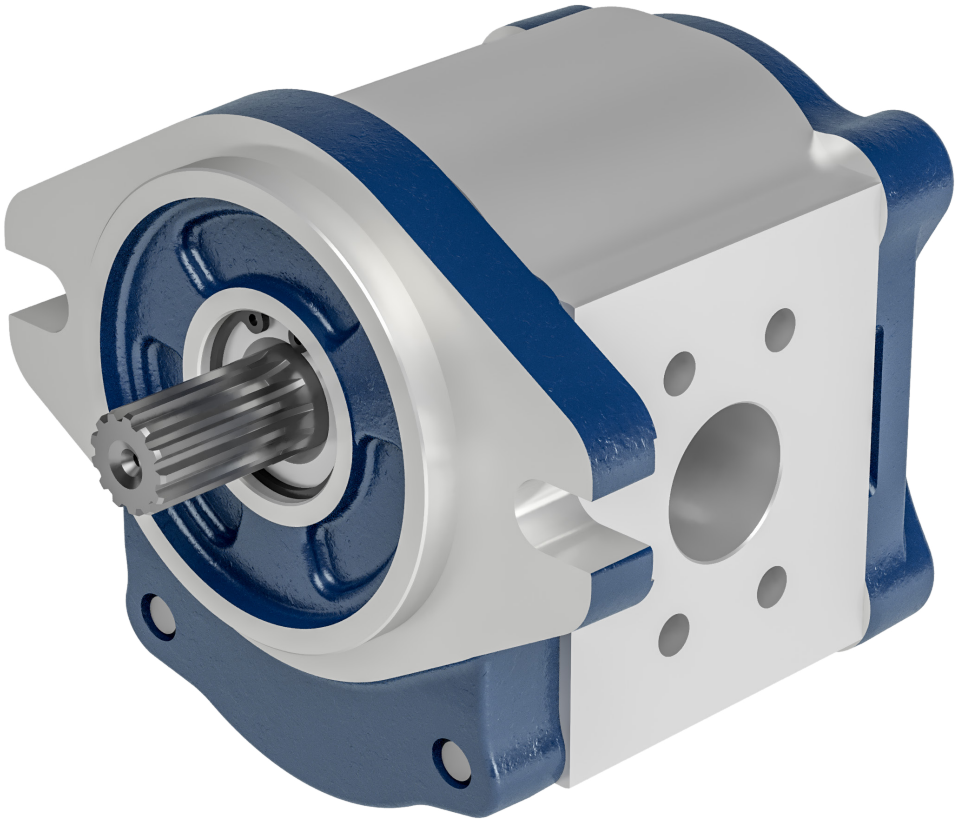
Serie HPL



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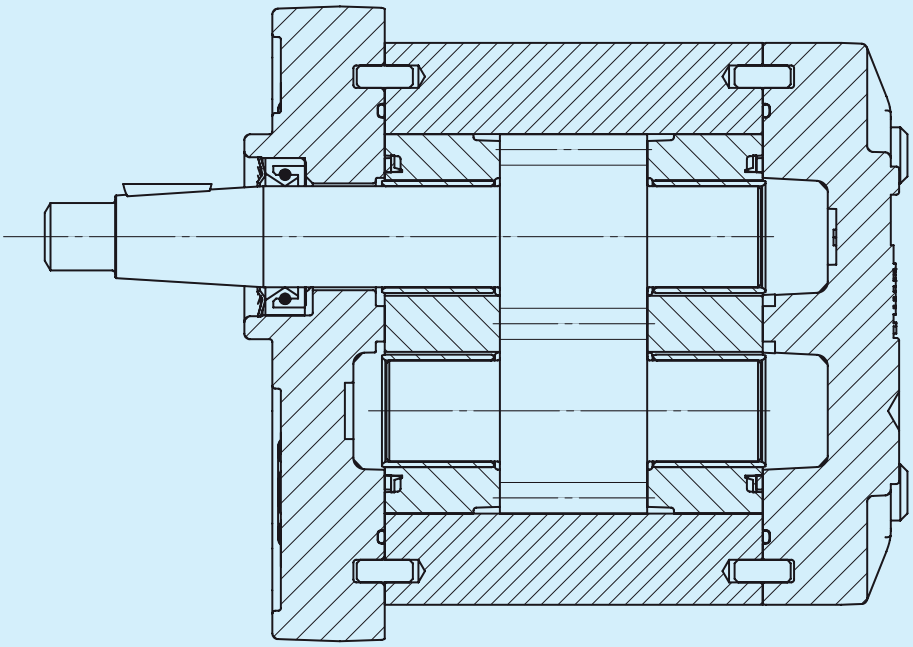
HPL..2	23
HPL..3	51
HPL..4	69

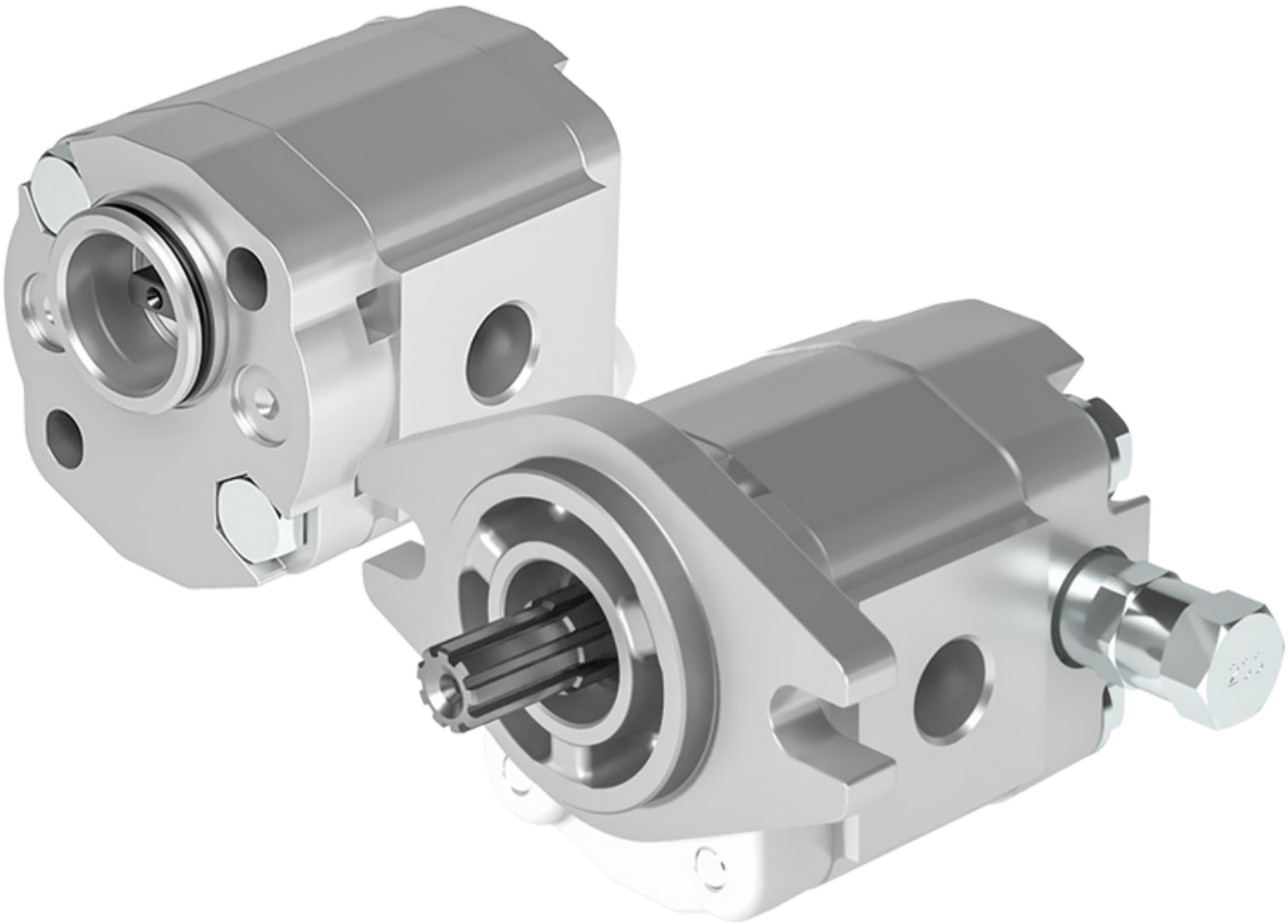
Pompe e motori a ingranaggi in alluminio

Introduzione

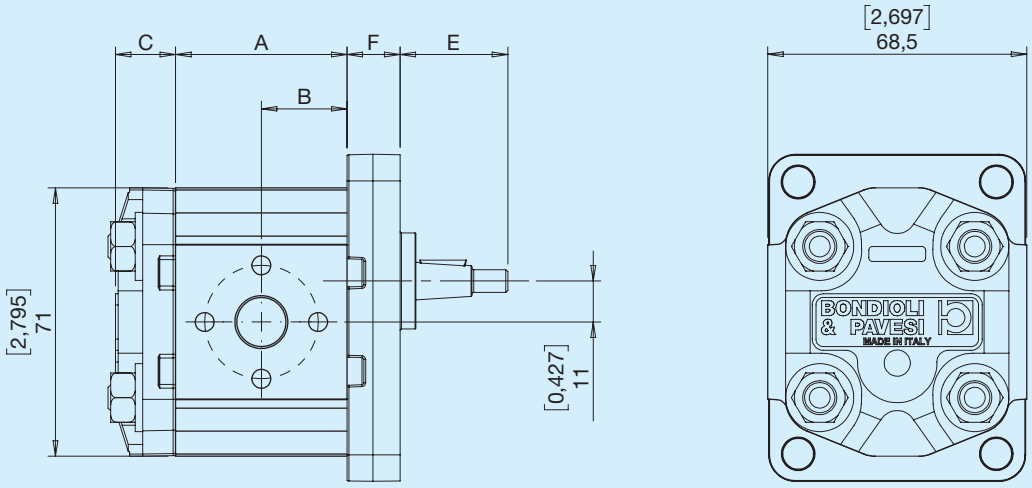
Tra le unità idrostatiche le pompe e motori ad ingranaggi sono tra le più prodotte ed utilizzate. La robustezza della concezione, il favorevole rapporto prezzo/prestazioni, la semplicità di installazione, la possibilità di soluzioni personalizzate, l'integrazione con componenti di controllo (valvole) sono alcuni dei punti caratterizzanti questi prodotti.
L'offerta Bondioli & Pavesi si innesta su una pluridecennale e consolidata tradizione di sviluppo e produzione di unità ad ingranaggi con spirito innovativo nel design e nei processi produttivi.
Questo permette di offrire una gamma di pompe ad ingranaggi con corpo in alluminio suddivisa in modo ottimale in gruppi e cilindrate (da 0,37 a 90 cc/giro) con la possibilità di varianti ad hoc e con prestazioni che permettono ogni tipo d'impiego.
Le pompe HP Hydraulic della serie L sono prodotte in cinque differenti gruppi dimensionali 1, 2, 3, 4, all'interno dei quali vengono ottenute le differenti cilindrate.
Una gamma completa di flange, estremità d'albero e la possibilità di ottenere pompe multiple e /o con valvole integrate nel coperchio posteriore completano la gamma di produzione.



Serie HPL Gruppo 1

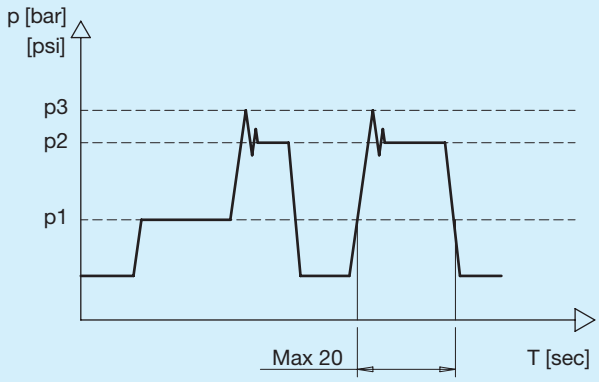


Prima di iniziare l'utilizzo leggere attentamente il documento ISTRUZIONI GENERALI D'IMPIEGO POMPE E MOTORI A INGRANAGGI.



C - Vedi sezione coperchi E - Vedi sezione alberi F - Vedi sezione flange

Definizione delle pressioni



p1	Pressione Continua
p2	Pressione intermittente Massima pressione permessa per brevi periodi (max 20 sec)
p3	Pressione di picco Massima pressione permessa intesa come picco di pressione della Vmax

Dimensioni e dati tecnici

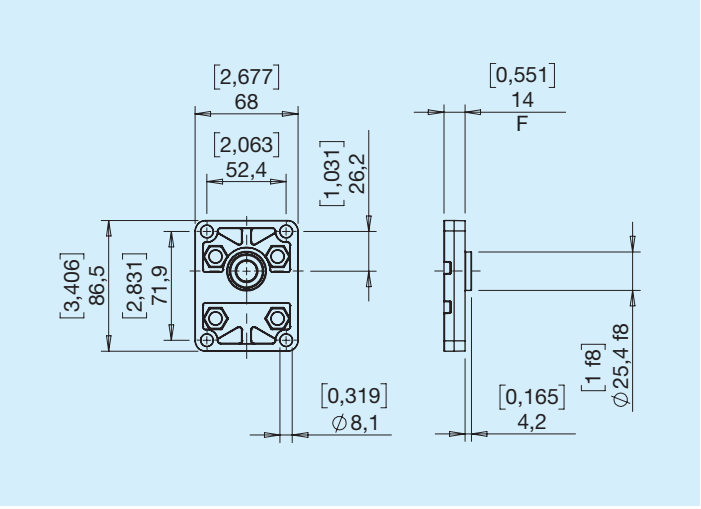
Dimensioni e dati tecnici pompe

HPLPA1	Cilindrata teorica		Pressione Continua		Pressione intermittente		Pressione picco		Velocità di rotazione		Massa		A		B	
	cm³	**in³**	**bar**	**psi**	**bar**	**psi**	**bar**	**psi**	**min⁻¹**	**min⁻¹**	**kg**	**lbs**	**mm**	**in**	**mm**	**in**
14	1,37	0,08	220	3191	260	3771	280	4061	3500	700	0,90	1,98	38,70	1,524	19,4	0,762
19	1,90	0,12	220	3191	260	3771	280	4061	3500	700	0,95	2,09	38,70	1,524	19,4	0,762
24	2,53	0,15	210	3046	250	3626	260	3771	3500	700	0,95	2,09	38,70	1,524	19,4	0,762
31	3,17	0,19	210	3046	250	3626	260	3771	3500	700	0,95	2,09	38,70	1,524	19,4	0,762
36	3,73	0,23	210	3046	250	3626	260	3771	3500	700	1,05	2,31	45,35	1,785	22,7	0,893
44	4,35	0,27	210	3046	250	3626	260	3771	3500	700	1,05	2,31	45,35	1,785	22,7	0,893
48	4,97	0,30	210	3046	250	3626	260	3771	3500	700	1,05	2,31	45,35	1,785	22,7	0,893
60	6,08	0,37	210	3046	250	3626	260	3771	3000	700	1,20	2,65	56,05	2,207	28,0	1,103
70	7,00	0,43	190	2756	210	3046	230	3336	3000	700	1,20	2,65	56,05	2,207	28,0	1,103
80	7,87	0,48	160	2321	180	2611	200	2901	3000	700	1,20	2,65	56,05	2,207	28,0	1,103

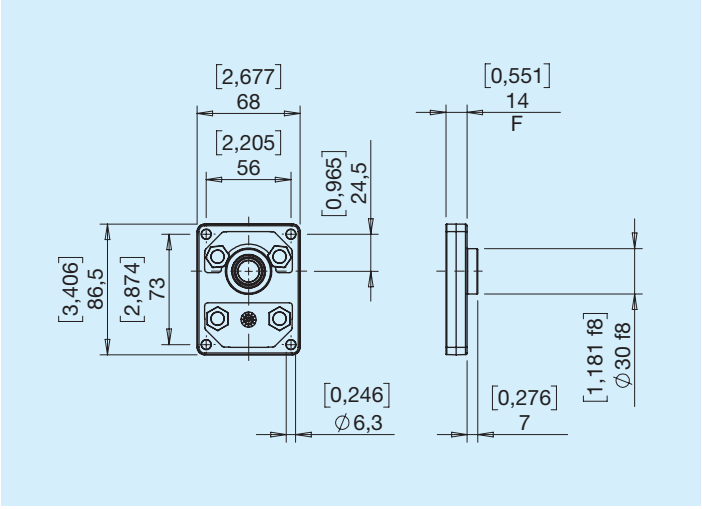
Dimensioni e dati tecnici motori

HPLMA1	Cilindrata teorica		Pressione Continua		Pressione intermittente		Pressione picco		Velocità di rotazione		Massa		A		B	
	cm³	**in³**	**bar**	**psi**	**bar**	**psi**	**bar**	**psi**	**min⁻¹**	**min⁻¹**	**kg**	**lbs**	**mm**	**in**	**mm**	**in**
19	1,90	0,12	220	3191	260	3771	280	4061	4000	700	0,95	2,09	38,70	1,524	19,4	0,762
24	2,53	0,15	210	3046	250	3626	260	3771	4000	700	0,95	2,09	38,70	1,524	19,4	0,762
31	3,17	0,19	210	3046	250	3626	260	3771	4000	700	0,95	2,09	38,70	1,524	19,4	0,762
36	3,73	0,23	210	3046	250	3626	260	3771	4000	700	1,05	2,31	45,35	1,785	22,7	0,893
44	4,35	0,27	210	3046	250	3626	260	3771	4000	700	1,05	2,31	45,35	1,785	22,7	0,893
48	4,97	0,30	210	3046	250	3626	260	3771	4000	700	1,05	2,31	45,35	1,785	22,7	0,893
60	6,08	0,37	210	3046	250	3626	260	3771	3500	700	1,20	2,65	56,05	2,207	28,0	1,103
70	7,00	0,43	190	2756	210	3046	230	3336	3500	700	1,20	2,65	56,05	2,207	28,0	1,103
80	7,87	0,48	160	2321	180	2611	200	2901	3500	700	1,20	2,65	56,05	2,207	28,0	1,103

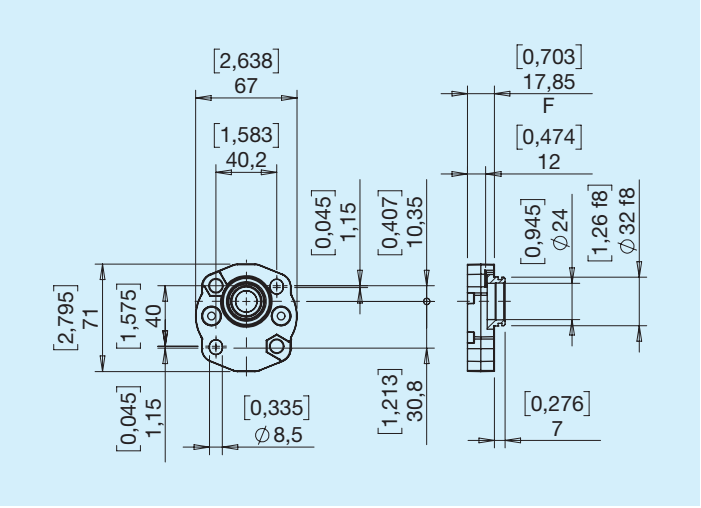
D Europea D25,4



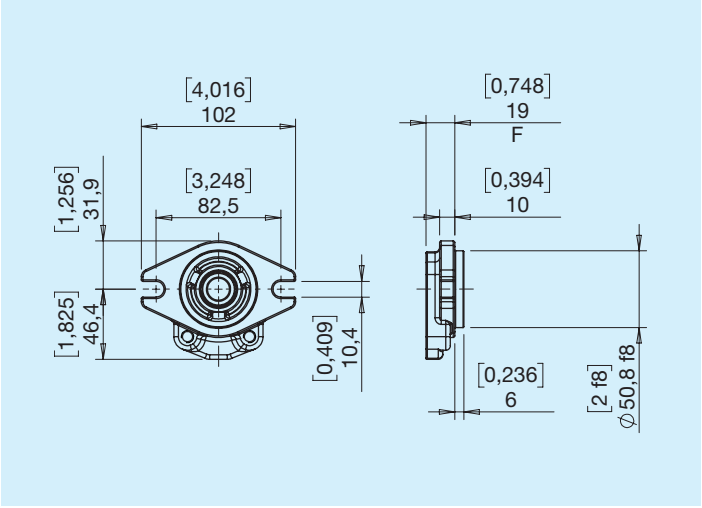
E Europea D30



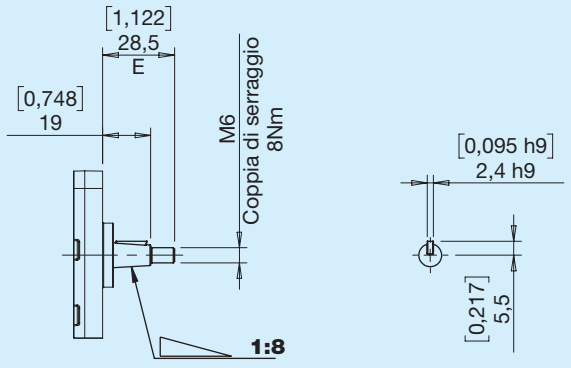
G Tedesca



J SAE AA

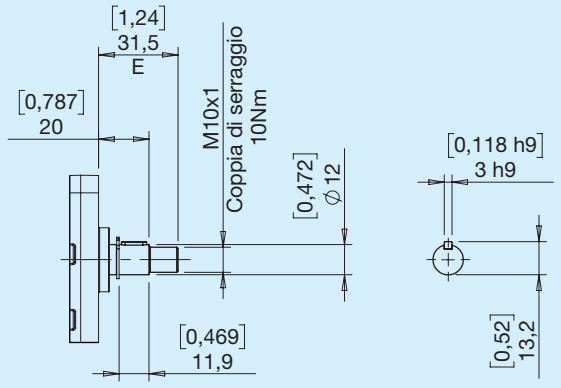


D Conico (1:8)



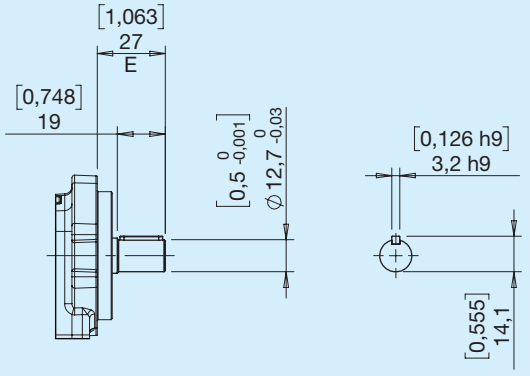
Coppia Max 25 Nm

E Cilindrico europeo



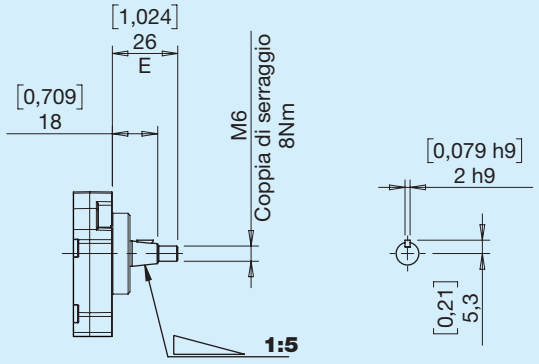
Coppia Max 15 Nm

F Cilindrico SAE AA



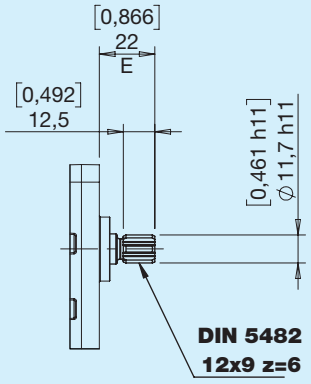
Coppia Max 35 Nm

G Conico (1:5)



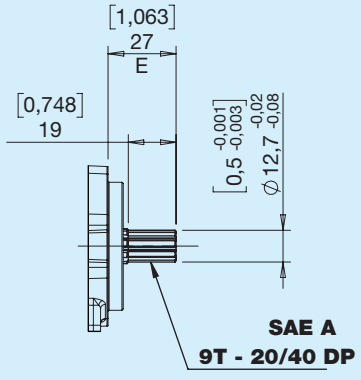
Coppia Max 25 Nm

H Scanalato DIN 5482



Coppia Max 30 Nm

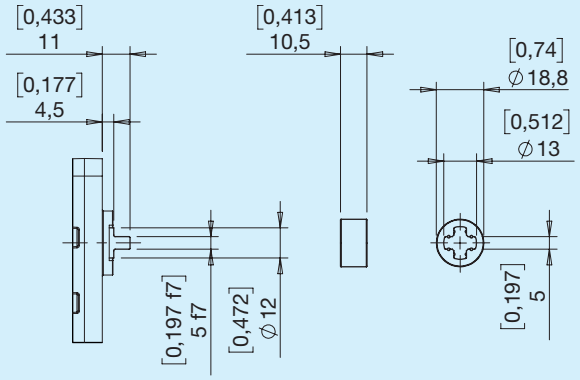
I Scanalato SAE AA



Coppia Max 45 Nm

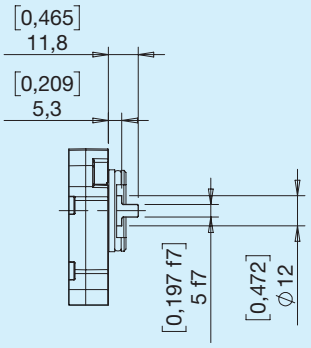
J Dente frontale sporgente

Albero J per flangia europea D25,4



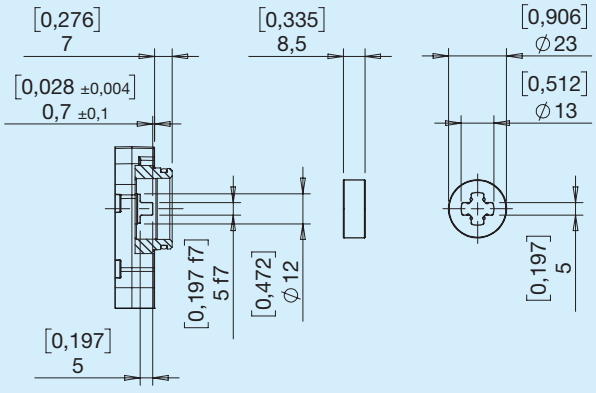
Coppia Max 20 Nm

Albero J per flangia tedesca (no giunto)



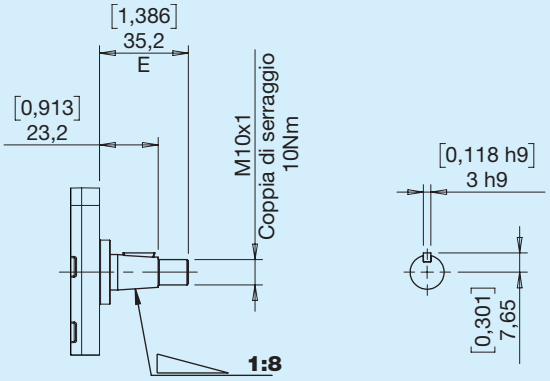
Coppia Max 20 Nm

K Dente frontale



Coppia Max 20 Nm

T Conico high torque (1:8)

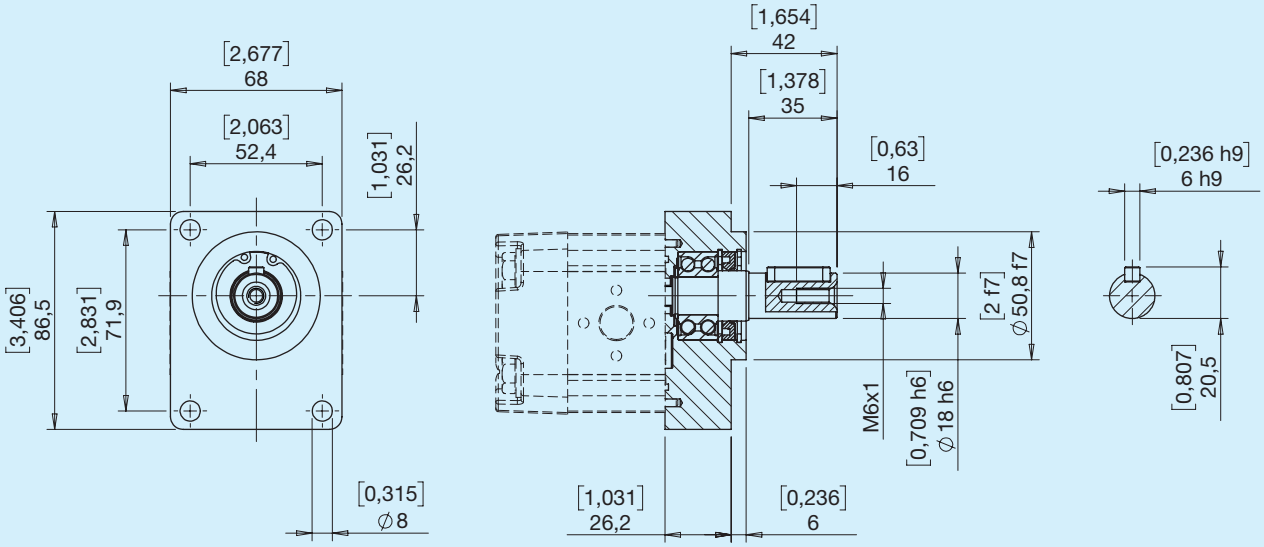


Coppia Max 60 Nm

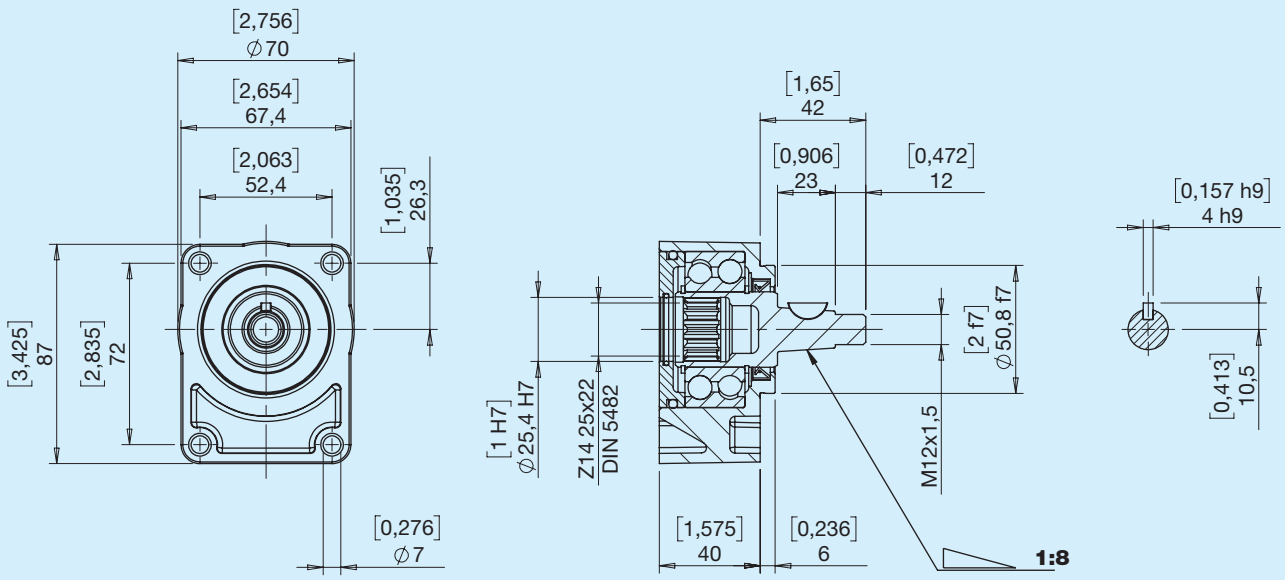
Combinazioni Albero Flangia

Alberi	Flange			
	D	E	G	J
D	•	•		
E	•	•		
F				•
G			•	
H	•			
I				•
J	•		•	
K			•	
T	•	•		

