



# RADIAL PISTON DOUBLE PUMPS

## Model : 2R\*\*\*\*

Ref. No. D 04894  
Release 10 / 2020

ENGINEERING - 1 of 3

A Polyhydron Group Company

### Description

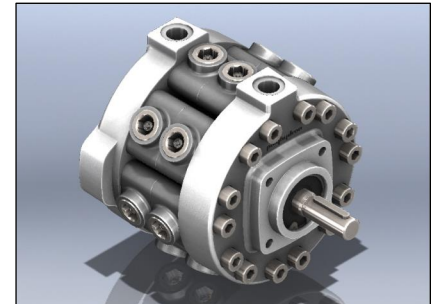
Model 2R\*\*\*\* are rugged oil immersed type Radial Piston Double Pumps with 3, 5 or 7 pumping elements in each section of the pump. These pumps are valve controlled therefore there no restriction on direction of rotation of the pump.

Pumps with model code 2RE\*\*\* have extension shaft for through drive and are available with extension bracket assembly for coupling a pump having standard flange as per ISO 3019/1.

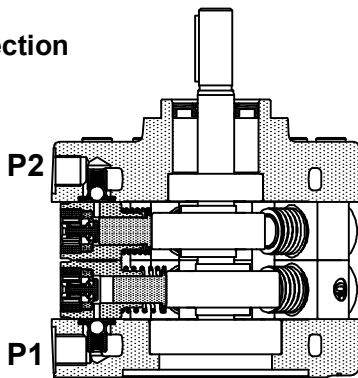
They are available with 21 flow combinations and 7 pressure ratings.

Flows can be combined internally , externally to feed one circuit or used independently to feed two circuits.

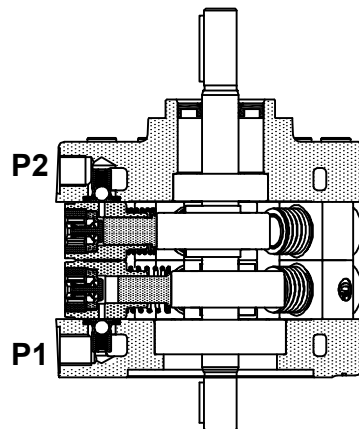
These pumps give fixed output per revolution of the shaft.



