

## **JESSBERGER** Eccentric screw pumps JP-700

Vertical barrel- and  
container pumps

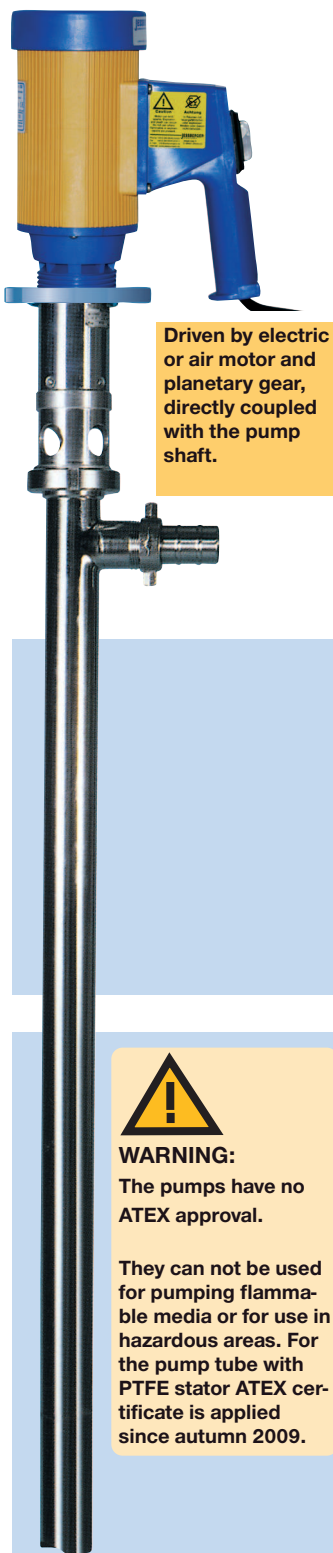
Horizontal eccentric  
screw pumps

Dosing pumps for high  
viscous media  
(respectively up to  
100.000 mPas)

Barrel discharge unit for  
high viscous media with-  
out own flowability  
(up to 1.000.000 mPas)

Spare parts

## Eccentric screw pumps for drums and containers



Driven by electric or air motor and planetary gear, directly coupled with the pump shaft.

### JP-700 SR (speed reducer), particularly for intermittent operation,

for gentle and almost pulsation free transport of thin to high viscous, thixotropic, gaseous, solids and fibres containing, aggressive and neutral media.

#### Standard-version suitable for:

**Chemical products:** dyes, varnishes, resins, latex, silicone masses, polymers

**Mineral oil products:** oils, greases, cutting oils, coolants

**Pump tubes will be driven** by electric universal- or air motors

**All pump parts are in stainless steel 316 Ti;** stator materials are adapted to the pumped medium and available in NBR, NBR-food grade, Viton, Hypalon, EPDM or PTFE.

**Delivery rate** is selectively 12, 25 or 50 ltr/min (at JP-700 DR also dosing pumps are available!).

**Discharge pressure** is 6 bar at the single-stage pump and 12 bar at the twin-stage pump.

**Viscosity** for the SR-version up to 20.000 mPas.

**Max. temperature of the liquid** up to 150 °C.

**Pump tube lengths** are 700, 1.000 and 1.200 mm. Special lengths up to 2.000 mm.

**Diameter of pump tube** 54 mm, therefore suitable for all 200 liter drums with 2" bung hole.

**Easy disassembling and therefore easy cleaning.**

**Shaft seal** by single-acting mechanical seal or stuffing box.

**Weight** 12 kg.

**Special version for food, cosmetic and pharmaceutical products:**

Polished surfaces, alternatively open or totally enclosed joint pins, no dead rooms inside pump, easy disassembling and therefore easy cleaning, milk thread connection DN 11851, CIP connections as an option, stators and seals conform to FDA food grade quality, also PTFE stators available.

