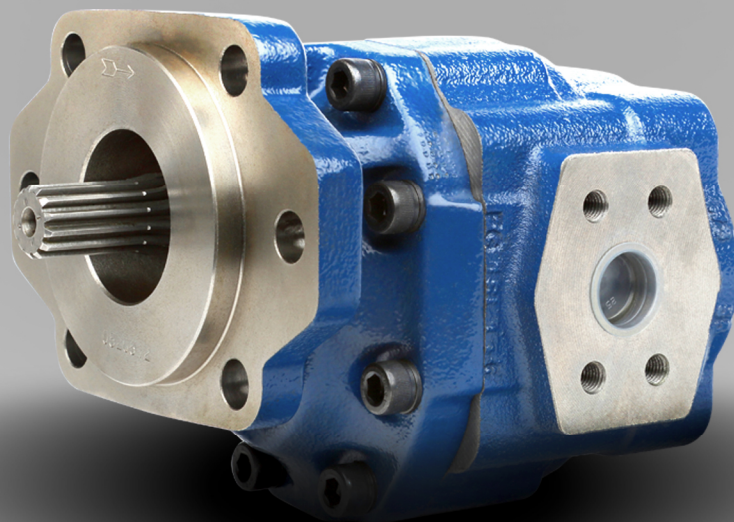
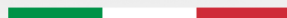




EVO SERIES

GEAR PUMP EVOLUTION

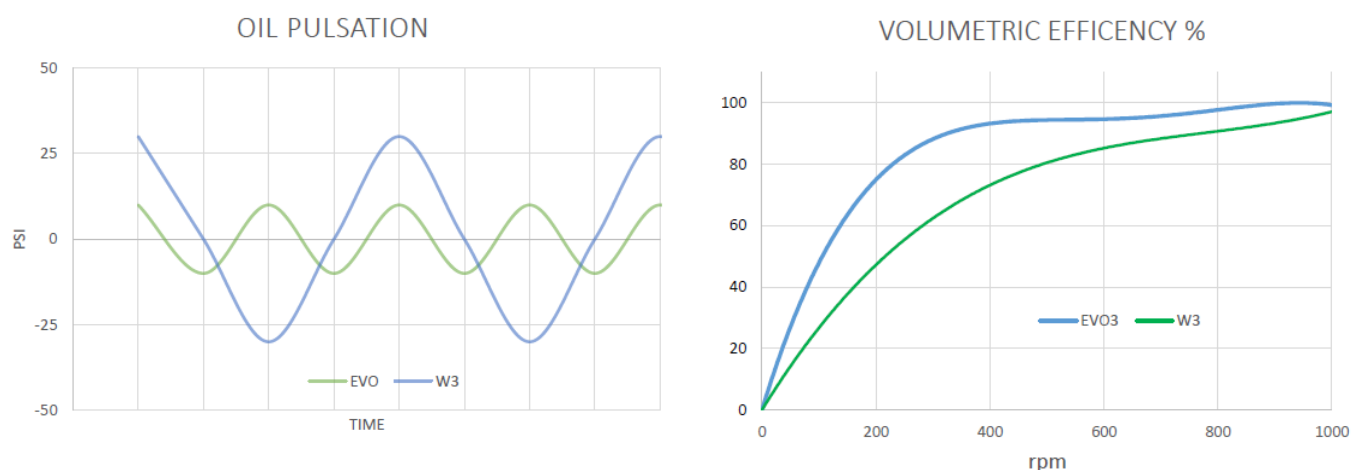
MADE IN ITALY



EVO pumps are available in capacities from 30 to 80 cc/rev and they are perfectly interchangeable with Ronzio standard products.

New tooth profile and dual flank technology are studied and improved in order to reduce oil pulsations, deleting the main origin of noise in a gear pump.

Flow characteristic in **EVO** not only reduces the noise emission of the pump, but makes the hydraulic system quieter due to the reduced vibrations of all components, eliminating the need of expensive noise reduction devices.



The new technology of the pump minimizes the internal leakage, maximizing the volumetric efficiency under all conditions.

This makes the **EVO** pump suitable for working operations with low speed and high pressure. Comparing the performances with our standard W3 series, you can see that **EVO** series can be used in a wider range of applications, such as the connections to a variable speed electric motors.

