

M4 MF

MOTORI A PISTONI ASSIALI A CILINDRATA FISSA FIXED-DISPLACEMENT AXIAL PISTON MOTORS 定排量轴向柱塞马达

I motori a pistoni assiali serie M4 MF sono a cilindrata fissa del tipo a piatto inclinato e sono stati concepito per operare sia in circuito chiuso che aperto.

Lo sviluppo di gruppi rotanti appositamente concepiti unito ad uno studio accurato delle sezioni di passaggio dell'olio, consentono a questi motori di raggiungere elevate velocità di rotazione garantendo una elevata affidabilità per pressioni di funzionamento fino a 250 bar continui (350 bar di picco)

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The M4 MF series axial piston motors have been designed to work both in an open and in a closed circuit.

Control systems actually available are making easy to use these motors in any application for industrial and mobile field. Development of rotating groups, especially designed, united to an accurate study of oil passage sections, allow high speed rotation, giving extreme reliability for working continuous pressure unit 250 bar and until 350 bar for peak pressure.

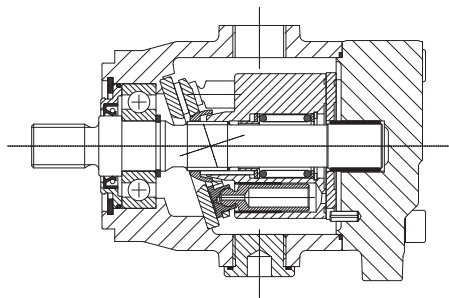
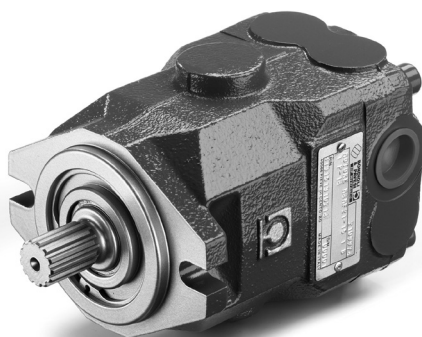
Motors can be supplied on requests with complete accessories such as cross relief valves and built-in relief valve.

M4 MF系列轴向柱塞马达应用于闭式或开式系统中。

控制系统可使马达应用于工业和行走机械领域中不同场合，旋转组件的研发和特别设计，加上对油路截面的精确研究，稳定运行时，持续工作压力可达到250bar，工作压力峰值可达到350bar。

根据要求，马达可带各种附件，例如交叉式溢流阀和内置溢流阀。

M4 MF 21.28.37



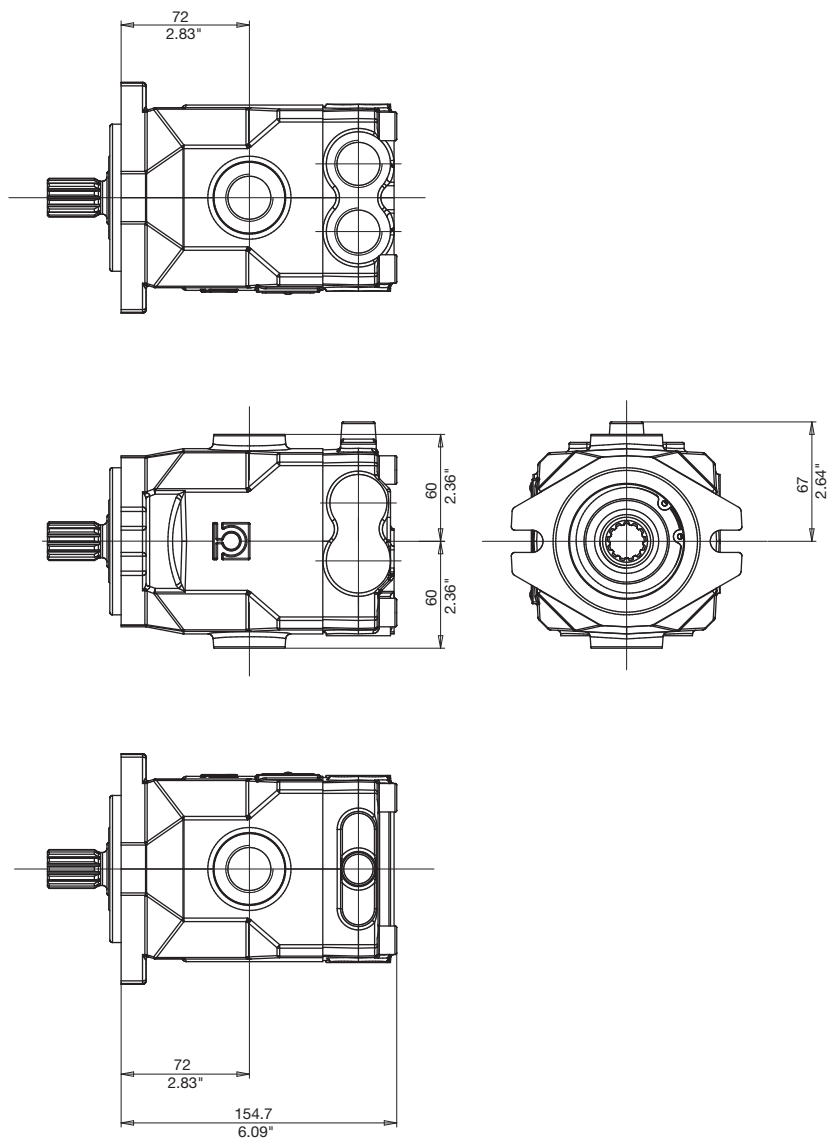
DATI TECNICI TECHNICAL DATA 技术参数

GRUPPO GROUP 组别	CILINDRATA TEORICA NOMINAL DISPLACEMENT 公称排量 (TM)		CONTINUA CONTINUOUS 持续压力		PRESSIONE PRESSURE DRUCK INTERMITTENTE INTERMITTENT 间歇压力		PICCO PEAK 峰值压力		VELOCITÀ DI ROTAZIONE SPEED 转速		MASSA WEIGHT 重量	
	cm ³	in ³	bar	psi	bar	psi	bar	psi	min ⁻¹	min ⁻¹	kg	lbs
M4 MF	21	1,28	250	3625	300	4350	350	5075	3600	500	7,5	16,50
	28	1,71	250	3625	300	4350	350	5075	3600	500	7,8	17,16
	37	2,26	250	3625	300	4350	350	5075	2800	500	8,1	17,82



