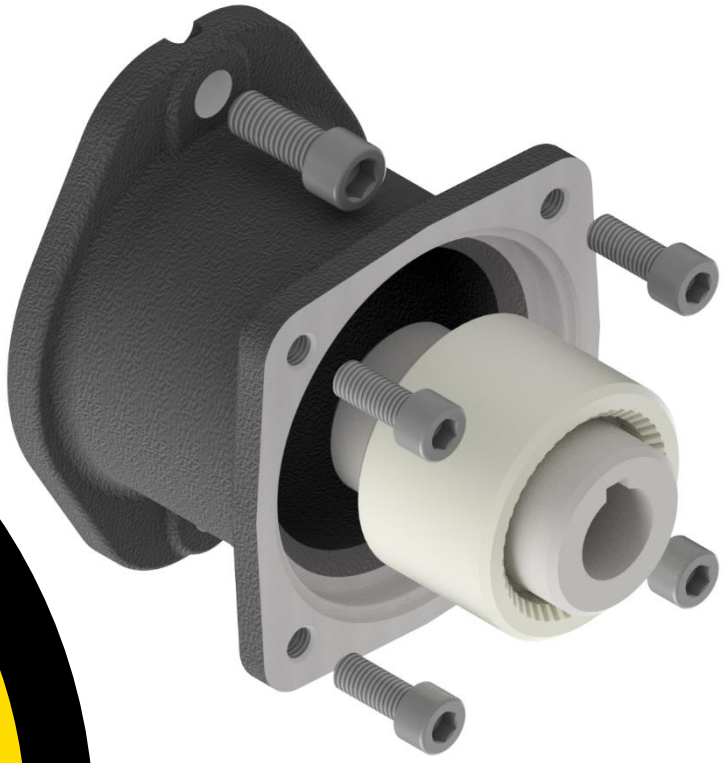
BERARMA
oleodinamica

Coupling units, SAE flanges, Key Lock kit

COUPLINGS and ACCESSORIES



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Coupling units

For all Berarma pumps equipped with the **through shaft option** for the construction of multiple pumps (option "**A**"), the coupling units described below are available which allow to combine the following secondary pumps on the same axis:

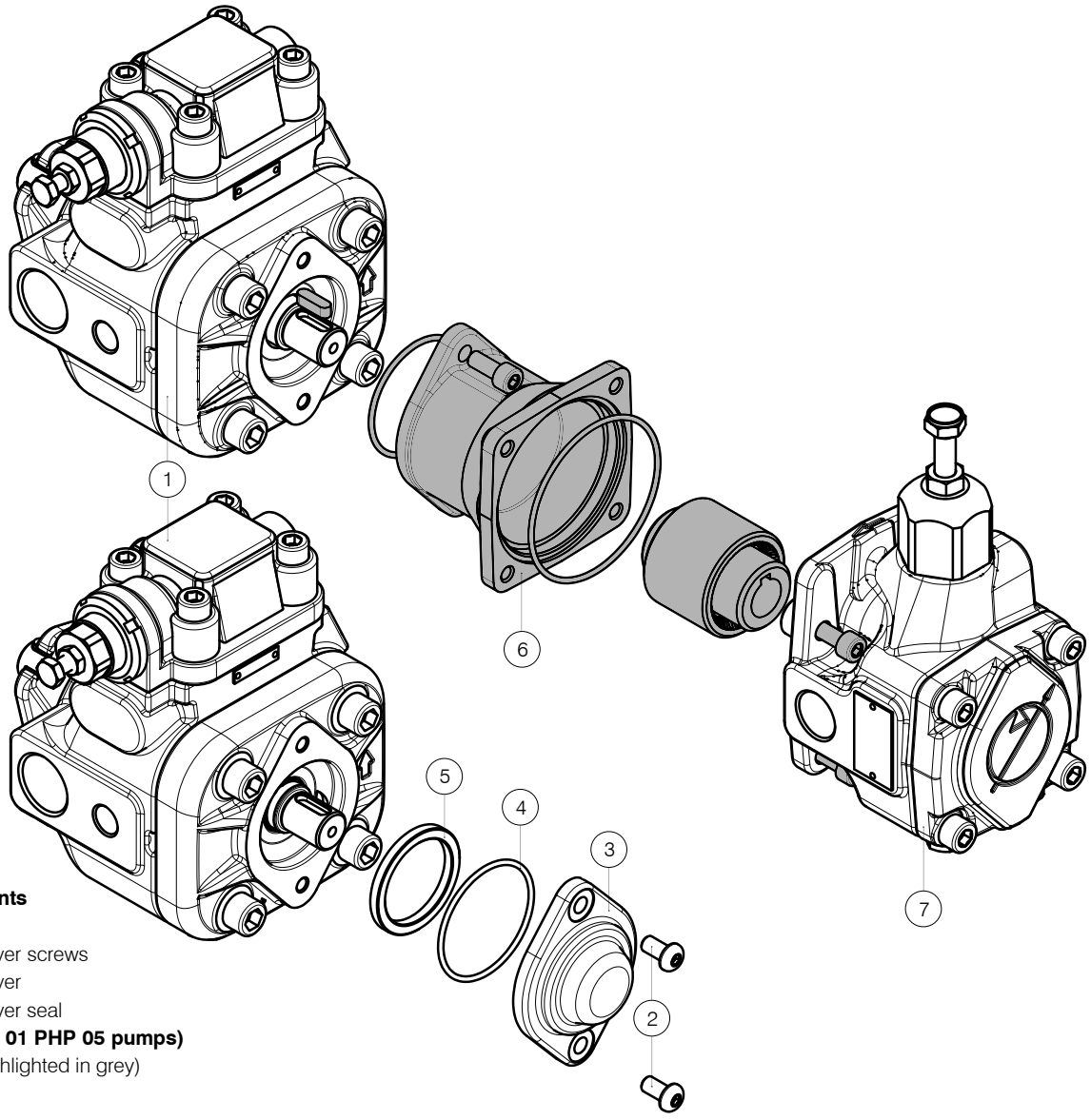
- Berarma pumps
- pumps with ISO 3019-2 4 holes flange and cylindrical shaft
- pumps with rectangular flange and tapered shaft (like external gear pumps)
- pumps with SAE flange and cylindrical shaft
- other flange and/or shaft types could be manufactured on request

The ordering code for a combined pump should be specified according to coupling sequence:

- primary pump code (with option "A") +
- coupling unit code +
- secondary pump code

To install a coupling unit, the following instructions must be observed:

- from the primary pump (1) unscrew the screws (2) which will not be reassembled
- from the primary pump (1) remove the cover (3) and its seal (4) which will not be reassembled
- from the primary pump (1), **only for 01 PHP 05 pumps**, remove the spacer ring (5) which will not be reassembled
- mount the coupling unit (6) paying attention to the seals to avoid oil leaks
- **Note**: Primary pump drain fluid will fill the coupling bell
- mount the secondary pump (7)



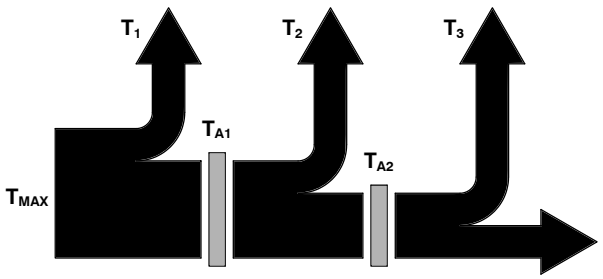
Definition of components

(1) Primary pump
(2) Primary pump cover screws
(3) Primary pump cover
(4) Primary pump cover seal
(5) Spacer ring **(only 01 PHP 05 pumps)**
(6) Coupling unit (highlighted in grey)
(7) Secondary pump

