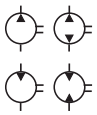
PG330 - MG330 Series

Cast Iron Gear Pumps and Motors

Release with flange S3 and shaft 56



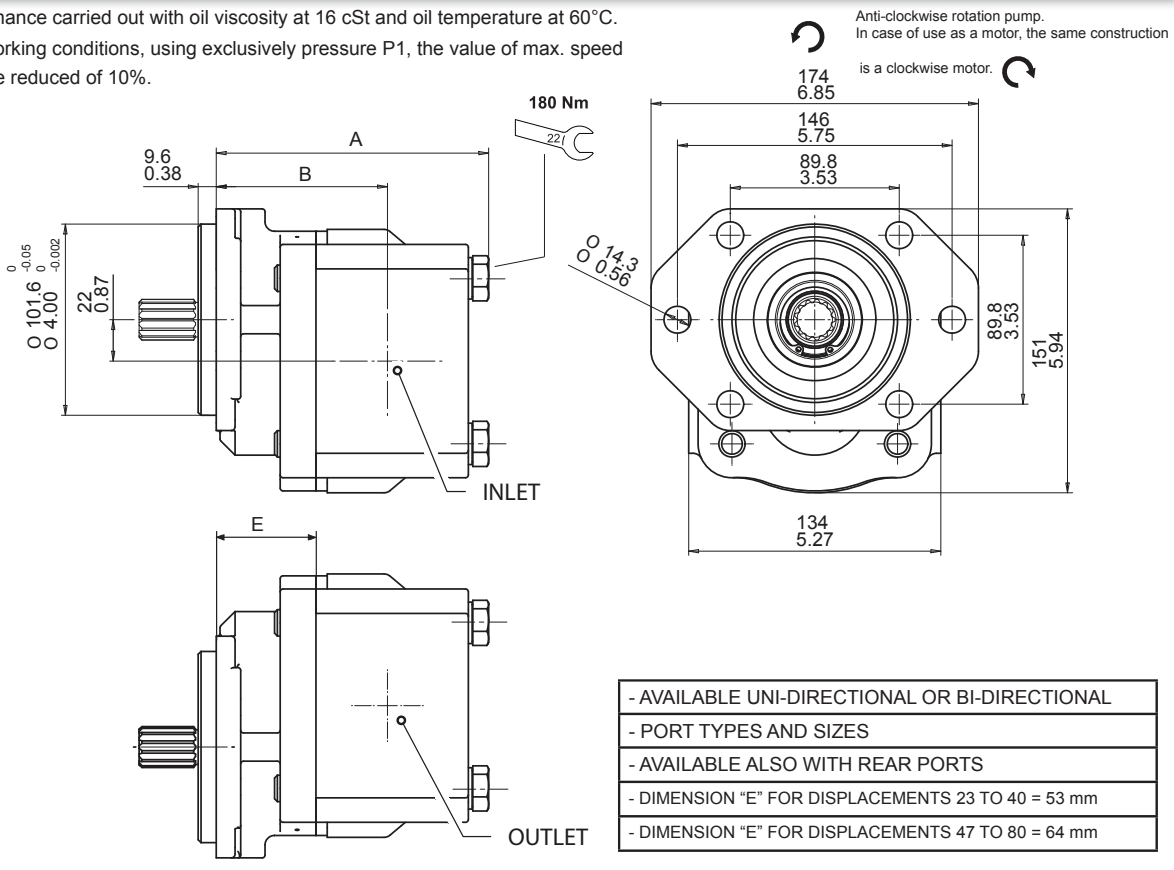
GEAR PUMPS AND MOTORS

ASSEMBLING DIMENSIONS AND VALUES OF PRESSURE AND SPEED

TYPE			23	28	34	40	47	55	64	72	80
Displacements		cm^3/rev	23.4	28.6	34.4	40.3	47,4	55,2	64,3	73,4	80,6
		cu.in./rev	*1.43*	*1.74*	*2.1*	*2.46*	*2,89*	*3,37*	*3,92*	*4,48*	*4,91*
Dimension A		mm	140.8	144.8	149.3	153.8	176.3	182.3	189.3	196.3	202.3
		in	*5.54*	*5.70*	*5.88*	*6*	*6.94*	*7,18*	*7.45*	*7.73*	*7.96*
Dimension B		mm	88	91	95.5	100	114	120	122	125	129
		in	*3.46*	*3.58*	*3.76*	*3.94*	*4.49*	*4.72*	*4.80*	*4.92*	*5.08*
Working pressure	P1 *	bar	260	280	280	260	280	260	240	220	200
		psi	*3800*	*4000*	*4000*	*3800*	*4000*	*3800*	*3500*	*3200*	*2900*
Intermittent pressure	P2	bar	280	300	300	280	300	280	260	240	220
		psi	*4000*	*4350*	*4350*	*4000*	*4350*	*4000*	*3800*	*3500*	*3200*
Peak pressure	P3	bar	300	320	320	300	320	300	280	260	240
		psi	*4350*	*4650*	*4650*	*4350*	*4650*	*4350*	*4000*	*3800*	*3500*
Max. speed at P2		rpm		3000			2700			2500	
Min. speed at P1				400			400			350	
Weight		kg	12.88	13.28	13.67	14.1	16.6	17.2	17.92	18.59	19.1
		lbs	*28.4*	*29.3*	*30.14*	*31.1*	*36.6*	*37.92*	*39.51*	*40.98*	*42.11*

Performance carried out with oil viscosity at 16 cSt and oil temperature at 60°C.

*For working conditions, using exclusively pressure P1, the value of max. speed must be reduced of 10%.

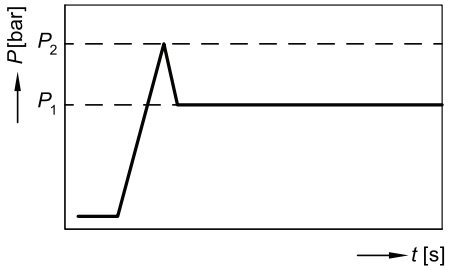


- AVAILABLE UNI-DIRECTIONAL OR BI-DIRECTIONAL
- PORT TYPES AND SIZES
- AVAILABLE ALSO WITH REAR PORTS
- DIMENSION “E” FOR DISPLACEMENTS 23 TO 40 = 53 mm
