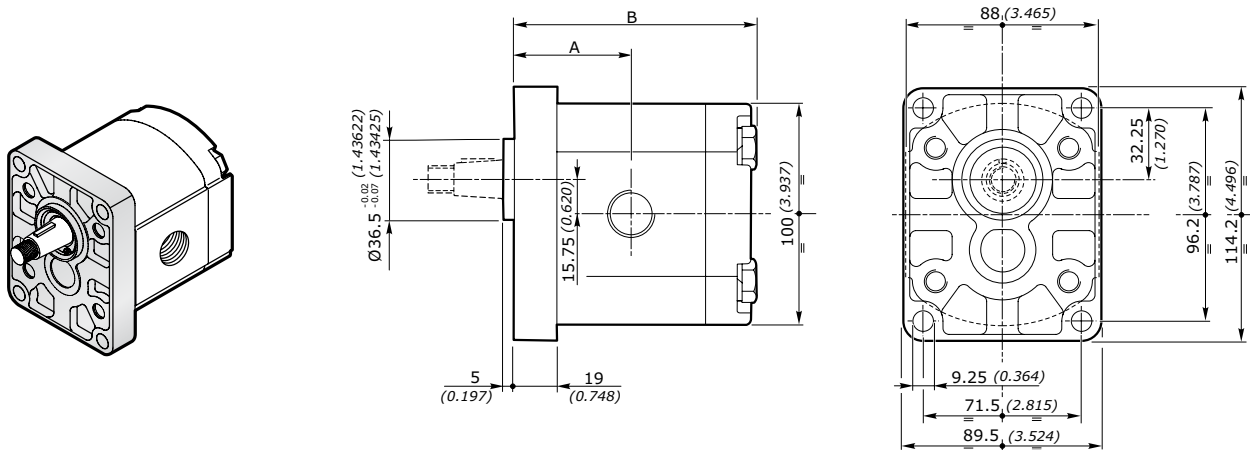


**POMPE AD INGRANAGGI GRUPPO 2SP**  
**GEAR PUMPS GROUP 2SP**
**FLANGIA EUROPEA EUR EUROPEAN FLANGE**
**FLANGIA E COPERCHIO IN ALLUMINIO - FLANGE AND COVER IN ALUMINIUM**

GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED	PORTATA MIN MIN FLOW		RENDIMENTO VOLUMETRICO MIN. MIN. VOLUMETRIC EFFICIENCY
			P1		P2		P3								
	cm <sup>3</sup> /giro	in <sup>3</sup> /rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm	l/min	Gal/min	%
<b>2SP 040</b>	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500	1.9	0.50	95*
<b>2SP 060</b>	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500	2.85	0.75	95*
<b>2SP 080</b>	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500	4.03	1.06	95*
<b>2SP 110</b>	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500	5.22	1.38	95*
<b>2SP 140</b>	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500	6.65	1.76	95*
<b>2SP 160</b>	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500	7.83	2.07	95*
<b>2SP 190</b>	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500	9.26	2.45	95*
<b>2SP 220</b>	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500	10.68	2.82	95*
<b>2SP 260</b>	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500	12.35	3.26	95*
<b>2SP 310</b>	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500	15.75	4.16	95*

**DIMENSIONI • DIMENSIONS**


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

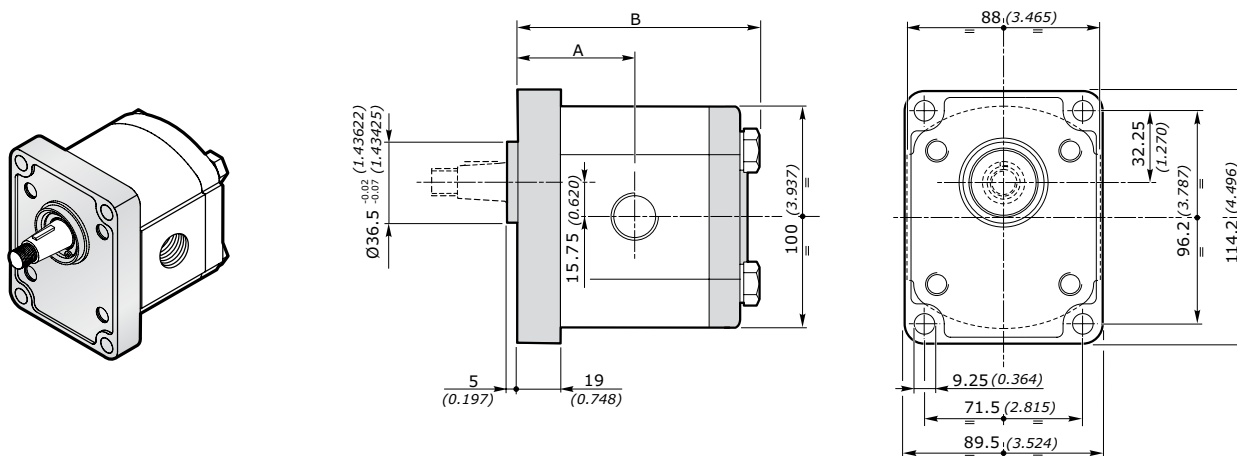
**POMPE AD INGRANAGGI GRUPPO 2SP**  
**GEAR PUMPS GROUP 2SP**

**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	PORTATA MIN MIN FLOW		RENDIMENTO VOLUMETRICO MIN. MIN. VOLUMETRIC EFFICIENCY
			P1		P2		P3								
	cm³/giro	in³/rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm	l/min	Gal/min	%
<b>2SP 040</b>	4	0.24	280	4060	300	4350	320	4640	4000	16	4.23	500	1.9	0.50	95*
<b>2SP 060</b>	6	0.37	280	4060	300	4350	320	4640	4000	24	6.34	500	2.85	0.75	95*
<b>2SP 080</b>	8.5	0.52	280	4060	300	4350	320	4640	3500	29.7	7.85	500	4.03	1.06	95*
<b>2SP 110</b>	11	0.67	280	4060	300	4350	320	4640	3500	38.5	10.17	500	5.22	1.38	95*
<b>2SP 140</b>	14	0.85	270	3915	280	4060	290	4205	3500	49	12.95	500	6.65	1.76	95*
<b>2SP 160</b>	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500	7.83	2.07	95*
<b>2SP 190</b>	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500	9.26	2.45	95*
<b>2SP 220</b>	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500	10.68	2.82	95*
<b>2SP 260</b>	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500	12.35	3.26	95*
<b>2SP 310</b>	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500	15.75	4.16	95*

