

**JP 700**

**JESSBERGER**  
**High viscosity pumps**  
**for drums and**  
**containers**  
**for viscous liquids**  
**up to 100.000 mPs**



## JESSBERGER High viscosity pumps for drums and containers Series JP 700 SR, particularly suitable for intermittent operation.

are suitable for the use of a big number of liquids. Particularly suitable for highly viscous, neutral, aggressive or lightly flammable liquids also with or without solids.

**All pump parts are in stainless-steel (316 L)**, stators are available in NBR (Buna), NBR<sub>light</sub> (Food grade), VITON (FKM), HYPALON (CSM) or PTFE.

**The delivery rate** is 12, 25 or 50 ltr/min.

**The delivery head** is 6 bar (60 meters) using the single-stage pump or 12 bar (120 meters) using the twin-stage pump.

**The temperature of the liquid** is up to max. 140°C.

**The max. viscosity** for the SR-version is up to 30.000 mPas.

**The SR-version are driven** by JESSBERGER electric Universalmotors or pneumatic motors. The motors can be connected with the pump tube fast and easy without tools by means of a hand-wheel.

**The standard tube length's** are 700 mm, 1000 mm resp. 1200 mm. Special length's from 500 mm to 1600 mm are possible. Please ask us.

Driven by  
Universal motor  
and planetary  
gear, directly  
coupled with the  
gear shaft.

### High viscosity pump end

Type	Sizes	Flow rate	Disch. pressure
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	1.000 mm	50 l / min	6 bar

**SR - Version** (with planetary gear) approx. 700 rpm. Available air motors: JP AIR 2, JP AIR 3, and electric motors: JP 280, JP 300, JP 320.

### Motors



The pumps have no approval for the use with flammable liquids. They may only be used in Zone 0, if the operator obtains a corresponding permission from the relevant supervisory authority.



**JP AIR 2**

**300 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 liquids 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 280 / JP 300**

**825 W Universal Motor**  
**230/115 V 50-60Hz**  
Double isolated, category II, Splash-proofing according to IP 44 (JP280) according to IP 54 (JP300) On/off switch, Overload protection switch



**JP 320**

**800 W Universal Motor**  
**230/115 V 50-60Hz**  
Double isolated, category II, Splash-proofing according to IP 54. On/off switch, Overload protection switch



## JESSBERGER High viscosity pumps for drums and containers JP 700 DR A

are versatile, robust and extremely powerful pumps. They are suitable for the use of fluid to highly viscous liquids such as mud, paste, soap, shampoo, honey, sirup, marmelade, ketchup etc. up to 100.000 mPas. Particularly suitable for continuous operation.

**Pump tubes** are made of stainless steel SS316L

**The pump tubes** are available with mechanical seals or with glands.

**Stators** are available in NBR (Buna), NBR light (Food grade), VITON (FKM) Hypalon (CSM) or PTFE.

**The weight** of the pumps is depending on the tube length and drive 15-25 kg.

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

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

### Pump-tubes, Ø 54 mm, hose connection G 1 1/2"

Type	Sizes	Flow rate l/min	Delivery head
JP 700 DR	700 mm	12/25/50	60 - 120 m
JP 700 DR	1.000 mm	12/25/50	60 - 120 m
JP 700 DR	1.200 mm	12/25/50	60 - 120 m

**DR - Version** (speeds will be adjusted individually according to application).

Motors: Pneumatic motors JP AIR4 (0,5 kW), JP AIR 6 (1,0 kW) and JP AIR 8 (1,5 kW).

Three-phase motor, three-phase gear motor and three-phase variable gear motor.

Speeds will be adjusted individually according to application.

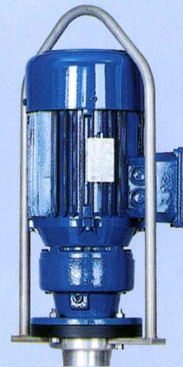


The pumps have no approval for the use with flammable liquids. They may only be used in Zone 0, if the operator obtains a corresponding permission from the relevant supervisory authority.