I5 Flangia standard Europea albero cilindrico D18

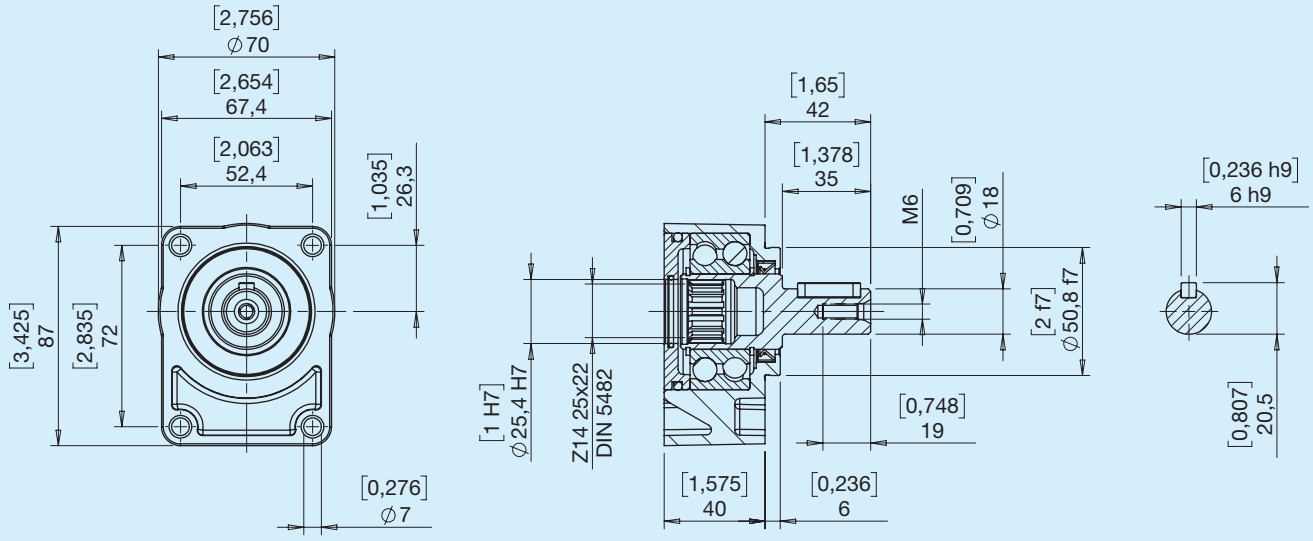


C1 Centraggio D50,80 albero conico (1:8)



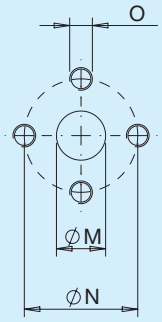
Ordinabile separatamente Cod. HPL5921C1R

C2 Centraggio D50,80 albero cilindrico D18



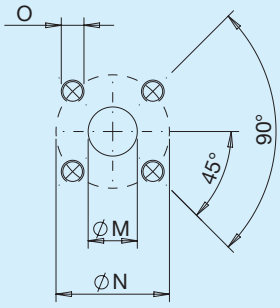
Ordinabile separatamente Cod. HPL5921C2R

E Laterale



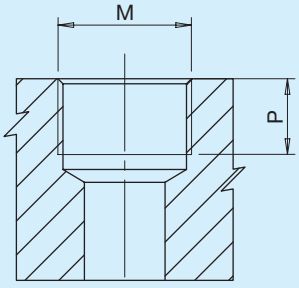
Tipo	M		N		O	
	mm	**in**	**mm**	**mm**		**Nm**
E2	13	0,51	26	1,02	M5	6
E3	13	0,51	30	1,18	M6	10

X Laterale



Tipo	M		N		O	
	mm	**in**	**mm**	**mm**		**Nm**
X3	13	0,51	30	1,18	M6	10

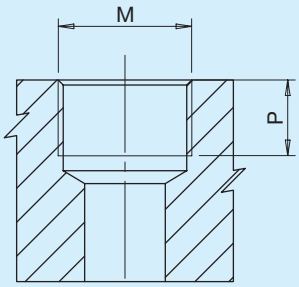
G Laterale / Drenaggio



Tipo	M		P	
		Nm	**mm**	**in**
G2*	PORT ISO 1179-1-G 1/4	17	12	0,47
G3	PORT ISO 1179-1-G 3/8	38	12	0,47
G4	PORT ISO 1179-1-G 1/2	50	14,5	0,57

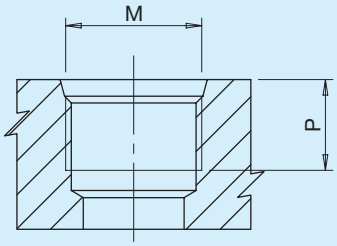
*Drenaggio

T Posteriore



Tipo	M		P	
		Nm	**mm**	**in**
T3	PORT ISO 1179-1-G 3/8	38	12	0,47

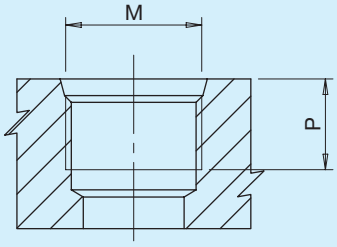
U Laterale / Drenaggio



Tipo	Dim.	M		P	
			Nm	**mm**	**in**
U2*	1/4'	PORT ISO 11926-1 - 7/16-20	17	12	0,47
U3	3/8'	PORT ISO 11926-1 - 9/16-18	25	13	0,51
U4	1/2'	PORT ISO 11926-1 - 3/4-16	47	15	0,59

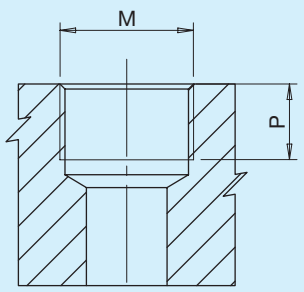
*Drenaggio

C Posteriore



Tipo	Dim.	M		P	
			Nm	**mm**	**in**
C3	3/8'	PORT ISO 11926-1 - 9/16-18	25	13	0,51

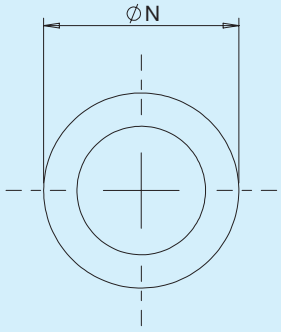
M Laterale / Drenaggio



Tipo	M		P	
		Nm	**mm**	**in**
M1*	PORT ISO 6149 - 1 - M12x1,5	15	12	0,47
M2	PORT ISO 6149 - 1 - M14x1,5	17	12	0,47
M4	PORT ISO 6149 - 1 - M18x1,5	40	14,5	0,57

*Drenaggio

H Anteriore



Tipo	Tenuta frontale		N
		mm	**in**
H1	OR 9,25x1,78	12,7	0,50

Combinazioni

Combinazione Bocche Flange

Bocche	Flange			
	D	E	G	J
E	●	●		
X	●	●	●	
G	●	●	●	●
T	●	●	●	
U				●
C				●
M	●	●	●	
H			●	

Combinazione Bocche Cilindrate per Pompe/Motori unidirezionali

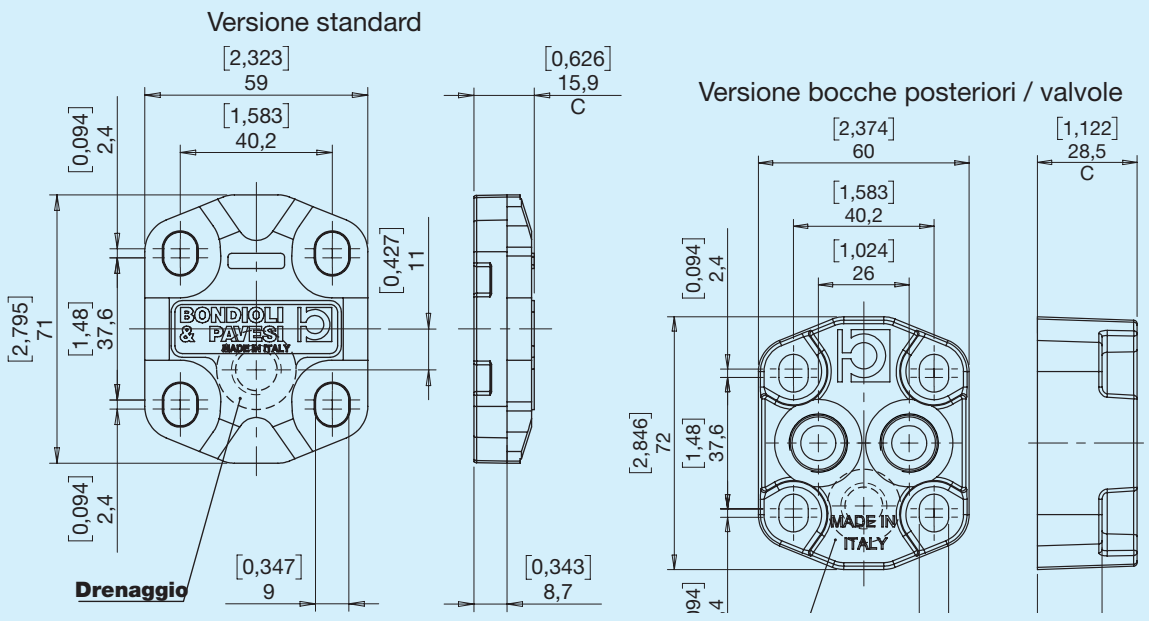
Bocche	Cilindrate		
	14 19 24 31	36 44 48	60 70 80
	Bocche IN/OUT	Bocche IN/OUT	Bocche IN/OUT
E	E2 E2	E3 E3	E3 E3
X	X3 X3	X3 X3	X3 X3
G	G3 G3	G3 G3	G4 G4
T	T3 T3	T3 T3	-
U	U3 U3	U3 U3	U4 U4
C	C3 C3	C3 C3	-
M	M4 M2	M4 M2	M4 M4
HT	T3 H1	T3 H1	-

Combinazione Bocche Cilindrate per Pompe/Motori bidirezionali

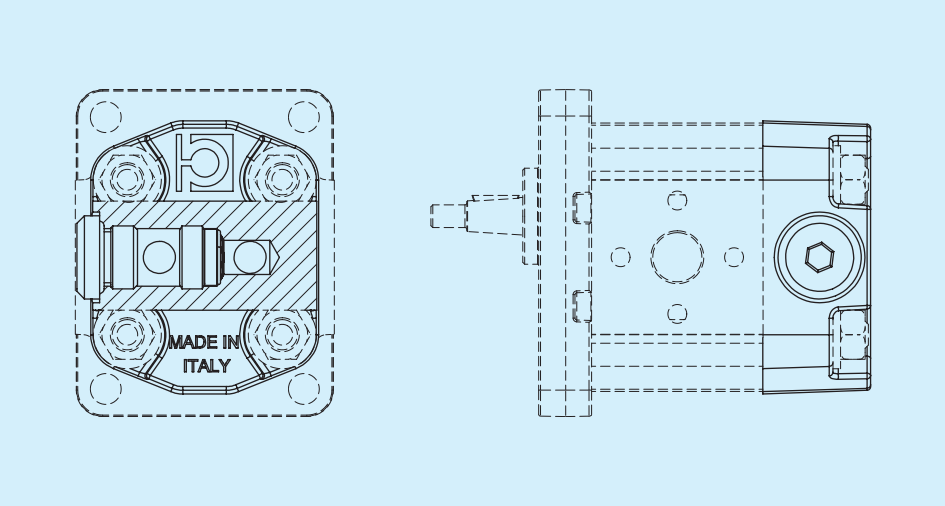
Bocche	Cilindrate			
	19 24 31	36 44 48	60 70 80	
	Bocche IN/OUT	Bocche IN/OUT	Bocche IN/OUT	Drenaggio
E	E2 E2	E3 E3	E3 E3	M1
X	X3 X3	X3 X3	X3 X3	M1
G	G3 G3	G3 G3	G4 G4	G2
T	T3 T3	T3 T3	-	G2
U	U3 U3	U3 U3	U4 U4	U2
C	C3 C3	C3 C3	-	U2
M	M2 M2	M4 M4	M4 M4	M1

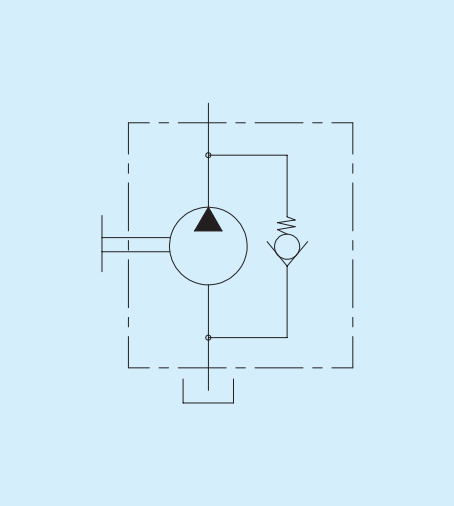
Altre combinazioni di bocche sono disponibili. Per maggiori informazioni rivolgersi all'ufficio tecnico commerciale.

ST Alluminio

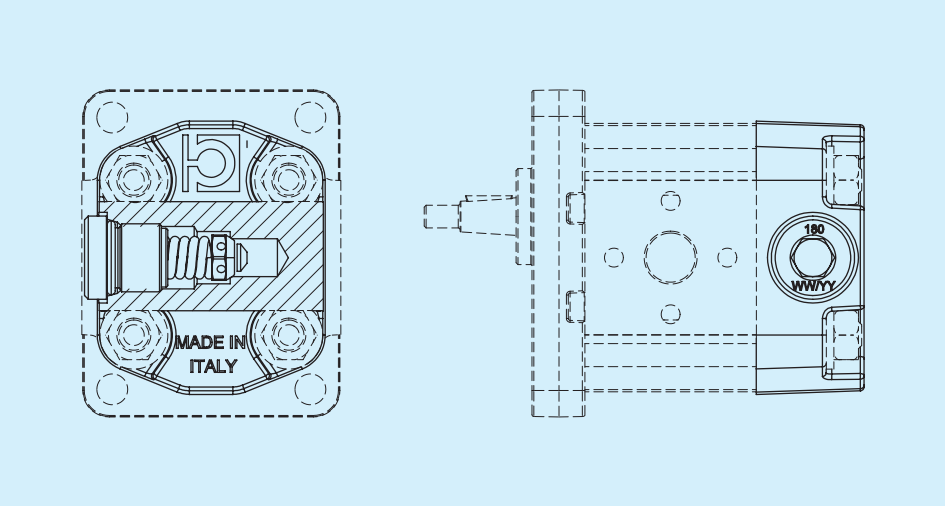


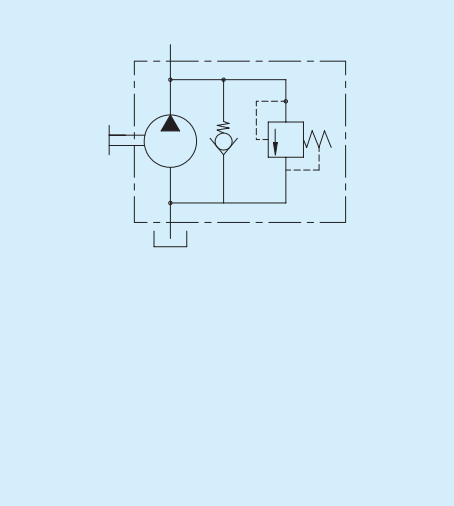
VA Valvola unidirezionale



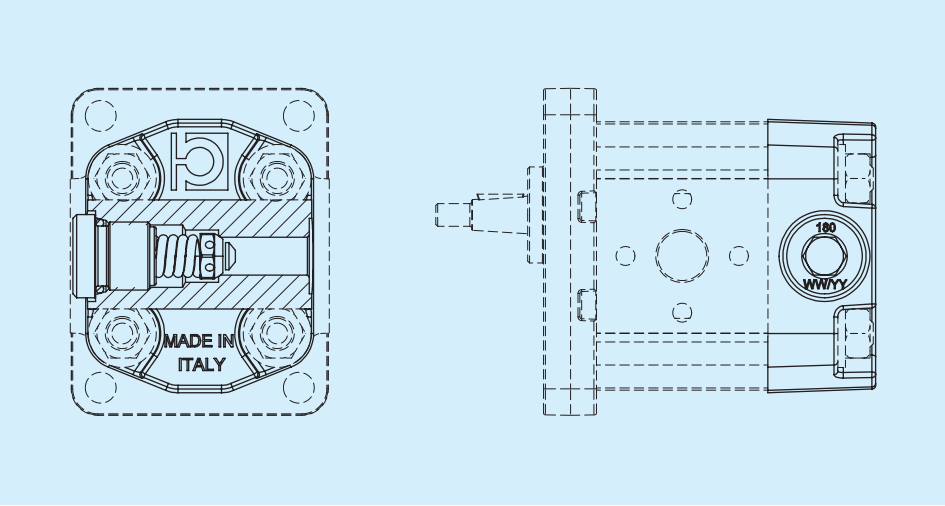


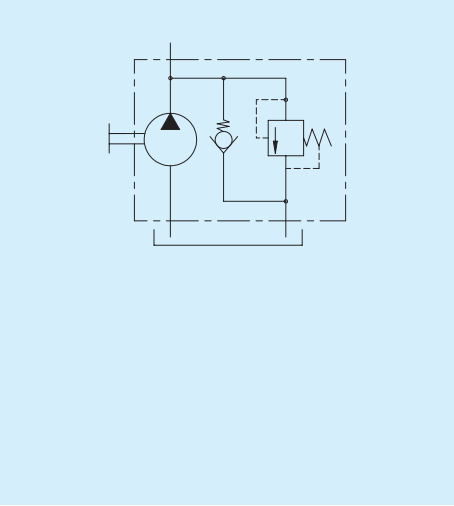
VB Valvola di max pressione taratura fissa scarico interno





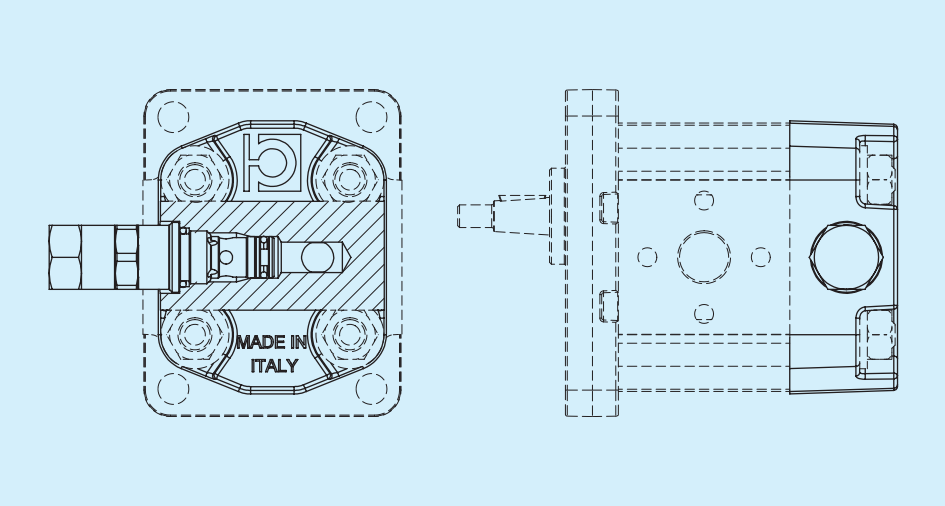
VC Valvola di max pressione taratura fissa scarico esterno

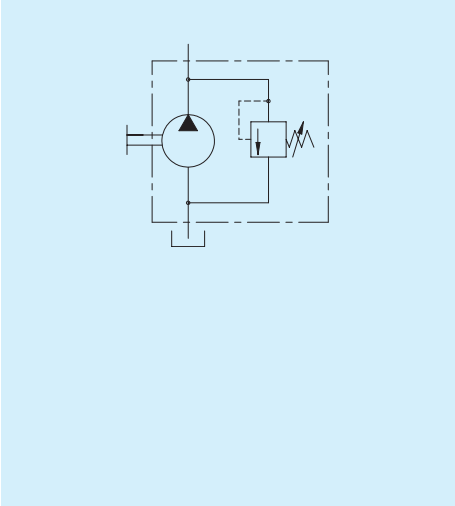




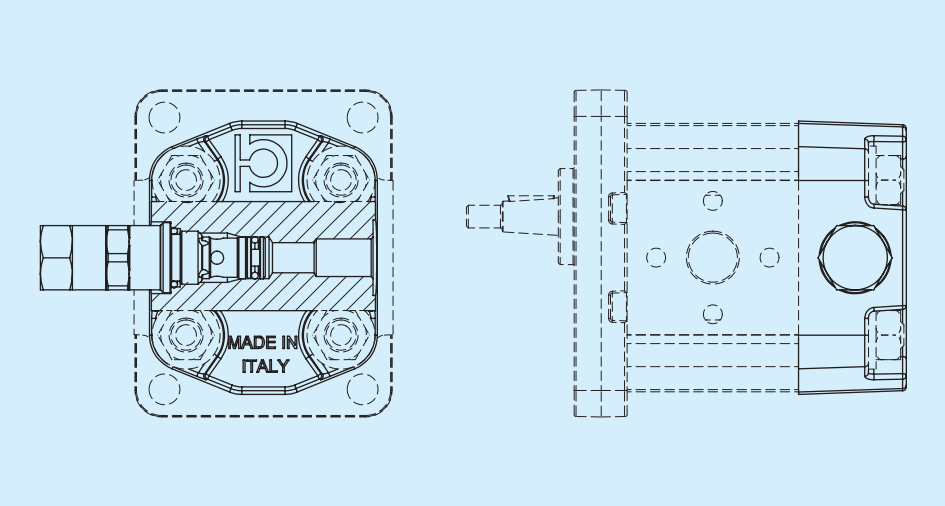
Coperchi con valvole

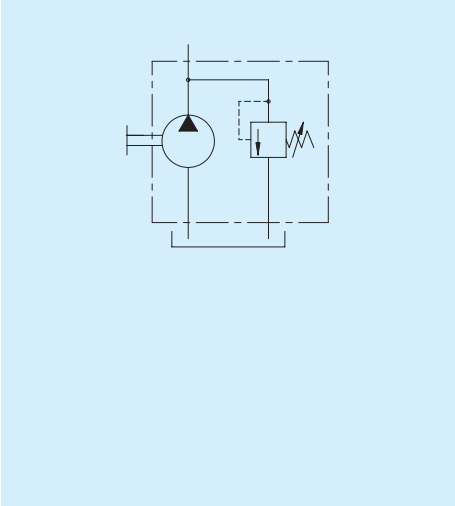
VD Valvola di max pressione regolabile scarico interno





VE Valvola di max pressione regolabile scarico esterno





Per maggiori informazioni rivolgersi all'ufficio tecnico commerciale

Per le valvole di massima pressione indicare il valore di taratura

Istruzioni per l'ordinazione

HPL..1	1 2 3	4 5	6	7 8	9 10	11 12	13	14 15

1 2 3 — Serie

PA1	Pompa a ingranaggi Gruppo 1	**MA1**	Motore a ingranaggi Gruppo 1

4 5 — Cilindrata

14	**31**	**48**	**80**
19	**36**	**60**	
24	**44**	**70**	

6 — Senso di rotazione

S	Antioraria/sinistra	**D**	Oraria/destra	**H**	Bidirezionale drenaggio interno	**B**	Bidirezionale drenaggio esterno posteriore

7 8 — Flange anteriori - Alberi

DD	Europea D25,4 - Conico (1:8)	**DT**	Europea D25,4 - Conico high torque (1:8)	**GG**	Tedesca - Conico (1:5)	**JI**	SAE AA - Scanalato SAE AA
DE	Europea D25,4 - Cilindrico europeo	**ED**	Europea D30 - Conico (1:8)	**GJ**	Tedesca - Dente frontale sporgente no giunto		
DH	Europea D25,4 - Scanalato DIN 5482	**EE**	Europea D30 - Cilindrico europeo	**GK**	Tedesca - Dente frontale		
DJ	Europea D25,4 - Dente frontale sporgente	**ET**	Europea D30 - Conico high torque (1:8)	**JF**	SAE AA - Cilindrico SAE AA		

Supporti integrati

I5	Flangia Europea - Cilindrico D18

Supporti esterni

C1	Centraggio D50,80 - Conico (1:8)	**C2**	Centraggio D50,80 - Cilindrico D18

9 10 — Bocche IN - Entrata

...	Vedi tabelle Bocche e Combinazioni

11 12 — Bocche OUT - Uscita

...	Vedi tabelle Bocche e Combinazioni

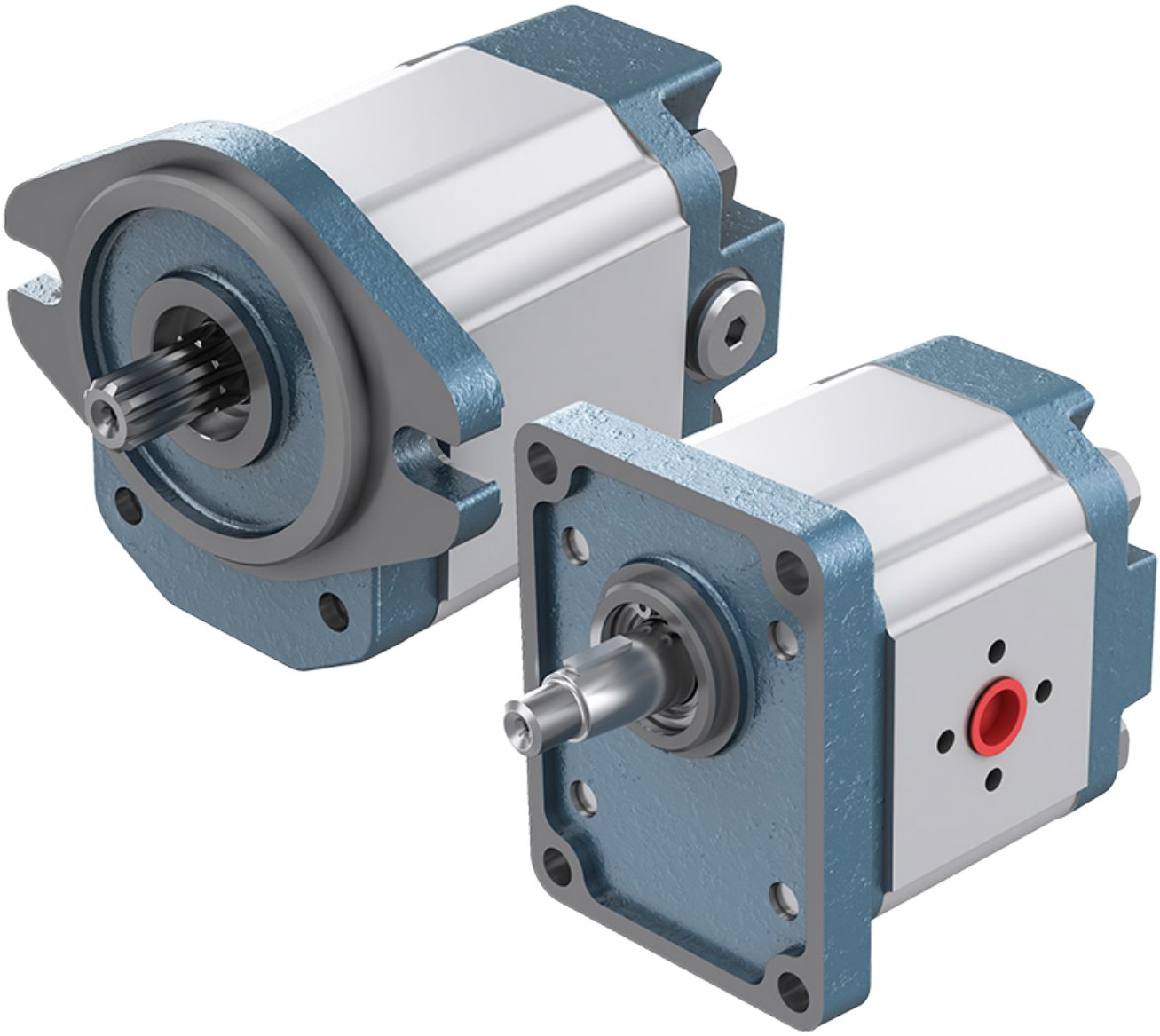
13 — Guarnizioni

B	NBR Pompa	**R**	NBR Motore / Pompa bid. Pompa alta pressione	**V**	Viton Pompa	**W**	Viton Motore / Pompa bid. Pompa alta pressione

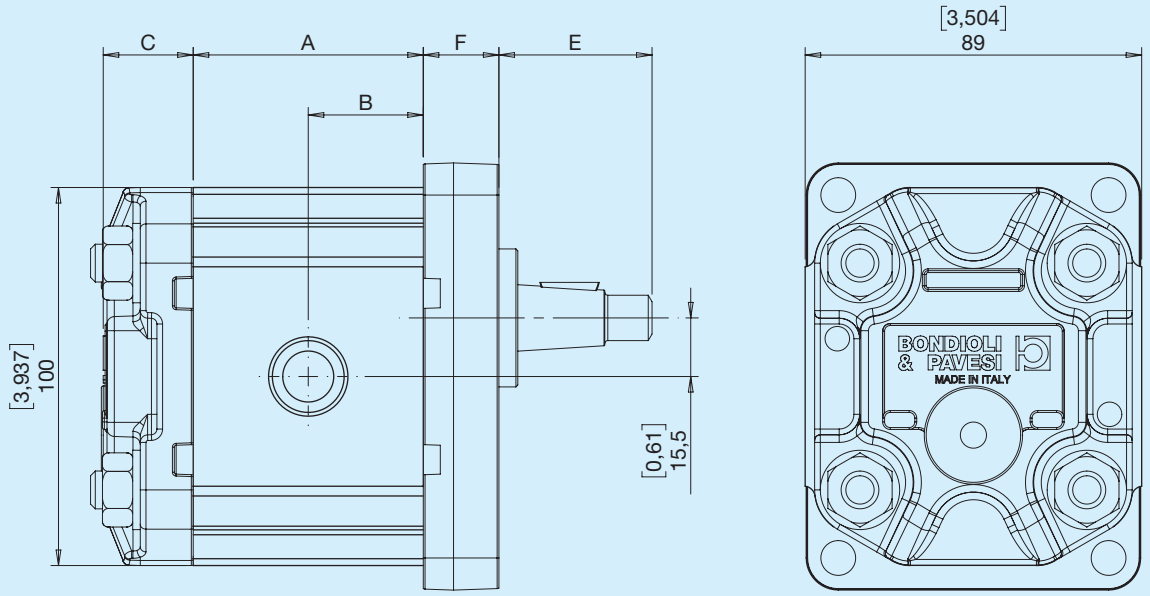
14 15 — Coperchi

ST	Standard	**VB**	Valvola di max pressione taratura fissa scarico interno	**VD**	Valvola di max pressione regolabile scarico interno
VA	Valvola unidirezionale	**VC**	Valvola di max pressione taratura fissa scarico esterno	**VE**	Valvola di max pressione regolabile scarico esterno

Serie HPL Gruppo 2

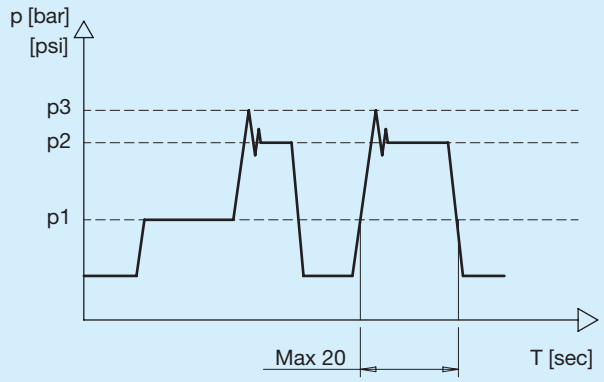


Prima di iniziare l'utilizzo leggere attentamente il documento ISTRUZIONI GENERALI D'IMPIEGO POMPE E MOTORI A INGRANAGGI.



