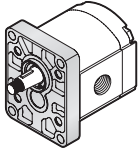
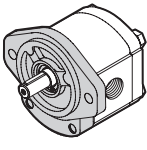
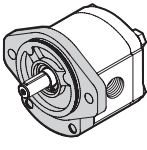
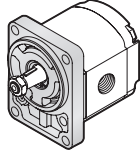
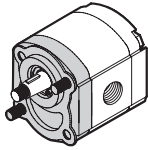
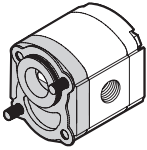
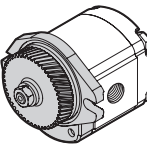
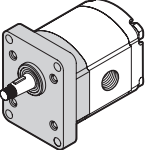


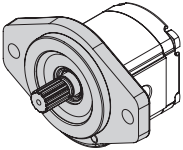
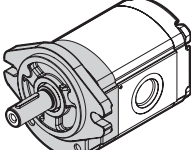
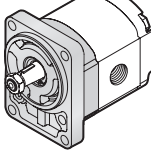
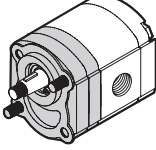
POMPE AD INGRANAGGI GAMMA PRODOTTO
GEAR PUMPS PRODUCT RANGE

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
	cm ³ /giro	in ³ /rev		l/min	Gal/min	
2SP 040	4	0.24	4000	16	4.23	500
2SP 060	6	0.37	4000	24	6.34	500
2SP 080	8.5	0.52	3500	29.7	7.85	500
2SP 110	11	0.67	3500	38.5	10.17	500
2SP 140	14	0.85	3500	49	12.95	500
2SP 160	16.5	1.01	3500	57.7	15.24	500
2SP 190	19.5	1.19	3300	64.3	16.99	500
2SP 220	22.5	1.37	2800	63	16.64	500
2SP 260	26	1.59	2500	65	17.17	500
2SP 310	31.5	1.92	2200	69	18.22	500

FLANGE - FLANGES

EUR	SAEA	SAEAOR	B80C	B50C	E52C	P400D	SUPEUR
							
pagina/page 34	pagina/page 36		pagina/page 38	pagina/page 39	pagina/page 40	pagina/page 41	pagina/page 42

FLANGE - FLANGES

SAEB*	SUPSAE	SUPB80C	SUPB50CX
			
pagina/page 44	pagina/page 45	pagina/page 46	pagina/page 47

* Contattare il servizio commerciale. /Available soon. Please contact our Sales Dpt.

POMPE AD INGRANAGGI INFORMAZIONI TECNICHE

GEAR PUMPS TECHNICAL INFORMATION

INVERSIONE • REVERSAL

Il senso di rotazione delle pompe è evidenziato da una freccia sulla targhetta.

La targhetta è posizionata sul corpo. (vedi pag.10)

L'inversione del senso di rotazione di una pompa si esegue nel seguente modo:

- Smontare la pompa come da fig. 1.
- Sfilare gli ingranaggi C e D e rimontarli secondo la fig. 2
- Rimontare la boccola B nella stessa posizione della fig. 1
- Capovolgere la flangia A e rimontare la pompa serrando le viti con una chiave dinamometrica.
- Per le pompe 3PG, smontare solo la flangia anteriore.

Pump wise rotation is indicated by an arrow on the label.

The plate is placed on the body (see page 10).

How to invert the pump wise rotation:

- Disassemble pump as shown in fig. 1.
- Pull off C - D gears and reassemble them according to fig. 2.
- Reassemble B bushing as before.
- Reverse the A flange and reassemble the pump by tightening the screws by dynamometric wrench.
- For the 3GP pumps, disassemble only front flange.

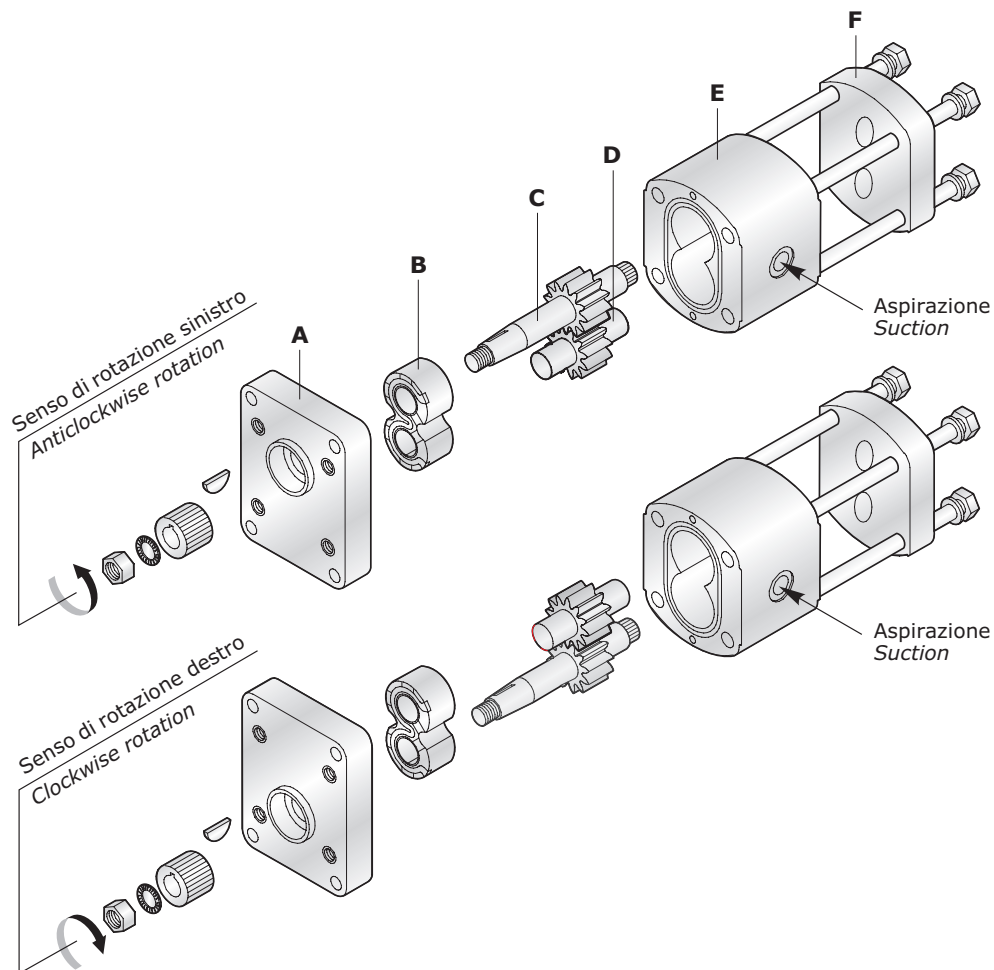


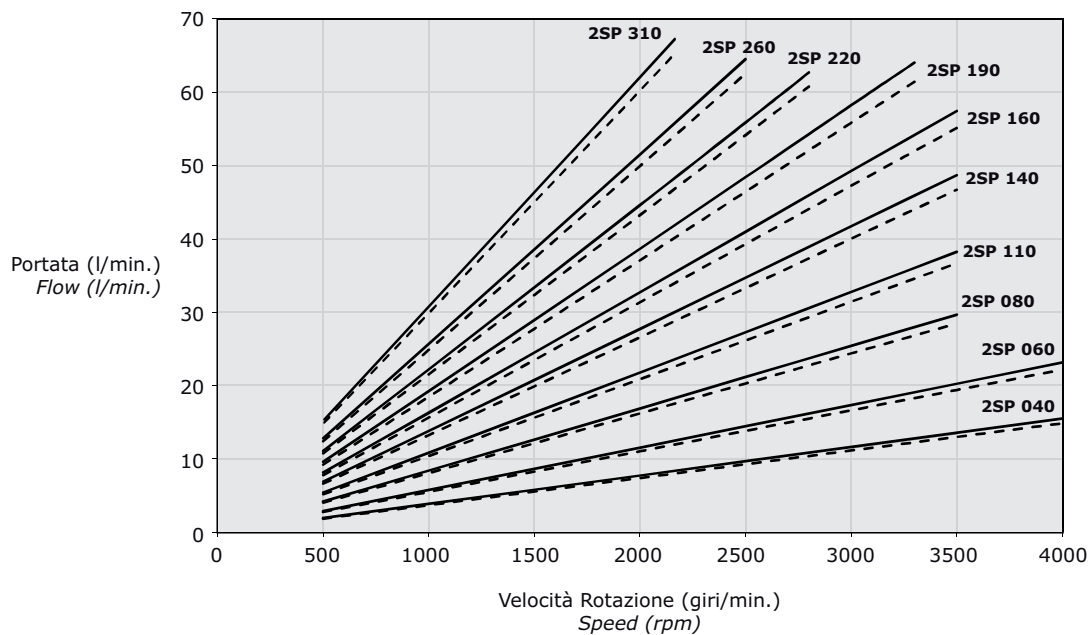
Fig. 1

Fig. 2

POMPE AD INGRANAGGI PRESTAZIONI GEAR PUMPS PERFORMANCES

**GRUPPO
GROUP 2SP**

DIAGRAMMA PORTATA - VELOCITÀ DI ROTAZIONE
FLOW - ROTATION SPEED CHART



**GRUPPO
GROUP 2SP**

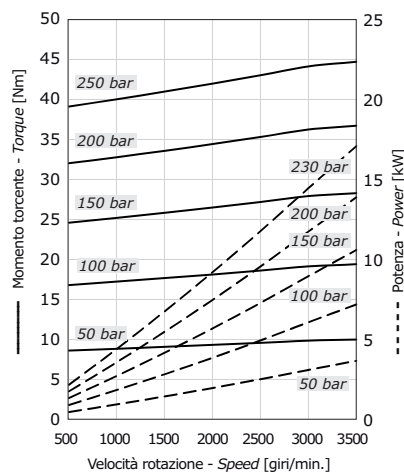
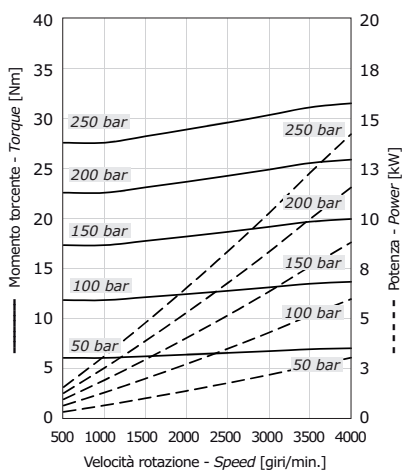
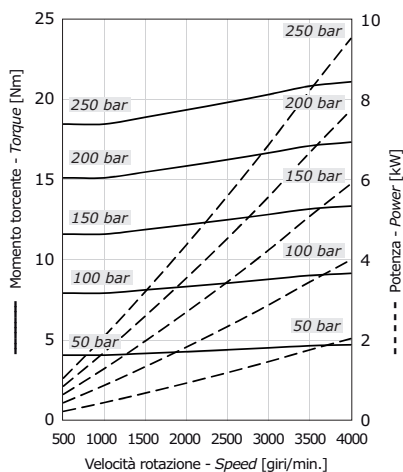
DIAGRAMMI POTENZE
POWER DIAGRAM

Grafici rilevati a banco di collaudo a 40°C con olio VG46
Diagrams recorded on test bench at 40°C with VG46 mineral oil

2SP 040

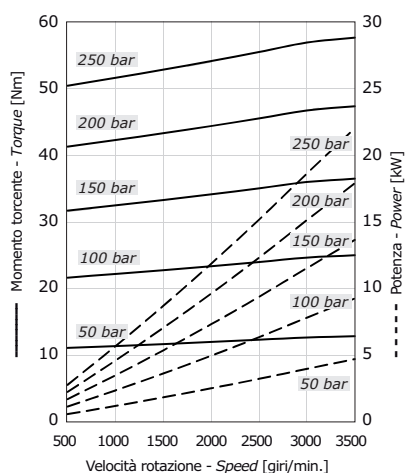
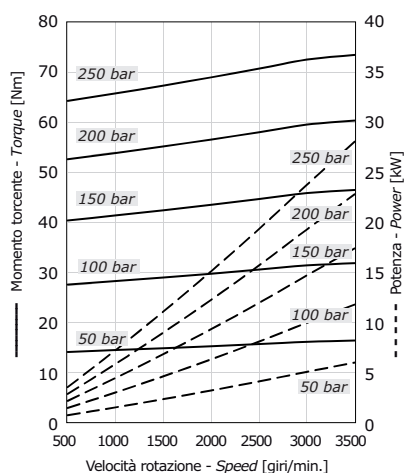
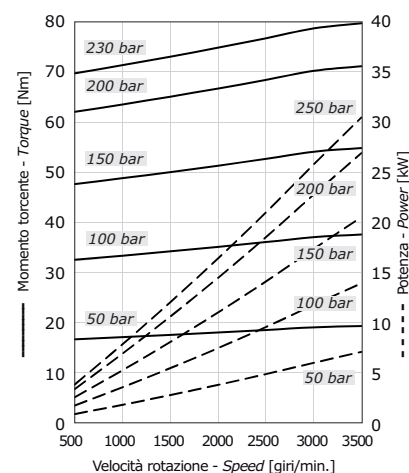
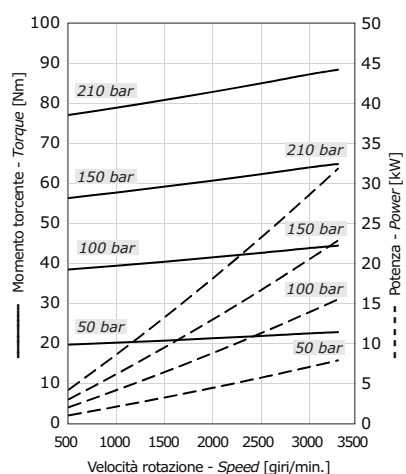
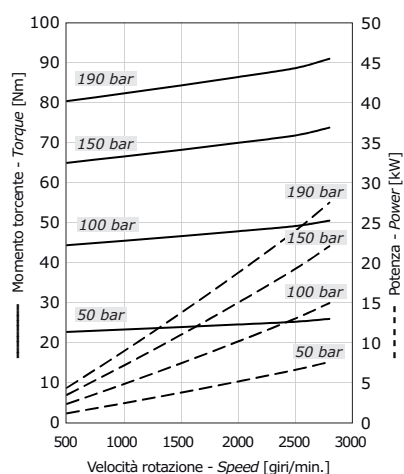
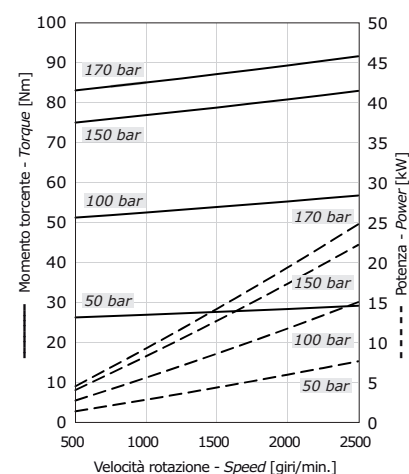
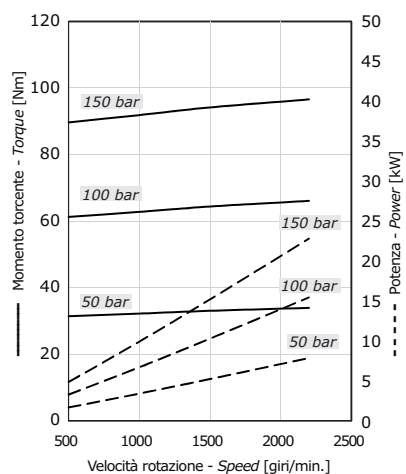
2SP 060

2SP 080



POMPE AD INGRANAGGI PRESTAZIONI

GEAR PUMPS PERFORMANCES

2SP 110**2SP 140****2SP 160****2SP 190****2SP 220****2SP 260****2SP 310**

POMPE AD INGRANAGGI **GRUPPO 2SP** GEAR PUMPS **GROUP 2SP**

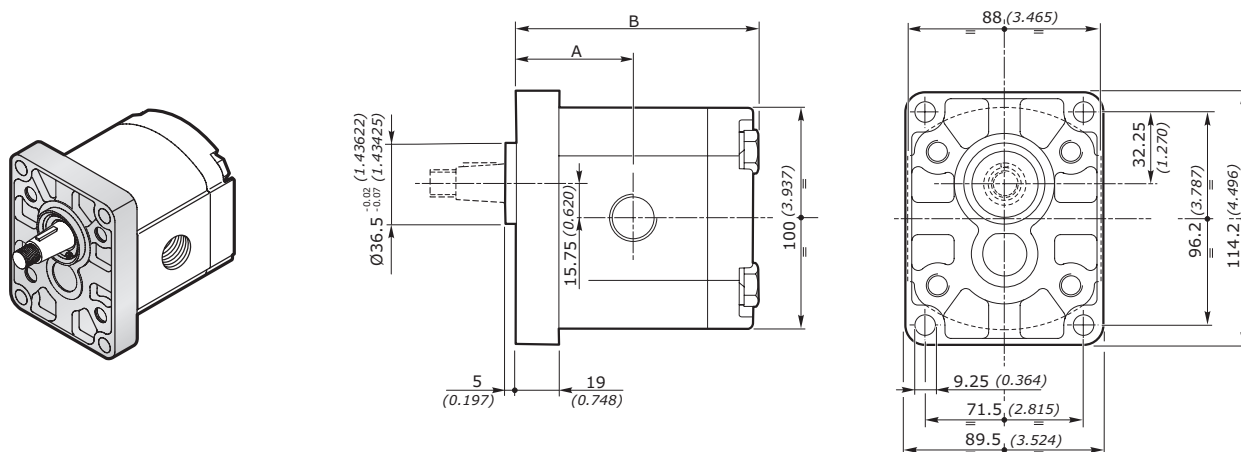
FLANGIA EUROPEA **EUR** EUROPEAN FLANGE

FLANGIA E COPERCHIO IN ALLUMINIO - FLANGE AND COVER IN ALUMINIUM

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500
2SP 060	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500
2SP 080	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500
2SP 110	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500
2SP 140	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500
2SP 160	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500
2SP 190	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500
2SP 220	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500
2SP 260	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500
2SP 310	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
Note - for higher pressure values please contact our Sales Dpt.

