



HOUTTUIN™



**Houttuin™ Two-Screw Pumps**

## >> Pumps suited for your application



No matter what your market, no matter what industry you serve, no matter where you are in the world, Colfax provides pumping solutions that are engineered, manufactured, installed, serviced and supported to make sure your specific requirements are met.

The Houttuin two-screw pump line is a family of rugged, reliable, high pressure pumps with silent, ripple-free performance. Longer life, lower pressure ripple, lower contamination sensitivity and maximum energy savings result in the highest "Total Savings of Ownership" across the entire life-cycle of your pumping equipment solution.

The pump is only part of the total fluid transport solution that helps meet the needs of your demanding market. With Colfax, you also get deep expertise that ensures even your most critical applications are handled efficiently and effectively with short-term / long-term results that go straight to your bottom line.

## >> Product range

### **100 Series:**

Horizontal mount, single-entry for pressures to 145psig.

### **200 Series:**

Horizontal or vertical mounting, double-entry for flow rates up to 11,000gpm and pressures to pressures to 360psig.

### **211/215 Series:**

Vertical mount, double-entry for pumping lubricating fluids in confined spaces.

### **Engineered Series 200/300:**

Horizontal mount, custom design, high and low viscosities, high flow rates and pressures to 1160psig.

*>> The Houttuin line of two-screw pumps and systems deliver the features that matter most to you.*

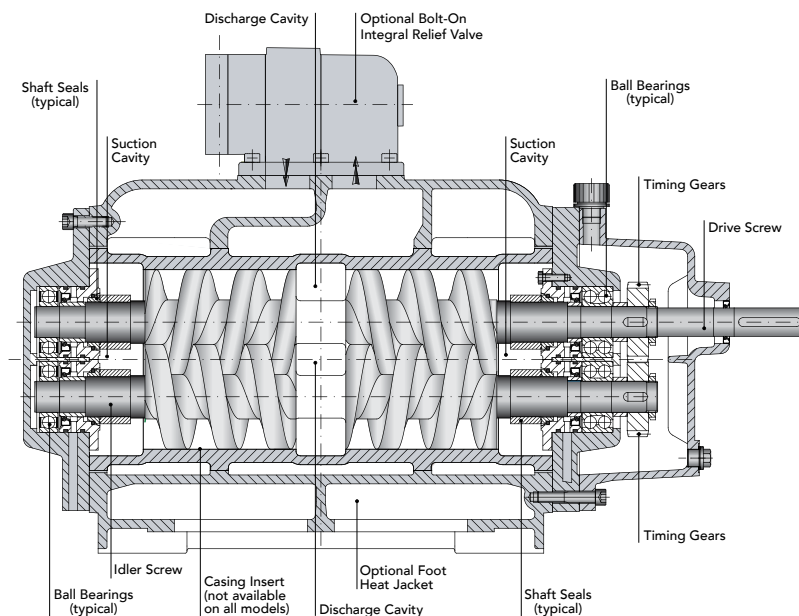


## >> Houttuin two-screw pumps

### The original design

Houttuin's original design provided the blueprint for today's two-screw positive displacement rotary pumps. Based on the Archimedean principle, two intermeshing screws on parallel shafts operate inside a close fitting, 8-shaped liner. Liquids are pumped from both ends into the pump's center body where the discharge is located. The short shaft is driven by the long shaft through a set of external precision timing gears.

Houttuin two-screw pumps feature a clearance between the screws and external timing gears on each shaft. These precision gears prevent screw contact by maintaining a constant space between the screws. The major advantages of this design are less wear on the screws (and, as a result, prolonged life of the pumps), less chance of liquid contamination by metal particles (swarf) during pumping and reduced risk of damage if the pump should run dry.



Two-Screw Cutaway with Optional Bolt-On Integral Relief Valve

## >> Typical Fluids Handled

» Animal Foods	» Glycerin	» Massecuite	» Plastics	» Solvents
» Brewers Mash	» Glycols	» Molasses	• Rubber Styrene	• Benzene
» Calcium Gluconate	» Grease	» Naphtha	• Paraffin	• Toluene
» Caustic Soda	» High Water Content Hydraulic Oils	» Oil Distillate Bottoms	• Polyethylene	• Xylene
» Chocolates - Cacao	» Invert Emulsions	» Pasta	• Polyester	• Phenol
» Coal Tar	» Juice Concentrates	» RME (Bio-Diesel)	• Polyisobutylene	• Aniline
» Crude Oil	» Lacquer	» Sea Water	• Polybutadiene	
» Edible Oils	» Lactose (sugar of milk)	» Soap	• Polyisoprene	
» Fatty Acids	» Liquid Sulfur	» Syrups		
» Foam	» Lube Oils	» Vegetable Oils		
» Fuel Oils (all grades)		» Water		
» Furfural Oil				



## >> Real World Benefits

### Wide Performance Range

Fluid temperatures up to 752°F, fluid viscosities of 0.5 to 100,000 centistokes, differential pressures up to 1,160 PSI (80 BAR), and capacities to 11,000 gallons per minute can be provided.