- DIMENSION “E” FOR DISPLACEMENTS 47 TO 80 = 64 mm

MG330 Series

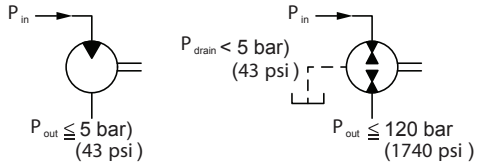
Cast Iron Gear Pumps and Motors

DEFINITION OF PRESSURES



P_1 max. continuous pressure
P_2 starting pressure (depending on the application, this must be taken into consideration when setting the pressure of the hydraulic system's pressure-relief valve).

WORKING CONDITIONS

MG330										
Type		23	28	34	40	47	55	64	72	80
max. continuous pressure P_1	bar (psi)	220 (3200)	240 (3500)	240 (3500)	220 (3200)	240 (3500)	220 (3200)	200 (2900)		
max. starting pressure P_2		300 (4350)			280 (4050)			260 (3800)		
min. rotational speed	min^{-1}	600			550			500		
max. rotational speed P_1		3000			2700			2500		
Motor outlet pressure P_{out} Leakage-oil line pressure P_{drain}	bar (psi)									

TECHNICAL DATA

- Minimum operating fluid viscosity ..... 12 mm^2 / sec
- Permitted viscosity range ..... 12 - 800 mm^2 / sec
- Recommended viscosity range ..... 20 - 80 mm^2 / sec
- Permitted viscosity for starting ..... 2000 mm^2 / sec
- Fluid operating temperature range ..... -15 to 85 °C
- Fluid temperature range with FPM seals ..... -20 to 110° C
- The standard fluids are all the mineral oil-based corresponding to DIN/ISO, for other fluids, please get in touch with our technical dept.

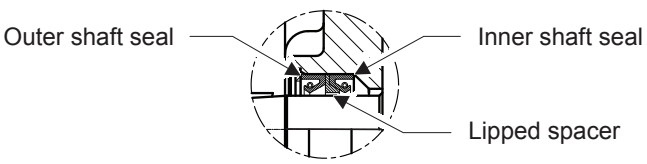
*) During the application of control systems or devices with critical counter-reaction, such as steering and brake valves, the type of filtration selected must be adapted to the sensitivity of these devices/systems.

Safety requirements pertaining to the whole systems are to be observed.

In the case of applications with frequent load cycles please consult us.