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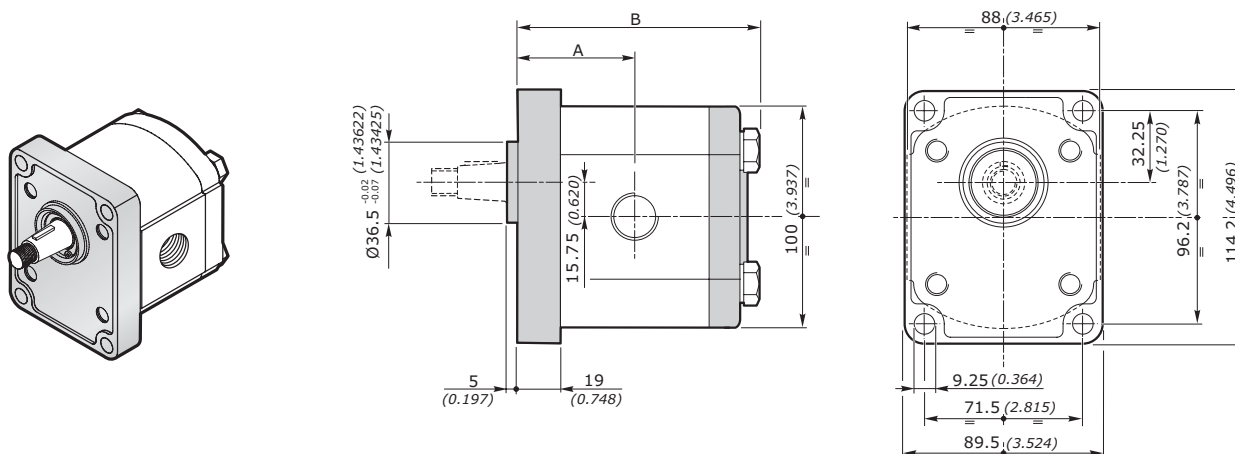


GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
2SP 040	44.4	1.748	93.0	3.661	2.30	5.07
2SP 060	46.0	1.811	96.3	3.791	2.45	5.40
2SP 080	48.1	1.894	100.5	3.957	2.60	5.73
2SP 110	50.2	1.976	104.6	4.118	2.70	5.95
2SP 140	52.7	2.075	109.6	4.315	2.80	6.17
2SP 160	54.8	2.157	113.8	4.480	2.95	6.51
2SP 190	57.3	2.256	118.8	4.677	3.10	6.84
2SP 220	59.8	2.354	123.8	4.874	3.25	7.17
2SP 260	62.7	2.469	129.6	5.102	3.40	7.50
2SP 310	66.9	2.636	138.0	5.437	3.61	7.96

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP
FLANGIA EUROPEA EUR EUROPEAN FLANGE
FLANGIA E COPERCHIO IN GHISA - FLANGE AND COVER IN CAST IRON

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	260	3770	280	4060	300	4350	4000	16	4.23	500
2SP 060	6	0.37	260	3770	280	4060	300	4350	4000	24	6.34	500
2SP 080	8.5	0.52	260	3770	280	4060	300	4350	3500	29.7	7.85	500
2SP 110	11	0.67	260	3770	280	4060	300	4350	3500	38.5	10.17	500
2SP 140	14	0.85	260	3770	280	4060	300	4350	3500	49	12.95	500
2SP 160	16.5	1.01	240	3480	250	3625	260	3770	3500	57.7	15.24	500
2SP 190	19.5	1.19	220	3190	230	3335	240	3480	3300	64.3	16.99	500
2SP 220	22.5	1.37	200	2900	210	3045	220	3190	2800	63	16.64	500
2SP 260	26	1.59	180	2610	190	2755	200	2900	2500	65	17.17	500
2SP 310	31.5	1.92	140	2030	150	2175	160	2320	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
 Note - for higher pressure values please contact our Sales Dpt.

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GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
2SP 040	44.4	1.748	93.0	3.661	3.40	7.50
2SP 060	46.0	1.811	96.3	3.791	3.55	7.83
2SP 080	48.1	1.894	100.5	3.957	3.70	8.16
2SP 110	50.2	1.976	104.6	4.118	3.80	8.38
2SP 140	52.7	2.075	109.6	4.315	3.90	8.60
2SP 160	54.8	2.157	113.8	4.480	4.05	8.93
2SP 190	57.3	2.256	118.8	4.677	4.20	9.26
2SP 220	59.8	2.354	123.8	4.874	4.35	9.59
2SP 260	62.7	2.469	129.6	5.102	4.50	9.92
2SP 310	66.9	2.636	138.0	5.437	4.71	7.96

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP

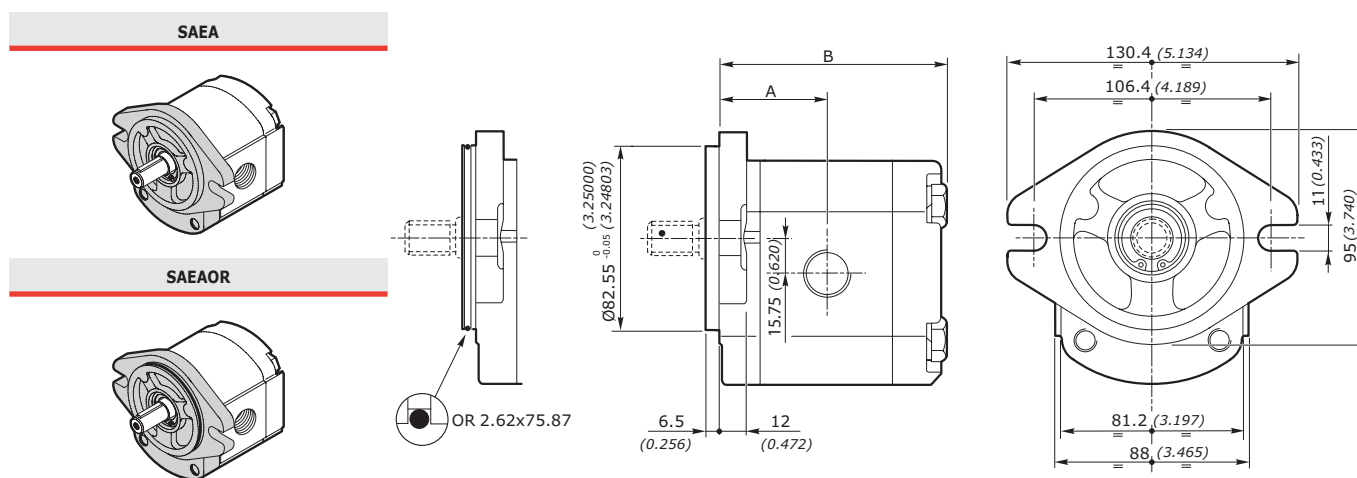
FLANGIA SAE **SAEA-SAEAOR** **SAE FLANGE**

FLANGIA E COPERCHIO IN ALLUMINIO - FLANGE AND COVER IN ALUMINIUM

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500
2SP 060	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500
2SP 080	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500
2SP 110	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500
2SP 140	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500
2SP 160	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500
2SP 190	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500
2SP 220	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500
2SP 260	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500
2SP 310	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
Note - for higher pressure values please contact our Sales Dept.

DIMENSIONI • DIMENSIONS

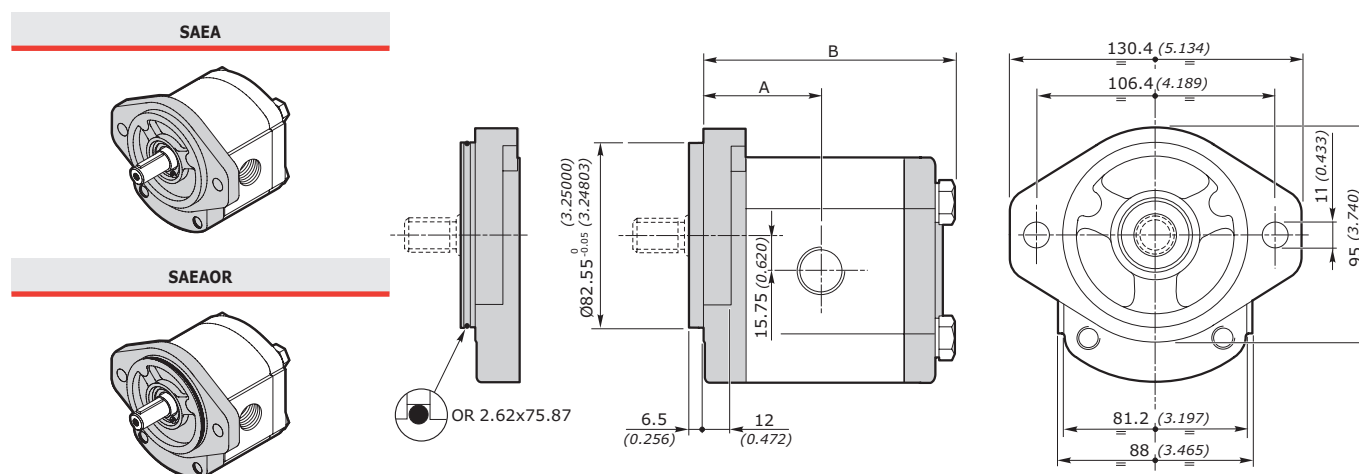


GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
2SP 040	44.4	1.748	93.0	3.661	2.30	5.07
2SP 060	46.0	1.811	96.3	3.791	2.45	5.40
2SP 080	48.1	1.894	100.5	3.957	2.60	5.73
2SP 110	50.2	1.976	104.6	4.118	2.70	5.95
2SP 140	52.7	2.075	109.6	4.315	2.80	6.17
2SP 160	54.8	2.157	113.8	4.480	2.95	6.51
2SP 190	57.3	2.256	118.8	4.677	3.10	6.84
2SP 220	59.8	2.354	123.8	4.874	3.25	7.17
2SP 260	62.7	2.469	129.6	5.102	3.40	7.50
2SP 310	66.9	2.636	138.0	5.437	3.61	7.96

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP
FLANGIA SAE **SAEA-SAEAOR** **SAE FLANGE**
FLANGIA E COPERCHIO IN GHISA - FLANGE AND COVER IN CAST IRON

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	260	3770	280	4060	300	4350	4000	16	4.23	500
2SP 060	6	0.37	260	3770	280	4060	300	4350	4000	24	6.34	500
2SP 080	8.5	0.52	260	3770	280	4060	300	4350	3500	29.7	7.85	500
2SP 110	11	0.67	260	3770	280	4060	300	4350	3500	38.5	10.17	500
2SP 140	14	0.85	260	3770	280	4060	300	4350	3500	49	12.95	500
2SP 160	16.5	1.01	240	3480	250	3625	260	3770	3500	57.7	15.24	500
2SP 190	19.5	1.19	220	3190	230	3335	240	3480	3300	64.3	16.99	500
2SP 220	22.5	1.37	200	2900	210	3045	220	3190	2800	63	16.64	500
2SP 260	26	1.59	180	2610	190	2755	200	2900	2500	65	17.17	500
2SP 310	31.5	1.92	140	2030	150	2175	160	2320	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
 Note - for higher pressure values please contact our Sales Dpt.

DIMENSIONI • DIMENSIONS


GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
2SP 040	44.4	1.748	93.0	3.661	3.40	7.50
2SP 060	46.0	1.811	96.3	3.791	3.55	7.83
2SP 080	48.1	1.894	100.5	3.957	3.70	8.16
2SP 110	50.2	1.976	104.6	4.118	3.80	8.38
2SP 140	52.7	2.075	109.6	4.315	3.90	8.60
2SP 160	54.8	2.157	113.8	4.480	4.05	8.93
2SP 190	57.3	2.256	118.8	4.677	4.20	9.26
2SP 220	59.8	2.354	123.8	4.874	4.35	9.59
2SP 260	62.7	2.469	129.6	5.102	4.50	9.92
2SP 310	66.9	2.636	138.0	5.437	4.71	7.96

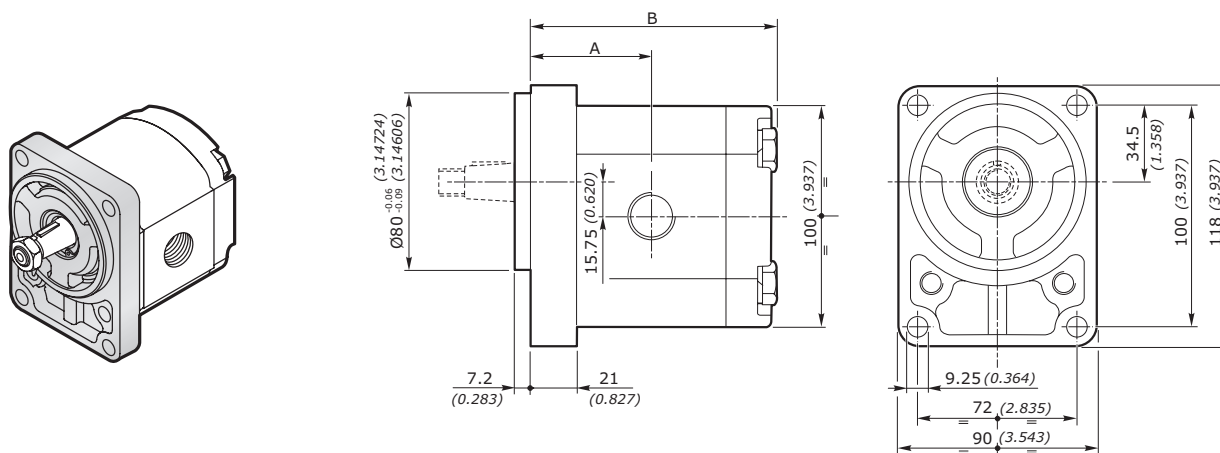
POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

FLANGIA TEDESCA **B80C** GERMAN FLANGE

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500
2SP 060	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500
2SP 080	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500
2SP 110	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500
2SP 140	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500
2SP 160	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500
2SP 190	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500
2SP 220	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500
2SP 260	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500
2SP 310	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
Note - for higher pressure values please contact our Sales Dpt.

DIMENSIONI • DIMENSIONS



GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
2SP 040	46.4	1.827	95.0	3.740	2.30	5.07
2SP 060	48.0	1.890	98.3	3.870	2.45	5.40
2SP 080	50.1	1.972	102.5	4.035	2.60	5.73
2SP 110	52.2	2.055	106.6	4.197	2.70	5.95
2SP 140	54.7	2.154	111.6	4.394	2.80	6.17
2SP 160	56.8	2.236	115.8	4.559	2.95	6.51
2SP 190	59.3	2.335	120.8	4.756	3.10	6.84
2SP 220	61.8	2.433	125.8	4.953	3.25	7.17
2SP 260	64.7	2.547	131.6	5.181	3.40	7.50
2SP 310	68.9	2.715	140.0	5.516	3.61	7.96

POMPE AD INGRANAGGI GRUPPO 2SP

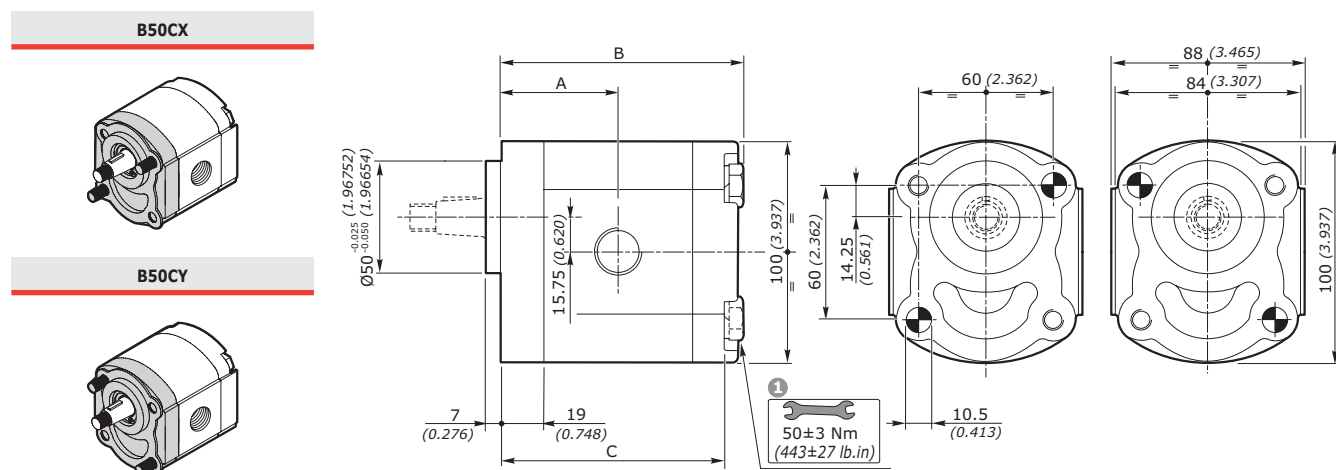
GEAR PUMPS GROUP 2SP

FLANGIA **B50C** FLANGE

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500
2SP 060	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500
2SP 080	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500
2SP 110	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500
2SP 140	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500
2SP 160	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500
2SP 190	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500
2SP 220	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500
2SP 260	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500
2SP 310	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
Note - for higher pressure values please contact our Sales Dpt.