### Pump tubes diameter Ø 54 mm, discharge connection G 1½" Hose connection 1", 1¼" oder 1½"

Type	Pump tube length*	Flow-rate	Disch. pres.
JP-700.12.1	1.000 mm	12 l/min	6 bar
JP-700.12.2	1.100 mm	12 l/min	12 bar
JP-700.25.1	1.000 mm	25 l/min	6 bar
JP-700.25.2	1.100 mm	25 l/min	12 bar
JP-700.50.1	1.100 mm	50 l/min	6 bar

**SR-Version** (with planetary gear = speed reducer) approx 700 rpm.

\* suitable for 200 l drum (other lengths see above)

#### Electric motors:

JP-180 (230/115 V, 50–60 Hz, IP 24, 600 W)

JP-280 (230/115 V, 50–60 Hz, IP 24, 825 W)

#### AIR motors:

JP-AIR 2 (700 W at 6 bar operating pressure)

JP-AIR 3 (400 W at 6 bar operating pressure)

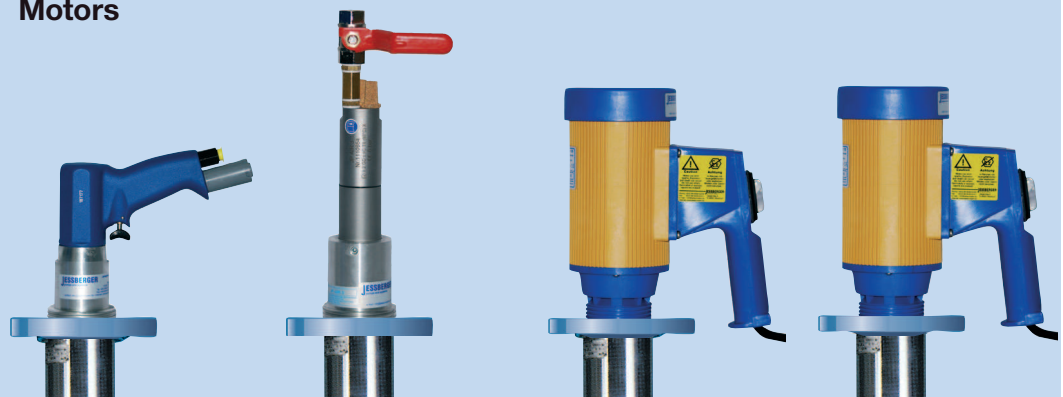


#### WARNING:

The pumps have no ATEX approval.

They can not be used for pumping flammable media or for use in hazardous areas. For the pump tube with PTFE stator ATEX certificate is applied since autumn 2009.

## Motors



### JP-AIR 2

700 W at max. 6 bar operating pressure

Compressed air motor with starting button on the handle.

The motor starts running and the pump is transferring liquid when the button is pressed.

### JP-AIR 3

400 W at max. 6 bar operating pressure

Compressed air motor, stainless steel housing, with plug valve at air intake for compressed air control.

This regulates the motor speed and varies the pumping capacity.

### JP-180

600 W Universal motor 230/115 V, 50–60 Hz

Double isolated, category II, Splash-proofing according to IP 24

On/off switch  
Overload protection switch

### JP-280

825 W Universal motor 230/115 V, 50–60 Hz

Double isolated, category II, Splash-proofing according to IP 24

On/off switch  
Overload protection switch

## Eccentric screw pumps for drums and containers



Driven by pneumatic or three-phase motor with flexible coupling, pump-shaft with ball-bearing.

Driven by pneumatic or three-phase motor, directly coupled with extended motor shaft.

### JP-700 DR

are versatile, robust and extremely powerful pumps. They are suitable for the transport of fluid to high viscous substances such as muds, pastes, soaps, shampoos, honey, sirup, marmelade, ketchup, etc. **up to 100.000 mPas** – particularly for stationary use or continuous operation.

All parts of the pump that will get in contact with medium are made of stainless steel SS 316 Ti.

Stators are adapted to the medium and available in NBR (Buna), NBR light (Food grade), VITON (FKM), Hypalon (CSM), EPDM or PTFE.

Shaft seal by mechanical seal or gland.

The weight of the pumps is depending on the pump tube length and the drive 25–35 kg.

The pump can be delivered also in a **food grade version** (please see at JP-700 SR version) or as a **dosing drum pump** (smaller flow rate, smaller pump tube diameter).

Pump tubes, Ø 54 mm, discharge connection G 1 1/2"  
Hose connection 1", 1 1/4" oder 1 1/2"

Type	Pump tube in mm	Flow rate	pressure
JP-700.12.1 DR	700/1.000/1.200	12 l/min	6 bar
JP-700.12.2 DR	800/1.100/1.300	12 l/min	12 bar
JP-700.25.1 DR	700/1.000/1.200	25 l/min	6 bar
JP-700.25.2 DR	800/1.100/1.300	25 l/min	12 bar
JP-700.50.1 DR	800/1.100/1.300	50 l/min	6 bar

### JP-700 DR-Version

Driven by three-phase motors, gear motors or air motors.

