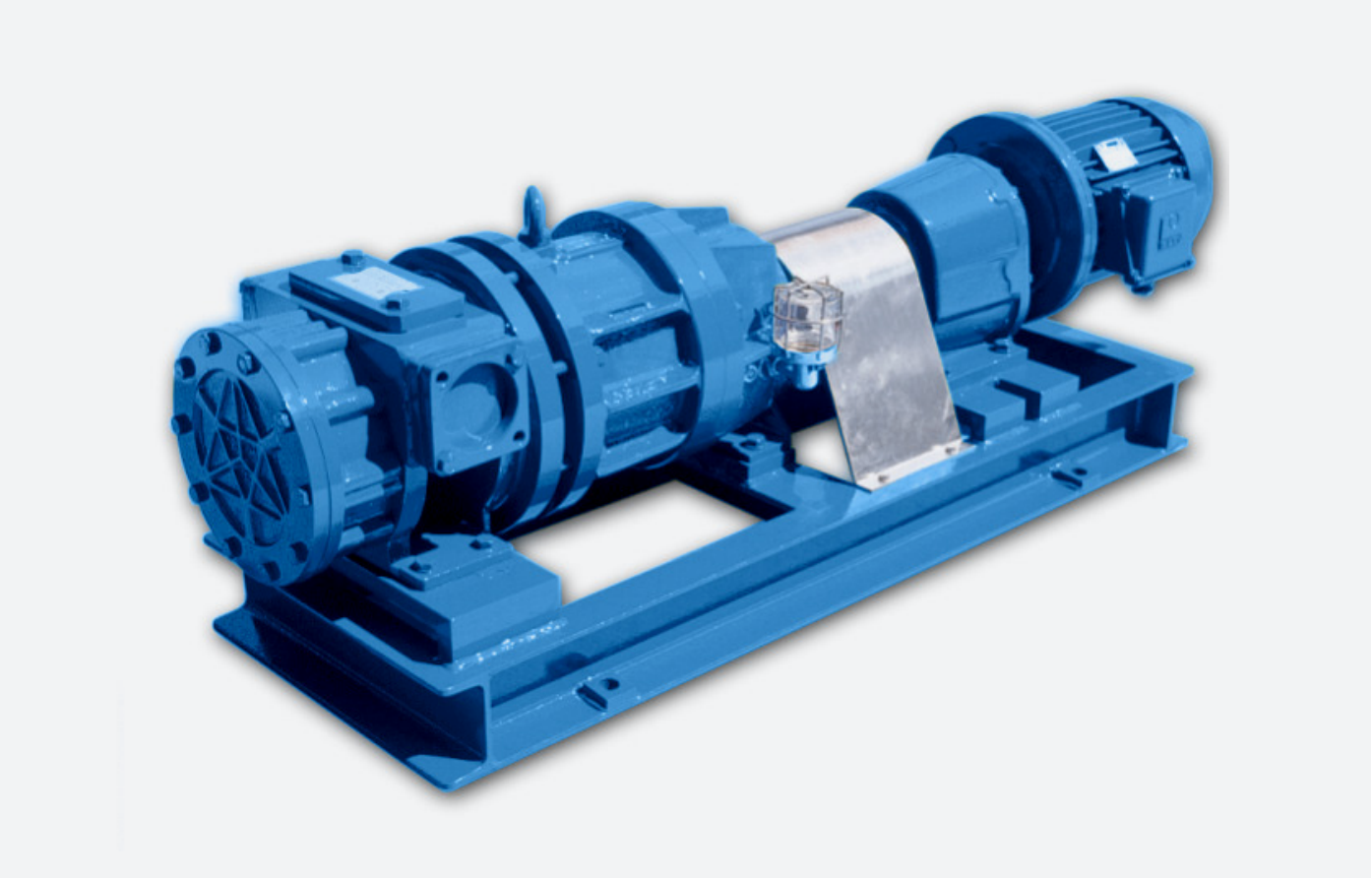
Oscillating Piston Pump



TECHNOLOGY INNOVATION & RELIABILITY

Tapflo Gulf specialises in providing process pump and system solutions for various industries including Water Treatment, Pharmaceutical, Chemical, Petrochemical, and Refinery.