C - Vedi sezione coperchi E - Vedi sezione alberi F - Vedi sezione flange

Definizione delle pressioni



p1	Pressione Continua
p2	Pressione intermittente Massima pressione permessa per brevi periodi (max 20 sec)
p3	Pressione di picco Massima pressione permessa intesa come picco di pressione della Vmax

Dimensioni e dati tecnici

Dimensioni e dati tecnici pompe

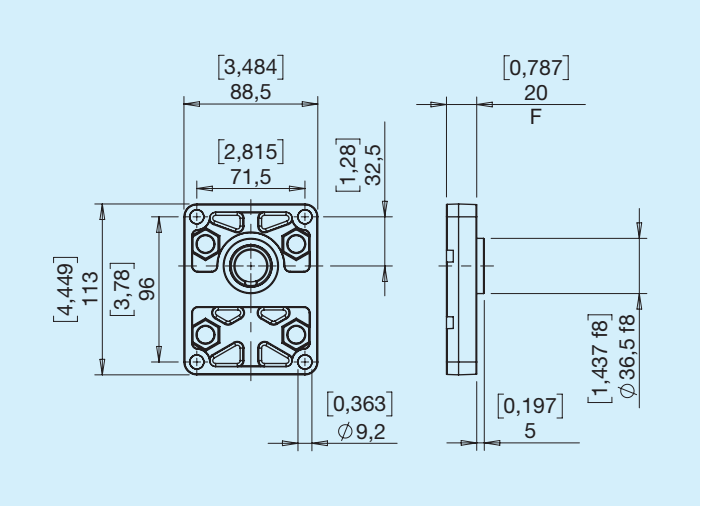
HPLPA 2	Cilindrata teorica		Pressione Continua		Pressione intermittente		Pressione picco		Velocità di rotazione		Massa		A		B	
	cm³	**in³**	**bar**	**psi**	**bar**	**psi**	**bar**	**psi**	**MAX min⁻¹**	**MIN min⁻¹**	**kg**	**lbs**	**mm**	**in**	**mm**	**in**
05	4,50	0,27	240	3481	260	3771	300	4351	3500	700	2,30	5,07	49,15	1,935	24,6	0,968
06	6,00	0,37	240	3481	260	3771	300	4351	3500	700	2,40	5,29	51,85	2,041	25,9	1,021
08	8,50	0,52	230	3336	250	3626	280	4061	3500	700	2,40	5,29	56,35	2,219	28,2	1,109
11	11,00	0,67	230	3336	250	3626	280	4061	3500	700	2,40	5,29	60,85	2,396	30,4	1,198
14	14,50	0,88	230	3336	250	3626	280	4061	3500	700	2,80	6,17	67,25	2,648	33,6	1,324
17	17,00	1,04	230	3336	250	3626	280	4061	3500	700	2,80	6,17	71,75	2,825	35,9	1,412
20	19,50	1,19	200	2901	220	3191	250	3626	3500	700	2,80	6,17	76,25	3,002	38,1	1,501
26	26,00	1,59	180	2611	190	2756	210	3046	3000	700	3,10	6,83	88,55	3,486	44,3	1,743
34	34,00	2,07	150	2175	170	2466	190	2756	3000	700	3,40	7,50	102,55	4,037	51,3	2,019
40	40,50	2,47	140	2031	160	2321	180	2611	2500	700	3,60	7,94	115,07	4,530	57,5	2,265

Dimensioni e dati tecnici motori

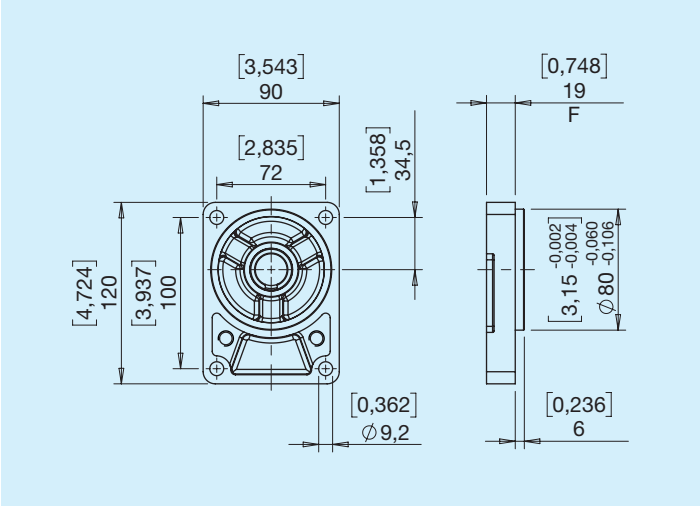
HPLMA 2	Cilindrata teorica		Pressione Continua		Pressione intermittente		Pressione picco		Velocità di rotazione		Massa		A		B	
	cm³	**in³**	**bar**	**psi**	**bar**	**psi**	**bar**	**psi**	**MAX min⁻¹**	**MIN min⁻¹**	**kg**	**lbs**	**mm**	**in**	**mm**	**in**
06	6,00	0,37	240	3481	260	3771	300	4351	4000	700	2,40	5,29	51,85	2,041	25,9	1,021
08	8,50	0,52	230	3336	250	3626	280	4061	4000	700	2,40	5,29	56,35	2,219	28,2	1,109
11	11,00	0,67	230	3336	250	3626	280	4061	4000	700	2,40	5,29	60,85	2,396	30,4	1,198
14	14,50	0,88	230	3336	250	3626	280	4061	4000	700	2,80	6,17	67,25	2,648	33,6	1,324
17	17,00	1,04	230	3336	250	3626	280	4061	4000	700	2,80	6,17	71,75	2,825	35,9	1,412
20	19,50	1,19	200	2901	220	3191	250	3626	4000	700	2,80	6,17	76,25	3,002	38,1	1,501
26	26,00	1,59	180	2611	190	2756	210	3046	3400	700	3,10	6,83	88,55	3,486	44,3	1,743

Flange in alluminio

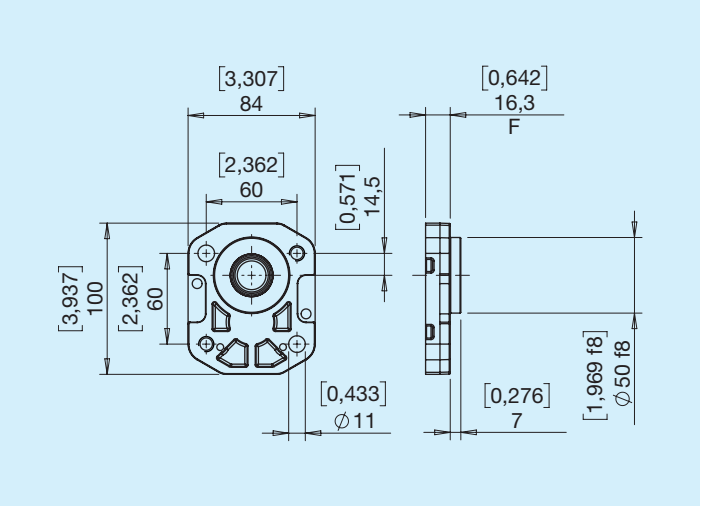
M Europea



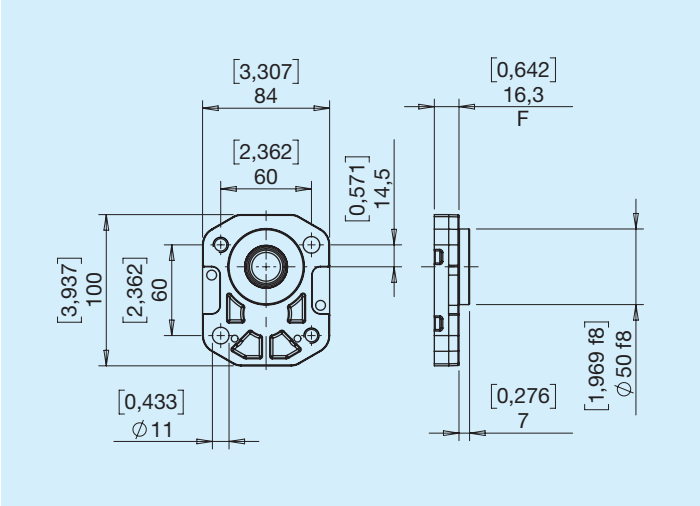
N Tedesca



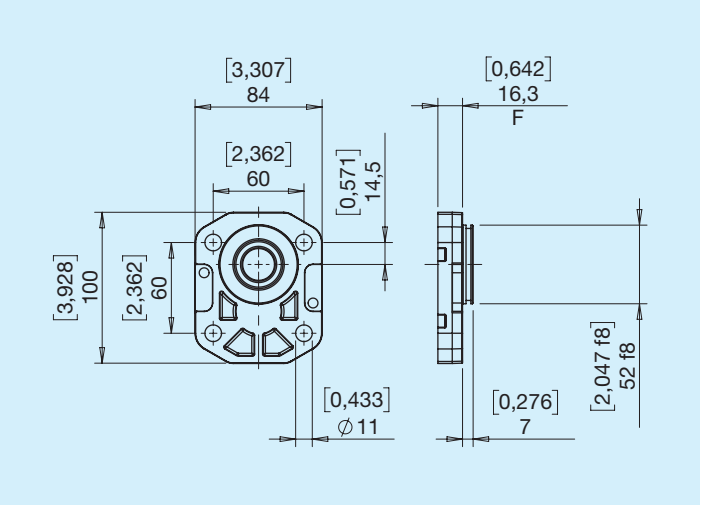
O Tedesca D50 2 fori DX



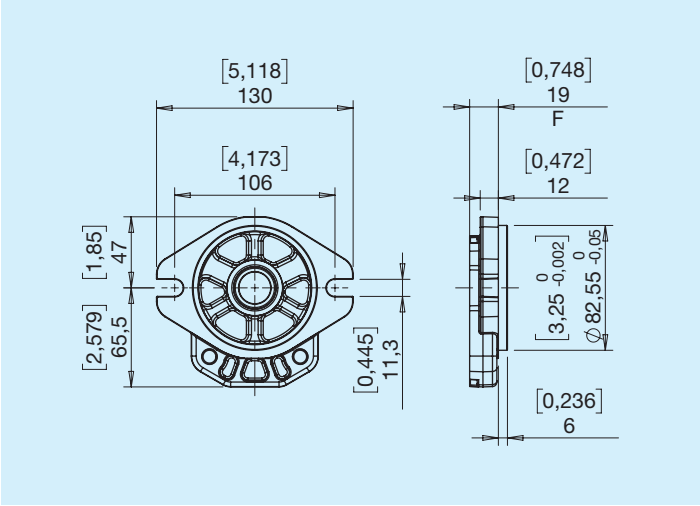
P Tedesca D50 2 fori SX



R Tedesca D52



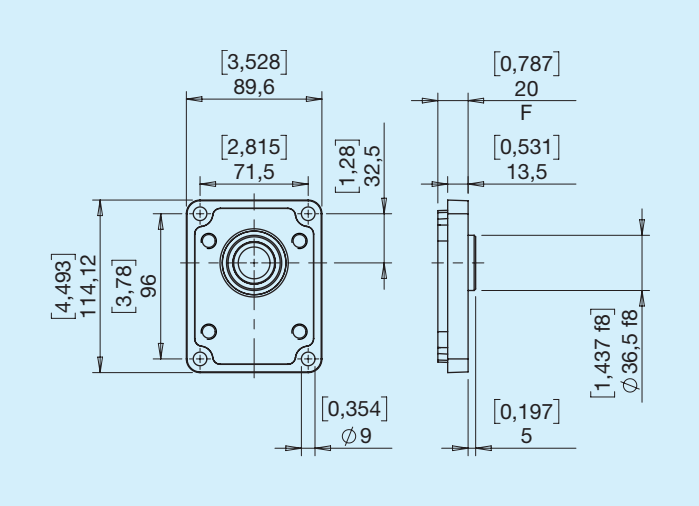
S SAE A 2 fori



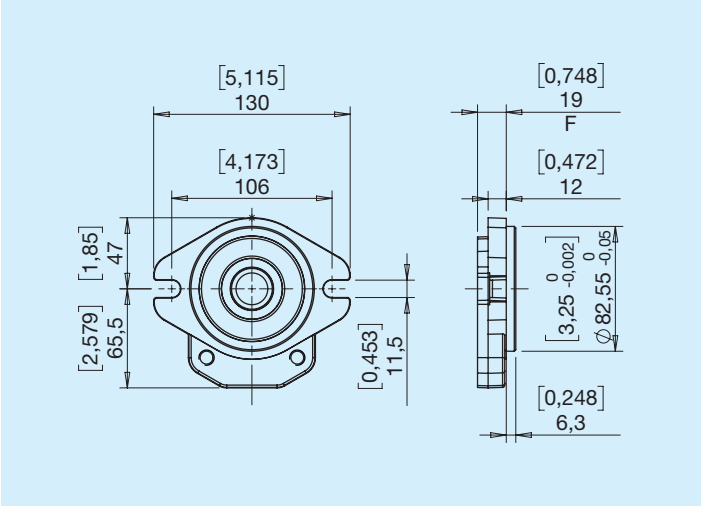
BONDIOLI & PAVESI
HP Hydraulic

Flange in ghisa

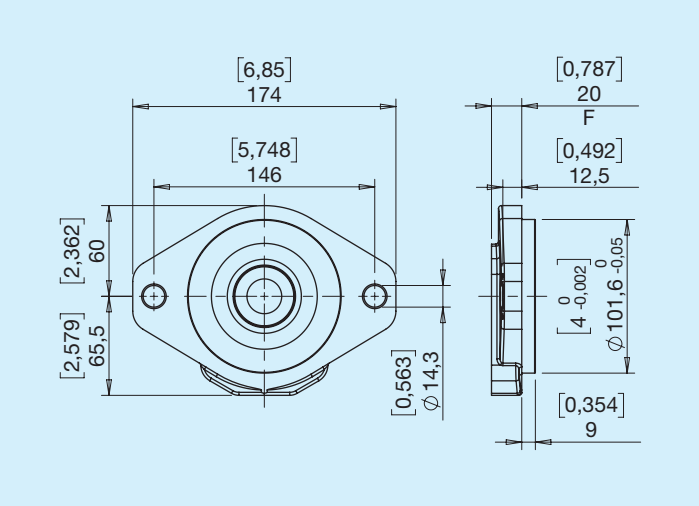
L Europea



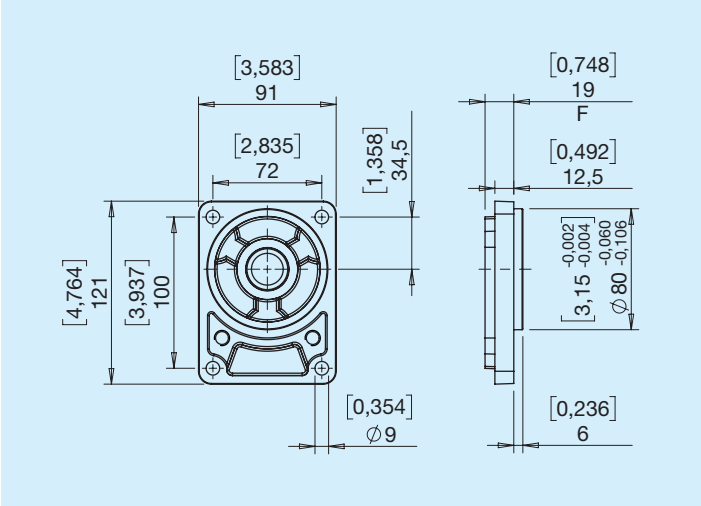
Q SAE A 2 fori



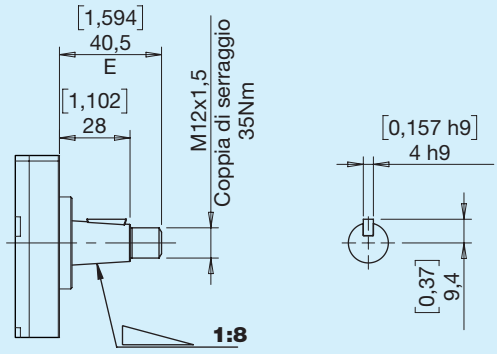
T SAE B 2 fori



V Tedesca

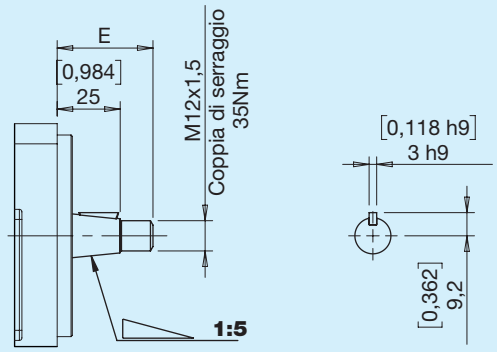


L Conico (1:8)



Coppia Max 140 Nm

M Conico (1:5)

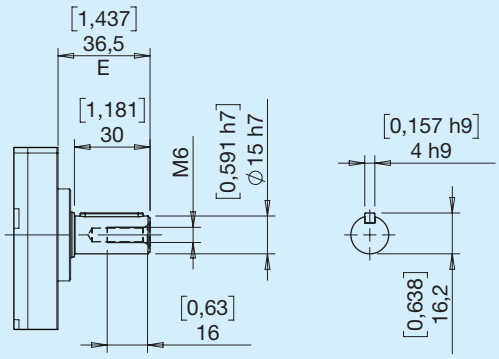


Coppia Max 120 Nm

Tabella sporgenza albero M

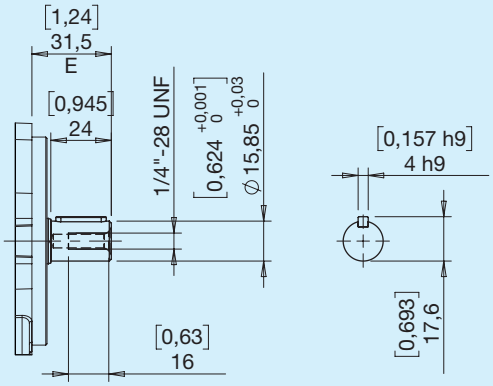
	Flange			
	mm	in	mm	in
E **mm**	19	0.75	50.8	2

N Cilindrico D15 europeo



Coppia Max 65 Nm

P Cilindrico SAE A

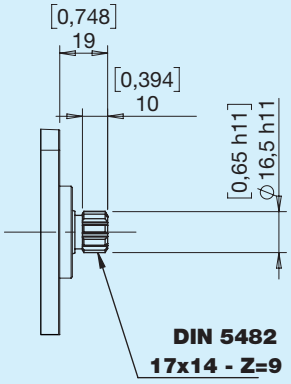


Coppia Max 70 Nm

BONDIOLI & PAVESI HP Hydraulic

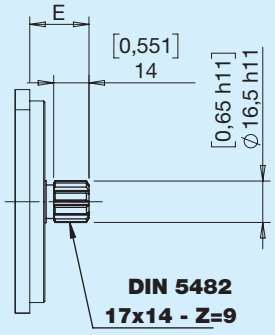
U Scanalato DIN 5482

Albero U Versione standard



Coppia Max 80 Nm

Albero U per flangia tedesca

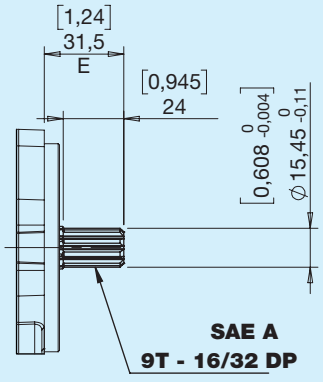


Coppia Max 110 Nm

Tabella sporgenza albero U per Flangia Tedesca

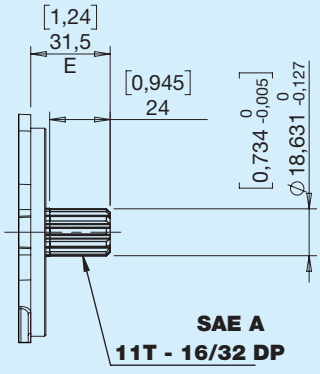
	Flange			
	mm	in	mm	in
N6	19	0.75	50.8	2

V Scanalato SAE A 9T



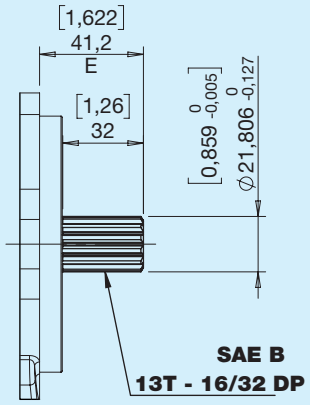
Coppia Max 120 Nm

X Scanalato SAE A 11T



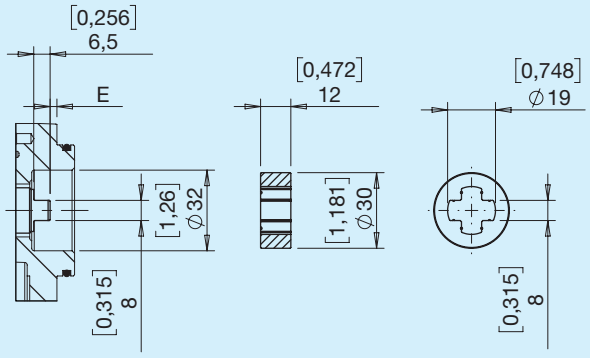
Coppia Max 160 Nm

Y Scanalato SAE B 13T



Coppia Max 310 Nm

Z Dente frontale



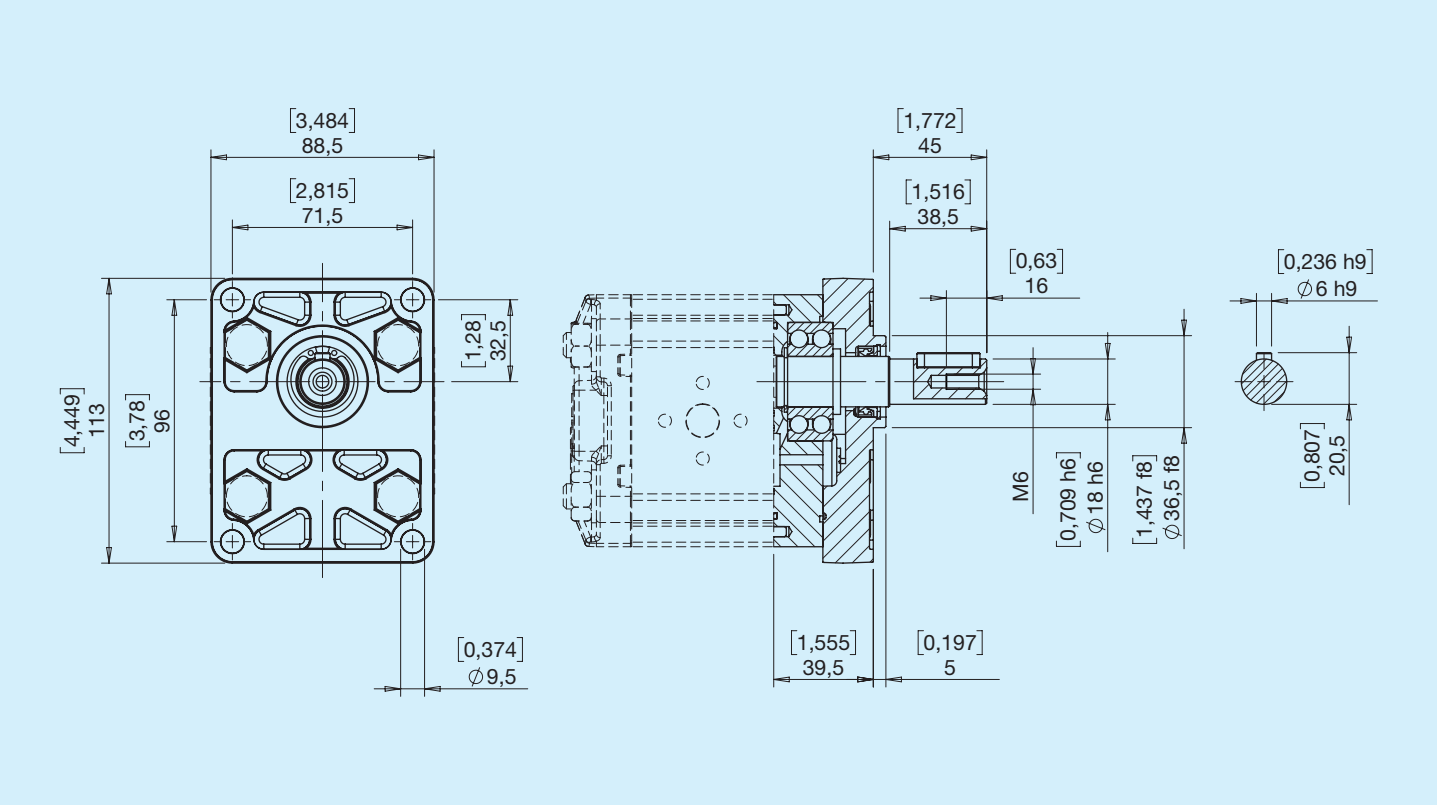
Coppia Max 70 Nm

Combinazioni Albero Flangia

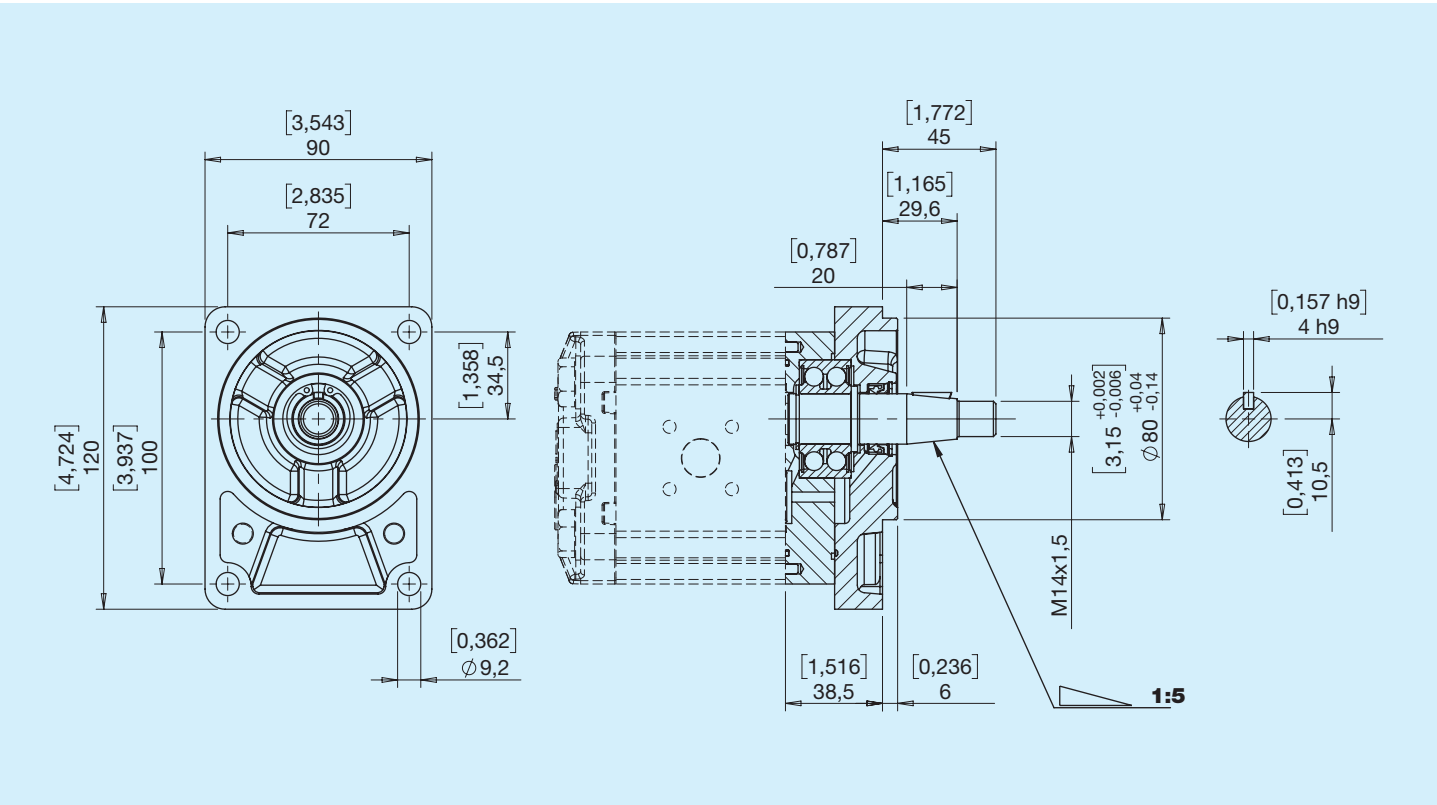
Alberi	Flange									
	M	L	N	V	O	P	R	S	Q	T
L	•	•								
M			•	•	•	•				
N	•	•								
P								•	•	
U	•	•	•	•	•	•				
V								•	•	
X								•	•	
Y										•
Z							•			