Comprehensive accessories like pump hanger as an option.



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### Motors



#### Three-phase motor

230/400 V, 50 Hz  
0,37–2,2 kW

other motor sizes and special voltages on request



#### Three-phase gear motor

230/400 V, 50 Hz  
0,37–2,2 kW

reduced speed at high viscosities or for abrasive media, optimal speed for requested flow rate



#### Pneumatic motor

0,5–1,5 kW, 900 rpm  
at 6 bar

JP-AIR 4 (0,5 KW)  
JP-AIR 6 (1,0 kW)  
JP-AIR 8 (1,5 KW)

## Container pumps



### JP-700.80.1, 80.2, 200.1, 200.2, 300.1 and 300.2

Gentle, almost pulsation free transport of fluid to high viscous, thixotropic, gaseous, solids and fibres containing, aggressive and neutral media.

#### Standard-version for:

**Chemicals:** dyes, varnishes, resins, latex, silicones, polymers

**Mineral oil products:** oils, greases, cutting oils, coolants

Pump tube, pump parts and rotor made of SS 316 Ti

Pump and drive directly coupled

Totally enclosed pin joints or without any pin joints

Easy disassembling

Flow rates 80, 200 or 300 l/min.

Pressure stages 6 and 12 bar

Tube lengths 1.000, 1.200, 1.500 mm (special lengths available)

Max. Ø 105 mm (JP-700.80, 200) and max. 130 mm (JP-700.300)

Different sizes of delivery connections

Hose connection DN 40, DN 50–65, DN 65–80

Material of shaft seal:

Mechanical seal made of Chrome/Carbon/Viton or SiC/SiC.

O-rings made of Viton or FEP. Alternatively gland made of PTFE.

Driven by three-phase motors, gear motors or air motors

Stators:

NBR, NBR food-grade, Viton (FKM), Hypalon, EPDM or PTFE

(Teflon). Pump lantern made of aluminium.

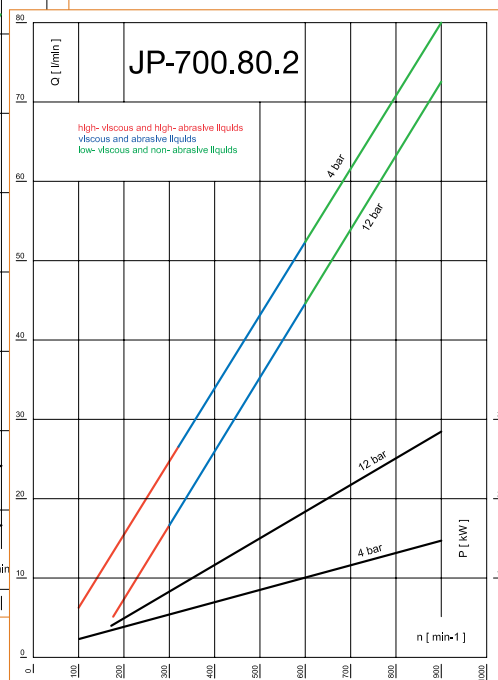
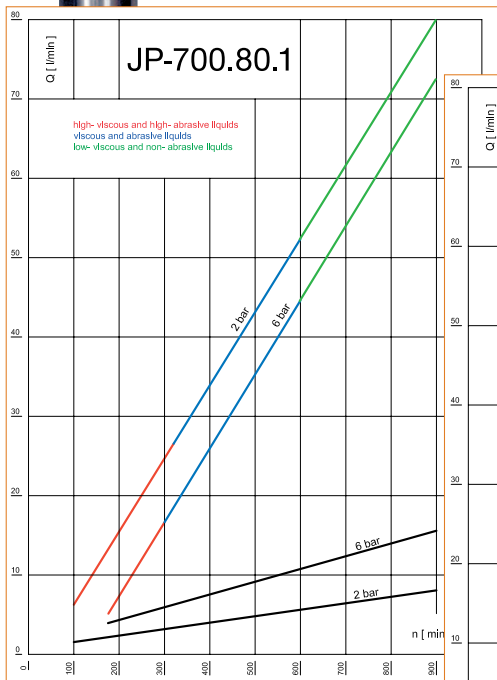
#### Differences at food grade version:

For examples of media see at dosing pumps

Polished surfaces, easy to disassemble and therefore to clean,

pressure socket milk thread connection DIN 11851, stators and

seals in food grade quality FDA, also PTFE stators available.