DIMENSIONI • DIMENSIONS



1

Coppia di serraggio viti: $50 \pm 3 \text{ Nm}$ (viti classe 10.9-12.9 UNI EN 20898/1)
Il kit viti per il fissaggio della pompa è da ordinare separatamente.
Codice di ordinazione: **0029W** (+ lunghezza **L** - vedi tabella)
Il fissaggio della pompa può essere effettuato con 2 viti prigioniere classe 10.9-12.9 UNI EN 20898/1 preserrate: $40 \pm 3 \text{ Nm}$. Fissare la pompa mediante dadi autobloccanti con coppia di serraggio: $50 \pm 3 \text{ Nm}$

1

Screw tightening torque: $443 \pm 27 \text{ lb.in}$ (screws 10.9-12.9 UNI EN 20898/1).
The screw kit for the pump assembly should be ordered separately.
Ordering code: **0029W** (+ length **L** - see table)
The pump assembling should be made with 2 screws stud type 10.9-12.9 UNI EN 20898/1 pre-tighten $354 \pm 27 \text{ lb.in}$. Fix the pump by self-locking nuts with tightening torque: $443 \pm 27 \text{ lb.in}$

GRUPPO - GROUP 2	A		B		C		L ①		MASSA - MASS	
	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
2SP 040	44.4	1.748	93.0	3.661	84.0	3.307	105	4.134	2.30	5.07
2SP 060	46.0	1.811	96.3	3.791	87.3	3.437	105	4.134	2.45	5.40
2SP 080	48.1	1.894	100.5	3.957	91.5	3.602	110	4.331	2.60	5.73
2SP 110	50.2	1.976	104.6	4.118	95.6	3.764	115	4.528	2.70	5.95
2SP 140	52.7	2.075	109.6	4.315	100.6	3.961	120	4.724	2.80	6.17
2SP 160	54.8	2.157	113.8	4.480	104.8	4.126	125	4.921	2.95	6.51
2SP 190	57.3	2.256	118.8	4.677	109.8	4.323	130	5.118	3.10	6.84
2SP 220	59.8	2.354	123.8	4.874	114.8	4.520	135	5.315	3.25	7.17
2SP 260	62.7	2.469	129.6	5.102	120.6	4.748	140	5.512	3.40	7.50
2SP 310	66.9	2.636	138.0	5.437	129.0	5.083	150	5.910	3.61	7.96

POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

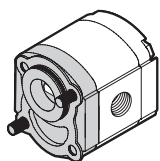
FLANGIA **E52C** FLANGE

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500
2SP 060	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500
2SP 080	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500
2SP 110	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500
2SP 140	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500
2SP 160	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500
2SP 190	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500
2SP 220	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500
2SP 260	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500
2SP 310	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500

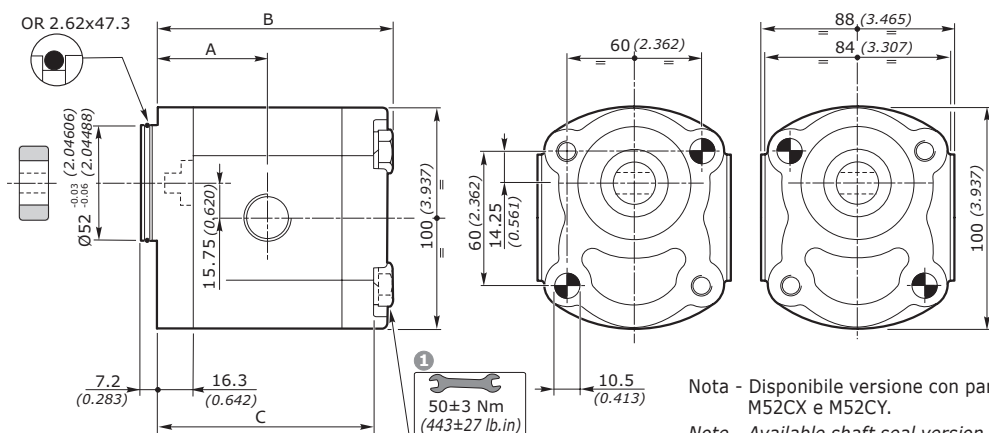
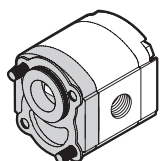
Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
Note - for higher pressure values please contact our Sales Dpt.

DIMENSIONI • DIMENSIONS

E52CX



E52CY



Nota - Disponibile versione con paraolio M52CX e M52CY.

Note - Available shaft seal version M52CX and M52CY.

1

Coppia di serraggio viti: $50 \pm 3 \text{ Nm}$ (viti classe 10.9-12.9 UNI EN 20898/1)
Il kit viti per il fissaggio della pompa è da ordinare separatamente.
Codice di ordinazione: **0029W** (+ lunghezza L - vedi tabella)
Il fissaggio della pompa può essere effettuato con 2 viti prigioniere classe 10.9-12.9 UNI EN 20898/1 preserrate: $40 \pm 3 \text{ Nm}$. Fissare la pompa mediante dadi autobloccanti con coppia di serraggio: $50 \pm 3 \text{ Nm}$

1

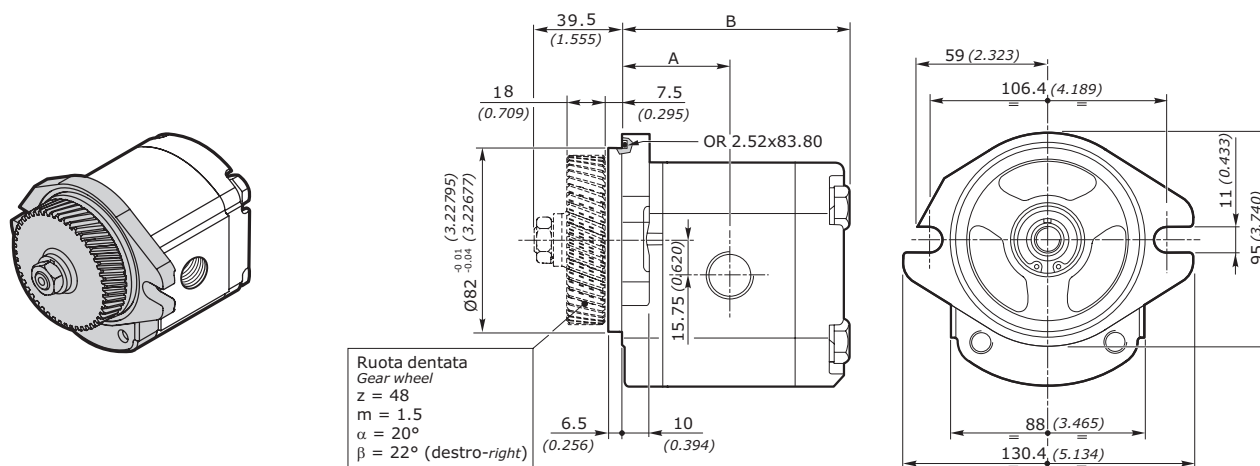
Screw tightening torque: $443 \pm 27 \text{ lb-in}$ (screws 10.9-12.9 UNI EN 20898/1).
The screw kit for the pump assembly should be ordered separately.
Ordering code: **0029W** (+ length L - see table)
The pump assembling should be made with 2 screws stud type 10.9-12.9 UNI EN 20898/1 pre-tighten $354 \pm 27 \text{ lb-in}$. Fix the pump by self-locking nuts with tightening torque: $443 \pm 27 \text{ lb-in}$

GRUPPO - GROUP 2	A		B		C		L 1		MASSA - MASS	
	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
2SP 040	41.7	1.642	90.3	3.555	81.3	3.201	100	3.937	2.30	5.07
2SP 060	43.3	1.705	93.6	3.685	84.6	3.331	105	4.134	2.45	5.40
2SP 080	45.4	1.787	97.8	3.850	88.8	3.496	110	4.331	2.60	5.73
2SP 110	47.5	1.870	101.9	4.012	92.9	3.657	115	4.528	2.70	5.95
2SP 140	50.0	1.969	106.9	4.209	97.9	3.854	120	4.724	2.80	6.17
2SP 160	52.1	2.051	111.1	4.374	102.1	4.020	120	4.724	2.95	6.51
2SP 190	54.6	2.150	116.1	4.571	107.1	4.217	125	4.921	3.10	6.84
2SP 220	57.1	2.248	121.1	4.768	112.1	4.413	130	5.118	3.25	7.17
2SP 260	60.0	2.362	126.9	4.996	117.9	4.642	140	5.512	3.40	7.50
2SP 310	64.2	2.529	135.3	5.331	126.3	4.988	145	5.713	3.61	7.96

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP
FLANGIA PERKINS **P400D** **PERKINS FLANGE**

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500
2SP 060	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500
2SP 080	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500
2SP 110	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500
2SP 140	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500
2SP 160	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500
2SP 190	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500
2SP 220	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500
2SP 260	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500
2SP 310	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
 Note - for higher pressure values please contact our Sales Dpt.

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GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
2SP 040	44.4	1.748	93.0	3.661	2.30	5.07
2SP 060	46.0	1.811	96.3	3.791	2.45	5.40
2SP 080	48.1	1.894	100.5	3.957	2.60	5.73
2SP 110	50.2	1.976	104.6	4.118	2.70	5.95
2SP 140	52.7	2.075	109.6	4.315	2.80	6.17
2SP 160	54.8	2.157	113.8	4.480	2.95	6.51
2SP 190	57.3	2.256	118.8	4.677	3.10	6.84
2SP 220	59.8	2.354	123.8	4.874	3.25	7.17
2SP 260	62.7	2.469	129.6	5.102	3.40	7.50
2SP 310	66.9	2.636	138.0	5.437	3.61	7.96

POMPE AD INGRANAGGI **GRUPPO 2SP** GEAR PUMPS **GROUP 2SP**

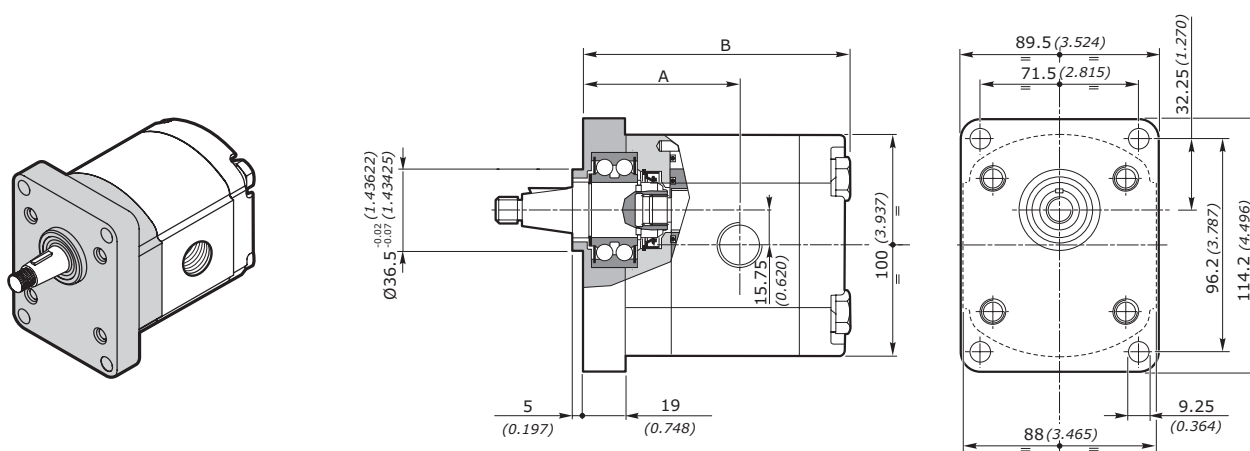
VERSIONE DA UTILIZZARE IN PRESENZA DI CARICHI ASSIALI E/O RADIALI
VERSION TO BE USED WITH AXIAL AND/OR RADIAL LOADS

FLANGIA **SUPEUR** FLANGE

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500
2SP 060	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500
2SP 080	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500
2SP 110	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500
2SP 140	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500
2SP 160	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500
2SP 190	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500
2SP 220	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500
2SP 260	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500
2SP 310	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
Note - for higher pressure values please contact our Sales Dpt.

DIMENSIONI • DIMENSIONS



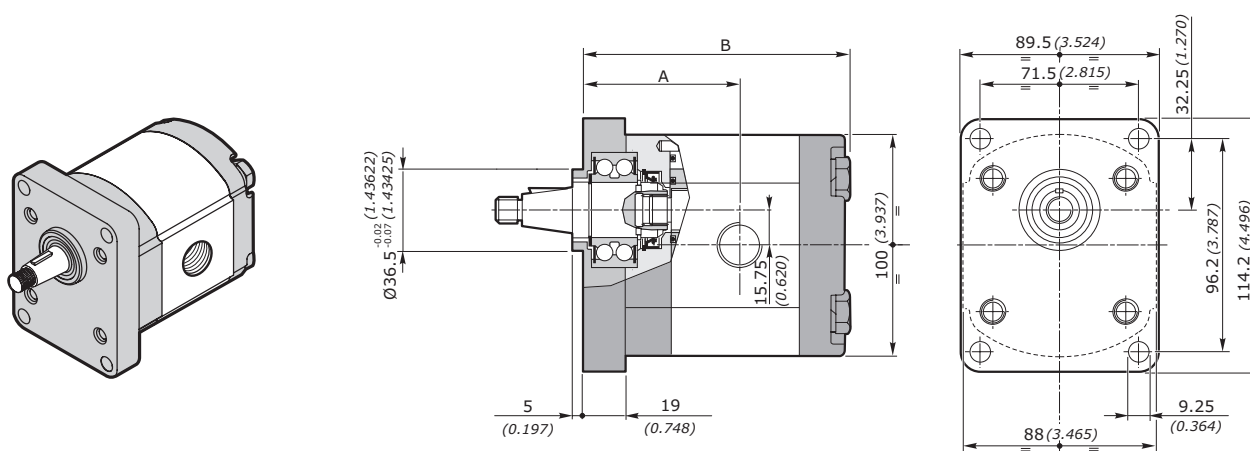
La flangia SUPEUR è sempre allestita con anello di rinforzo.
SUPEUR flange is always equipped with sealing ring

GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
2SP 040	64.4	2.535	113.0	4.449	2.80	6.17
2SP 060	66.0	2.598	116.3	4.579	2.95	6.50
2SP 080	68.1	2.681	120.5	4.744	3.10	6.84
2SP 110	70.2	2.764	124.6	4.906	3.20	7.06
2SP 140	72.7	2.863	129.6	5.102	3.30	7.28
2SP 160	74.8	2.945	133.8	5.268	3.45	7.61
2SP 190	77.3	3.043	138.8	5.465	3.60	7.94
2SP 220	79.8	3.142	143.8	5.661	3.75	8.27
2SP 260	82.7	3.256	149.6	5.890	3.90	8.60
2SP 310	86.9	3.424	158.0	6.225	4.11	9.06

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP
FLANGIA SUPEUR FLANGE
FLANGIA E COPERCHIO IN GHISA - FLANGE AND COVER IN CAST IRON

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	260	3770	280	4060	300	4350	4000	16	4.23	500
2SP 060	6	0.37	260	3770	280	4060	300	4350	4000	24	6.34	500
2SP 080	8.5	0.52	260	3770	280	4060	300	4350	3500	29.7	7.85	500
2SP 110	11	0.67	260	3770	280	4060	300	4350	3500	38.5	10.17	500
2SP 140	14	0.85	260	3770	280	4060	300	4350	3500	49	12.95	500
2SP 160	16.5	1.01	240	3480	250	3625	260	3770	3500	57.7	15.24	500
2SP 190	19.5	1.19	220	3190	230	3335	240	3480	3300	64.3	16.99	500
2SP 220	22.5	1.37	200	2900	210	3045	220	3190	2800	63	16.64	500
2SP 260	26	1.59	180	2610	190	2755	200	2900	2500	65	17.17	500
2SP 310	31.5	1.92	140	2030	150	2175	160	2320	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
 Note - for higher pressure values please contact our Sales Dpt.

DIMENSIONI • DIMENSIONS


La flangia SUPEUR è sempre allestita con anello di rinforzo.
 SUPEUR flange is always equipped with sealing ring

GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
2SP 040	64.4	2.535	113.0	4.449	3.467	7.643
2SP 060	66.0	2.598	116.3	4.579	3.617	7.974
2SP 080	68.1	2.681	120.5	4.744	3.767	8.304
2SP 110	70.2	2.764	124.6	4.906	3.867	8.525
2SP 140	72.7	2.863	129.6	5.102	3.967	8.745
2SP 160	74.8	2.945	133.8	5.268	4.117	9.076
2SP 190	77.3	3.043	138.8	5.465	4.267	9.407
2SP 220	79.8	3.142	143.8	5.661	4.417	9.737
2SP 260	82.7	3.256	149.6	5.890	4.567	10.068
2SP 310	86.9	3.424	158.0	6.225	4.777	10.531

POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

FLANGIA SAE **SAEB*** SAEB FLANGE

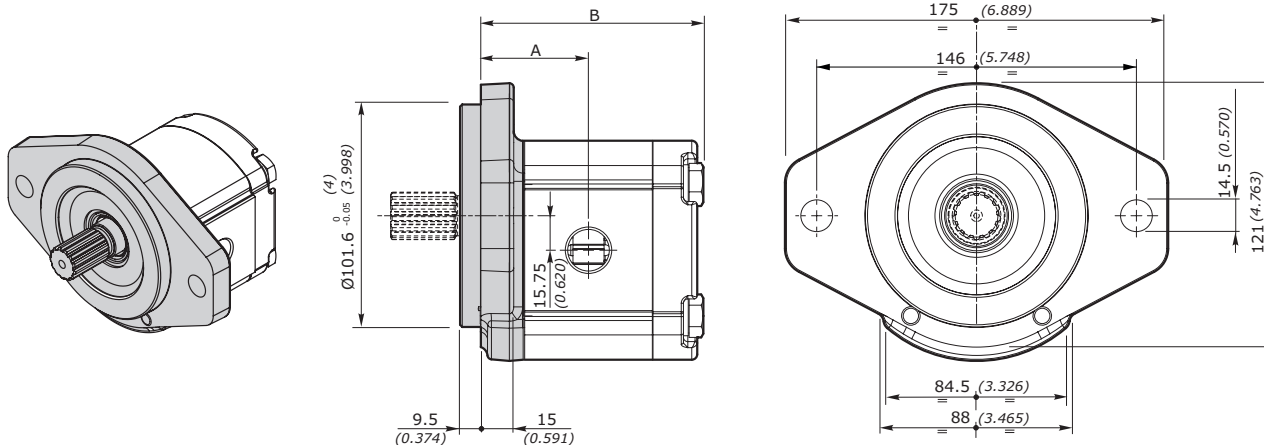
FLANGIA E COPERCHIO IN GHISA - FLANGE AND COVER IN CAST IRON

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	260	3770	280	4060	300	4350	4000	16	4.23	500
2SP 060	6	0.37	260	3770	280	4060	300	4350	4000	24	6.34	500
2SP 080	8.5	0.52	260	3770	280	4060	300	4350	3500	29.7	7.85	500
2SP 110	11	0.67	260	3770	280	4060	300	4350	3500	38.5	10.17	500
2SP 140	14	0.85	260	3770	280	4060	300	4350	3500	49	12.95	500
2SP 160	16.5	1.01	240	3480	250	3625	260	3770	3500	57.7	15.24	500
2SP 190	19.5	1.19	220	3190	230	3335	240	3480	3300	64.3	16.99	500
2SP 220	22.5	1.37	200	2900	210	3045	220	3190	2800	63	16.64	500
2SP 260	26	1.59	180	2610	190	2755	200	2900	2500	65	17.17	500
2SP 310	31.5	1.92	140	2030	150	2175	160	2320	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
Note - for higher pressure values please contact our Sales Dpt.