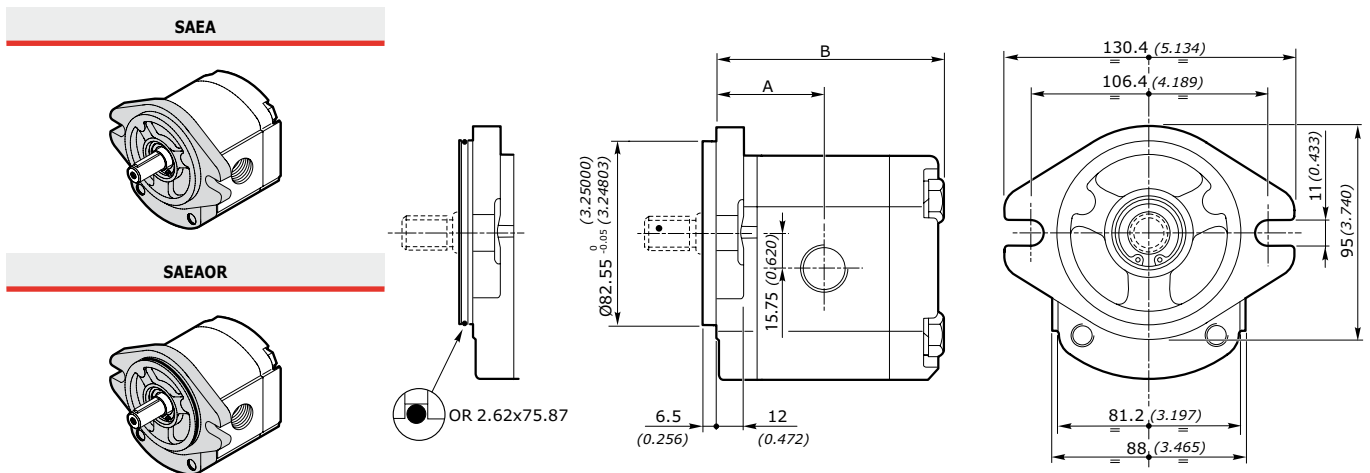
**DIMENSIONI • DIMENSIONS**



GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
<b>2SP 040</b>	44.4	1.748	93.0	3.661	3.40	7.50
<b>2SP 060</b>	46.0	1.811	96.3	3.791	3.55	7.83
<b>2SP 080</b>	48.1	1.894	100.5	3.957	3.70	8.16
<b>2SP 110</b>	50.2	1.976	104.6	4.118	3.80	8.38
<b>2SP 140</b>	52.7	2.075	109.6	4.315	3.90	8.60
<b>2SP 160</b>	54.8	2.157	113.8	4.480	4.05	8.93
<b>2SP 190</b>	57.3	2.256	118.8	4.677	4.20	9.26
<b>2SP 220</b>	59.8	2.354	123.8	4.874	4.35	9.59
<b>2SP 260</b>	62.7	2.469	129.6	5.102	4.50	9.92
<b>2SP 310</b>	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	PORTATA MIN MIN FLOW		RENDIMENTO VOLUMETRICO MIN. MIN. VOLUMETRIC EFFICIENCY
	cm <sup>3</sup> /giro	in <sup>3</sup> /rev	P1		P2		P3		giri/min - rpm	l/min	Gal/min	giri/min - rpm	l/min	Gal/min	%
			bar	psi	bar	psi	bar	psi							
<b>2SP 040</b>	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500	1.9	0.50	95*
<b>2SP 060</b>	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500	2.85	0.75	95*
<b>2SP 080</b>	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500	4.03	1.06	95*
<b>2SP 110</b>	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500	5.22	1.38	95*
<b>2SP 140</b>	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500	6.65	1.76	95*
<b>2SP 160</b>	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500	7.83	2.07	95*
<b>2SP 190</b>	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500	9.26	2.45	95*
<b>2SP 220</b>	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500	10.68	2.82	95*
<b>2SP 260</b>	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500	12.35	3.26	95*
<b>2SP 310</b>	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500	15.75	4.16	95*

**DIMENSIONI • DIMENSIONS**


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

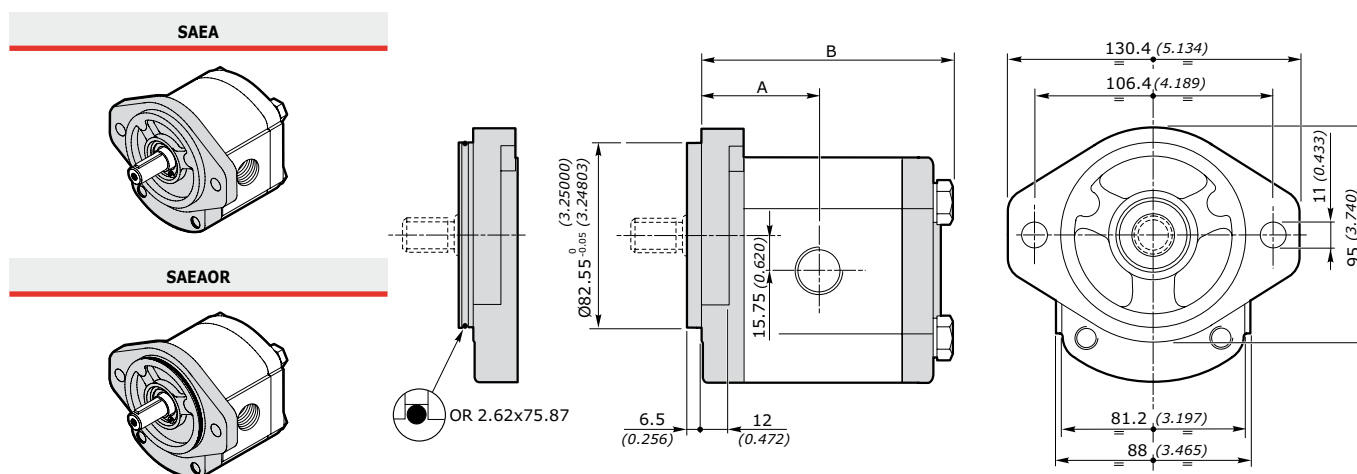
**POMPE AD INGRANAGGI GRUPPO 2SP**  
**GEAR PUMPS GROUP 2SP**

**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	PORTATA MIN MIN FLOW		RENDIMENTO VOLUMETRICO MIN. MIN. VOLUMETRIC EFFICIENCY
	cm <sup>3</sup> /giro	in <sup>3</sup> /rev	P1		P2		P3		giri/min - rpm	l/min	Gal/min	giri/min - rpm	l/min	Gal/min	%
			bar	psi	bar	psi	bar	psi							
<b>2SP 040</b>	4	0.24	280	4060	300	4350	320	4640	4000	16	4.23	500	1.9	0.50	95*
<b>2SP 060</b>	6	0.37	280	4060	300	4350	320	4640	4000	24	6.34	500	2.85	0.75	95*
<b>2SP 080</b>	8.5	0.52	280	4060	300	4350	320	4640	3500	29.7	7.85	500	4.03	1.06	95*
<b>2SP 110</b>	11	0.67	280	4060	300	4350	320	4640	3500	38.5	10.17	500	5.22	1.38	95*
<b>2SP 140</b>	14	0.85	270	3915	280	4060	290	4205	3500	49	12.95	500	6.65	1.76	95*
<b>2SP 160</b>	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500	7.83	2.07	95*
<b>2SP 190</b>	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500	9.26	2.45	95*
<b>2SP 220</b>	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500	10.68	2.82	95*
<b>2SP 260</b>	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500	12.35	3.26	95*
<b>2SP 310</b>	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500	15.75	4.16	95*

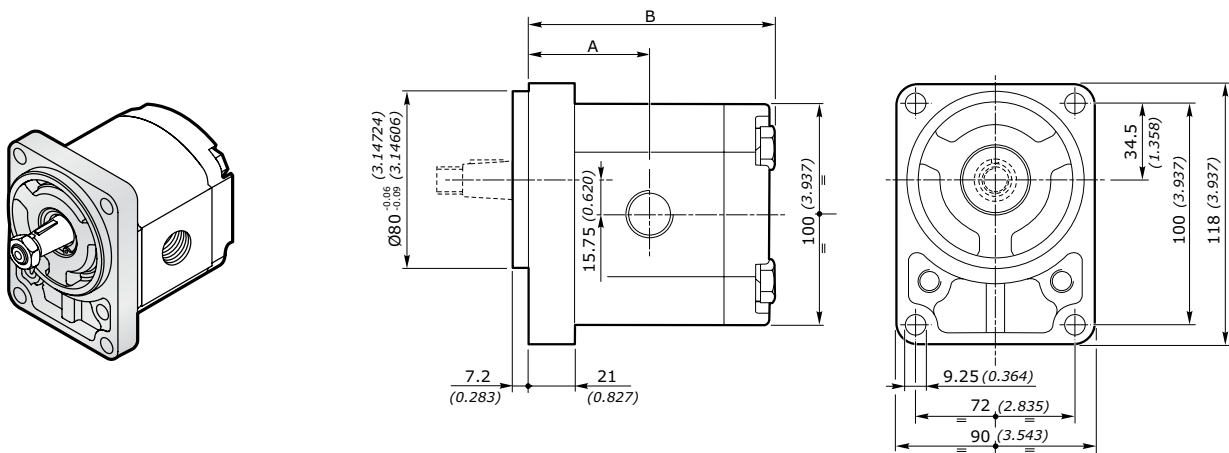
**DIMENSIONI • DIMENSIONS**



GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
<b>2SP 040</b>	44.4	1.748	93.0	3.661	3.40	7.50
<b>2SP 060</b>	46.0	1.811	96.3	3.791	3.55	7.83
<b>2SP 080</b>	48.1	1.894	100.5	3.957	3.70	8.16
<b>2SP 110</b>	50.2	1.976	104.6	4.118	3.80	8.38
<b>2SP 140</b>	52.7	2.075	109.6	4.315	3.90	8.60
<b>2SP 160</b>	54.8	2.157	113.8	4.480	4.05	8.93
<b>2SP 190</b>	57.3	2.256	118.8	4.677	4.20	9.26
<b>2SP 220</b>	59.8	2.354	123.8	4.874	4.35	9.59
<b>2SP 260</b>	62.7	2.469	129.6	5.102	4.50	9.92
<b>2SP 310</b>	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	PORTATA MIN MIN FLOW		RENDIMENTO VOLUMETRICO MIN. MIN. VOLUMETRIC EFFICIENCY
	cm <sup>3</sup> /giro	in <sup>3</sup> /rev	P1		P2		P3		giri/min - rpm	l/min	Gal/min	giri/min - rpm	l/min	Gal/min	%
			bar	psi	bar	psi	bar	psi							
<b>2SP 040</b>	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500	1.9	0.50	95*
<b>2SP 060</b>	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500	2.85	0.75	95*
<b>2SP 080</b>	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500	4.03	1.06	95*
<b>2SP 110</b>	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500	5.22	1.38	95*
<b>2SP 140</b>	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500	6.65	1.76	95*
<b>2SP 160</b>	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500	7.83	2.07	95*
<b>2SP 190</b>	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500	9.26	2.45	95*
<b>2SP 220</b>	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500	10.68	2.82	95*
<b>2SP 260</b>	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500	12.35	3.26	95*
<b>2SP 310</b>	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500	15.75	4.16	95*