**WARNING:**  
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### Selection of stators (valid for all pumps)

**NBR black**, (Perbunan), max. 100 °C, suitable for liquids containing oils and fats, alcohol and aqueous solutions.

*Not resistant to acids, caustic solutions and solvents.*

**NBR white** (Food grade), max. 100 °C, suitable for liquids containing oils and fats, alcohol and food.

*Not resistant to acids, caustic solutions and solvents.*

**CSM** (Hypalon), max. 110 °C, suitable for liquids containing acid- and caustic solutions.

*Not resistant to oils, fats and solvents.*

**Viton** (FKM), max. 150 °C, high chemical resistance.

**PTFE** (Teflon), max. 150 °C, high chemical resistance, for food, pharmaceutical and cosmetic products.

**EPDM** max. 110 °C, high resistance to caustic solutions (diluted or undiluted), acids (diluted), ketones, alcohols. Food grade conform (according to BGV recommendations and in its composition to positiv list of FDA).

Not resistant to oils and fats, at transport of milk (3,5% fat) a sufficient resistance is given.

### Information needed to select the right high viscosity pump

**Spezification of the liquid**

**Viscosity and operating temperature of the liquid**

**Density**

**Required delivery rate**

**Delivery head (incl. pipeline losses)**

**Content as well as type and size of solids**

**Operating hours per day**

**Will the pump be used mobile or stationary, vertical or horizontal?**

## Horizontal eccentric screw pumps

### JP-700 H (space saving design)

These lightly eccentric screw pumps enable a gentle, almost pulsation free transport of thin to high viscous, thixotropic, gaseous, solids and fibres containing, aggressive and neutral media.

#### Stainless steel execution SS 316 Ti

Pump and drive directly coupled

Pressure stages 6 and 12 bar

Flow rates up to 3.000 l/h

Connections male thread G 1½" on suction and female thread G 1¼" on discharge side

Totally enclosed pin joints, Rotor SS 316 Ti

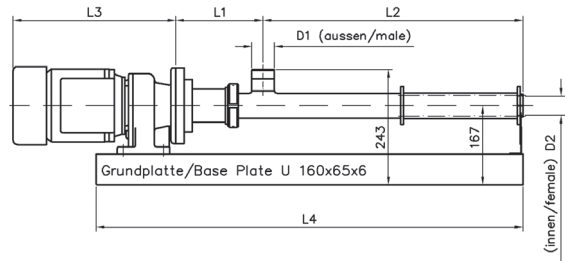
Stator material adapted to the pumped medium (NBR, NBR food grade, Viton, Hypalon, EPDM and PTFE are available)

Shaft seal by single-acting mechanical seal or stuffing box

Base plate as an option (in steel or stainless steel)

Driven by three-phase motor, gear motor or variable gear motor, IP 55

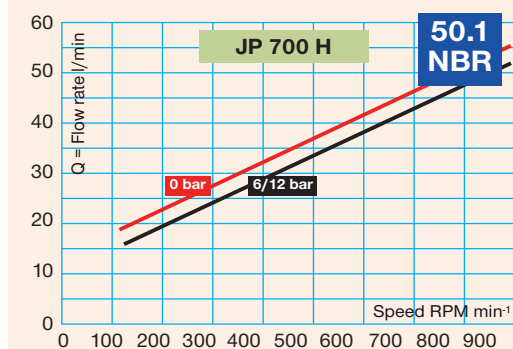
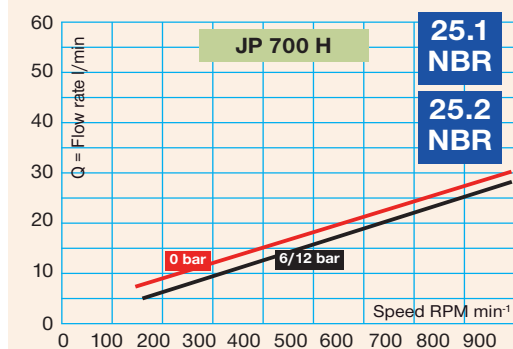
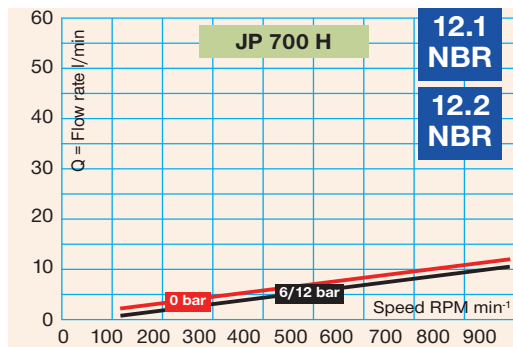
Also air motors can be supplied