### Long Service Life

Contains a non-contact two-screw pumping element. The ball bearings and timing gears maintain a small clearance between the screws, thus preventing metal to metal contact between stationary and rotating components. The screws are supported and axially held in position by ball bearings. The transmission of torque from the drive screw to the idler screw is accomplished by oil lubricated hardened and ground timing gears located outside, and isolated from the pumped fluid in an attached gear box.

### Excellent Tank Stripping Capabilities

Capable of operating dry for tank stripping applications or where fluid flow is not continuous. All pumps are designed to keep the shaft seals wetted allowing intermittent dry run operation.

### Low Pressure Ripple

The positive displacement two-screw design provides low fluid shear with a continuous and smooth output flow.

### Excellent Suction Lift Performance

These self-priming pumps have excellent suction lift characteristics compared to other pump designs such as vane, lobe and external gear pumps.

### Excellent Scavenge Performance

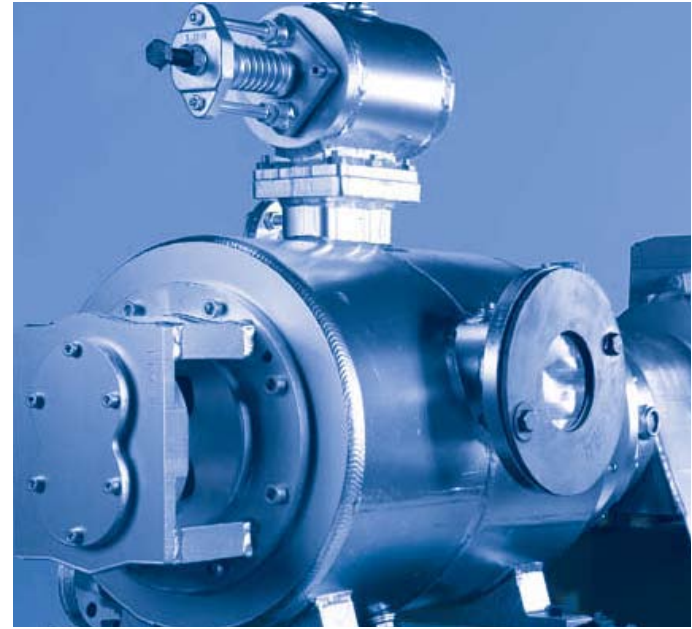
The self priming, intermittent flow capability and centrifugal action of the pumping element provide excellent scavenging performance compared to other pump designs.

### Ideal for Multiphase Fluid Application

Can handle up to 40% entrained gases without special modifications making it ideal for many process or pipeline transfer applications.



>> Colfax, with our customers, makes the world a better place by reliably handling the most demanding fluids in critical applications where precision is mandatory and failure is not an option.



## Houttuin two-screw pumps are suitable to many applications.

The Houttuin two-screw pump has become standard equipment for almost all branches of industry.

Applications include:

- Crude oil refineries
- Offshore platforms
- Power plants
- Food processing
- Petrochemical
- Shipping
- Pharmaceutical
- General industrial
- Chemical

## Low Contamination Sensitivity and High Durability

Ideal for fluids with solids content. Typically handles up to 5% entrained solids content in the fluids being pumped.

## Wide Fluid Compatibility Range

Pumps are available in a wide variety of materials combinations. Shaft sealing can be provided with either mechanical shaft seals, or packing.

## >> Materials of Construction



For pump series 211.40, 216.40, 236.40, 249.40, 200.00 and 300.00:

Pump	Standard Material	Optional Material
Screw Shafts	Carbon Steel	Stainless Steel (Type 400) Stainless Steel (Type 300)
Casing Insert	Cast Iron	Nodular Iron Ni-Resist Bronze
Casing	Cast Iron	Nodular Iron Ni-Resist Bronze Steel Cast Iron with Coating <i>*Not available in pump series 249.40</i>
Covers	Cast Iron	Cast Iron with Coating

Mechanical Seal	Standard Material	Optional Material
Seal Faces	Chrome Steel on Carbon	Silicon Carbide on Carbon
Springs	Stainless Steel (Type 300)	-----
O-Rings	Viton	Teflon

Mechanical Seal According to DIN24960/API



## >> Colfax: Leading Technology, Global Capacity

You may know Colfax best by our strong legacy brands that include Imo, Allweiler and Houttuin. We serve customers just like you at facilities, manufacturing sites, and distribution centers throughout the Americas, Europe, Africa, the Middle-East and Asia Pacific. Our Global network of critical fluid handling technologies, solutions, services and support are unmatched in the industries that we serve. The Colfax team in each of these regions understand the challenges you face, respects the high stakes of mission critical equipment and stands ready to deliver with the fluid handling solutions you need.

When precision is mandatory and failure not an option, the most trusted names in critical fluid handling is Colfax.





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