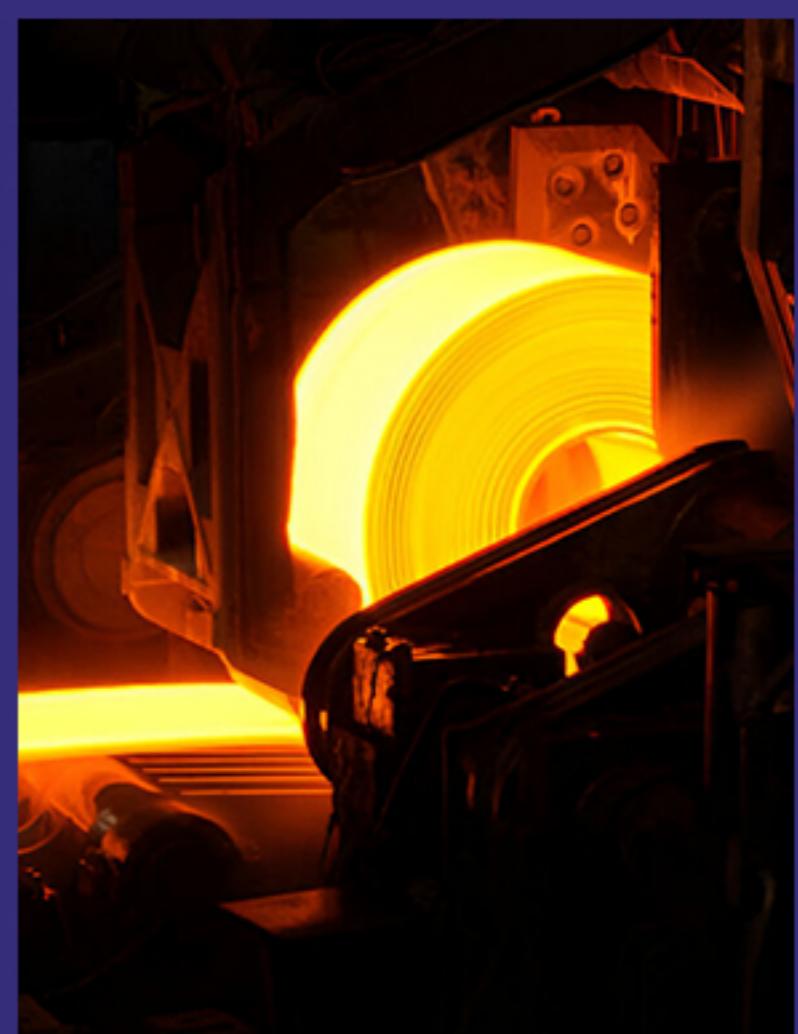


**PRECISION  
PUMPING,  
ENGINEERED  
FOR HIGH  
PRESSURE.**

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# Single Screw Pumps

Single screw pumps are progressive cavity pumps featuring a metallic helical rotor and an elastomer stator, delivering smooth, low-pulsation flow.

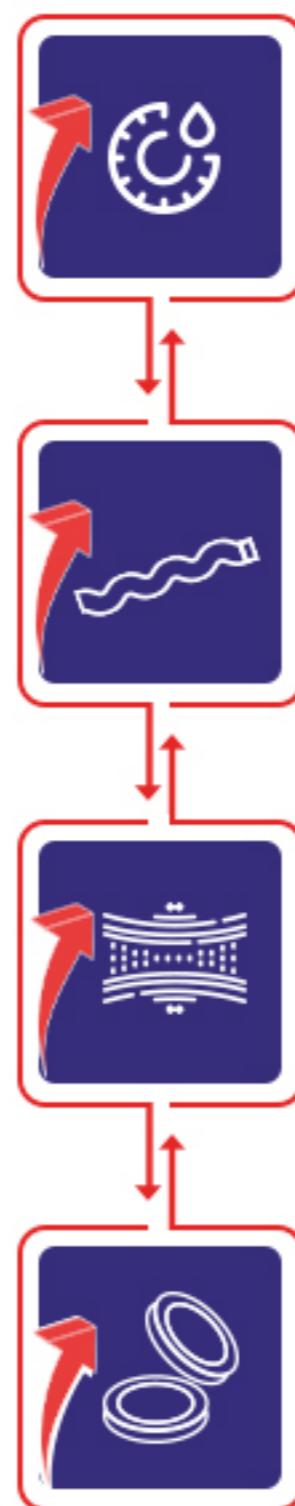
They handle neutral to aggressive media across a wide viscosity range and are ideal for fluids with solids or fibrous content.