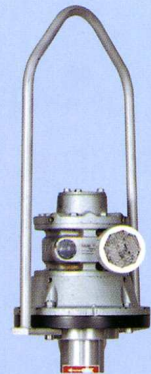
### Motors



Three-phase motor  
0,37-2,2 kW



Three-phase gear  
motor

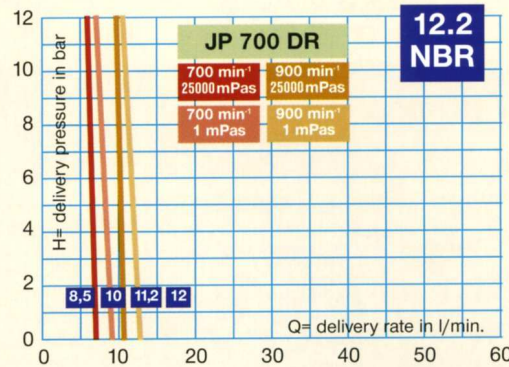
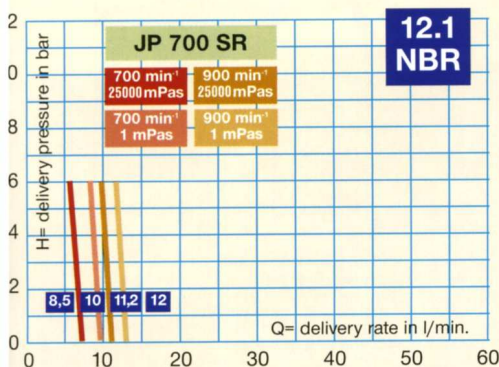


Pneumatic motor



## Performance chart JP700 SR / JP 700 DR

The flow charts below show in various examples the flow rates for a Elastomer stator (NBR) as well as for a PTFE stator (solid matters) at different speeds (rpm) and viscosities



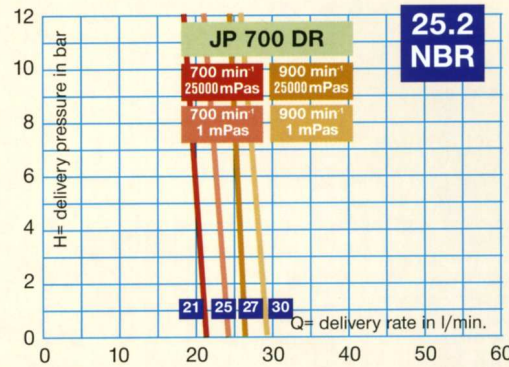
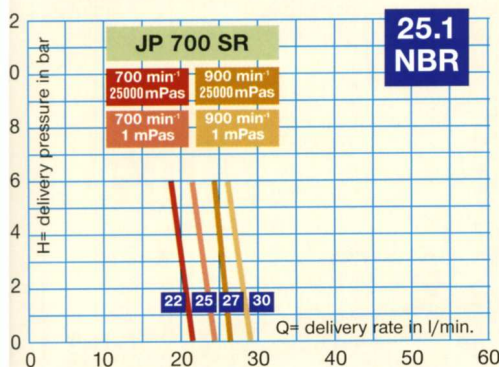
### Delivery rate in l/min. at different delivery pressures

**JP 700.12.1-12.2**  $n = 700 \text{ min}^{-1}$   $n = 900 \text{ min}^{-1}$   
max. 6 bar max. 12 bar

0 mPas	10	12
25.000 mPas	8,5	11

**JP 700.25.1-25.2**  $n = 700 \text{ min}^{-1}$   $n = 900 \text{ min}^{-1}$   
max. 6 bar max. 12 bar

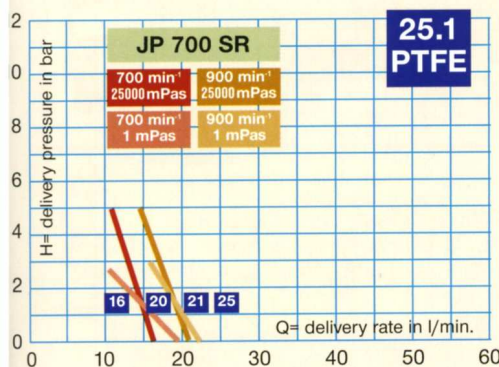
0 mPas	23	30
25.000 mPas	22	27



**JP 700.50.1**  $n = 700 \text{ min}^{-1}$   $n = 900 \text{ min}^{-1}$

0 mPas	47	57
20.000 mPas	43	52

PTFE stators are not suitable for fluid liquids. Depending on the viscosity and delivery height there will be a reduction of delivery rate of up to 60% compared to NBR stators.



