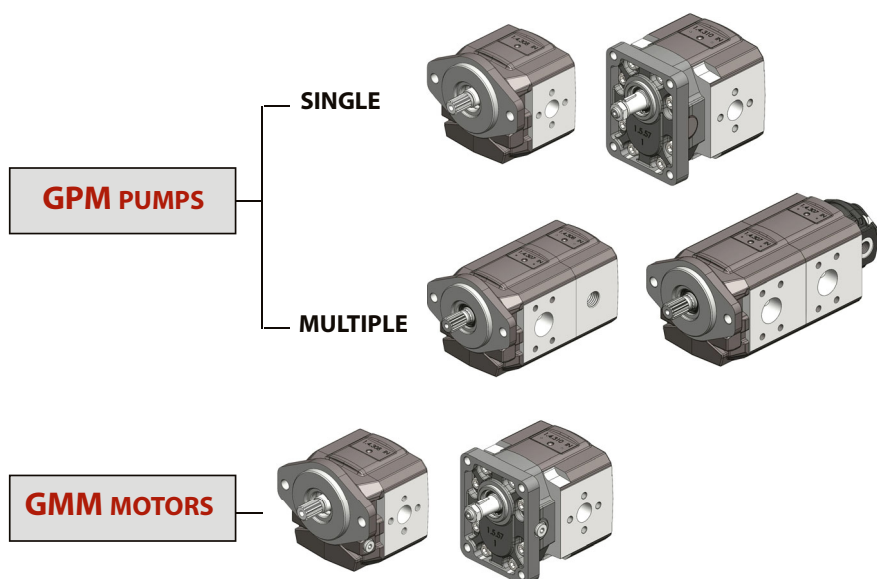
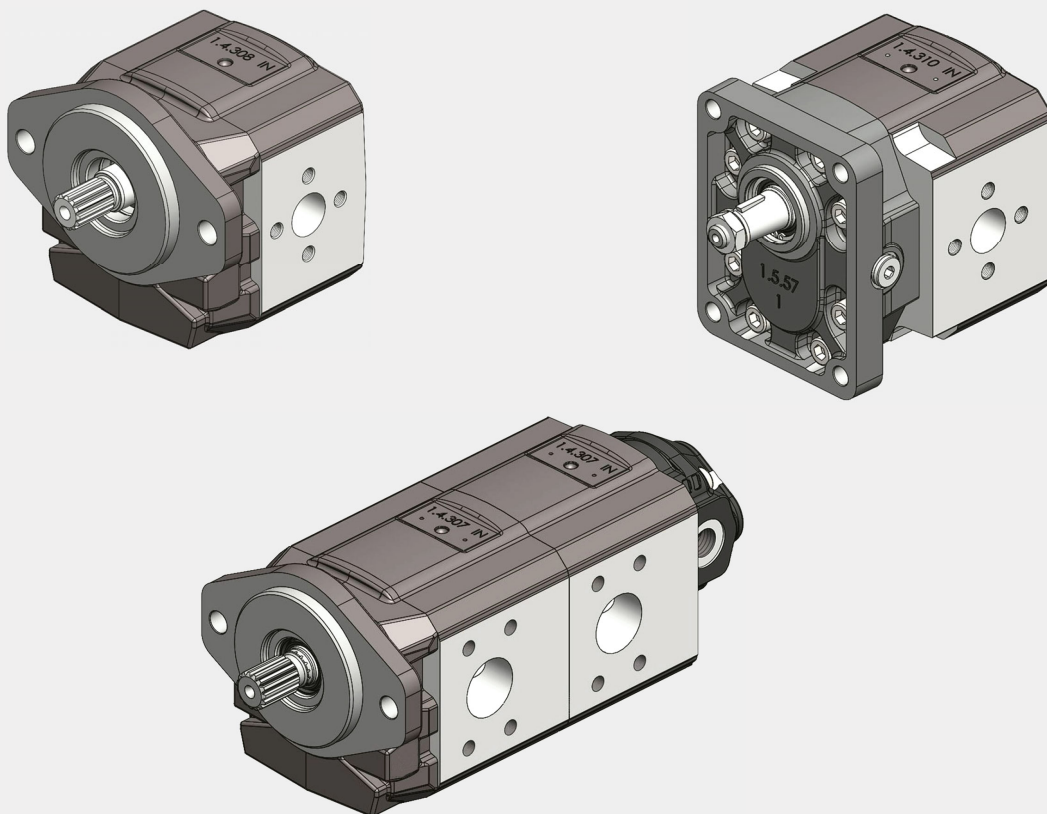


OMFB introduced a new line of CAST IRON GEAR PUMPS and MOTORS in the GROUP 3 of GPM - GMM series. These new products are meant for all those applications where the standard aluminum pumps have limits in terms of performance. With the double housing structure these pumps have a compact design and can maintain high performances and working pressures. Thanks to this special design, they are suitable for the agricultural sector and all mobile applications where high efficiency at high temperatures, low noise and long life expectancy are required.



Index

• Pumps technical features	pag. 03
• Dimensions	pag. 04
• Flange, supports and gaskets	pag. 05
• Shafts.....	pag. 06
• Ports	pag. 07
• Motor drain ports	pag. 08
• Multiple pumps	pag. 09
• Motors technical features	pag. 10
• Motors valves	pag. 11
• How to order	pag. 12

CAST IRON GEAR PUMPS AND MOTORS

TECHNICAL FEATURES

General working conditions

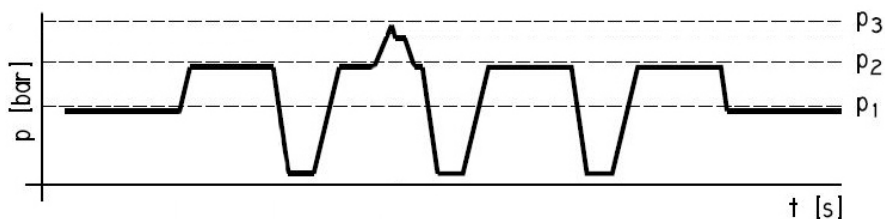
Fluid	Mineral or synthetic compatible with the following seals: NBR, FKM, FPM, Nylon				
Fluid temperature range	NBR seals		from -25°C to +80°C		
Kinematic viscosity suggested	Average ambient temp. (°C)	< -10	-10÷10	10÷35	> 35
	VG (cSt = mm²/s)	22	32	46	68
Optimale kinematic viscosity			VG= 10 cSt ÷ 100 cSt		
Max kinematic viscosity suggested at the start-up			VG= 750 cSt		
Viscosity index suggested VI > 100			Working temperature -15°C ÷ 100°C		
Oil filtering			> 200 bar: 10 µm < 200 bar: 25 µm		
Pumps rotation			Unidirectional (Right or Left)		
Motors rotation			Reversible Unidirectional		

In case of usage under higher temperatures or with special fluids, please consult our technical sales office for the choice of the most suitable type of gaskets and thrust plates.

