

Vane & Eccentric Disc Pumps

Jump Pump is a French Positive Displacement Pump, Vacuum Pump and Drum Pump manufacturer with a heavy emphasis on fully integrated and tailored solutions. The core offering consists of Vane Pumps, Mechanically Sealed Eccentric Disc Pumps, Sealless Eccentric Disc Pumps & Barrel Emptying Solutions based on a venturi principle.

Capable of flows up to 140 m³/hr and pressures up to 12 Bar and available in materials ranging from Ductile Cast Iron to Stainless Steel AISI 316L Jump's range of Rotary Positive Displacement Pumps are ideally suited to a wide range of applications for thin to semi-viscous fluids within a plethora of industries.

Thanks to their innovative and versatile designs, Jump Pumps are ideally suited to the following industries and markets:

Market	Applications & Benefits
	Transfer, Mixing & Dosing of Beverages, Dairy Products, Baked Goods (doughs, creams, chocolates etc...), Sauces, Pet Care Foods & Meat, Fish & Poultry Processing.
	Benefits:
Food	<ul style="list-style-type: none"> • Low shearing & pulsation of process fluids – preserves integrity & texture of ingredients • Sealless offerings for high hygienic compliance & CIP friendly • Ability to transfer & mix process fluids with high solids content • Simple & innovative design facilitates reduced maintenance times and increased reliability
	Blending, Filling, Fining, Transfer, Breeding & Bottling of Wines, Lees, Juices, Musts & Cleaning Agents.
	Benefits:
Winery	<ul style="list-style-type: none"> • Multi-functional Eccentric Disc Design which can be used for all transfer applications in the wine industry • Taste & Aroma remain unchanged • Constant Flow with Low Pulsation & Low Shear Rate • Easy control of Oxygen Dissolution • Strong Suction & Compression Capabilities facilitate Pipe Stripping • Mobile Unit with On-Board Controls with Remote Touch Interface

Transfer, Mixing & Dosing of Solvents, Polymers, Acids, Paints, Plastics, Resins & Dyes.

Chemical

Benefits:

- ATEX Rated
- Innovative Seal Front Pull Out Disassembly System facilitates quick maintenance without the need for disassembling the Drive Assembly or Pipework
- Wide Material Options
- No Retention Zones in the Pump – Easy Cleaning
- Constant Flow, Low Pulsation, suitable for Shear Sensitive Fluids

Transfer, Mixing & Dosing of Creams, Lotions, Soaps, Shampoos, Gels, Mascaras, Perfumes, Syrups, Vitamins, Ointments, Glycerines & Pastes

Cosmetic & Pharmaceutical

Benefits:

- Sealless Design Free of Retention Zones – Leak Free & Hygienic
- CIP & SIP Suitable
- High Vacuum & Compression Capabilities enable complete stripping of pipework

Transfer of Waste Waters, Sludges, Foams & Scums as well as Metering or Dosing of Treatment Additives

Water & Waste Water Treatment & Mining

Benefits for safe, reliable as well as more efficient & effective treatment:

- ATEX Rated
- High Volumetric Efficiency
- Very Low Shear Rates
- Constant Flow & Low Pulsation
- High Vacuum & Compression Capabilities
- Solids Handling

Loading, Unloading, Transfer & Metering of Hydrocarbons & constituent components such as Oils & Lubricants, Light & Heavy Oils, Diesel, Ethanol, Methanol & Kerosene

Oil & Gas

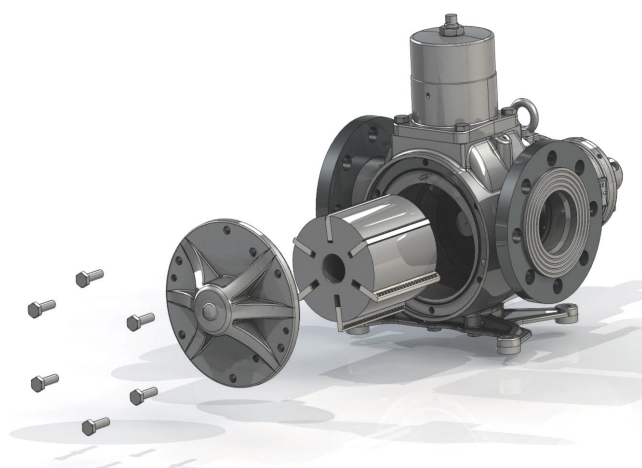
Benefits:

- ATEX Rated
 - High Volumetric Efficiency
 - Very Low Shear Rates
 - Constant Flow & Low Pulsation
 - High Vacuum & Compression Capabilities – Stripping of lines to reduce loss of product & increase profitability
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Product Group