APPLICATIONS

- Water Treatment
- Pharmaceutical
- Chemical
- Petrochemical
- Refinery

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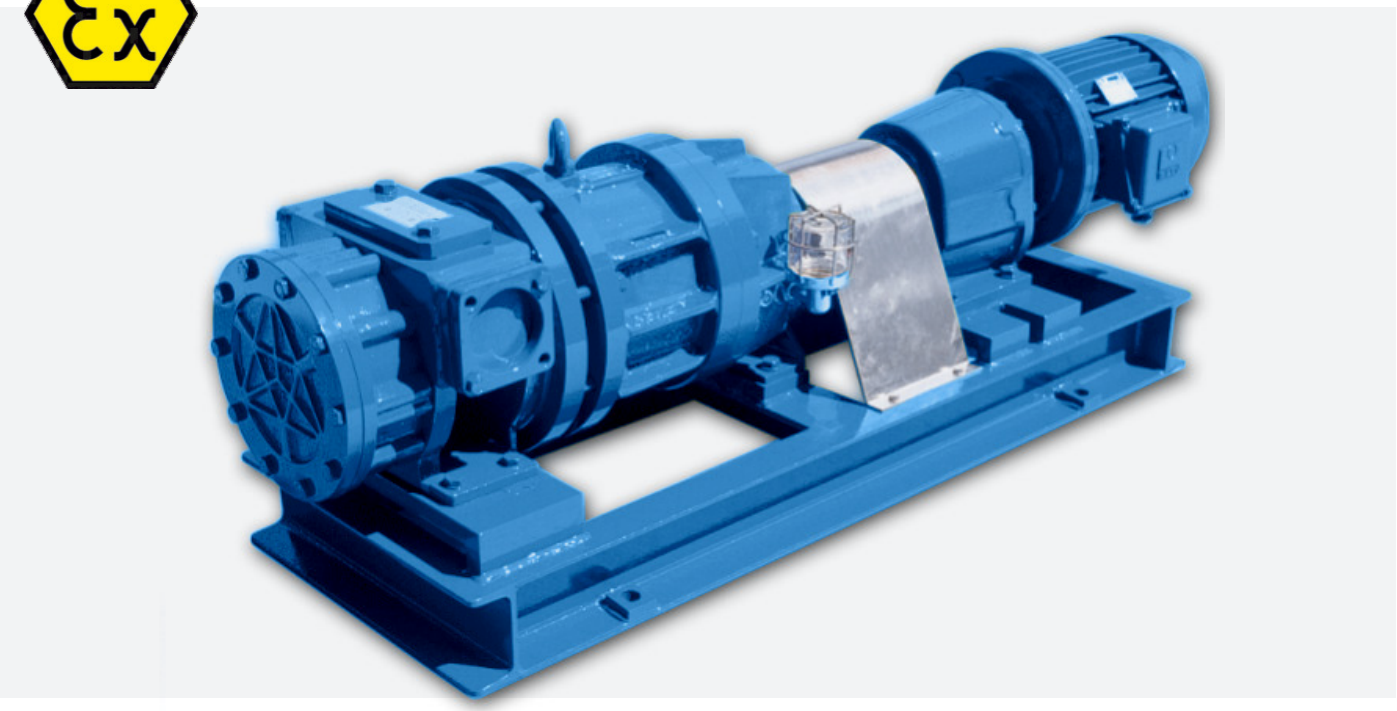