Supporti integrati in alluminio

I1 Flangia standard Europea albero cilindrico D18



I2 Flangia Tedesca albero conico (1:5)



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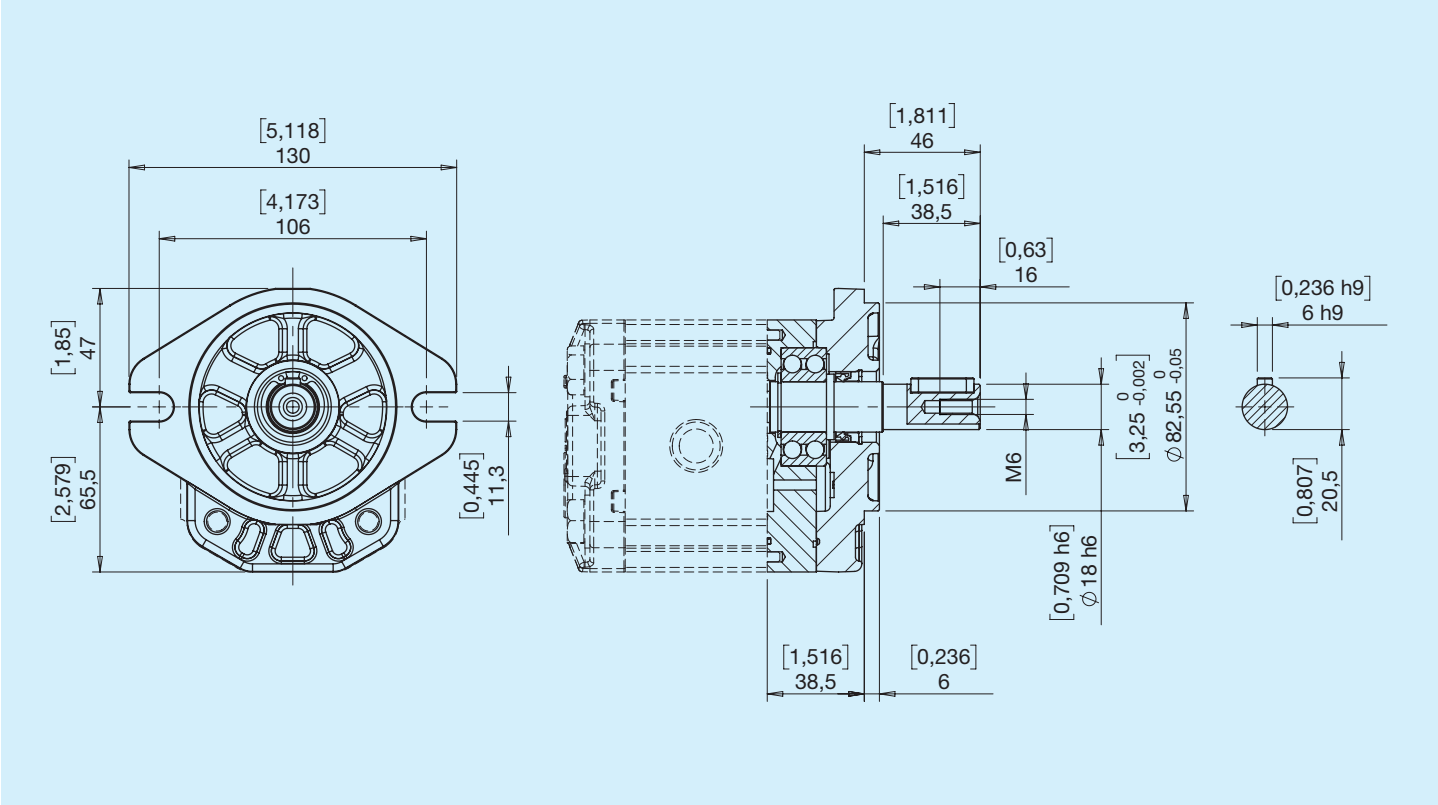
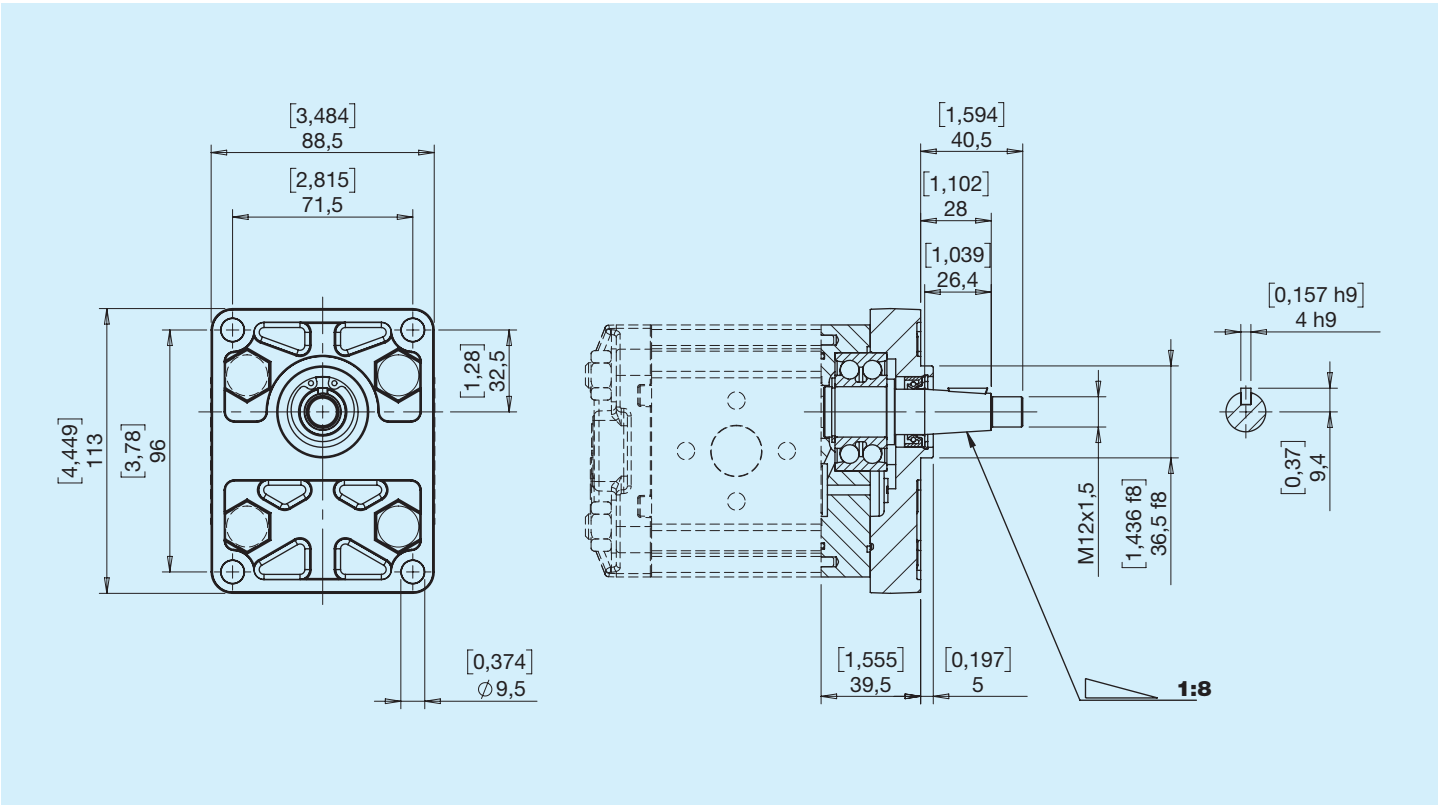
HP Hydraulic

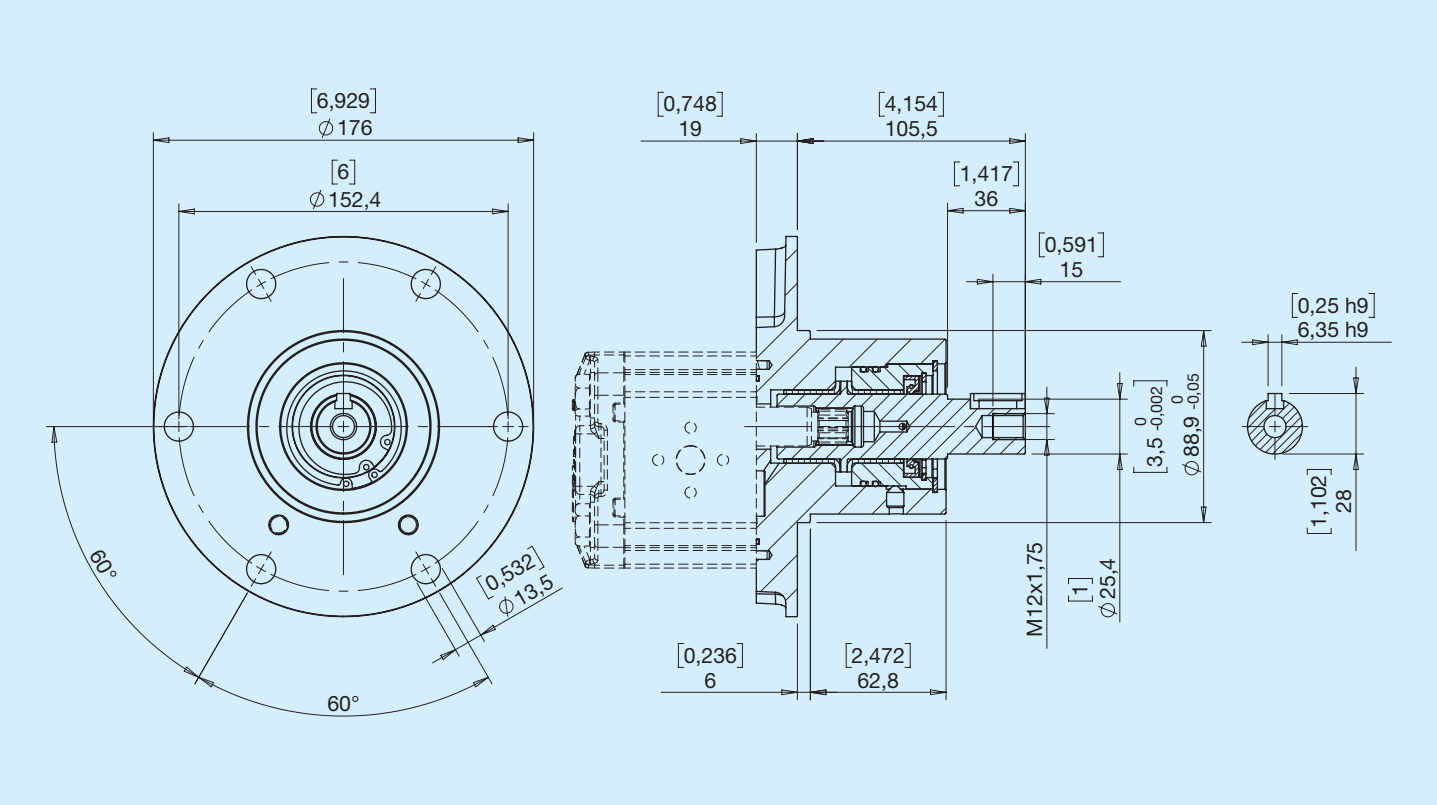
I3 Flangia standard SAE A albero cilindrico D18



I7 Flangia standard Europea albero conico (1:8)

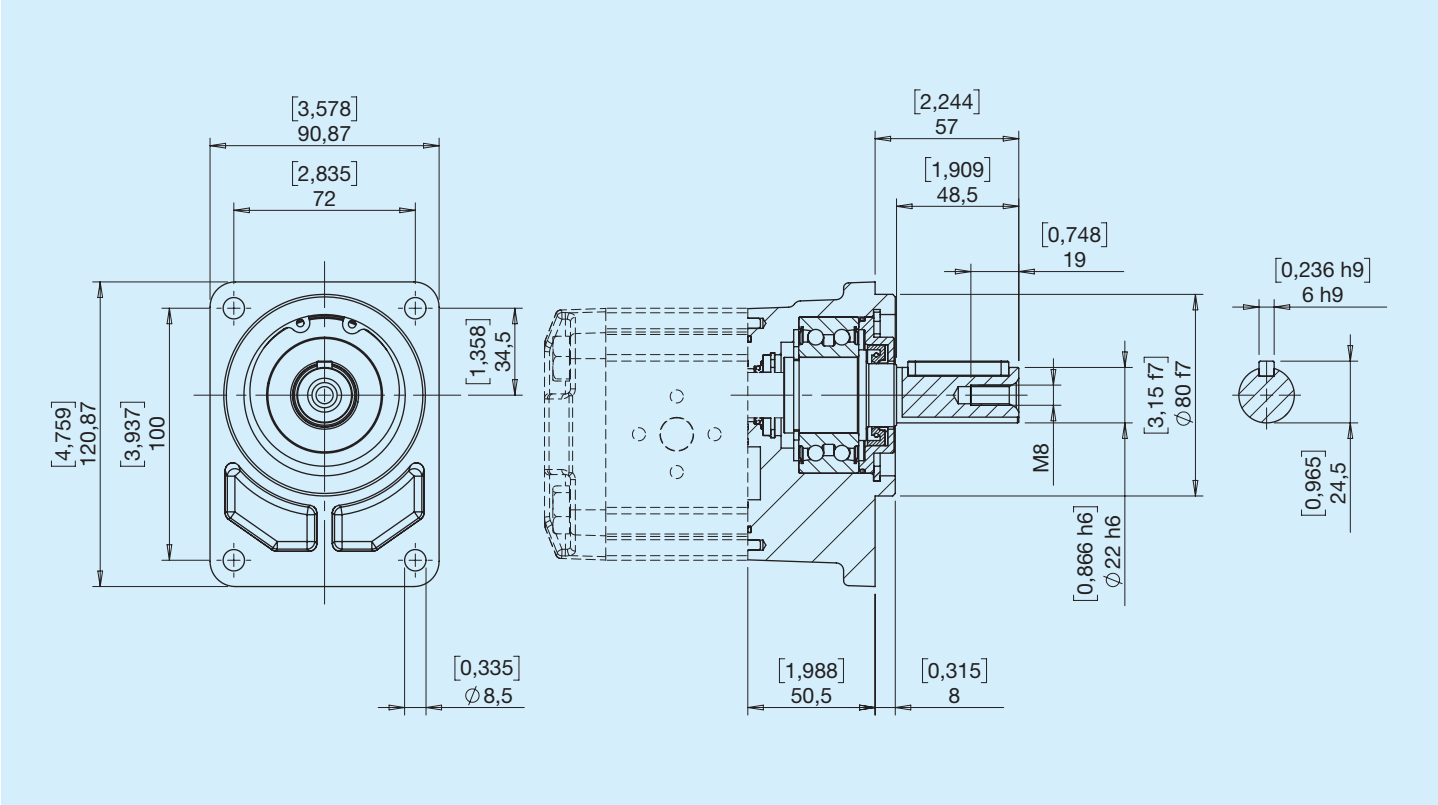


IS Flangia speciale albero cilindrico D25,40

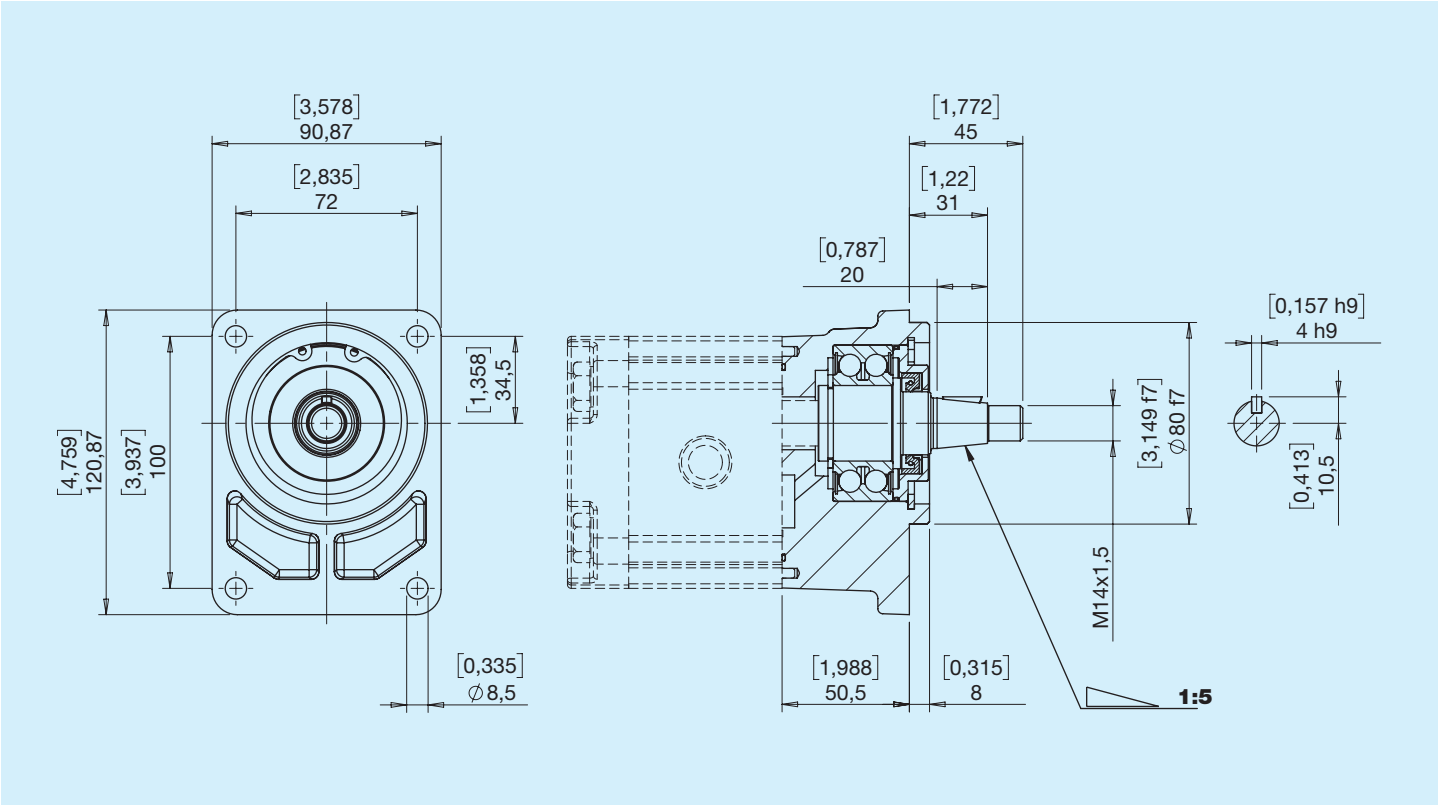


I supporti integrati I1 - I2 - I3 - I7 sono disponibili in ghisa. Per maggiori informazioni rivolgersi all'ufficio tecnico commerciale.

IB Flangia Tedesca albero cilindrico D22

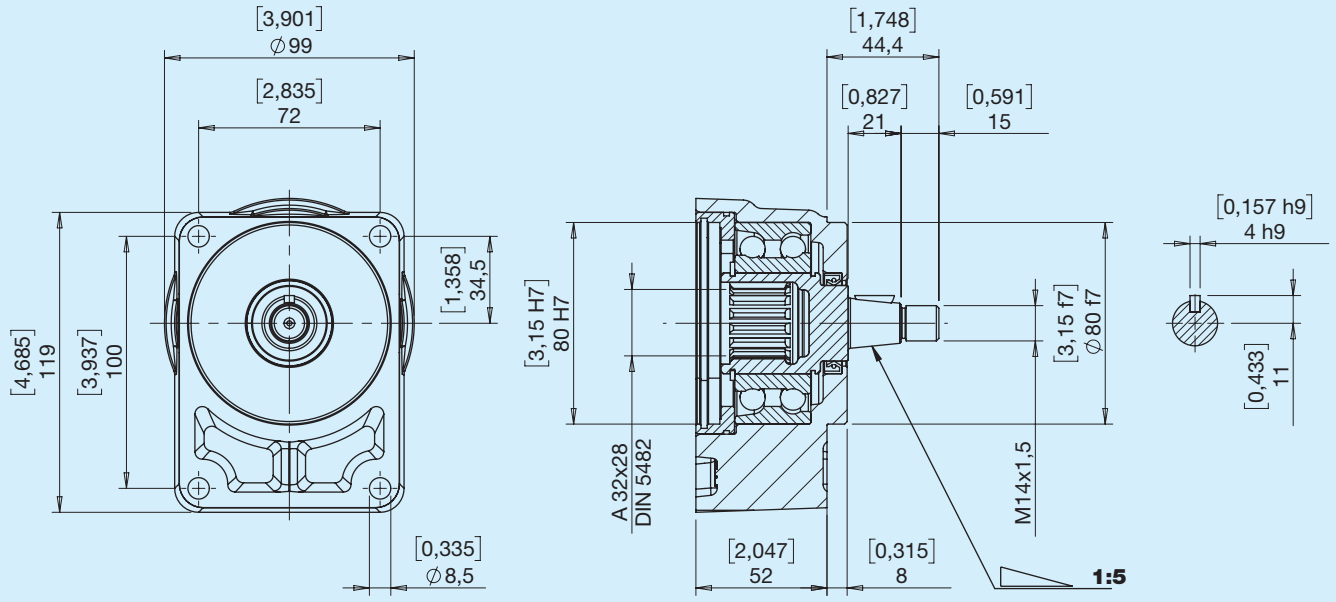


IC Flangia Tedesca albero conico (1:5)



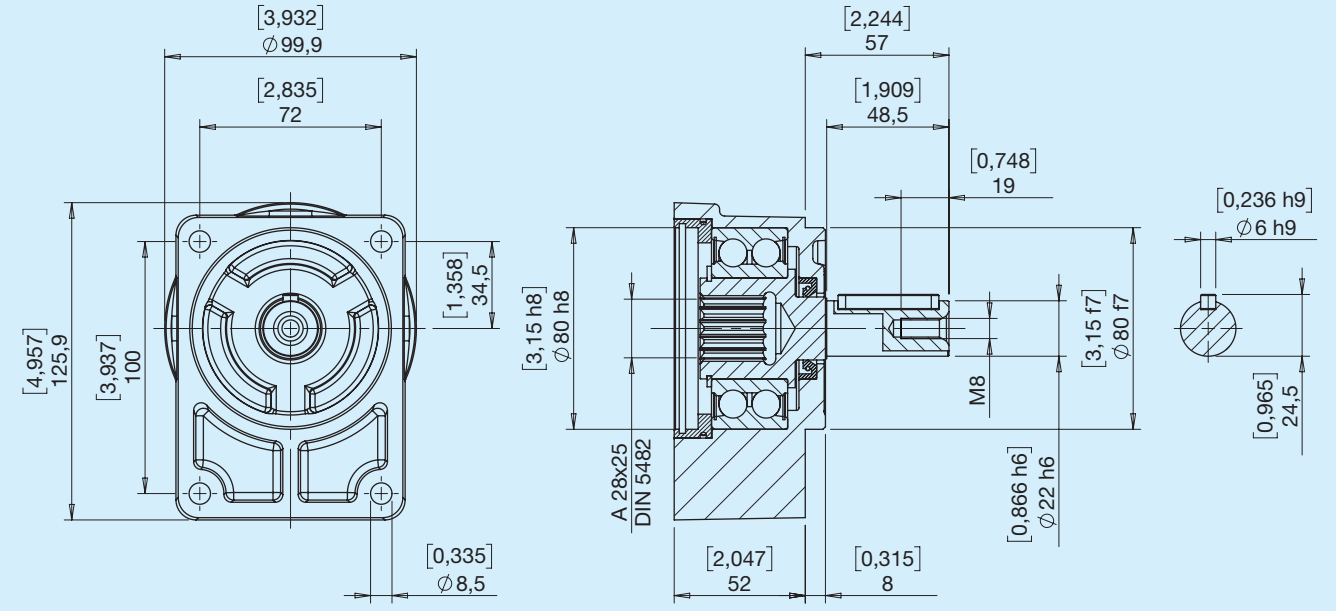
Supporti esterni in alluminio

B1 Centraggio D80 albero conico (1:5)



Ordinabile separatamente Cod. HPL5922B1R

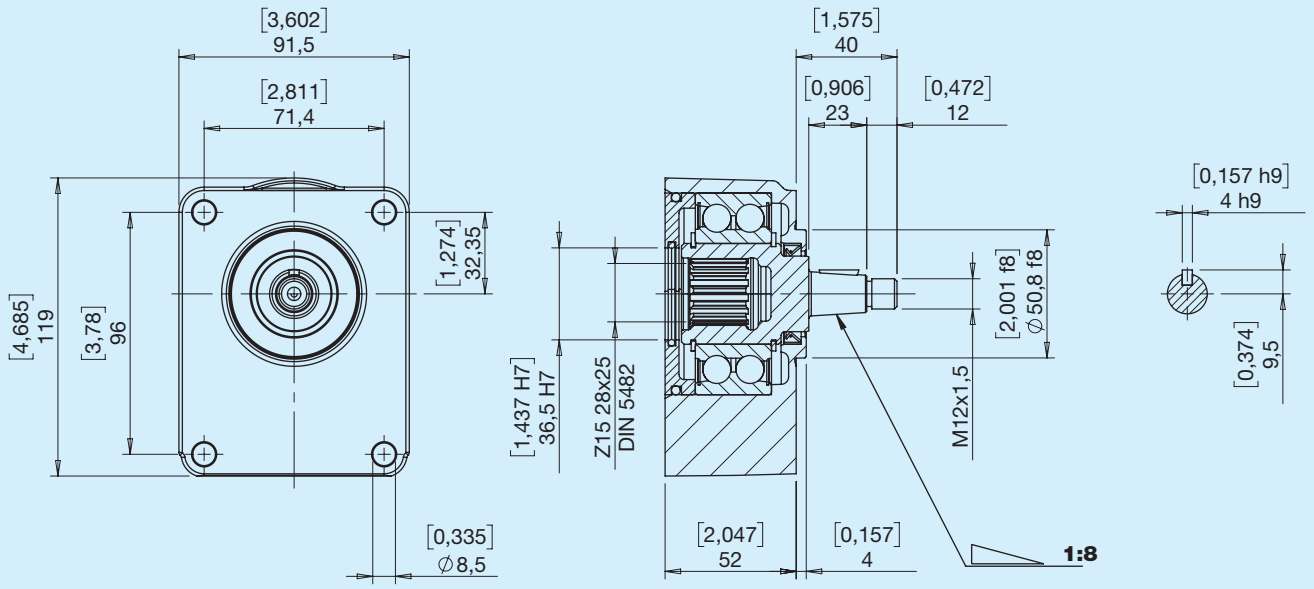
B3 Centraggio D80 albero cilindrico D22



Ordinabile separatamente Cod. HPL5922B3R

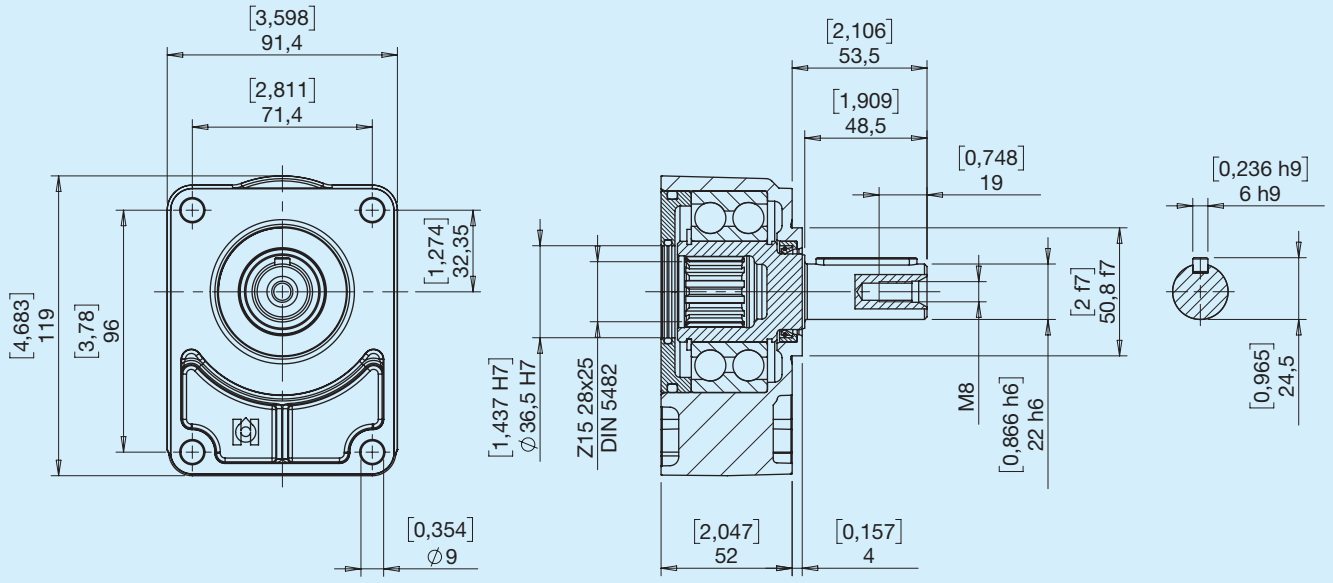
BONDIOLI & PAVESI
HP Hydraulic

C3 Centraggio D50,80 albero conico (1:8)



