



INTERNAL GEAR

P U M P S



H I G H Q U A L I T Y



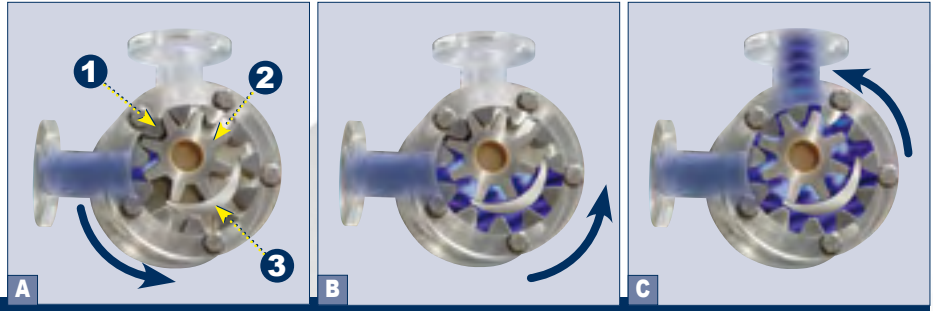
V E R S A T I L I T Y



H E A V Y D U T Y

**VICTOR
PUMPS**





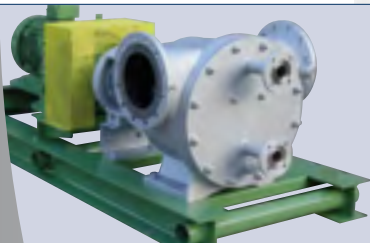
The R - internal gear pumps are self-priming positive displacement rotary pumps. Two gears generate the flow: the rotor **1** and the idler **2**. The rotor moves the internal idler. As the gears rotate, liquid is drawn into the spaces created between the gears and smoothly moved toward the discharge port, where the divider **3**, called crescent, closes the free space between the two gears. When the gears mesh, the liquid is slowly forced out of the pump. The result is a constant, smooth flow with no pulsations.

OPERATING RANGE

| | | | | | |
|----------|-----------|--------------|-------------------|-------------|------------------|
| A | Additives | Creosote | Glue | Lube oil | Polyol |
| | Adhesive | Diesel Fuel | Glycerine | Mineral oil | Printing ink |
| | Asphalt | Emulsions | Glycol | Molasses | Resin |
| | Bitumen | Epoxy resins | Grease | Naphtha | Soap |
| | Chemicals | Fats | Heat transfer oil | Oil | Starch |
| | Chocolate | Foams | Hot melt | Paint | Tar |
| | Coal Tar | Fuel oil | Ink | Paraffin | Varnish |
| | Coatings | Gasoline | Isocyanate | Petrol | Viscose |
| | Colours | Gelatine | Kerosene | Pitch | Wax |
| | Cream | Glucose | Lacquer | Polymer | and many more... |
| | | | | | Z |

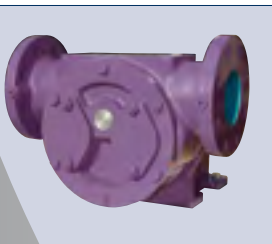
- With liquids of any viscosity and temperature, which can be corrosive, abrasive and dangerous for the environment.
- Used for transfer, dosing, processing, loading and unloading.
- In chemical, ink, paint, construction, chocolate and oil-industry, in refineries and storage facilities.

ADVANTAGES

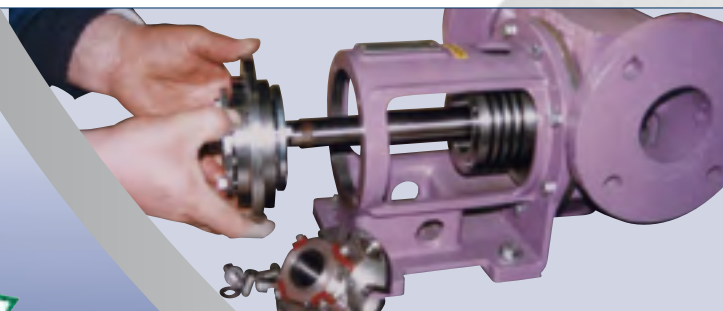


The heating jacket around the casing allows a better and constant heating of the product where it is required: in the gears. Inspections can be done with the casing connected to the pipes. For temperature-sensitive fluids it is available the heating jacket around the complete pump.