* Contattare il servizio commerciale. / Available soon. Please contact our Sales Dpt.

DIMENSIONI • DIMENSIONS



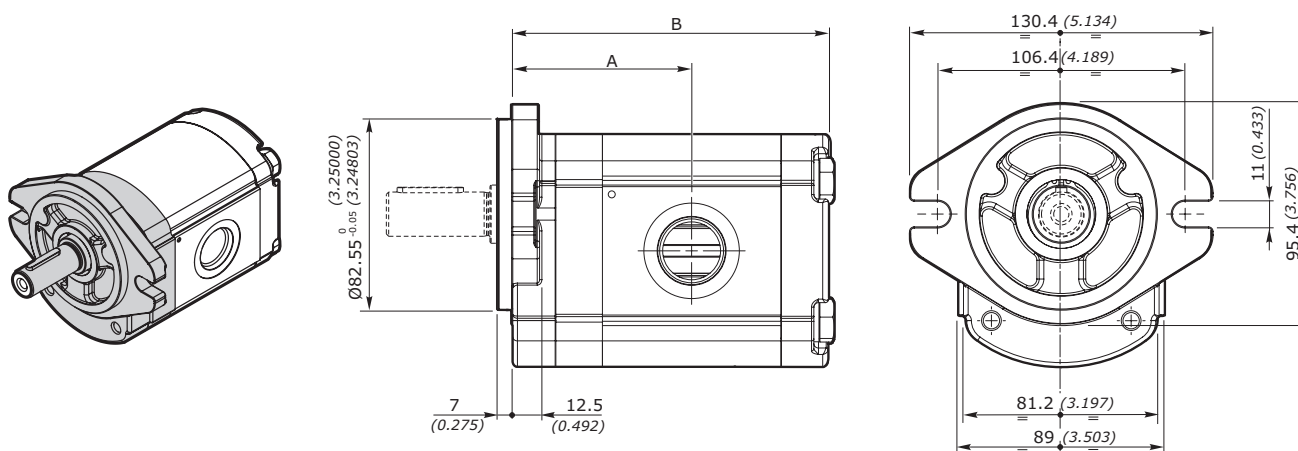
* Configurabile come 1ª pompa in tandem; elementi interni non intercambiabili
Configuration as 1st tandem pump; internal elements are not interchangeable

GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
2SP 040	45.4	1.787	94	3.701	4.90	10.80
2SP 060	47.0	1.850	97.3	3.831	5.05	11.13
2SP 080	49.1	1.933	101.5	3.996	5.20	11.46
2SP 110	51.2	2.016	105.6	4.157	5.30	11.68
2SP 140	53.7	2.114	110.6	4.354	5.40	11.90
2SP 160	55.8	2.197	114.8	4.520	5.55	12.24
2SP 190	58.3	2.295	119.8	4.717	5.70	12.57
2SP 220	60.8	2.394	124.8	4.913	5.85	12.90
2SP 260	63.7	2.508	130.6	5.142	6.00	13.23
2SP 310	67.9	2.673	139	5.472	6.20	13.67

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP
FLANGIA SUPSAE FLANGE
FLANGIA E COPERCHIO IN ALLUMINIO - FLANGE AND COVER IN ALUMINIUM

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3			l/min	Gal/min	
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm			giri/min - rpm
2SP 040	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500
2SP 060	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500
2SP 080	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500
2SP 110	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500
2SP 140	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500
2SP 160	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500
2SP 190	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500
2SP 220	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500
2SP 260	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500
2SP 310	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
 Note - for higher pressure values please contact our Sales Dpt.

DIMENSIONI • DIMENSIONS


GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
2SP 040	64.4	2.535	113.0	4.448	2.80	6.172
2SP 060	66.0	2.598	116.3	4.578	2.95	6.503
2SP 080	68.1	2.681	120.5	4.744	3.10	6.834
2SP 110	70.2	2.763	124.6	4.905	3.20	7.054
2SP 140	72.7	2.862	129.6	5.102	3.30	7.275
2SP 160	74.8	2.944	133.8	5.267	3.45	7.605
2SP 190	77.3	3.043	138.8	5.464	3.60	7.936
2SP 220	79.8	3.141	143.8	5.661	3.75	8.267
2SP 260	82.7	3.255	149.6	5.889	3.90	8.598
2SP 310	86.9	3.421	158.0	6.220	4.10	9.038

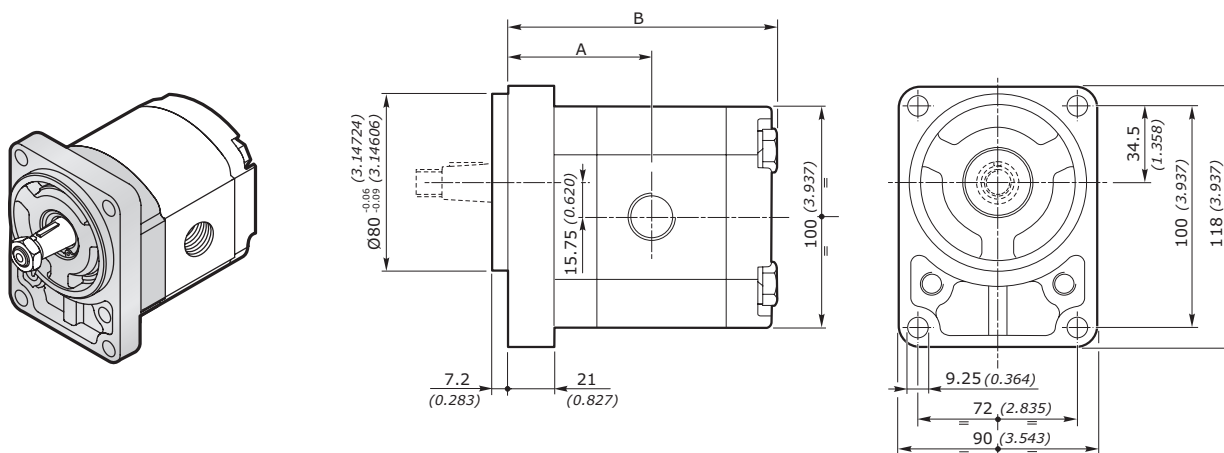
POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

FLANGIA **SUPB80C** FLANGE

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500
2SP 060	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500
2SP 080	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500
2SP 110	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500
2SP 140	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500
2SP 160	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500
2SP 190	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500
2SP 220	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500
2SP 260	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500
2SP 310	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
Note - for higher pressure values please contact our Sales Dpt.

DIMENSIONI • DIMENSIONS



GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
2SP 040	66.4	2.614	115.0	4.527	2.763	6.09
2SP 060	68	2.677	118.3	4.657	2.913	6.42
2SP 080	70.1	2.760	122.5	4.823	3.063	6.75
2SP 110	72.2	2.842	126.6	4.984	3.163	6.97
2SP 140	74.7	2.941	131.6	5.181	3.263	7.20
2SP 160	76.8	3.023	135.8	5.346	3.413	7.52
2SP 190	79.3	3.122	140.8	5.543	3.563	7.85
2SP 220	81.8	3.220	145.8	5.740	3.713	8.18
2SP 260	84.7	3.334	151.6	5.968	3.863	8.52
2SP 310	88.9	3.500	160.0	6.299	4.073	8.98

POMPE AD INGRANAGGI GRUPPO 2SP

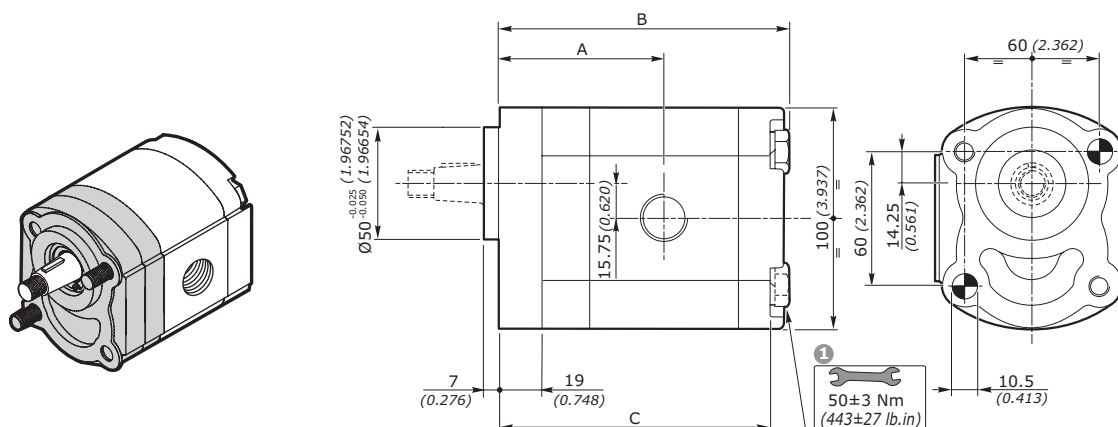
GEAR PUMPS GROUP 2SP

FLANGIA **SUPB50CX** FLANGE

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED
			P1		P2		P3					
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm
2SP 040	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500
2SP 060	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500
2SP 080	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500
2SP 110	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500
2SP 140	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500
2SP 160	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500
2SP 190	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500
2SP 220	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500
2SP 260	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500
2SP 310	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500

Nota - Per valori di pressione superiori a quelli indicati contattare il Servizio Commerciale.
Note - for higher pressure values please contact our Sales Dpt.

DIMENSIONI • DIMENSIONS



1

Coppia di serraggio viti: $50 \pm 3 \text{ Nm}$ (viti classe 10.9-12.9 UNI EN 20898/1)
Il kit viti per il fissaggio della pompa è da ordinare separatamente.
Codice di ordinazione: **0029W** (+ lunghezza **L** - vedi tabella)
Il fissaggio della pompa può essere effettuato con 2 viti prigioniere classe 10.9-12.9 UNI EN 20898/1 preserrate: $40 \pm 3 \text{ Nm}$. Fissare la pompa mediante dadi autobloccanti con coppia di serraggio: $50 \pm 3 \text{ Nm}$

1

Screw tightening torque: $443 \pm 27 \text{ lb.in}$ (screws 10.9-12.9 UNI EN 20898/1).
The screw kit for the pump assembly should be ordered separately.
Ordering code: **0029W** (+ length **L** - see table)
The pump assembling should be made with 2 screws stud type 10.9-12.9 UNI EN 20898/1 pre-tighten $354 \pm 27 \text{ lb.in}$. Fix the pump by self-locking nuts with tightening torque: $443 \pm 27 \text{ lb.in}$

GRUPPO - GROUP 2	A		B		C		L 1		MASSA - MASS	
	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
2SP 040	64.4	2.535	113.0	4.448	104.0	4.094	125	4.921	2.76	6.08
2SP 060	66.0	2.598	116.3	4.578	107.3	4.224	125	4.921	2.91	6.41
2SP 080	68.1	2.681	120.5	4.744	111.5	4.390	130	5.118	3.06	6.75
2SP 110	70.2	2.763	124.6	4.905	115.6	4.551	135	5.314	3.16	6.97
2SP 140	72.7	2.862	129.6	5.102	120.6	4.748	140	5.512	3.26	7.19
2SP 160	74.8	2.944	133.8	5.267	124.8	4.913	145	5.709	3.41	7.52
2SP 190	77.3	3.043	138.8	5.464	129.8	5.110	150	5.905	3.56	7.85
2SP 220	79.8	3.141	143.8	5.661	134.8	5.307	155	6.102	3.71	8.18
2SP 260	82.7	3.256	149.6	5.890	140.6	5.535	160	6.299	3.86	8.51
2SP 310	86.9	3.421	158.0	6.220	149.0	5.866	170	6.692	4.07	8.97

POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

CARICO DINAMICO EQUIVALENTE • EQUIVALENT DYNAMIC LOAD

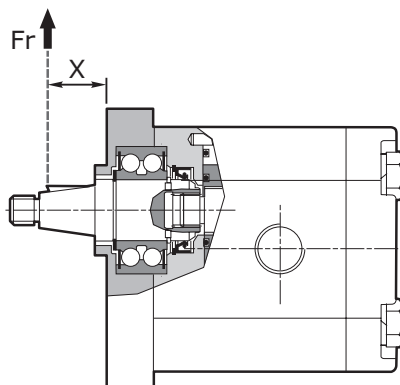
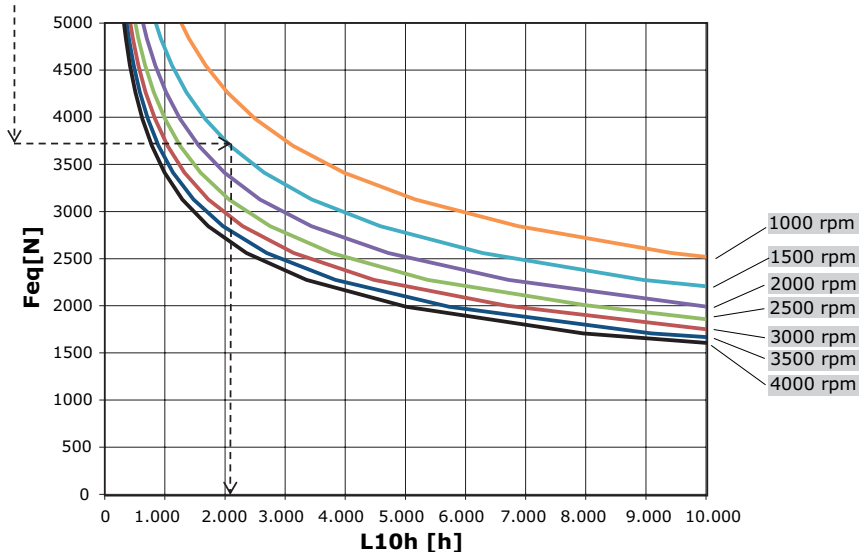
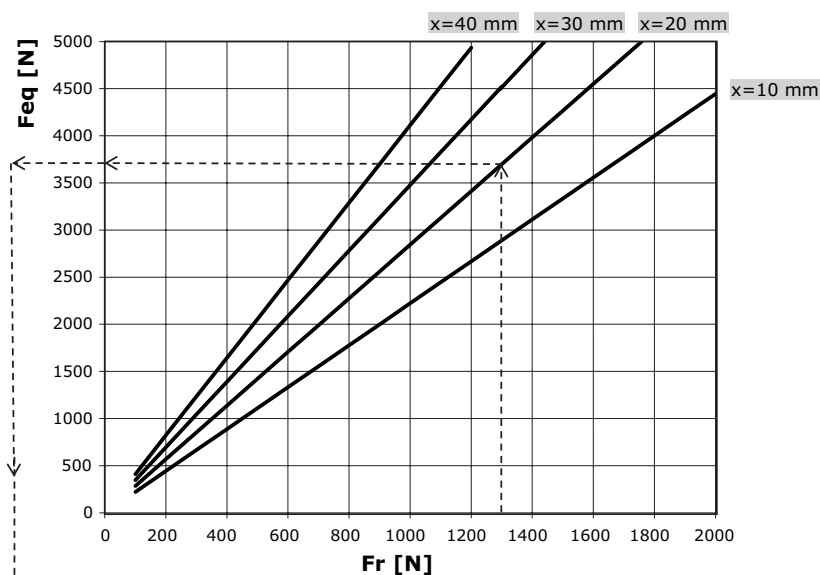


DIAGRAMMA CUSCINETTI • DIAGRAM BEARING EXPECTED LIFE



In caso di carichi combinati applicati all'albero (radiale + assiale) contattare il nostro Ufficio Tecnico.
In case of both radial and axial loads applied to the shaft please contact our technical department.