DIMENSIONI
SIZE
尺寸

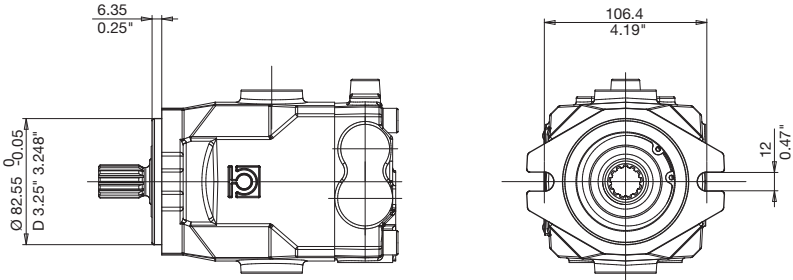
M4 MF



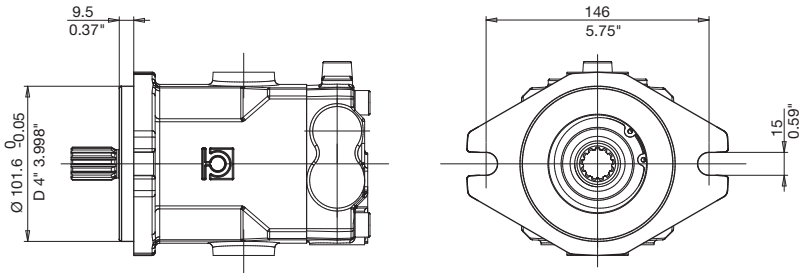
FLANGE
FLANGES
法兰

M4 MF

A SAE A
SAE A
SAE A



B SAE B
SAE B
SAE B





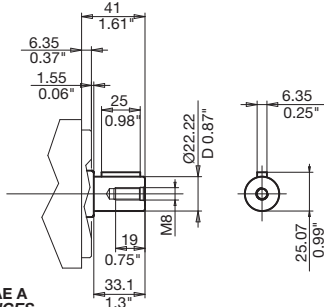
ESTREMITÀ ALBERI
SPLINE SHAFTS
轴端

M4 MF

1

COPPIA MAX
MAX TORQUE
最大扭矩

210 N•m

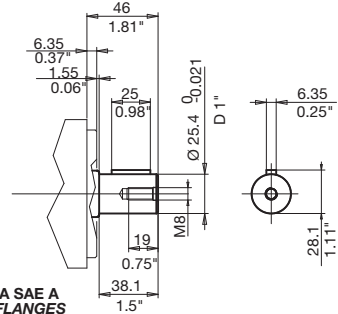


SU FLANGIA SAE A
ON SAE A FLANGES
连接法兰SAE A

2

COPPIA MAX
MAX TORQUE
最大扭矩

250 N•m

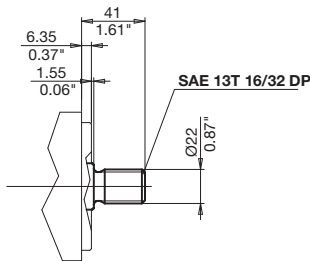


SU FLANGIA SAE A
ON SAE A FLANGES
连接法兰SAE A

6

COPPIA MAX
MAX TORQUE
最大扭矩

310 N•m

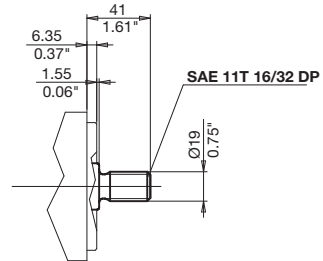


SU FLANGIA SAE A
ON SAE A FLANGES
连接法兰SAE A

7

COPPIA MAX
MAX TORQUE
最大扭矩

160 N•m

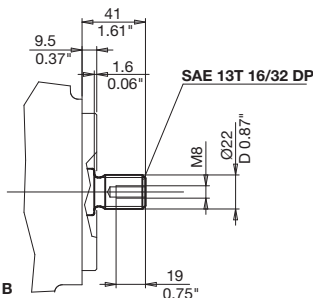


SU FLANGIA SAE A
ON SAE A FLANGES
连接法兰SAE A

6

COPPIA MAX
MAX TORQUE
最大扭矩

310 N•m

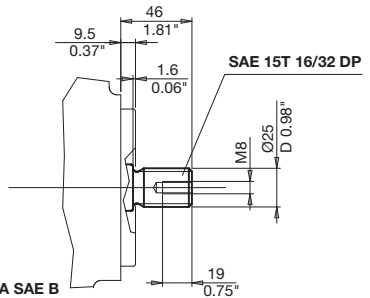


SU FLANGIA SAE B
ON SAE B FLANGES
连接法兰SAE B

3

COPPIA MAX
MAX TORQUE
最大扭矩

460 N•m



SU FLANGIA SAE B
ON SAE B FLANGES
连接法兰SAE B

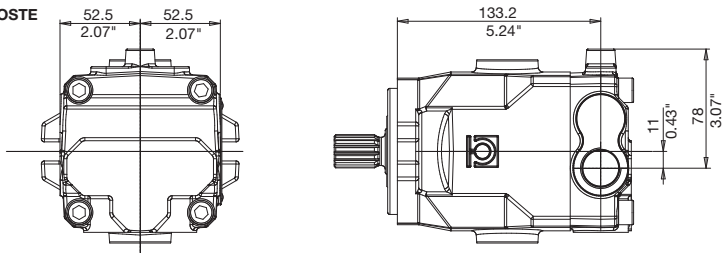
油口位置

M4 MF

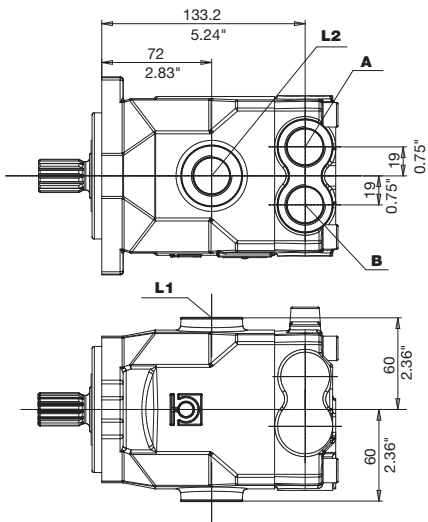
POSTERIORI
REAR
后端



LATERALI CONTRAPPOSTE
OPPOSITE SIDEWAYS
分别在两侧面



LATERALI ACCOPPIATE
COUPLED SIDEWAYS
相同側面

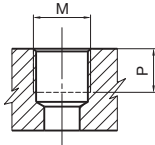


ROTAZIONE DIRECTION 转向	INGRESSO INPUT 进油口
DESTRA <i>RIGHT</i> 右	A
SINISTRA <i>LEFT</i> 左	B

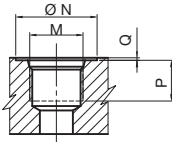


BOCCHE
PORTS
油口

M4 MF



TIPO TYPE 类型		M		P	
		Nm	mm	in	
G6	3/4" GAS BSP	90	19	0,75	



TIPO TYPE 类型	DIMENSIONE SIZE 尺寸	N		P		Q		M	
		mm	in	mm	in	mm	in		Nm
U6	3/4"	41	1,81	19	0,75	0,3	0,01	1-1/16-12 UNF	90

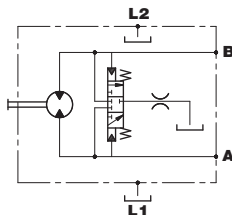
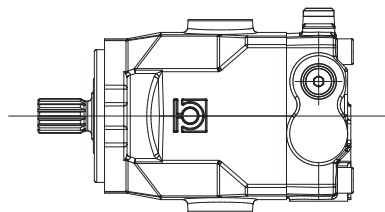
COMBINAZIONI
COMBINATIONS
组合

TIPO TYPE 类型	A - B INGRESSO/USCITA INLET/ OUTLET 进出油口	L1 - L2 - L3 DRENAGGIO DRAIN 泄油口
R	G6	G6
U	U6	U6

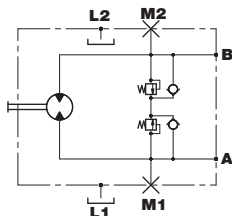
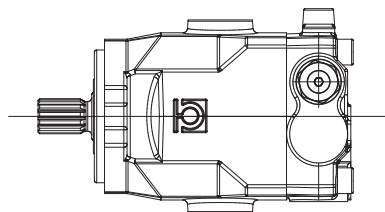
ACCESSORI
ACCESSORIES
附件

M4 MF

V VALVOLA DI SCAMBIO (5 - 7 l/min)
EXCHANGE VALVE (5- 7 l/min)
冲洗阀 (5-7 l/min)

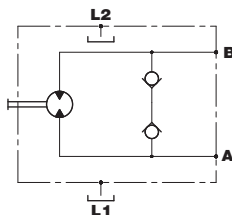
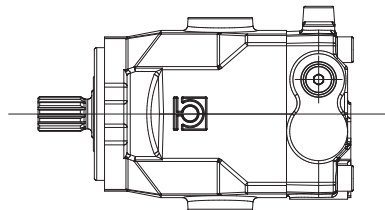


M VALVOLA DI MASSIMA
RELIEF VALVE
溢流阀



I valori di taratura sono riportati nella tabella valvole
Settings are listed in the chart for valves
阀设定列在图表中

A VALVOLE DI ANTICAVITAZIONE
ANTICAVITATION VALVE
NACHSAUGVENTIL





ISTRUZIONI PER L'ORDINAZIONE
ORDERING INSTRUCTIONS
订货示例

M4 MF

M4 MF	21	21	A	1	B	3	R	M	G	-
SERIE SERIES 系列										
CILINDRATE NOMINALI RATED DISPLACEMENT 定排量 21 - 28 - 37										
CILINDRATA DISPLACEMENT 排量 21 - 28 - 37										
FLANGIA FLANGE 法兰 A - SAE A B - SAE B										
POSIZIONE BOCCE POSITION OF PORT 油口位置 1 = Utilizzi A - B posteriori 2 = Utilizzi A - B laterali - contrapposti 3 = Utilizzi laterali accoppiati 1 = Users A - B rear 2 = Users A - B opposite sideways 3 = Users A - B coupled sideways 1 = Verbraucher A - B 后端 2 = Verbraucher A - B 分别在两侧面 3 = Verbraucher A - B 相同侧面										
SENSO DI ROTAZIONE DIRECTION OF ROTATION 油口位置 R = Destra Right L = Sinistra Left 右 左										
									ESECUZIONI SPECIALI SPECIAL VERSIONS 特殊形式	
									TARATURA VALVOLE VALVE SETTING 溢流阀设定 0 - senza valvole no valve 无溢流阀 B - 150 bar D - 180 bar E - 210 bar G - 250 bar I - 280 bar L - 300 bar O - 350 bar P - 400 bar Q - 420 bar R - 450 bar	
									ACCESSORI ACCESSORIES 附件 0 = Nessuna opzione A = Valvola di anticavitazione M = Valvola di massima P = Drenaggio posteriore V = Valvola di scambio 0 = no accessories A = Anticavitation valve M = Relief valve P = Rear drainage V = Exchange valve 0 = 无附件 A = anticavitation valve M = 溢流阀 P = 后侧泄油口 V = 冲洗阀	
									BOCCE PORTS 油口 Vedi tabella See chart 见图表	
									ESTREMITÀ D'ALBERO SHAFT PROFIL 轴端 1 = cilindrico Ø 22.22 (7/8") 2 = cilindrico Ø 25.4 (1") 3 = scanalato maschio 16/32" d.p. Z 15 (Std) 6 = scanalato maschio 16/32" d.p. Z 13 7 = scanalato maschio 16/32" d.p. Z 11 1 = Round shaft Ø 22.22 (7/8") 2 = Round shaft Ø 25.4 (1") 3 = Male splined shaft Z15 16/32" d.p. (Std) 6 = Male splined shaft Z 13 16/32" d.p. 7 = Male splined shaft Z11 16/32" d.p. 1 = 圆轴 Ø 22.22 (7/8") 2 = 圆轴 Ø 25.4 (1") 3 = 花键轴 Z 15-16/32" d.p. (Std) 6 = 花键轴 Z 13-16/32" d.p. 7 = 花键轴 Z 11-16/32" d.p.	

M4 MF

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The M4 MF series axial piston motors have been designed to work both in an open and in a closed circuit.

Control systems actually available are making easy to use these motors in any application for industrial and mobile field.

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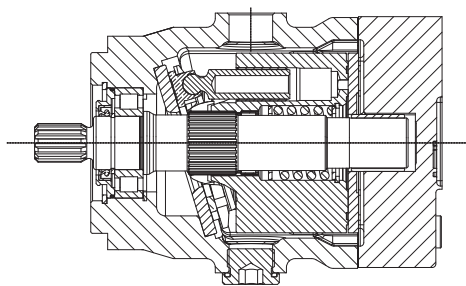
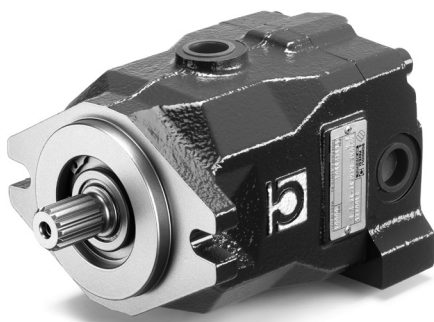
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M4 MF 34.46.50.58.65



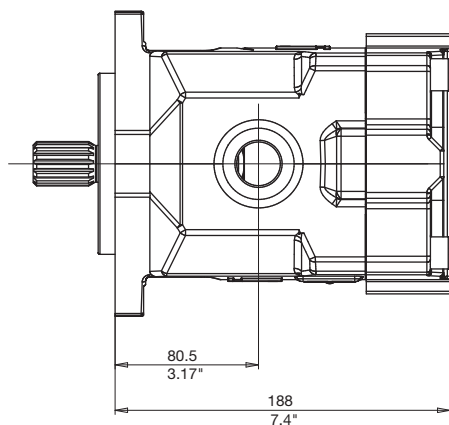
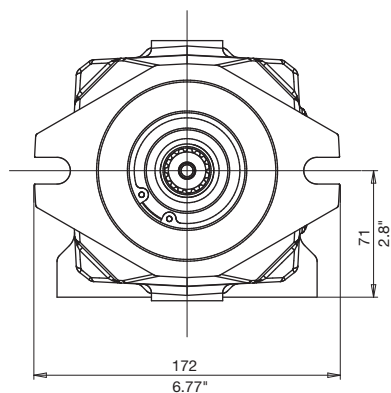
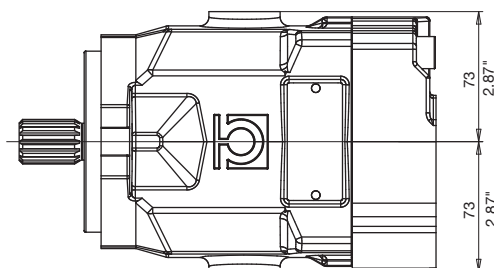
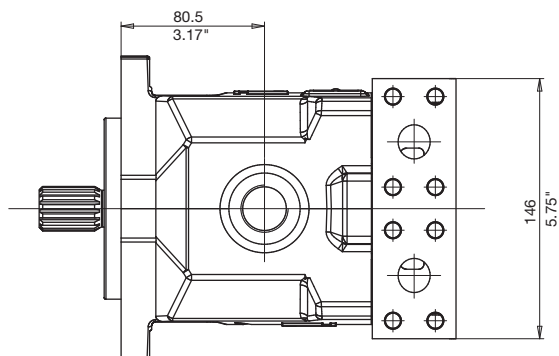
DATI TECNICI TECHNICAL DATA 技术参数