Ordinabile separatamente Cod. HPL5922C3R

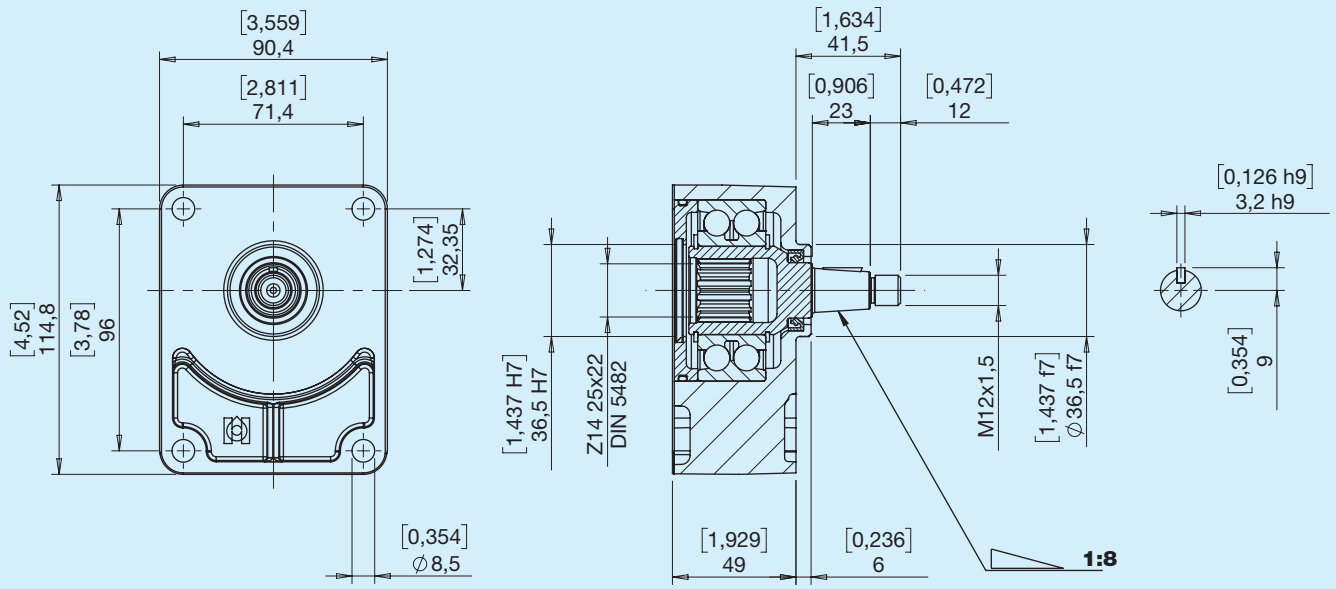
C4 Centraggio D50,80 albero cilindrico D22



Ordinabile separatamente Cod. HPL5922C4R

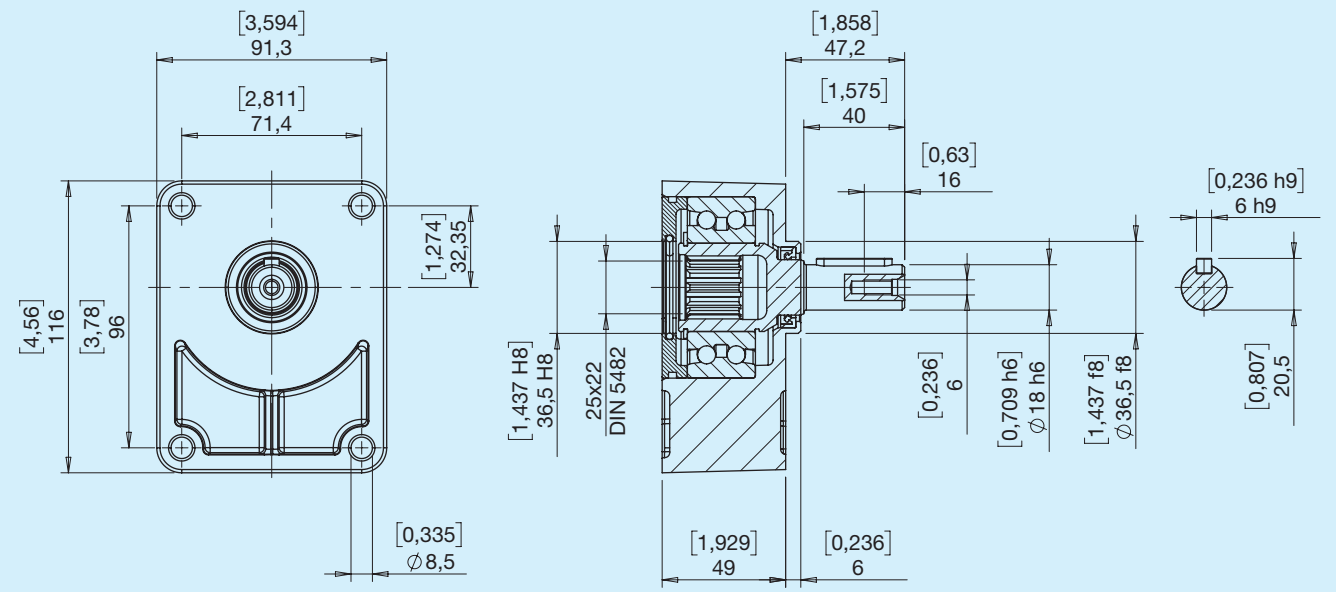
Supporti esterni in alluminio

C5 Centraggio D36,50 albero conico (1:8)



Ordinabile separatamente Cod. HPL5922C5R

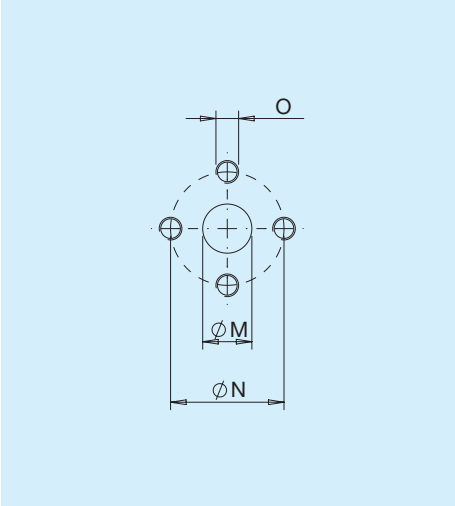
C6 Centraggio D36,50 albero cilindrico D18



Ordinabile separatamente Cod. HPL5922C6R

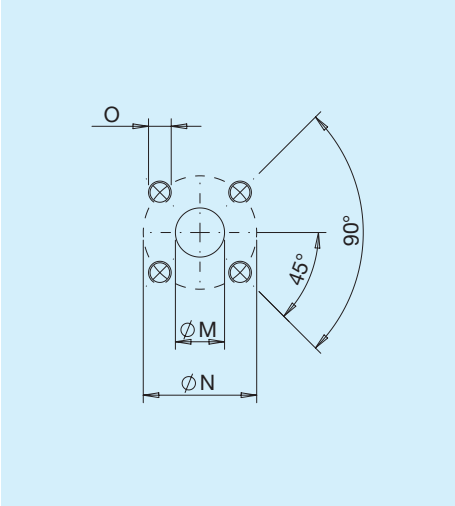
BONDIOLI & PAVESI
HP Hydraulic

E Laterale



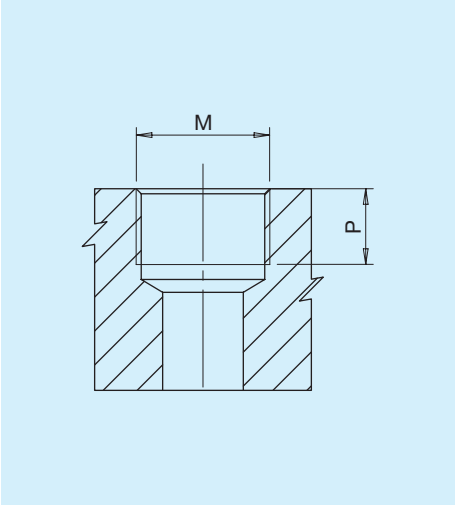
Tipo	M		N		O	
	mm	**in**	**mm**	**mm**		**Nm**
E3	13	0,51	30	1,18	M6	10
E5	20	0,79	40	1,57	M8	15

X Laterale



Tipo	M		N		O	
	mm	**in**	**mm**	**mm**		**Nm**
X4	15	0,59	35	1,38	M6	10
X5	15	0,59	40	1,57	M6	10
X6	20	0,79	40	1,57	M6	10
X8	27	1,06	55	2,17	M8	15

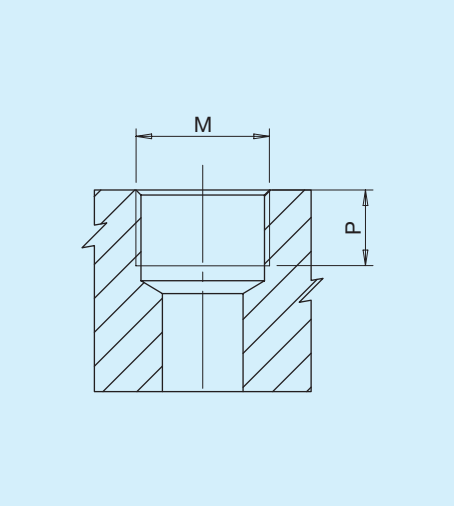
G Laterale / Drenaggio



Tipo	M		P	
		Nm	**mm**	**in**
G3*	PORT ISO 1179-1-G 3/8	38	12	0,47
G4	PORT ISO 1179-1-G 1/2	50	16	0,63
G6	PORT ISO 1179-1-G3/4	90	19	0,75
G7	PORT ISO 1179-1-G 1	130	19	0,75

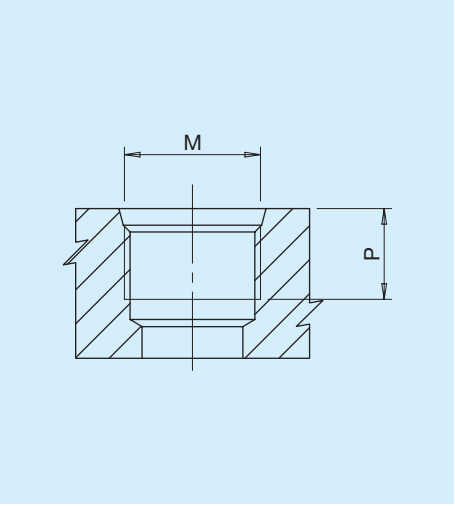
*Drenaggio

T Posteriore



Tipo	M		P	
		Nm	**mm**	**in**
T4	PORT ISO 1179-1-G 1/2	50	16	0,63
T6	PORT ISO 1179-1-G3/4	90	19	0,75

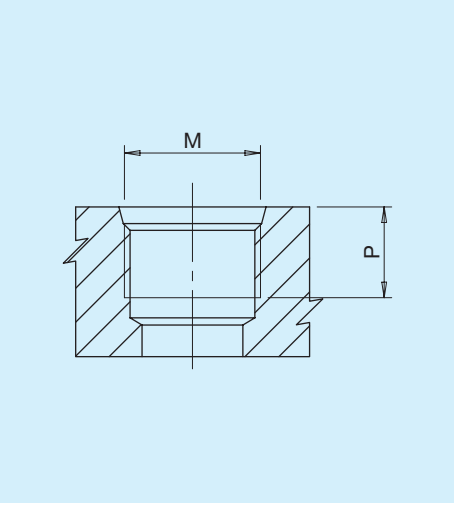
U Laterale / Drenaggio



Tipo	Dim.	M		P	
			Nm	**mm**	**in**
U3*	3/8'	PORT ISO 11926-1 - 9/16-18	25	13	0,51
U5	5/8'	PORT ISO 11926-1 - 7/8-14	70	17	0,67
U6	3/4'	PORT ISO 11926-1 - 1 1/16-12	90	19	0,75
U7	1'	PORT ISO 11926-1 - 1 5/16-12	130	20	0,79

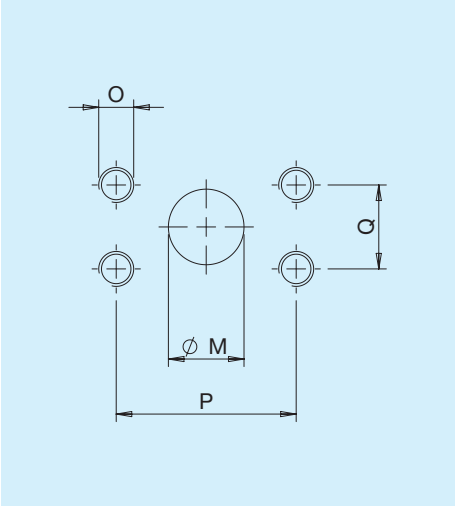
*Drenaggio

C Posteriore



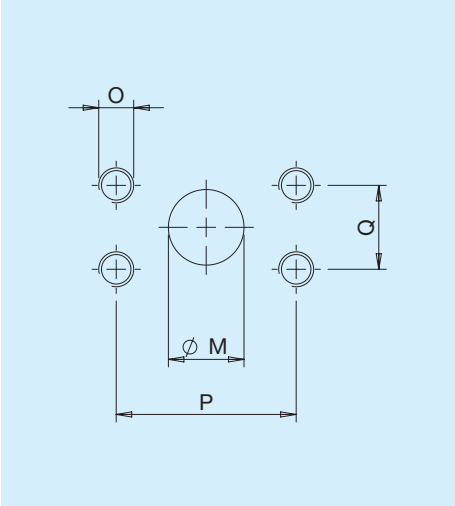
Tipo	Dim.	M		P	
			Nm	**mm**	**in**
C5	5/8'	PORT ISO 11926-1 - 7/8-14	70	17	0,67
C6	3/4'	PORT ISO 11926-1 - 1 1/16-12	90	19	0,75

N Laterale



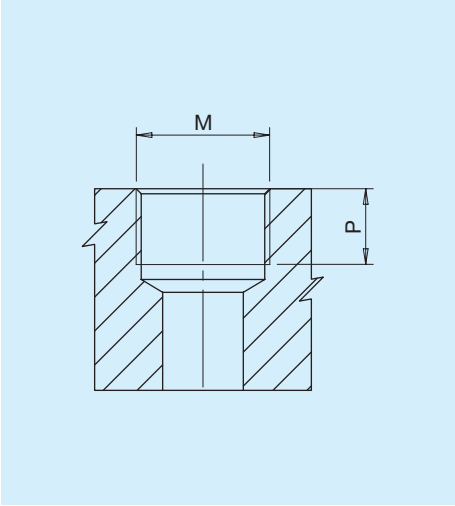
Tipo	Dim.	M		P		Q		O	
		mm	**in**	**mm**	**in**	**mm**	**in**		**Nm**
N4	1/2'	13	0,51	38,1	1,49	17,5	0,68	5/16-18 UNC-2B	17
N6	3/4'	20	0,79	47,6	1,87	22,2	0,87	3/8-16 UNC-2B	38
N7	1'	27	1,06	52,4	2,60	26,2	1,03	3/8-16 UNC-2B	38

F Laterale



Tipo	Dim.	M		P		Q		O	
		mm	**in**	**mm**	**in**	**mm**	**in**		**Nm**
F4	1/2'	13	0,51	38,1	1,49	17,5	0,68	M8	17
F6	3/4'	20	0,79	47,6	1,87	22,2	0,87	M10	38
F7	1'	25,4	1	52,4	2,60	26,2	1,03	M10	38

M Drenaggio



Tipo	M		P	
		Nm	**mm**	**in**
M2*	PORT ISO 6149 - 1 - M14x1,5	17	12	0,47

*Drenaggio

Combinazione Bocche Flange

Bocche	Flange									
	M	L	N	V	O	P	R	S	Q	T
E	•	•								
G	•	•						•	•	•
X			•	•	•	•	•			
U								•	•	•
F								•	•	•
N								•	•	•
C								•	•	•
T	•	•	•	•	•	•	•	•	•	•

Combinazione Bocche Cilindrate per Pompe/Motori unidirezionali

Bocche	Cilindrate				
	5 6 8	11	14 17 20	26	34 40
	Bocche IN/OUT	Bocche IN/OUT	Bocche IN/OUT	Bocche IN/OUT	Bocche IN/OUT
E	E3 E3	E3 E3	E5 E3	E5 E5	E5 E5
G	G4 G4	G4 G4	G6 G4	G6 G6	G7 G6
X	X5 X4	X6 X4	X6 X4	X6 X5	X8 X6
U	U6 U5	U6 U5	U6 U5	U6 U5	U7 U6
F	-	F4 F4	F6 F4	F7 F6	F7 F6
N	-	N4 N4	N6 N4	N7 N6	N7 N6
C	C6 C5	C6 C5	C6 C5	C6 C5	-
T	T6 T4	T6 T4	T6 T4	T6 T4	-

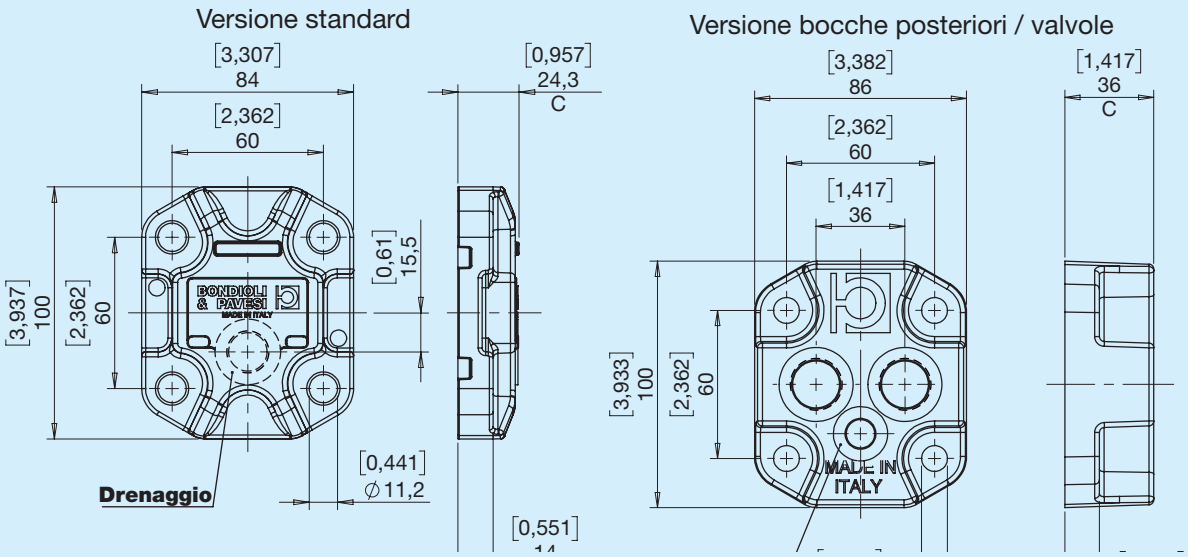
Combinazioni

Combinazione Bocche Cilindrate per Pompe/Motori bidirezionali

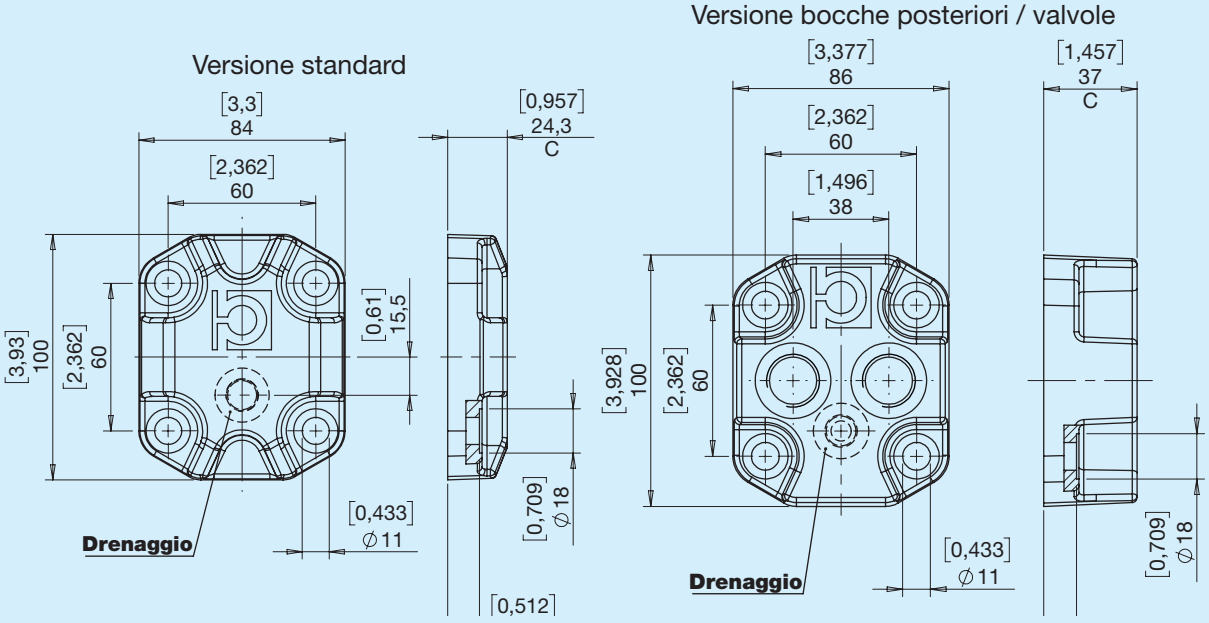
Bocche	Cilindrate 6 8 Bocche IN/OUT	11 Bocche IN/OUT	14 Bocche IN/OUT	17 20 Bocche IN/OUT	26 Bocche IN/OUT	Drenaggio
E	E3 E3	E3 E3	E5 E5	E5 E5	E5 E5	M2
G	G4 G4	G4 G4	G4 G4	G6 G6	G6 G6	G3
X	X4 X4	X4 X4	X4 X4	X6 X6	X6 X6	M2
U	U5 U5	U5 U5	U5 U5	U6 U6	U6 U6	U3
F	-	F4 F4	F4 F4	F6 F6	F6 F6	M2
N	-	N4 N4	N4 N4	N6 N6	N6 N6	U3
C	C5 C5	C5 C5	C5 C5	-	-	U3
T	T4 T4	T4 T4	T4 T4	-	-	G3

Altre combinazioni di bocche sono disponibili. Per maggiori informazioni rivolgersi all'ufficio tecnico commerciale.

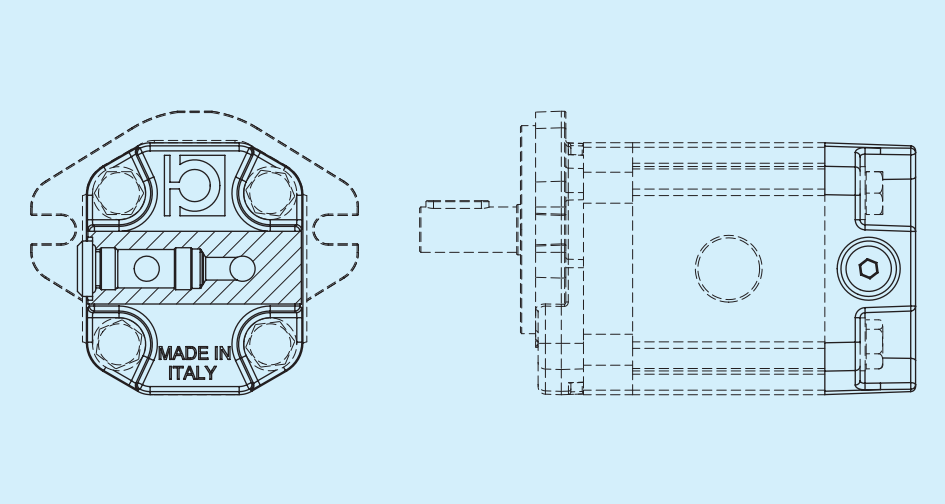
ST Alluminio

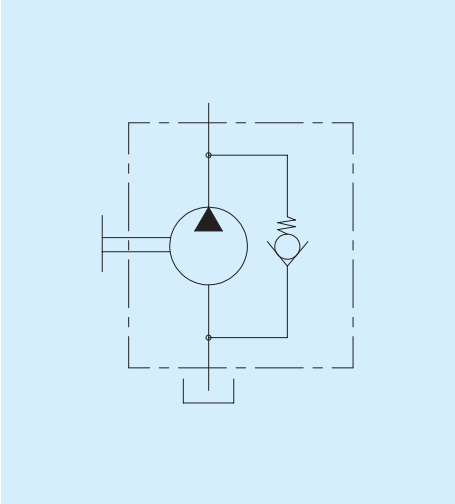


SG Ghisa

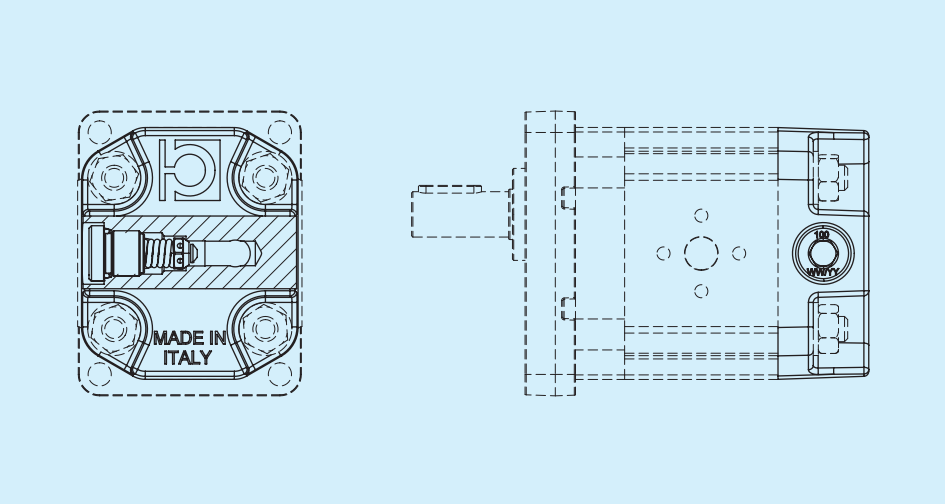


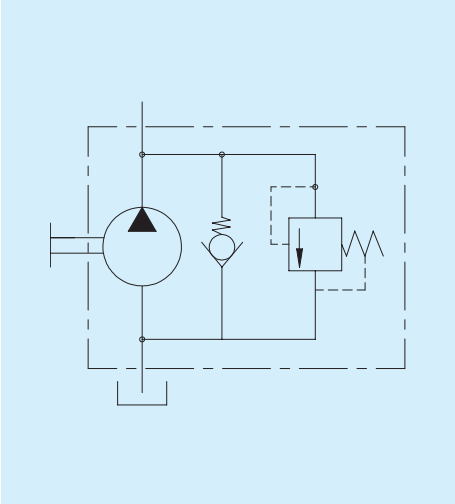
VA Valvola unidirezionale



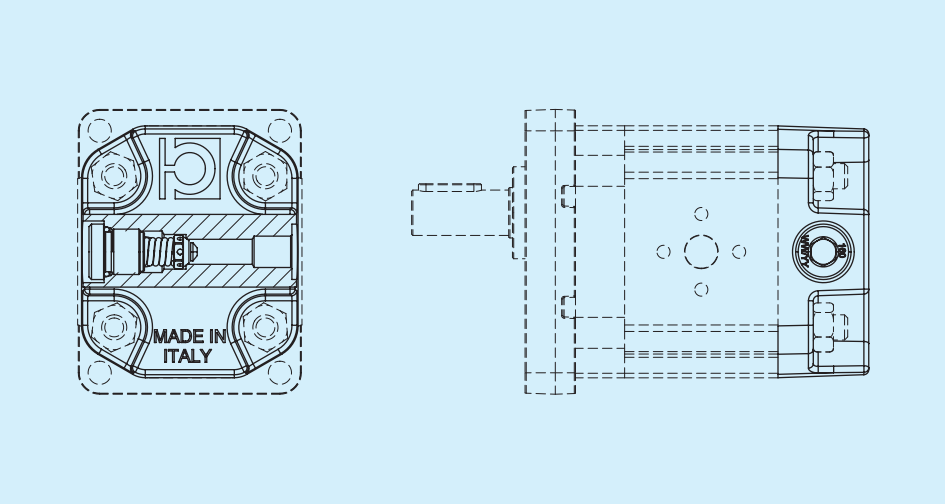


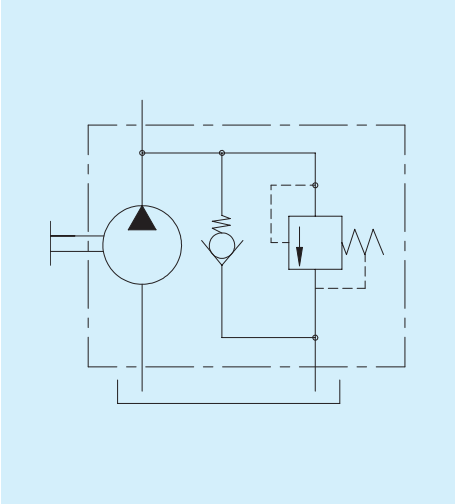
VB Valvola di max pressione taratura fissa scarico interno



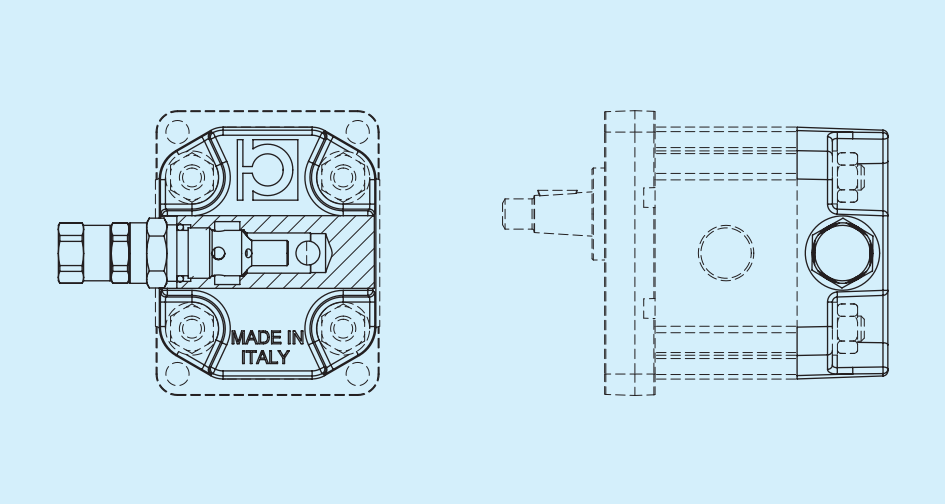


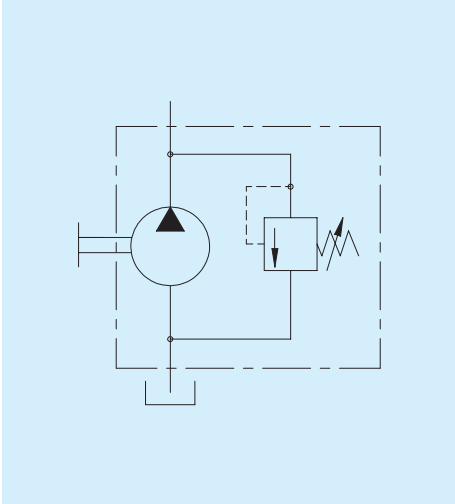
VC Valvola di max pressione taratura fissa scarico esterno