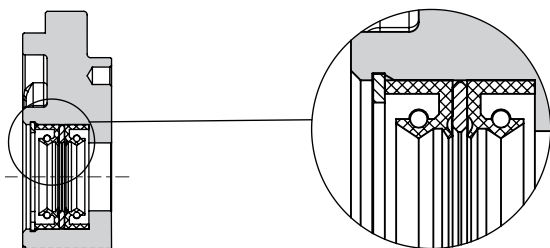
POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP
CODICE ORDINAZIONE • ORDER CODE
2SP - G - 140 - D - EUR - B - N - 10 - 0 - G

SIGLA - CODE	TIPO - TYPE	DESCRIZIONE - DESCRIPTION	PAGINA - PAGE
2SP	Tipo pompa <i>Pump type</i>	Pompa singola gruppo 2 <i>Single pump group 2</i>	5
G	Materiale flangia e coperchio <i>Flange and cover material</i>	A = alluminio / <i>aluminium</i> G = Ghisa / <i>Cast iron</i>	50
140	Cilindrata <i>Displacement</i>	Cilindrata = 14 cm ³ /giro <i>Displacement = 0.85 in³/rev</i>	5
D	Senso di rotazione <i>Rotation wise</i>	D = Rotazione destra / <i>Clockwise rotation</i> S = Rotazione sinistra / <i>Anticlockwise rotation</i> R = Reversibile / <i>Reversible</i>	8
EUR	Tipo Flangia <i>Flange type</i>	Flangia standard <i>Standard flange</i>	50
B	Tipo anello di tenuta <i>Seal ring type</i>	Vedi tabella compatibilità <i>See compatibility table</i>	51
N	Tipo guarnizione <i>Gasket type</i>	N = NBR V = Viton	50
10	Tipo Albero <i>Shaft type</i>	Vedi tabella compatibilità <i>See compatibility table</i>	52
0	Posizione connessione <i>Connection position</i>	Vedi tabella compatibilità <i>See compatibility table</i>	57
G	Tipo connessione <i>Connection type</i>	Vedi tabella compatibilità <i>See compatibility table</i>	58


VERSIONI CON DOPPIO PARAOLIO • DOUBLE SHAFT SEAL VERSION

Disponibili versioni con doppio paraolio per EUR, SAEA, SAEAOR e B50C.

Available versions with double shaft seal for EUR, SAEA, SAEAOR and B50C.



esempio • example:

2SP - A - 160 - S - SAEA2 - B - N - 14 - N

SAEA2 = Doppio paraolio / *Double Shaft Seal*

Nota - La versione con paraolio è fornita con anelli a bassa pressione o alta pressione tipo K (vedi pag.51).

Note - The version with shaft seal is supplied with K rings type with low pressure or high pressure (see page 51).

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP
TIPOLOGIA FLANGIA • FLANGE TYPE

2SP	EUR	SAEA	SAEAOR	B80C	B50C	E52C
						
A alluminio aluminium	◇	◇	◇	◇	◇	◇
G ghisa cast iron	◇	◇	◇	non disponibile not available	non disponibile not available	non disponibile not available
2SP	P400D	SUPEUR	SAEB*	SUPSAE	SUPB80C	SUPB50CX
						
A alluminio aluminium	◇	◇	non disponibile not available	◇	◇	◇
G ghisa cast iron	non disponibile not available	◇	◇	non disponibile not available	non disponibile not available	non disponibile not available

* Contattare il servizio commerciale. / Available soon. Please contact our Sales Dpt.

COMBINAZIONE FLANGIA - ANELLO DI TENUTA - GUARNIZIONE • FLANGE - SEAL RING - GASKET COMBINATION

2SP	EUR	SAEA	SAEAOR	B80C	B50C	E52C
	 Anello-Seal ring	 Anello-Seal ring	 Anello-Seal ring	 Anello-Seal ring	 Anello-Seal ring	 Anello-Seal ring
	B H K	B H K	B H K	B H K	B H K	A
NBR N	◇	◇	◇	◇	◇	◇
Viton V	●	●	●	●	●	●
2SP	P400D	SUPEUR	SAEB*	SUPSAE	SUPB80C	SUPB50CX
	 Anello-Seal ring	 Anello-Seal ring	 Anello-Seal ring	 Anello-Seal ring	 Anello-Seal ring	 Anello-Seal ring
	B H K	B K	H			
NBR N	◇	◇	◇	◇	◇	◇
Viton V	●	●	●	●	●	●

* Contattare il servizio commerciale. / Available soon. Please contact our Sales Dpt.

esempio • example: **2SP - A - 140 - D - EUR - B - N - 10 - 0 - G**

EUR = Flangia europea / European flange

B = Anello tenuta fino a 3 bar / Seal ring up to 3 bar

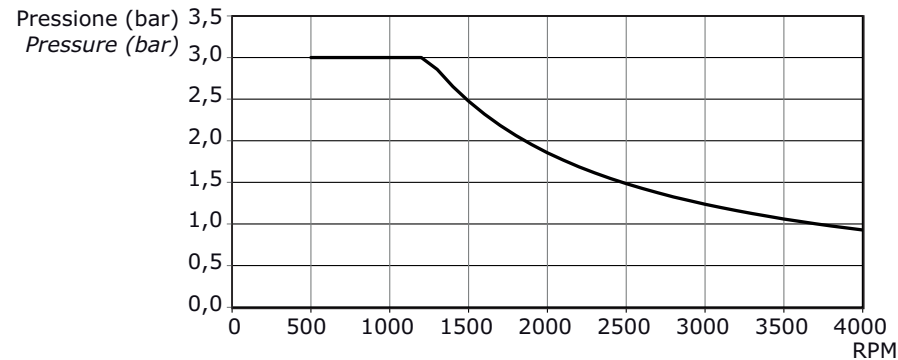
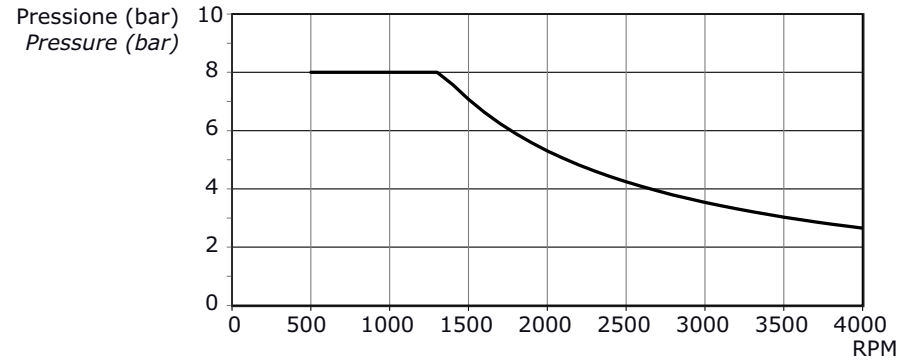
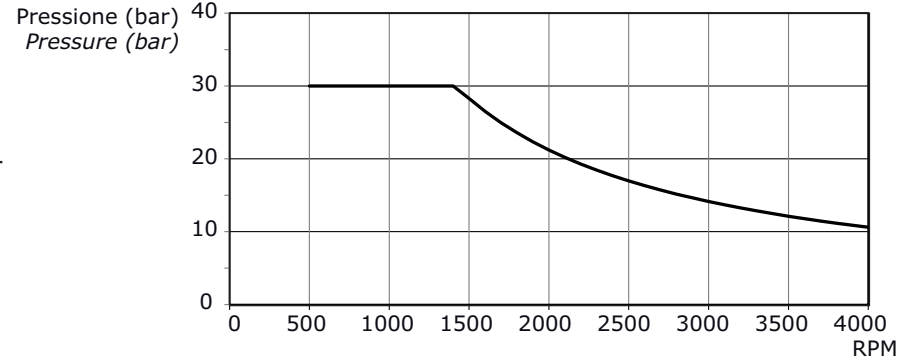
N = Guarnizione in NBR / NBR o-ring

◇ = Combinazione standard - Standard combination

● = Combinazione disponibile - Available combination

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP

ANELLO DI TENUTA • SEAL RING

SIGLA - CODE	TIPO - TYPE	DIAGRAMMA - DIAGRAM
A	Flangia senza anello di tenuta Flange without seal ring	/
B	Anello di tenuta fino a 3 bar Sealing ring up to 3 bar	
H	Anello di tenuta fino a 8 bar Sealing ring up to 8 bar	
K	Anello di tenuta fino a 30 bar Sealing ring up to 30 bar	

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP
COMBINAZIONE ALBERO - FLANGIA • SHAFT - FLANGE COMBINATION

2SP	EUR	SAEA	SAEAOR	B80C	B50C	E52C	P400D	SUPEUR	SAEB*	SUPSAE	SUPB80C	SUPB50CX
												
10 Conico 1:8 Tapered 1:8	◆	●	●	●	◆		◆	◆	●	◆		
11 Conico 1:5 Tapered 1:5	●	●	●	◆	●			●	●		◆	◆
12 Cilindrico EUR EUR Parallel shaft	◆	●	●	◆	◆				●			
13 Cilindr. SAEA SAEA parallel shaft	●	◆	◆	●	●				●			
14 Scanalato SAEA 9T SAEA 9T splined	●	◆	◆	●	●				●			
15 Scanalato DIN5482 9T (26/24) DIN5482 9T splined (26/24)	●	●	●	◆	●				●			
16 Scanalato DIN5482 9T (20) DIN5482 9T splined (20)	●	●	●	◆	●			●	●			
17 Fresato a dente frontale Dihedral claw						◆						
30 Scanalato SAE SAE splined										●		
31 Cilindrico SAE SAE Parallel shaft										●		
40 Scanalato SAE 10T (52) SAE 10T splined (52)	●	●	●						●			
41 Scanalato SAE 10T (37.5) SAE 10T splined (37.5)	●	●	●						●			
42 Scanalato SAEA 11T (55.6) SAEA 11T splined (55.6)	●	●	●						●			
43 Scanalato SAEA 11T (31.5) SAEA 11T splined (31.5)	●	●	●						●			
44 Scanalato SAEA 11T (13.5) SAEA 11T splined (13.5)						●						
45 Scanalato SAEB 13T (41.2) SAEB 13T splined (41.2)									◆			
46 Cilindrico SAEB SAEB Parallel shaft										●		
47 Cilindrico Parallel shaft											●	

◆ = Combinazione standard - Standard combination

● = Combinazione disponibile - Available combination

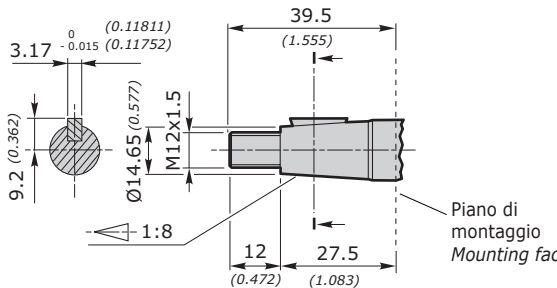
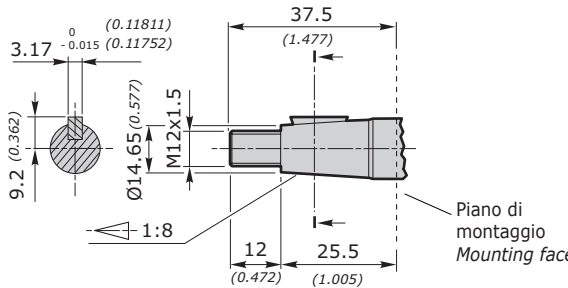
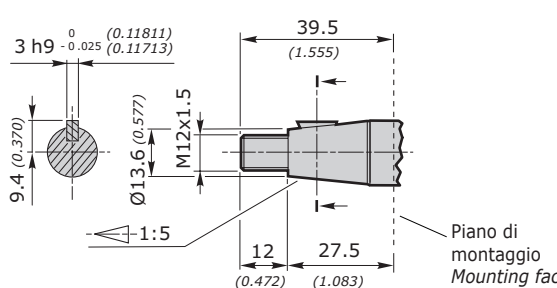
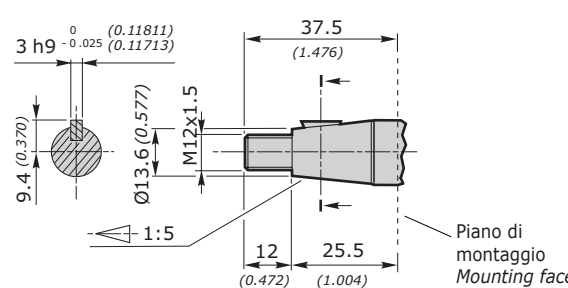
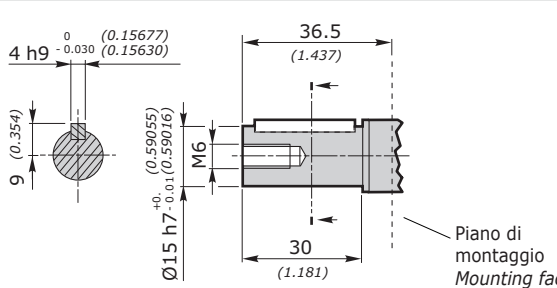
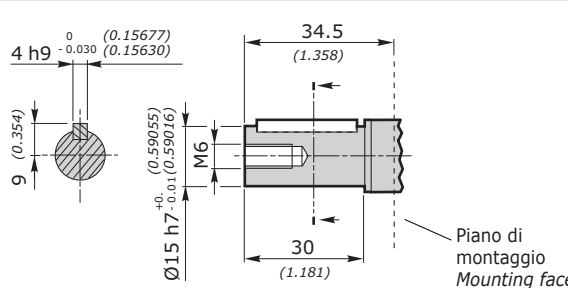
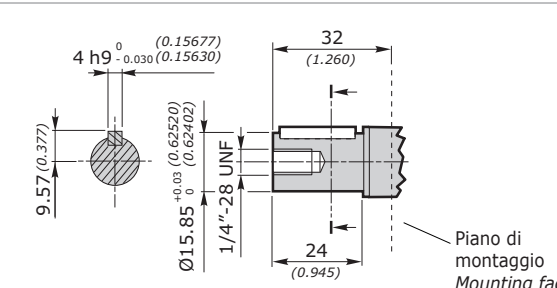
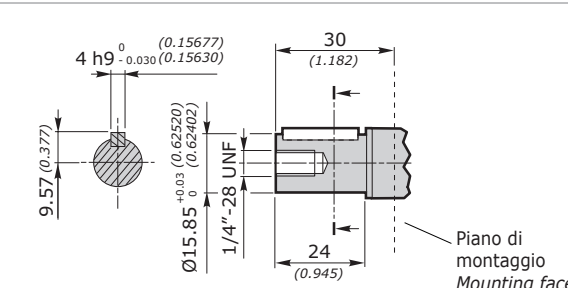
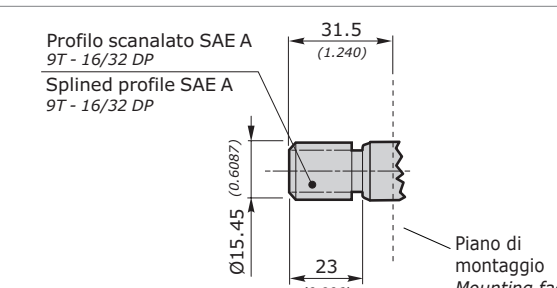
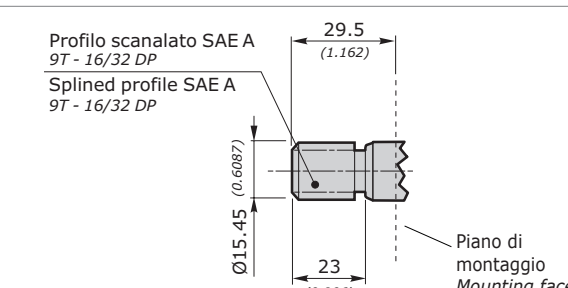
* Contattare il servizio commerciale. / Available soon. Please contact our Sales Dpt.

POMPE AD INGRANAGGI GRUPPO 2SP

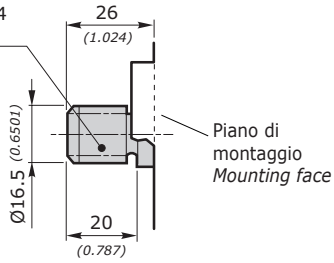
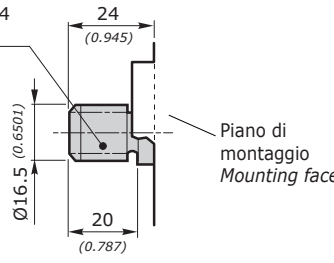
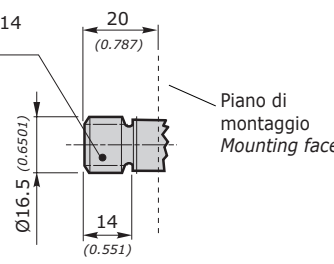
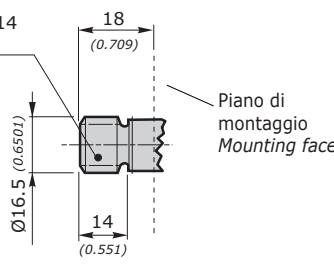
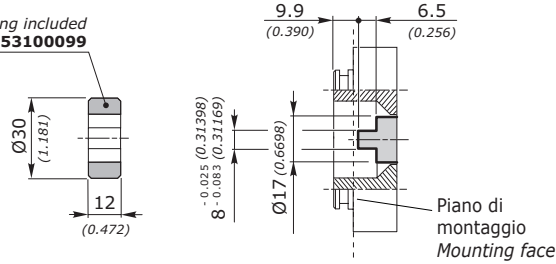
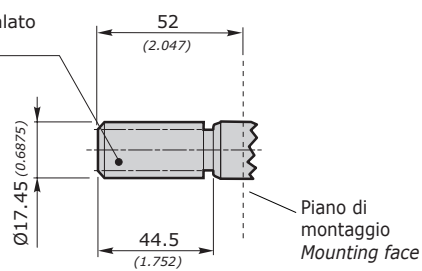
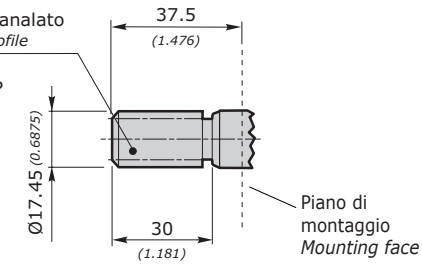
GEAR PUMPS GROUP 2SP