GRUPPO GROUP 组别	CILINDRATA TEORICA NOMINAL DISPLACEMENT 公称排量 (TM)		CONTINUA CONTINUOUS 持续压力		PRESSIONE PRESSURE DRUCK INTERMITTENTE INTERMITTENT 间歇压力		PICCO PEAK 峰值压力		VELOCITÀ DI ROTAZIONE SPEED 转速 MAX MIN		MASSA WEIGHT 重量	
	cm³	in³	bar	psi	bar	psi	bar	psi	min⁻¹	min⁻¹	kg	lbs
M4 MF	34	2,08	250	3625	330	4785	400	5800	3600	500	13	28,60
	46	2,81	250	3625	330	4785	400	5800	3600	500	13	28,60
	50	3,05	250	3625	330	4785	400	5800	3600	500	14	30,80
	58	3,54	250	3625	330	4785	400	5800	3600	500	14	30,80
	65	3,97	250	3625	300	4350	350	5075	3600	500	14	30,80



DIMENSIONI
SIZE
尺寸

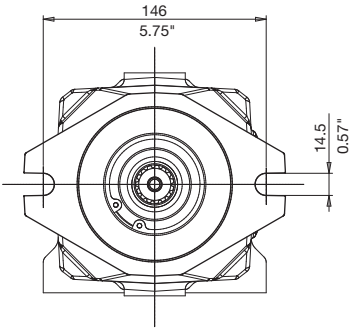
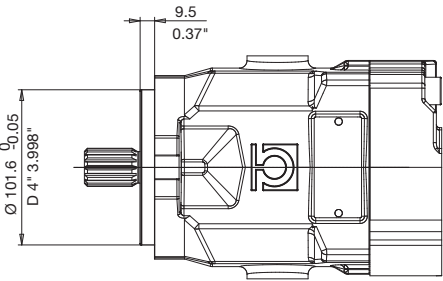
M4 MF



FLANGE
FLANGES
法兰

M4 MF

B SAE B
SAE B
SAE B





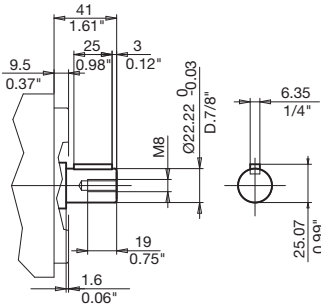
ESTREMITÀ ALBERI
SPLINE SHAFTS
轴端

M4 MF

1

COPPIA MAX
MAX TORQUE
最大扭矩

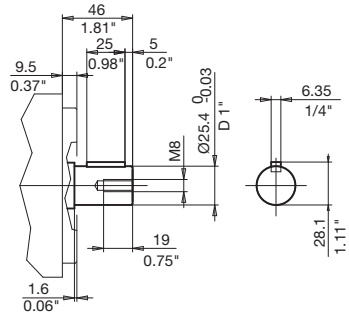
210 N•m



2

COPPIA MAX
MAX TORQUE
最大扭矩

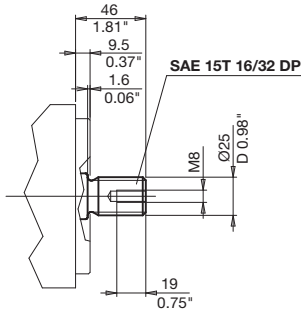
250 N•m



3

COPPIA MAX
MAX TORQUE
最大扭矩

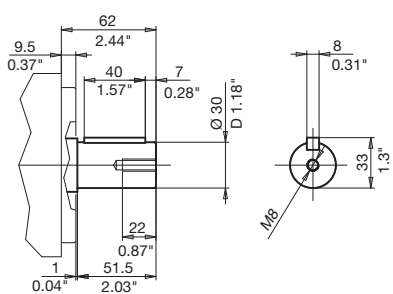
460 N•m



4

COPPIA MAX
MAX TORQUE
最大扭矩

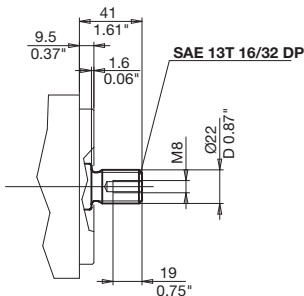
300 N•m



6

COPPIA MAX
MAX TORQUE
最大扭矩

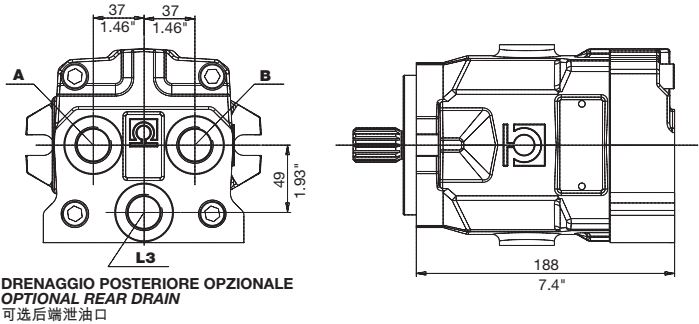
310 N•m



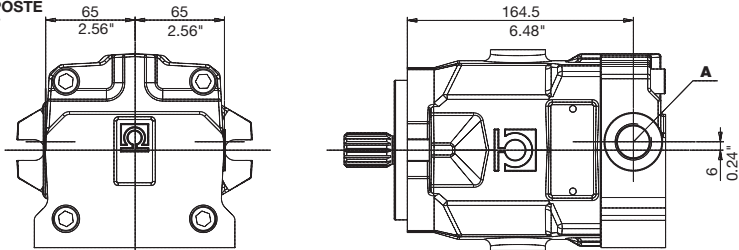
POSIZIONE BOCCHE
POSITION OF PORTS
油口位置

M4 MF

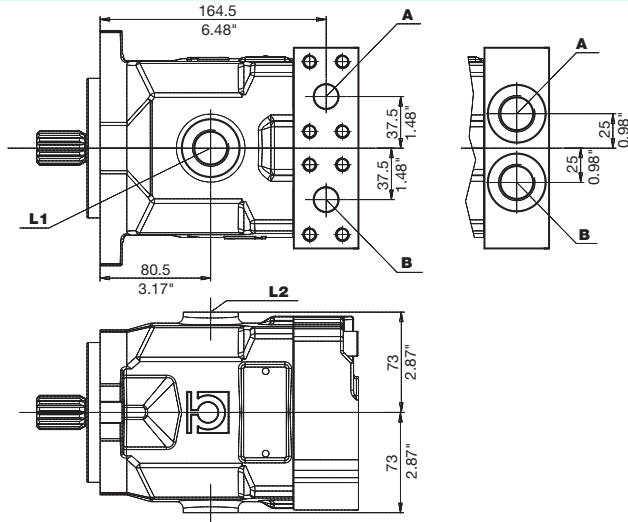
1 POSTERIORI
REAR
后端



2 LATERALI CONTRAPPOSTE
OPPOSITE SIDEWAYS
分别在两侧面



3 LATERALI ACCOPPIATE
COUPLED SIDEWAYS
相同侧面

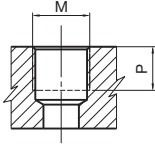


ROTAZIONE DIRECTION 转向	INGRESSO INPUT 进油口
DESTRA RIGHT 右	A
SINISTRA LEFT 左	B

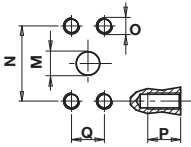


**BOCCHIE
PORTS
油口**

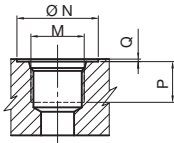
M4 MF



TIPO TYPE 类型		M		P	
		Nm		mm	in
G6	3/4" GAS BSPP	90		19	0,75



TIPO TYPE 类型	M		N		P		Q		O	
	mm	in	mm	in	mm	in	mm	in		Nm
N6	19	0,75	50,8	2	20	0,79	23,80	0,94	M10	38



TIPO TYPE 类型	DIMENSIONE SIZE 尺寸	N		P		Q		M	
		mm	in	mm	in	mm	in		Nm
U6	3/4"	41	1,81	19	0,75	0,3	0,01	1-1/16-12 UNF	90

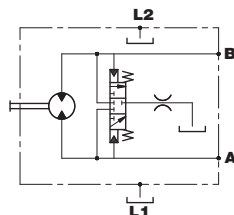
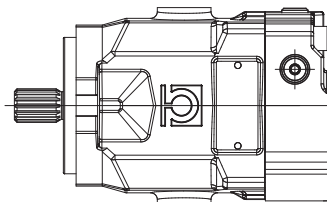
**COMBINAZIONI
COMBINATIONS
组别**

TIPO TYPE 类型	A - B INGRESSO/USCITA INLET/ OUTLET 进出油口	L1 - L2 - L3 DRENAGGIO DRAIN 泄油口
R	G6	G6
U	U6	U6
N	N6	G6
M	N6	U6

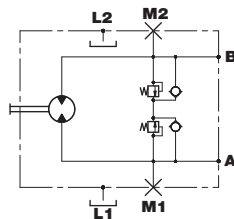
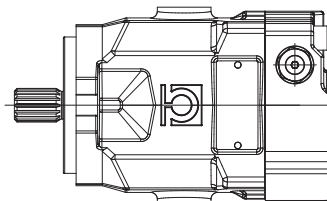
ACCESSORI
ACCESSORIES
附件

M4 MF

V VALVOLA DI SCAMBIO (5 - 7 l/min)
EXCHANGE VALVE (5- 7 l/min)
冲洗阀 (5-7 l/min)



M VALVOLA DI MASSIMA
RELIEF VALVE
溢流阀



I valori di taratura sono riportati nella tabella valvole
Settings are listed in the chart for valves
阀设定列在图表中



ISTRUZIONI PER L'ORDINAZIONE
ORDERING INSTRUCTIONS
订货示例

M4 MF

M4 MF

58

58

1

B

3

R

M

G

-

SERIE
SERIES
系列

CILINDRATE NOMINALI
RATED DISPLACEMENT
定排量
34 - 46 - 50 - 58 - 65

CILINDRATA
DISPLACEMENT
排量
34 - 46 - 50 - 58 - 65

POSIZIONE BOCCHE
POSITION OF PORT
油口位置
1 = Utilizzi A - B posteriori
2 = Utilizzi A - B laterali - contrapposti
3 = Utilizzi laterali accoppiati
1 = Users A - B rear
2 = Users A - B opposite sideways
3 = Users A - B coupled sideways
1 = Verbraucher A - B 后端
2 = Verbraucher A - B 分别在两侧面
3 = Verbraucher A - B 相同侧面

SENSO DI ROTAZIONE
DIRECTION OF ROTATION
旋转方向
R = Destra
Right
右
L = Sinistra
Left
左

ESECUZIONI SPECIALI
SPECIAL VERSIONS
特殊形式

TARATURA VALVOLE
VALVE SETTING
溢流阀设定
0 - senza valvole
no valve
无溢流阀
B - 150 bar
D - 180 bar
E - 210 bar
G - 250 bar
I - 280 bar
L - 300 bar
O - 350 bar
P - 400 bar

ACCESSORI
ACCESSORIES
ZUBEHÖR
0 = Nessuna opzione
M = Valvola di massima
P = Drenaggio posteriore
V = Valvola di scambio
0 = no accessories
M = Relief valve
P = Rear drainage
V = Exchange valve
0 = 无附件
M = 溢流阀
P = 后端泄油口
V = 冲洗阀

BOCCHIE
PORTS
油口
Vedi tabella
See chart
见图表

ESTREMITÀ D'ALBERO
SHAFT PROFIL
轴端
1 = cilindrico Ø 22.22 (7/8")
2 = cilindrico Ø 25.4 (1")
3 = scanalato maschio 16/32" d.p. Z 15 (Std)
4 = cilindrico Ø 30
6 = scanalato maschio 16/32" d.p. Z 13
1 = Round shaft Ø 22.22 (7/8")
2 = Round shaft Ø 25.4 (1")
3 = Male splined shaft Z15 16/32" d.p. (Std)
4 = Round shaft Ø 30
6 = Male splined shaft Z 13 16/32" d.p.
1 = 圆轴 Ø 22.22 (7/8")
2 = 圆轴 Ø 25.4 (1")
3 = 花键轴 Z 15-16/32" d.p. (Std)
4 = 圆轴 Ø 30
6 = 花键轴 Z 13-16/32" d.p.