Type	Delivery rate	Pressure	Dimensions in mm				D1	D2
			L1	L2	L3	L4		
JP-700 H 12.1	12 l/min	6 bar	184	448	343	800	G 1½"	G 1¼"
JP-700 H 12.2	12 l/min	12 bar						
JP-700 H 25.1	25 l/min	6 bar	184	548	343	900	G 1½"	G 1¼"
JP-700 H 25.2	25 l/min	12 bar						
JP-700 H 50.1	50 l/min	6 bar						



**WARNING:**  
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#### Food-grade execution:

For pulsation free and gentle transport of food, cosmetic and pharmaceutical products

For examples of media see at dosing pumps

Polished surfaces

Easy to dismantle

No dead spaces inside pump, therefore easy to clean

Milk thread connections DIN 11851

CIP-connections (as an option)

Alternatively totally enclosed or open pin joints

Stator and material of seals in food grade quality FDA, also PTFE stators are available



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## Dosing pumps for high viscous media

### Type JP-7032 up to JP-7115.2

Almost pulsation free transport and small quantity dosing of thin to high viscous, thixotropic, gaseous, solids and fibres containing, aggressive and neutral media in nearly all industries.

High dosing precision

Flow rate adjustable by the speed of the motor

Stainless steel execution SS 316 Ti

Pump and motor directly coupled

Space-saving design

Flow rates from 0,6 up to 600 l/h

Pressure stages 6 und 12 bar

Thread connections on suction side G 3/4" and G 1/2" on discharge side G 3/4"

Totally enclosed pin joints

Rotor SS 316 Ti

Stator material adapted to the pumped medium (NBR, NBR-light, Viton, Hypalon and EPDM; PTFE is only available at types JP-7115.1 and JP-7115.2)

Shaft seal by single-acting mechanical seal or stuffing box

#### Drives:

Type series JP-7032 to 7115.2 is supplied with two different drives:

#### Gear motor, suitable for use with frequency inverter

between 12 and 100 Hz, 230/400 V, 50 Hz, IP 55, B3/B5, flange 120 mm, Iso class F, thermo sensors 3 x 155 °C

Fix speed at 50 Hz optionally 107, 120, 134, 150, 165, 181, 197, 214, 233, 251, 392, 426, 462, 498, 538, 578 or 624 rpm, can be operated by frequency inverter.

Power 0,25 kW, 0,37 kW and 0,55 kW

Frequency inverter for installation in switchboard incl. line filter and operating terminal, single phase AC connection 1 x 230 V, 50/60 Hz

Frequency inverter on gear motor, speed control by potentiometer 3 x 400 V, 50/60 Hz