MAIN FEATURES

- ⇒ Cast iron covers and body for high performance.
- ⇒ Axial compensation achieved using pressure balanced bushing blocks.
- ⇒ High volumetric efficiency: average >95%
- ⇒ “Zero” backlash gear tooth profile to reduce noise and oil pulsations.
- ⇒ High-temperature and low-temperature seals available.
- ⇒ Single rotation pumps.

CONDITIONS OF USE

Avoid radial and axial loads on the pump shaft during the use, if it happens please contact our technical department.

The pump must be in line with the P.T.O. to compensate misalignment errors, use flexible or “Oldham” couplings.

We recommend to read the specifications in this catalogue very carefully. This will help you in getting the best, in terms of working conditions and life, from Ronzio gear pumps.

MAIN CHARACTERISTICS

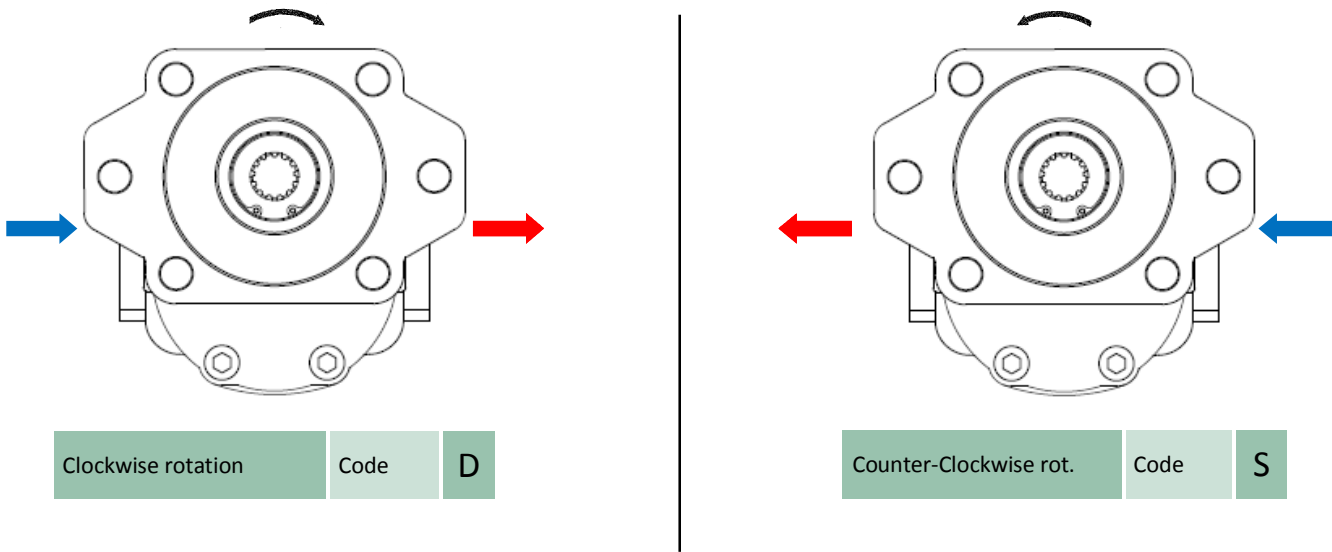
Type		30	40	50	60	64	75	90
Capacity	cm ³ / rev	30,4	41,4	51	61,4	65,4	75	89,2
P1 Max working pressure	Bar	280	250	230	200	200	170	170
P2 Intermittent pressure	Bar	300	270	250	220	220	190	190
P3 Max peak pressure	Bar	330	300	270	240	240	210	210
Min speed for P1	rpm	200	200	150	150	150	150	150
Max speed for P1	rpm	2200	1700	1550	1500	1500	1500	1500

VERIFY THE COMPATIBILITY AMONG PERFORMANCE OF PRESSURE, FLOW REQUIRED AND TORQUE
OF THE SHAFT THROUGH THE FORMULAS ON PAGE 5