HP M7 HP M8

MOTORI A PISTONI ASSIALI A PIATTO INCLINATO SWASHPLATE AXIAL PISTON MOTORS

斜盘式轴向柱塞马达

I motori a pistoni assiali serie HP M7, HP M8 sono stati concepiti per operare sia in circuito chiuso che aperto.

I vari sistemi di comando disponibili li rendono facilmente adattabili alle esigenze applicative sia per il settore industriale che mobile.

Lo sviluppo di gruppi rotanti appositamente concepiti, unito ad uno studio accurato delle sezioni di passaggio dell'olio, consentono a questi motori di raggiungere elevate velocità di rotazione, garantendo una elevata affidabilità per pressioni di funzionamento fino a 350 bar continui per HPM7 (400 bar di picco) e 400 bar continui per HPM8 (450 bar di picco). I motori possono essere forniti completi di accessori quali valvole a scarico incrociato e valvola di scambio integrata, disponibili a richiesta.

The HP M7 and M8 series axial piston motors have been designed to work both in an open and in a closed circuit.

Control systems actually available are making easy to use these motors in any application for industrial and mobile field. Development of rotating groups, especially designed, united to an accurate study of oil passage sections, allow high speed rotation, giving extreme reliability for working continuous pressure unit of 350 bar for motors of Series M7 (peak pressure up to 400 bar) and 400 bar and until 450 bar for peak pressure for motors of Series M8.

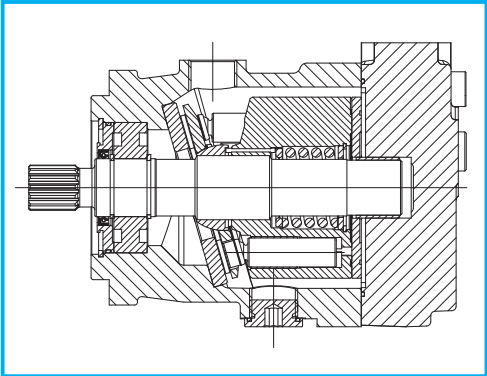
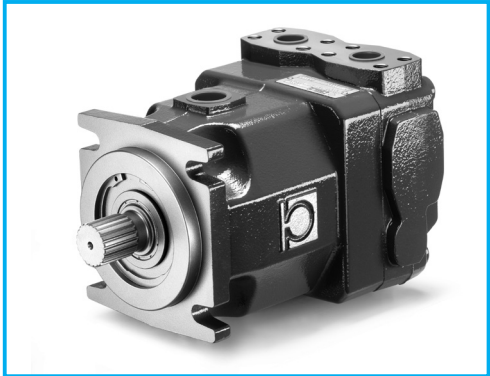
Motors can be supplied on requests with complete accessories such as cross relief and anticavitation valves and built-in relief valve.

HP M7 and M8系列轴向柱塞马达应用于闭式或开式系统中。

控制系统可使马达应用于工业和行走机械领域中不同场合，旋转组件的研发和特别设计，加上对油路截面的精确研究，稳定运行时，持续工作压力可达到350bar，工作压力峰值可达到400bar。

根据要求，马达可带各种附件，例如交叉式溢流阀和内置溢流阀。

HP M7 - HP M8 77.82.92.100.111.125



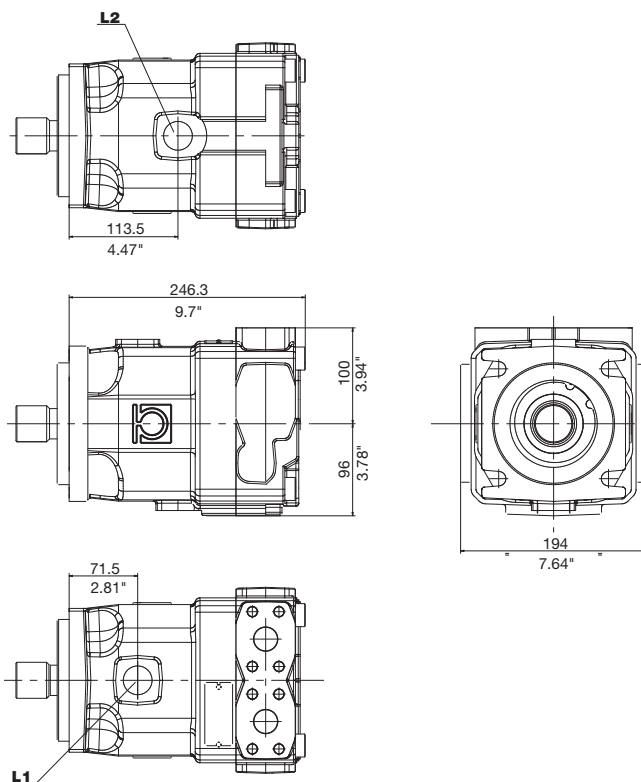
DATI TECNICI TECHNICAL DATA 技术参数

GRUPPO GROUP 组别	CILINDRATA TEORICA NOMINAL DISPLACEMENT 公称排量 (l/min)		CONTINUA CONTINUOUS 持续压力		PRESSIONE PRESSURE DRUCK INTERMITTENTE INTERMITTENT 间歇压力		PICCO PEAK 峰值压力		VELOCITÀ DI ROTAZIONE SPEED 转速		MASSA WEIGHT 重量	
	cm³	in³	bar	psi	bar	psi	bar	psi	min⁻¹	min⁻¹	kg	lbs
HP M7	77	4,7	350	5075	380	5510	400	5800	3600	500	39	86
	82	5,0	350	5075	380	5510	400	5800	3600	500	39	86
	92	5,6	350	5075	380	5510	400	5800	3200	500	39	86
	100	6,1	350	5075	380	5510	400	5800	3200	500	40	88
	111	6,8	350	5075	380	5510	400	5800	2800	500	40	88
	125	7,6	350	5075	380	5510	400	5800	2800	500	40	88
HP M8	77	4,7	400	5800	420	6090	450	6525	3600	500	39	86
	82	5,0	400	5800	420	6090	450	6525	3600	500	39	86
	92	5,6	400	5800	420	6090	450	6525	3200	500	39	86
	100	6,1	400	5800	420	6090	450	6525	3200	500	40	88
	111	6,8	400	5800	420	6090	450	6525	2800	500	40	88
	125	7,6	400	5800	420	6090	450	6525	2800	500	40	88

DIMENSIONI
SIZE
 尺寸

HP M7

HP M8



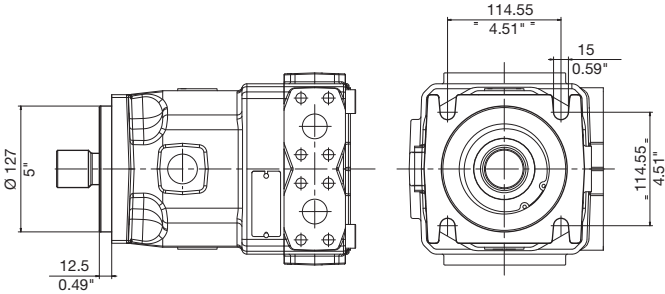
FLANGE
FLANGES
法兰

HP M7

HP M8

C

SAE C 4 FORI
SAE C 4 HOLES
SAE C 4孔

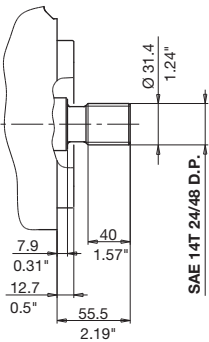


ESTREMITÀ ALBERI
SPLINE SHAFTS
轴端

3

COPPIA MAX
MAX TORQUE
最大扭矩

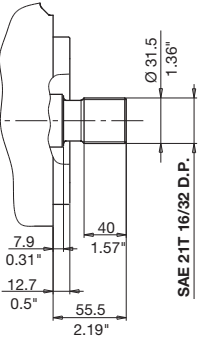
865 N•m



7

COPPIA MAX
MAX TORQUE
最大扭矩

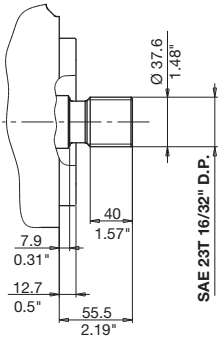
1085 N•m



8

COPPIA MAX
MAX TORQUE
最大扭矩

1300 N•m





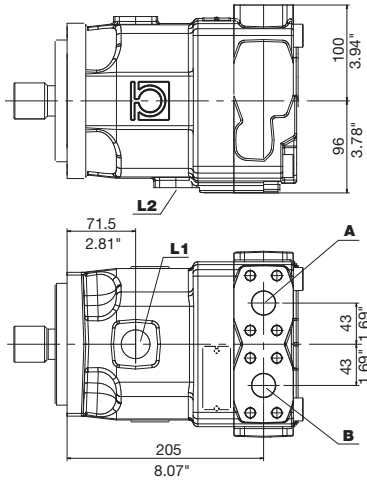
POSIZIONE BOCHE
POSITION OF PORTS
油口位置

HP M7

HP M8

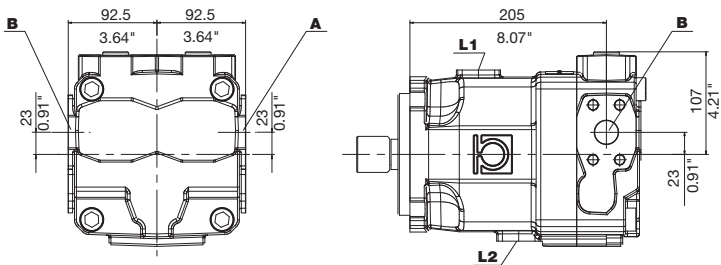
A

LATERALI ACCOPPIATE
COUPLED SIDEWAYS
相同侧面



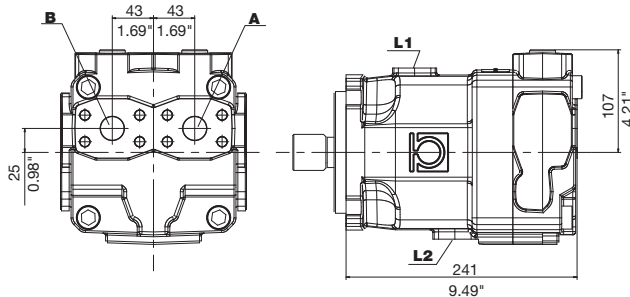
L

LATERALI CONTRAPPOSTE
OPPOSITE SIDEWAYS
分别在两侧面



P

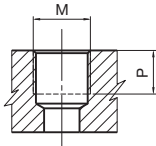
POSTERIORI
REAR
后端



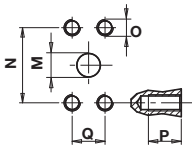
BOCCHE
PORTS
油口

HP M7

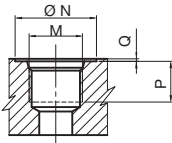
HP M8



TIPO TYPE 类型	M		P	
		Nm	mm	in
G7	1" GAS BSPP	160	18	0,75



TIPO TYPE 类型	M		N		P		Q		O	
	mm	in	mm	in	mm	in	mm	in	mm	Nm
N7	25	1	57,15	2,25	20	0,78	27,76	1,09	M12	70