Pumps and motors technical features

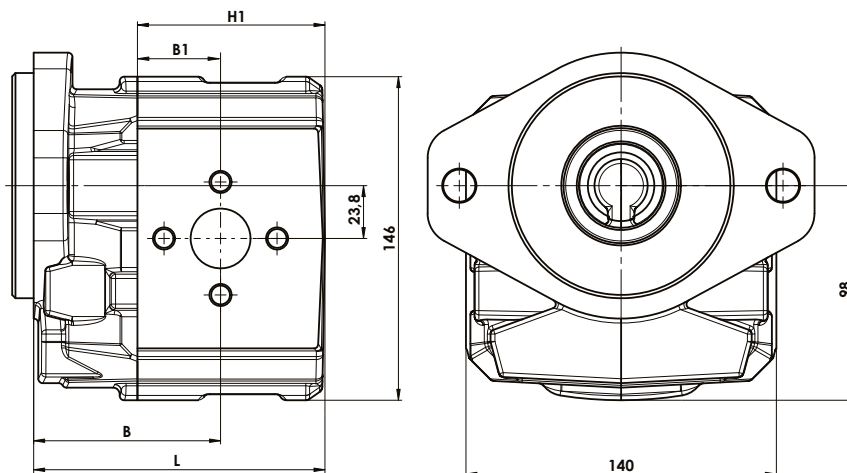
Pump type	Motor type	Displacement	Working pressure			Max. continuous speed PUMPS	Max. continuous speed MOTORS	Min. speed
			P1	P2	P3			
		cm³/rev	bar	bar	bar	rpm	rpm	rpm
GPM 22	GMM 22	22,15	285	300	320	3000	3800	300
GPM 27	GMM 27	26,16						
GPM 34	GMM 34	33,88	280	300	320		3500	
GPM 38	GMM 38	38,50						
GPM 41	GMM 41	41,50						
GPM 43	GMM 43	43,12						
GPM 51	GMM 51	50,82	270	290	310	2500	3000	
GPM 56	GMM 56	55,50						
GPM 61	GMM 61	60,06	250	270	290			
GPM 73	GMM 73	72.88	220	240	250			

Pressure definition



- P1 = Max. continuous pressure (100%)
 P2 = Max. intermittent pressure (20 sec.max.)
 P3 = Max. peak pressure (2 sec.max.)

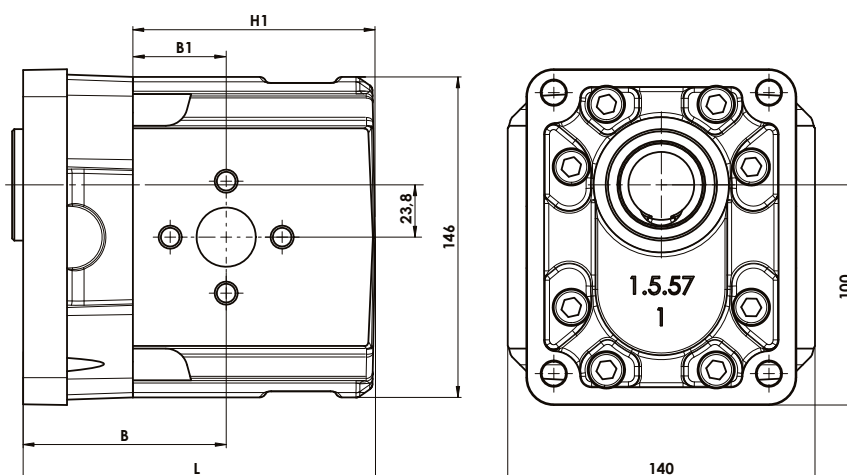
Single pumps GPM and motors GMM dimensions - SAE-B flange



Pump type	Displacement	L	B		B1		H1	Weight
	cm ³ /rev	mm	mm		mm		mm	
GPM 22	22,15	128,9	75,8	81,8*	29	35*	82,1	
GPM 27	26,16	131,4	78,3	84,3*	31,5	37,5*	84,6	
GPM 34	33,88	136,4	83,3	89,3*	36,5	42,5*	89,6	
GPM 38	38,50	139,4	86,3		39,5		92,6	
GPM 41	41,50	141,4	88,3		41,5		94,6	
GPM 43	43,12	142,4	89,3		42,5		95,6	
GPM 51	50,82	147,4	94,3		47,5		100,6	
GPM 56	55,50	150,4	97,3		50,5		103,6	
GPM 61	60,06	153,4	100,3		53,5		106,6	
GPM 73	72,88	161,4	108,3		61,5		114,6	

* European ports only

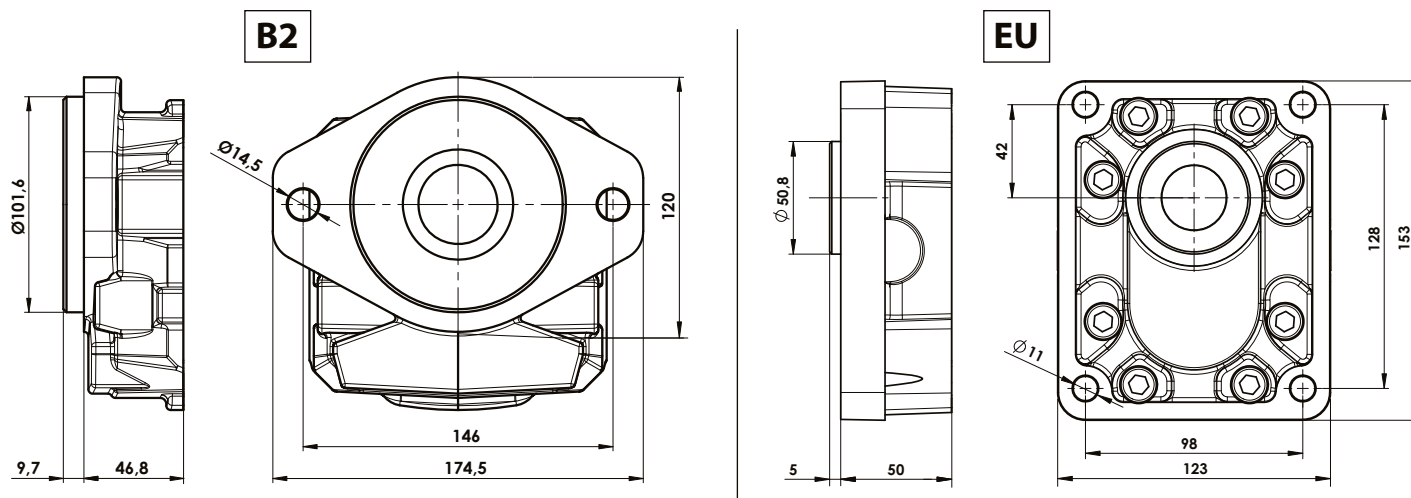
Single pumps GPM and motors GMM dimensions - EUROPEAN flange