SPECIFICATIONS

- **Materials:** Stainless Steel AISI 316L, Bronze, Cast Iron
- **Max Capacity:** from 1 – 40m³/hr both at 50 & 60 Hz
- **Max Pressure:** 5 Bar
- **Dry Self-Priming** with a max vacuum of up to 500… 600 mmHg
- **Max Temperature:** -20°C up to +200°C
- **Specific Gravity:** up to 2kg/dm³
- **Viscosity:** up to 10,000 cSt
- **System Pressure Rating: up to 16 Bar**
- **Suction Pipe Vacuum:** 500 – 600 mmHg

FEATURES

- Our Oscillating Piston Pumps are designed for constant flow and high-head self-regulating applications
- The absence of mechanical seals or packing glands eliminates dangerous emissions, safeguarding both workers and the environment
- Fully encapsulated external magnet
- Bronze rub ring as standard on coupling housing
- Dry self-priming without causing damage
- Heavy-duty machined pressure parts
- Low maintenance costs
- High Mean Time Between Failure (MTBF)
- High torque magnets ensure reliability and longevity

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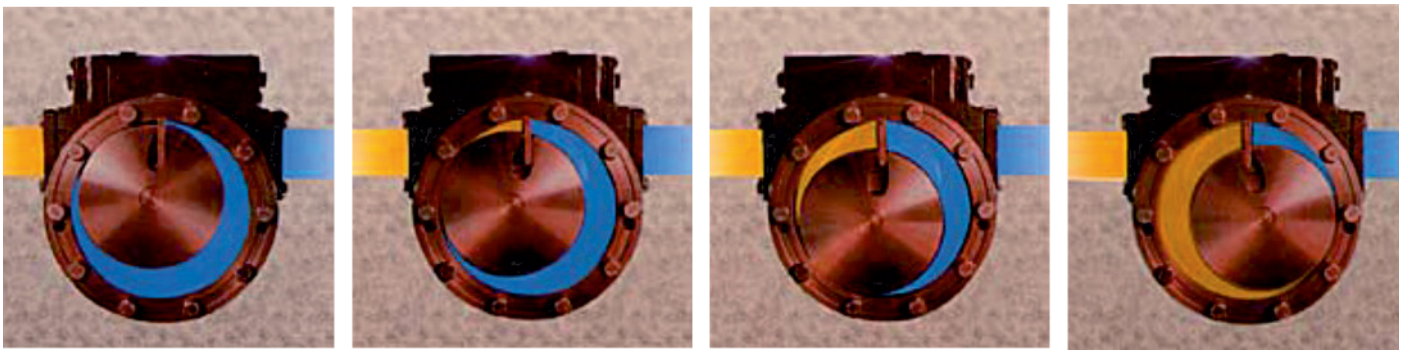
WORKING OF THE OSCILLATING PISTON

The eccentrically hinged piston, guided by the separator, ensures constant and tangential pressure. Radial and axial balancing, along with spring pressure, maintains contact with the pump casing throughout the rotation, eliminating component forces that may cause separation.

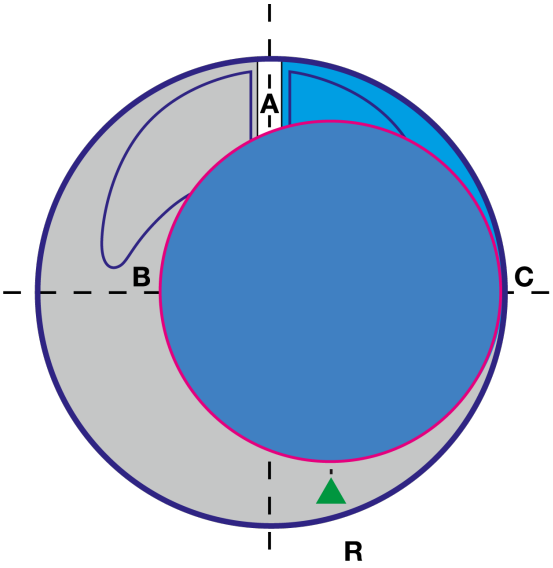


Suction **Discharge**

In every position the piston is radially and axially balanced; the segments *AB and AC have the same inside and outside pressure.

There are no component forces tending to separate the disc from the pump casing.

