



RADIAL PISTON PUMPS

Model : 11R****

Ref. No. D 09190
Release 05 / 2021

ENGINEERING - 1 of 3

A Polyhydron Group Company

Description

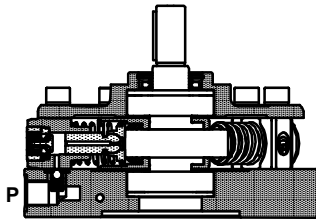
Model **11R****** are rugged oil immersed type Radial Piston Pumps and have either 5, 7 or 9 pumping elements. These pumps are valve controlled and there is no restriction on direction of rotation of the pump.

They are available with 9 displacements and 3 pressure ratings. These pumps give fixed output per revolution of the shaft.

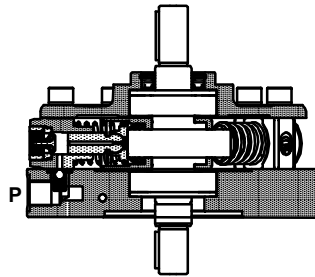
The pumps with model **11RE***** have extension shaft for through drive and are available with extension bracket assembly for coupling a low pressure pump having standard flanges as per ISO 3019/2 (Ref. datasheet no. D 09090).



Section

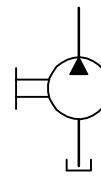


Model : 11R***

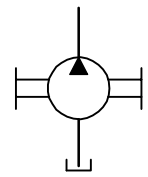


Model : 11RE***

Hydraulic symbol



Model : 11R***



Model : 11RE***

Technical specifications

Designation	:	11R is a basic Radial piston pump. 11RE is a Radial piston pump with extension shaft.
Design	:	Radial piston, valve controlled, open execution.
No. of pumping elements	:	5, 7 or 9.
Mounting	:	Oil immersed, face mounting.
Interface	:	Factory standard.
Direction of rotation	:	11R - No restriction on directions of rotation. 11RE - Depends upon the direction rotation of pump attached.
Connection	:	Suction port - Sucks oil directly from tank, no suction port is provided. Delivery (port P) - G1/2 female.
Speed range	:	300 to 2000 r/min.
Flow and Pressure	:	Refer Table no.1
Torque limitations	:	Input drive shaft - 220 Nm Extension shaft - 130 Nm
Hydraulic medium	:	Mineral oil.
Temperature range	:	-20°C to + 80°C.
Viscosity range	:	10 cSt to 100 cSt.
Fluid cleanliness required	:	ISO 4406 20/18/15 or better.
Mass	:	Model : 11R5 11RE5 11R7 11RE7 11R9 11RE9 Kg : 22 22.6 22.89 23.52 23.8 24.44

Performance table no. 1

No. of pumping elements	Element type	Geometrical displacement in cm ³ /r	Pump output in l/min At 1450 r/min	Maximum Operating pressure in bar	Pressure in bar							
					50	100	150	200	250	300	315	400
					Power required to drive the pump in kW							
5	A	7.70	10.5	400	1.09	2.19	3.28	4.38	5.47	6.57	6.89	8.75
7		10.78	14.7		1.53	3.06	4.60	6.13	7.66	9.19	9.65	12.25
9		13.85	18.9		1.97	3.94	5.91	7.88	9.85	11.82	12.41	15.76
5	B	10.05	13.7	315	1.43	2.86	4.29	5.72	7.15	8.57	9.00	
7		14.07	19.2		2.00	4.00	6.00	8.00	10.0	12.0	12.6	
9		18.10	24.7		2.57	5.14	7.72	10.29	12.86	15.43	16.21	
5	C	12.72	17.3	250	1.81	3.62	5.43	7.23	9.04	1kW = 1.3410 hp		
7		17.81	24.3		2.53	5.06	7.60	10.1	12.6			
9		22.90	31.2		3.26	6.51	9.77	13.02	16.28			

Note : Torque limitation : The total sum of torque applied to drive the pump and the pump attached (In case model 11RE is used), at any given instance, should not exceed 220 Nm.

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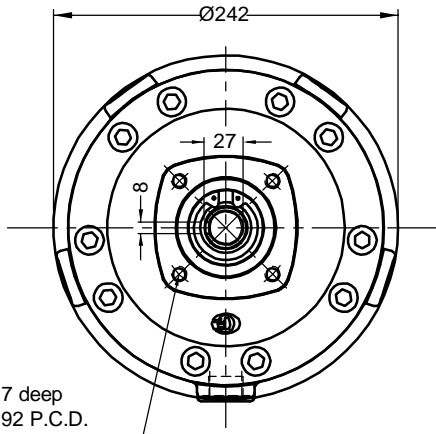
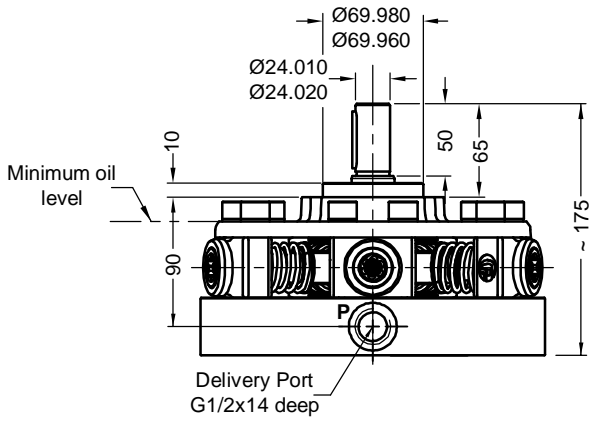
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Unit dimensions