### Section

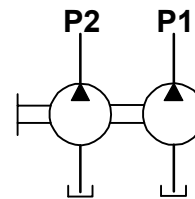


Model : 2R\*\*\*

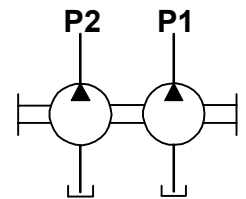


Model : 2RE\*\*\*

### Hydraulic symbol



Model : 2R\*\*\*



Model : 2RE\*\*\*

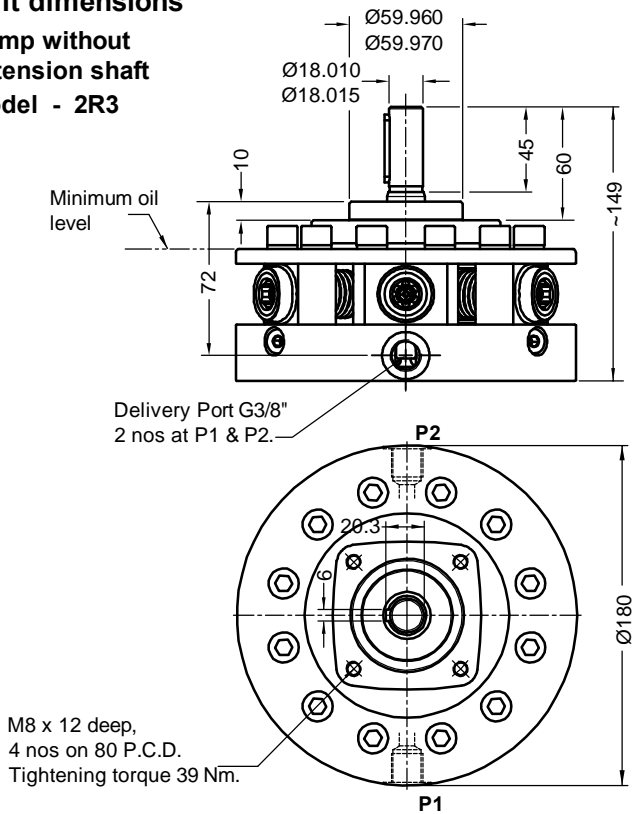
### Technical specifications

Designation	:	2R is a basic Radial piston double pump. 2RE is a Radial piston double pump with extension shaft.
Design	:	Radial piston, valve controlled.
No. of pumping elements	:	3, 5 or 7 ,each at P1 and P2 port depending upon flow requirement.
Mounting	:	Face mounting.
Interface	:	Factory standard.
Direction of rotation	:	2R - No restriction on directions of rotation. 2RE - Depends upon the direction of rotation of pump attached.
Connection	:	Suction port - Sucks oil directly from tank no suction port is provided. Delivery (port P1 and P2) - G3/8 female.
Speed range	:	300 to 2000 r/min.
Flow and Pressure	:	Refer Table no.1
Torque limitations	:	Input drive shaft - 75 Nm Extension shaft - 53 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 : 2R3 2RE3 2R5 2RE5 2R7 2RE7 Kg : 9.06 9.1 13.25 13.29 14.47 14.54