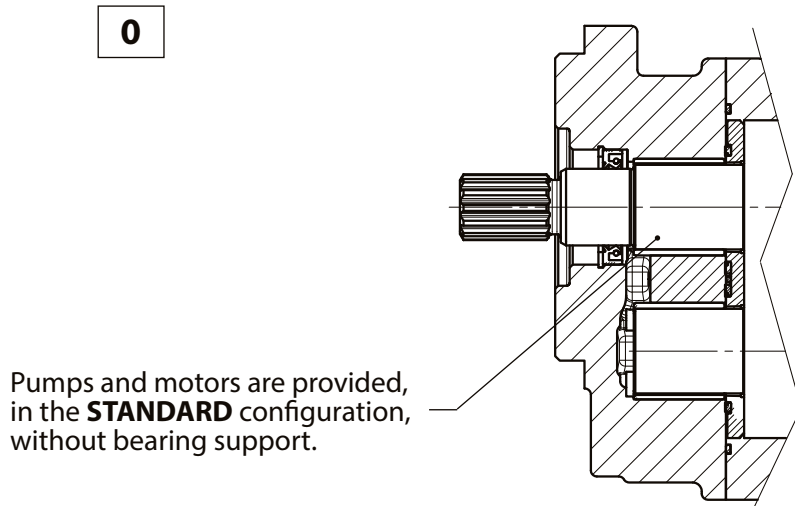
Pump type	Displacement	L	B		B1		H1	Weight
	cm ³ /rev	mm	mm		mm		mm	
GPM 22	22,15	132,1	75,8	81,8*	29	35*	82,1	
GPM 27	26,16	134,6	78,3	84,3*	31,5	37,5*	84,6	
GPM 34	33,88	139,6	83,3	89,3*	36,5	42,5*	89,6	
GPM 38	38,50	142,6	86,3		39,5		92,6	
GPM 41	41,50	144,6	88,3		41,5		94,6	
GPM 43	43,12	145,6	89,3		42,5		95,6	
GPM 51	50,82	150,6	94,3		47,5		100,6	
GPM 56	55,50	153,6	97,3		50,5		103,6	
GPM 61	60,06	156,6	100,3		53,5		106,6	
GPM 73	72,88	164,6	108,3		61,5		114,6	

* European ports only

Flange



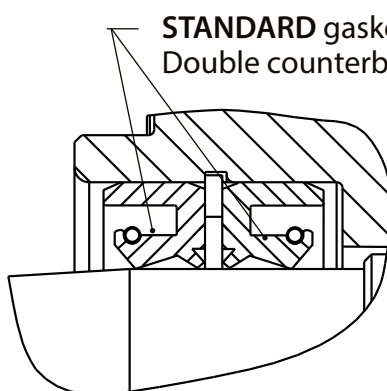
Pumps and motors shaft support type



Pumps and motors are provided, in the **STANDARD** configuration, without bearing support.

Versions with integrated support available under request, please contact our technical sales department.

Gaskets



STANDARD gaskets

Double counterbalanced oil seal specific for:

Pumps

P

Motors

R

Sealing system for High Pressure

T

Gaskets material:

- NBR

N

- FKM

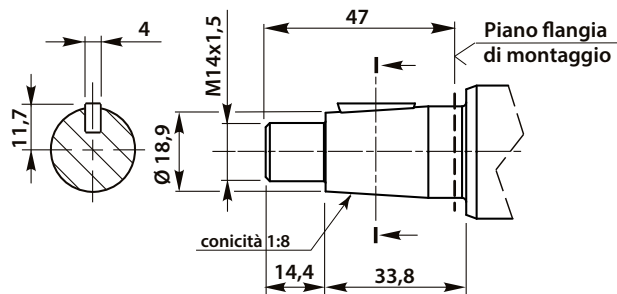
F

Special gaskets are available on request.