The resultant pressure is constant and tangential to the circle described by the movement of the piston with respect to its centre.



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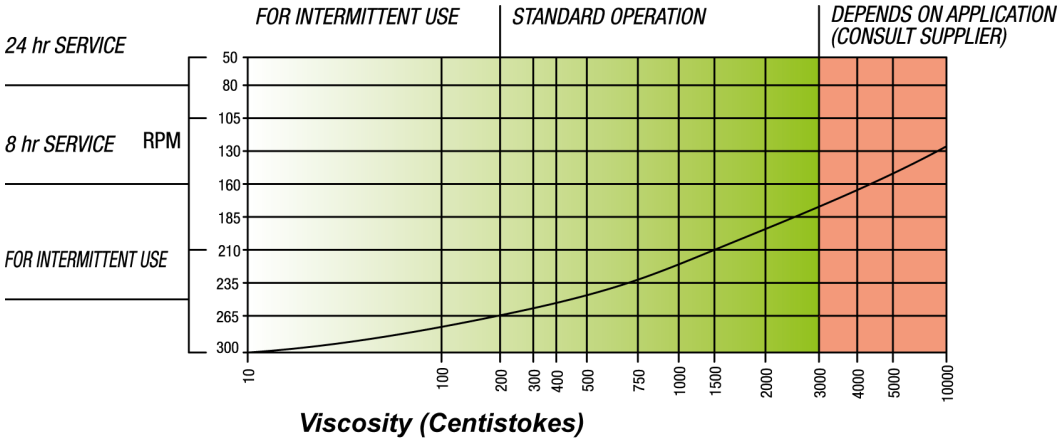
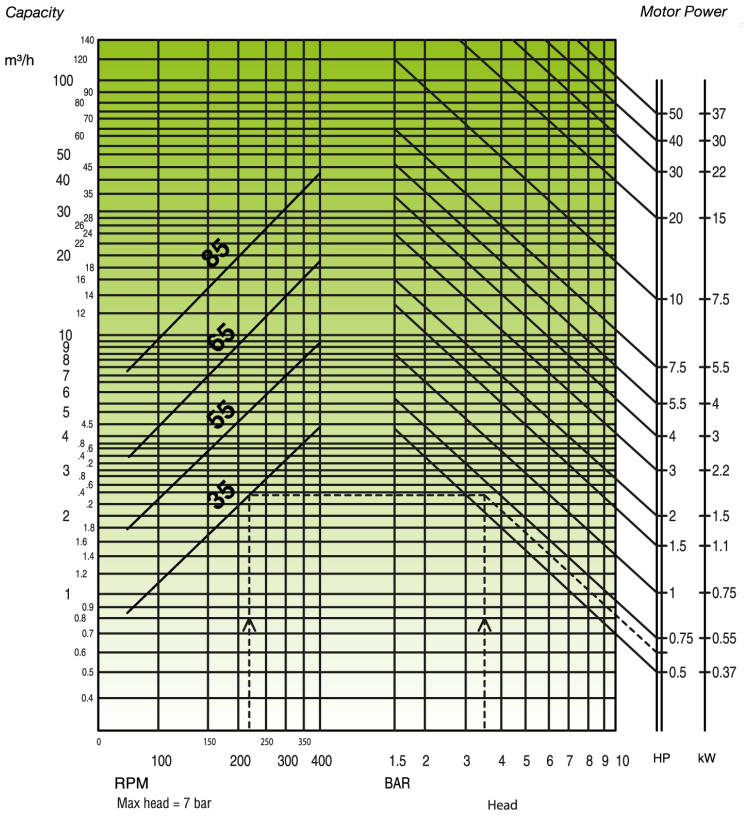
CHOICE OF PUMP SPEED

The pump speed is inversely proportional to the viscosity of the liquid, ensuring optimal performance. Refer to the provided table for determining the ideal speed based on your application.