2SP

DIMENSIONI ALBERO - SHAFT DIMENSIONS

10 Conico 1:8 Tapered 1:8 Coppia 140 Nm Torque 104 ft-lbs	 Disponibile per - available for: EUR-SAEA-SAEOR-B50C-P400D-SUPEUR	 Disponibile per - available for: B80C
11 Conico 1:5 Tapered 1:5 Coppia 140 Nm Torque 104 ft-lbs	 Disponibile per - available for: EUR - SAEA - SAEOR - B50C	 Disponibile per - available for: B80C
12 Cilindrico EUR EUR Parallel shaft Coppia 80 Nm Torque 59 ft-lbs	 Disponibile per - available for: EUR - SAEA - SAEOR - B50C	 Disponibile per - available for: B80C
13 Cilindrico SAEA SAEA Parallel shaft Coppia 90 Nm Torque 67 ft-lbs	 Disponibile per - available for: EUR - SAEA - SAEOR - B50C	 Disponibile per - available for: B80C
14 Scanalato SAEA 9T SAEA 9T splined Coppia 100 Nm Torque 74 ft-lbs	 Disponibile per - available for: EUR - SAEA - SAEOR - B50C	 Disponibile per - available for: B80C

POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

2SP	DIMENSIONI ALBERO - SHAFT DIMENSIONS	
15 Scanalato DIN5482 B 17x14 DIN5482 9T splined (26/24) Coppia 100 Nm Torque 74 ft-lbs	Profilo scanalato B 17x14 DIN 5482 n°denti = 9 Splined profile B 17x14 DIN 5482 n°of teeth = 9  Piano di montaggio Mounting face Disponibile per - available for: EUR - SAEA - SAEAOR - B50C	Profilo scanalato B 17x14 DIN 5482 n°denti = 9 Splined profile B 17x14 DIN 5482 n°of teeth = 9  Piano di montaggio Mounting face Disponibile per - available for: B80C
16 Scanalato DIN5482 B 17x14 DIN5482 9T splined (20) Coppia 100 Nm Torque 74 ft-lbs	Profilo scanalato B 17x14 DIN 5482 n°denti = 9 Splined profile B 17x14 DIN 5482 n°of teeth = 9  Piano di montaggio Mounting face Disponibile per - available for: EUR - SAEA - SAEAOR - B50C	Profilo scanalato B 17x14 DIN 5482 n°denti = 9 Splined profile B 17x14 DIN 5482 n°of teeth = 9  Piano di montaggio Mounting face Disponibile per - available for: B80C
17 Fresato a dent frontale Dihedral claw Coppia 80 Nm Torque 59 ft-lbs	Giunto incluso - Coupling included Codice - Code: 010453100099  Piano di montaggio Mounting face Disponibile per - available for: E52C	
40 Scanalato SAE 10T (52) SAE 10T splined (52) Coppia 130 Nm Torque 96 ft-lbs	Profilo scanalato Splined profile z = 10T 16/32 DP α = 30°  Piano di montaggio Mounting face Disponibile per - available for: SAEA - SAEAOR	
41 Scanalato SAE 10T (37.5) SAE 10T splined (37.5) Coppia 130 Nm Torque 96 ft-lbs	Profilo scanalato Splined profile z = 10T 16/32 DP α = 30°  Piano di montaggio Mounting face Disponibile per - available for: SAEA - SAEAOR	

POMPE AD INGRANAGGI GRUPPO 2SP

GEAR PUMPS GROUP 2SP

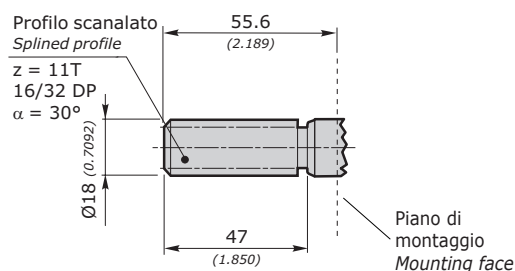
2SP

DIMENSIONI ALBERO - SHAFT DIMENSIONS

42

Scanalato SAEA
11T (55.6)
SAEA 11T
splined (55.6)

Coppia 150 Nm
Torque 111 ft-lbs

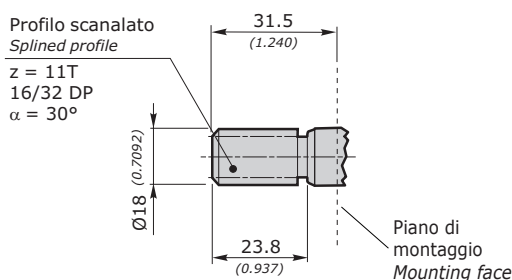


Disponibile per - available for: **SAEA - SAEAOR**

43

Scanalato SAEA
11T (31.5)
SAEA 11T
splined (31.5)

Coppia 150 Nm
Torque 111 ft-lbs

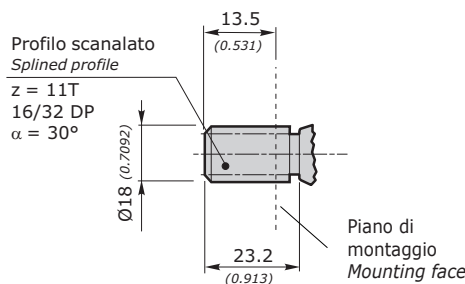


Disponibile per - available for: **SAEA - SAEAOR**

44

Scanalato SAEA
11T (13.5)
SAEA 11T
splined (13.5)

Coppia 150 Nm
Torque 111 ft-lbs

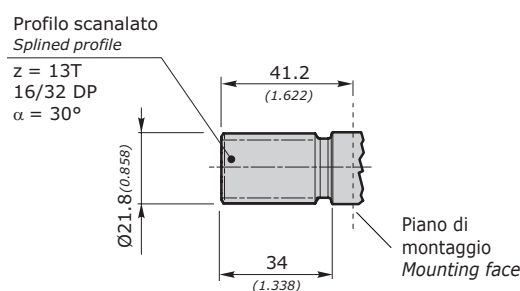


Disponibile per - available for: **E52C**

45

Scanalato SAEB
13T (41.2)
SAEB 13T
splined (41.2)

Coppia 280 Nm
Torque 207 ft-lbs

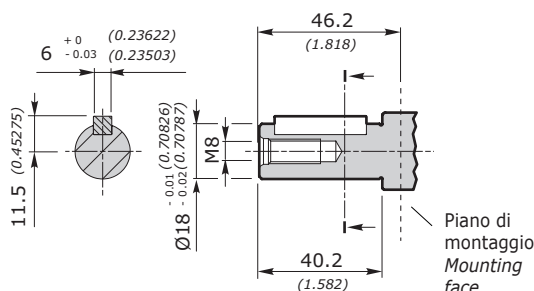


Disponibile per - available for: **SAEB**

46*

Cilindrico
Parallel shaft

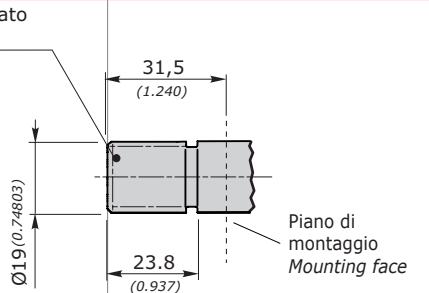
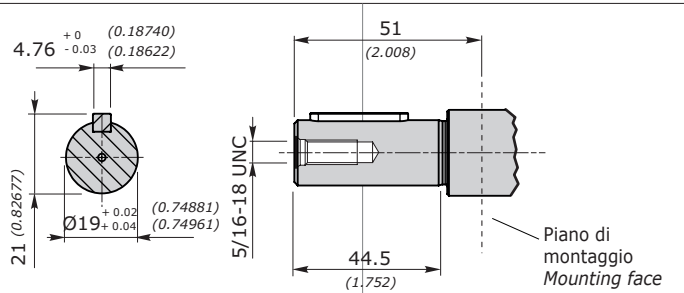
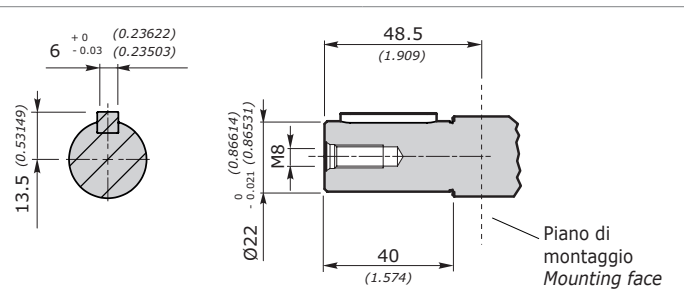
Coppia 110 Nm
Torque 81 ft-lbs



Disponibile per - available for: **SUPEUR - SUPSAE**

* Solo per versione con
cuscinetto.
Available only for
version with bearing

POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

2SP	DIMENSIONI ALBERO - SHAFT DIMENSIONS
30 Scanalato SAE 11T SAE 11T <i>splined</i> Coppia 150 Nm Torque 111 ft-lbs	Profilo scanalato <i>Splined profile</i> $z = 8T$ $16/32 DP$ $\alpha = 30^\circ$  Disponibile per - available for: SUPSAE
31 Cilindrico SAE SAE Parallel <i>shaft</i> Coppia 90 Nm Torque 67 ft-lbs	 Disponibile per - available for: SUPSAE
47 Cilindrico Ø 22 Ø 22 Parallel <i>shaft</i> Coppia 110 Nm Torque 81 ft-lbs	 Disponibile per - available for: SUPB80C

POMPE AD INGRANAGGI **GRUPPO 2SP**

GEAR PUMPS **GROUP 2SP**

POSIZIONE CONNESSIONE • CONNECTION POSITION



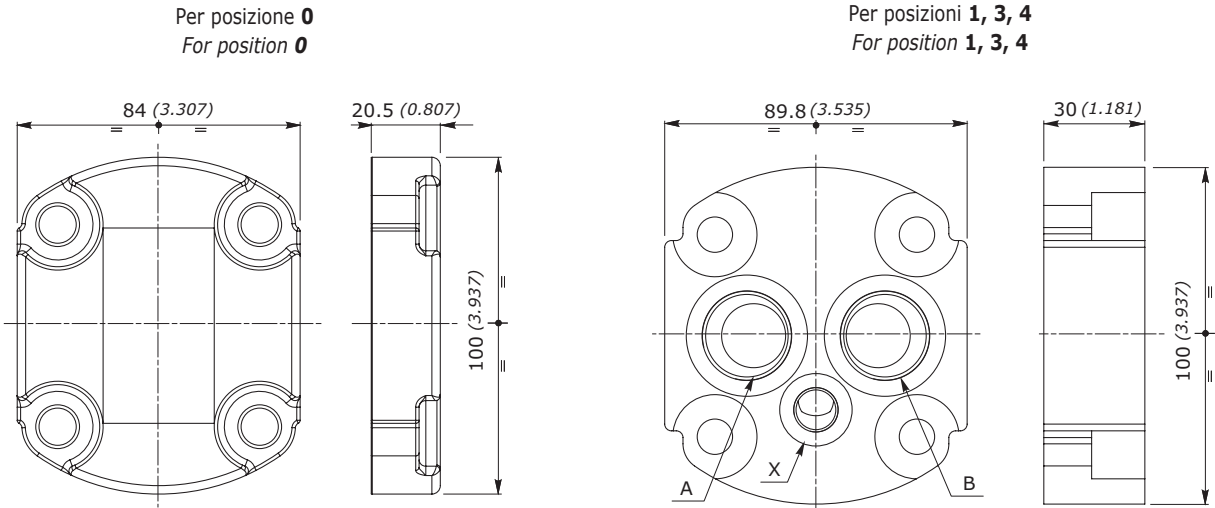
Rotazione destra - **D**
Clockwise rotation - **D**



Rotazione sinistra - **S**
Anti-clockwise rotation - **S**

Il segno del corpo indica il lato aspirazione per le pompe
The sign on the body identifies the suction side for the pumps**IN = ASPIRAZIONE - SUCTION**
OUT = MANDATA - DELIVERY

COPERCHIO STANDARD • STANDARD COVER



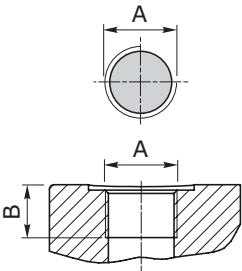
CONNESSIONI / CONNECTION			
	A	B	X
GAS	G 3/4	G 3/4	G 1/4
SAE	SAE 12	SAE 12	SAE 6

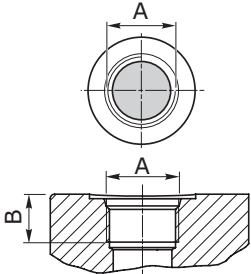
POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

TIPO CONNESSIONE • CONNECTION TYPE

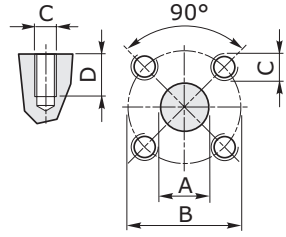
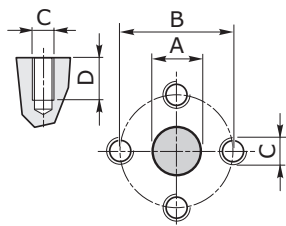
Le connessioni rappresentate corrispondono alle versioni standard; per connessioni differenti, contattare il nostro Ufficio Commerciale. *The connection types shown correspond to standard configuration; for different applications contact our Commercial Dept.*

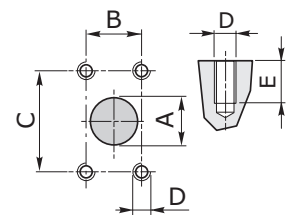
2SP		POSIZIONE CONNESSIONE - CONNECTION POSITION			
		0	1	3	4
GAS	G	◇	◇	◇	◇
UNF	U	◇	◇	◇	◇
FLANGIATE FLANGED	T	◇			
	N	◇			
	M	◇			
	F	◇			

GAS	UNI ISO 228/1	SIGLA CODE	CIL. DISPL.	ASPIRAZIONE - SUCTION IN			MANDATA - DELIVERY OUT		
				A	B		A	B	
		G	40	G 1/2"	16 [mm] 0.630 [inch]	50 [Nm] 443 [in.lbs]	G 1/2"	16 [mm] 0.630 [inch]	50 [Nm] 443 [in.lbs]
			60						
			80						
			110	G 3/4"	17 [mm] 0.670 [inch]	60 [Nm] 531 [in.lbs]			
			140						
			160						
			190						
			220						
			260						
			310						

UNF	ANSI/ASME B1.1	SIGLA CODE	CIL. DISPL.	ASPIRAZIONE SUCTION IN			MANDATA DELIVERY OUT		
				A	B		A	B	
	U	40	SAE 10 7/8"-14 UNF	17 [mm] 0.670 [inch]	55 [Nm] 487 [in.lbs]	SAE 10 7/8"-14 UNF	17 [mm] 0.670 [inch]	55 [Nm] 487 [in.lbs]	
		60							
		80							
		110	SAE 12 1"1/16-12 UN	20 [mm] 0.788 [inch]	60 [Nm] 531 [in.lbs]				
		140							
		160							
		190							
		220							
		260							
		310							
	W	40	SAE 16 1"5/16-12 UN	20 [mm] 0.788 [inch]	70 [Nm] 620 [in.lbs]	SAE 12 1"1/16-12 UN	20 [mm] 0.788 [inch]	60 [Nm] 531 [in.lbs]	
		60							
		80							
		110							
		140							
		160							
		190							
		220							
		260							
		310							

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP

FLANGIATE FLANGED	ISO/R 262	SIGLA CODE	CIL. DISPL.	ASPIRAZIONE SUCTION IN					MANDATA DELIVERY OUT				
				A	B	C	D		A	B	C	D	
		T	40										
			60										
			80										
			110										
			140	20 [mm]	40 [mm]	M6	15 [mm]	8 [Nm]	15 [mm]	35 [mm]	M6	15 [mm]	8 [Nm]
			160	0.787 [inch]	1.575 [inch]		0.591 [inch]	71 [in.lbs]	0.591 [inch]	1.378 [inch]		0.591 [inch]	71 [in.lbs]
			190										
			220										
			260										
			310										
		N	40	13 [mm]	30 [mm]	M6	15 [mm]	8 [Nm]					
			60	0.512 [inch]	1.181 [inch]		0.591 [inch]	71 [in.lbs]					
			80										
			110						13 [mm]	30 [mm]	M6	15 [mm]	8 [Nm]
			140						0.512 [inch]	1.181 [inch]		0.591 [inch]	71 [in.lbs]
			160	19 [mm]	40 [mm]	M8	14 [mm]	15 [Nm]					
			190	0.748 [inch]	1.575 [inch]		0.552 [inch]	133 [in.lbs]					
			220										
			260										
			310										
		M	40	non disponibile not available					non disponibile not available				
			60										
			80										
			110										
			140										
			160	19 [mm]	40 [mm]	M8	14 [mm]	15 [Nm]	19 [mm]	40 [mm]	M8	14 [mm]	15 [Nm]
			190	0.748 [inch]	1.575 [inch]		0.552 [inch]	133 [in.lbs]	0.748 [inch]	1.575 [inch]		0.552 [inch]	133 [in.lbs]
			220										
			260										
			310										

FLANGIATE FLANGED	ISO/R 262	SIGLA CODE	CIL. DISPL.	ASPIRAZIONE SUCTION IN						MANDATA DELIVERY OUT					
				A	B	C	D	E		A	B	C	D	E	
		F*	40	20 [mm] 0.787 [inch]	17,4 [mm] 0.685 [inch]	38 [mm] 1.496 [inch]	M6	15 [mm] 0.591 [inch]	8 [Nm] 71 [in.lbs]	15 [mm] 0.591 [inch]	17,4 [mm] 0.685 [inch]	38 [mm] 1.496 [inch]	M6	15 [mm] 0.591 [inch]	8 [Nm] 71 [in.lbs]
			60												
			80												
			110	26 [mm] 1.024 [inch]	22.4 [mm] 0.882 [inch]	47.6 [mm] 1.874 [inch]	M6	15 [mm] 0.591 [inch]	8 [Nm] 71 [in.lbs]	15 [mm] 0.591 [inch]	17,4 [mm] 0.685 [inch]	38 [mm] 1.496 [inch]	M6	15 [mm] 0.591 [inch]	8 [Nm] 71 [in.lbs]
			140												
			160												
			190												
			220												
			260												
			310												

*: Le flange non corrispondono a norma SAEJ518. Flange a norma disponibili a richiesta, contattare il Servizio Commerciale.