USING CONDITIONS

Hydraulic fluids		Mineral oil as per DIN 51524 For use with fire resistant fluids like water glycol, water-oil emulsion and phosphate-esters, please contact our technical or commercial office.	
Inlet pressure		0.7 - 3 bar (Absolute) 10 - 44 psi (Absolute)	
Oil speed on suction line		0.5 ÷ 1.5 m/s	
Oil speed on pressure line		6 ÷ 10 m/s	
Oil temperature		-10°C ÷ 80°C	
Oil viscosity		20 ÷ 120 mm ² / s (Cst)	
Max starting viscosity		700 mm ² / s (Cst)	
Oil filtration	Pressure	< 200 bar	> 200 bar
	Contamination class NAS 1638	9	8
	Contamination class ISO 4406	20/18/15	19/17/14
	Ratio $\beta_x \geq 200$	25µm	10µm

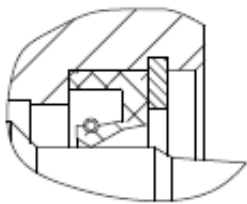
ROTATION



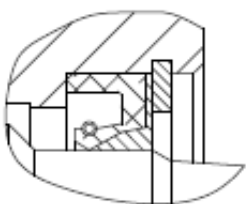
Rotation is indicated by an arrow on the body of the pump.

SHAFT SEAL OPTIONS

Max 5 Bar

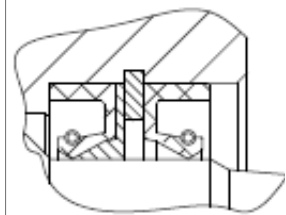


Code	N	NBR
	V	FKM
	H	HNBR



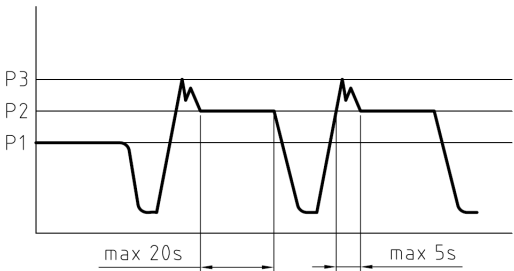
Code	R	NBR
	RV	FKM
	RH	HNBR

Max 5 Bar



Code	N2	NBR
	V2	FKM

DETERMINATION OF NOMINAL SIZE



$$Q = \frac{V \cdot \mu v \cdot n}{1000}$$

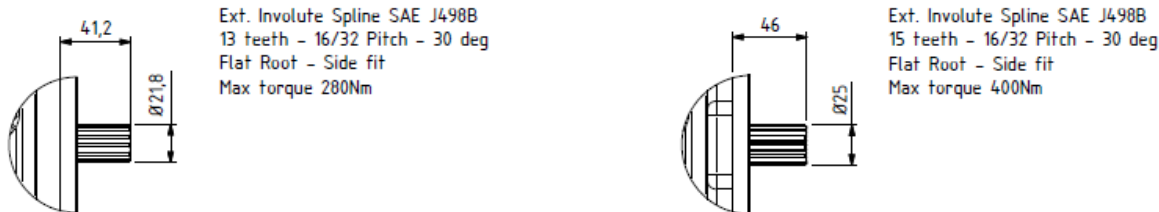
$$M = \frac{p \cdot v}{62,8 \cdot \mu m}$$