### Power requirement in kW at different viscosities

**JP 700.12.1**  $n = 700 \text{ min}^{-1}$   $n = 900 \text{ min}^{-1}$

up 7.000 mPas	0,55	0,55
to 20.000 mPas	0,75	0,75
over 20.000 mPas	1,10	1,10

**JP 700.12.2**  $n = 700 \text{ min}^{-1}$   $n = 900 \text{ min}^{-1}$

up 7.000 mPas	0,55	0,55
to 20.000 mPas	0,75	0,75
over 20.000 mPas	1,10	1,10

**JP 700.25.1**  $n = 700 \text{ min}^{-1}$   $n = 900 \text{ min}^{-1}$

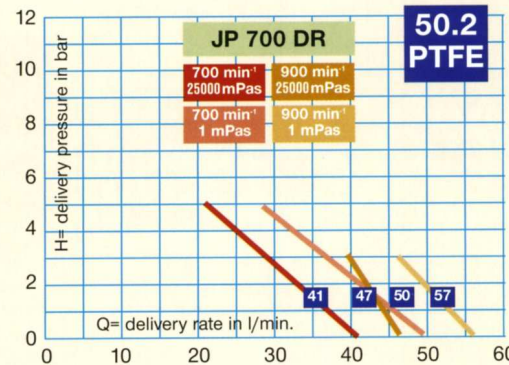
up 7.000 mPas	0,75	0,75
to 20.000 mPas	1,10	1,10
over 20.000 mPas	1,10	1,10

**JP 700.25.2**  $n = 700 \text{ min}^{-1}$   $n = 900 \text{ min}^{-1}$

up 7.000 mPas	0,75	0,75
to 20.000 mPas	1,10	1,10
over 20.000 mPas	1,10	1,10

**JP 700.50.1**  $n = 700 \text{ min}^{-1}$   $n = 900 \text{ min}^{-1}$

up 7.000 mPas	1,10	1,10
to 20.000 mPas	1,10	1,10
over 20.000 mPas	1,50	1,50





## Selection of stators (valid for all pumps)

**NBR black** (Perbunan), max. 90 °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. 90 °C, suitable for liquids containing oils and fats, alcohol and food.

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

**CSM** (Hypalon), max. 90 °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, food, pharmaceutical and cosmetic products.

## Information needed to chose the right high viscosity pump

Spezifikation of the liquid

Viscosity and operating temperature of the liquid

Density

Required delivery rate

Delivery head  
(incl. pipeline losses)

Content as well as typ and size of solid matters

Operating hours sper day

Will the pump be used mobil or stationary, vertical or horizontal?



## JESSBERGER drum- and container pumps JP 700.80.1 / 80.2 / 150.1 / 150.2

Are suitable for the use of liquids with low and high viscosity, neutral or aggressiv, with or without solids.

**Pump tubes in stainless steel SS316L**, pearl-blasted surface, max. Ø 105 mm, max. tube length 1600 mm, hose connection male thread G2".

**Flexible shaft of Polypropylen with 30% GF**

**Rotor of stainless steel SS316L**

**Flexible shaft of stainless steel ss316L**

**Material of shaft seal:**

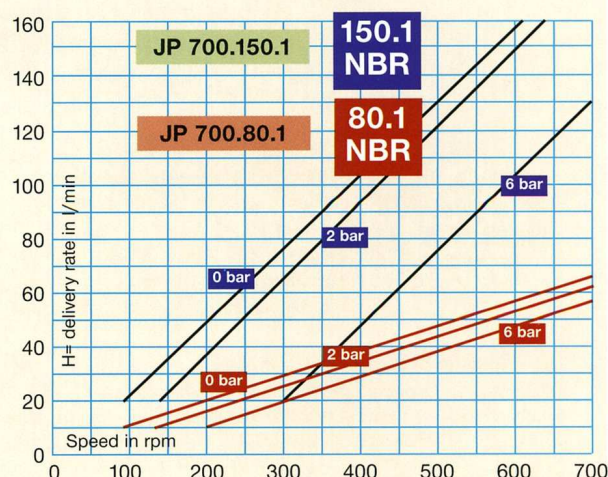
Mechanical seal of chrome/carbon or SiC/SiC, O-rings in Viton or FEP, alternativ: Gland of PTFE

**Stators NBR (Buna), NBR light (food grade), Hypalon (CSM), Viton (FKM), PTFE (Teflon)**

**Pump lantern of Polyamid or Aluminium.**

**Divergence in food grade execution:**

Outlet connection milk thread, coupling rod and rotor in stainless steel ss316L polished, pin joints open, lantern Aluminium.