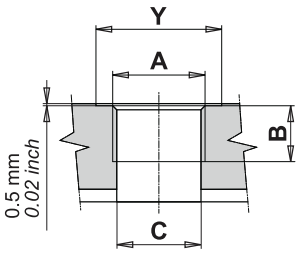
MOTOR ASSEMBLING FEATURES

All our standard motors have a doube shaft sea, the one which faces the inner of the motor is reinforced by a lipped washer.



THREADED PORTS

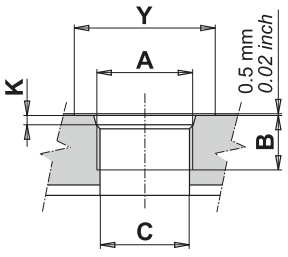
Type	OUTLET / INLET				INLET / OUTLET			
	A	B	C	Y	A	B	C	Y
From 23 to 40	G1	22 *(0.87")*	30.5 *(1.2")*	44 *(1.73")*	G3/4	16 *(0.62")*	24.4 *(0.96")*	36 *(1.42")*
From 40 to 80	G1"1/4	24 *(0.94")*	37 *(1.46")*	54 *(2.12")*	G1	22 *(0.87")*	30.5 *(1.2")*	44 *(1.73")*



Type	INLET				OUTLET			
	A	B	C	Y	A	B	C	Y
From 23 to 40	G3/4	16 *(0.62")*	24.4 *(0.96")*	36 *(1.42")*	G3/4	16 *(0.62")*	24.4 *(0.96")*	36 *(1.42")*
From 28 to 44	G1	22 *(0.87")*	30.5 *(1.2")*	44 *(1.73")*	G1	22 *(0.87")*	30.5 *(1.2")*	44 *(1.73")*

British standard pipe parallel (BSPP) **code G**

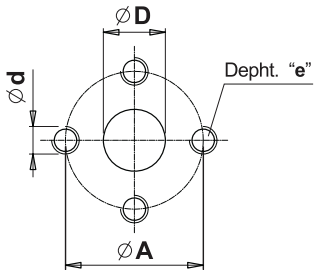
Type	OUTLET / INLET					INLET / OUTLET				
	A	B	C	Y	K	A	B	C	Y	K
From 23 to 40	1-5/16 12 UN	19 *(0.74")*	31 *(1.22")*	49 *(1.93")*	3.3 *(0.12")*	1-1/16 12 UN	19 *(0.74")*	24.7 *(0.97")*	41 *(1.16")*	3.3 *(0.12")*
From 47 to 80	1-5/8 12 UN	19 *(0.74")*	38.9 *(1.53")*	58 *(2.28")*	3.3 *(0.12")*	1-5/16 12 UN	19 *(0.74")*	31 *(1.22")*	49 *(1.93")*	3.3 *(0.12")*



Type	INLET					OUTLET				
	A	B	C	Y	K	A	B	C	Y	K
From 16 to 25	1-1/16 12 UN	19 *(0.74")*	24.7 *(0.97")*	41 *(1.16")*	3.3 *(0.12")*	1-1/16 12 UN	19 *(0.74")*	24.7 *(0.97")*	41 *(1.16")*	3.3 *(0.12")*
From 28 to 44	1-5/16 12 UN	19 *(0.74")*	31 *(1.22")*	49 *(1.93")*	3.3 *(0.12")*	1-5/16 12 UN	19 *(0.74")*	31 *(1.22")*	49 *(1.93")*	3.3 *(0.12")*

SAE threaded (ODT) **code R**

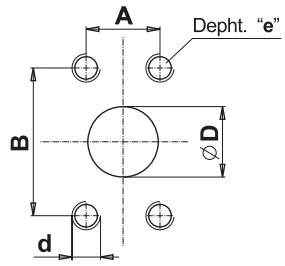
FLANGED PORTS



Type	OUTLET / INLET				INLET / OUTLET			
	ØD	ØA	d	e	ØD	ØA	d	e
From 23 to 47	27 (1.07")	51 (2.01")	M10	16 (0.63")	16 (0.63")	40 (1.57")	M8	16 (0.63")
From 55 to 80	33 (1.3")	62 (2.44")	M12	16 (0.63")	21 (0.83")	51 (2.01")	M10	16 (0.63")