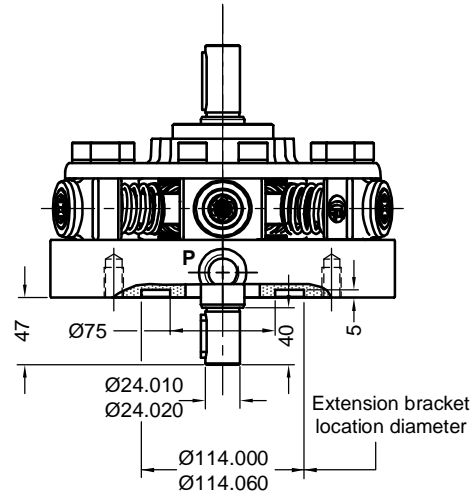
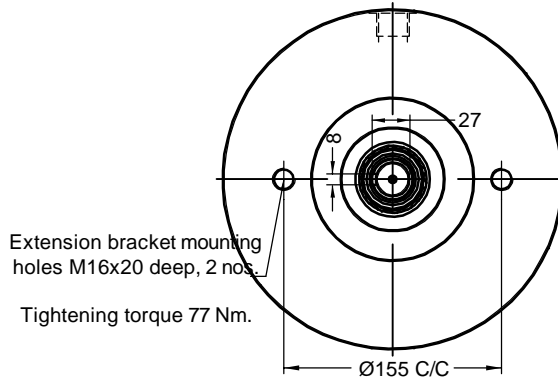
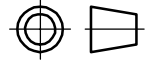
Dimensions in mm.

Pump without extension shaft
Model - 11R5, 11R7 or 11R9



Tightening torque 77 Nm.

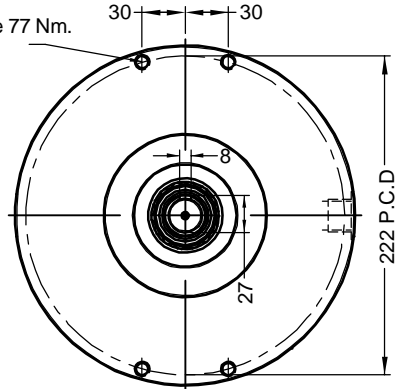
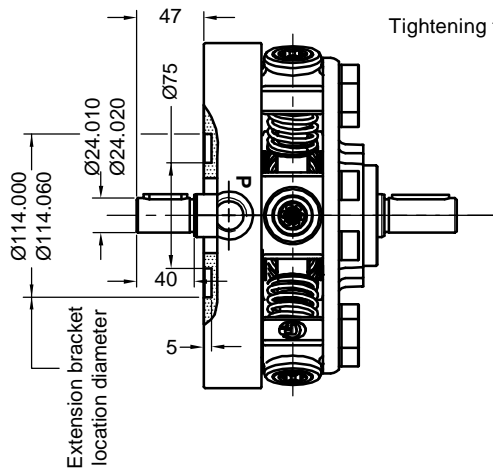
Pump with extension shaft
Model - 11RE5 and 11RE7



Pump with extension shaft
Model - 11RE9

Extension bracket mounting
holes M10x17 deep, 4 nos.

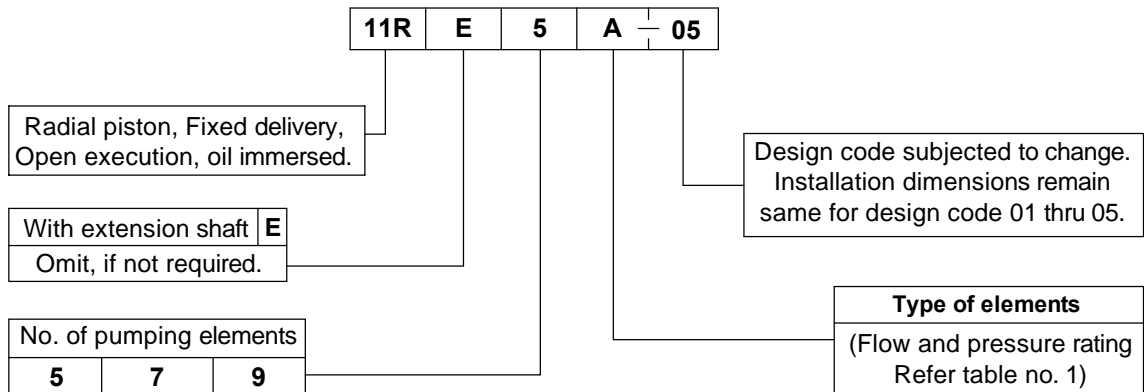
Tightening torque 77 Nm.



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Due to continuous improvement in the design of the product, the actual product supplied may look different than shown above.
For critical applications, please ask for certified installation drawing.



Ordering code



Note : For Bell housing refer Data sheet no. D 09035 and For extension bracket refer Data sheet no. D 09090.