Specifications & Material Options

JV Series Sliding Vane Pumps



Capacity Range	Up to 140 m ³ /hr
Pressure Range	Up to 12 Bar
Temperature Range	-10°C to +250°C
Speed Range	Up to 1000 rpm
Connections	Flanged, Clamp, SMS, Macon, RJT, CAM Lock, DIN, Threaded
By-Pass	Integrated Double By-Pass Optional
Heating Jacket	Optional
Pump Body, Cover, Foot, By-Pass & Shaft	Ductile Iron Steel Stainless Steel AISI 316L
Rotor	Ductile Iron Stainless Steel AISI 316L
Vanes	Ductile Iron PEEK Bronze Steel
Bearings	Carbon Bronze Ductile Iron PEEK
Seals (DIN 24 960 / EN 12 756)	FKM FEP/FKM EPDM NBR

Available in 6 different sizes, the number in the size denotes the Max Flow Rate:

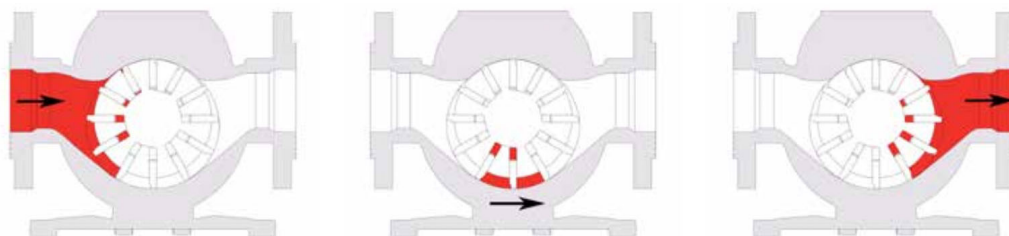
Size	JV15	JV25	JV40	JV60	JV100	JV140
Cylinder Capacity, Litres	0.25	0.42	0.67	1.00	1.67	2.34
Max Speed, rpm				1000		
Max Flow Rate, m ³ /hr	15	25	40	60	100	140

Features & Benefits of JV Sliding Vane Pumps:

- Excel at handling low viscosity liquids such as LP gas (propane), ammonia, solvents, alcohol, fuel oils, gasoline, and refrigerants.
- No internal metal-to-metal contact and self-compensate for wear, enabling them to maintain peak performance.
- Though efficiency drops quickly, they can be used up to 500 cPs
- Front Pull Out Seal Replacement
- Dry priming & Reversible
- Optional Integrated Double By-Pass & Heating Jacket
- Temperatures up to 250°C
- Differential pressures up to 12 Bar
- FDA Approved & ATEX Rated

Key Fluids:

Excel at handling low viscosity liquids such as LP gas (propane), ammonia, solvents, alcohol, fuel oils, gasoline, and refrigerants & low viscosity aqueous solutions.

Operating Principle:


The Sliding Vane Pump Operation is characterised by an eccentrically mounted, slotted rotor rotating within a stator (pump body). Thanks to the mounting of the rotor within the stator a crescent shaped cavity forms at the base of the stator. As the rotor turns, the sprung loaded vanes, which are mounted into the slots of the rotor, slide in and out, trapping fluid between themselves and moving them through the crescent cavity towards the pump discharge under pressure. The tight seal and tolerances between the vanes, stator & side plates facilitate excellent suction capabilities.

Example of delivered product:
Application:

Used Cooking Oil Tanker Offloading

Model supplied:

JV60c

Specification:

Horizontal, Long Coupled, Vane Pump with Integrated Double By-Pass



Fluid: Used Cooking Oil

Temperature: 30-70°C

Density: 0.87

Viscosity: ~17 cPs

Rated Capacity: 20, 40 & 50 m³/hr

Rated Speeds: 356, 659 & 810 rpm

Rated Frequencies: 25, 50 & 63 Hz

Differential Pressure: 9 Bar

By-Pass Set Pressure: 10 Bar

Connections: DN100 (PN16) Flanged

Construction: Cast Iron

Vaness: 6 x PEEK w/ Push Rods, without holes

Ball Bearings: Standard

Bushings: Bronze

Friction Bushings: Cast Iron

Shaft Sealing: Single Mechanical Seal, TC/TC/FKM (DIN24960-EN12756)