Shafts

8

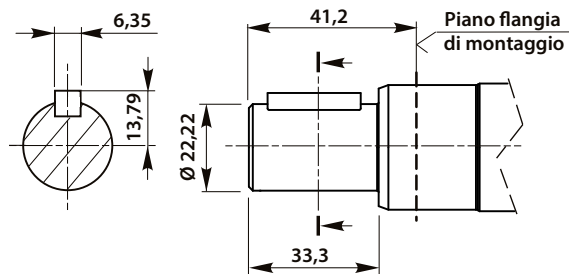
1:8 CONICAL EUROPEAN shaft



Transmissible torque 240Nm

4

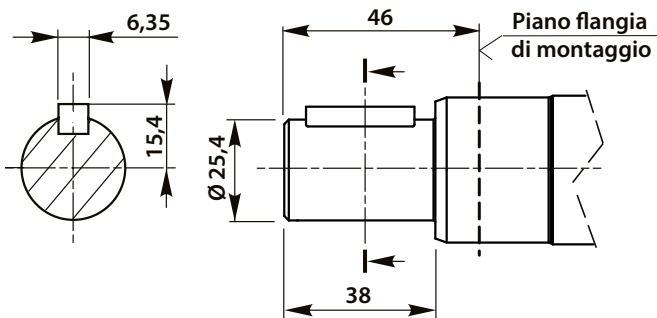
SAE B CYLINDRICAL shaft



Transmissible torque 200Nm

6

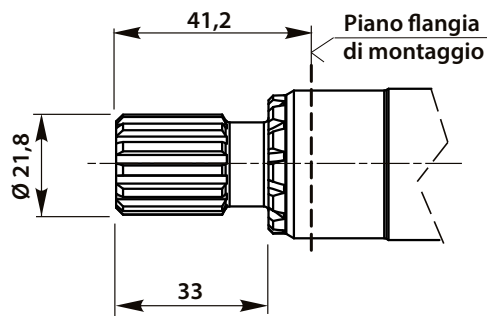
SAE BB CYLINDRICAL shaft



Transmissible torque 280Nm

1

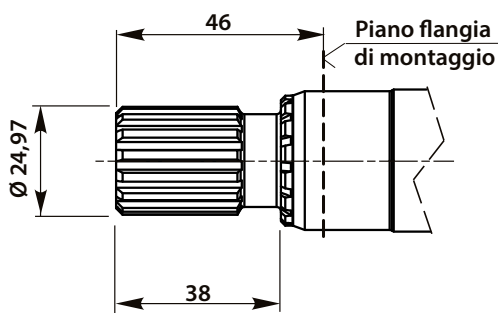
SAE B 13T shaft



Transmissible torque 280Nm

2

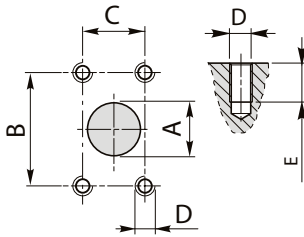
SAE BB 15T shaft



Transmissible torque 400Nm

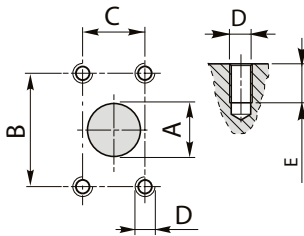
Ports

SAE J518



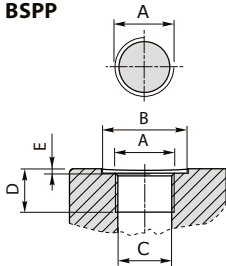
Pump type	Displacement <i>cm³/rev</i>	Ports thread - Metric									
		A		B		C		D		E	
		IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
GPM 22	22,15	W5	25,4	W4	19	52,4	47,5	26,2	22,2	M10	17
GPM 27	26,16										
GPM 34	33,88										
GPM 38	38,50										
GPM 41	41,50	W6	30,5	W5	25,4	58,7	52,4	30,2	26,2	M10	17
GPM 43	43,12										
GPM 51	50,82										
GPM 56	55,50	W7	39,3	W6	30,5	69,8	58,7	35,7	30,2	M12	M10
GPM 61	60,06										
GPM 73	72,88										

SAE J518



Pump type	Displacement <i>cm³/rev</i>	Ports thread - UNC									
		A		B		C		D		E	
		IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
GPM 22	22,15	Z5	25,4	Z4	19	52,4	47,5	26,2	22,2	3/8-16 UNC-2B	3/8-16 UNC-2B
GPM 27	26,16										
GPM 34	33,88										
GPM 38	38,50										
GPM 41	41,50	Z6	30,5	Z5	25,4	58,7	52,4	30,2	26,2	7/16-14 UNC-2B	3/8-16 UNC-2B
GPM 43	43,12										
GPM 51	50,82										
GPM 56	55,50	Z7	39,3	Z6	30,5	69,8	58,7	35,7	30,2	1/2-13 UNC-2B	7/16-14 UNC-2B
GPM 61	60,06										
GPM 73	72,88										

BSPP

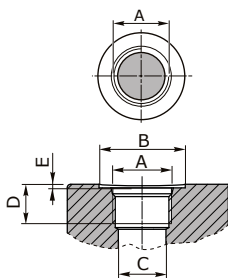


Pump type	Displacement <i>cm³/rev</i>	Ports thread - Gas									
		A		B		C		D		E	
		IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
GPM 22	22,15	G5	G1	G4	G3/4	49	39	30,5	24,5	22	18
GPM 27	26,16										
GPM 34	33,88										
GPM 38	38,50										
GPM 41	41,50	G6	G1-1/4	G5	G1	56	49	39	30,5	24	22
GPM 43	43,12										
GPM 51	50,82										
GPM 56	55,50										
GPM 61	60,06										
GPM 73	72,88										

CAST IRON GEAR PUMPS AND MOTORS

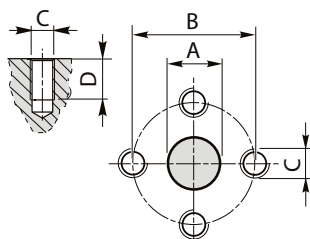
PORTS

SAE J514



Pump type	Displacement	Ports thread - UNF											
		A				B		C		D		E	
	cm ³ /rev	IN		OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
GPM 22	22,15	U5	1 5/16"-12 UNF-2B	U4	1 1/16"-12 UNF-2B	49	42	30,5	24,8	20	2		
GPM 27	26,16												
GPM 34	33,88												
GPM 38	38,50												
GPM 41	41,50	U6	1 5/8"-12 UNF-2B	U5	1 5/16"-12 UNF-2B	58	49	39,1	30,5				
GPM 43	43,12												
GPM 51	50,82												
GPM 56	55,50												
GPM 61	60,06												
GPM 73	72.88												

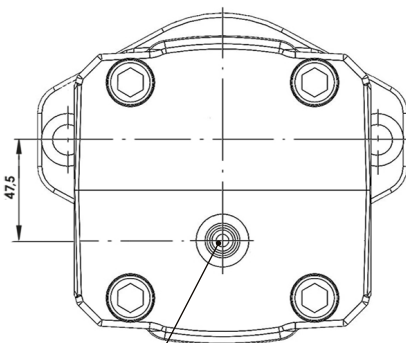
European flange



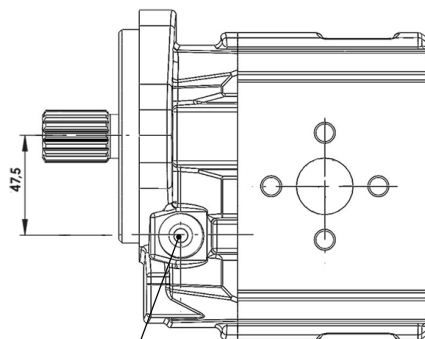
Pump type	Displacement	Ports thread - European									
		A				B		C		D	
	cm ³ /rev	IN		OUT		IN	OUT	IN	OUT	IN	OUT
GPM 22	22,15	E5	27	E4	19	51	40	M10	M8	15	18
GPM 27	26,16										
GPM 34	33,88										
GPM 38	38,50										
GPM 41	41,50										
GPM 43	43,12	E6	33	E5	27	62	51	M12	M10	17	15
GPM 51	50,82										
GPM 56	55,50										
GPM 61	60,06										
GPM 73	72.88										