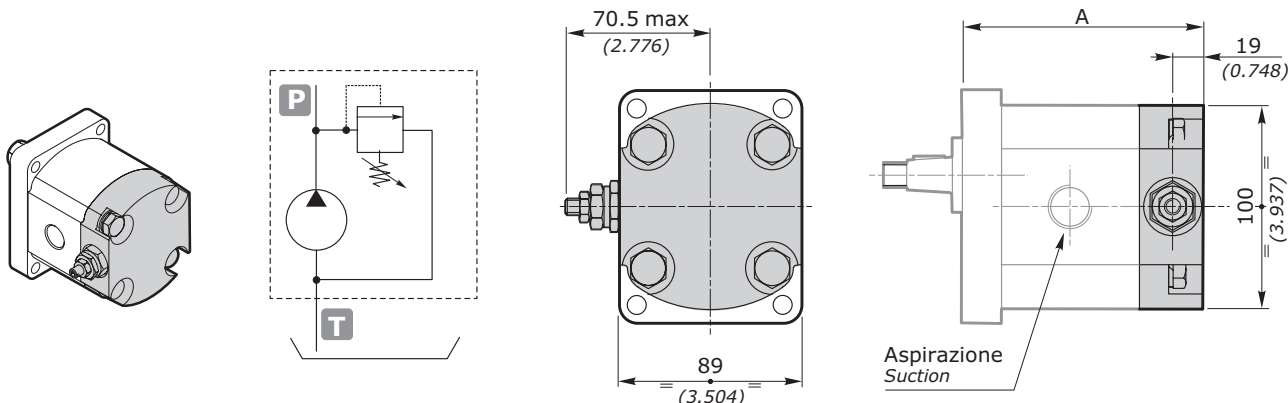
*: Flanges F do not correspond to SAEJ518. Flanges SAEJ518 available on request, please contact our Sales Dpt.

POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

OPZIONI • OPTIONS

VLPI

VALVOLA LIMITATRICE DI PRESSIONE A SCARICO INTERNO
PRESSURE RELIEF VALVE WITH INTERNAL EXHAUST



GRUPPO GROUP 2	EUR-SAEA-B50C		A B80C		E52C	
	mm	inch	mm	inch	mm	inch
2SP 040	104.8	4.126	106.8	4.205	102.1	4.020
2SP 060	108.1	4.256	110.1	4.335	105.4	4.150
2SP 080	112.3	4.421	114.3	4.500	109.6	4.315
2SP 110	116.4	4.583	118.4	4.661	113.7	4.476
2SP 140	121.4	4.780	123.4	4.858	118.7	4.673
2SP 160	125.6	4.945	127.6	5.024	122.9	4.839
2SP 190	130.6	5.142	132.6	5.220	127.9	5.035
2SP 220	135.6	5.339	137.6	5.417	132.9	5.232
2SP 260	141.4	5.567	143.4	5.646	138.7	5.461
2SP 310	149.8	5.902	151.8	5.981	147.1	5.796

La valvola limitatrice di pressione si applica sostituendo il coperchio posteriore. Il corpo VLP è disponibile in alluminio. E' rappresentata una pompa con rotazione sinistra.

L'apertura della valvola limitatrice di pressione deve avvenire per tempi non superiori ai 10 secondi ogni minuto, per evitare il surriscaldamento della pompa.

The pressure relief valve can be applied by substituting the rear cover. VLP cover is available in aluminum. The showed pump is with anticlockwise rotation.

The opening of the pressure relief valve should be carried out for times not over 10" each minute, to avoid the pump overheating.

esempio • example: **2SP - A - 140 - D - EUR - B - N - 10 - 0 - G - VLPI (N 120)**

VLPI = Coperchio con VPL a scarico interno / Cover with VPL with internal exhaust

N = Tipo molla - vedi tabella / Spring type - see table

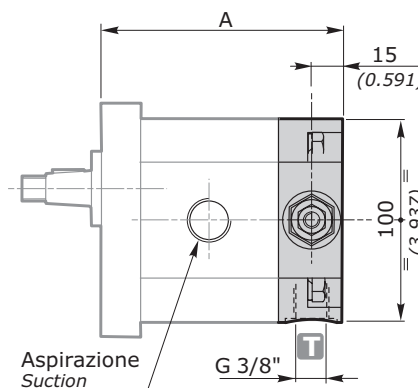
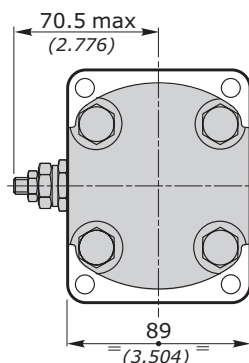
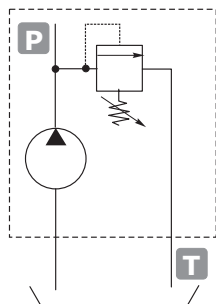
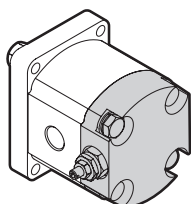
120 = Taratura - vedi tabella / Setting - see table

TIPO - TYPE	CAMPI DI TARATURE - CALIBRATION FIELDS					
	molla bianca - white spring	B	molla nera - black spring	N	molla rossa - red spring	R
bar	30 ÷ 80		81 ÷ 200		201 ÷ 350	
psi	435 ÷ 1160		1175 ÷ 2900		2915 ÷ 5075	
STANDARD	70 bar (1015 psi)		150 bar (2175 psi)		250 bar (3625 psi)	

NOTA: In caso di omissione del valore di taratura, esso sarà inteso standard (vedi tabella).

NOTE: Without setting request, it will be considered standard (see table).

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP
VLPE

 VALVOLA LIMITATRICE DI PRESSIONE A SCARICO ESTERNO
 PRESSURE RELIEF VALVE WITH EXTERNAL EXHAUST


GRUPPO GROUP 2	EUR-SAEA-B50C		A B80C		E52C	
	mm	inch	mm	inch	mm	inch
2SP 040	100.8	3.969	102.8	4.047	98.1	3.862
2SP 060	104.1	4.098	106.1	4.177	101.4	3.992
2SP 080	108.3	4.264	110.3	4.343	105.6	4.157
2SP 110	112.4	4.425	114.4	4.504	109.7	4.319
2SP 140	117.4	4.622	119.4	4.701	114.7	4.516
2SP 160	121.6	4.787	123.6	4.866	118.9	4.681
2SP 190	126.6	4.984	128.6	5.063	123.9	4.878
2SP 220	131.6	5.181	133.6	5.260	128.9	5.075
2SP 260	137.4	5.409	139.4	5.488	134.7	5.303
2SP 310	145.8	5.745	147.8	5.823	143.1	5.638

La valvola limitatrice di pressione si applica sostituendo il coperchio posteriore. Il coperchio VLP è disponibile in alluminio. E' rappresentata una pompa con rotazione sinistra. Nelle pompe con rotazione destra, la valvola è dal lato opposto

The pressure relief valve can be applied by substituting the rear cover. VLP cover is available in aluminum. The showed pump is with anticlockwise rotation. In the case of pumps with clockwise rotation, the valve is on the opposite side.

esempio • example: **2SP - A - 140 - D - EUR - B - N - 10 - 0 - G - VLPE N 120**

VLPE = Coperchio con VPL a scarico esterno / Cover with VPL with external exhaust

N = Tipo molla - vedi tabella / Spring type - see table

120 = Taratura - vedi tabella / Setting - see table

TIPO - TYPE	CAMPI DI TARATURE - CALIBRATION FIELDS					
	molla bianca - white spring	B	molla nera - black spring	N	molla rossa - red spring	R
bar	30 ÷ 80		81 ÷ 200		201 ÷ 350	
psi	435 ÷ 1160		1175 ÷ 2900		2915 ÷ 5075	
STANDARD	70 bar (1015 psi)		150 bar (2175 psi)		250 bar (3625 psi)	

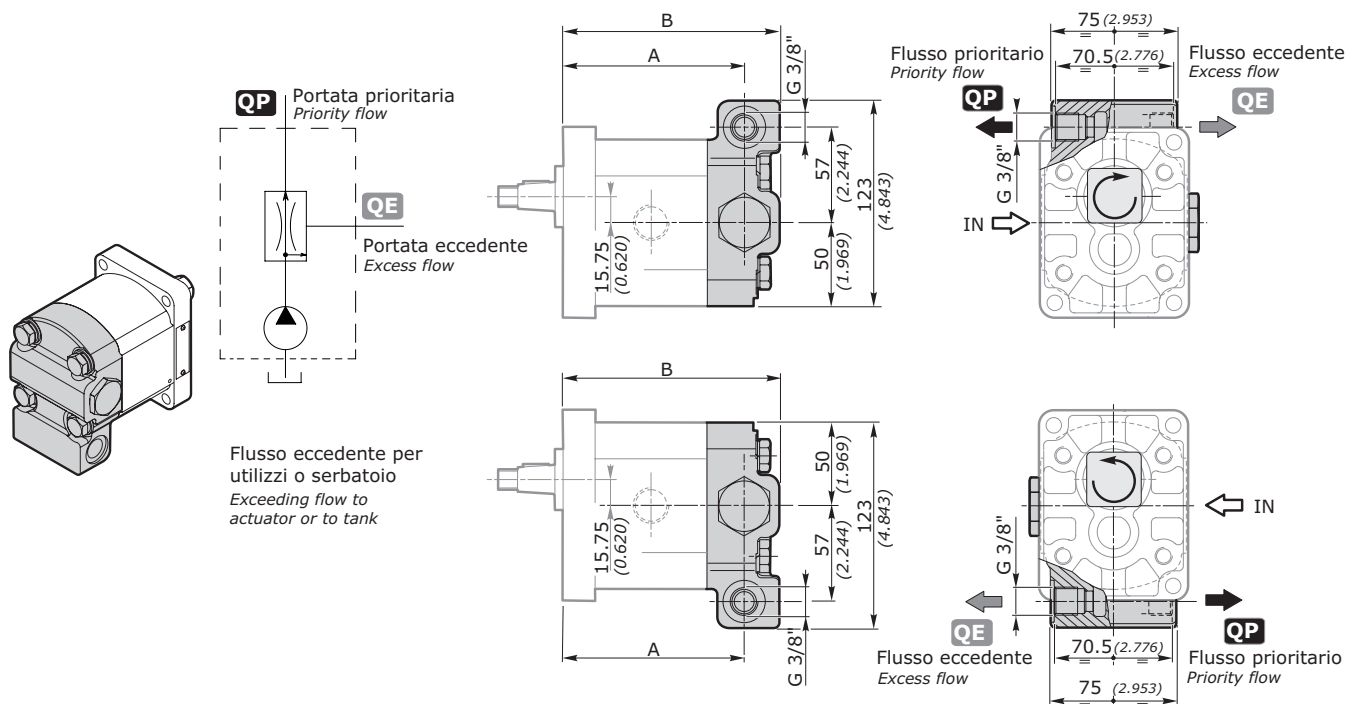
NOTA: In caso di omissione del valore di taratura, esso sarà inteso standard (vedi tabella).

NOTE: Without setting request, it will be considered standard (see table).

POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

VRF

VALVOLA REGOLATRICE DI FLUSSO PRIORITY FLOW DIVIDER VALVE



GRUPPO GROUP 2	EUR - SAE - B50C		A B80C		E52C		EUR - SAE - B50C		B B80C		E52C	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
2SP 040	91.8	3.614	93.8	3.693	89.1	3.508	112.8	4.441	114.8	4.520	110.1	4.335
2SP 060	95.1	3.744	97.1	3.823	92.4	3.638	116.1	4.571	118.1	4.650	113.4	4.465
2SP 080	99.3	3.909	101.3	3.988	96.6	3.803	120.3	4.736	122.3	4.815	117.6	4.630
2SP 110	103.4	4.071	105.4	4.150	100.7	3.965	124.4	4.898	126.4	4.976	121.7	4.791
2SP 140	108.4	4.268	110.4	4.346	105.7	4.161	129.4	5.094	131.4	5.173	126.7	4.988
2SP 160	112.6	4.433	114.6	4.512	109.9	4.327	133.6	5.260	135.6	5.339	130.9	5.154
2SP 190	117.6	4.630	119.6	4.709	114.9	4.524	138.6	5.457	140.6	5.535	135.9	5.350
2SP 220	122.6	4.827	124.6	4.906	119.9	4.720	143.6	5.654	145.6	5.732	140.9	5.547
2SP 260	128.4	5.055	130.4	5.134	125.7	4.949	149.4	5.882	151.4	5.961	146.7	5.776
2SP 310	136.8	5.390	138.8	5.469	134.1	5.284	157.8	6.217	159.8	6.296	155.1	6.111

esempio • example:

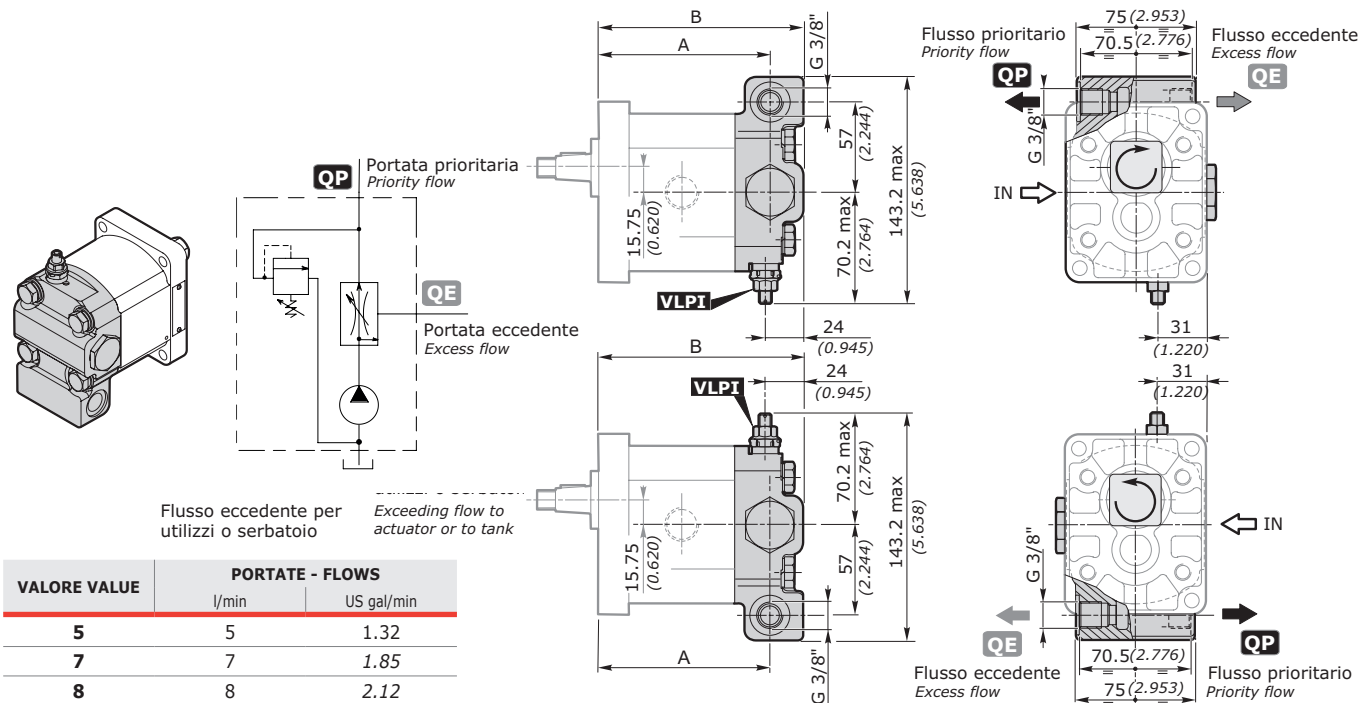
2SP - A - 140 - D - EUR - B - N - 10 - 0 - G - VRF 5

VRF = Coperchio con VRF / Cover with VRF

5 = portata prioritaria - vedi tabella / Priority flow - see table

VALORE VALUE	PORTATE - FLOWS	
	l/min	US gal/min
5	5	1.32
7	7	1.85
8	8	2.12
11	11	2.91
14	14	3.70
21	21	6.54

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP
VRFVLPI

 VALVOLA REGOLATRICE DI FLUSSO E VALVOLA LIMITATRICE DI PRESSIONE (SCARICO INTERNO)
 PRIORITY FLOW DIVIDER VALVE AND PRESSURE RELIEF VALVE (INTERNAL EXHAUST)


VALORE VALUE	PORTATE - FLOWS	
	l/min	US gal/min
5	5	1.32
7	7	1.85
8	8	2.12
11	11	2.91
14	14	3.70
21	21	6.54