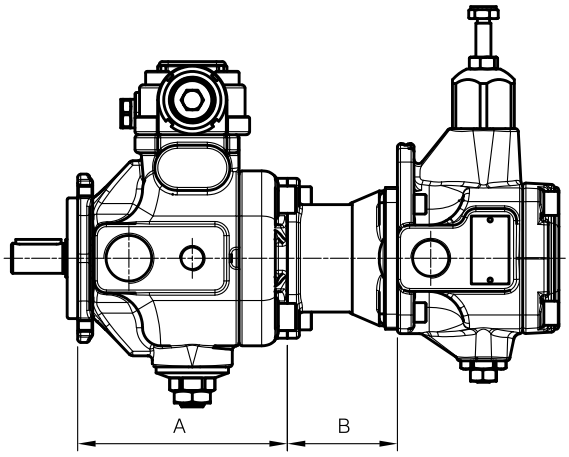
Coupling units

Combined pumps should be mounted in decreasing order of absorbed power, paying attention to the maximum acceptable torques.
The sum of individual torques of all pumps in the complete pump combination must not exceed the maximum permissible torque value applicable to the primary pump shaft T_{MAX}.
Secondary pump torque, or sum of torques for more than one secondary pump, must not exceed the coupling unit maximum thru drive torque T_A, see table below.

Torque limits to be respected in case of triple pump (for example)