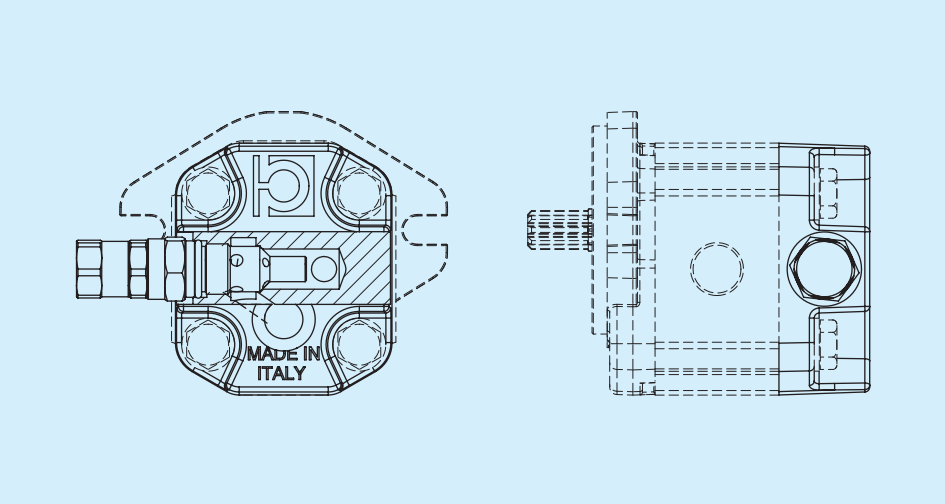


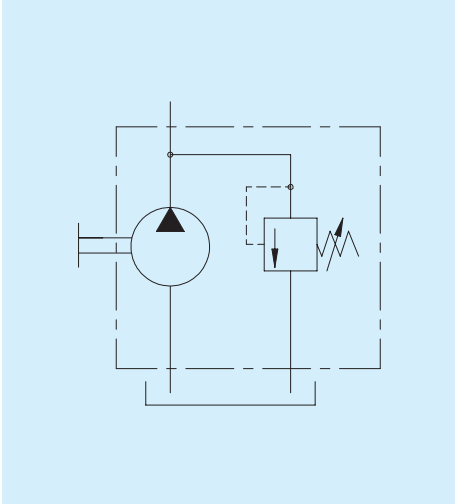
VD Valvola di max pressione regolabile scarico interno



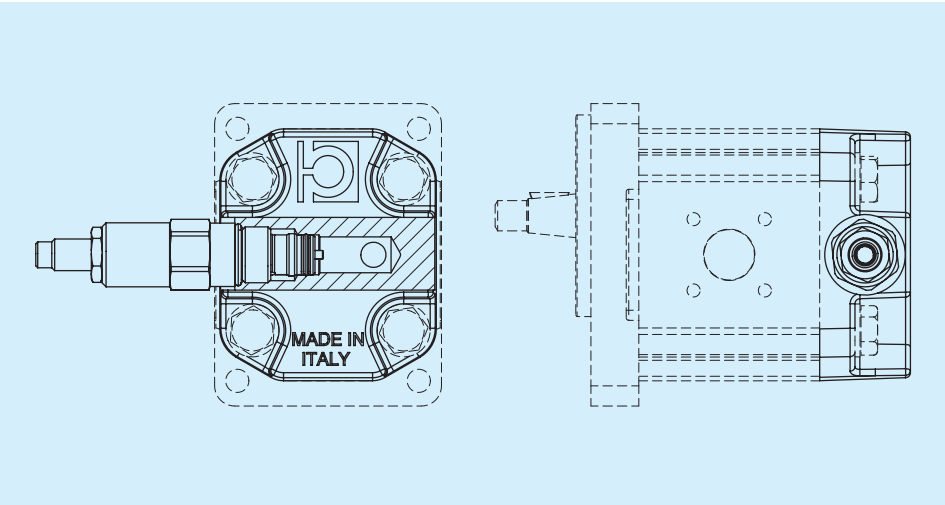


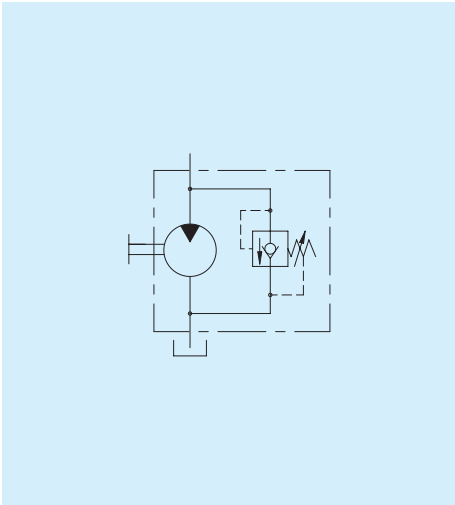
VE Valvola di max pressione regolabile scarico esterno



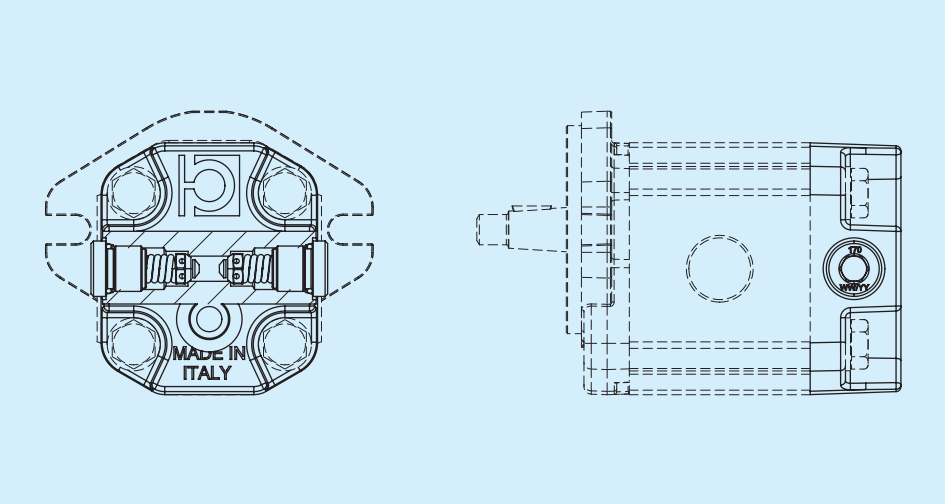


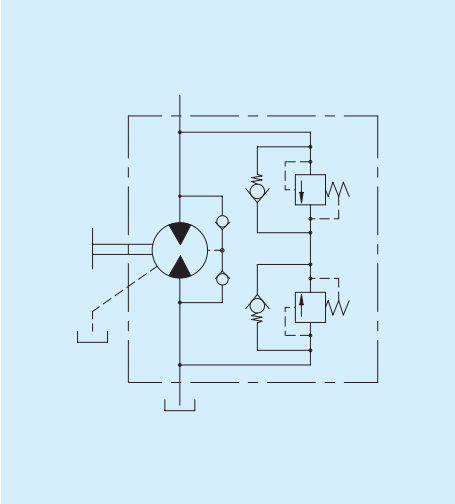
VT Valvola di max pressione regolabile scarico interno con anticavitazione





VV Doppia valvola di max pressione taratura fissa scarico interno e valvola anticavitazione drenaggio esterno





Per maggiori informazioni rivolgersi all'ufficio tecnico commerciale

Per le valvole di massima pressione indicare il valore di taratura

Istruzioni per l'ordinazione

HPL..2	1 2 3	4 5	6	7 8			9 10	11 12	13	14 15

1 2 3

Serie

PA2	Pompa a ingranaggi Gruppo 2	**MA2**	Motore a ingranaggi Gruppo 2

4 5

Cilindrata

05	**11**	**20**	**40**
06	**14**	**26**	
08	**17**	**34**	

6

Senso di rotazione

S	Antioraria/sinistra	**D**	Oraria/destra	**H**	Bidirezionale drenaggio interno (solo con flangia/ coperchio in ghisa)	**B**	Bidirezionale drenaggio esterno posteriore

7 8

Flange anteriori - Alberi

LL	Europea in ghisa - Conico (1:8)	**NM**	Tedesca - Conico (1:5)	**QP**	SAE A 2 fori in ghisa - Cilindrico SAE A	**SX**	SAE A 2 fori - Scanalato SAE A 11T
LN	Europea in ghisa - Cilindrico D15 europeo	**NU**	Tedesca - Scanalato DIN 5482	**QV**	SAE A 2 fori in ghisa - Scanalato SAE A 9T	**TY**	SAE B 2 fori in ghisa - Scanalato SAE B 13T *
LU	Europea in ghisa - Scanalato DIN 5482	**OM**	Tedesca D50 2 fori DX - Conico (1:5)	**QX**	SAE A 2 fori in ghisa - Scanalato SAE A 11T	**VM**	Tedesca in ghisa - Conico (1:5)
ML	Europea - Conico (1:8)	**OU**	Tedesca D50 2 fori DX - Scanalato DIN 5482 vers. tedesca	**RZ**	Tedesca D52 - Dente frontale	**VU**	Tedesca in ghisa - Scanalato DIN 5482 vers. tedesca
MN	Europea - Cilindrico D15 europeo	**PM**	Tedesca D50 2 fori SX - Conico (1:5)	**SP**	SAE A 2 fori - Cilindrico SAE A		
MU	Europea - Scanalato DIN 5482	**PU**	Tedesca D50 2 fori SX - Scanalato DIN 5482 vers. tedesca	**SV**	SAE A 2 fori - Scanalato SAE A 9T		

Supporti integrati

I1	Flangia Europea - Cilindrico D18	**I3**	Flangia SAE A - Cilindrico D18	**IB**	Flangia Tedesca in ghisa - Cilindrico D22	**IS**	Flangia Speciale - Cilindrico D25,40
I2	Flangia Tedesca - Conico (1:5)	**I7**	Flangia Europea - Conico (1:8)	**IC**	Flangia Tedesca in ghisa - Conico (1:5)		

Supporti esterni

B1	Centraggio D80 - Conico (1:5)	**C3**	Centraggio D50,80 - Conico (1:8)	**C5**	Centraggio D36,50 - Conico (1:8)
B3	Centraggio D80 - Cilindrico D22	**C4**	Centraggio D50,80 - Cilindrico D22	**C6**	Centraggio D36,50 - Cilindrico D18

9 10

Bocche IN - Entrata

...	Vedi tabelle Bocche e Combinazioni

11 12

Bocche OUT - Uscita

...	Vedi tabelle Bocche e Combinazioni

13

Guarnizioni

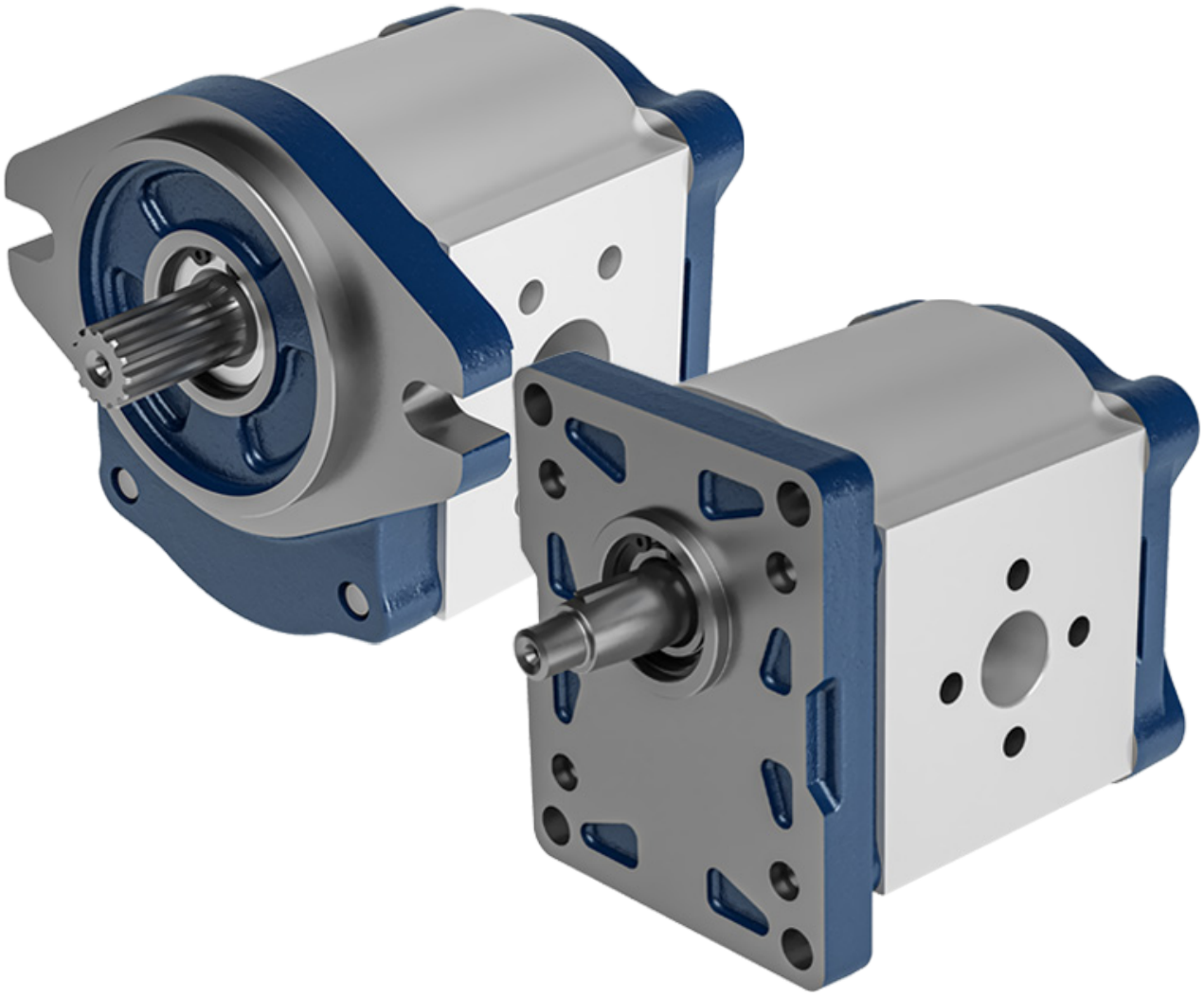
B	NBR Pompa	**R**	NBR Motore / Pompa bid. Pompa alta pressione	**V**	Viton Pompa	**W**	Viton Motore / Pompa bid. Pompa alta pressione

14 15

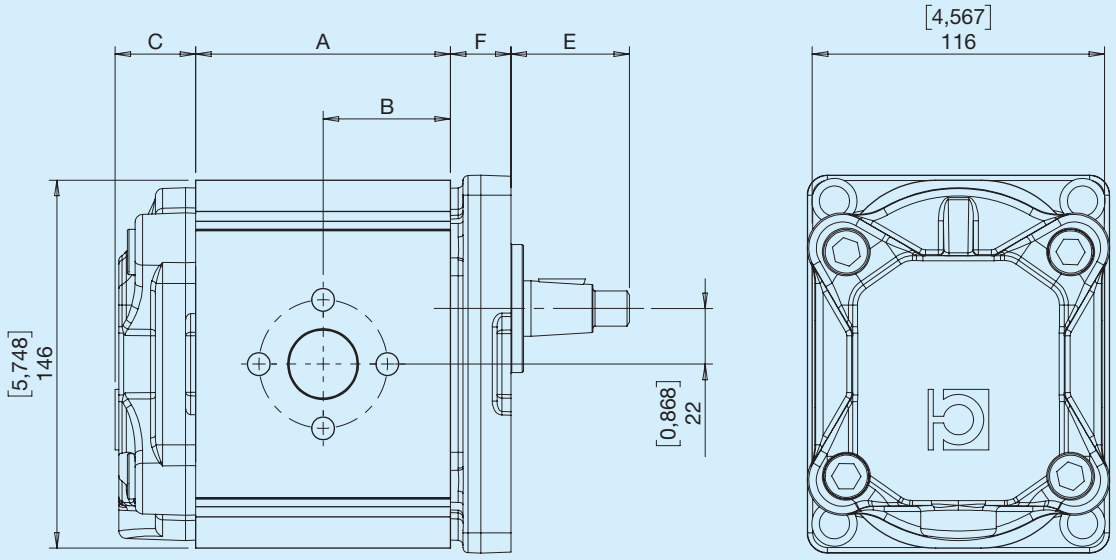
Coperchi

ST	Standard	**VB**	Valvola di max pressione taratura fissa scarico interno	**VE**	Valvola di max pressione regolabile scarico esterno
SG	Versione in ghisa	**VC**	Valvola di max pressione taratura fissa scarico esterno	**VT**	Valvola di max pressione regolabile scarico interno con anticavitazione
VA	Valvola unidirezionale	**VD**	Valvola di max pressione regolabile scarico interno	**VV**	Doppia valvola max press. taratura fissa scarico interno e valv. anticavitazione dren. esterno

Serie HPL Gruppo 3

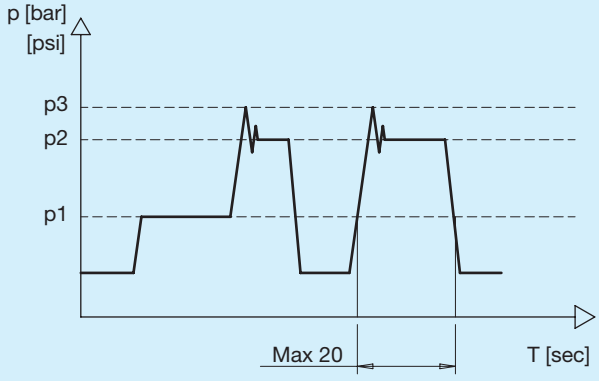


Prima di iniziare l'utilizzo leggere attentamente il documento ISTRUZIONI GENERALI D'IMPIEGO POMPE E MOTORI A INGRANAGGI.



C - Vedi sezione coperchi E - Vedi sezione alberi F - Vedi sezione flange

Definizione delle pressioni



p1	Pressione Continua
A,B - Use	Pressione intermittente Massima pressione permessa per brevi periodi (max 20 sec)
L1, L2 - Drain port	Pressione di picco Massima pressione permessa intesa come picco di pressione della Vmax

Dimensioni e dati tecnici

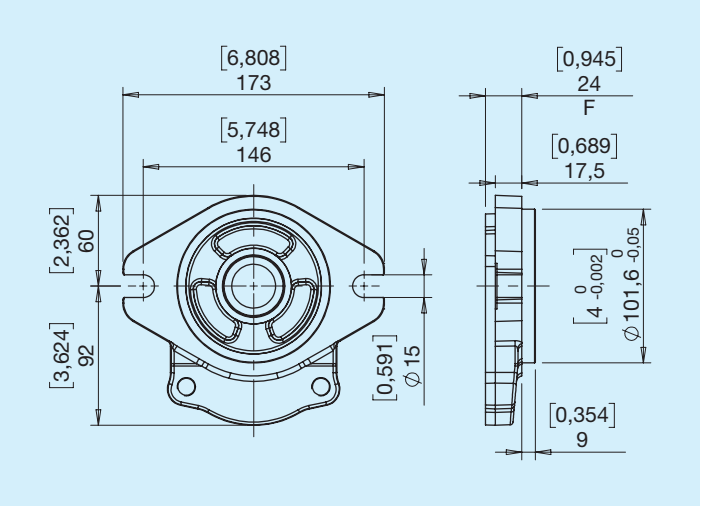
Dimensioni e dati tecnici pompe

HPLPA3	Cilindrata teorica		Pressione Continua		Pressione intermittente		Pressione picco		Velocità di rotazione		Massa		A		B	
	cm³	in³	bar	psi	bar	psi	bar	psi	MAX min⁻¹	MIN min⁻¹	kg	lbs	mm	in	mm	in
21	21,50	1,31	220	3191	250	3626	310	4496	3000	700	6,20	13,67	81,07	3,192	40,5	1,594
26	26,00	1,59	210	3046	250	3626	300	4351	3000	700	6,20	13,67	84,07	3,310	42,0	1,654
31	30,50	1,86	210	3046	250	3626	280	4061	3000	700	6,20	13,67	87,07	3,428	43,5	1,714
36	36,00	2,20	210	3046	250	3626	280	4061	3000	700	6,50	14,33	91,07	3,585	45,5	1,793
41	41,50	2,53	210	3046	250	3626	280	4061	3000	700	7,20	15,87	95,07	3,743	47,5	1,870
47	46,50	2,84	180	2611	210	3046	270	3916	3000	700	7,20	15,87	98,07	3,861	49,0	1,929
51	50,50	3,08	180	2611	210	3046	270	3916	3000	700	7,20	15,87	101,07	3,979	50,5	1,990
56	55,50	3,39	170	2466	200	2901	230	3336	2500	600	7,40	16,31	104,57	4,117	52,3	2,059
61	61,00	3,72	150	2175	180	2611	200	2901	2500	600	7,60	16,76	108,57	4,274	54,3	2,137
73	72,00	4,39	140	2031	150	2176	180	2611	2500	600	8,00	17,64	116,07	4,570	58,0	2,285
90	88,00	5,37	110	1595	120	1740	170	2466	2500	600	8,60	18,96	127,07	5,003	63,5	2,501

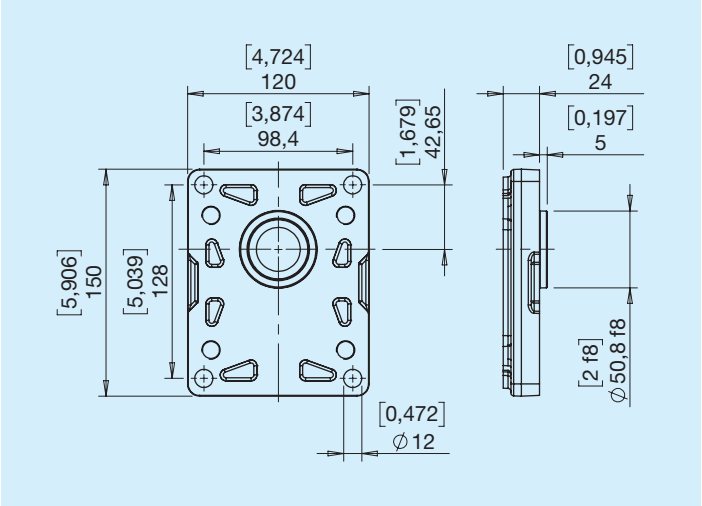
Dati tecnici motori

HPLMA³	Cilindrata teorica		Pressione Continua		Pressione intermittente		Pressione picco		Velocità di rotazione		Massa		A		B	
	cm³	in³	bar	psi	bar	psi	bar	psi	MAX min⁻¹	MIN min⁻¹	kg	lbs	mm	in	mm	in
21	21,50	1,31	220	3191	250	3626	310	4496	3500	700	6,20	13,67	81,07	3,192	40,5	1,594
26	26,00	1,59	210	3046	250	3626	300	4351	3500	700	6,20	13,67	84,07	3,310	42,0	1,654
31	30,50	1,86	210	3046	250	3626	280	4061	3500	700	6,20	13,67	87,07	3,428	43,5	1,714
36	36,00	2,20	210	3046	250	3626	280	4061	3500	700	6,50	14,33	91,07	3,585	45,5	1,793
41	41,50	2,53	210	3046	250	3626	280	4061	3500	700	7,20	15,87	95,07	3,743	47,5	1,870
47	46,50	2,84	180	2611	210	3046	270	3916	3500	700	7,20	15,87	98,07	3,861	49,0	1,929
51	50,50	3,08	180	2611	210	3046	270	3916	3500	700	7,20	15,87	101,07	3,979	50,5	1,990
56	55,50	3,39	170	2466	200	2901	230	3336	3000	600	7,40	16,31	104,57	4,117	52,3	2,059
61	61,00	3,72	150	2175	180	2611	200	2901	3000	600	7,60	16,76	108,57	4,274	54,3	2,137
73	72,00	4,39	140	2031	150	2176	180	2611	3000	600	8,00	17,64	116,07	4,570	58,0	2,285

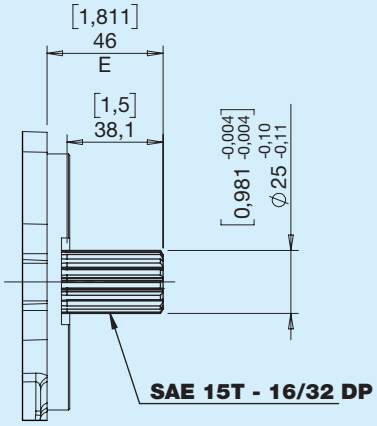
2 SAE B 2 fori



3 Europea D50,8

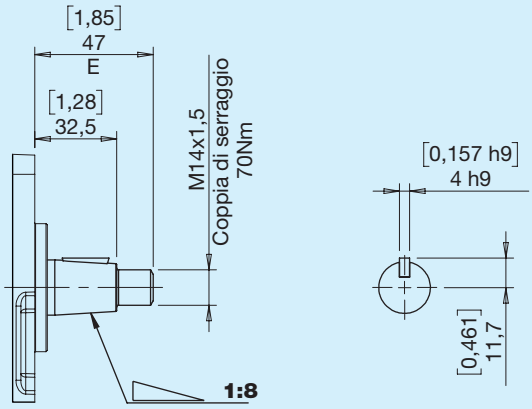


1 Scanalato SAE BB 15T



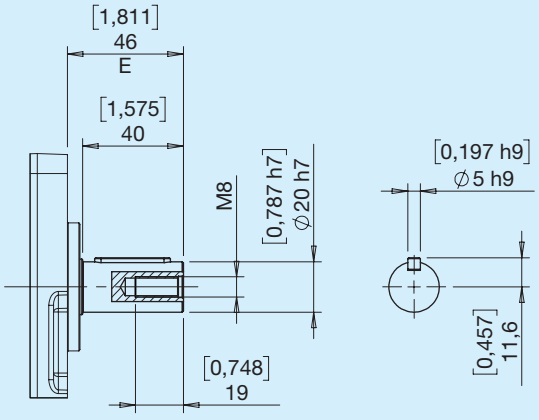
Coppia Max 460 Nm

2 Conico (1:8)



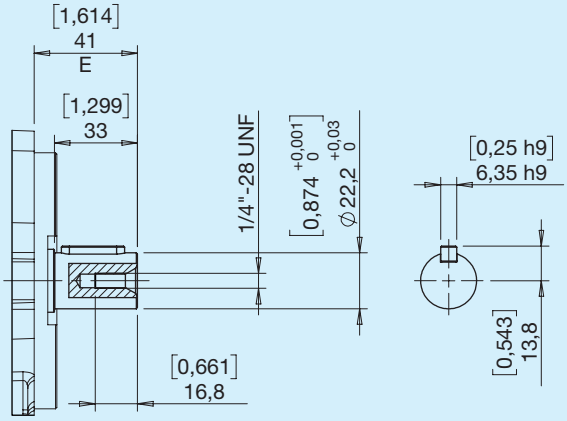
Coppia Max 240 Nm

4 Cilindrico europeo



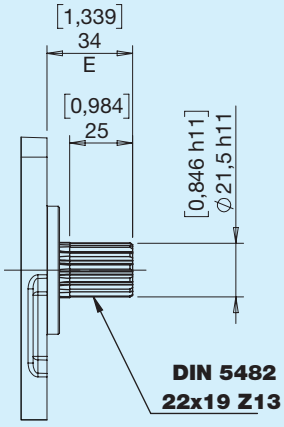
Coppia Max 190 Nm

6 Cilindrico SAE B



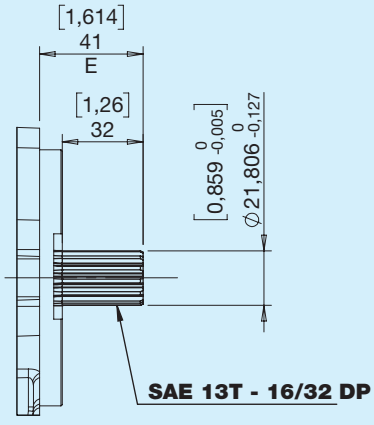
Coppia Max 210 Nm

7 Scanalato DIN 5482



Coppia Max 220 Nm

9 Scanalato SAE B 13T

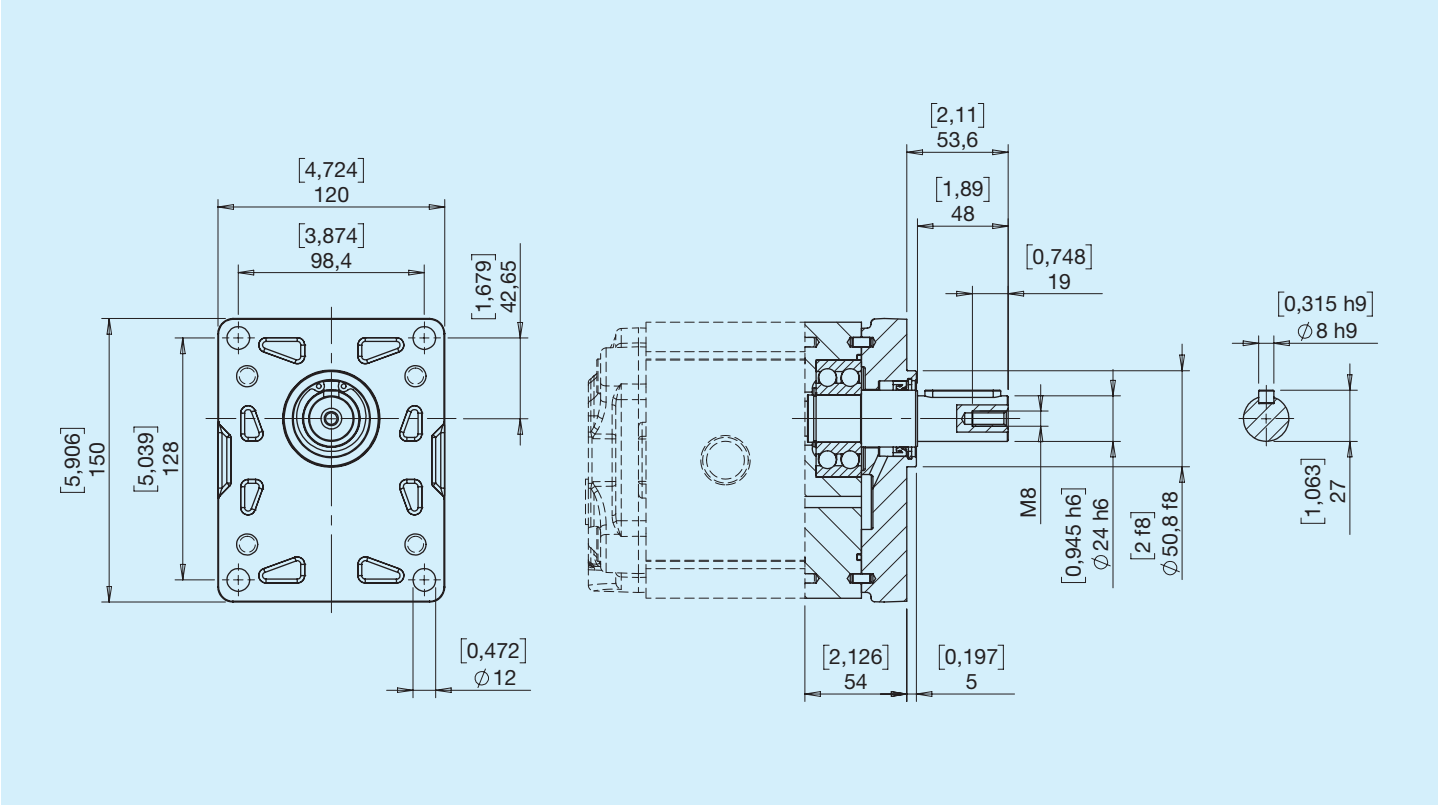


Coppia Max 310 Nm

Combinazioni Albero Flangia

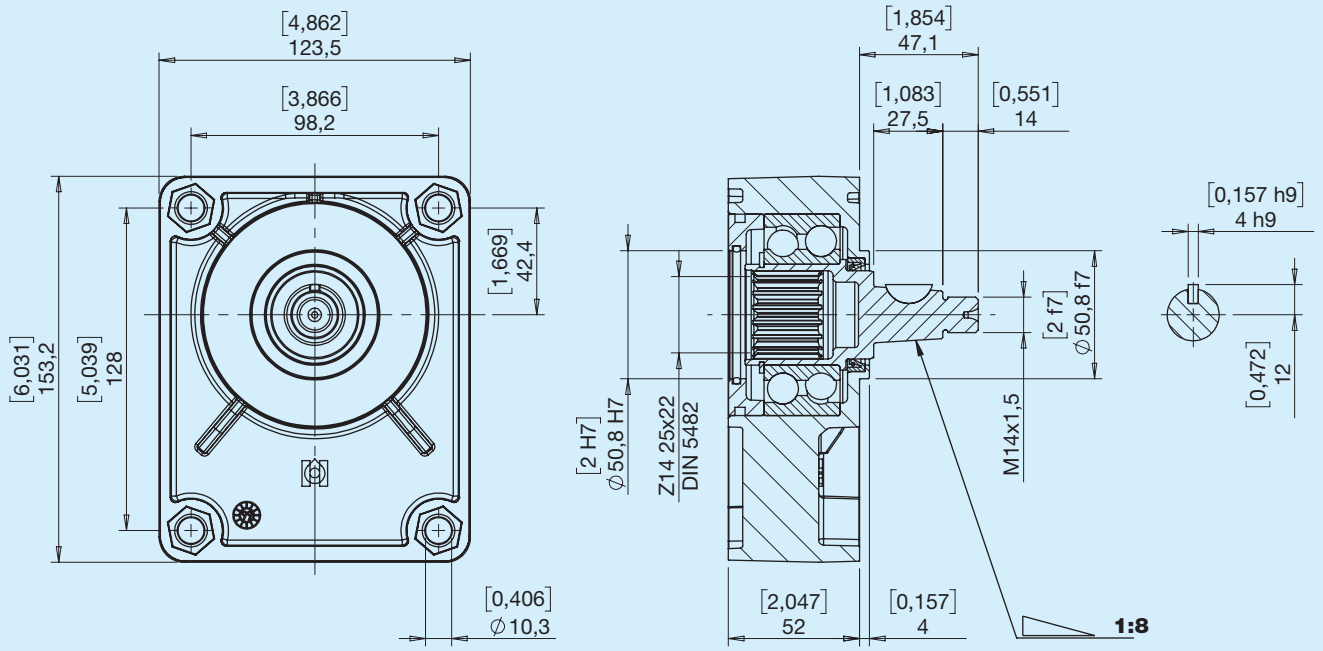
Alberi	Flange 2	Flange 3
1	•	
2		•
4		•
6	•	
7		•
9	•	