PERFORMANCES

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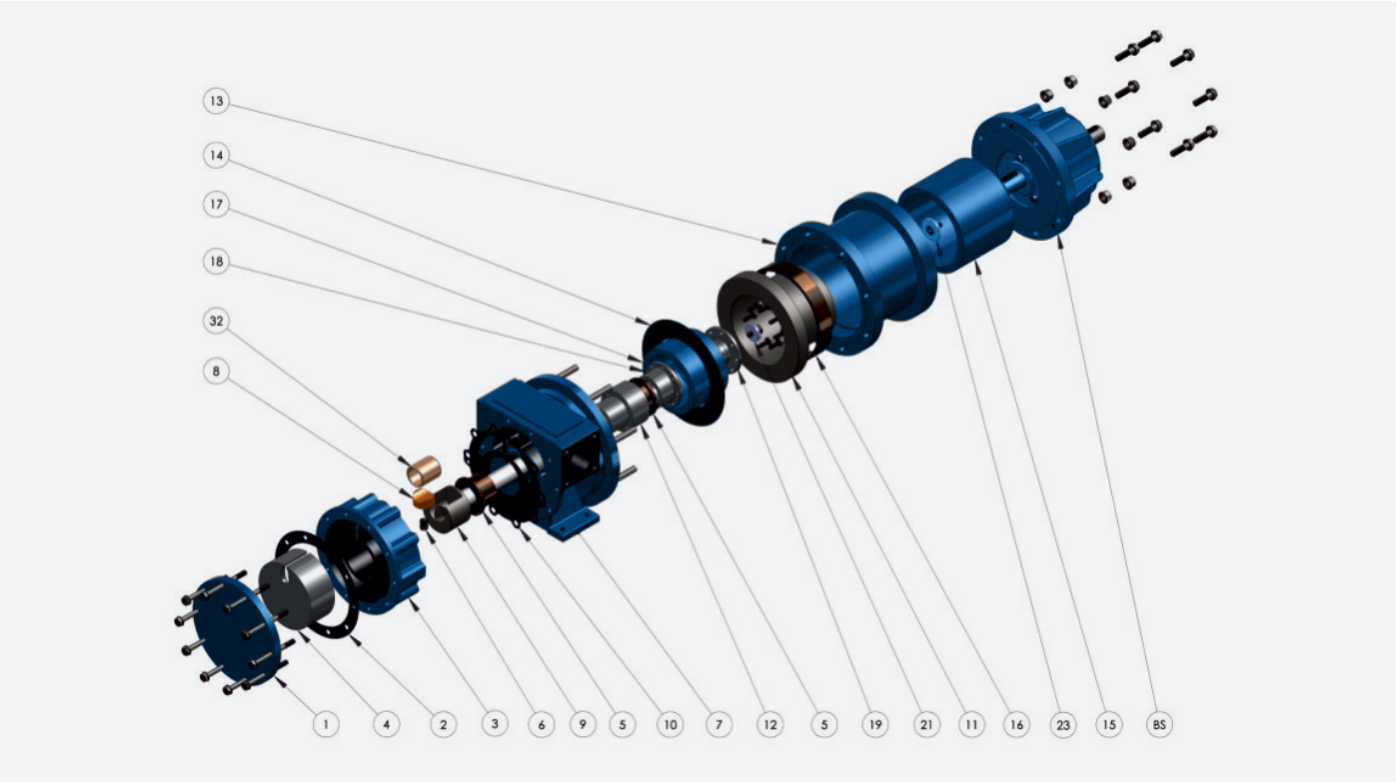

Ref.	Description	Ref.	Description
1	End cover	**13**	Coupling housiner
2	End cover gasket	**14**	Containment shell gasket
3	Piston casing	**15**	External magnet ring
4	Oscillating piston	**16**	Rub ring
5	Front bearing	**17**	Internal magnet ring
6	Spring	**18**	Thrust pad
7	Pump casing	**19**	Internal magnet locker
8	Spring support	**21**	Nut
9	Shaft	**23**	External magnet locker
10	Front gasket	**32**	Oscillating piston bearing
11	Containment shell	**BS**	Bearing Assembly
12	Rear bearing holder		