$$P = \frac{p \cdot Q}{600 \cdot \mu t}$$

V= pump capacity [cm]³

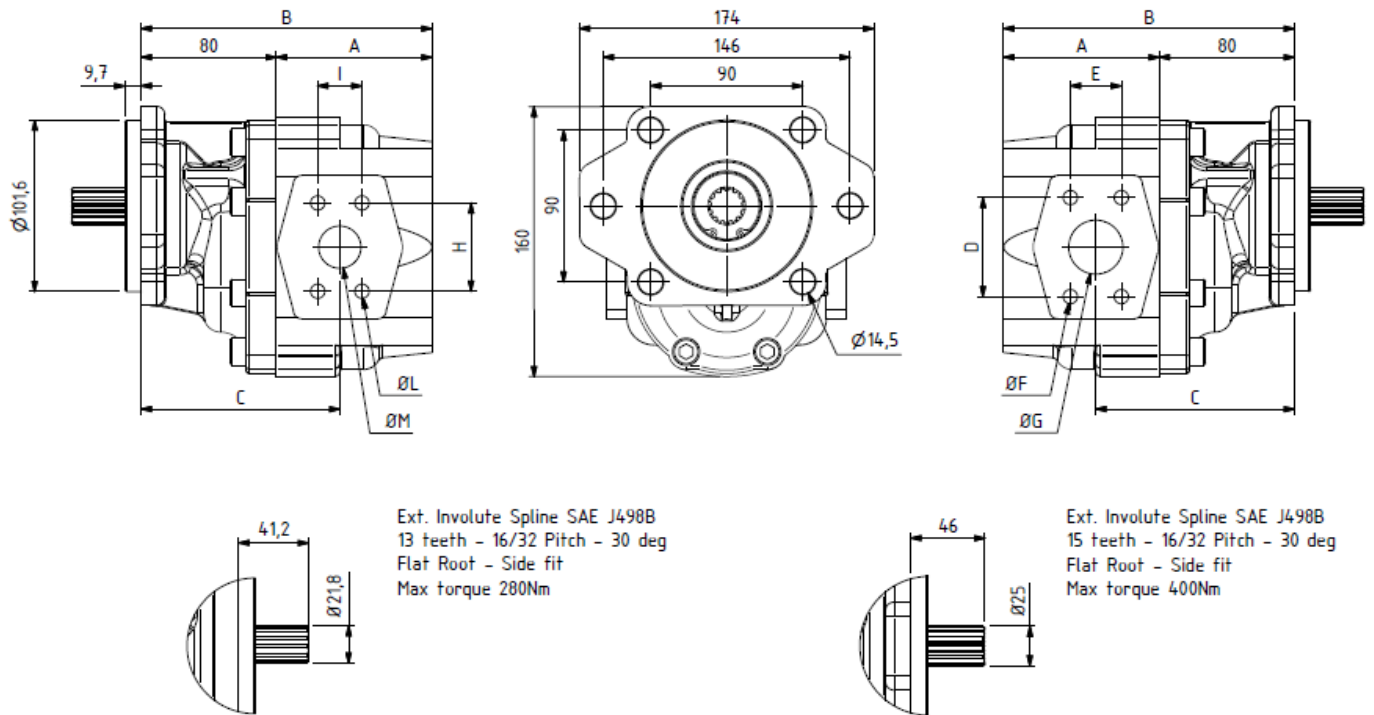
Q = pump flow [l/min]