GRUPPO GROUP 2	STD - SAE - B50C		A B80C		E52C		STD - SAE - B50C		B B80C		E52C	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
2SP 040	91.8	3.614	93.8	3.693	89.1	3.508	112.8	4.441	114.8	4.520	110.1	4.335
2SP 060	95.1	3.744	97.1	3.823	92.4	3.638	116.1	4.571	118.1	4.650	113.4	4.465
2SP 080	99.3	3.909	101.3	3.988	96.6	3.803	120.3	4.736	122.3	4.815	117.6	4.630
2SP 110	103.4	4.071	105.4	4.150	100.7	3.965	124.4	4.898	126.4	4.976	121.7	4.791
2SP 140	108.4	4.268	110.4	4.346	105.7	4.161	129.4	5.094	131.4	5.173	126.7	4.988
2SP 160	112.6	4.433	114.6	4.512	109.9	4.327	133.6	5.260	135.6	5.339	130.9	5.154
2SP 190	117.6	4.630	119.6	4.709	114.9	4.524	138.6	5.457	140.6	5.535	135.9	5.350
2SP 220	122.6	4.827	124.6	4.906	119.9	4.720	143.6	5.654	145.6	5.732	140.9	5.547
2SP 260	128.4	5.055	130.4	5.134	125.7	4.949	149.4	5.882	151.4	5.961	146.7	5.776
2SP 310	136.8	5.390	138.8	5.469	134.1	5.284	157.8	6.217	159.8	6.296	155.1	6.111

 esempio • example: **2SP - A - 140 - D - EUR - B - N - 10 - G - VRF 5 VLPI (N 120)**
VRF = Coperchio con VRF / Cover with VRF

5 = portata prioritaria - vedi tabella / Priority flow - see table

VLPI = Coperchio con VPL a scarico interno / Cover with VPL with internal exhaust

N = Tipo molla - vedi tabella / Spring type - see table

120 = Taratura - vedi tabella / Setting - see table

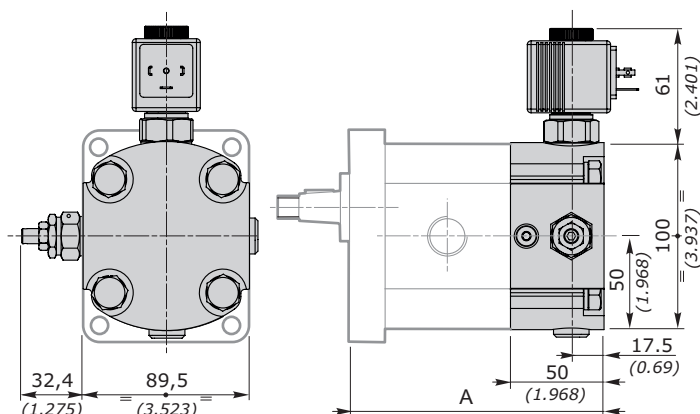
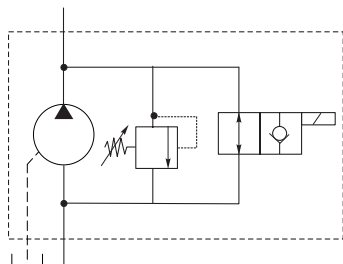
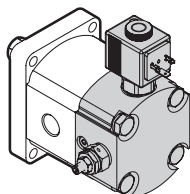
TIPO - TYPE	CAMPI DI TARATURE - CALIBRATION FIELDS					
	molla bianca - white spring	B	molla nera - black spring	N	molla rossa - red spring	R
bar	30 ÷ 80		81 ÷ 200		201 ÷ 350	
psi	435 ÷ 1160		1175 ÷ 2900		2915 ÷ 5075	
STANDARD	70 bar (1015 psi)		150 bar (2175 psi)		250 bar (3625 psi)	

NOTA: In caso di omissione del valore di taratura, esso sarà inteso standard (vedi tabella).

NOTE: Without setting request, it will be considered standard (see table).

POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

UNLD

VALVOLA UNLOADING
UNLOADING VALVE


GRUPPO GROUP 2	EUR-SAE B50C		A		E52C	
	mm	inch	mm	inch	mm	inch
2SM 040	123.8	4.874	125.8	4.952	121.1	4.767
2SM 060	127.1	5.003	129.1	5.082	124.4	4.897
2SM 080	131.3	5.169	133.3	5.248	128.6	5.062
2SM 110	135.4	5.330	137.4	5.409	132.7	5.224
2SM 140	140.4	5.527	142.4	5.606	137.7	5.421
2SP 160	144.6	5.692	146.6	5.771	141.9	5.586
2SP 190	149.6	5.889	151.6	5.968	146.9	5.793
2SP 220	154.6	6.086	156.6	6.165	151.9	5.980
2SP 260	160.4	6.314	162.4	6.393	157.7	6.208
2SP 310	168.8	6.645	170.8	6.724	166.1	6.539

esempio • example: **2SP-A-140-D-EUR-B-N-10-0-T-NA(UNLD)-VLPI(N100)-12VDC**

UNLD = Coperchio con valvola unloading standard - Standard cover with unloading valve

N = Tipo molla - vedi tabella / Spring type - see table

100 = Taratura - vedi tabella / Setting - see table

TIPO - TYPE	CAMPI DI TARATURE - CALIBRATION FIELDS					
	molla bianca - white spring	B	molla nera - black spring	N	molla rossa - red spring	R
bar	30 ÷ 80		81 ÷ 200		201 ÷ 350	
psi	435 ÷ 1160		1175 ÷ 2900		2915 ÷ 5075	
STANDARD	70 bar (1015 psi)		150 bar (2175 psi)		250 bar (3625 psi)	

NOTA: In caso di omissione del valore di taratura, esso sarà inteso standard (vedi tabella).

NOTE: Without setting request, it will be considered standard (see table).

POMPE AD INGRANAGGI GRUPPO 2SP

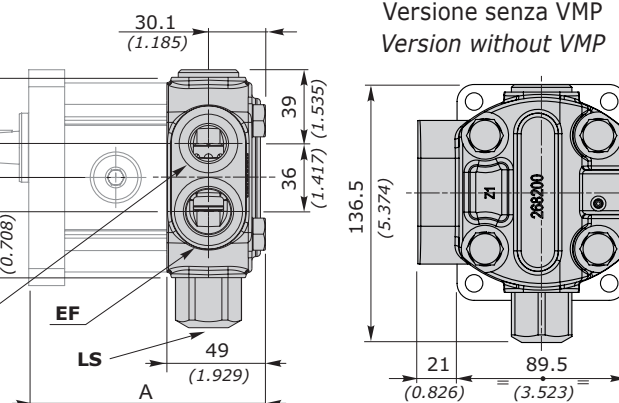
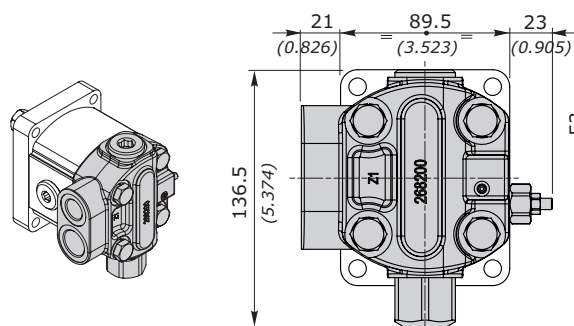
GEAR PUMPS GROUP 2SP

CP (LS)

VALVOLA PRIORITARIA
PRIORITY VALVE

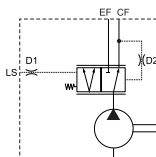
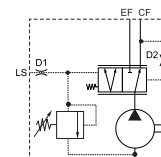
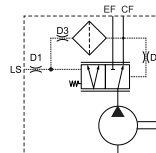
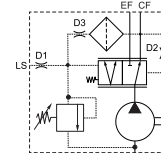
Con questa valvola è necessario un ingranaggio condotto speciale

With this valve a special drive gear is needed

Versione senza VMP
Version without VMP

COPERCIO / COVER							
1	2	3	4	5	6	7	8
CP	M	I	(7)	\ 0.7	- 0.6)	- VMP02	(110)
1	/ coperchio con valvola prioritaria - cover with priority valve						
2	posiz. bocche coperchio cover ports position			A	lato aspirazione corpo - body suction side		
				M	lato mandata corpo - body delivery side		
3	posizione bocca LS LS port position			I	sul lato inferiore del coperchio on bottom side of the cover		
				S	sul lato superiore del coperchio on upper side of the cover		
4	configurazione molla spring configuration			4	4 bar - 58 psi		
				7	7 bar - 101.5 psi		
				10	10 bar - 145 psi		
5	dimensione strozzatore tipo 2 type 2 orifice dimension			0.7	foro da 0.7 - 0.7 hole		
6	caratteristiche strozzatore tipo 3 type 3 orifice features			0.6	vedere la tabella sotto - see below		
7	VMP02 opzionale in pos. M optional VMP02, position M			VMP02	con valvola VMP02- with VMP02 valve		
				-	senza valvola VMP02- without VMP02 valve		
8	taratura VMP02 - VMP02 setting			110	110 bar - 1590 psi		

CONNESSIONI / CONNECTION			
	CF	EF	LS
GAS	G 1/2	G 3/4	G 1/4
SAE	SAE 8	SAE 10	SAE 4

Statico
StaticStatico con
valvola
Static with
valveDinamico
DynamicDinamico
con valvola
Dynamic
with valve

CARATTERISTICHE STROZZATORI TIPO 3 E MOLLA ORIFICES TYPE 3 FEATURES AND SPRING							
Pressione di Stand-By / Stand-By pressure							
mm	in	molla spring	5 l/min - 1.32 USgpm		80 l/min - 21.13 USgpm		
			bar	psi	bar	psi	
X	X	4	4	58	5	72.5	
0.5	0.019		5	72.5	6.5	94.2	
0.6	0.023		6	87	7.5	108.7	
0.7	0.027		7	101.5	10	145	
X	X	7	7	101.5	9	130.5	
0.5	0.019		9	130.5	11	159.5	
0.6	0.023		11	159.5	14	203	
0.7	0.027		14	203	18	261	
X	X	10	10	145	13	188.5	
0.5	0.019		12.5	181.2	16.5	239.2	
0.6	0.023		15.5	224.7	20	290	
0.7	0.027		20	290	26	377	

GRUPPO GROUP	A					
	EUR-SAE-A-B50C		B80C		E52C	
2	mm	inch	mm	inch	mm	inch
2SP 040	123.3	4.854	125.3	4.933	120.6	4.748
2SP 060	126.6	4.984	128.6	5.062	123.9	4.877
2SP 080	130.8	5.149	132.8	5.228	128.1	5.043
2SP 110	134.9	5.311	136.9	5.389	132.2	5.204
2SP 140	139.9	5.507	141.9	5.586	137.2	5.401
2SP 160	144.1	5.673	146.1	5.751	141.4	5.566
2SP 190	149.1	5.870	151.1	5.948	146.4	5.763
2SP 220	154.1	6.067	156.1	6.145	151.4	5.960
2SP 260	159.9	6.295	161.9	6.374	157.2	6.188
2SP 310	168.3	6.625	170.3	6.704	165.6	6.519

X= statico / static

esempio • example: **2SP - A - 140 - D - EUR - B - N - 10 - G - CPMI (7\0.7-0.6) - VMP02(110)**

CP = Coperchio con valvola prioritaria / Cover with priority valve

7 = Tipo molla - vedi tabella / Spring type - see table

110 = Taratura - vedi tabella / Setting - see table

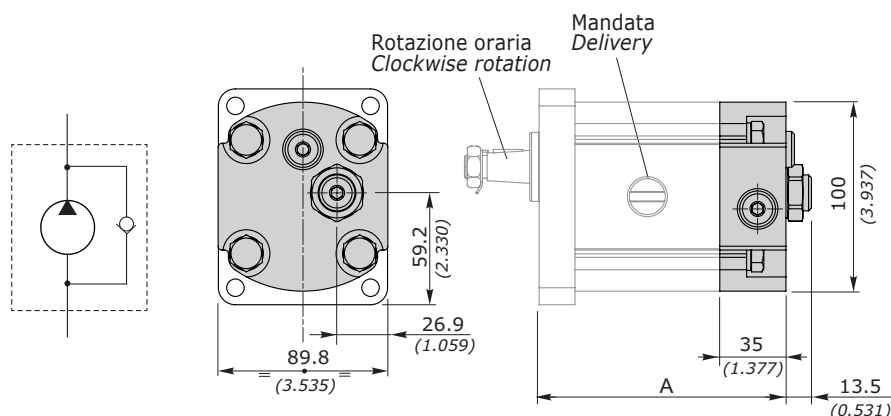
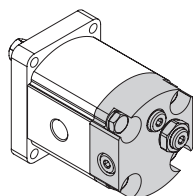
TIPO - TYPE	CAMPI DI TARATURE - CALIBRATION FIELDS		
	TV	TS	TR
bar	5 ÷ 80	50 ÷ 220	180 ÷ 350
psi	72 ÷ 1160	725 ÷ 3190	2610 ÷ 5075
STANDARD	70 bar (1015 psi)	150 bar (2175 psi)	250 bar (3625 psi)

NOTA: In caso di omissione del valore di taratura, esso sarà inteso standard (vedi tabella).

NOTE: Without setting request, it will be considered standard (see table).

POMPE AD INGRANAGGI GRUPPO 2SP GEAR PUMPS GROUP 2SP

VA

VALVOLA ANTICAVITAZIONE
ANTICAVITATION VALVE


GRUPPO GROUP 2	EUR-SAE-A-B50C		A B80C		E52C	
	mm	inch	mm	inch	mm	inch
2SP 040	109.3	4.303	111.3	4.381	106.6	4.196
2SP 060	112.6	4.433	114.6	4.511	109.9	4.326
2SP 080	116.8	4.598	118.8	4.677	114.1	4.492
2SP 110	120.9	4.759	122.9	4.838	118.2	4.653
2SP 140	125.9	4.956	127.9	5.035	123.2	4.850
2SP 160	130.1	5.122	132.1	5.200	127.4	5.015
2SP 190	135.1	5.318	137.1	5.397	132.4	5.212
2SP 220	140.1	5.515	142.1	5.594	137.4	5.409
2SP 260	145.9	5.744	147.9	5.822	143.2	5.637
2SP 310	154.3	6.074	156.3	6.153	151.6	5.968

esempio • example:

2SP - A - 110 - D - EUR - H - N - 10 - G - VA
D = Rotazione destra / Clockwise rotation

S = Rotazione sinistra / Anticlockwise rotation

D(R) = Reversibile, montata unidirezionale e valvola come motore destro
Reversible, mounted as clockwise rotation and valve as right gear motor

S(R) = Reversibile, montata unidirezionale e valvola come motore sinistro
Reversible, mounted as anticlockwise rotation and valve as left gear motor

R....VA(D)/VA(S) = Reversibile / Reversible

VA = Coperchio con valvola anticavitazione / Cover with anticavitation valve

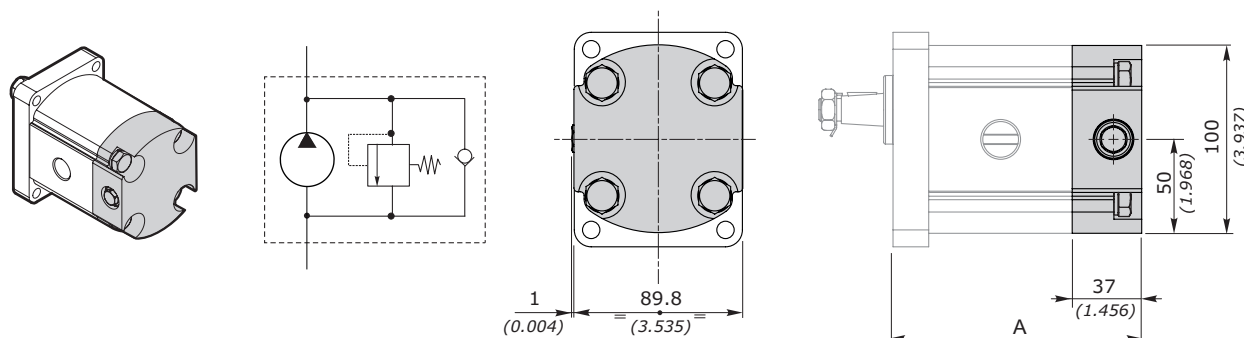
R....VA(D) = Valvola montata come motore destro / Valve mounted as right gear motor

R....VA(S) = Valvola montata come motore sinistro / Valve mounted as left gear motor

NOTA: Nell'esempio viene descritta una pompa a rotazione destra con valvola anticavitazione montata come pompa destra, per altre configurazioni contattare il Servizio Commerciale

NOTE: in the example is represented gear pump with clockwise rotation and anticavitation valve mounted as right gear pump. For other configurations please contact our Sales Dpt.

POMPE AD INGRANAGGI GRUPPO 2SP
GEAR PUMPS GROUP 2SP
VMA

 VALVOLA ANTICAVITAZIONE E ANTIURTO
 ANTICAVITATION AND ANTISHOCK VALVE


GRUPPO GROUP 2	A					
	EUR-SAE-B50C		B80C		E52C	
	mm	inch	mm	inch	mm	inch
2SP 040	111.3	4.381	113.3	4.450	108.6	4.275
2SP 060	114.6	4.511	116.6	4.590	111.9	4.405
2SP 080	118.8	4.677	120.8	4.755	116.1	4.570
2SP 110	122.9	4.838	124.9	4.917	120.2	4.732
2SP 140	127.9	5.035	129.9	5.114	125.2	4.929
2SP 160	132.1	5.200	134.1	5.279	129.4	5.094
2SP 190	137.1	5.397	139.1	5.476	134.4	5.291
2SP 220	142.1	5.594	144.1	5.673	139.4	5.488
2SP 260	147.9	5.822	149.9	5.901	145.2	5.716
2SP 310	156.3	6.153	158.3	6.232	153.6	6.047

esempio • example:

2SP - A - 140 - D - EUR - B - N - 10 - G - VMA
VMA = Coperchio con valvola anticavitazione / Cover with anticavitation valve

VALVOLE ANTICAVITAZIONE A TARATURA FISSA - FIXED SETTING ANTICAVITATION VALVES																			
bar	50	63	80	100	110	125	140	150	160	175	190	200	210	230	240	250	260	270	280
psi	725	914	1150	1450	1590	1800	2050	2150	2300	2550	2750	2900	3050	3350	3500	3600	3750	3900	4050

taratura riferita a 10 l/min / setting is referred to 2.6 US gpm

NOTA: In caso di omissione del valore di taratura, esso sarà inteso standard.

NOTE: Without setting request, it will be considered standard.