Motors drain ports

SAE B Version

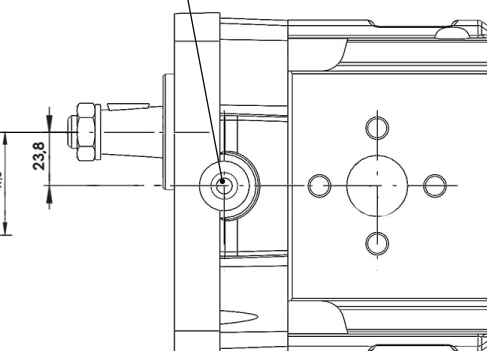
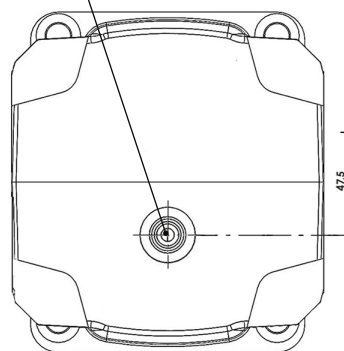


Rear STANDARD
drain - G3/8



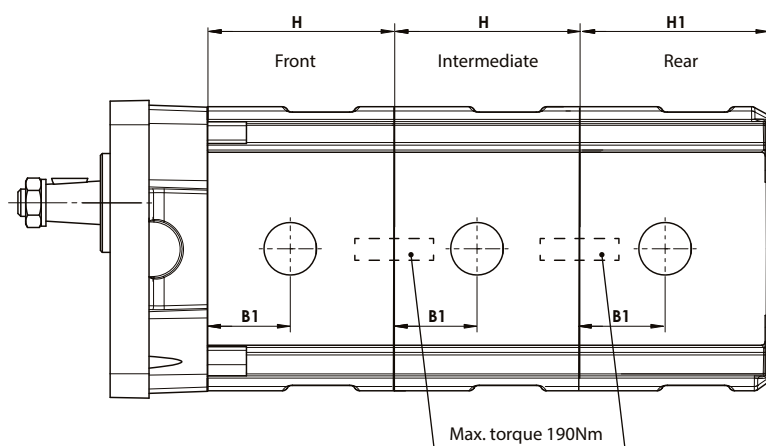
Side OPTIONAL
drain - G1/4

EUROPEAN Version



CAST IRON GEAR PUMPS MULTIPLE PUMPS

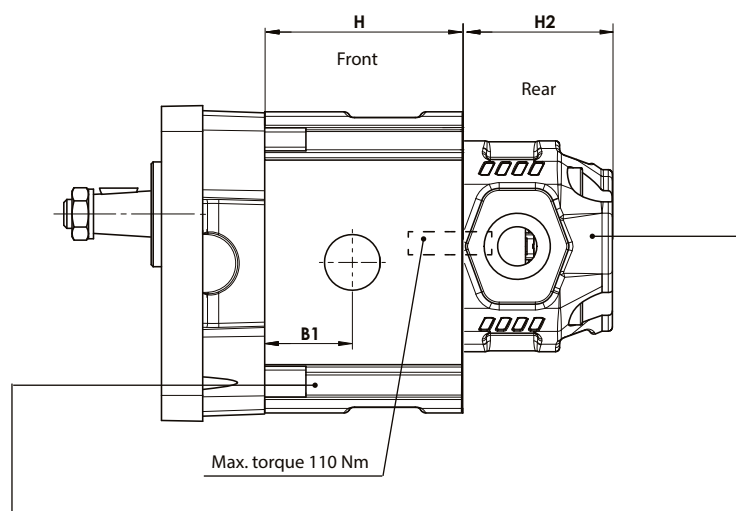
Group 3 dimensions



Pump type	Displacement	H	H1	B1	
	cm ³ /rev	mm	mm	mm	
GPM 22	22,15	97	82,1	29	35*
GPM 27	26,16	99,5	84,6	31,5	37,5*
GPM 34	33,88	104,5	89,6	36,5	42,5*
GPM 38	38,50	107,5	92,6	39,5	
GPM 41	41,50	109,5	94,6	41,5	
GPM 43	43,12	110,5	95,6	42,5	
GPM 51	50,82	115,5	100,6	47,5	
GPM 56	55,50	118,5	103,6	50,5	
GPM 61	60,06	121,5	106,6	53,5	
GPM 73	72,88	129,5	114,6	61,5	

* European ports only

Group 3 + Group 2 dimensions



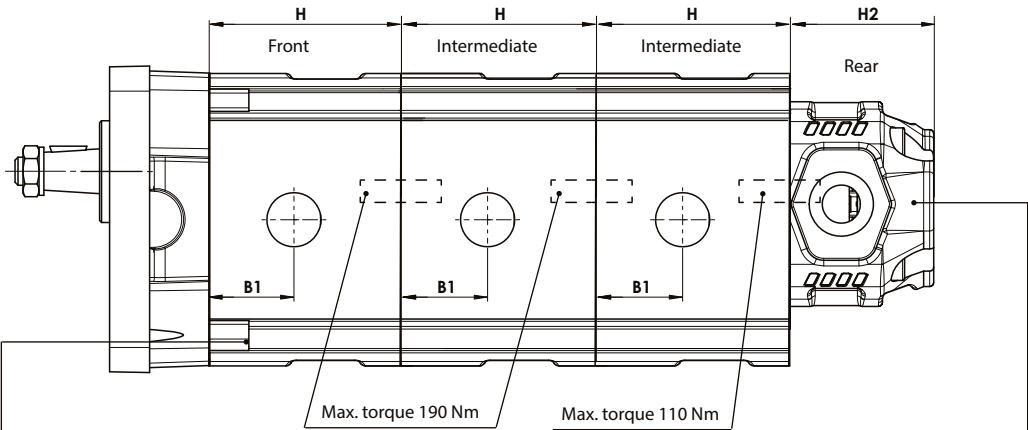
Pump type	Displacement	H	B1	
	cm ³ /rev	mm	mm	
GPM 22	22,15	97	29	35*
GPM 27	26,16	99,5	31,5	37,5*
GPM 34	33,88	104,5	36,5	42,5*
GPM 38	38,50	107,5	39,5	
GPM 41	41,50	109,5	41,5	
GPM 43	43,12	110,5	42,5	
GPM 51	50,82	115,5	47,5	
GPM 56	55,50	118,5	50,5	
GPM 61	60,06	121,5	53,5	
GPM 73	72,88	129,5	61,5	

Pump type	Displacement	H2
	cm ³ /rev	mm
GR2 06	6,3	56
GR2 08	8,18	59
GR2 10	10,06	62
GR2 12	11,92	
GR2 14	13,8	68
GR2 16	16,03	71,5
GR2 20	20,12	78
GR2 25	25,15	86
GR2 32	32,04	97