The pumps have no approval for the use with flammable liquids. They may only be used in Zone 0, if the operator obtains a corresponding permission from the relevant supervisory authority.



## JESSBERGER Horizontal high viscosity pump JP700 H

are suitable for the use of liquids with lower and higher viscosity, neutral or aggressive, with and without solids.

**The pump tube is of stainless steel ss316L**, with polished surface, the max. diameter is 105 mm, the max. length 1600 mm.

**The flexible shaft** is made of Polypropylen 30% GF or of stainless steel ss316L, also **the rotor is of stainless steel ss316L**.

**Material of shaft seal:** Mechanical seal of Chrome/carbon or SiC/SiC. O-rings in Viton or FEP. Alternative: Gland of PTEE.

**Stator sleeve in stainless steel ss316L, Pump lantern in Aluminium.**

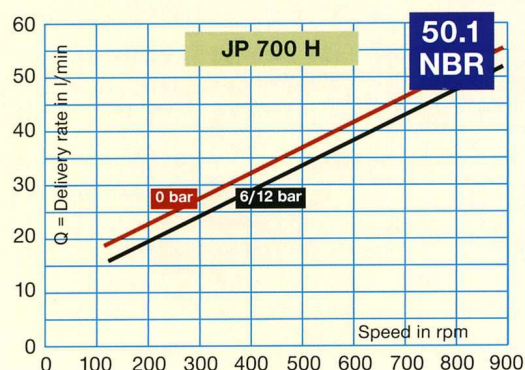
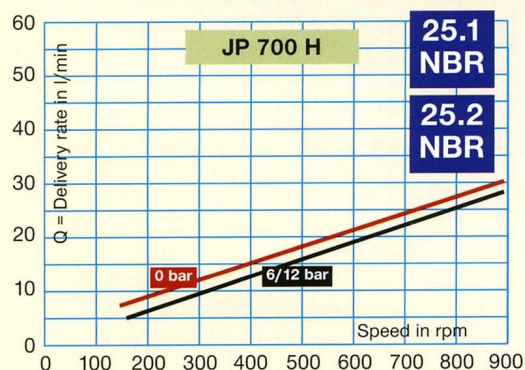
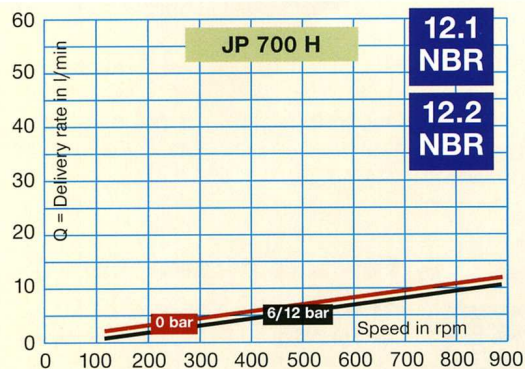
### Horizontal High viscosity pumps

Driven by three-phase motor, three-phase gear motor, three-phase variable gear motor, protection class IP 55

Outlet connection: male thread G 1 1/2"

Inlet connection: female thread G 1 1/4"

Type	Tube length	Delivery rate	Pressure
JP 700 H.12.1	1.000 mm	12 l / min	6 bar
JP 700H .12.2	1.100 mm	12 l / min	12 bar
JP 700 H.25.1	1.000 mm	25 l / min	6 bar
JP 700 H.25.2	1.100 mm	25 l / min	12 bar
JP 700 H.50.1	1.000 mm	50 l / min	6 bar



#### Food-grade execution:

Immersion tube in stainless steel ss316L polished, pin joints open.