- Self-priming.
- The capacity is directly proportional to the rotation speed.
- Non pulsating constant flow, therefore no vibrations on fittings, valves or couplings.
- No foaming or churning of the liquid.
- Only one shaft seal or with magnetic coupling.
- Heating jacket around the casing in one cast **1**.
- Full performance is available in either direction of rotation **2**.
- The casing can be rotated and delivered with 90° or 180° (in-line) ports.
- Relief valve against over-pressure incorporated in the pump.
- Heavy-duty construction optimized for rare maintenance.



To optimise the installation of the pipes in existing or new plants, the casing can be rotated as required. On request also available with 180° (in-line) ports.



To easily dismount the mechanical seal from backside, a ball bearing cartridge is available on request.



Friendly maintenance through the pump cover.

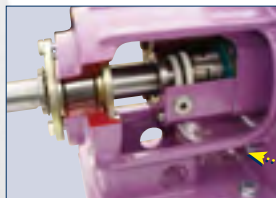
TECHNICAL DATA

R INTERNAL GEAR PUMPS

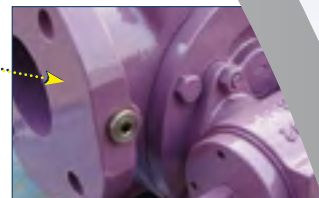
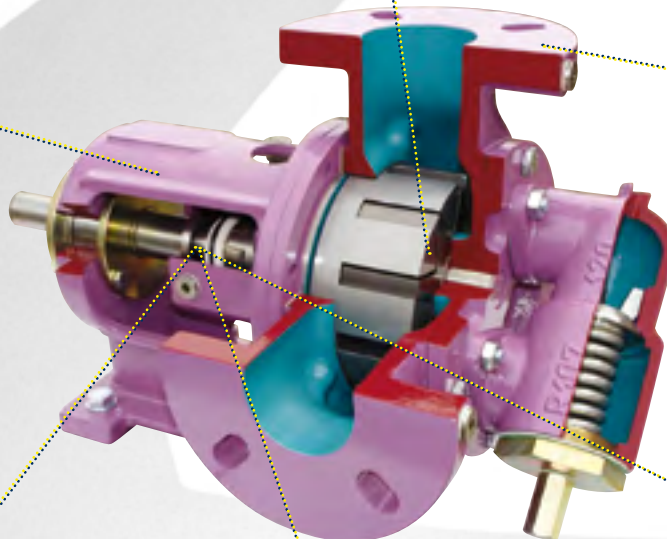
| | |
|------------------|---|
| CAPACITY | up to 360 m ³ /h (6000 l/min) |
| PRESSURE | up to 16 bar |
| VISCOSITY | up to over 100.000 mm ² /s (cSt) |

| | |
|--------------------|--|
| TEMPERATURE | from -60°C up to +300°C |
| PRESSURE | cast iron, ductile iron or stainless steel |
| PORTS | from DN40 to DN250 |

Bearing housing with external oversized and maintenance-free ball bearing to take axial and radial loads (e.g. for belt-drive). The position of the bearing can be changed to optimize the tolerance of the gears. Collect chamber for possible leakages from packing or mechanical seal.



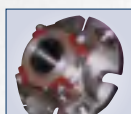
Standard in cast iron pumps:
steel rotor 1, hardened steel shaft 3,
cast iron idler 2.



DIN or ASA flanged ports with through-holes for easy installation. 1/4" threaded holes for Vacuum-meter and Manometer.