* European ports only

CAST IRON GEAR PUMPS

MULTIPLE PUMPS

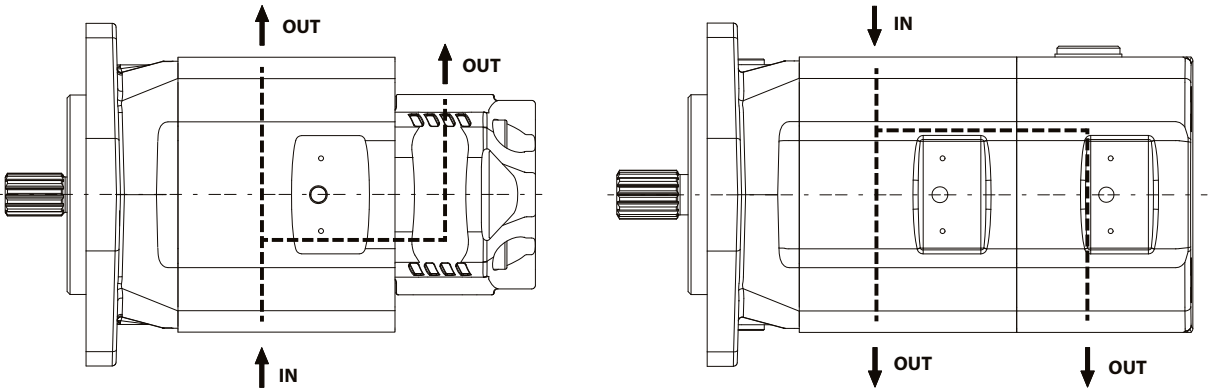


Pump type	Displacement	H	B1	
	cm³/rev		mm	
GPM 22	22,15	97	29	35*
GPM 27	26,16	99,5	31,5	37,5*
GPM 34	33,88	104,5	36,5	42,5*
GPM 38	38,50	107,5	39,5	
GPM 41	41,50	109,5	41,5	
GPM 43	43,12	110,5	42,5	
GPM 51	50,82	115,5	47,5	
GPM 56	55,50	118,5	50,5	
GPM 61	60,06	121,5	53,5	
GPM 73	72.88	129,5	61,5	

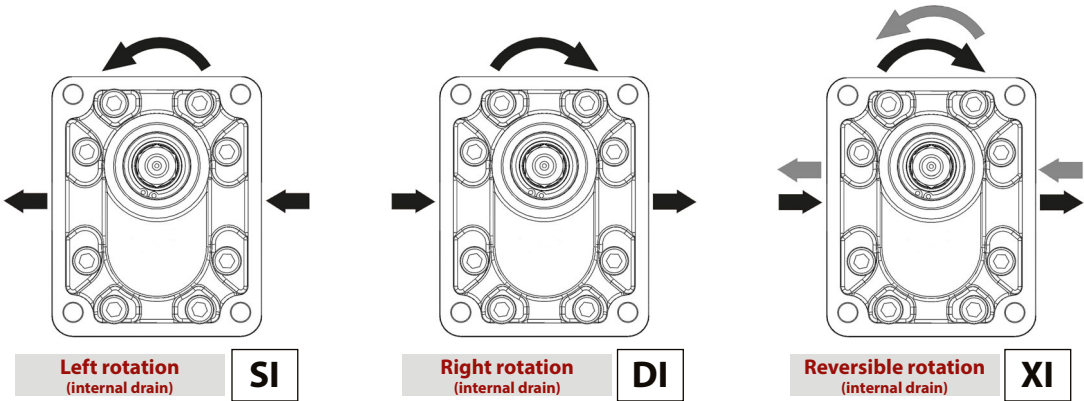
Pump type	Displacement	H2
	cm³/rev	
GR2 06	6,3	56
GR2 08	8,18	59
GR2 10	10,06	62
GR2 12	11,92	
GR2 14	13,8	68
GR2 16	16,03	71,5
GR2 20	20,12	78
GR2 25	25,15	86
GR2 32	32,04	97

* solo per bocche Europea

Multiple pumps with **single suction port** are available. For information, please contact our Sales Service.



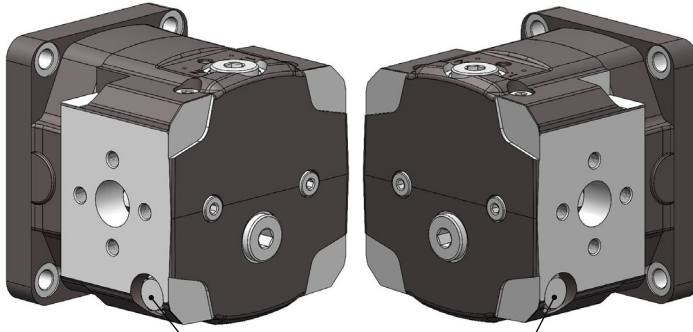
Rotation direction looking at the shaft



Integrated valves for motors

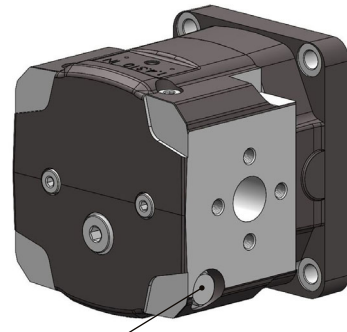
Anti-cavitation and anti-cavitation/shock valves integrated directly in the engine body are available on request. This solution allows to optimize the layout of the system and guarantees a faster response in the pressure peak control.

Bidirectional motor



Note: N° 2 valves

Unidirectional motor



Note: N° 1 inlet valve

(vedere pag.12)



Valve type	Motor use
Any	
Anticavitation-Antishock valve	Reversible motor
Anticavitation-Antishock valve	Unidirectional motor DX
Anticavitation-Antishock valve	Unidirectional motor SX
Anticavitation valve	Unidirectional motor DX
Anticavitation valve	Unidirectional motor SX

00

AR

AD

AS

BD

BS

For these valves please specify the value of range

Antishock - Anticavitation valves with FIXED range

Range (bar)	Code
50	PWS1M200050
70	PWS1M200070
90	PWS1M200090
110	PWS1M200110
130	PWS1M200130
150	PWS1M200150
180	PWS1M200180
200	PWS1M200200
230	PWS1M200230
260	PWS1M200260
290	PWS1M200290
320	PWS1M200320

Antishock - Anticavitation valves with range ADJUSTABLE

Range (bar)	Code
20÷100	PWA1M200S00
101÷170	PWA1M200T00
171÷250	PWA1M200F00
251÷350	PWA1M200C00