CHOICE OF PUMP SPEED

By pass valve - Thermoprobe - Heating Jackets - Gear box

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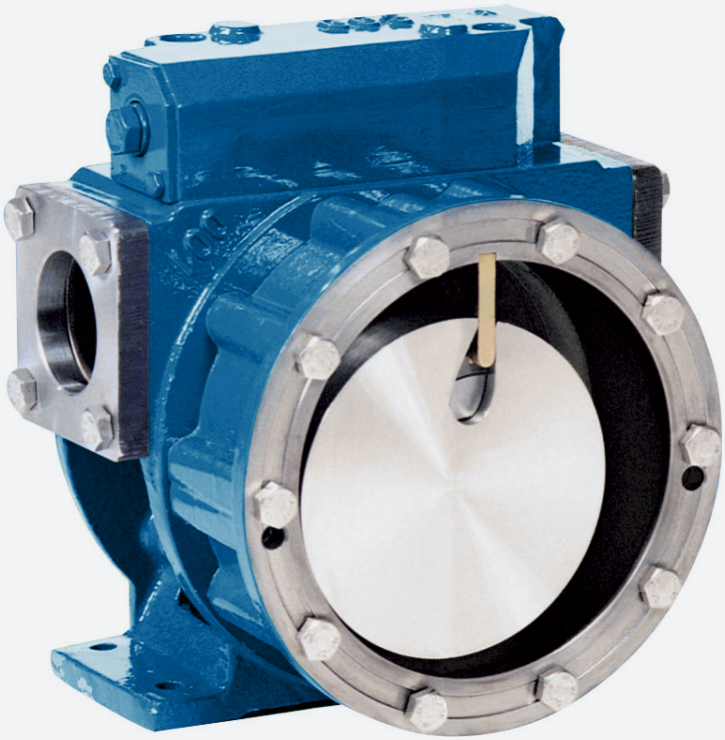
Piston Front View



Typical Services
• Pumping dangerous and radioactive liquids • Resins, Paints, Inks, Enamels, Glues, Adhesive • Solvents • Oil, Fuel Oil, Bitumen, Polyol, Isocynate • Fat, Fatty acids • Sugar Syrups, molasses • Soaps, Detergents, Shampoo, Creams • Acid and Alkali Fluids • Emulsions, Glycerine, Paraffin

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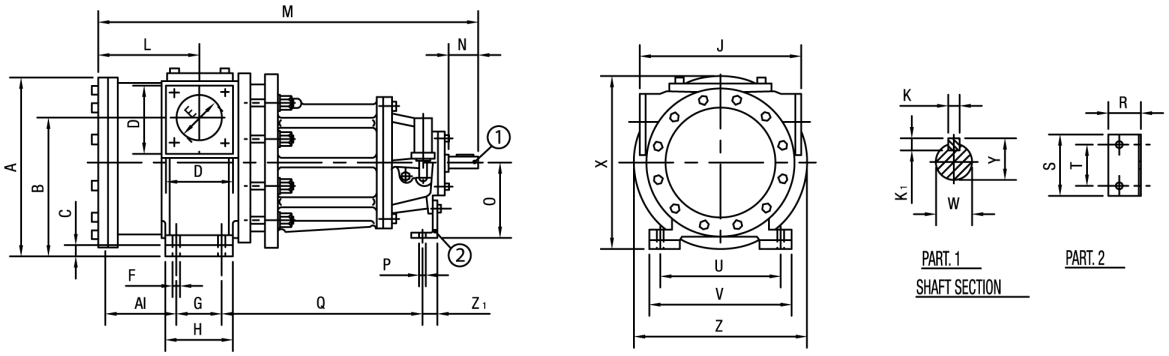
Overall Dimentions