PUMP DIMENSION WITH FLANGED PORTS SAE J518- metric thread



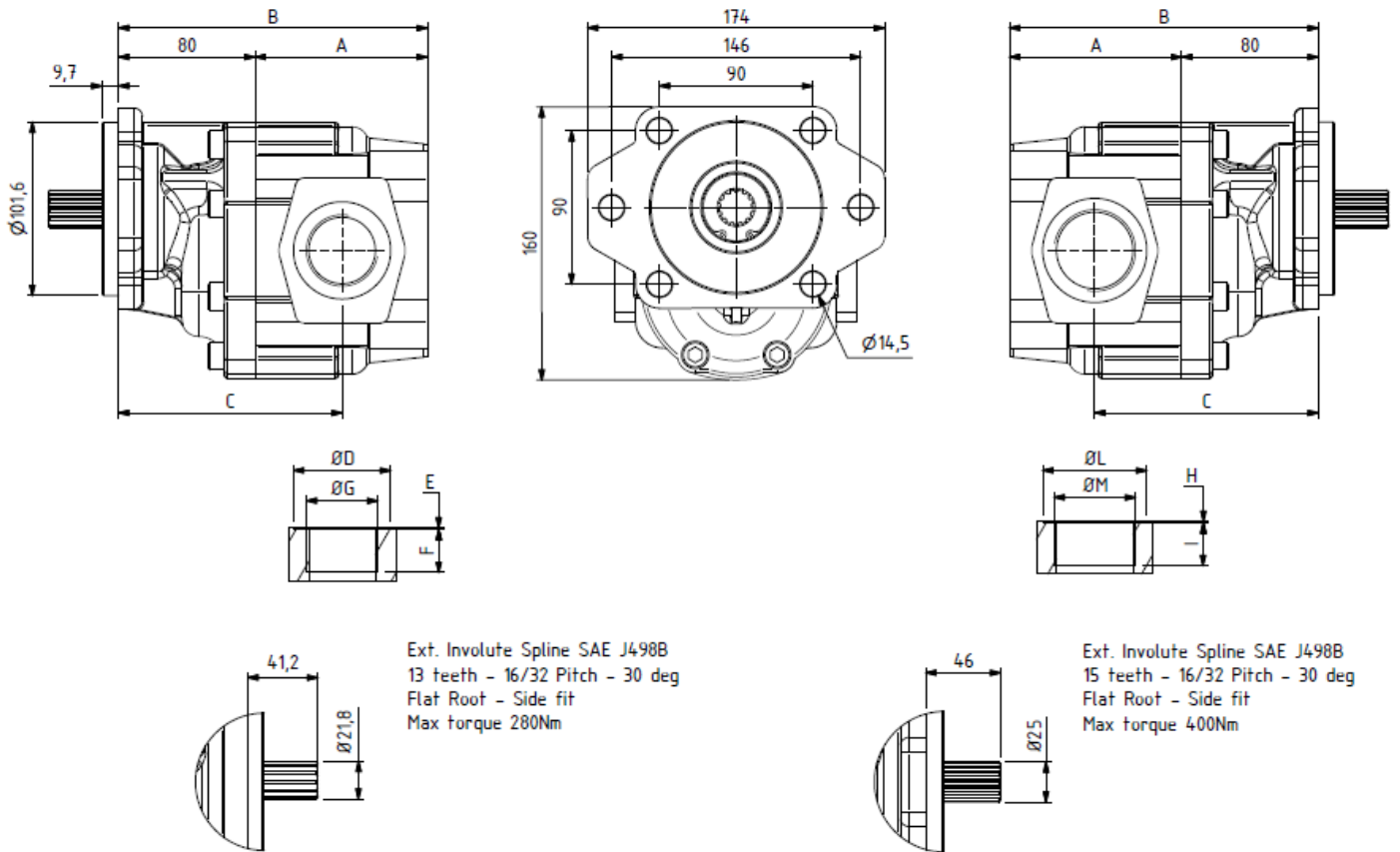
PUMP CODE	PORT CODE	A	B	C	SUCTION				OUTLET				SHAFT TYPE
					ØG	D	E	ØF	ØM	H	I	ØL	
030E0B 30	79	83	163	123	25.4	52.4	26.2	M10 - 17	19	47.6	22.2	M10 - 17	J498B - 13TH
030E0B 40	81	89	169	121	30.5	58,7	30.2	M10 - 17	25.4	52.4	26.2	M10 - 17	J498B - 13TH
030E0B 50	81	95	175	127	30.5	58,7	30.2	M10 - 17	25.4	52.4	26.2	M10 - 17	J498B - 13TH
030E0B 60	83	102	182	118	39.3	69.8	35.7	M12 - 17	30.5	58,7	30.2	M10 - 17	J498B - 15TH
030E0B 64	83	104	184	121	39.3	69.8	35.7	M12 - 17	30.5	58,7	30.2	M10 - 17	J498B - 15TH
030E0B 75	83	108	188	125	39.3	69.8	35.7	M12 - 17	30.5	58,7	30.2	M10 - 17	J498B - 15TH
030E0B 90	83	114	194	130	39.3	69.8	35.7	M12 - 17	30.5	58,7	30.2	M10 - 17	J498B - 15TH