TIPO TYPE 类型	DIMENSIONE SIZE 尺寸	N		P		Q		M	
		mm	in	mm	in	mm	in		Nm
U7	1"	49	1,93	18	0,70	0,3	0,01	1-5/16-12 UNF	160

COMBINAZIONI
COMBINATIONS
组合

TIPO TYPE 类型	A - B INGRESSO/USCITA INLET/ OUTLET 进出油口	L1 - L2 DRENAGGIO DRAIN 泄油口
G	N7	G7
U	N7	U7



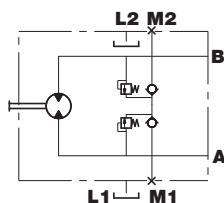
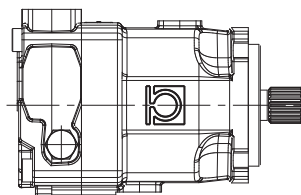
**ACCESSORI
ACCESSORIES**
附件

HP M7

HP M8

M

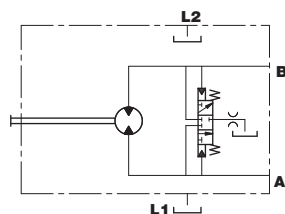
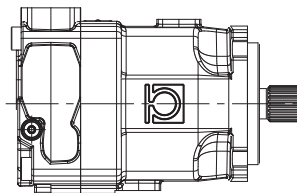
**VALVOLA DI MASSIMA
RELIEF VALVE
溢流阀**



I valori di taratura sono riportati nella tabella valvole
Settings are listed in the chart for valves
阀设定列在图表中

V

**VALVOLA DI SCAMBIO (5 - 7 l/min)
EXCHANGE VALVE (5- 7 l/min)
冲洗阀 (5-7 l/min)**







ISTRUZIONI PER L'ORDINAZIONE
ORDERING INSTRUCTIONS
订货示例

HP M7

HP M8

HP	M8	082	B	C	3	G	A	V	0	...
SERIE SERIES 系列										
PRODOTTO PRODUCT 产品										
M7 - Motori a pistoni assiali a cilindrata fissa media pressione M8 - Motori a pistoni assiali a cilindrata fissa alta pressione M7 - Fixed-displacement axial piston motor, medium pressure M8 - Fixed-displacement axial piston motor, high pressure M7 - 定排量轴向柱塞马达 中压 M8 - 定排量轴向柱塞马达 高压										
CILINDRATA DISPLACEMENT 排量										
077 - 082 - 092 - 100 - 111 - 125										
SENSO DI ROTAZIONE ROTATION 转向										
B - Bidirezionale B - Bidirectional B - Bidirektional										
FLANGIA FLANGE 法兰										
C - SAE C 4 fori C - SAE C 4 holes C - SAE C 4孔										
ESTREMITÀ ALBERO SHAFT PROFIL 轴端										
3 - Z14 12/24" DP 7 - Z21 16/32" DP 8 - Z23 16/32" DP										
BOCCHE PORTS 油口										
G - Gas U - UNF										
ESECUZIONI SPECIALI SPECIAL VERSIONS 特殊形式										
TARATURA VALVOLE VALVE SETTING 溢流阀设定 0 - senza valvole no valve 无溢流阀 I - 280 bar L - 300 bar O - 350 bar P - 400 bar Q - 420 bar R - 450 bar										
ACCESSORI ACCESSORIES 附件 0 - nessuno M - Valvola di massima pressione S - accessori multipli esecuzioni speciali V - valvola di scambio 0 - no accessories M - Relief valve S - multiple accessories special versions V - exchange valve 0 - 无附件 M - 溢流阀 S - 多联马达附件 特殊形式 V - 冲洗阀										
POSIZIONE BOCCHIE POSITION OF PORTS 油口位置 A - Laterali accoppiate L - Laterali contrapposte P - Posteriori A - Coupled sideways L - Opposite sideways P - Rear A - 相同侧面 L - 分别在两侧面 P - 后端										

M4 MV

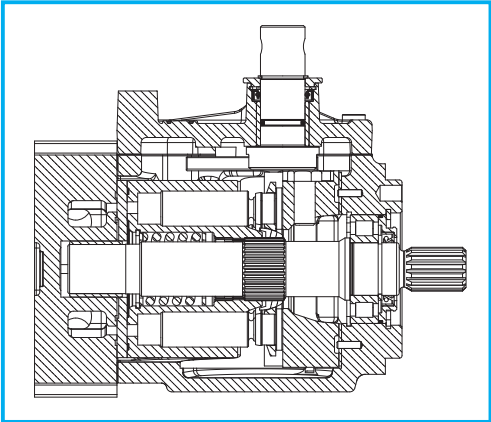
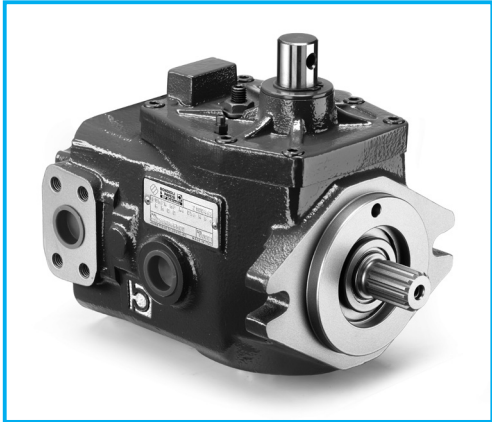
MOTORI A PISTONI ASSIALI A CILINDRATA VARIABILE VARIABLE-DISPLACEMENT AXIAL PISTON MOTORS 变排量轴向柱塞马达

I motori a pistoni assiali serie M4 MV sono a cilindrata variabile del tipo a piatto inclinato e sono stati concepiti per operare sia in circuito chiuso che aperto. Lo sviluppo di gruppi rotanti appositamente progettati unito ad uno studio accurato delle sezioni di passaggio dell'olio, consentono a questi motori di raggiungere elevate velocità di rotazione garantendo una elevata affidabilità per pressioni di funzionamento fino a 250 bar continui (400 bar di picco). I motori possono essere forniti completi di accessori quali valvole a scarico incrociato e valvola di scambio integrata disponibili a richiesta.

The M4 MV series axial piston motors have been designed to work both in an open and in a closed circuit. Control systems actually available are making easy to use these motors in any application for industrial and mobile field. Development of rotating groups, especially designed, united to an accurate study of oil passage sections, allow high speed rotation, giving extreme reliability for working continuous pressure unit 250 bar and until 400 bar for peak pressure. Motors can be supplied on requests with complete accessories such as cross relief and anticavitation valves and flushing valve.

M4 MF系列轴向柱塞马达应用于闭式或开式系统中。控制系统可使马达应用于工业和行走机械领域中不同场合，旋转组件的研发和特别设计，加上对油路截面的精确研究，稳定运行时，持续工作压力可达到250bar，工作压力峰值可达到400bar。根据要求，马达可带各种附件，例如交叉式溢流阀和内置溢流阀。

M4 MV 34.46.50.58.65

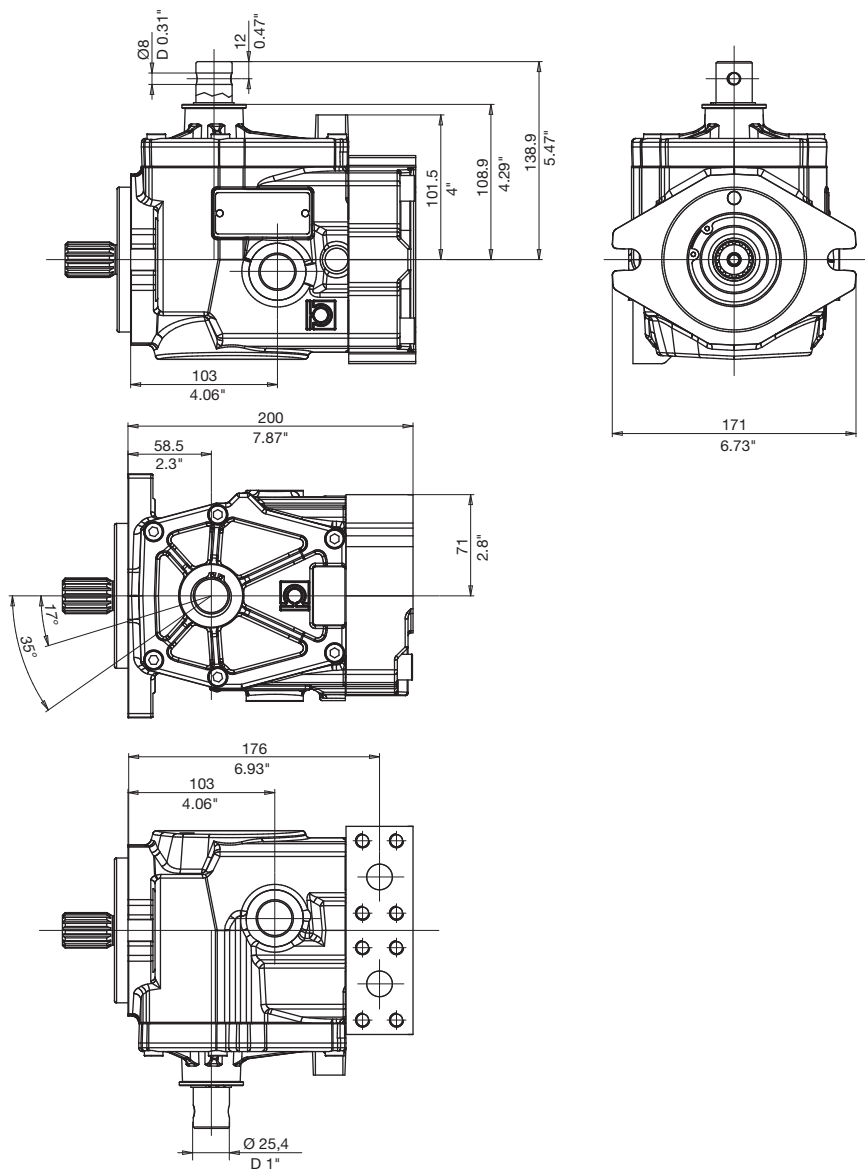


DATI TECNICI TECHNICAL DATA 技术参数

GRUPPO GROUP 组别	CILINDRATA TEORICA NOMINAL DISPLACEMENT 公称排量 (TM)		PRESSIONE PRESSURE DRUCK						VELOCITÀ DI ROTAZIONE SPEED 转速			MASSA WEIGHT 重量	
			CONTINUA CONTINUOUS 持续压力		INTERMITTENTE INTERMITTENT 间歇压力		PICCO PEAK 峰值压力		MAX (max V)	MAX (min V)	MIN		
	cm ³	in ³	bar	psi	bar	psi	bar	psi				min ⁻¹	min ⁻¹
M4 MV	34	2,08	250	3625	330	4785	400	5800	3600	4000	500	19	41,80
	46	2,81	250	3625	330	4785	400	5800	3600	4000	500	19	41,80
	50	3,05	250	3625	330	4785	400	5800	3600	4000	500	20	44,00
	58	3,54	250	3625	330	4785	400	5800	3600	4000	500	20	44,00
	65	3,97	250	3625	300	4350	350	5075	3600	4000	500	20	44,00