Baseplate: Steel

Geared Motor: 22 kW / 4 Pole / 400-690V / 3 Ph / 50-60 Hz / IP55 / Cass

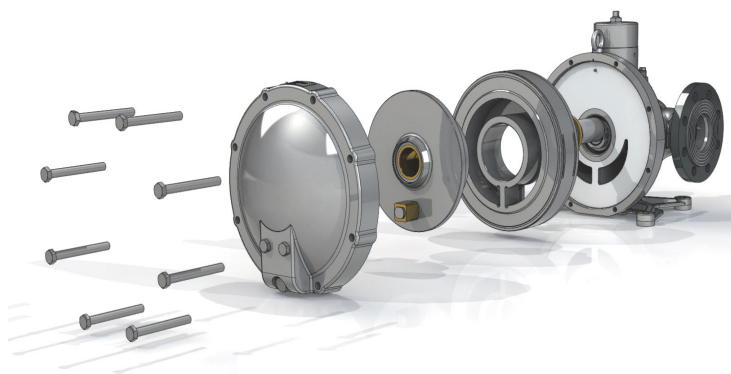
F / IE3 Premium Efficiency Class / 3 x PTC Thermistors & Anti-

Condensation Heater (Preheat resistance at shutdown)

Product Group

Specifications & Material Options

JE Series Eccentric Disc Pumps



Capacity Range	Up to 96 m ³ /hr
Pressure Range	Up to 10 Bar
Temperature Range	-10°C to +250°C
Max Viscosity	~15000 cPs
Speed Range	Up to 1000 rpm
Connections	Flanged, Clamp, SMS, Macon, RJT, CAM Lock, DIN, Threaded, Hose Tailed
By-Pass	Integrated Double By-Pass Optional
Heating Jacket	Optional
Pump Body, Cover, Foot, By-Pass & Shaft	Ductile Iron Steel Stainless Steel AISI 316L Stainless Cast Iron
Piston	Ductile Iron JumpInox Stainless Cast Iron
Cylinder	Ductile Iron Stainless Steel AISI 316L Steel
Bearings	Carbon Bronze Ductile Iron PEEK
Seals (DIN 24 960 / EN 12 756)	FKM PTFE FEP/FKM EPDM NBR

Available in 6 different sizes with 3 models per size, the number in the size denotes the Max Flow Rate:

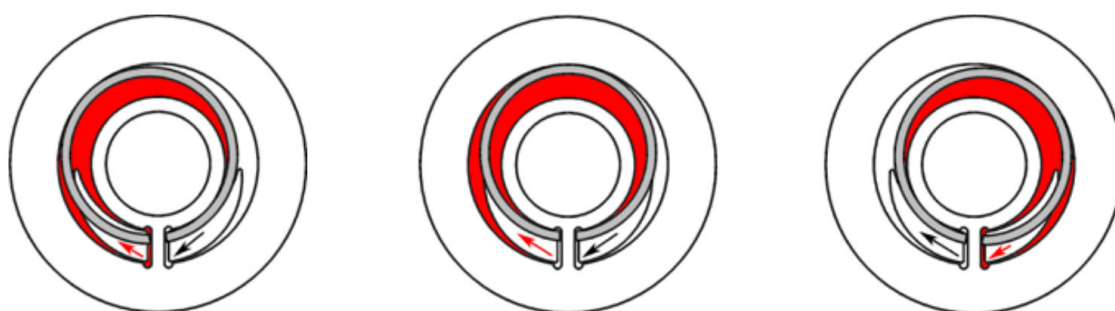
	Size 1		Size 2			Size 3			
Model	JE1	JE3	JE5	JE6	JE9	JE12	JE16	JE20	JE24
Cylinder Capacity, Litres	0.02	0.036	0.053	0.016	0.24	0.32	0.53	0.65	0.78
Max Speed, rpm	1000			650			550		
Max Flow, m³/hr	1	3	5	6	9	12	16	20	24
	Size 4			Size 5			Size 6		
Model	JE30	JE36	JE42	JE50	JE58	JE66	JE76	JE86	JE96
Cylinder Capacity, Litres	1.19	1.38	1.57	2.51	2.82	3.13	4.45	4.99	5.54
Max Speed, rpm	450			350			300		
Max Flow, m³/hr	30	36	42	50	58	66	76	86	96

Features & Benefits of JE Eccentric Disc Pumps:

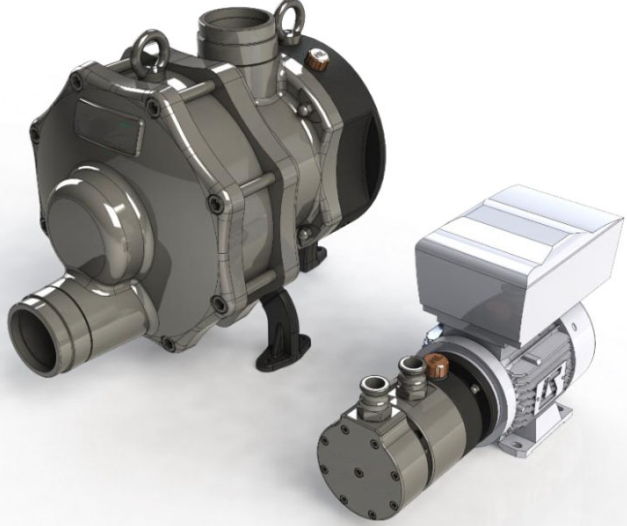
- Efficient alternative to Lobe Pumps – don't slip with low viscosity fluids
- Better for shear sensitive & low viscosity fluids
- Strong Compression & Vacuum Capabilities – Excellent for line stripping
- Capable of precise dosing & accurate volumetric metering
- Front Pull Out Seal Replacement
- Dry priming & Reversible
- Optional Integrated Double By-Pass & Heating Jacket
- Temperatures up to 250°C
- Differential pressures up to 10 Bar
- FDA Approved & ATEX Rated

Key Fluids: Yoghurts, Creams, Mousses, Doughs, Ointments & Lotions, Polymers, Paints & Oils.

Operating Principle:



The Eccentric Disc Pump Operation is characterised by a disc eccentrically rotating within a cylindrical pumping body. As the disc moves within the body, 2 distinct alternating chambers are created which form a vacuum at the inlet area and a compression effect at the discharge of the pump. This alternating action is repeated twice per rotation of the disc, once for the inner and once for the outer pumping chamber, as displayed in the above image. As the chambers are rotating in a pair, 180° apart, suction compression and discharge pressure are generated in unison. This enables a constant flow rate and discharge pressure during operation. This unique operating principle provides a reliable alternative to Gear & Lobe Pump technologies which suffer when pumping non lubricating fluids. Furthermore, as there is no internal wear interference over time, volumetric efficiency is retained over time. Constant wear within Gear & Lobe Pumps also mean that there is higher product shear as a result of internal slip, this is avoided in Eccentric Disc Pumps which makes them ideally suited for low viscosity products which are susceptible to shearing, such as yoghurts.

Product Group	Specifications & Material Options
JEB Series Sealless Eccentric Disc Pumps 	Capacity Range
	Up to 42 m ³ /hr
	Pressure Range
	Up to 10 Bar
	Temperature Range
	-5°C to +150°C
	Speed Range
	Up to 1000 rpm
	Connections
	Flanged, Clamp, SMS, Macon, RJT, CAM Lock, DIN, Threaded, Hose Tailed
	By-Pass
	Integrated Double By-Pass Optional
	Heating Jacket
	Optional
	Construction
	Stainless Steel AISI 316L


















Standard range is available in 3 different sizes with between 3 - 5 models per size, the number in the size denotes the Max Flow Rate, and larger units are available on request:

Model Cylinder Capacity, ml Max Speed, rpm Max Flow, m ³ /hr	Size 1						Size 2			Size 3	
	JEB01	JEB02	JEB05	JEB08	JEB1.1	JEB1	JEB3	JEB5	JEB6	JEB9	JEB12
	2.3	4.5	9.5	15	18.8	20	36	53	160	240	320
					1000					650	
	0.1	0.2	0.5	0.8	1.1	1	3	5	6	9	12

Features & Benefits of JEB Sealless Eccentric Disc Pumps:



- Efficient alternative to Lobe Pumps – don't slip with low viscosity fluids
- Better for shear sensitive & low viscosity fluids
- Strong Compression & Vacuum Capabilities – Excellent for line stripping
- Capable of precise dosing & accurate volumetric metering
- Sealless
- No Sealing Gasket & Free of Retention Zones
- CIP & SIP compatible
- Dry priming
- Optional Integrated Double By-Pass & Heating Jacket
- Various adjustable porting options
- Temperatures up to 150°C
- Differential pressures up to 10 Bar
- FDA Approved & ATEX Rated
- Ports can be rotated into different positions to facilitate easier customisation to applications & installations

Porting Options:

Position No.	1 Top Facing	2 Left Facing	3 Bottom Facing	4 Right Facing
Suction Port (Red)			N/A	
Discharge Port (Red)				
Position No.	1 Top Facing	2 Left Facing	3 Bottom Facing	4 Right Facing
Suction Port (Red)				
Discharge Port (Red)				