$T_1 + T_2 + T_3 < T_{MAX}$
$T_2 + T_3 < T_{A1}$
$T_2 < T_{A2}$

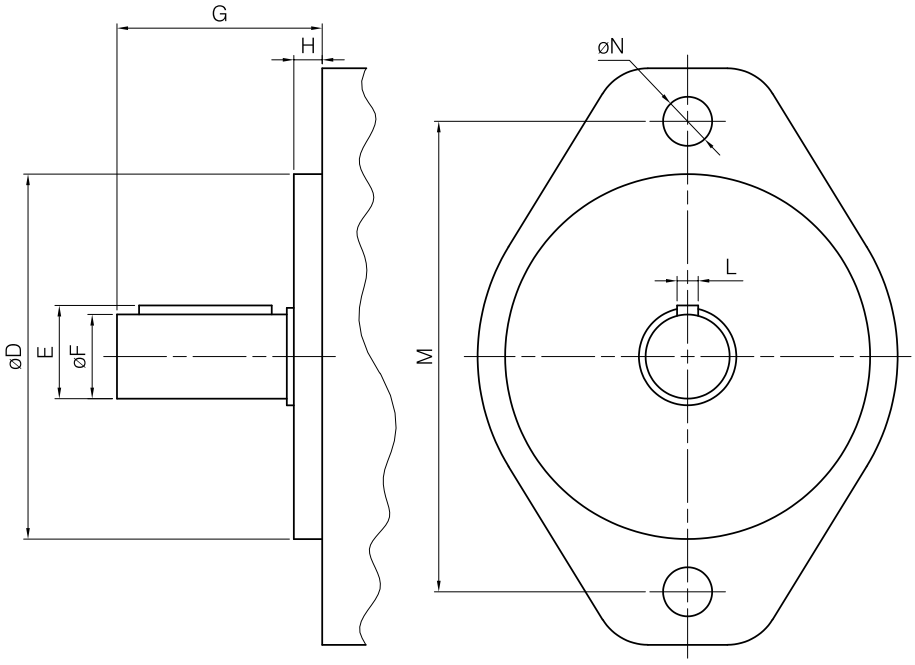


Primary pump			Secondary pump	Coupling unit		
Type	A	T_{MAX}	Type	Code	B	T_A
01 PLP 05-16 F … **A**	104 mm	110 Nm	gear pump size 1P	**3000011000**	64 mm	55 Nm
			gear pump size 1	**3000011100**	64 mm	
			gear pump size 2	**3000011200**	72 mm	
01 PHP 05-16 F … **A**	139 mm	130 Nm	pump with SAE A flange	**3100000100**	88.5 mm	
			P04-8 G	**3000011100**	64 mm	
01 PLP/PHP/PHPK 1-(20-25-32) F … **A**	163 mm	250 Nm	01 PLP/PHP 05-16 F	**3000010200**	73 mm	
			01 PLP/PHP 05-16 FGR2	**3000011200**	72 mm	
			01 PLP/PHP/PHPK 1-(20-25-32)	**3000010100**	75 mm	
01 PLP/PHP/PHPK 2-(40-50-63) F … **A**	199.5 mm	586 Nm	gear pump size 1P	**3000022000**	90 mm	110 Nm
			gear pump size 1	**3000022100**	90 mm	
			gear pump size 2	**3000022200**	90 mm	
			gear pump size 3	**3000022300**	91 mm	
			pump with SAE A flange	**3100000200**	100.5 mm	
			pump with SAE B flange	**3100000300**	126.5 mm	
01 PLP/PHP/PHPK 3-(80-100-120) F … **A**	237 mm	900 Nm	P04-8 G	**3000022100**	90 mm	
			01 PLP/PHP 05-16 F	**3000020400**	85 mm	
			01 PLP/PHP 05-16 FGR2	**3000022200**	90 mm	
			01 PLP/PHP/PHPK 1-(20-25-32)	**3000020100**	87 mm	
			01 PLP/PHP/PHPK 2-(40-50-63)	**3000020200**	102 mm	
			01 PLP/PHP/PHPK 3-(80-100-120)	**3000020300**	117 mm	180 Nm

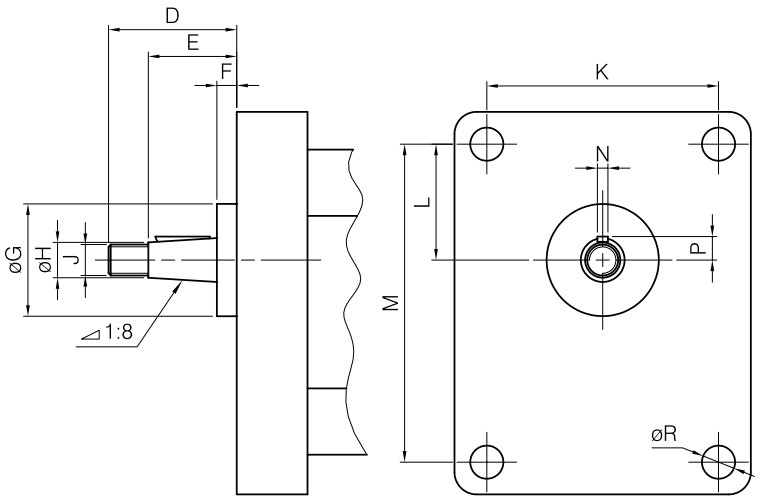
For the compatibles secondary pump dimensions see following page

Coupling units

The dimensions of the secondary pumps compatible with Berarma coupling units are summarized below



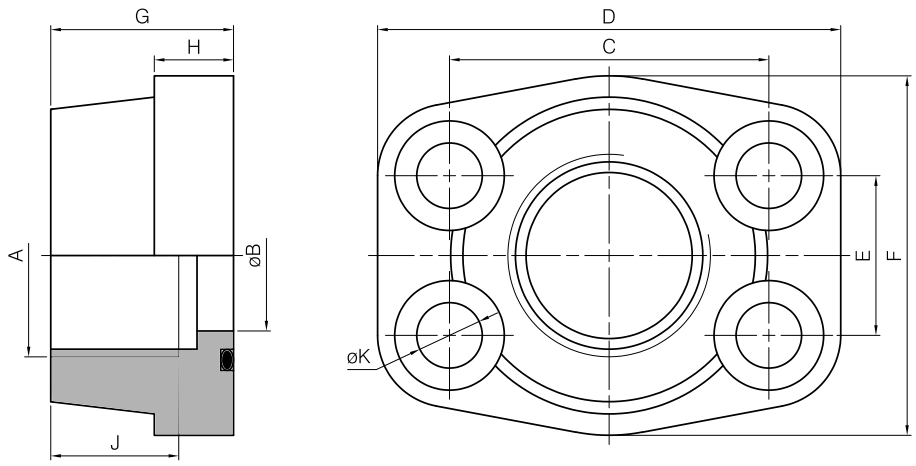
Secondary pump	øD	E	øF	G		H	L	M	øN
				min	max				
SAE A flange	82.5	21.1	19.05	32	59	7	4.8	106.4	11.1
SAE B flange	101.6	25.1 / 25.5	22.2	41	71	9.5	6.375 / 4.8	146	14.3