DIMENSIONI
SIZE
尺寸

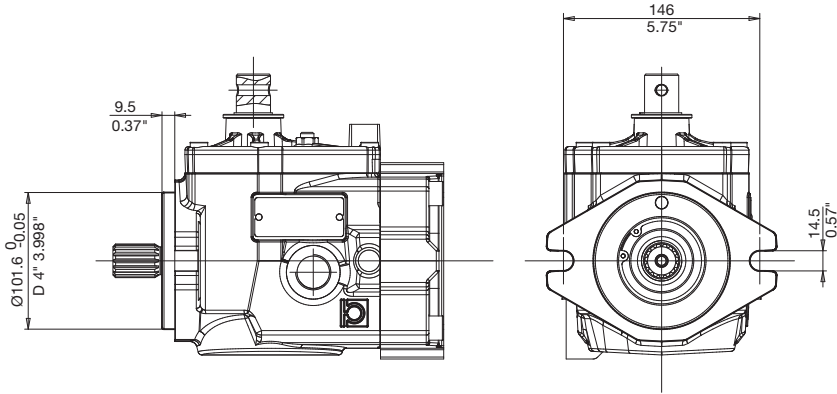
M4 MV



FLANGE
FLANGES
法兰

M4 MV

B SAE B
SAE B
SAE B





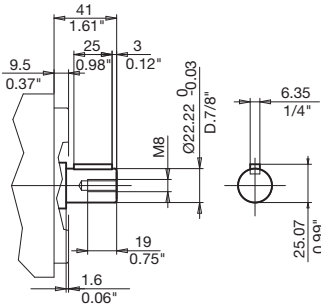
**ESTREMITÀ ALBERI
SPLINE SHAFTS**
花键轴

M4 MV

1

**COPPIA MAX
MAX TORQUE**
最大扭矩

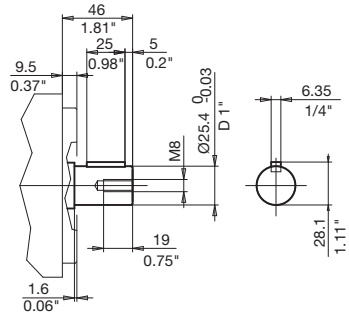
210 N•m



2

**COPPIA MAX
MAX TORQUE**
最大扭矩

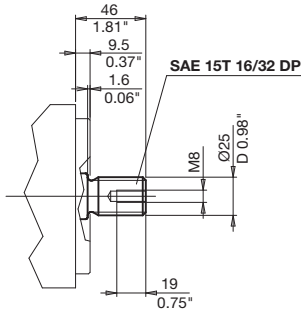
250 N•m



3

**COPPIA MAX
MAX TORQUE**
最大扭矩

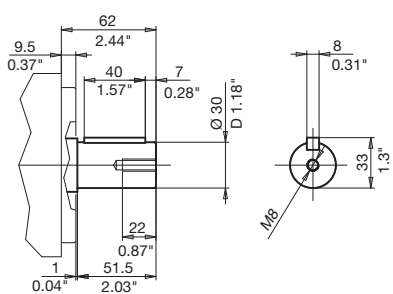
460 N•m



4

**COPPIA MAX
MAX TORQUE**
最大扭矩

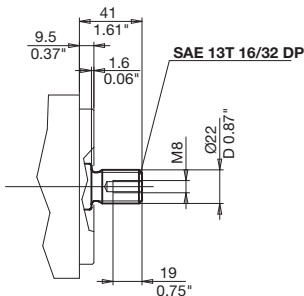
300 N•m



6

**COPPIA MAX
MAX TORQUE**
最大扭矩

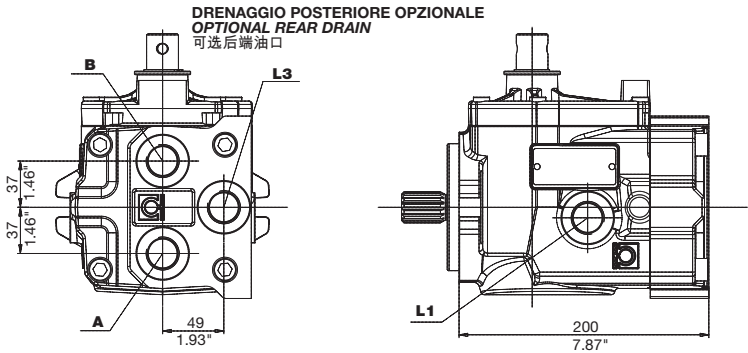
310 N•m



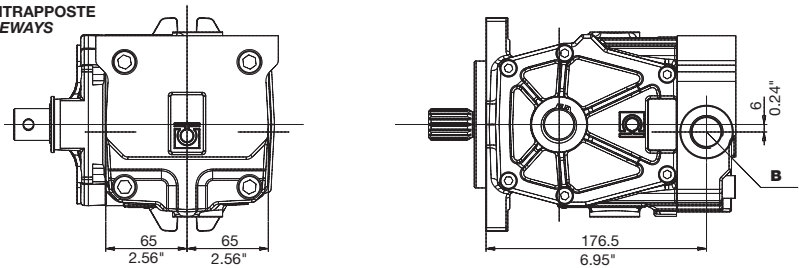
POSIZIONE BOCHE
POSITION OF PORTS
油口位置

M4 MV

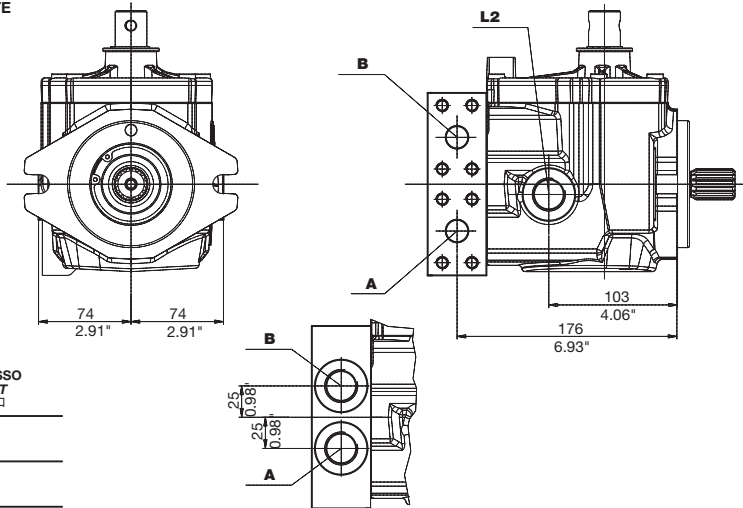
1 POSTERIORI
REAR
后端



2 LATERALI CONTRAPPOSTE
OPPOSITE SIDEWAYS
分别在两侧面



3 LATERALI ACCOPPIATE
COUPLED SIDEWAYS
相同侧面

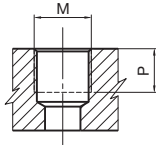


ROTAZIONE DIRECTION 转向	INGRESSO INPUT 进油口
DESTRA RIGHT 右	A
SINISTRA LEFT 左	B

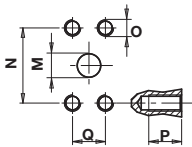


**BOCCHE
PORTS
油口**

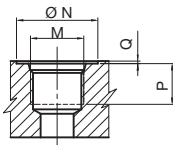
M4 MV



TIPO TYPE 类型	M		P	
		Nm	mm	in
G6	3/4" GAS BSPP	90	19	0,75



TIPO TYPE 类型	M		N		P		Q		O	
	mm	in	mm	in	mm	in	mm	in	mm	Nm
N6	19	0,75	50,8	2	20	0,79	23,80	0,94	M10	38



TIPO TYPE 类型	DIMENSIONE SIZE 尺寸	N		P		Q		M	
		mm	in	mm	in	mm	in		Nm
U6	3/4"	41	1,81	19	0,75	0,3	0,01	1-1/16-12 UNF	90

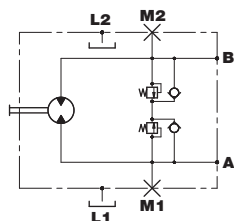
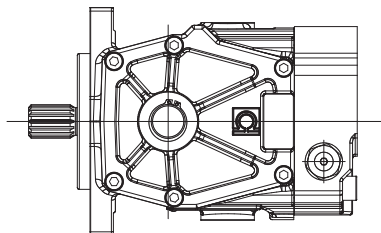
**COMBINAZIONI
COMBINATIONS
组合**

TIPO TYPE 类型	A - B INGRESSO/USCITA INLET/ OUTLET 进出油口	L1 - L2 - L3 DRENAGGIO DRAIN 泄油口
R	G6	G6
U	U6	U6
N	N6	G6
M	N6	U6

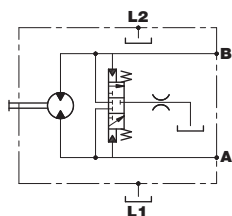
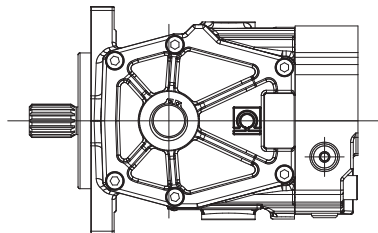
ACCESSORI
ACCESSORIES
附件

M4 MV

M VALVOLA DI MASSIMA
RELIEF VALVE
溢流阀



V VALVOLA DI SCAMBIO (5 - 7 l/min)
EXCHANGE VALVE (5- 7 l/min)
冲洗阀 (5-7 l/min)