Milk-thread connections DIN 11851 easy to dismantle, CIP-connection (optionally).

Stators: NBR light, EPDM light or PTFE. Base plate in mild steel, alternative in stainless steel.



The pumps have no approval for the use with flammable liquids. They may only be used in Zone 0, if the operator obtains a corresponding permission from the relevant supervisory authority.



## JESSBERGER High viscosity Dosing pump Typ V / Typ G

are suitable for the use of liquids with low and high viscosity, neutral or aggressive, with or without solids.

**All pump parts in stainless steel ss316L**, stators are available in NBR (Buna), NBR light (Food grade), Viton (FKM), Hypalon (CSM). Available with mechanical seal or gland.

**Delivery rate** depending on the type up to 750 l/min. **Delivery head** max. 12 bar. **Max. temperature of liquid** up to 140 °C.

**Viscosity** up to 100.000 mPas.

### High viscosity Dosing pump Typ V

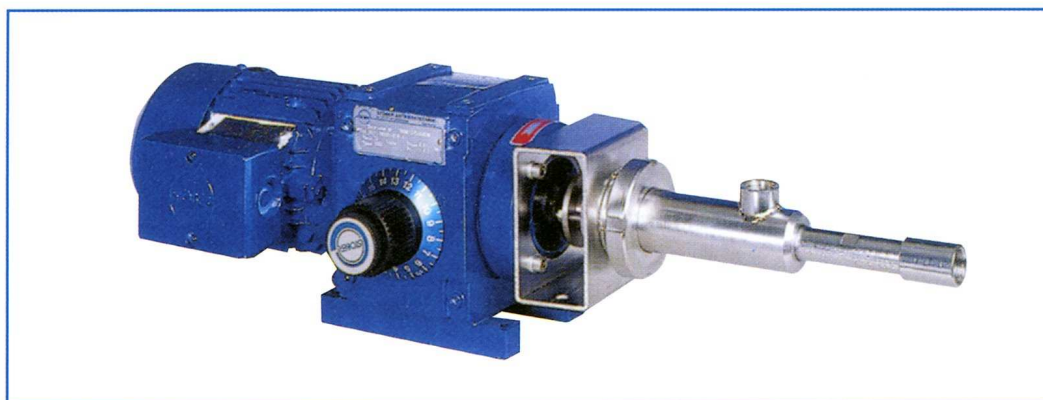
Drive:  
Variable gear motor  
230/400V, 50 HZ,  
protection IP 54

Type	ltr/h	rpm/min <sup>-1</sup>	kW	Pressure
JP 704 V	1,5 - 27	25 - 1.200	0,18	12 bar
JP 706 V	1,5 - 27	25 - 1.200	0,18	12 bar
JP 706 V	1,5 - 27	25 - 1.200	0,25	12 bar
JP 708 V	3 - 110	25 - 1.200	0,25	12 bar
JP 710 V	24 - 180	149 - 1.040	0,37	12 bar
JP 710 V	24 - 180	149 - 1.040	0,55	12 bar
JP 715 V	100 - 750	149 - 1.040	0,55	9 bar

### High viscosity Dosing pump Typ G

Drive:  
Gear motor  
frequency controlled  
230/400V, 50 Hz,  
protection IP 54

Type	ltr/h	rpm/min <sup>-1</sup>	kW	Pressure
JP 704 G	1,5 - 16	78 - 780	0,25	12 bar
JP 706 G	3 - 33	78 - 780	0,37	12 bar
JP 708 G	3 - 66	78 - 780	0,37	12 bar
JP 708 G	3 - 66	78 - 780	0,55	12 bar
JP 710 G	12 - 132	78 - 780	0,55	12 bar
JP 715 G	100 - 132	78 - 780	0,75	9 bar





## Further scope of supply

Please ask for detailed information about the individual product groups of the JESSBERGER delivery program.

### Hand-barrel pumps

are lightweight, powerful pumps for almost any fluid liquids.

The simple design guarantees a safe and easy filling of smaller quantities.