**DIMENSIONI • DIMENSIONS**


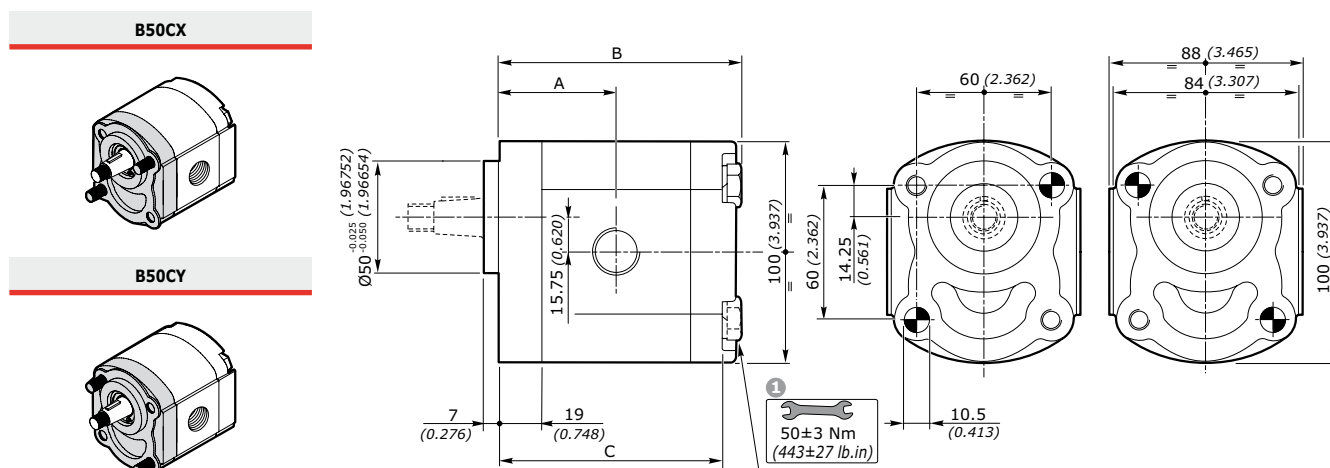
GRUPPO - GROUP 2	A		B		MASSA - MASS	
	mm	inch	mm	inch	kg	lbs
<b>2SP 040</b>	46.4	1.827	95.0	3.740	2.30	5.07
<b>2SP 060</b>	48.0	1.890	98.3	3.870	2.45	5.40
<b>2SP 080</b>	50.1	1.972	102.5	4.035	2.60	5.73
<b>2SP 110</b>	52.2	2.055	106.6	4.197	2.70	5.95
<b>2SP 140</b>	54.7	2.154	111.6	4.394	2.80	6.17
<b>2SP 160</b>	56.8	2.236	115.8	4.559	2.95	6.51
<b>2SP 190</b>	59.3	2.335	120.8	4.756	3.10	6.84
<b>2SP 220</b>	61.8	2.433	125.8	4.953	3.25	7.17
<b>2SP 260</b>	64.7	2.547	131.6	5.181	3.40	7.50
<b>2SP 310</b>	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	PORTATA MIN MIN FLOW		RENDIMENTO VOLUMETRICO MIN. MIN. VOLUMETRIC EFFICIENCY
	cm <sup>3</sup> /giro	in <sup>3</sup> /rev	P1		P2		P3		giri/min - rpm	l/min	Gal/min	giri/min - rpm	l/min	Gal/min	%
			bar	psi	bar	psi	bar	psi							
<b>2SP 040</b>	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500	1.9	0.50	95*
<b>2SP 060</b>	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500	2.85	0.75	95*
<b>2SP 080</b>	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500	4.03	1.06	95*
<b>2SP 110</b>	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500	5.22	1.38	95*
<b>2SP 140</b>	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500	6.65	1.76	95*
<b>2SP 160</b>	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500	7.83	2.07	95*
<b>2SP 190</b>	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500	9.26	2.45	95*
<b>2SP 220</b>	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500	10.68	2.82	95*
<b>2SP 260</b>	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500	12.35	3.26	95*
<b>2SP 310</b>	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500	15.75	4.16	95*

**DIMENSIONI • DIMENSIONS**



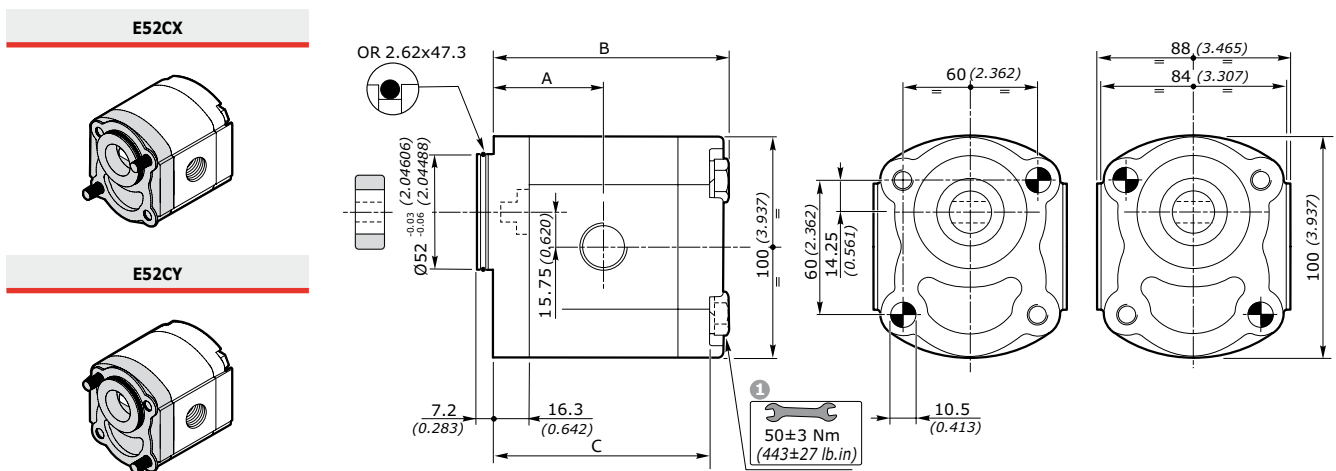
**1**  
Coppia di serraggio viti:  $50 \pm 3 \text{ Nm}$  (viti classe 10.9-12.9 UNI EN 20898/1)  
Il kit viti per il fissaggio della pompa è da ordinare separatamente.  
Codice di ordinazione: **0029W** (+ lunghezza **L** - vedi tabella)  
Il fissaggio della pompa può essere effettuato con 2 viti prigioniere 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 <b>1</b>		MASSA - MASS	
	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
<b>2SP 040</b>	44.4	1.748	93.0	3.661	84.0	3.307	105	4.134	2.30	5.07
<b>2SP 060</b>	46.0	1.811	96.3	3.791	87.3	3.437	105	4.134	2.45	5.40
<b>2SP 080</b>	48.1	1.894	100.5	3.957	91.5	3.602	110	4.331	2.60	5.73
<b>2SP 110</b>	50.2	1.976	104.6	4.118	95.6	3.764	115	4.528	2.70	5.95
<b>2SP 140</b>	52.7	2.075	109.6	4.315	100.6	3.961	120	4.724	2.80	6.17
<b>2SP 160</b>	54.8	2.157	113.8	4.480	104.8	4.126	125	4.921	2.95	6.51
<b>2SP 190</b>	57.3	2.256	118.8	4.677	109.8	4.323	130	5.118	3.10	6.84
<b>2SP 220</b>	59.8	2.354	123.8	4.874	114.8	4.520	135	5.315	3.25	7.17
<b>2SP 260</b>	62.7	2.469	129.6	5.102	120.6	4.748	140	5.512	3.40	7.50
<b>2SP 310</b>	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	PORTATA MIN MIN FLOW		RENDIMENTO VOLUMETRICO MIN. MIN. VOLUMETRIC EFFICIENCY
	cm <sup>3</sup> /giro	in <sup>3</sup> /rev	P1		P2		P3		giri/min - rpm	l/min Gal/min		giri/min - rpm	l/min Gal/min		%
			bar	psi	bar	psi	bar	psi							
<b>2SP 040</b>	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500	1.9	0.50	95*
<b>2SP 060</b>	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500	2.85	0.75	95*
<b>2SP 080</b>	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500	4.03	1.06	95*
<b>2SP 110</b>	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500	5.22	1.38	95*
<b>2SP 140</b>	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500	6.65	1.76	95*
<b>2SP 160</b>	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500	7.83	2.07	95*
<b>2SP 190</b>	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500	9.26	2.45	95*
<b>2SP 220</b>	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500	10.68	2.82	95*
<b>2SP 260</b>	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500	12.35	3.26	95*
<b>2SP 310</b>	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500	15.75	4.16	95*