ISTRUZIONI PER L'ORDINAZIONE
ORDERING INSTRUCTIONS
订货示例

M4 MV

M4 MV

58

58/29

M

B

1

B

3

R

V

0

-

SERIE
系列

CILINDRATE NOMINALI
RATED DISPLACEMENT
定排量
34 - 46 - 50 - 58 - 65

CILINDRATA
DISPLACEMENT
排量
34/17 - 46/23 - 50/25 - 58/29 - 65/32

COMANDI
CONTROLS
控制方式
M = Comando manuale (Rapporto 1:2)
M = Manual control (Ratio 1:2)
M = 手动控制 (比例1 : 2)

TIPO DI OSCILLANTE
SWASHPLATE TYPE
斜盘型
B = oscillante su bronzine
B = mounted on bronze bearings
B = 安装在青铜轴承上

POSIZIONE BOCCHIE
POSITION OF PORT
油口位置
1 = Utilizzi A - B posteriori
2 = Utilizzi A - B laterali - contrapposti
3 = Utilizzi laterali accoppiati
1 = Users A - B rear
2 = Users A - B opposite sideways
3 = Users A - B coupled sideways
1 = Verbraucher A - B 后置
2 = Verbraucher A - B 分别在两侧面
3 = Verbraucher A - B 相同侧面

ESECUZIONI SPECIALI
SPECIAL VERSIONS
特殊形式

TARATURA VALVOLE
VALVE SETTING
溢流阀设定
0 - senza valvole
no valve
无溢流阀
B - 150 bar
D - 180 bar
E - 210 bar
G - 250 bar
I - 280 bar
L - 300 bar
O - 350 bar
P - 400 bar

ACCESSORI
ACCESSORIES
附件
0 = Nessuna opzione
M = Valvola di massima
P = Drenaggio posteriore
V = Valvola di scambio
0 = no accessories
M = Relief valve
P = Rear drainage
V = Exchange valve
0 = 无附件
M = 溢流阀
P = 后端泄油口
V = 冲洗阀

BOCCHIE
PORTS
油口
Vedi tabella
See chart
见图表

ESTREMITÀ D'ALBERO
SHAFT PROFIL
轴端

1 = cilindrico Ø 22.22 (7/8")
2 = cilindrico Ø 25.4 (1")
3 = scanalato maschio 16/32" d.p. Z 15 (Std)
4 = cilindrico Ø 30
6 = scanalato maschio 16/32" d.p. Z 13
1 = Round shaft Ø 22.22 (7/8")
2 = Round shaft Ø 25.4 (1")
3 = Male splined shaft Z15 16/32" d.p. (Std)
4 = Round shaft Ø 30
6 = Male splined shaft Z 13 16/32" d.p.
1 = 圆轴 Ø 22.22 (7/8")
2 = 圆轴 Ø 25.4 (1")
3 = 花键轴 Z 15-16/32" d.p. (Std)
4 = 圆轴 Ø 30
6 = 花键轴 Z 13-16/32" d.p.

SENSO DI ROTAZIONE
DIRECTION OF ROTATION
旋转方向

B = Bidirezionale (Std)
B = Bidirectional (Std)
B = 双向的

HP V4

MOTORI A PISTONI ASSIALI A CILINDRATA VARIABILE VARIABLE-DISPLACEMENT AXIAL PISTON MOTORS 变排量轴向柱塞马达

I motori variabili a pistoni assiali serie HP V4 sono stati concepiti per operare sia in circuito aperto che in circuito chiuso. I vari sistemi di comando disponibili li rendono facilmente adattabili alle esigenze applicative sia per il settore industriale che mobile.

I comandi disponibili sono i seguenti:

- comando elettrico a 12 V (due posizioni)
- comando elettrico a 24 V (due posizioni)
- comando idraulico pilotabile a bassa pressione (30 bar) (due posizioni)
- comando idraulico diretto ad alta pressione (due posizioni).

The HP V4 series variable-displacement axial piston motors have been designed to work both in an open and closed circuit. Control systems actually available are making easy to use these motors in any application for industrial and mobile field. Available control systems are:

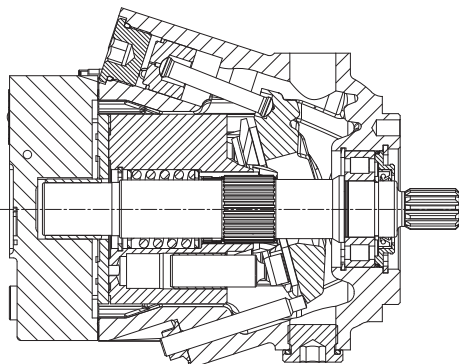
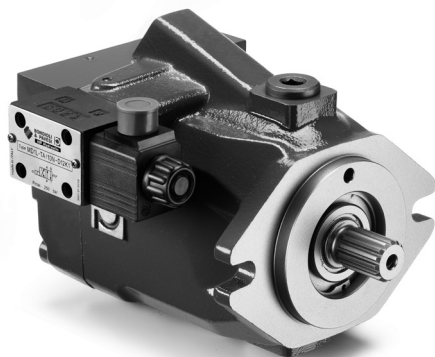
- 12 V electrical control (2-position)
- 24 V electrical control (2-position)
- hydraulic piloted, low pressure (30 bar) (2-position)
- direct hydraulic control, high pressure (2-position).

HP V4系列变排量轴向柱塞马达应用于开式或闭式系统中各种控制系统可将马达应用于工业和行走机械不同领域中。

控制系统包括：

- 12 V电磁控制 (2 位)
- 24 V电磁控制 (2 位)
- 液压先到控制，低压 (30 Bar - 2 位)
- 液压直接控制，高压 (2 位)。

HP V4 34.46.50.58.65



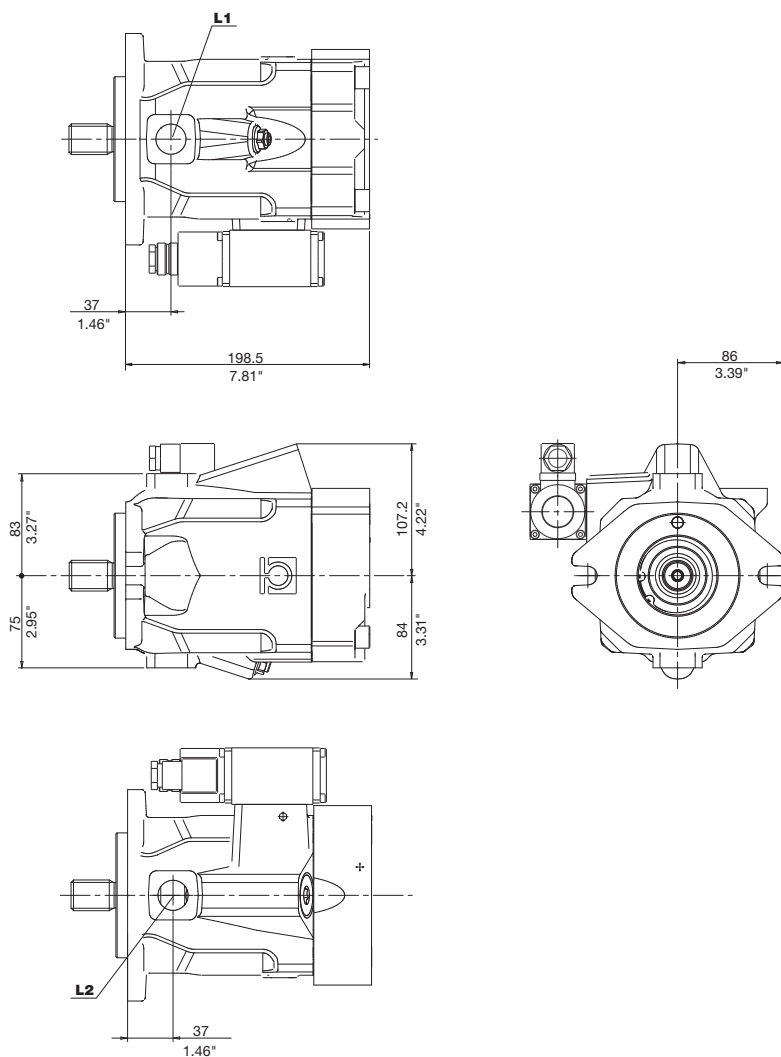
DATI TECNICI TECHNICAL DATA 技术参数

GRUPPO GROUP 组别	CILINDRATA TEORICA NOMINAL DISPLACEMENT 公称排量 (cm^3)		PRESSIONE PRESSURE 压力						VELOCITÀ DI ROTAZIONE SPEED 速度			MASSA WEIGHT 重量	
	cm^3	in^3	CONTINUA CONTINUOUS 持续压力		INTERMITTENTE INTERMITTENT 间歇压力		PICCO PEAK 峰值压力		MAX (max V)	MAX (min V)	MIN	kg	lbs
			bar	psi	bar	psi	bar	psi	min^{-1}	min^{-1}	min^{-1}		
HP V4	34	2,08	250	3625	330	4785	400	5800	3600	4000	500	23	50,61
	46	2,81	250	3625	330	4785	400	5800	3600	4000	500	23	50,61
	50	3,05	250	3625	330	4785	400	5800	3600	4000	500	23	50,61
	58	3,54	250	3625	330	4785	400	5800	3600	4000	500	24	52,81
	65	3,97	250	3625	300	4350	350	5075	3600	4000	500	24	52,81