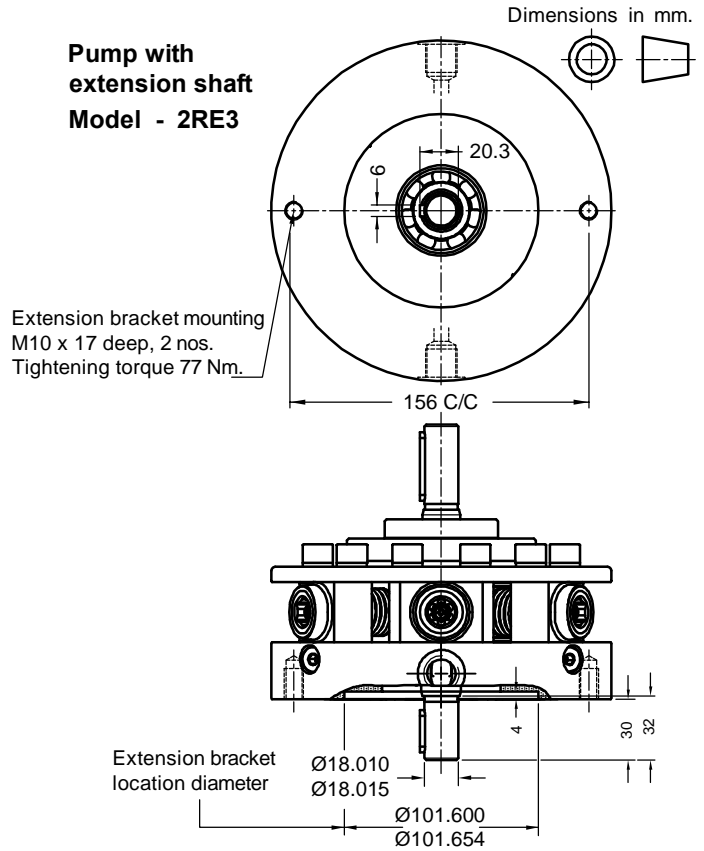


**Unit dimensions**

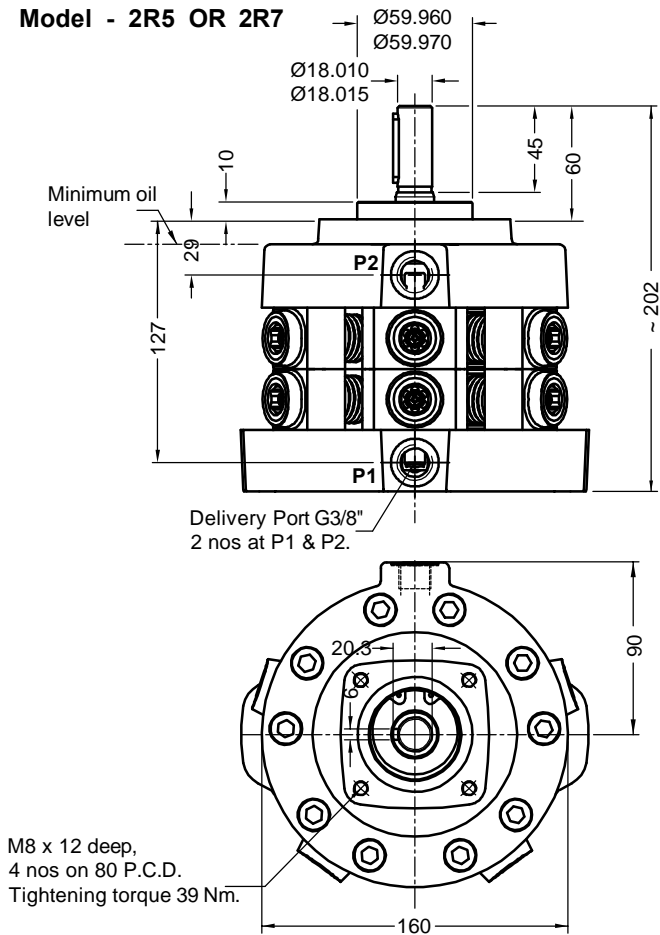
**Pump without extension shaft  
Model - 2R3**



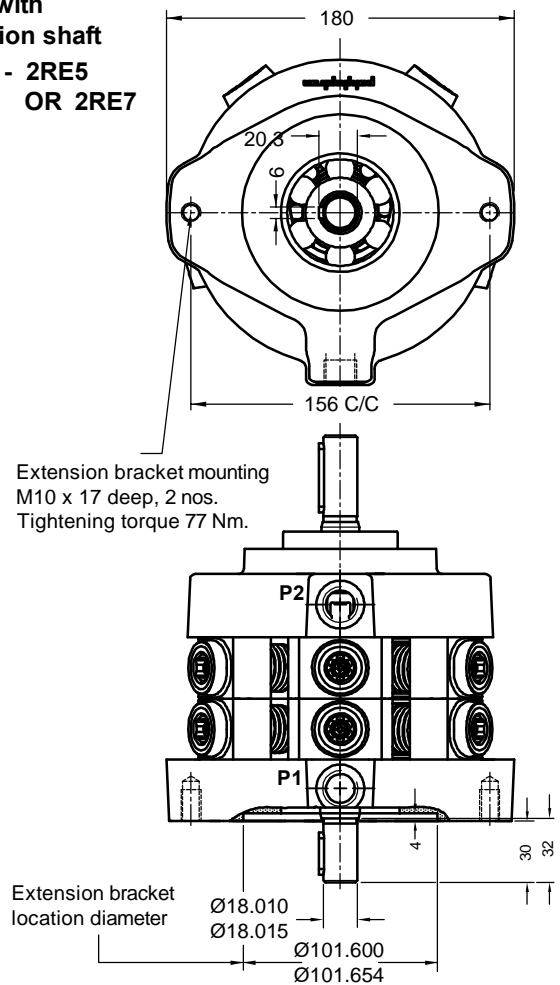
**Pump with extension shaft  
Model - 2RE3**