Secondary pump	D	E	F	øG	øH	J	K	L	M	N	P	øR
gear size **1P**	29	20	4	25.4	8	M7	52.4	26.2	71.9	2.4	5.3	7.5
gear size **1**	35	23.5	5.5	30	12	M10x1	56	24.5	73	3	7.9	6.5
gear size **2**	40	28	5	36.5	14.7	M12x1.5	71.5	32.5	96	3.2 / 4	9.7	8.5
gear size **3**	47	33	5	50.8	19	M14x1.5	98.5	43	128	4	12.2	11

SAE J518 flanges 3000 series

These flanges can be installed on the inlet and outlet ports of Berarma size 2 and 3 pumps to use threaded fittings.
They are supplied with metric screws and NBR O-Ring seal.

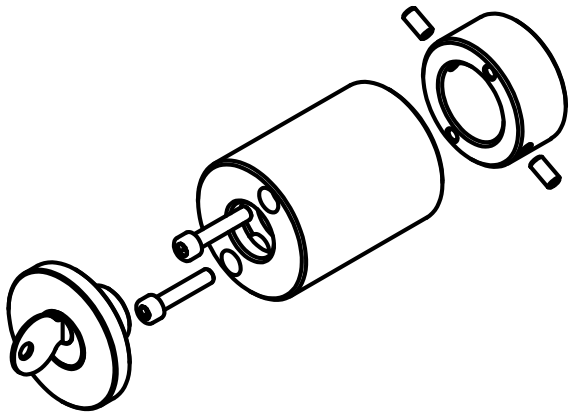


Pump type	Ordering code	A Gas BSP	øB	C	D	E	F	G	H	J	øK	Screws	Seal
01 PLP/PHP/PHPK **2**-(40-50-63)	**5540000102**	1”	25	52.4	70	26.2	52	38	18	19	11	M10	OR4131 NBR
	5540000106	1”1/2	38	70	93	35.7	78	44	25	24	13.5	M12	OR4187 NBR
01 PLP/PHP/PHPK **3**-(80-100-120)	**5540000104**	1”1/4	32	58.7	79	30.2	68	41	21	22	11.5	M10	OR4150 NBR
	5540000108	2”	51	77.8	102	42.9	90	45	25	30	13.5	M12	OR4225 NBR

Key Lock kit

This kit allows the pump pressure setting to be accessible only to qualified personnel with the specific key.
This kit is available **only for PHP type pumps equipped with a standard pressure compensator.**
For installation instructions or further information, please refer to related documents on the Berarma website.

Ordering code **3010020000**



Warning
All Berarma products have been carefully checked during manufacture and subjected to testing cycles before shipment.
Before selection and/or use of any Berarma product, it is important that the purchaser carefully analyses all aspects of its application and reviews the information in the current Berarma technical sales documents. Due to the many different operating conditions and applications for Berarma products, the purchaser, through their own analysis and testing, is solely responsible for making the final selection of the products and assuring that all performance and safety requirements are met. Berarma S.r.l. accepts no responsibility for any editing mistakes in this catalogue. Berarma S.r.l. reserves the right to modify the products and data contained in this catalogue at any time and without prior notice.