PUMP DIMENSION WITH FLANGED PORTS SAE J518 - UNC thread



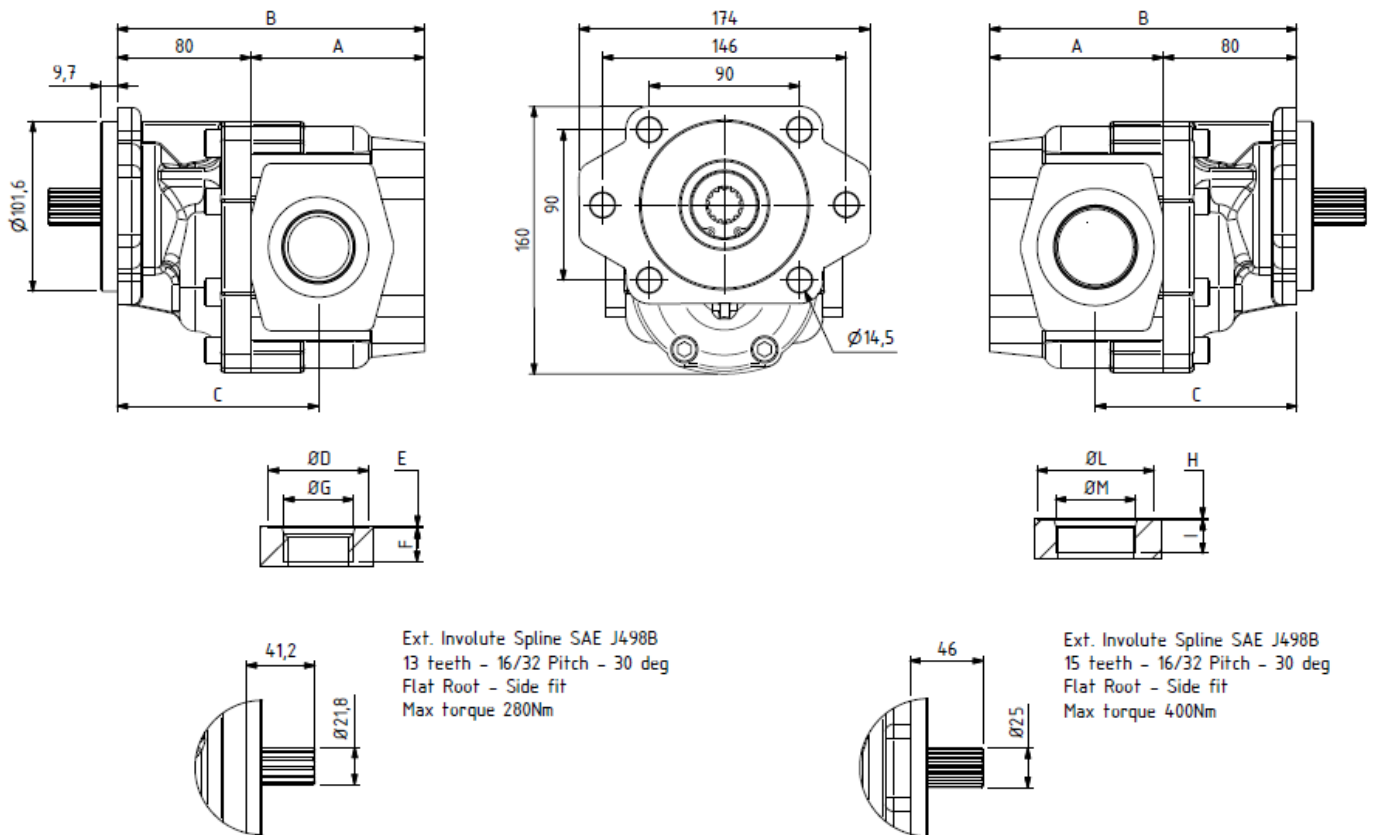
PUMP CODE	PORT CODE	A	B	C	SUCTION				OUTLET				SHAFT TYPE
					ØG	D	E	ØF	ØM	H	I	ØL	
030E0B 30	56	83	163	123	25.4	52.4	26.2	3/8-16UNC-2B	19	47.6	22.2	3/8-16UNC-2B	J498B - 13TH
030E0B 40	58	89	169	121	30.5	58.7	30.2	7/16-14UNC-2B	25.4	52.4	26.2	3/8-16UNC-2B	J498B - 13TH
030E0B 50	58	95	175	127	30.5	58.7	30.2	7/16-14UNC-2B	25.4	52.4	26.2	3/8-16UNC-2B	J498B - 13TH
030E0B 60	60	102	182	118	39.3	69.8	35.7	1/2-13UNC-2B	30.5	58.7	30.2	7/16-14UNC-2B	J498B - 15TH
030E0B 64	60	104	184	121	39.3	69.8	35.7	1/2-13UNC-2B	30.5	58.7	30.2	7/16-14UNC-2B	J498B - 15TH
030E0B 75	60	108	188	125	39.3	69.8	35.7	1/2-13UNC-2B	30.5	58.7	30.2	7/16-14UNC-2B	J498B - 15TH
030E0B 90	60	114	194	130	39.3	69.8	35.7	1/2-13UNC-2B	30.5	58.7	30.2	7/16-14UNC-2B	J498B - 15TH