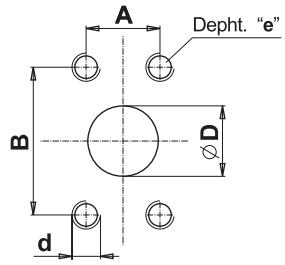
code P

Type	INLET				OUTLET			
	ØD	ØA	d	e	ØD	ØA	d	e
From 23 to 47	16 (0.63")	40 (1.57")	M8	16 (0.63")	16 (0.63")	40 (1.57")	M8	16 (0.63")
From 55 to 80	21 (0.83")	51 (2.01")	M10	16 (0.63")	21 (0.83")	51 (2.01")	M10	16 (0.63")



Type	OUTLET / INLET					INLET / OUTLET				
	ØD	B	A	d	e	ØD	B	A	d	e
From 23 to 47	32 (1.26")	58.72 (2.31")	30.18 (1.19")	3/8 16 UNC	18 (0.71")	19 (0.75")	47.6 (1.87")	22.2 (0.87")	3/8 16 UNC	18 (0.71")
From 55 to 80	39.3 (1.55")	69.8 (2.75")	35.7 (1.40")	1/2 13 UNC	15 (0.62")	32 (1.26")	58.72 (2.31")	30.18 (1.19")	3/8 16 UNC	18 (0.71")

code S Available for quantity (contact our sales dept.)

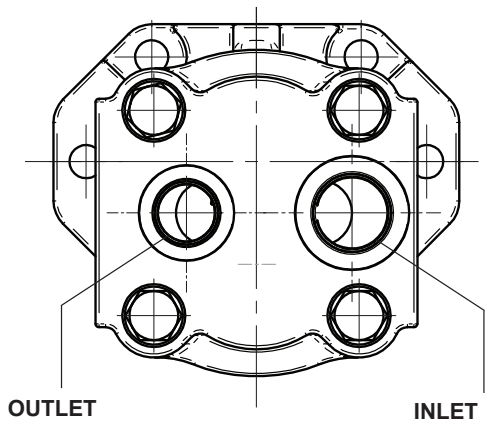


Type	OUTLET / INLET					INLET / OUTLET				
	ØD	B	A	d	e	ØD	B	A	d	e
From 23 to 47	32 (1.26")	58.72 (2.31")	30.18 (1.19")	M10	18 (0.71")	19 (0.75")	47.6 (1.87")	22.2 (0.87")	M10	18 (0.71")
From 55 to 80	39.3 (1.55")	69.8 (2.75")	35.7 (1.40")	M12	15 (0.62")	32 (1.26")	58.72 (2.31")	30.18 (1.19")	M10	18 (0.71")

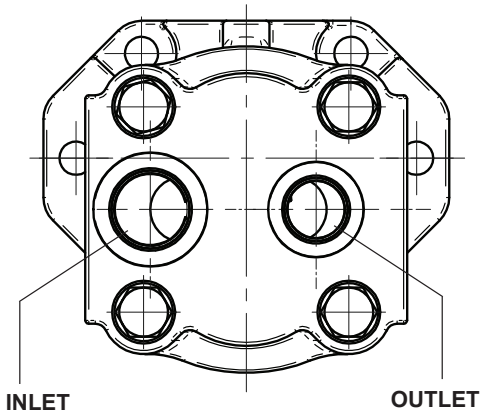
code W Available for quantity (contact our sales dept.)

RELEASE WITH REAR PORTS

CLOCKWISE ROTATION PUMP/MOTOR



ANTI-CLOCKWISE ROTATION PUMP/MOTOR

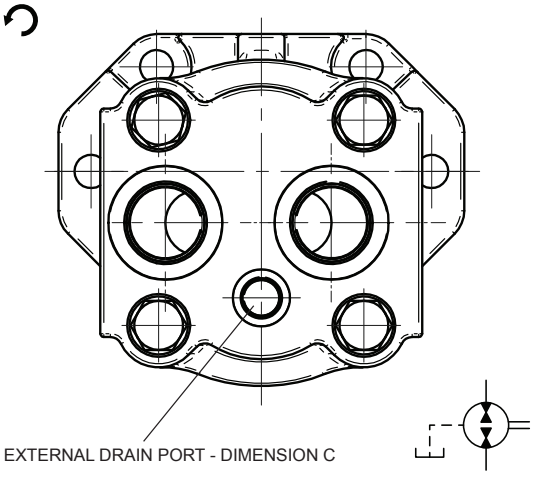


IN CASE OF USE AS A UNIDIRECTIONAL MOTOR:

- ANTI-CLOCKWISE PUMP BECOMES A CLOCKWISE MOTOR
- CLOCKWISE PUMP BECOMES AN ANTICLOCKWISE MOTOR

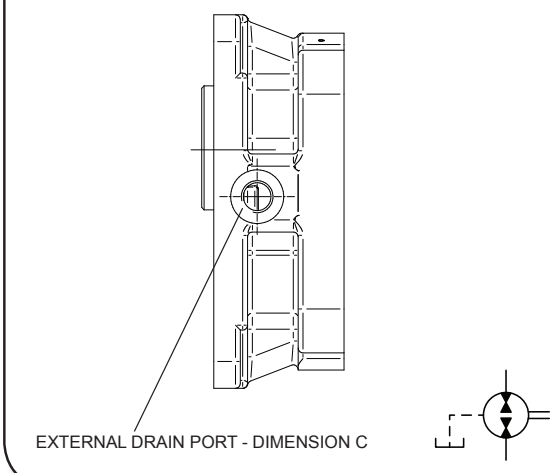
THE POSITION OF THE PORTS IS THE SAME BUT THE INLET BECOMES OUTLET AND VICEVERSA

BI-DIRECTIONAL ROTATION PUMP/MOTOR



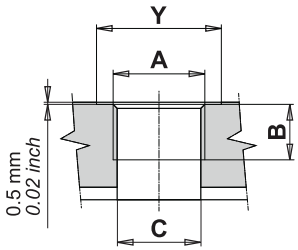
C
9/16-18UNF-2B (SAE 6)
G 3/8

AVAILABLE ALSO WITH DRAIN ON THE SIDE OF THE FRONT FLANGE



C
7/16 - 20 UNF (SAE 4)
G 1/4

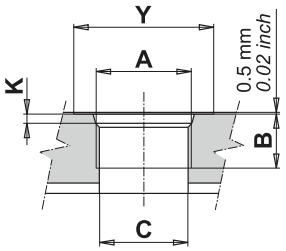
THREADED REAR PORTS



Type	OUTLET / INLET				INLET / OUTLET			
	A	B	C	Y	A	B	C	Y
From 23 to 40	G1	22 *(0.87")*	30.5 *(1.2")*	44 *(1.73")*	G3/4	16 *(0.62")*	24.4 *(0.96")*	36 *(1.42")*
From 40 to 80	G1"1/4	24 *(0.94")*	37 *(1.46")*	54 *(2.12")*	G1	22 *(0.87")*	30.5 *(1.2")*	44 *(1.73")*

Type	INLET				OUTLET			
	A	B	C	Y	A	B	C	Y
From 23 to 40	G3/4	16 *(0.62")*	24.4 *(0.96")*	36 *(1.42")*	G3/4	16 *(0.62")*	24.4 *(0.96")*	36 *(1.42")*
From 28 to 80	G1	22 *(0.87")*	30.5 *(1.2")*	44 *(1.73")*	G1	22 *(0.87")*	30.5 *(1.2")*	44 *(1.73")*

code G British standard pipe parallel (BSPP)



Type	OUTLET / INLET					INLET / OUTLET				
	A	B	C	Y	K	A	B	C	Y	K
From 23 to 40	1-5/16 12 UN	19 *(0.74")*	31 *(1.22")*	49 *(1.93")*	3.3 *(0.12")*	1-1/16 12 UN	19 *(0.74")*	24.7 *(0.97")*	41 *(1.16")*	3.3 *(0.12")*
From 47 to 80	1-5/8 12 UN	19 *(0.74")*	38.9 *(1.53")*	58 *(2.28")*	3.3 *(0.12")*	1-5/16 12 UN	19 *(0.74")*	31 *(1.22")*	49 *(1.93")*	3.3 *(0.12")*

Type	INLET					OUTLET				
	A	B	C	Y	K	A	B	C	Y	K
From 16 to 25	1-1/16 12 UN	19 *(0.74")*	24.7 *(0.97")*	41 *(1.16")*	3.3 *(0.12")*	1-1/16 12 UN	19 *(0.74")*	24.7 *(0.97")*	41 *(1.16")*	3.3 *(0.12")*
From 28 to 80	1-5/16 12 UN	19 *(0.74")*	31 *(1.22")*	49 *(1.93")*	3.3 *(0.12")*	1-5/16 12 UN	19 *(0.74")*	31 *(1.22")*	49 *(1.93")*	3.3 *(0.12")*

code R SAE threaded (ODT)