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

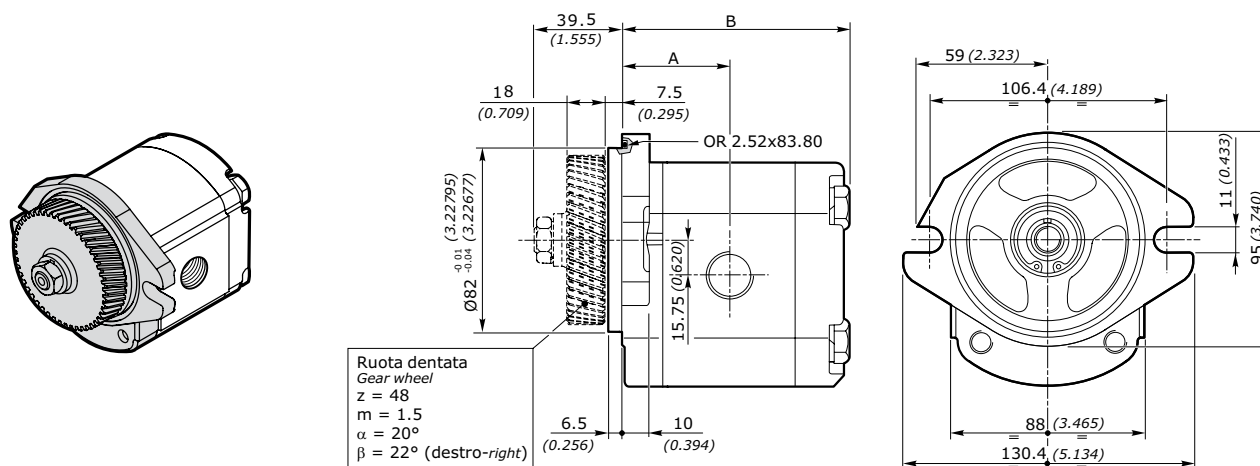


**POMPE AD INGRANAGGI GRUPPO 2SP**  
**GEAR PUMPS GROUP 2SP**

**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	PORTATA MIN MIN FLOW		RENDIMENTO VOLUMETRICO MIN. MIN. VOLUMETRIC EFFICIENCY
	cm <sup>3</sup> /giro	in <sup>3</sup> /rev	P1		P2		P3		giri/min - rpm	l/min	Gal/min	giri/min - rpm	l/min	Gal/min	%
			bar	psi	bar	psi	bar	psi							
<b>2SP 040</b>	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500	1.9	0.50	95*
<b>2SP 060</b>	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500	2.85	0.75	95*
<b>2SP 080</b>	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500	4.03	1.06	95*
<b>2SP 110</b>	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500	5.22	1.38	95*
<b>2SP 140</b>	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500	6.65	1.76	95*
<b>2SP 160</b>	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500	7.83	2.07	95*
<b>2SP 190</b>	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500	9.26	2.45	95*
<b>2SP 220</b>	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500	10.68	2.82	95*
<b>2SP 260</b>	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500	12.35	3.26	95*
<b>2SP 310</b>	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500	15.75	4.16	95*