PUMP DIMENSION WITH GAS STRAIGHT THREAD PORTS



PUMP CODE	PORT CODE	A	B	C	SUCTION				OUTLET				SHAFT TYPE
					ØG	ØD	E	F	ØM	ØL	H	I	
030E0B 30	64	83	163	123	1" BSPP	49	2	22	1" BSPP	49	2	22	J498B - 13TH
030E0B 40	64	89	169	121	1" BSPP	49	2	22	1" BSPP	49	2	22	J498B - 13TH
030E0B 50	64	95	175	127	1" BSPP	49	2	22	1" BSPP	49	2	22	J498B - 13TH
030E0B 60	65	102	182	118	1"-1/4 BSPP	56	2	24	1" BSPP	49	2	22	J498B - 15TH
030E0B 64	65	104	184	121	1"-1/4 BSPP	56	2	24	1" BSPP	49	2	22	J498B - 15TH
030E0B 75	65	108	188	125	1"-1/4 BSPP	56	2	24	1" BSPP	49	2	22	J498B - 15TH
030E0B 90	67	114	194	130	1"-1/2 BSPP	72	2	26	1"-1/4 BSPP	56	2	24	J498B - 15TH

PUMP DIMENSION WITH SAE STRAIGHT THREAD PORTS J514



PUMP CO-DE	PORT CODE	A	B	C	SUCTION				OUTLET				SHAFT TYPE
					ØG	ØD	E	F	ØM	ØL	H	I	
030E0B 30	70	83	163	123	1-5/16" 12UN - 2B	49	2	20	1-1/16" 12UN - 2B	42	2	20	J498B - 13TH
030E0B 40	72	89	169	121	1-5/8" 12UN - 2B	58	2	20	1-5/16" 12UN - 2B	49	2	20	J498B - 13TH
030E0B 50	72	95	175	127	1-5/8" 12UN - 2B	58	2	20	1-5/16" 12UN - 2B	49	2	20	J498B - 13TH
030E0B 60	72	102	182	118	1-5/8" 12UN - 2B	58	2	20	1-5/16" 12UN - 2B	49	2	20	J498B - 15TH
030E0B 64	72	104	184	121	1-5/8" 12UN - 2B	58	2	20	1-5/16" 12UN - 2B	49	2	20	J498B - 15TH
030E0B 75	72	108	188	125	1-5/8" 12UN - 2B	58	2	20	1-5/16" 12UN - 2B	49	2	20	J498B - 15TH
030E0B 90	74	114	194	130	1-7/8" 12UN - 2B	65	2	20	1-5/8" 12UN - 2B	58	2	20	J498B - 15TH

HOW TO ORDER EVO SINGLE UNIT

1 2 3 4 5 6 7 8

03 0 E	0	B	64	S	3	48	D	N
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1	UNIT TYPE	CODE
	PUMP	0

2 - 5	FLANGE	CODE
	AMERICAN SAE B - 2+4 HOLES	B - 3

3	CAPACITY cm^3	CODE
	30,4	30
	41,4	40
	51	50
	61,4	60
	65,4	64
	75	75
	89,2	90

4	SHAFT (PAG. 6-7-8-9)	CODE
	ANSI J498B 13TH 16/32 DP	B
	ANSI J498B 15TH 16/32 DP	S

6	IN/OUT PORTS	CODE
	FLANGED PORTS SAE J518 - metric thread	SEE PAGE 6
	FLANGED PORTS SAE J518 - UNC thread	SEE PAGE 7
	GAS STRAIGHT THREAD PORTS	SEE PAGE 8
	SAE STRAIGHT THREAD PORTS J514	SEE PAGE 9

7	ROTATION	CODE
	RIGHT - CW	D
	LEFT - CCW	S

8	SHAFT SEAL (PAGE 5)	CODE
	STANDARD	N
	STANDARD FKM	V
	STANDARD HNBR	H
	5 BAR NBR	R
	5 BAR FKM	RV
	5 BAR HNBR	RH
	DOUBLE SEAL NBR	N2
	DOUBLE SEAL FKM	V2

Ronzio Oleodinamica reserves the right to make change to the product described here in any time it deems fit in relation to technical or commercial requirements.



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