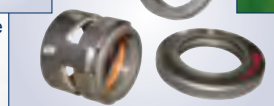
Packing



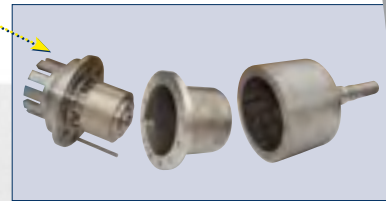
Cartridge



Quench with reservoir



Mechanical seal also with quench, double mechanical seal also as cartridge



Seal-less with magnetic coupling

PERFORMANCES

| TYPE (l/rotation) | PORTS DN PN16 (inches) | VISCOSITY mm ² /s (cSt) | SPEED RPM | CAPACITY m ³ /h | REQUIRED POWER AT | | WEIGHT kg |
|------------------------|------------------------------|---------------------------------------|--------------|-------------------------------|-------------------|-------------|--------------|
| | | | | | 4 bar kW | 8 bar kW | |
| R 35 (0,043) | 40 (1 1/4") | 200 | 1450 | 3,7 | 1,4 | 1,7 | 18 |
| | | 4000 | 720 | 1,9 | 1,2 | 1,4 | |
| | | 25000 | 450 | 1,2 | 1 | 1,2 | |
| R 40 (0,08) | 40 (1 1/4") | 200 | 1450 | 7 | 2 | 2,8 | 18 |
| | | 4000 | 720 | 3,5 | 1,6 | 2 | |
| | | 25000 | 450 | 2,2 | 1,3 | 1,6 | |
| R 50 (0,22) | 50 (2") | 200 | 960 | 12,6 | 3 | 4,5 | 32 |
| | | 4000 | 560 | 7,5 | 2,7 | 3,6 | |
| | | 25000 | 355 | 5 | 2,2 | 2,8 | |
| R 65 (0,48) | 65 (2 1/2") | 200 | 720 | 20,5 | 5,6 | 8,1 | 50 |
| | | 4000 | 450 | 13 | 5 | 6,6 | |
| | | 25000 | 280 | 8,3 | 3,6 | 4,6 | |
| R 80 (1,15) | 80 (3") | 200 | 560 | 38 | 7,9 | 12,4 | 84 |
| | | 4000 | 355 | 25 | 8,1 | 11,1 | |
| | | 25000 | 224 | 16 | 6,7 | 8,6 | |
| R105 (2,25) | 100 (4") | 200 | 450 | 62 | 11,8 | 19,1 | 152 |
| | | 4000 | 280 | 39 | 12,6 | 17,3 | |
| | | 25000 | 180 | 25 | 11,5 | 14,7 | |
| R151 (3,8) | 150 (6") | 200 | 400 | 90 | 15,5 | 26,2 | 215 |
| | | 4000 | 315 | 73 | 21,6 | 30,3 | |
| | | 25000 | 200 | 47 | 19 | 24,8 | |
| R180 (6,8) | 150 (6") | 200 | 315 | 132 | 23,1 | 38,4 | 215 |
| | | 4000 | 200 | 84 | 17,8 | 29,6 | |
| | | 25000 | 125 | 53 | 17,3 | 28,8 | |
| R200 (14) | 200 (8") | 200 | 315 | 260 | 52,4 | 82,1 | 215 |
| | | 4000 | 200 | 167 | 45,7 | 65 | |
| | | 25000 | 125 | 105 | 34,6 | 46,9 | |
| R250 (21) | 250 (10") | 200 | 280 | 350 | 65,9 | | 215 |
| | | 4000 | 180 | 230 | 61,3 | | |
| | | 25000 | 112 | 140 | 46 | | |





R 35 with magnetic coupling g for isocyanate



R 65 for paint



R 250 with heating jacket for coal tar



12 IMPORTANT QUESTIONS FOR INQUIRIES

1. Capacity
2. Delivery pressure
3. Type of liquid
4. Viscosity
5. Pump job
6. Type of installation
7. Suction lift
8. Temperature
9. Old pumping experience
10. Running hours/day
11. Voltage
12. Frequency



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