

R

INTERNAL GEAR

P U M P S



H I G H Q U A L I T Y



SPICO

NEW PHENOMENON IN FLUID TECHNOLOGY

**VICTOR
PUMPS**



V E R S A T I L I T Y



H E A V Y





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 in direction discharge port, were 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 results is a constant smooth flow with no pulsations.

OPERATING RANGE

A	Additives Adhesive Asphalt Bitumen Chemicals Chocolate Coatings Colours Cream Creosote	Diesel Fuel Emulsions Epoxy resins Fats Foams Fuel oil Gasoline Gelatine Glucose Glue	Glycerine Glycol Grease Heat transfer oil Hot melt Ink Isocyanate Kerosene Lacquer Lube oil	Mineral oil Molasses Naphtha Oil Paint Paraffin Petrol Pitch Polymer Polyol	Printing ink Resin Soap Starch Tar Varnish Viscose Wax and many more... Z
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- With liquids of any viscosity and temperature, which can be corrosive, abrasive and dangerous for the environment.
- Used by transfer, dosage, processing, load and unload.
- 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 on 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 in fittings, valves or coupling.
- No foaming or churning of the liquid.
- Only one shaft seal or with magnetic coupling.
- Heating jacket around the casing in one cost **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.

2



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

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Friendly maintenance through the pump cover.

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TECHNICAL DATA

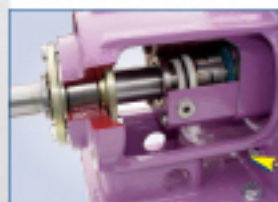
R

INTERNAL GEAR P U M P S

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
Materials	cast iron, ductile iron or stainless steel
Ports	from DN40 to DN250

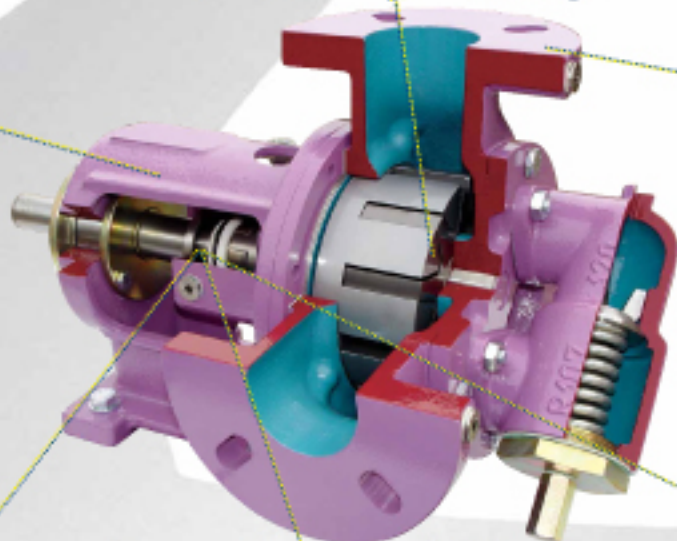
Bearing housing with external oversized and maintenance-free ball bearing to take axial and radial loads (e.g. for belt-drive). The position of the bearing can be changed to optimize the tolerance of the gears. Collect chamber for possible leakages from packing or mechanical seal.



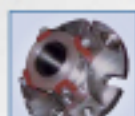
Already standard in cast iron pumps: steel rotor **1**, hardened steel shaft **3**, cast iron idler **2**.



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



Packing



Cartridge



Quench with reservoir



Seal-less with magnetic coupling

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

PERFORMANCES

TYPE (l/rotation)	DISPLACEMENT 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	11
		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	12
		4000	720	3,5	1,6	2	
		25000	450	2,2	1,3	1,6	
R 50 (0,22)	50 (2")	200	980	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	46
		4000	450	13	5	6,6	
		25000	280	8,3	3,6	4,6	
R 80 (1,15)	80 (3")	200	630	43	8,9	14	84
		4000	400	28	9,1	12,5	
		25000	250	18	7,5	9,6	
R 105 (2,25)	100 (4")	200	560	75,5	15	23,7	152
		4000	355	49	16	22	
		25000	224	31,3	14,3	18,3	
R 151 (3,8)	150 (6")	200	500	114	20,7	34	240
		4000	315	73	21,6	30,3	
		25000	200	47	19	24,8	
R 180 (6,8)	150 (6")	200	400	163	On request		
		4000	250	102			
		25000	160	65			
R 200 (14)	200 (8")	200	315	265	On request		
		4000	200	168			
		25000	125	105			
R 250 (21)	250 (10")	200	280	350	On request		
		4000	180	330			
		25000	112	140			



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R 35 with magnetic coupling for isopropanol



R 65 for paint



12 IMPORTANT QUESTIONS FOR INQUIRIES

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



R 250 with heating jacket for paint



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