Accessories are available.



with telescopic suction tube for  
**Oil, Diesel, Alcohol, Kerosene, Anti freeze liquid, Soap solutions, Shampoo, Water etc.**

**JP 03**

**PP/steel**

**0,3-0,45 Ltr.**

**40 mm**

**340-900 mm**



Hand pump with telescopic suction made of PP for fluid liquids.  
**Suitable particularly for acids and lyes.**

**JP 04**

**PP**

**0,3 Ltr.**

**34 mm**

**480-950 mm**



Universal usable, robust hand pump for highly fluid to oily liquids.  
**Suitable particularly for flammable liquids and solvents.**

**JP 05**

**INOX**

**0,3-0,6 Ltr.**

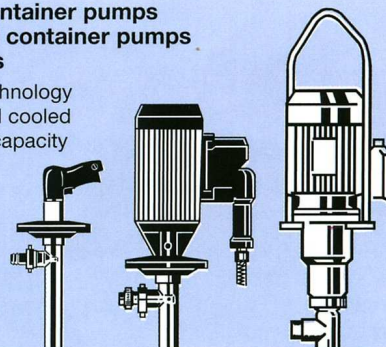
**32 mm**

**700/1.000 mm**

### Electric drum and container pumps Pneumatic drum and container pumps High viscosity pumps

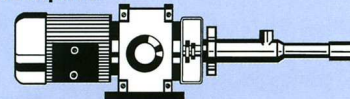
JESSBERGER Pump technology with internal and external cooled motors in different flow capacity ranges.

Seal-less pump tubes in stainless steel, Polypropylen and PVDF. Tube length from 700 to 1800 mm also in special length.



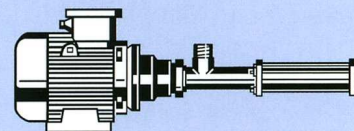
### Dosing pumps for viscous liquids

For fluid, viscous, aggressive, neutral media with or without solids or fibres particles.



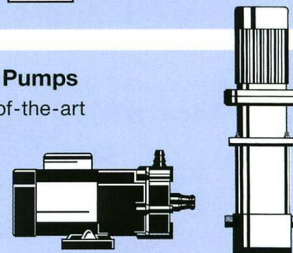
### Horizontal Eccentric Screw Pumps

Pumps suitable for liquids with low or high viscosity, whether neutral or aggressive, with or without solids or fibres particles.



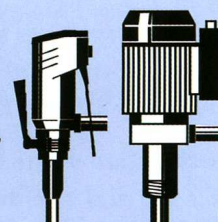
### Seal-Less Magnetic Driven Pumps

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.



### Electric Diesel- and fuel oil pumps: Protank 25 mobile and Protank 50 stationary

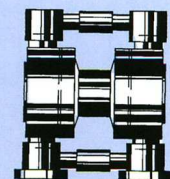
These pumps are intended mainly for the refueling of agricultural machines, tractors, machines for construction work, truck, motor boats and all vehicles with diesel or light fuel (hazard class A III) engines.



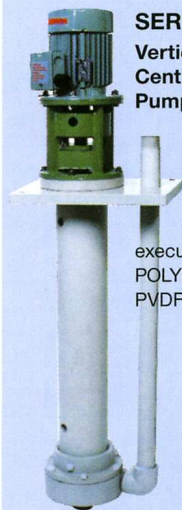
protank 25      protank 50

### Compressed Air-Operated Diaphragm Pumps.

JESSBERGER compressed air diaphragm pumps are suitable for nearly all areas of use. They are capable of pumping aggressive and flammable substances, highly viscous liquids also with solids or fibre particles and media containing gas.



### SERIE JP 820 Vertical Centrifugal Pumps



executed in  
POLYPROPYLENE  
PVDF and PVC

### SERIE JP 840 Horizontal Centrifugal Pumps

executed in  
POLYPROPYLENE  
and PVDF



### SERIE JP 860 Dosing Pumps Piston-dosing pumps Diaphragm-dosing pumps

executed in  
POLYPROPYLENE  
and  
STAINLESS STEEL  
up to 860 ltr/h



**Electronic Flowmeter.** Housing made of PP, PVDF, POM or stainless steel, volume pre-set, signal-check for further processing of dates.

**Order-No.:**

**PP: Nr. 9020, PVDF: Nr. 9021, POM: Nr. 9022, stainless steel: Nr. 9023**

**Please ask for our Flowmeter leaflet!**

### 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 electrically conductive. **Please ask for details.**

**Please contact:**

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