				
			Т	D	Norm/standard	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L4	ød	[kg]
1810	001 4	73195	50	50	EN 1092-1	650	265	725	320	554	45

Treibanschluss

motive connection Gemischanschluss mixed flow connection supply

Tab.2

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	0-Ring (Set)	o-ring (set)	EPDM 1)	EPDM
150, 160	Dichtring	seal ring	SIL 1)	SIL
170	Gewindestift	setscrew	A2	A2
190, 200	Sechskantschraube	hexagonal bolt	A2	A2
210	Sechskantmutter	hexagonal nut	A2	A2

<sup>1)</sup> Trinkwasser zugelassen noch KTW/DVGW W 270 Approved for drinking water applications acc. to KTW/DVGW W 270

Änderungen vorbehalten ! Subject to change !

Schutzvermerk ISO 16016 beachten. Refer to protection notice ISO 16016 © Körting Hannover GmbH

Ausgabe: 2025-01-14 Issue:



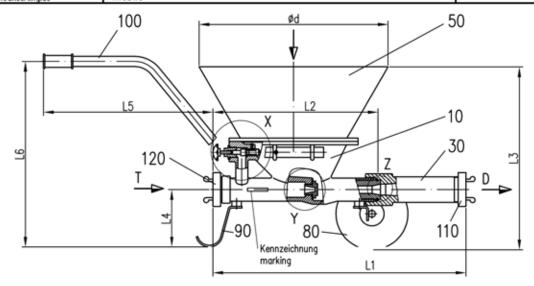
Badenstedter Straße 56 30453 Hannover Telefon +49 5112129-0 Fax -223 E-Mail info@koerting.de Flüssigkeitsstrahl-Feststoffpumpe (FFeP) aus GJS, Treibdüse aus Gussbronze, fahrbar

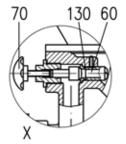
Liquid jet solids ejector (FFeP) made of nodular cast iron, motive nozzle made of cast bronze,

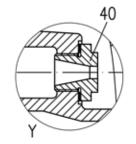
Technisches Datenblatt Techn. Data Sheet

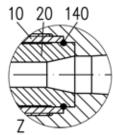
TD 184001

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Bestell— Nummer requisition no.	Festkupplung DN rigid coupling			Baumaße dimensions					Spurweite gauge	Gewicht weight		
	T   D			L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	ød		[kg]
184001 473140	С	C DIN	86204	630	400	570	164	57A	550	554	500	36,5
184001 473150	DIN 86204	B DIN	86205	750	402	3/0	104	3/0	550	554	300	38,0

Treibanschluss motive connection Gemischanschluss mixed flow connection

Tab.2

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	0-Ring (Set)	o-ring (set)	NBR	NBR
	Dichtung	gasket	SIL	SIL
Tab.1				•

Schubstangen werden lose mitgeliefert. Pistons are supplied in bulk.

Änderungen vorbehalten ! Subject to change !

Schutzvermerk ISO 16016 beachten. Refer to protection notice ISO 16016 © Körting Hannover GmbH

Ausgabe: 2020-01-10

Issue:

60

Detail X

160

Detail Y

140

Detail Z



Körting Hannover GmbH

Badenstedter Straße 56 30453 Hannover Telefon +49 5112129-0 Fax -223 E-Mail info@koerting.de Flüssigkeitsstrahl-Feststoffpumpe (FFeP) aus GJS, Treibdüse aus Gussbronze, stationär

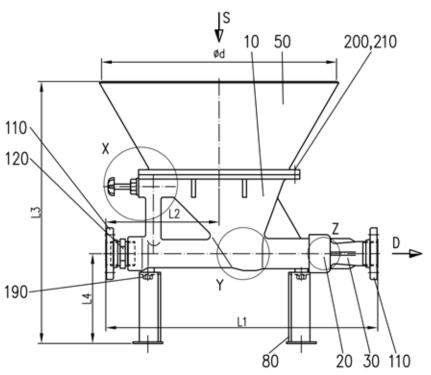
Liquid jet solids ejector (FFeP) made of nodular cast iron, motive nozzle made of cast bronze, stationary

Technisches Datenblatt Techn. Data Sheet

TD 184001

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130 170



Bestell- Nummer requisition no.		issmaße tion dim	ension DN	Baumaße dimensions					Gewicht weight
	Т	D	Norm/standard	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	ød	[kg]
184001	50	50	EN 1092-1	650	265	725	320	554	39

Treibanschluss Zufuhr

70

150

motive connection Gemischanschluss mixed flow connection supply

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	0-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

Änderungen vorbehalten ! Subject to change !

Tab.1

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