Product Group	Features & Benefits
JAF Series Barrel Filling & Emptying Pumps & Kit	Emptying or Filling or 200 Litre Barrel in <3 Minutes
	Compressed Air Driven & based on Venturi Principle
	Self-Priming
	Pump Element has no contact with Process Fluid = No Mechanical Wear. Parts in contact are in AISI 316L
	ATEX Rated
	Low Noise Level <78 dB(A)
	JAF1 Pump = Barrel Filling
	JAF2 Pump = Barrel Filling & Emptying
	Customisable Kit can comprises:
	JAF 1 or 2 Pump Integrated Pressure Regulator & Safety Valve (JAF 2 Pump) Jump Trolley with Integrated Drainer & High Level Valve Hose Reel & Hose Quick Release Couplings, Connectors & Lances
	Kit can easily be manoeuvred through doorways thanks to compact foot print of 85 x 70 cm



JAF1 – Barrel Filling Pump	JAF2 – Barrel Filling & Emptying Pump
	
Both Pumps are provided with Quick Release Couplings & Lances to facilitate product transfer	

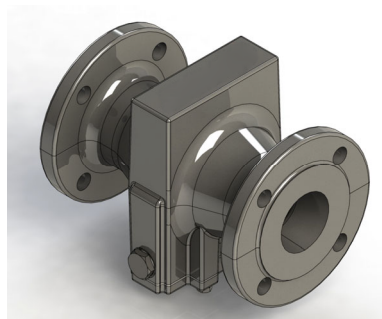
Area of Application:

Safe handling & transfer of volatile & aggressive fluids with limited to no maintenance requirements
Removal of waste fluids from sumps & trays

Product Group

Features & Benefits

JPF Series Double Grid Suction Filters



**JPF Basket
Strainer**

Protection of Pumps & Installations from damage caused by foreign bodies & suspended solids in process media

Minimal Pressure Drop

Facilitates reduced Pump Maintenance & Cleaning

Double Filtering Grids comprising a 4 mm \varnothing Fixed Lid Screen & 1 mm \varnothing Removable Screen

Grids in Steel or Stainless Steel AISI 316

Filter Bodies in Ductile Cast Iron or Stainless Steel AISI 316L

Adaptable Connections:

Flanged (DIN or ANSI)

Food Grade (SMS, Tri-Clamp etc...)

CAM Lock

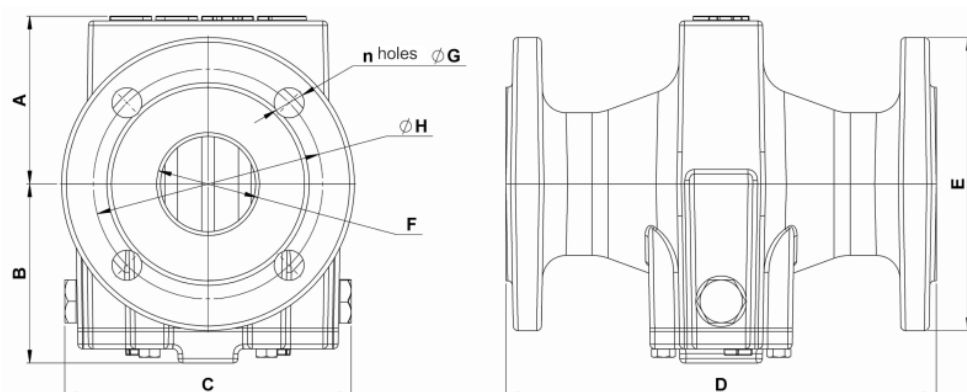
Threaded (BSP or NPT)

Counter Connections available on request

Can be purchased individually or pump mounted

Also available in **JPFB Basket Strainer** Form with 4 mm \varnothing Screens (Std.)

Available in 7 different sizes to fit any & all JE Eccentric Disc & JV Sliding Vane Pumps:



Size	JPF1.1	JPF5-10	JPF12-25	JPF24-40	JPF42-60	JPF66-100	JPF96-140
Max Flow Rate, m ³ /hr	1.1	10	25	40	60	100	140
Max Pressure, Bar				10			
Temperature Range, °C				-10 to +250°C			
Weight, Kg	N/A	13.5	18.5	23	27	35.7	N/A
Dimensions	A	86	106	116	126	138	
	B	93	113	125	135	145	
	C	151	181	212	227	252	
	D	220	272	319	319	329	
	E	N/A	165	185	200	220	N/A
Flanges (PN16)	F	50	65	80	100	125	
	n	4	4	8	8	8	
	G	19	19	19	19	19	
	H	125	145	160	180	210	