I6 Flangia Europea D50,8 albero cilindrico D24



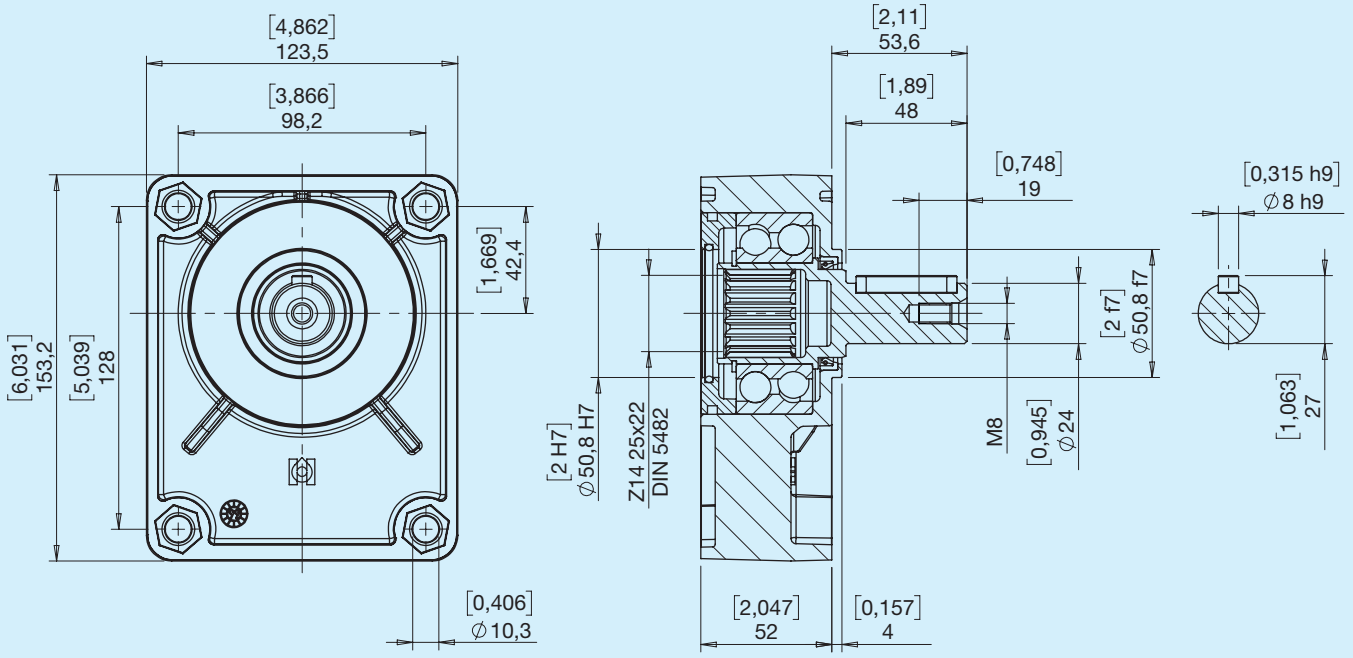
Supporti esterni in alluminio

C7 Centraggio D50,8 albero conico (1:8)



Ordinabile separatamente Cod. HPL5923C7R

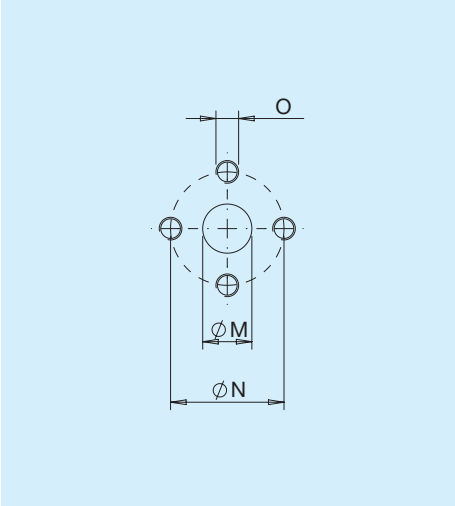
C8 Centraggio D50,8 albero cilindrico D24



Ordinabile separatamente Cod. HPL5923C8R

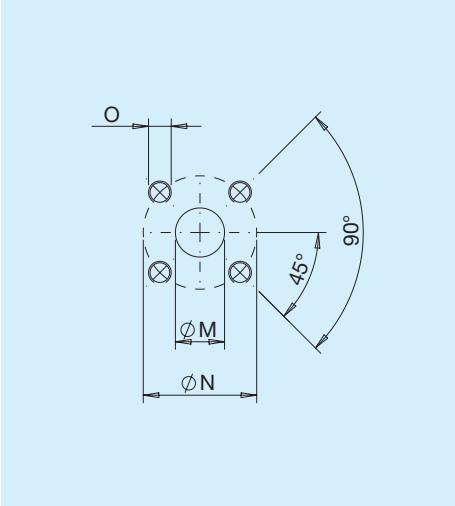
BONDIOLI & PAVESI
HP Hydraulic

E Laterale



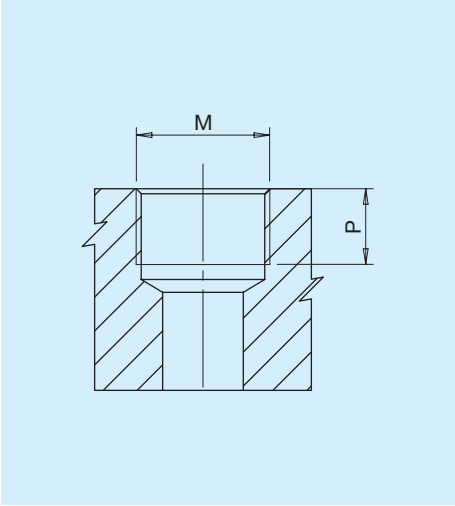
Tipo	M		N		O	
	mm	**in**	**mm**	**in**		**Nm**
E5	20	0,79	40	1,57	M8	17
E7	27	1,06	51	2,01	M10	38
E8	34	1,34	62	2,44	M10	38

X Laterale



Tipo	M		N		O	
	mm	**in**	**mm**	**in**		**Nm**
X7	19	0,75	55	2,17	M8	15
X8	27	1,06	55	2,17	M8	15

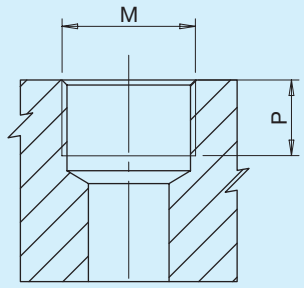
G Laterale / Drenaggio



Tipo	M		P	
		Nm	**mm**	**in**
G3*	PORT ISO 1179-1-G 3/8	38	12	0,47
G6	PORT ISO 1179-1-G3/4	90	20	0,79
G7	PORT ISO 1179-1-G 1	160	21	0,83
G8	PORT ISO 1179-1-G 1 1/4	200	21	0,83

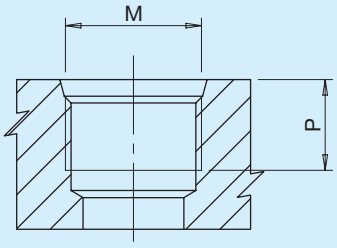
*Drenaggio

T Posteriore



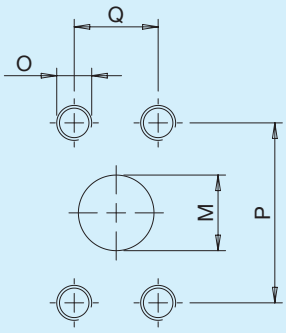
Tipo	M		P	
		Nm	**mm**	**in**
T6	PORT ISO 1179-1-G3/4	90	19	0,75

U Laterale



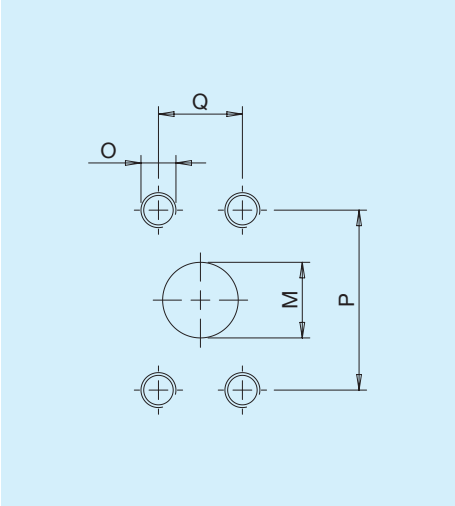
Tipo	Dim.	M		P	
			Nm	**mm**	**in**
U6	3/4'	PORT ISO 11926-1 - 1 1/16-12	90	20	0,79
U7	1'	PORT ISO 11926-1 - 1 5/16-12	160	20	0,79
U8	1 1/4'	PORT ISO 11926-1 - 1 5/8-12	200	20	0,79

N Laterale



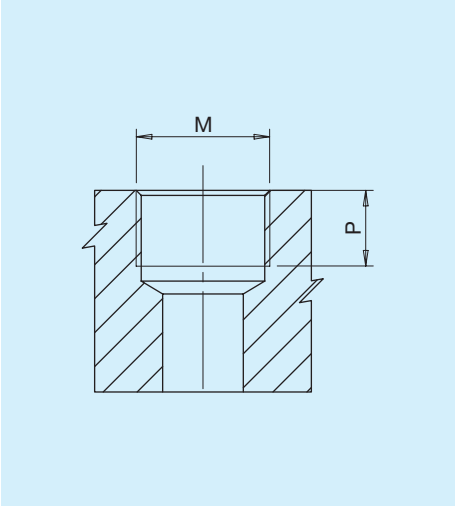
Tipo	Dim.	M		P		Q		O	
		mm	**in**	**mm**	**in**	**mm**	**in**		**Nm**
N6	3/4'	20	0,79	47,6	1,87	22,2	0,87	3/8-16 UNC-2B	38
N7	1'	27	1,06	52,4	2,60	26,2	1,03	3/8-16 UNC-2B	38
N8	1 1/4'	34	1,34	58,7	2,31	30,2	1,19	7/16-14 UNC-2B	45

F Laterale



Tipo	Dim.	M		P		Q		O	
		mm	**in**	**mm**	**in**	**mm**	**in**		**Nm**
F6	3/4'	20	0,79	47,6	1,87	22,2	0,87	M10	38
F7	1'	25,4	1	52,4	2,60	26,2	1,03	M10	38
F8	1 1/4'	30,5	1,2	58,7	2,31	30,2	1,19	M10	38

M Drenaggio



Tipo	M		P	
		Nm	**mm**	**in**
M3*	PORT ISO 6149 - 1 - M16x1,5	35	14	0,55

*Drenaggio

Combinazione Bocche Flange

Bocche	Flange 2	Flange 3
E		•
X		•
G	•	•
T	•	•
U	•	
N	•	
F	•	

Combinazione Bocche Cilindrate per Pompe/Motori unidirezionali

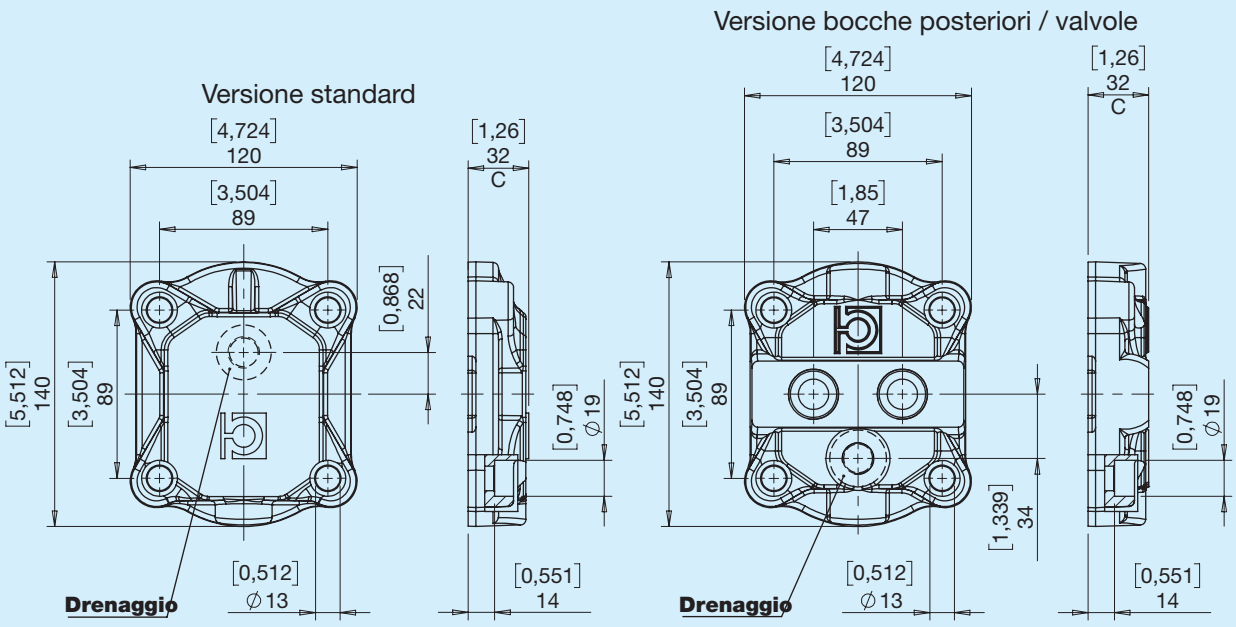
Bocche	Cilindrate 22 26 31 Bocche IN/OUT	36 41 47 51 56 61 Bocche IN/OUT	73 90 Bocche IN/OUT
E	E5 E5	E7 E5	E8 E7
X	X8 X7	X8 X7	X8 X7
G	G6 G6	G7 G6	G8 G7
T	T6 T6	-	-
U	U7 U6	U8 U7	U8 U7
N	N7 N6	N7 N6	N8 N7
F	F7 F6	F7 F6	F8 F7

Combinazione Bocche Cilindrate per Pompe/Motori bidirezionali

Bocche	Cilindrate 22 26 31 Bocche IN/OUT	36 41 47 51 56 61 Bocche IN/OUT	73 Bocche IN/OUT	Drenaggio
E	E5 E5	E7 E7	E8 E8	M3
X	X7 X7	X8 X8	X8 X8	M3
G	G6 G6	G7 G7	G8 G8	G3
T	T6 T6	-	-	G3
U	U6 U6	U7 U7	U8 U8	M3
N	N6 N6	N7 N7	N8 N8	M3
F	F6 F6	F7 F7	F8 F8	M3

Altre combinazioni di bocche sono disponibili. Per maggiori informazioni rivolgersi all'ufficio tecnico commerciale.

SG Ghisa


Versione standard
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120
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89
[1,26]
32
C
[0,868]
22
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140
[3,504]
89
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∅19
[0,512]
∅13
[0,551]
14
Drenaggio
Versione bocche posteriori / valvole
[4,724]
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[3,504]
89
[1,85]
47
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32
C
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34
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∅13
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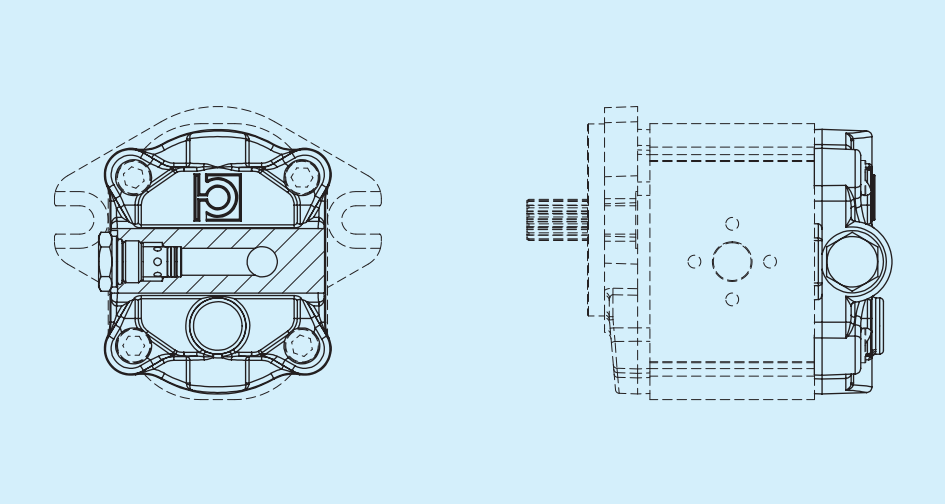
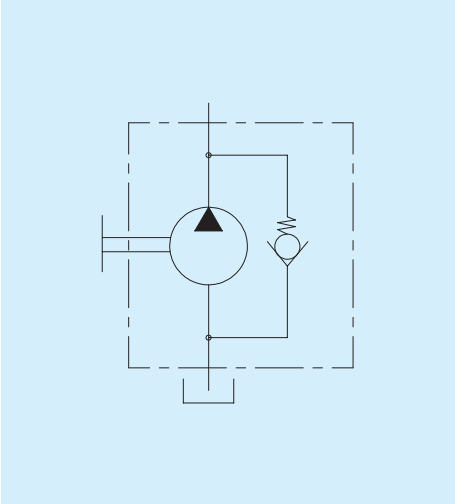
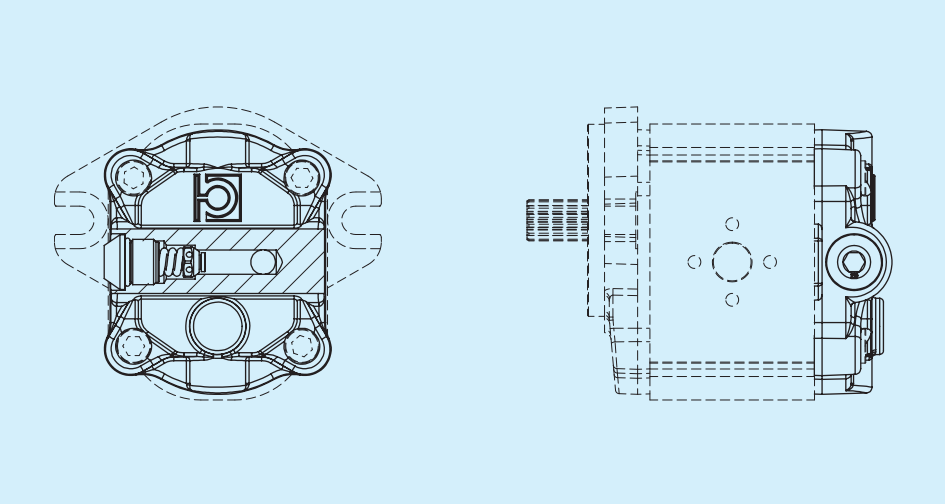
14
Drenaggio

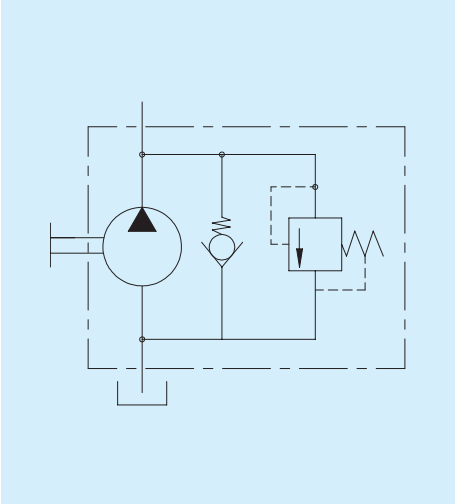
VA Valvola unidirezionale



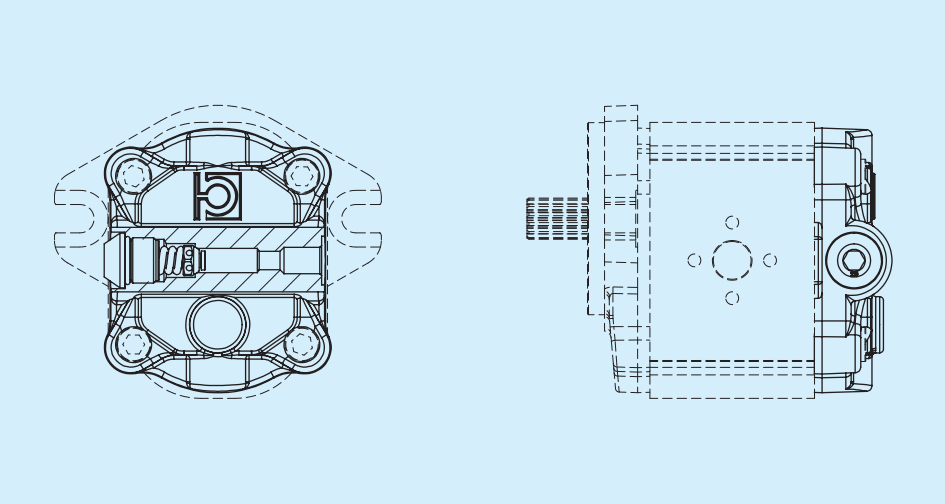


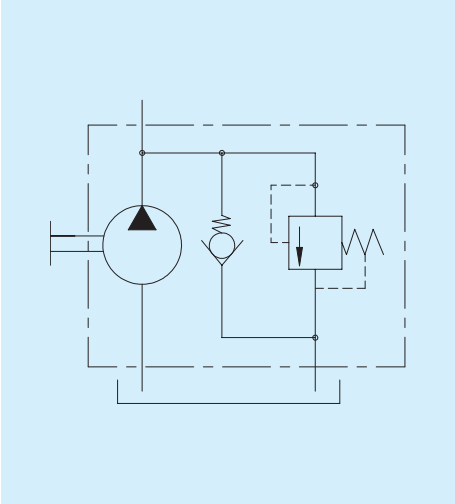
VB Valvola di max pressione taratura fissa scarico interno



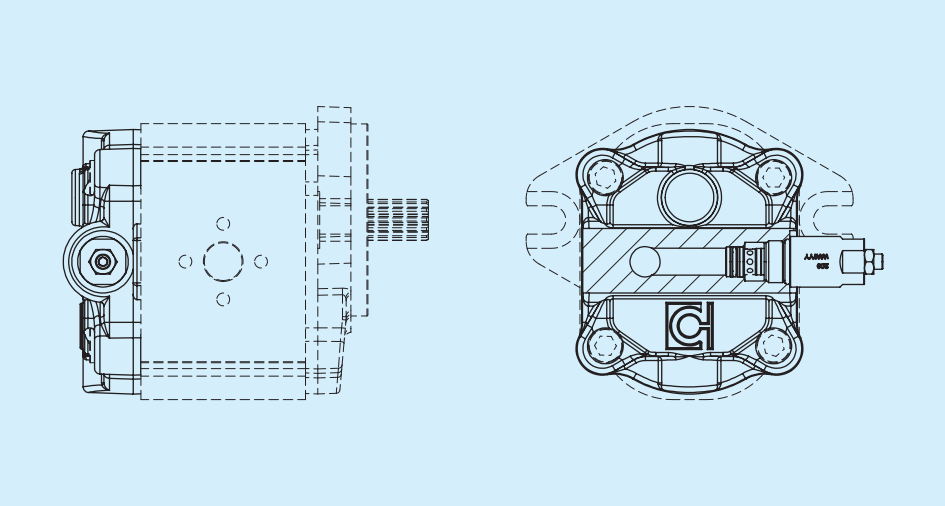


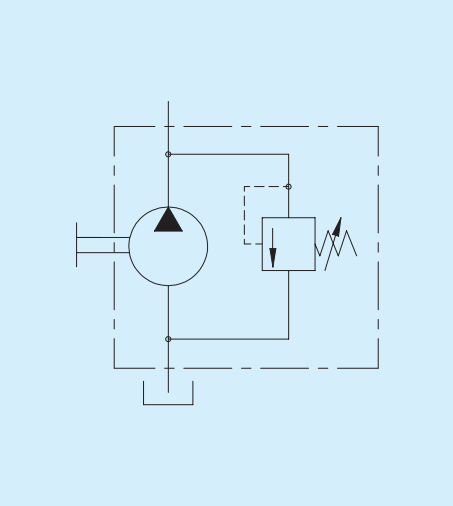
VC Valvola di max pressione taratura fissa scarico esterno



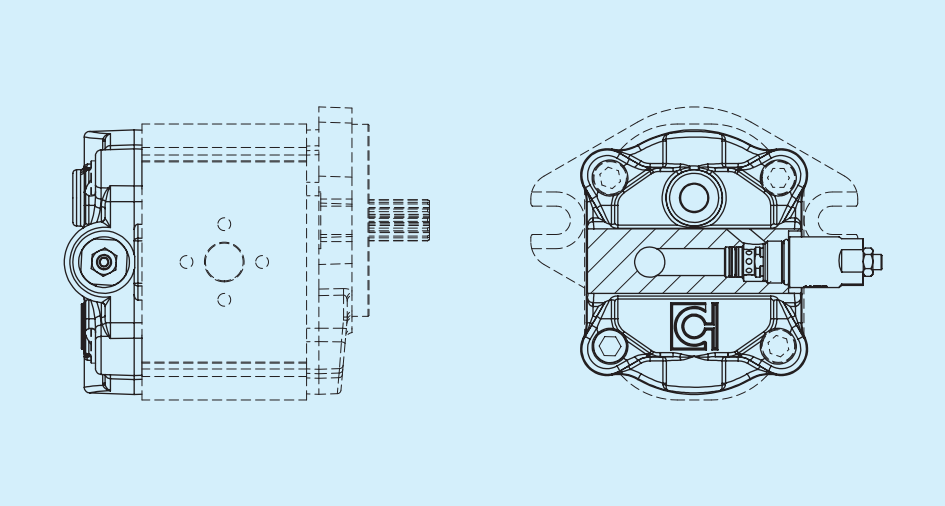


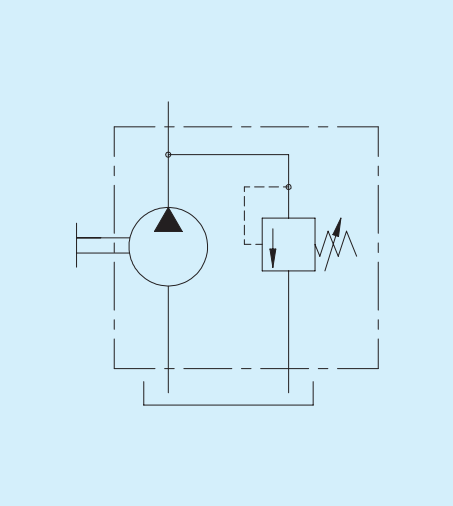
VD Valvola di max pressione regolabile scarico interno