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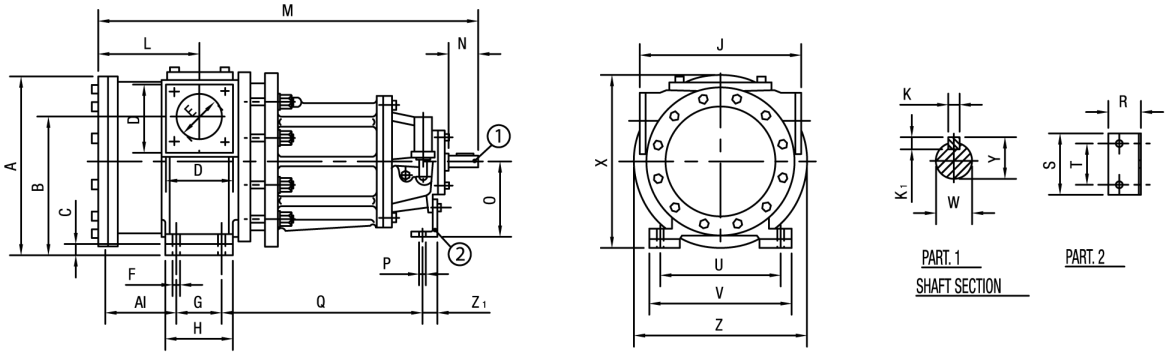
A	B	C	D	E	F	G	H	Al	L	M	N	O	P	Q	R	S	T	U	V	Z	Z1	X	J	K	Y	W	K1	
190	147	32	70	36	12	42	65	86	107	538	50	112	14	310	50	140	110	165	190	223	28.5	223.5	200	8	27	24	7	mm

55

A	B	C	D	E	F	G	H	Al	L	M	N	O	P	Q	R	S	T	U	V	Z	Z1	X	J	K	Y	W	K1	
206	150	12	90	52	12	62	90	93	124	545	50	112	14	290	50	140	110	180	210	223	28.5	223.5	240	8	27	24	7	mm



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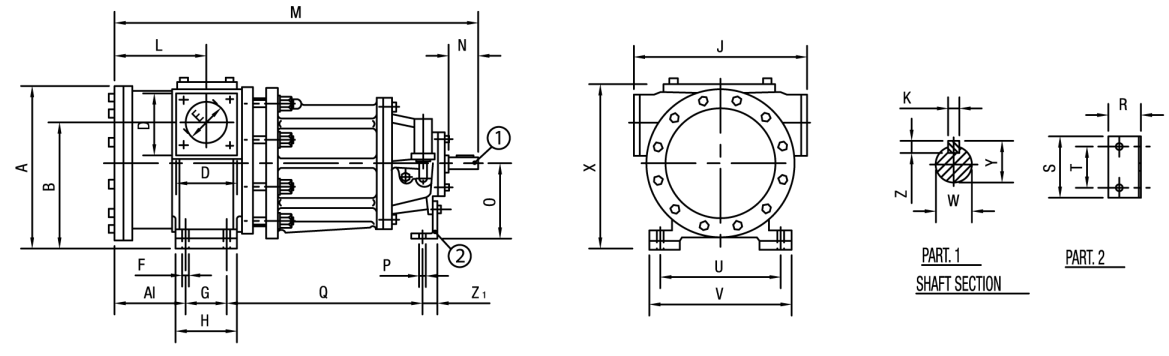
A	B	C	D	E	F	G	H	Al	L	M	N	O	P	Q	R	S	T	U	V	Z	Z1	X	J	K	Y	W	K1	
259	197	27	100	62	12	66	100	115	148	675.5	80	145	14	364.5	60	140	110	200	235	273	36	281.5	265	10	35	32	8	mm



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A	B	C	D	E	F	G	H	Al	L	M	N	O	P	Q	R	S	T	U	V	Z	Z1	X	J	K	Y	W	
286	212	◆	120	80	15	80	120	137	177	715.5	80	145	14	368.5	60	140	110	240	280	8	36	295	335	10	35	32	mm