#### Gear motor, adjustable via hand

0,25 kW, 0,37 kW and 0,55 kW

Stepless variable from 0 to 1200 rpm

#### Chemical products:

Colours, synthetic resins, coatings, latex, polymers and silicones

#### Mineral oil products:

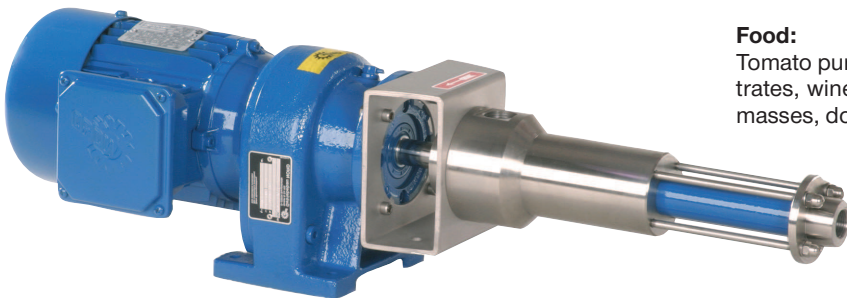
Oils, fats, cutting oils, coolants

#### Cosmetic and pharmaceutical products:

Cleaning agent, liquid soaps, glycerin

#### Food:

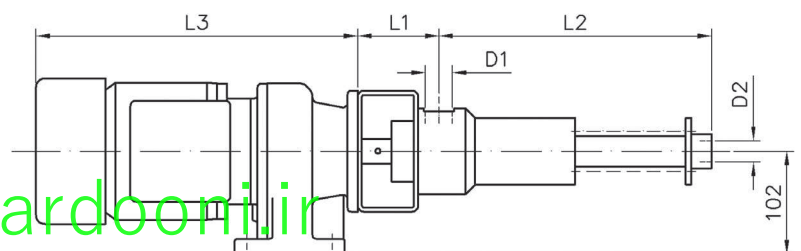
Tomato puree, ketchup, marmelade, honey, fruit juices and concentrates, wine grapes, mashes, fruit pulps, milk products, chocolate masses, dough, pectin



Type	Delivery rate l/h	Press. bar	Power kW	Speed min <sup>-1</sup>	Drive	Dimensions in mm				
						L1	L2	L3	D1	D2
JP-7032	0,6-3	12	0,25	150-1000	SK 01	81	272	322	G 3/4"	G 1/2"
JP-7052	1,2-12			100-950						
JP-7082	6-54			100-975						
JP-7112	15-150			100-925						
JP-7115.1	50-600	6	0,37	250-950			246	326	340	G 3/4"
JP-7115.2		12	0,55	150-900						



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## Further program of eccentric screw pumps

### Industrial pumps in horizontal mounting form

In addition to the shown standard pumps we can quote further sizes:

Flow rate: up to 200 m<sup>3</sup>/h  
Pressure stages: 6, 12, 18 and 24 bar



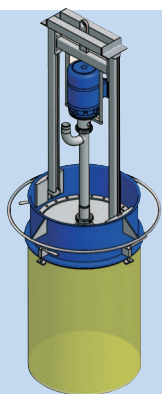
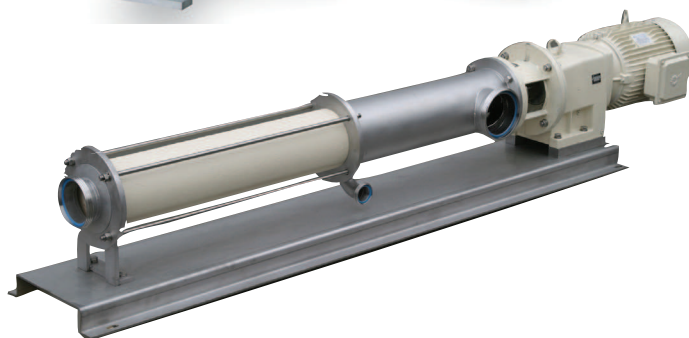
### Special pump executions

Based on the usual types we can quote many special pump versions. Especially for industry that converts fruits or the viniculture we can deliver pumps with hopper housing and feed screw.

### Block pump in horizontal mounting form

A low priced alternative are pumps in block construction. These pumps are directly flanged to the drive. Due to economisation of bearing pedestal, elastic coupling and if necessary also base plate briefer mounting forms and cheaper versions can be realised.

Flow rate: up to 200 m<sup>3</sup>/h  
Pressure stages: 6 and 12 bar



### Barrel discharge unit

For a clean and fast emptying of barrels with high viscous up to pasty liquids that can not flow by itself into the pump.

At this barrel discharge unit a vertical eccentric screw pump with flanged follower plate will be dropped down into the barrel. This procedure can be realized by two double acting pneumatic cylinders. During this pump process the pump will dive further on into the drum.

The elastic lip seal of the follower plate strips the inner wall of the drum and enables an optimal emptying. The residue of liquid inside the drum is less than 1% of barrel capacity.

### Spare parts

We are pleased to support you by your purchase of spare and wear parts for eccentric screw pumps. At this procurement transaction a short delivery time is important as well as quality and price. Due to our good contacts in pump business we can deliver original spare parts from a lot of reputable manufacturers. If you prefer we can deliver also alternatives that are nearly equivalent in quality – but they are explicitly no original parts.