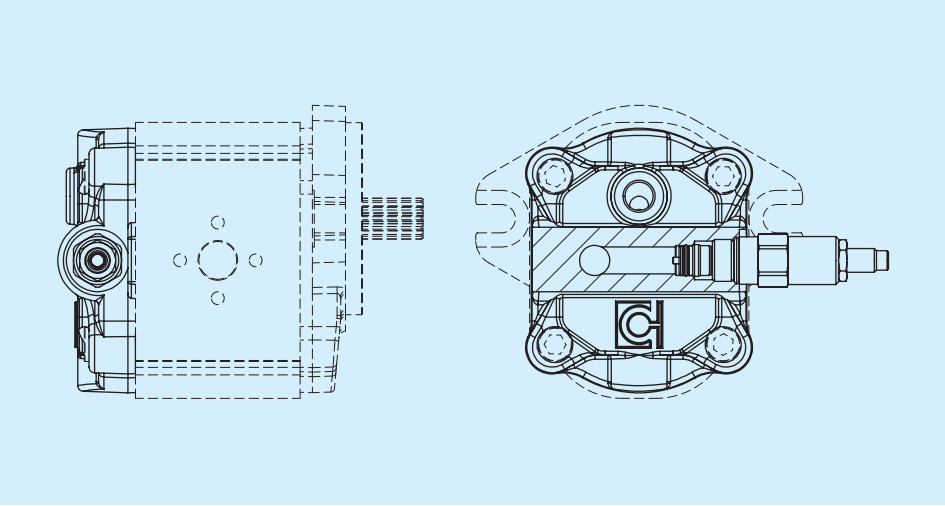


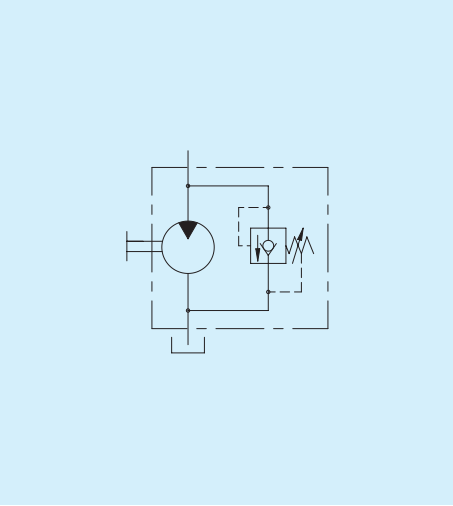
VE Valvola di max pressione regolabile scarico esterno



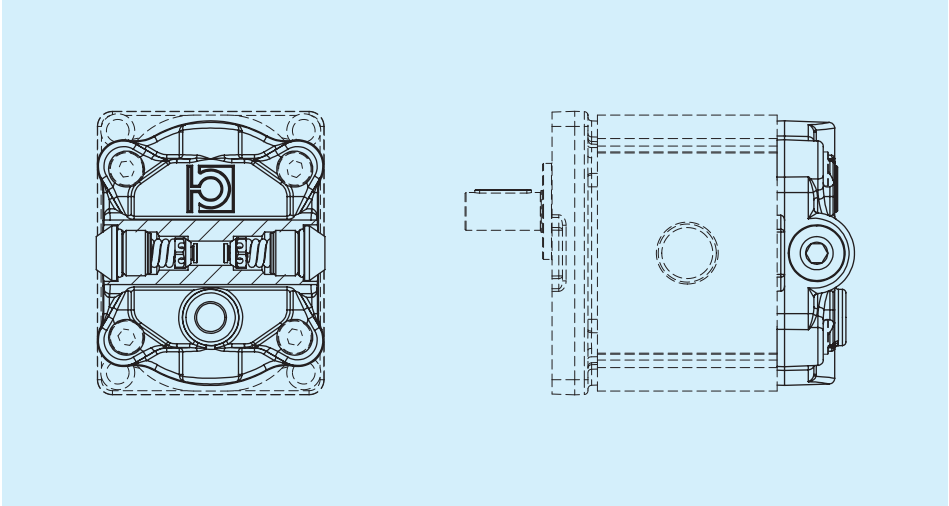


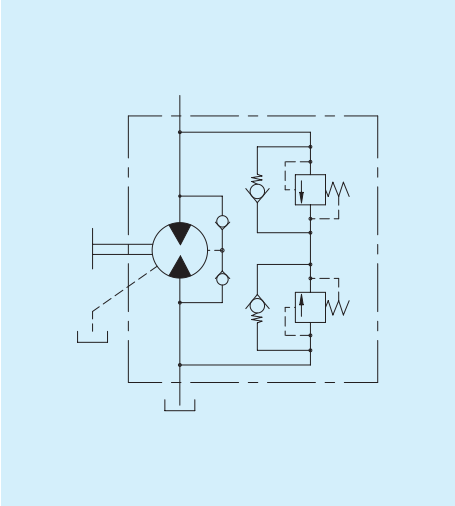
VT Valvola di max pressione regolabile scarico interno con anticavitazione





VV Doppia valvola di max pressione taratura fissa scarico interno e valvola anticavitazione drenaggio esterno





Per maggiori informazioni rivolgersi all'ufficio tecnico commerciale

Per le valvole di massima pressione indicare il valore di taratura

Istruzioni per l'ordinazione

HPL..3	1 2 3	4 5	6	7 8	9 10	11 12	13	14 15

1 2 3 — Serie

PA3	Pompa a ingranaggi Gruppo 3	**MA3**	Motore a ingranaggi Gruppo 3

4 5 — Cilindrata

22	**36**	**51**	**73**
26	**41**	**56**	**90**
31	**47**	**61**	

6 — Senso di rotazione

S	Antioraria/sinistra	**D**	Oraria/destra	**H**	Bidirezionale drenaggio interno	**B**	Bidirezionale drenaggio esterno posteriore

7 8 — Flange anteriori - Alberi

21	SAE B 2 fori - Scanalato SAE BB 15T	**29**	SAE B 2 fori - Scanalato SAE B 13T	**34**	Europea D50,8 - Cilindrico europeo
26	SAE B 2 fori - Cilindrico SAE B	**32**	Europea D50,8 - Conico (1:8)	**37**	Europea D50,8 - Scanalato DIN 5482

Supporti integrati

I6	Flangia Europea D50,8 in ghisa - albero cilindrico D24

Supporrti esterni

C7	Centraggio D50,80 - Conico (1:8)	**C8**	Centraggio D50,80 - Cilindrico D24

9 10 — Bocche IN - Entrata

...	Vedi tabelle Bocche e Combinazioni

11 12 — Bocche OUT - Uscita

...	Vedi tabelle Bocche e Combinazioni

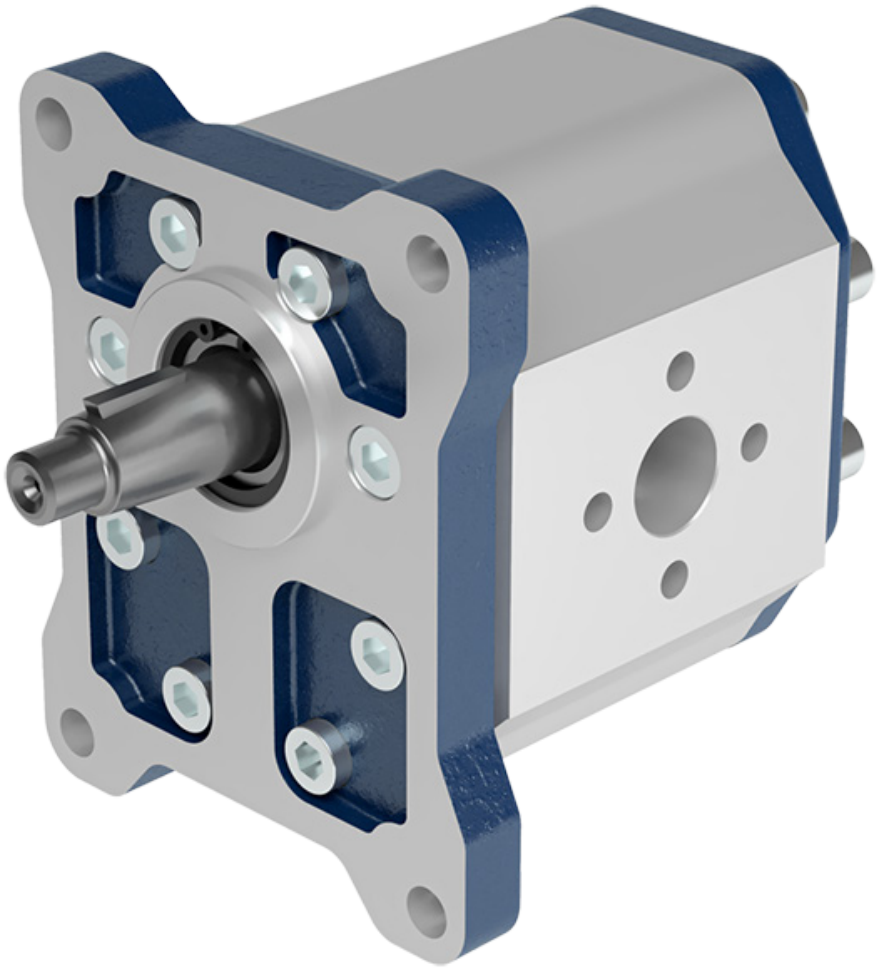
13 — Guarnizioni

1	NBR Pompa	**2**	Viton Pompa	**3**	NBR Motore / Pompa bid. Pompa alta pressione	**4**	Viton Motore / Pompa bid. Pompa alta pressione

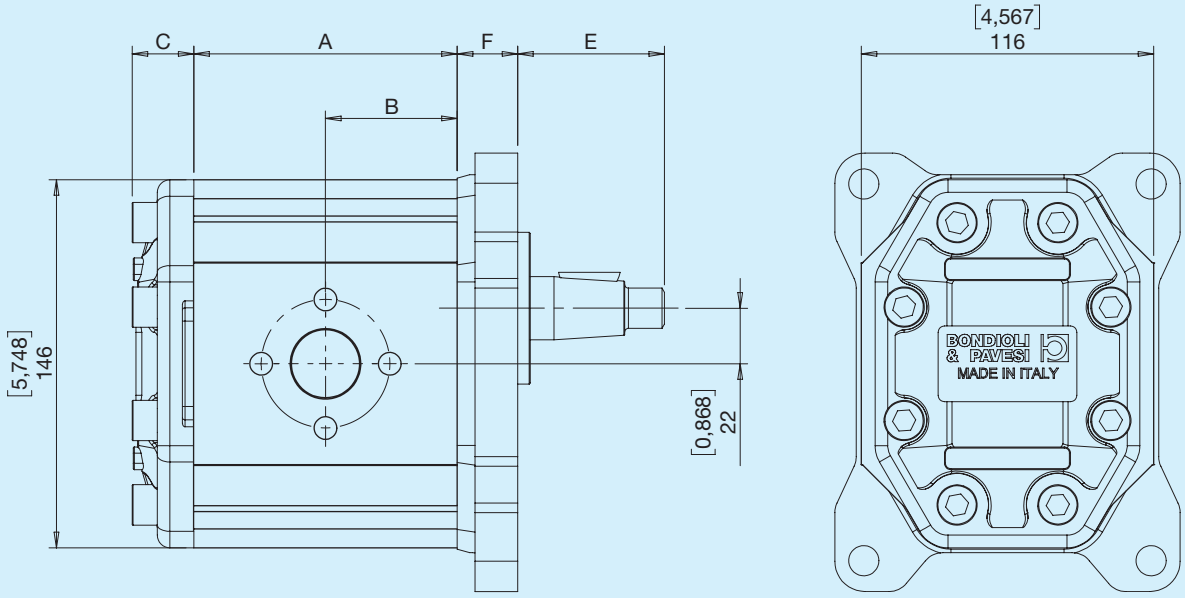
14 15 — Coperchi

SG	Versione in ghisa	**VB**	Valvola di max pressione taratura fissa scarico interno	**VD**	Valvola di max pressione regolabile scarico interno	**VT**	Valvola di max pressione regolabile scarico interno con anticavitazione
VA	Valvola unidirezionale	**VC**	Valvola di max pressione taratura fissa scarico esterno	**VE**	Valvola di max pressione regolabile scarico esterno	**VV**	Doppia valvola max press. taratura fissa scarico interno e valv. anticavitazione dren. esterno

Serie HPL Gruppo 4

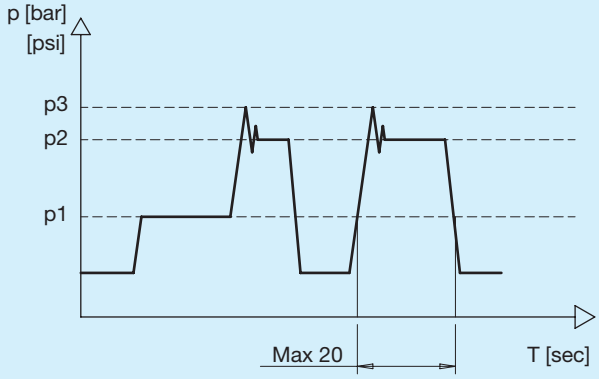


Prima di iniziare l'utilizzo leggere attentamente il documento ISTRUZIONI GENERALI D'IMPIEGO POMPE E MOTORI A INGRANAGGI.



C - Vedi sezione coperchi E - Vedi sezione alberi F - Vedi sezione flange

Definizione delle pressioni



p1	Pressione Continua
p2	Pressione intermittente Massima pressione permessa per brevi periodi (max 20 sec)
p3	Pressione di picco Massima pressione permessa intesa come picco di pressione della Vmax

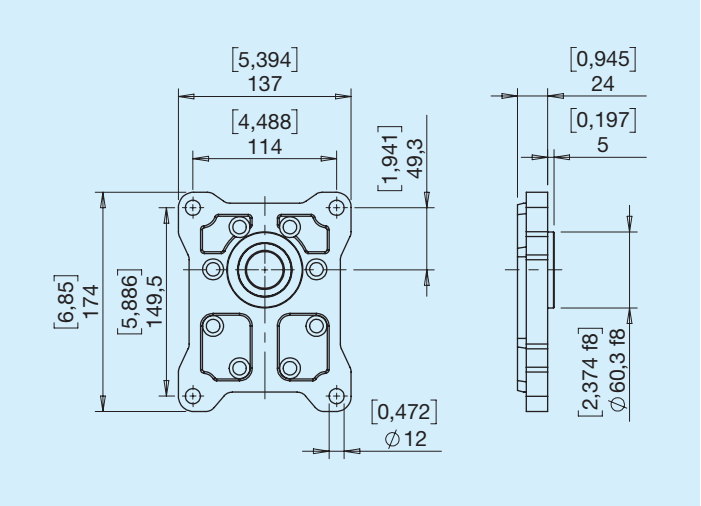
Dimensioni e dati tecnici pompe

HPLPA4	Cilindrata teorica		Pressione Continua		Pressione intermittente		Pressione picco		Velocità di rotazione		Massa		A		B	
	cm^3	**in^3**	**bar**	**psi**	**bar**	**psi**	**bar**	**psi**	**min^{-1}**	**min^{-1}**	**kg**	**lbs**	**mm**	**in**	**mm**	**in**
41	41,50	2,53	220	3191	250	3626	300	3561	3000	700	9,20	20,58	95,07	3,743	47,5	1,870
51	50,50	3,08	190	2756	210	3046	280	4061	3000	700	9,20	20,58	101,07	3,979	50,5	1,990
61	61,00	3,72	160	2321	180	2611	200	2901	2500	600	9,60	21,16	108,57	4,274	54,3	2,137
73	72,00	4,39	150	2176	160	2321	180	2611	2500	600	9,60	21,16	116,07	4,570	58,0	2,285
90	88,00	5,37	120	1740	130	1885	170	2466	2500	600	9,60	21,16	127,07	5,003	63,5	2,501

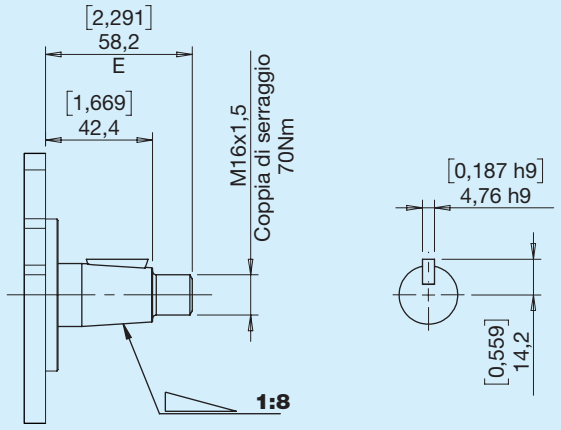
Dimensioni e dati tecnici motori

HPLMA4	Cilindrata teorica		Pressione Continua		Pressione intermittente		Pressione picco		Velocità di rotazione		Massa		A		B	
	cm^3	**in^3**	**bar**	**psi**	**bar**	**psi**	**bar**	**psi**	**min^{-1}**	**min^{-1}**	**kg**	**lbs**	**mm**	**in**	**mm**	**in**
41	41,50	2,53	220	3191	250	3626	300	3561	2800	600	9,20	20,58	95,07	3,743	47,5	1,870
51	50,50	3,08	190	2756	210	3046	280	4061	2800	600	9,20	20,58	101,07	3,979	50,5	1,990
61	61,00	3,72	160	2321	180	2611	200	2901	2800	600	9,60	21,16	108,57	4,274	54,3	2,137
73	72,00	4,39	150	2176	160	2321	180	2611	2800	600	9,60	21,16	116,07	4,570	58,0	2,285
90	88,00	5,37	120	1740	130	1885	170	2466	2800	600	9,60	21,16	127,07	5,003	63,5	2,501

X Europea D60,3

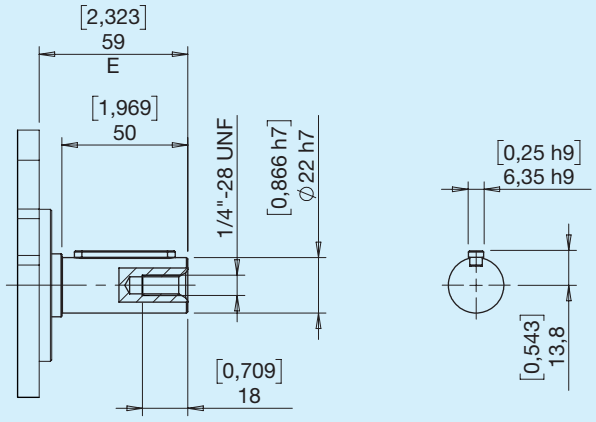


3 Conico (1:8)



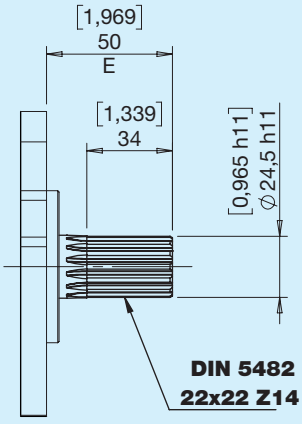
Coppia Max 350 Nm

5 Cilindrico europeo



Coppia Max 210 Nm

8 Scanalato DIN 5482

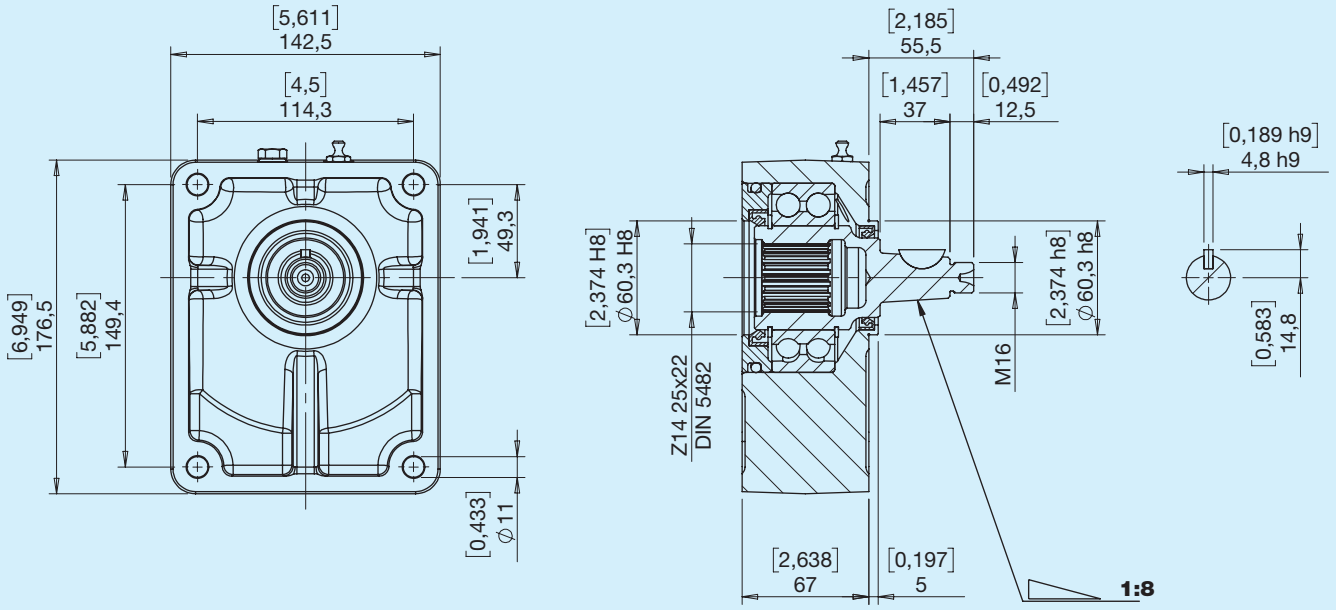


Coppia Max 350 Nm

Combinazioni Albero Flangia

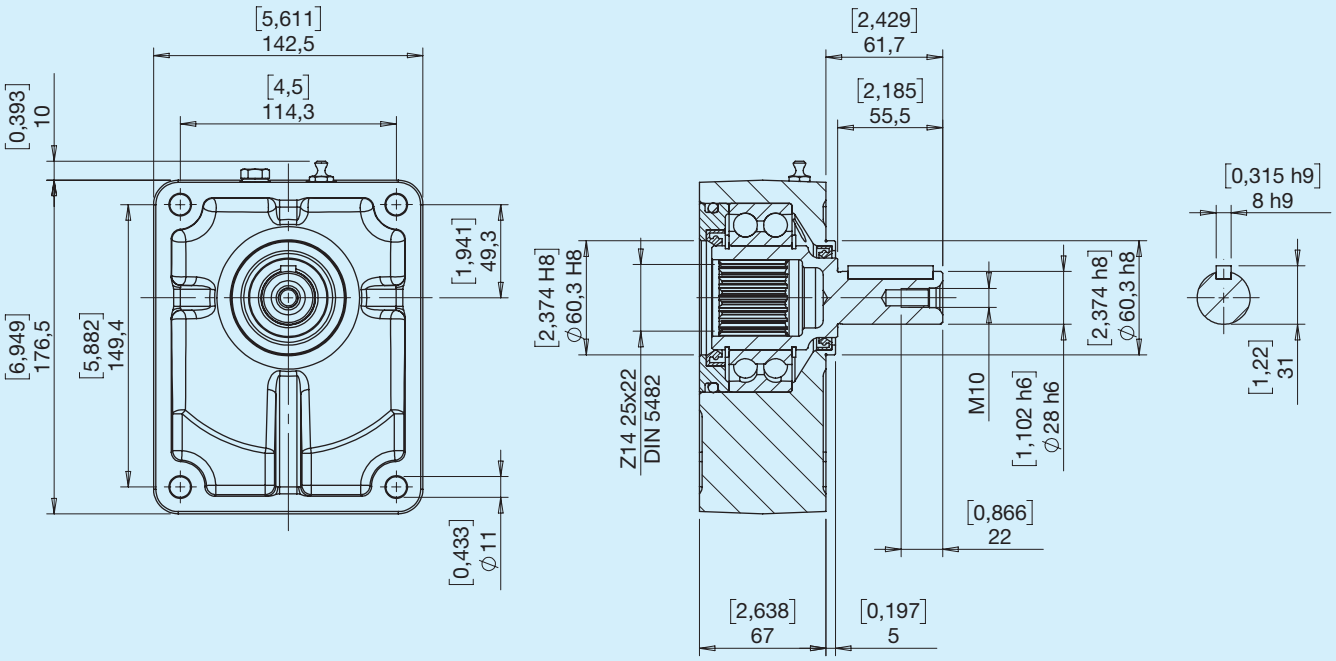
Alberi	Flange
	X
3	•
5	•
8	•

C9 Centraggio D60,3 albero conico (1:8)



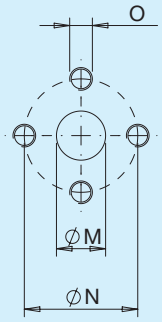
Ordinabile separatamente Cod. HPL5924C9R

C0 Centraggio D60,3 albero cilindrico D28



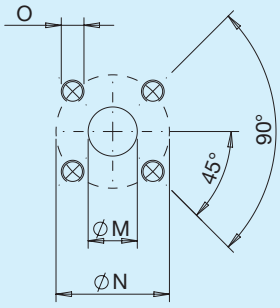
Ordinabile separatamente Cod. HPL5924C0R

E Laterale



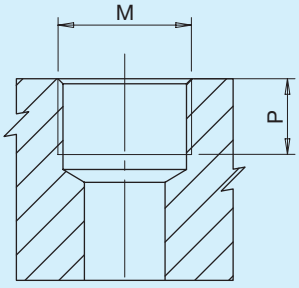
Tipo	M		N		O	
	mm	**in**	**mm**	**mm**		**Nm**
E7	27	1,06	51	2,01	M10	30
E8	34	1,34	62	2,44	M10	30

X Laterale



Tipo	M		N		O	
	mm	**in**	**mm**	**mm**		**Nm**
X7	19	0,75	55	2,17	M8	15
X8	27	1,06	55	2,17	M8	15

G Laterale / Drenaggio



Tipo	M		P	
		Nm	**mm**	**in**
G3*	PORT ISO 1179-1-G 3/8	38	12	0,47
G7	PORT ISO 1179-1-G 1	130	21	0,83
G8	PORT ISO 1179-1-G 1 1/4	170	21	0,83

*Drenaggio

Combinazioni

Combinazione Bocche Flange

Bocche	Flange
	X
E	•
X	•
G	•

Combinazione Bocche Cilindrate per Pompe/Motori unidirezionali

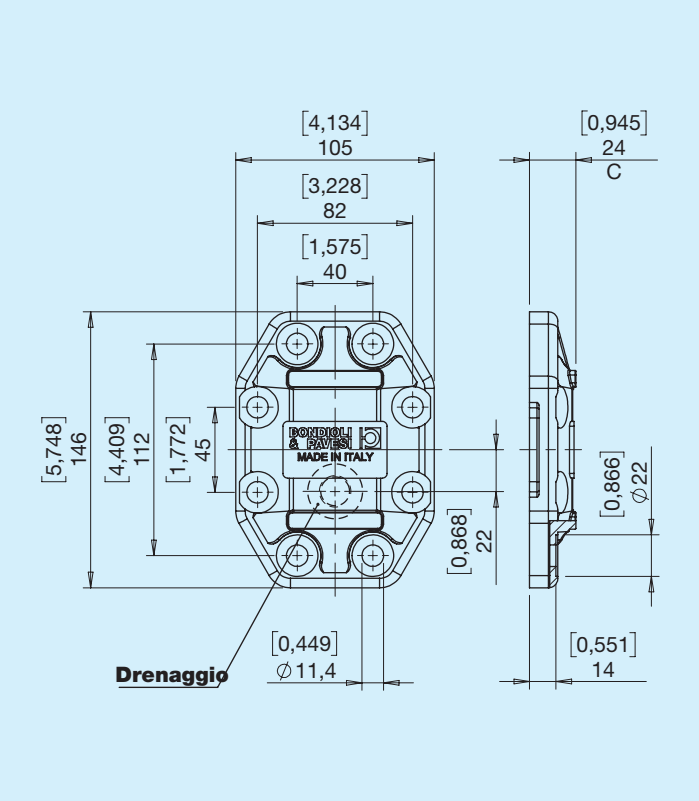
Bocche	41 51 61 Bocche IN/OUT	73 90 Bocche IN/OUT
E	E7 E7	E8 E7
X	X8 X7	X8 X7
G	G7 G7	G8 G7

Combinazione Bocche Cilindrate per Pompe/Motori bidirezionali

Bocche	41 51 61 Bocche IN/OUT	73 90 Bocche IN/OUT	Drenaggio
E	E7 E7	E8 E8	G3
X	X7 X7	X8 X8	G3
G	G7 G7	G8 G8	G3

Altre combinazioni di bocche sono disponibili. Per maggiori informazioni rivolgersi all'ufficio tecnico commerciale.

SG Ghisa


[4,134]
105
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82
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40
[0,945]
24
C
[5,748]
146
[4,409]
112
[1,772]
45
BONDIOLI & PAVESI
MADE IN ITALY
[0,868]
22
[0,866]
∅22
[0,449]
∅11,4
Drenaggio
[0,551]
14

Istruzioni per l'ordinazione

HPL..4	1 2 3	4 5	6	7 8		9 10	11 12	13	14 15

1 2 3

Serie

PA4	Pompa a ingranaggi Gruppo 4	**MA4**	Motore a ingranaggi Gruppo 4

4 5

Cilindrata

41		**61**		**90**	
51		**73**			

6

Senso di rotazione

S	Antioraria/sinistra	**D**	Oraria/destra	**H**	Bidirezionale drenaggio interno	**B**	Bidirezionale drenaggio esterno posteriore

7 8

Flange anteriori - Alberi

X3	Europea D60,3 - Conico (1:8)	**X5**	Europea D60,3 - Cilindrico europeo	**X8**	Europea D60,3 - Scanalato DIN 5482

Supporrti esterni

C9	Centraggio D60,30 - Conico (1:8)	**C0**	Centraggio D60,30 - Cilindrico D28

9 10

Bocche IN - Entrata

...	Vedi tabelle Bocche e Combinazioni

11 12

Bocche OUT - Uscita

...	Vedi tabelle Bocche e Combinazioni

13

Guarnizioni

B	NBR Pompa	**R**	NBR Motore / Pompa bid. Pompa alta pressione	**V**	Viton Pompa	**W**	Viton Motore / Pompa bid. Pompa alta pressione

14 15

Coperchi

SG	Versione in ghisa