UT Pumps offers four horizontal models - EH, ER, EL, and ES Series - each tailored for specific industrial needs. The EU Series, with its vertical design, is specially built for decanting large containers and wells.

## APPLICATIONS

Water & wastewater, sewage sludge, gritty mine water, slurries, viscous oils, cellulose, corrosive liquids, ceramic & abrasive slurries, molasses, jam & jelly, syrup melt, magma, mud, massecuite, industrial waste, etc.

## MATERIALS OF CONSTRUCTION



**Wetted Parts** - Cast iron, stainless steel & carbon steel

**Rotors** - Stainless steel, carbon steel, hard chrome plated, nitrided steel & tool steel

**Stators** - Elastomer options NBR, HNBR, EPDM, FKM & other special materials

**Seals** - Gland packing, single & double mechanical, and API 682 compliant mechanical seals

## SPECIAL FEATURES

- API 676 compliant
- Low initial starting torque
- Higher mechanical efficiency
- Capability to handle large proportions of solids
- Small radial thrust
- Low axial velocity
- Less wear
- Lower axial thrust
- Quieter operation

## PRINCIPLE OF OPERATION

Single screw pumps are valve-less, self-priming positive displacement pumps equipped with two key components: an eccentric metallic helical rotor and an elastomer stator. The stator features a double helical profile with twice the pitch of the rotor.

As the rotor turns, it forms self-contained tandem chambers that maintain their volume even when the pump is stationary enabling smooth, low-pulsation flow.

The rotor and stator maintain two continuous lines of contact along the pump axis, ensuring effective sealing. Typically installed in a horizontal configuration, these pumps allow reversible flow by simply changing the direction of rotation.

They can be driven via direct coupling or V-belt/pulley arrangements, offering flexibility across various installation setups.

## INDUSTRIES

- Oil & Gas
- Manufacturing
- Chemicals & Petrochemicals
- Water & Wastewater Treatment
- Nuclear Energy
- Agrochemicals
- Metallurgy
- Food Processing & Dairy
- Distilleries & Breweries
- Ceramics
- Industrial Explosives
- Pharmaceuticals
- Paper & Pulp

## EH series

Standard design horizontal pumps with flanged suction and discharge suitable for all general applications and industries specially in effluent treatment plants, paper industries, etc.



Model	Max Speed RPM	Capacity m³/h	Pressure (bar)		
			Stage		
			I	II	IV
164	1250	4	6	12	24
236	1000	9	6	12	24
375	630	13	6	12	24
600	560	18	6	12	24
1024	550	30	6	12	24
1500	500	60	6	12	24
1900	400	88	6	12	24
2650	280	95	6	12	24
4500	280	180	5	10	-
6300	270	245	5	10	-

## EL series

The EL Series features a close-coupled, compact design with no bearing housing. The pump is directly mounted to the driver, eliminating the need for a separate base plate. This results in a shorter, lighter assembly ideal for space-saving installations.



Model	Max Speed RPM	Capacity m³/h	Pressure (bar)		
			Stage		
			I	II	IV
164	1250	4	6	12	24
236	1000	9	6	12	24
375	630	13	6	12	24
600	560	18	6	12	24
1024	550	30	6	12	24
1500	500	60	6	12	24
1900	400	88	6	12	24

**ES series**

Crafted entirely from stainless steel, this pump is designed for easy disassembly and reassembly, allowing thorough cleaning of every component. This, along with compatibility for Cleaning-in-Place (CIP) and Sterilization-in-Place (SIP) processes, makes it an ideal choice for the food, pharmaceutical, and cosmetic industries.

**EU series**

Vertical installation pumps are equipped with specially designed housings and joint shafts suited to specific applications and are typically mounted directly above the well or drum that requires emptying for operational efficiency.