**DIMENSIONI • DIMENSIONS**



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

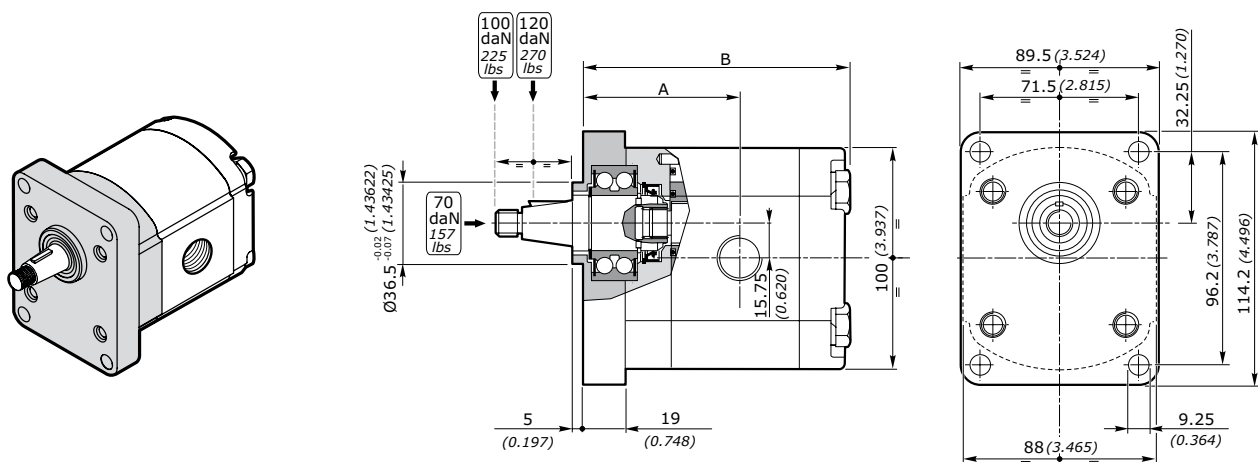


**POMPE AD INGRANAGGI GRUPPO 2SP**  
**GEAR PUMPS GROUP 2SP**

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

**FLANGIA SUPEUR FLANGE**

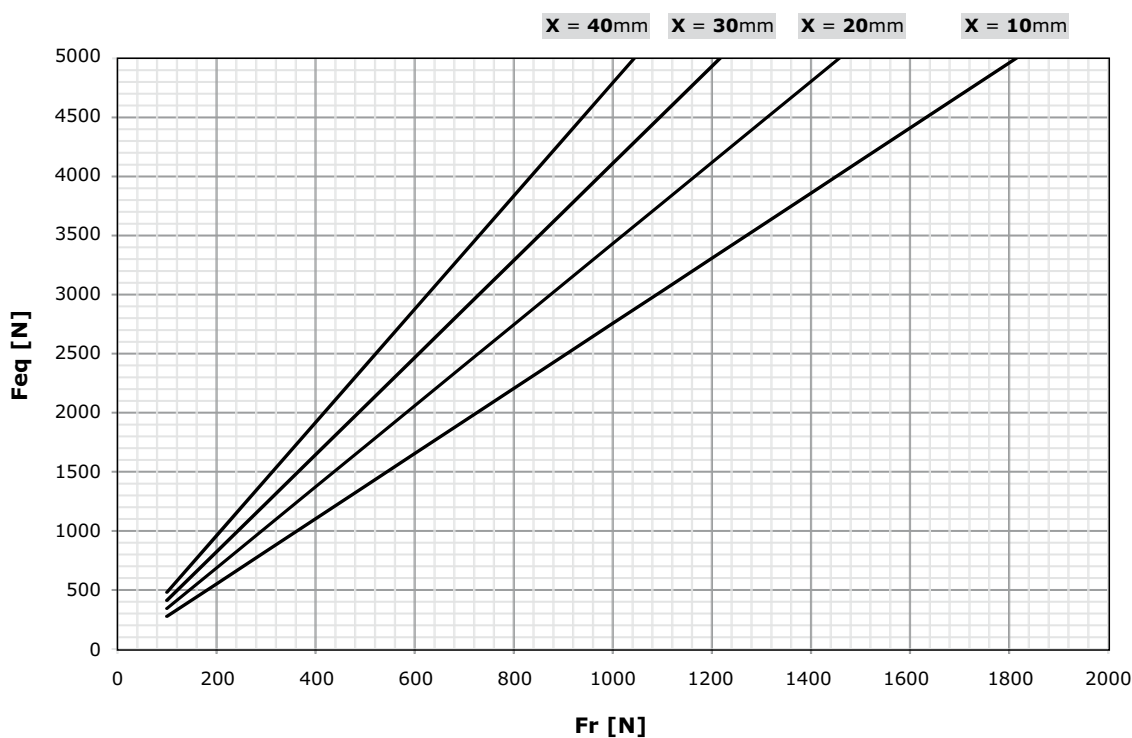
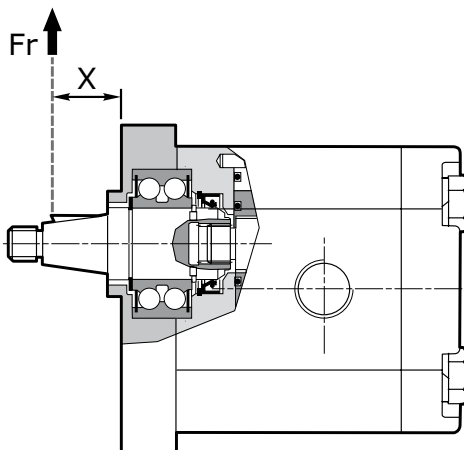
GRUPPO GROUP 2SP	CILINDRATA DISPLACEMENT		PRESSIONE MAX - MAX PRESSURE						VELOCITÀ MAX MAX SPEED	PORTATA MAX MAX FLOW		VELOCITÀ MIN MIN SPEED	PORTATA MIN MIN FLOW		RENDIMENTO VOLUMETRICO MIN. MIN. VOLUMETRIC EFFICIENCY
			P1		P2		P3								
	cm <sup>3</sup> /giro	in <sup>3</sup> /rev	bar	psi	bar	psi	bar	psi	giri/min - rpm	l/min	Gal/min	giri/min - rpm	l/min	Gal/min	%
<b>2SP 040</b>	4	0.24	250	3625	270	3915	290	4205	4000	16	4.23	500	1.9	0.50	95*
<b>2SP 060</b>	6	0.37	250	3625	270	3915	290	4205	4000	24	6.34	500	2.85	0.75	95*
<b>2SP 080</b>	8.5	0.52	250	3625	270	3915	290	4205	3500	29.7	7.85	500	4.03	1.06	95*
<b>2SP 110</b>	11	0.67	250	3625	270	3915	290	4205	3500	38.5	10.17	500	5.22	1.38	95*
<b>2SP 140</b>	14	0.85	250	3625	270	3915	290	4205	3500	49	12.95	500	6.65	1.76	95*
<b>2SP 160</b>	16.5	1.01	230	3335	240	3480	250	3625	3500	57.7	15.24	500	7.83	2.07	95*
<b>2SP 190</b>	19.5	1.19	210	3045	220	3190	230	3335	3300	64.3	16.99	500	9.26	2.45	95*
<b>2SP 220</b>	22.5	1.37	190	2755	200	2900	210	3045	2800	63	16.64	500	10.68	2.82	95*
<b>2SP 260</b>	26	1.59	170	2465	180	2610	190	2755	2500	65	17.17	500	12.35	3.26	95*
<b>2SP 310</b>	31.5	1.92	130	1885	140	2030	150	2175	2200	69	18.22	500	15.75	4.16	95*

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

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

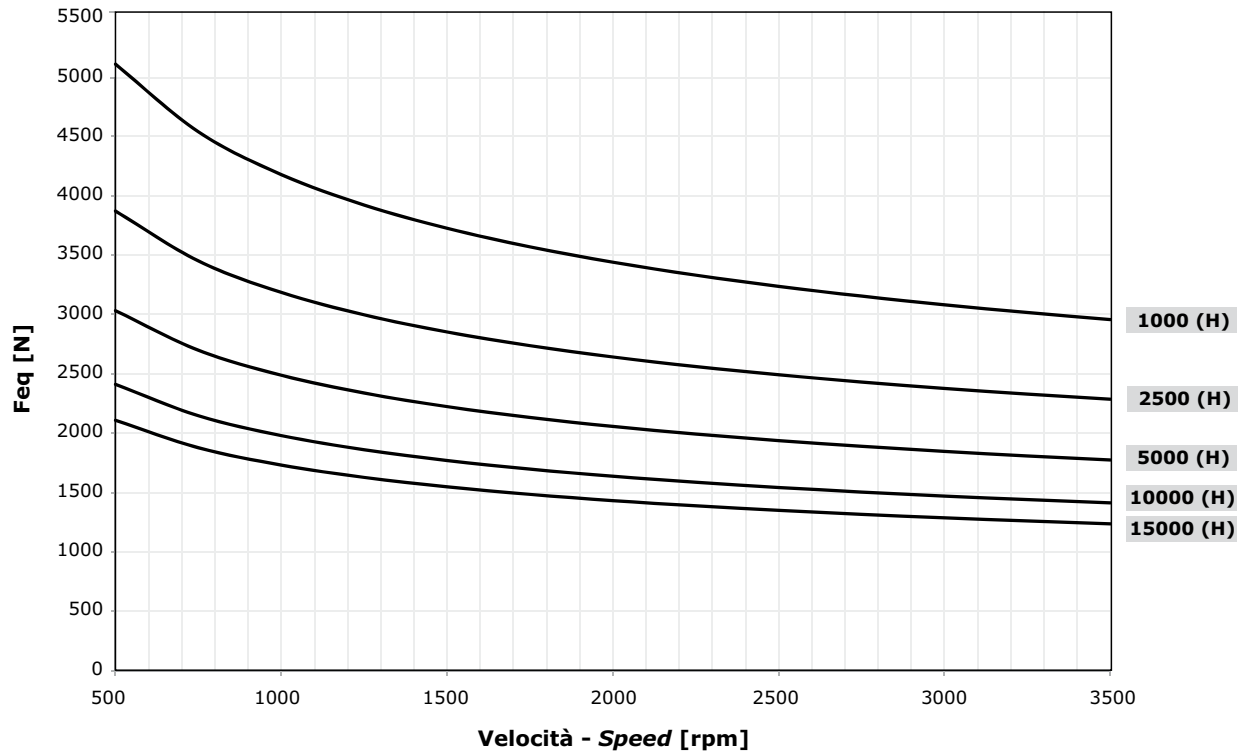
**CARICO DINAMICO EQUIVALENTE • EQUIVALENT DYNAMIC LOAD**



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**

**DIAGRAMMA CUSCINETTI • DIAGRAM BEARING EXPECTED LIFE**



**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
<b>2SP</b>	Tipo pompa <i>Pump type</i>	Pompa singola gruppo 2 <i>Single pump group 2</i>	5
<b>G</b>	Materiale flangia e coperchio <i>Flange and cover material</i>	<b>A</b> = alluminio / <i>aluminium</i> <b>G</b> = Ghisa / <i>Cast iron</i>	
<b>140</b>	Cilindrata <i>Displacement</i>	Cilindrata = 14 cm <sup>3</sup> /giro <i>Displacement = 0.85 in<sup>3</sup>/rev</i>	5
<b>D</b>	Senso di rotazione <i>Rotation wise</i>	<b>D</b> = Rotazione destra / <i>Clockwise rotation</i> <b>S</b> = Rotazione sinistra / <i>Anticlockwise rotation</i>	8
<b>EUR</b>	Tipo Flangia <i>Flange type</i>	Flangia standard <i>Standard flange</i>	
<b>B</b>	Tipo anello di tenuta <i>Seal ring type</i>	Vedi tabella compatibilità <i>See compatibility table</i>	46
<b>N</b>	Tipo guarnizione <i>Gasket type</i>	<b>N</b> = NBR <b>V</b> = Viton	
<b>10</b>	Tipo Albero <i>Shaft type</i>	Vedi tabella compatibilità <i>See compatibility table</i>	47
<b>0</b>	Posizione connessione <i>Connection position</i>	Vedi tabella compatibilità <i>See compatibility table</i>	50
<b>G</b>	Tipo connessione <i>Connection type</i>	Vedi tabella compatibilità <i>See compatibility table</i>	51