Our product range of spare parts enfoldes:

#### Rotors

Stainless steel rotors, e.g. SS 316 Ti, SS 304, eventually with hard chrome plating or ductile coating if necessary. Also hardened tool steel or lower alloy steels.

#### Stators

in all popular elastomers, e.g. NBR (Nitrile), BR (Buna CB), NR (Natural Rubber), CSM (Hypalon), EPDM, FKM (Viton). Also solid stators are available, e.g. PTFE (Teflon) and grey cast iron.

#### Seals


like mechanical seals, glands or o-rings.

#### Pump parts


Drive shafts (with or without hard chrome plating) and coupling rods, as well as other turning work pieces for pumps in various materials.

## Our program:

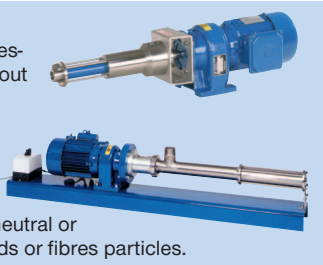
**Electric and pneumatic drum and container pumps**  
 JESSBERGER pump technology with internal and external cooled motors in different flow capacity ranges.  
 Seal-less pump tubes in Polypropylene, PVDF, ALU and stainless steel. Tube lengths 700, 1.000, 1.200, 1.500 and 1.800 mm.  
 Also in special lengths up to 3.000 mm. Please ask us.







**High viscosity pumps JP-700 for drums and containers**  
 are suitable for the use of a big number of liquids. Particularly suitable for highly viscous, neutral, aggressive liquids also with or without solids up to 100.000 mPas.  
 All pump parts are in stainless-steel, stators are available in NBR, NBR light, Viton, Hypalon, EPDM or PTFE.



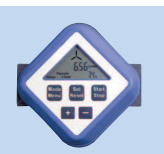
**Dosing pumps for viscous liquids** for fluid, viscose, aggressive, neutral media with or without solids or fibres particles.  
**Horizontal eccentric screw pumps**  
 are suitable for liquids with low or high viscosity, whether neutral or aggressive, with or without solids or fibres particles.




**Hand-barrel pumps**  
 are lightweight, powerful pumps for almost any fluid liquids.

			
<p><b>JP-02</b>                  Telescopic suction tube of PP, 340-900 mm  <b>JP-02 for acids, alkaline solutions and water based chemicals.</b>  <b>JP-03 for Oil, Diesel, Alcohol (max. 50%), Anti freeze liquid, Soap solutions, Shampoo, Water, etc.</b></p>	<p><b>JP-03</b>                  Telescopic suction tube of PP, 480-950 mm, for fluid liquids.                  Suitable particularly for acids and lyes.</p>	<p><b>JP-04</b>                  Pump tube INOX 700 or 1.000 mm, for fluid media.                  Suitable particularly for flammable liquids like solvents.</p>	<p><b>JP-05</b></p>


**Electronic flowmeter No. 9020**  
 Housing made of PP. Volume preset, signal-check for further data processing as an option. Other materials: PVDF and SS.




**Air-operated diaphragm pumps JP-800**  
 JESSBERGER diaphragm pumps are suitable for nearly all areas of use. They are capable of pumping aggressive and flammable substances, high viscous liquids also with solids or fibre particles and media containing gas.




**Seal-less magnetic driven pumps**  
 Available in various sizes, state-of-the-art construction, seal-less and environmentally friendly, suitable for a variety of uses, low noise level, long life, easy to maintain.




**Vertical centrifugal pumps SERIE JP-820**  
 executed in Polypropylene and PVDF





**Horizontal centrifugal pumps SERIE JP-840**  
 executed in Polypropylene and PVDF



**Mixers for drums and containers**  
 JESSBERGER offers solutions for almost every mixing application for drums and containers.



**Electric diesel- and fuel oil pumps**  
 are intended mainly for the refueling of agricultural machines, tractors, machines for construction work, trucks, motorboats and all vehicles with diesel or light fuel (hazard class A III) engines.

	
<b>protank 25</b> mobile	<b>protank 50</b> stationary

**The following hoses can be supplied:**  
 Universal- and special hoses for chemical substances, PVC-hoses, PTFE-hoses, hoses for mineral oil and solvents, tissue-reinforced or conductive.  
**Please ask for details.**

**Please ask for detailed information**  
 about the individual product groups of the JESSBERGER delivery program. Please make a cross next to the requested product and e-mail or fax this page to us with your address.

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