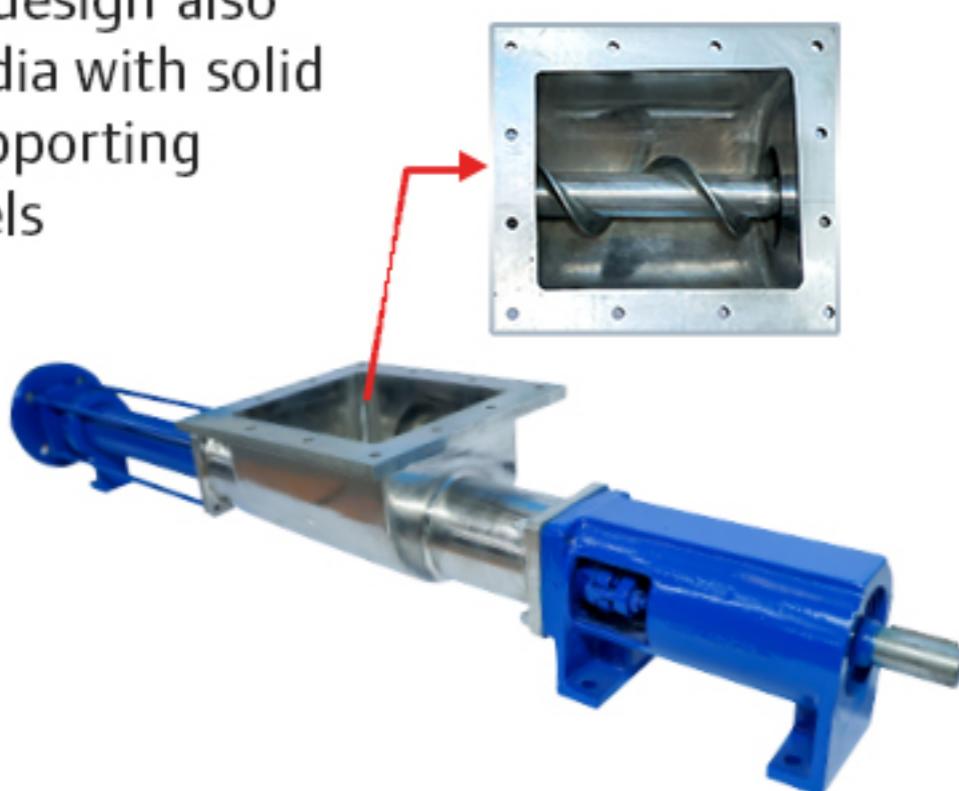


Model	Max Speed RPM	Capacity m³/h	Pressure (bar)	
			Stage	
			I	II
164	1000	3.4	6	12
236	800	7	6	12
375	550	11	6	12
600	500	18	6	12
1024	450	24	6	12
1500	400	48	6	12
1900	300	66	6	12

Model	Max Speed RPM	Capacity m³/h	Pressure (bar)		
			Stage		
			I	II	IV
164	600	2	6	12	24
236	600	5	6	12	24
375	400	8	6	12	24
600	400	13	6	12	24
1024	350	18	6	12	24
1500	300	35	6	12	24
1900	300	60	6	12	24
2650	200	75	6	12	24

**ER series**

These horizontal pumps incorporate a hopper-style inlet and a conveyor screw, making them ideal for transferring highly viscous, pasty, or otherwise challenging media. The design also handles media with solid content, supporting dryness levels up to 60%.



Model	Max Speed RPM	Capacity m³/h	Pressure (bar)		
			Stage		
			I	II	IV
236	250	2	6	12	24
375	250	5	6	12	24
600	200	6.5	6	12	24
1024	200	10	6	12	24
1500	200	22	6	12	24
1900	200	42	6	12	24
2650	175	65	6	12	-
4500	150	90	5	10	-

## ABOUT

For over four decades, UT Pumps has been a trusted provider of industrial pumping solutions, renowned for engineering excellence and dependable performance in demanding environments. Specializing in the manufacture of high-quality screw pumps and high-pressure plunger pumps, we serve critical sectors including chemicals, water treatment, and food processing with precision-engineered systems tailored to industrial requirements.

Our commitment to quality, sustainability, and safety is reflected in our ISO 9001, ISO 14001, and ISO 45001 certifications, ensuring that every solution we deliver enhances productivity and operational efficiency.

As a brand of Hydro Prokav Pumps India Pvt. Ltd. and Ingersoll Rand, UT Pumps offers its customers the advantage of global expertise, expanded capabilities, and a commitment to innovation.



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PROKAV**

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