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

	EUR	SAEA	SAEAOR	B80C	B50C	E52C	P400D	SUPEUR
<b>2SP</b>								
<b>A</b> alluminio aluminium	◇	◇	◇	◇	◇	◇	◇	◇
<b>G</b> ghisa cast iron	◇	◇	◇	non disponibile not available	non disponibile not available	non disponibile not available	non disponibile not available	non disponibile not available

◇ = Combinazione standard - Standard combination

**ANELLO DI TENUTA • SEAL RING**

SIGLA - CODE	TIPO - TYPE	DESCRIZIONE - DESCRIPTION
<b>A</b>	Flangia senza anello di tenuta Flange without seal ring	
<b>B</b>	Anello di tenuta fino a 3 bar Sealing ring up to 3 bar	Per bassissime pressioni For very low pressure
<b>H</b>	Anello di tenuta fino a 8 bar Sealing ring up to 8 bar	Per basse pressioni ( con distanziali di rinforzo) For low pressure (with stiffening seal)
<b>K</b>	Anello di tenuta fino a 30 bar Sealing ring up to 30 bar	Per alte pressioni For high pressure

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

	EUR	SAEA	SAEAOR	B80C	B50C	E52C	P400D	SUPEUR
<b>2SP</b>								
	Anello - Seal ring	Anello - Seal ring	Anello - Seal ring	Anello - Seal ring	Anello - Seal ring	Anello - Seal ring	Anello - Seal ring	Anello - Seal ring
	<b>B H K</b>	<b>B H K</b>	<b>B H K</b>	<b>B H K</b>	<b>B H K</b>	<b>A</b>	<b>B H K</b>	<b>B K</b>
NBR <b>N</b>	◇	◇	◇	◇	◇	◇	◇	◇
Viton <b>V</b>	●	●	●	●	●	●	●	●

◇ = Combinazione standard - Standard combination

● = Combinazione disponibile - Available combination

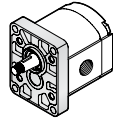
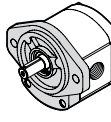
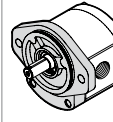
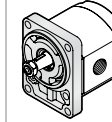
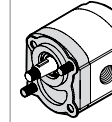
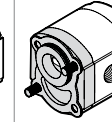
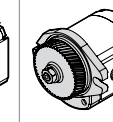
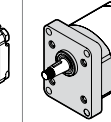
 esempio • example: **2SP - A - 140 - D - EUR - B - N - 10 - 0 - G**
**EUR** = Flangia europea / European flange

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

**N** = Guarnizione in NBR / NBR o-ring

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

**COMBINAZIONE ALBERO - FLANGIA • SHAFT - FLANGE COMBINATION**

<b>2SP</b>	EUR	SAEA	SAEAOR	B80C	B50C	FE32C	P400D	SUPEUR
								
<b>10</b> Conico 1:8 <i>Tapered 1:8</i>	◆	●	●	●	◆		◆	◆
<b>11</b> Conico 1:5 <i>Tapered 1:5</i>	●	●	●	◆	●			
<b>12</b> Cilindrico EUR <i>EUR Parallel shaft</i>	◆	●	●	◆	◆			
<b>13</b> Cilindrico SAEA <i>SAEA parallel shaft</i>	●	◆	◆	●	●			
<b>14</b> Scanalato SAEA 9T <i>SAEA 9T splined</i>	●	◆	◆	●	●			
<b>15</b> Scanalato DIN5482 9T (26/24) <i>DIN5482 9T splined (26/24)</i>	●	●	●	◆	●			
<b>16</b> Scanalato DIN5482 9T (20) <i>DIN5482 9T splined (20)</i>	●	●	●	◆	●			
<b>17</b> Fresato a dente frontale <i>Dihedral claw</i>						◆		
<b>40</b> Scanalato SAE 10T (52) <i>SAE 10T splined (52)</i>		●	●					
<b>41</b> Scanalato SAE 10T (37.5) <i>SAE 10T splined (37.5)</i>		●	●					
<b>42</b> Scanalato SAEA 11T (55.6) <i>SAEA 11T splined (55.6)</i>		●	●					
<b>43</b> Scanalato SAEA 11T (31.5) <i>SAEA 11T splined (31.5)</i>		●	●					
<b>44</b> Scanalato SAEA 11T (13.5) <i>SAEA 11T splined (13.5)</i>		●	●					

◆ = Combinazione standard - *Standard combination*

● = Combinazione disponibile - *Available combination*

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

**2SP**

DIMENSIONI ALBERO - SHAFT DIMENSIONS

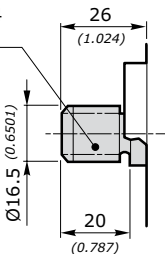
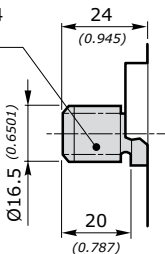
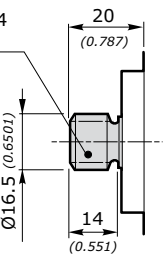
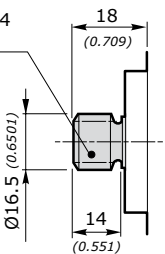
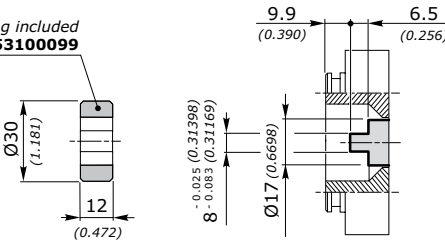
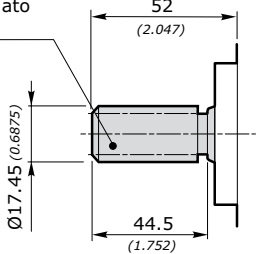
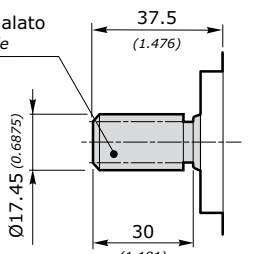
<p><b>10</b> Conico 1:8 Tapered 1:8</p> <p>Coppia 140 Nm Torque 104 ft-lbs</p>	<p>Disponibile per - available for: <b>EUR-SAEA-SAEAOR-B50C-P400D-SUPEUR</b></p>	<p>Disponibile per - available for: <b>B80C</b></p>
<p><b>11</b> Conico 1:5 Tapered 1:5</p> <p>Coppia 140 Nm Torque 104 ft-lbs</p>	<p>Disponibile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