Anticavitation valve

Code
PWR1M200000

Valve replacement cap

Code
PWP1M200000

HOW TO ORDER - SINGLE PUMP/MOTOR

1	2	3	4	5	6	7	8	9	10	11	12	13
												0 0

fixed parameter
already filled in

14

ONLY for engines with
valve (see page 11)

1	Type
	GPM
	GMM

2	Flange	
	SAE B 2 holes	B2
	European	EU

3	Shaft	
	SAE B 13T	1
	SAE BB 15T	2
	SAE B Cylindrical	4
	SAE BB Cylindrical	6
	European con. 1:8	8

4	Rotation + drains	
	Left (internal drain)	SI
	Right (internal drain)	DI
	Reversible (internal drain)	XI
	Reversible (rear external drain G3/8)	XG
	Reversible (side external drain G1/4)	XQ

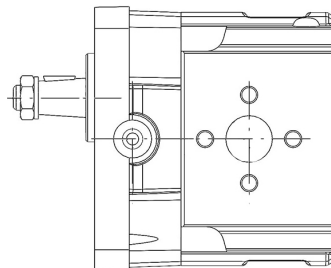
5	Valves predisposition	
	Any	00
	Anticavitation-antishock valve (reversible motor)	AR
	Anticavitation-antishock valve (right motor)	AD
	Anticavitation-antishock valve (left motor)	AS
	Anticavitation valve (right motor)	BD
	Anticavitation valve (left motor)	BS

6	Support type	
	Standard without bearing	0

7	Gaskets	
	PUMPS standard	P
	MOTORS standard	R
	High Pressure Sealing System	T

8	Gaskets material	
	NBR	N
	FKM	F

9	Displacement cm^3/rev	
	22,15	22
	26,16	27
	33,88	34
	38,50	38
	41,50	41
	43,12	43
	50,82	51
	55,50	56
	60,06	61
	72,88	73



10	Thread type	Displacement	Port		
SAE J518 Metric	22-27 34-38	IN	25,4	W5	
			19	W4	
		OUT	30,5	W6	
			25,4	W5	
	41-43 51	IN	39,3	W7	
			30,5	W6	
		OUT	25,4	Z5	
			19	Z4	
SAE J518 UNC	22-27 34-38	IN	25,4	Z5	
			19	Z4	
		OUT	30,5	Z6	
			25,4	Z5	
	41-43 51	IN	39,3	Z7	
			30,5	Z6	
		OUT	25,4	G5	
			19	G4	
BSPP Gas	22-27 34-38	IN	G1	G5	
			G3/4	G4	
		OUT	G1-1/4	G6	
			G1	G5	
	41-43-51 56-61-73	IN	1 5/16"-12 UNF-2B	U5	
			1 1/16"-12 UNF-2B	U4	
		OUT	1 5/8"-12 UNF-2B	U6	
			1 5/16"-12 UNF-2B	U5	
UNF	22-27 34-38	IN	27	E5	
			19	E4	
		OUT	33	E6	
			27	E5	
	41-43-51 56-61-73	IN	27	E5	
			19	E4	
		OUT	33	E6	
			27	E5	
European	22-27-34 38-41-43-51	IN	27	E5	
			19	E4	
	56-61-73	IN	33	E6	
			27	E5	

11	Ports position	
	Side IN/OUT	I

12	Coating	
	Standard black	0

Field No. 14 shall be completed ONLY if a valve is present.

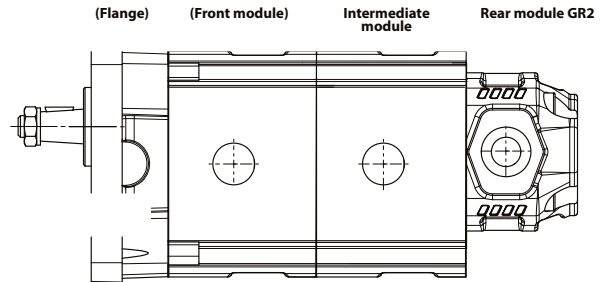
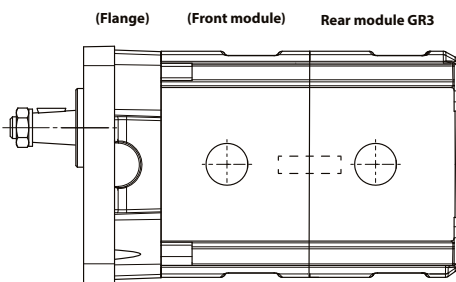
HOW TO ORDER - MULTIPLE PUMP

1	2	3	4	5	6	7	8	12	13
									0 0

fixed parameter
already filled in

The coding part above is to be completed following the indications on the previous page for a single pump (except point 1). Other data specified below, which should be repeated for the number of modules, must be added to the coding.

15	09	10	11	15	09	10	11



1	Pump type	
	Double	GTD
	Triple	GTT
	Quadruple	GTQ

Composition multiple pump	
Flange + Front module + Rear module	
Flange + Front module + Intermediate module + Rear module	
Flange + Front module + 2 x Intermediate module + Rear module	

15	Type	09			
	GPM (Group 3)	Displacement Module GR3		Displacement Module GR2	
	G2P (Group 2)				

22,15 cm³/rev	22	6,3 cm³/rev	06
26,16 cm³/rev	27	8,18 cm³/rev	08
33,88 cm³/rev	34	10,06 cm³/rev	10
38,50 cm³/rev	38	11,92 cm³/rev	12
41,50 cm³/rev	41	13,8 cm³/rev	14
43,12 cm³/rev	43	16,03 cm³/rev	16
50,82 cm³/rev	51	20,12 cm³/rev	20
55,50 cm³/rev	56	25,15 cm³/rev	25
60,06 cm³/rev	61	32,04 cm³/rev	32
72,88 cm³/rev	73		

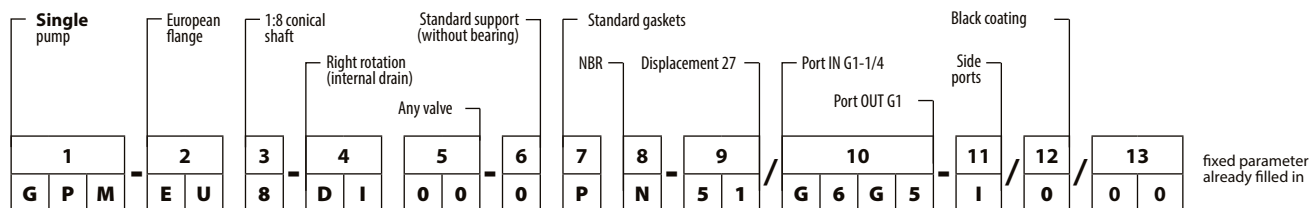
10	Intermediate module and Rear module thread type	Displacement	Port		
----	---	--------------	------	--	--