**Pump without extension shaft  
Model - 2R5 OR 2R7**



**Pump with extension shaft  
Model - 2RE5  
OR 2RE7**



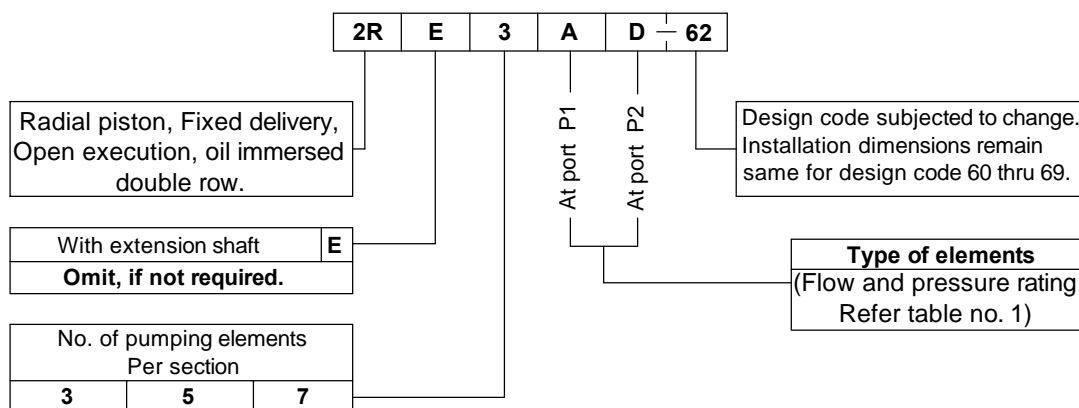


Performance Table no. 1

No. of pumping elements per section	Element type	Geometrical displacement in cm <sup>3</sup> /r	Pump output in l/min At 1450 r/min	Maximum Operating pressure in bar	Pressure in bar													
					50	100	150	200	250	300	350	400	450	500	550	600	650	700
					Power required per section to drive the pump in kW													
3	Z	0.69	0.9	700	0.10	0.19	0.29	0.39	0.48	0.58	0.68	0.77	0.87	0.96	1.06	1.16	1.25	1.35
5		1.15	1.5		0.16	0.32	0.48	0.64	0.80	0.96	1.13	1.29	1.45	1.61	1.77	1.93	2.09	2.25
7		1.61	2.2		0.23	0.45	0.68	0.90	1.13	1.35	1.58	1.80	2.03	2.25	2.48	2.70	2.93	3.15
3	A	1.20	1.6	550	0.17	0.34	0.51	0.69	0.86	1.03	1.20	1.37	1.54	1.71	1.89			
5		2.00	2.7		0.29	0.57	0.86	1.14	1.43	1.71	2.00	2.29	2.57	2.86	3.14			
7		2.80	3.8		0.40	0.80	1.20	1.60	2.00	2.40	2.80	3.20	3.60	4.00	4.40			
3	B	1.89	2.6	450	0.27	0.54	0.80	1.07	1.34	1.61	1.88	2.14	2.41					
5		3.15	4.3		0.45	0.89	1.34	1.79	2.23	2.68	3.13	3.57	4.02					
7		4.41	6.0		0.63	1.25	1.88	2.50	3.13	3.75	4.38	5.00	5.63					
3	C	2.70	3.7	350	0.39	0.77	1.16	1.54	1.93	2.32	2.70							
5		4.50	6.2		0.64	1.29	1.93	2.57	3.22	3.86	4.50							
7		6.30	8.6		0.90	1.80	2.70	3.60	4.50	5.40	6.30							
3	D	3.18	4.3	300	0.45	0.91	1.36	1.81	2.26	2.72								
5		5.30	7.2		0.75	1.51	2.26	3.02	3.77	4.53								
7		7.42	10.1		1.06	2.11	3.17	4.23	5.28	6.34								
3	E	3.69	5.0	250	0.53	1.05	1.58	2.10	2.63									
5		6.15	8.4		0.88	1.75	2.63	3.50	4.38									
7		8.61	11.7		1.23	2.45	3.68	4.90	6.13									
3	F	4.23	5.8	200	0.60	1.21	1.81	2.41										
5		7.05	9.6		1.00	2.01	3.01	4.02										
7		9.87	13.5		1.41	2.81	4.22	5.63										

1kW = 1.34 hp

Ordering code



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

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 Due to continuous improvements in the design of the product, the actual product supplied may look different than shown above, but will have same mounting dimensions.  
 For critical applications, please ask for certified installation drawing.