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

**2SP**

DIMENSIONI ALBERO - SHAFT DIMENSIONS

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

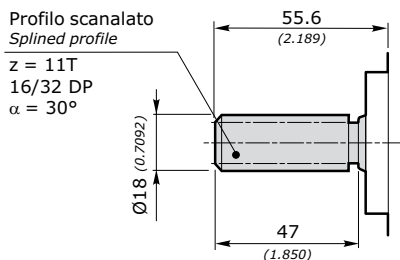
**POMPE AD INGRANAGGI GRUPPO 2SP**  
**GEAR PUMPS GROUP 2SP**

**2SP**

DIMENSIONI ALBERO - SHAFT DIMENSIONS

**42**  
Scanalato SAEA  
11T (55.6)  
SAEA 11T  
splined (55.6)

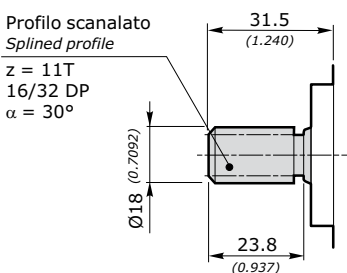
Coppia 150 Nm  
Torque 111 ft-lbs



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

**43**  
Scanalato SAEA  
11T (31.5)  
SAEA 11T  
splined (31.5)

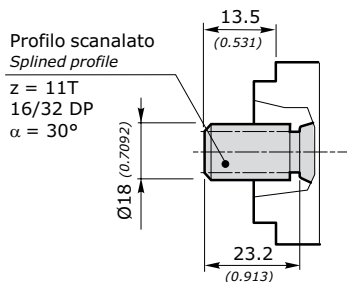
Coppia 150 Nm  
Torque 111 ft-lbs



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: **SAEA - SAEAOR**

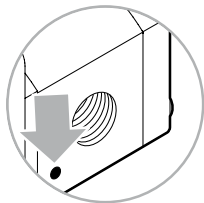
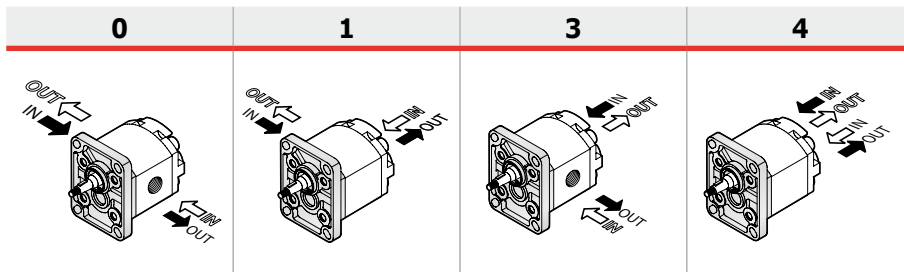
**POSIZIONE CONNESSIONE • CONNECTION POSITION**



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


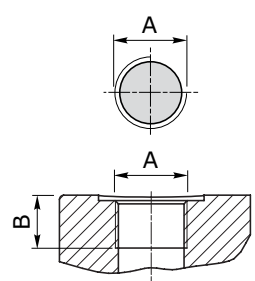
**IN = ASPIRAZIONE - SUCTION**  
**OUT = MANDATA - DELIVERY**



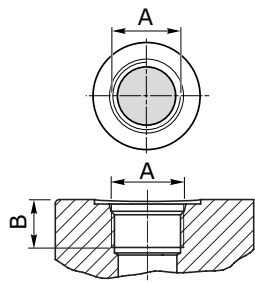
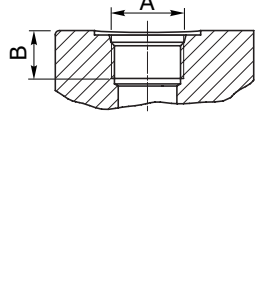
**POMPE AD INGRANAGGI GRUPPO 2SP**  
**GEAR PUMPS GROUP 2SP**

**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.*

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

<b>GAS</b>	UNI ISO 228/1	SIGLA CODE	CIL. DISPL.	ASPIRAZIONE - SUCTION IN			MANDATA - DELIVERY OUT			
				<b>A</b>	<b>B</b>		<b>A</b>	<b>B</b>		
		<b>G</b>	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							

<b>UNF</b>	ANSI/ASME B1.1	SIGLA CODE	CIL. DISPL.	ASPIRAZIONE SUCTION IN			MANDATA DELIVERY OUT			
				<b>A</b>	<b>B</b>		<b>A</b>	<b>B</b>		
		<b>U</b>	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							
		<b>W</b>	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				
		<b>T</b>	40													
			60													
			80													
			110													
			140	20	40	M6	15	8	15	35	M6	15	8			
			160	[mm]	[mm]		[mm]	[Nm]	[mm]	[mm]		[mm]	[Nm]			
			190	0.787	1.575		0.591	71	0.591	1.378		0.591	71			
			220	[inch]	[inch]		[inch]	[in.lbs]	[inch]	[inch]		[inch]	[in.lbs]			
			260													
			310													
		<b>N</b>	40	13	30	M6	15	8								
			60	[mm]	[mm]		[mm]	[Nm]								
			80	0.512	1.181		0.591	71								
			110	[inch]	[inch]		[inch]	[in.lbs]								
			140						13	30	M6	15	8			
			160	19	40	M8	14	15	0.512	1.181		0.591	71			
			190	[mm]	[mm]		[mm]	[Nm]	[inch]	[inch]		[inch]	[in.lbs]			
			220	0.748	1.575		0.552	133				0.552	133			
			260	[inch]	[inch]		[inch]	[in.lbs]				[inch]	[in.lbs]			
			310													
		<b>M</b>	40	non disponibile not available					non disponibile not available							
			60	non disponibile not available					non disponibile not available							
			80	non disponibile not available					non disponibile not available							
			110													
			140													
			160	19	40	M8	14	15	19	40	M8	14	15			
			190	[mm]	[mm]		[mm]	[Nm]	[mm]	[mm]		[mm]	[Nm]			
			220	0.748	1.575		0.552	133	0.748	1.575		0.552	133			
			260	[inch]	[inch]		[inch]	[in.lbs]	[inch]	[inch]		[inch]	[in.lbs]			
			310													

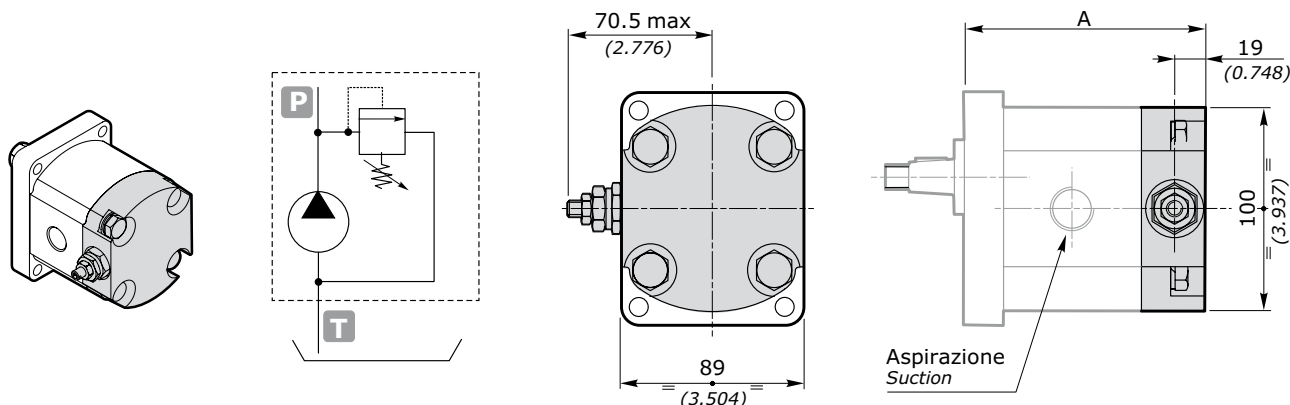
FLANGIATE FLANGED	ISO/R 262	SIGLA CODE	CIL. DISPL.	ASPIRAZIONE SUCTION IN					MANDATA DELIVERY OUT						
				A	B	C	D	E		A	B	C	D	E	
		<b>F</b>	40	20	17,4	38	M6	15	8						
			60	[mm]	[mm]	[mm]		[mm]	[Nm]						
			80	0.787	0.685	1.496		0.591	71						
			110	[inch]	[inch]	[inch]		[inch]	[in.lbs]						
	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

**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
<b>2SP 040</b>	104.8	4.126	106.8	4.205	102.1	4.020
<b>2SP 060</b>	108.1	4.256	110.1	4.335	105.4	4.150
<b>2SP 080</b>	112.3	4.421	114.3	4.500	109.6	4.315
<b>2SP 110</b>	116.4	4.583	118.4	4.661	113.7	4.476
<b>2SP 140</b>	121.4	4.780	123.4	4.858	118.7	4.673
<b>2SP 160</b>	125.6	4.945	127.6	5.024	122.9	4.839
<b>2SP 190</b>	130.6	5.142	132.6	5.220	127.9	5.035
<b>2SP 220</b>	135.6	5.339	137.6	5.417	132.9	5.232
<b>2SP 260</b>	141.4	5.567	143.4	5.646	138.7	5.461
<b>2SP 310</b>	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