SAE J518 Metric	22-27 34-38	IN	25,4	W5
		OUT	19	W4
	41-43 51	IN	30,5	W6
		OUT	25,4	W5
	56-61 73	IN	39,3	W7
		OUT	30,5	W6
SAE J518 UNC	22-27 34-38	IN	25,4	Z5
		OUT	19	Z4
	41-43 51	IN	30,5	Z6
		OUT	25,4	Z5
	56-61 73	IN	39,3	Z7
		OUT	30,5	Z6
UNF	22-27 34-38	IN	1 5/16"-12 UNF-2B	U5
		OUT	1 1/16"-12 UNF-2B	U4
	41-43-51 56-61-73	IN	1 5/8"-12 UNF-2B	U6
		OUT	1 5/16"-12 UNF-2B	U5
	22-27-34 38-41-43-51	IN	27	E5
		OUT	19	E4
European	56-61-73	IN	33	E6
		OUT	27	E5
	22-27 34-38	IN	G1	G5
		OUT	G3/4	G4
	41-43-51 56-61-73	IN	G1-1/4	G6
		OUT	G1	G5
BSPP - Gas ONLY GROUP 3	All	IN	G3/4	G4
		OUT	G1/2	G3

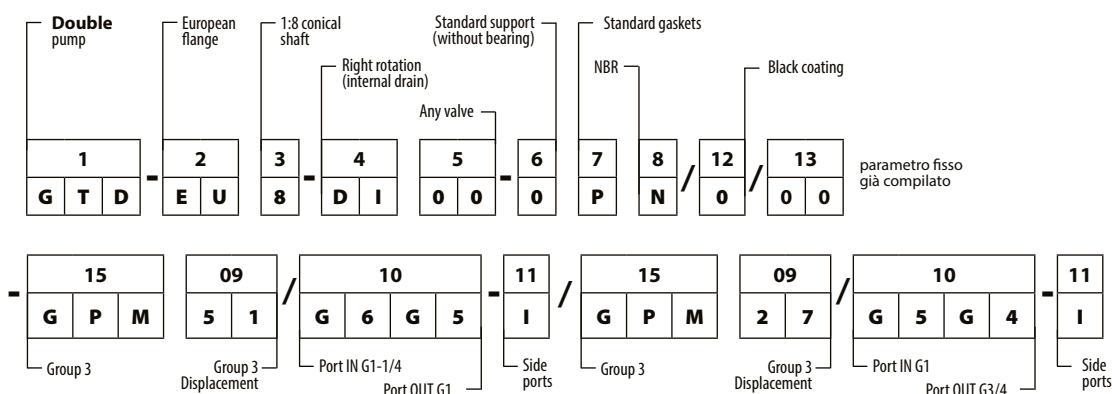
11	Ports position	
	Side IN/OUT	I

For example coding see page 14

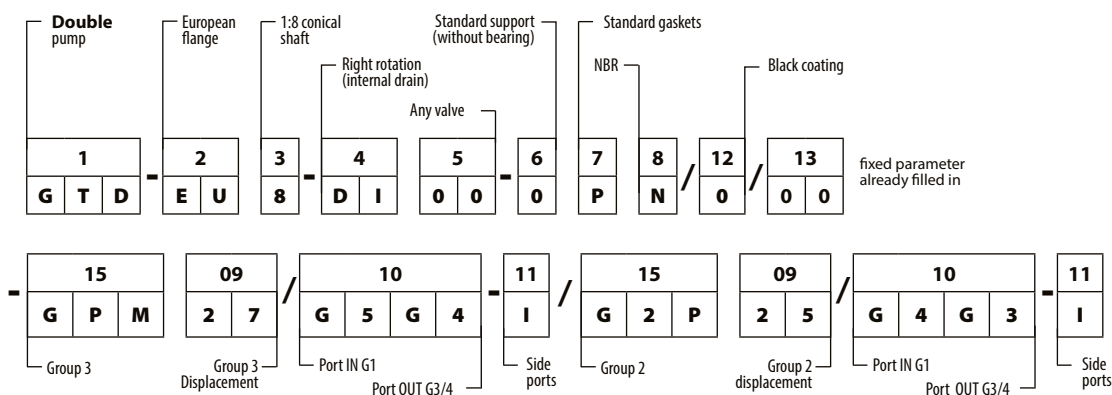
EXAMPLE OF SINGLE PUMP ORDER



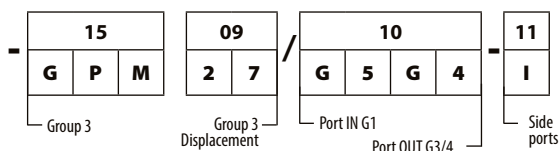
EXAMPLE OF DOUBLE PUMP ORDER - SAME GROUP



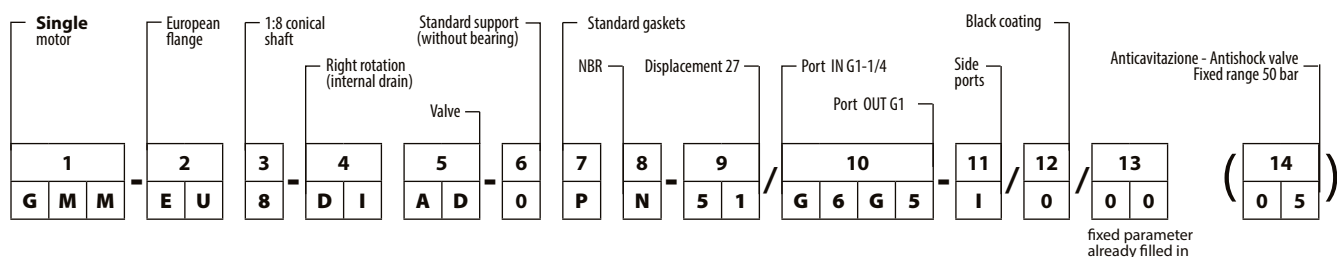
EXAMPLE OF DOUBLE PUMP ORDER - DIFFERENT GROUPS



For the **TRIPLE** and **QUADRUPLE** pumps composition, please repeat the previous schemes by adding the additional desired modules.



EXAMPLE OF MOTOR WITH VALVE ORDER





NOTES

[illegible]



NOTES

[illegible]