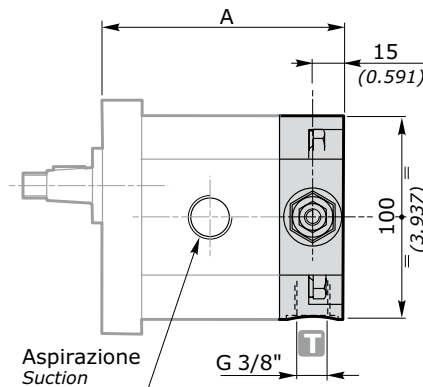
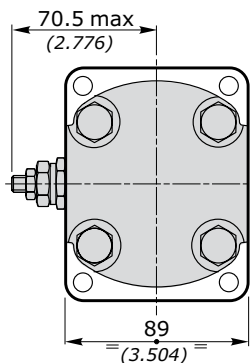
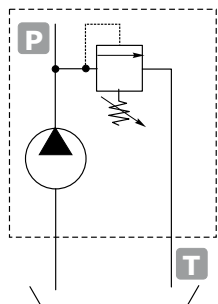
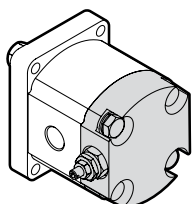
**120** = Taratura - vedi tabella / Setting - see table

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
<b>2SP 040</b>	100.8	3.969	102.8	4.047	98.1	3.862
<b>2SP 060</b>	104.1	4.098	106.1	4.177	101.4	3.992
<b>2SP 080</b>	108.3	4.264	110.3	4.343	105.6	4.157
<b>2SP 110</b>	112.4	4.425	114.4	4.504	109.7	4.319
<b>2SP 140</b>	117.4	4.622	119.4	4.701	114.7	4.516
<b>2SP 160</b>	121.6	4.787	123.6	4.866	118.9	4.681
<b>2SP 190</b>	126.6	4.984	128.6	5.063	123.9	4.878
<b>2SP 220</b>	131.6	5.181	133.6	5.260	128.9	5.075
<b>2SP 260</b>	137.4	5.409	139.4	5.488	134.7	5.303
<b>2SP 310</b>	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)	

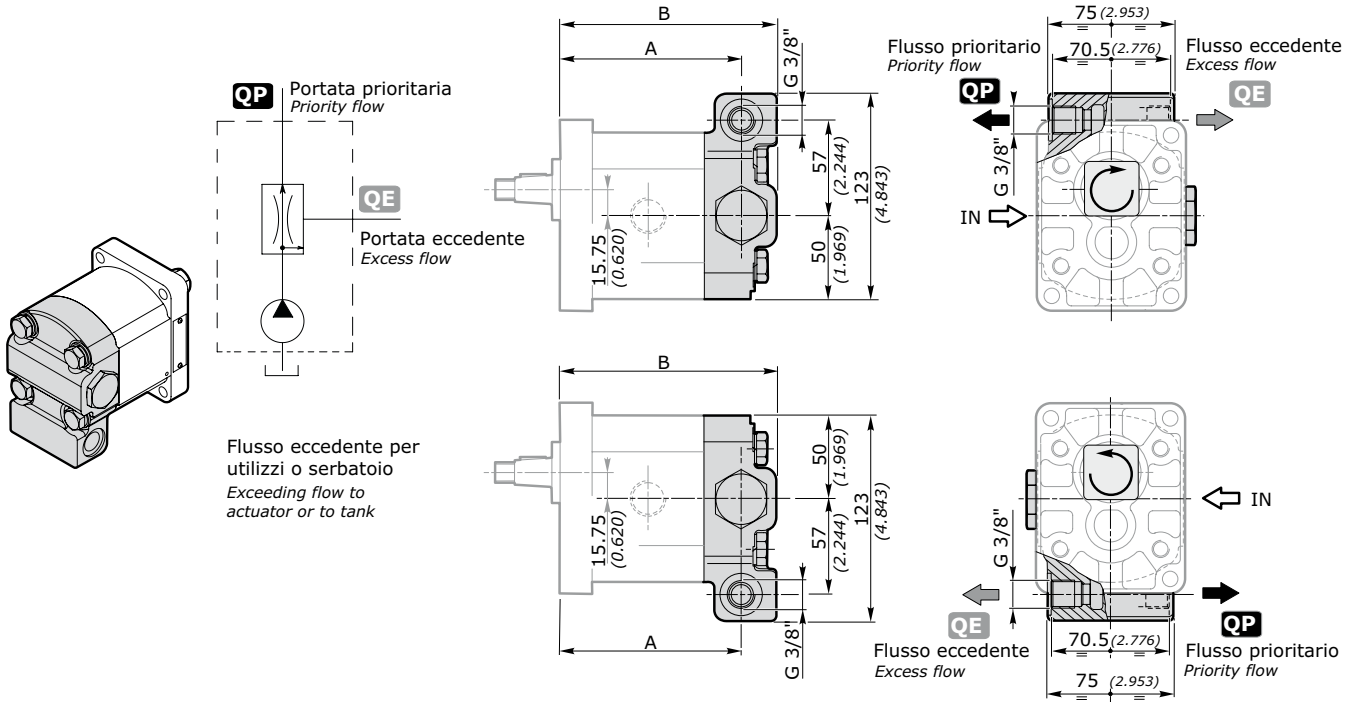
NOTA: In caso di omissione del valore di taratura, esso sarà inteso standard (vedi tabella).

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

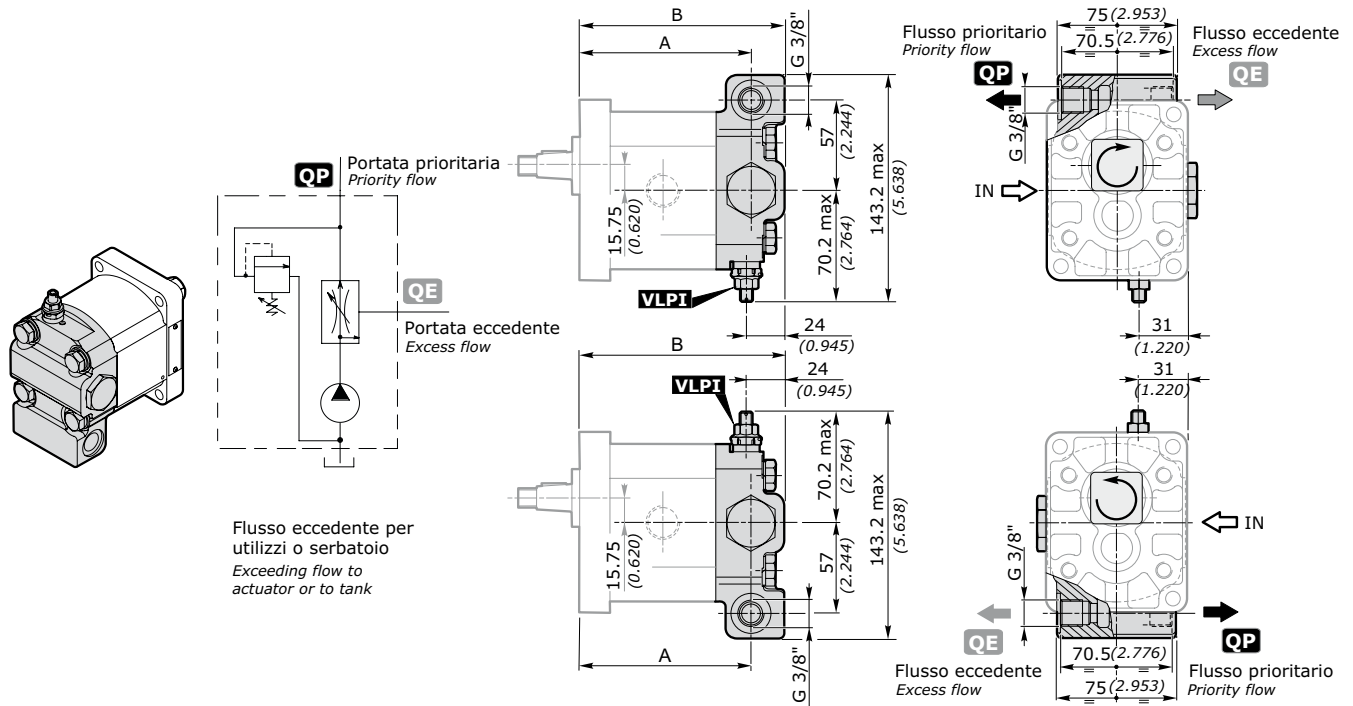
**VRF** = Coperchio con VRF / Cover with VRF

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

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



**POMPE AD INGRANAGGI GRUPPO 2SP**  
**GEAR PUMPS GROUP 2SP**
**VRFVLP1**

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


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

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

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>B</b>	molla nera - black spring	<b>N</b>	molla rossa - red spring	<b>R</b>
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).

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