DIMENSIONI
SIZE
尺寸

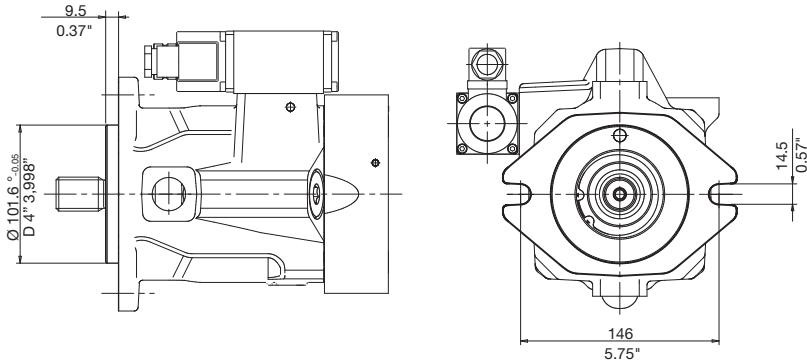
HP V4



FLANGE
FLANGES
法兰

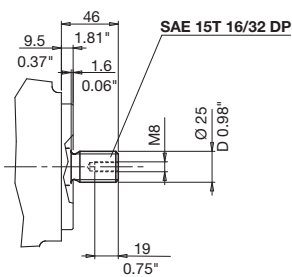
HP V4

B SAE B
SAE B
SAE B

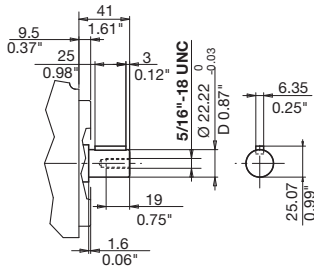


ESTREMITÀ ALBERI
SPLINE SHAFTS
花键轴

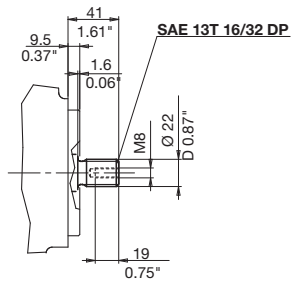
1 COPPIA MAX
MAX TORQUE
最大扭矩 460 N•m



6 COPPIA MAX
MAX TORQUE
最大扭矩 210 N•m



9 COPPIA MAX
MAX TORQUE
最大扭矩 310 N•m



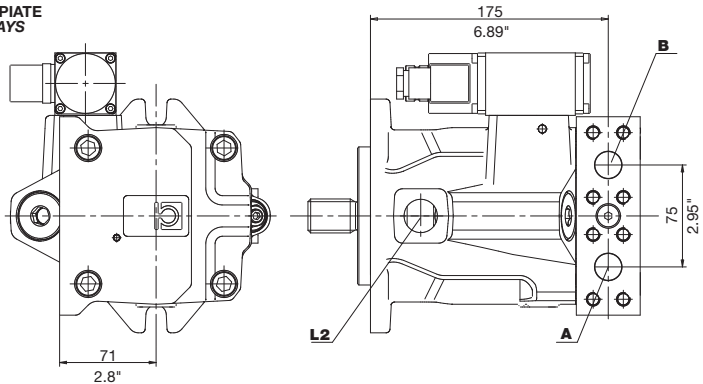


POSIZIONE BOCCHE
POSITION OF PORTS
油口位置

HP V4

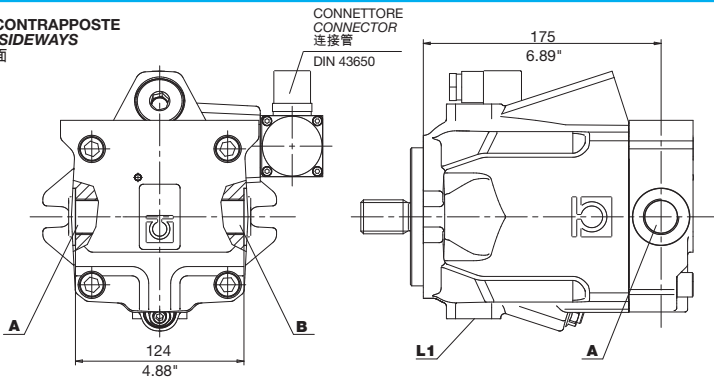
A

LATERALI ACCOPPIATE
COUPLED SIDEWAYS
相同侧面



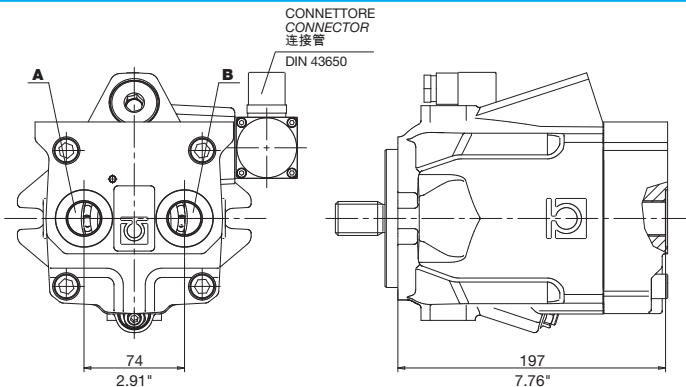
L

LATERALI CONTRAPPOSTE
OPPOSITE SIDEWAYS
分别在两侧面

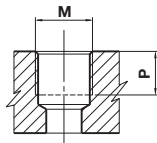


P

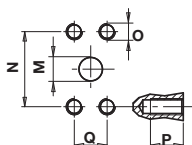
POSTERIORI
REAR
后端



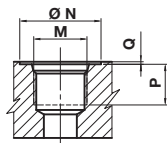
HP V4



TIPO TYPE 类型	M		P	
		NM	mm	in
G1	1/8" GAS BSPP	8	8	0,31
G6	3/4" GAS BSPP	90	19	0,75



TIPO TYPE 类型	M		N		P		Q		O	
	mm	in	mm	in	mm	in	mm	in	M10	Nm
N6	20	0,79	50,8	2,00	20	0,79	23,8	0,94	M10	38



TIPO TYPE 类型	DIMENSIONE SIZE 尺寸	N		P		Q		M	
		mm	in	mm	in	mm	in		Nm
U2	1/4"	20	0,79	12	0,47	0,3	0,01	7/16-20 UNF	17
U6	3/4"	41	1,61	20	0,79	0,3	0,01	1-1/16-12 UNF	90

COMBINAZIONI COMBINATIONS 组合

TIPO TYPE 类型	A - B PILOTAGGIO PILOT 工作油口	L1 - L2 DRENAGGIO DRAIN 泄油口	X PILOTAGGIO PILOT 先导油口
G	G6	G6	G1
M	N6	U6	U2
N	N6	G6	G1
U	U6	U6	U2

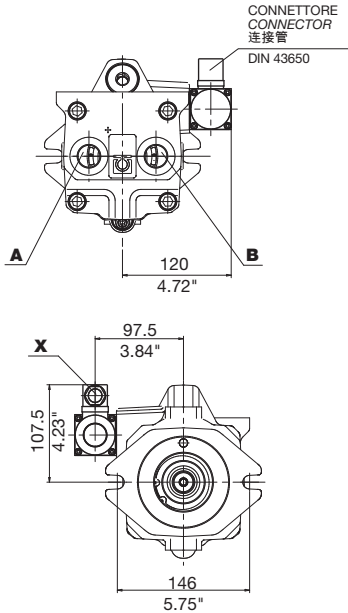


**COMANDI
CONTROLS**
控制方式

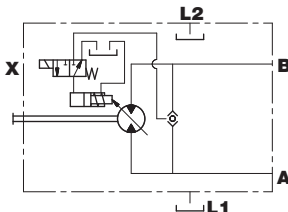
HP V4

E F
12 V 24 V

ELETTRICO A 2 POSIZIONI
ELECTRICAL, 2-POSITION
电磁控制, 2位

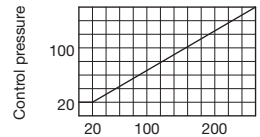
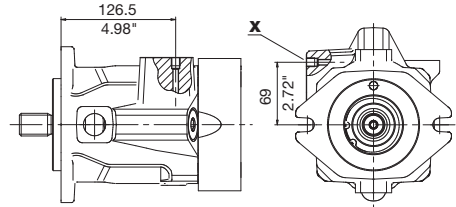


INGRESSO INLET 进油口	ROTAZIONE DIRECTION 转向	A B	Bocche Ports 工作油口
A	DESTRA RIGHT 右	L1 L2	Drenaggio Drain 泄油口
B	SINISTRA LEFT 左	X	Elettrovalvola Solenoid Valve 电磁阀



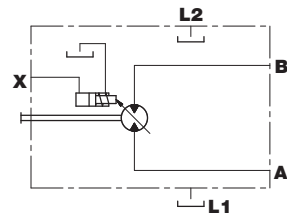
H

IDRAULICO DIRETTO A 2 POSIZIONI
DIRECT HYDRAULIC, 2-POSITION
液压直接控制, 2位



Operating pressure

INGRESSO INLET 进油口	ROTAZIONE DIRECTION 转向	A B	Bocche Ports 工作油口
A	DESTRA RIGHT 右	L1 L2	Drenaggio Drain 泄油口
B	SINISTRA LEFT 左	X	Comando idraulico diretto Direct hydraulic control 液压直接控制



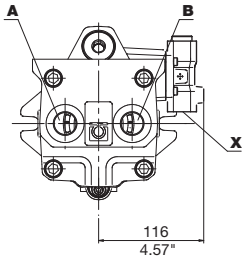
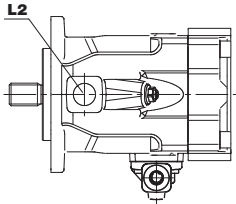
Normalmente il motore é in cilindrata massima. Applicando una pressione esterna sul pilotaggio "X" si ottiene la variazione di cilindrata alla minima. Il controllo pressione dipende direttamente dalla pressione di lavoro delle bocche "A" e "B". Per una corretta variazione della cilindrata attenersi ai valori di pressione di pilotaggio riportati nel diagramma.

The motor is usually at maximum displacement. By applying external pressure on pilot "X" the displacement is changed to a minimum. The pressure control depends directly on the working pressure at ports "A" and "B". To correctly change displacement, follow the pilot pressure values as shown in the chart.

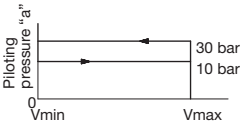
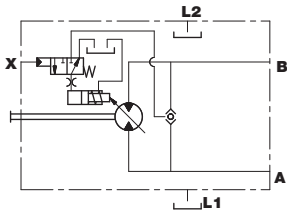
马达通常为最大排量, 通过外部先导油口 "X" 可将排量调到最小。控制压力取决于 A 和 B 有口的工作压力。根据图表中的先导压力值来正确调节排量大小。



IDRAULICO A 2 POSIZIONI
HYDRAULIC, 2-POSITION
液压控制, 2位



INGRESSO INLET 进油口	ROTAZIONE DIRECTION 转向	A B L1 L2 X	Bocche Ports 工作油口 Drenaggio Drain 泄油口 Pilotaggio Pilot 先导油口
A	DESTRA RIGHT 右		
B	SINISTRA LEFT 左		



Normalmente il motore é in cilindrata massima. Applicando una pressione esterna sul pilotaggio si ottiene la variazione di cilindrata alla minima.
Per una corretta variazione della cilindrata attenersi ai valori di pressione di pilotaggio riportati nel diagramma.

The motor is usually at maximum displacement. By applying external pressure on pilot "X" the displacement is changed to a minimum.
To correctly change displacement, follow the pilot pressure values as shown in the chart.

马达通常为最大排量，通过外部先导油口"X"可将排量调到最小。
根据图表中的先到压力值来正确调节排量大小。

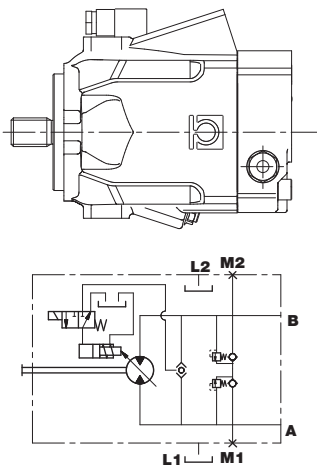


**ACCESSORI
ACCESSORIES**
附件

HP V4

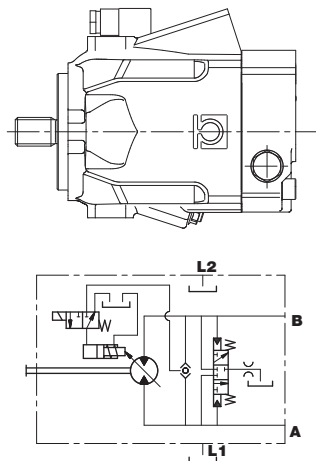
M

**VALVOLA DI MASSIMA
RELIEF VALVE
溢流阀**



V

**VALVOLA DI SCAMBIO (5 - 7 l/min)
EXCHANGE VALVE (5- 7 l/min)
冲洗阀 (5-7 l/min)**

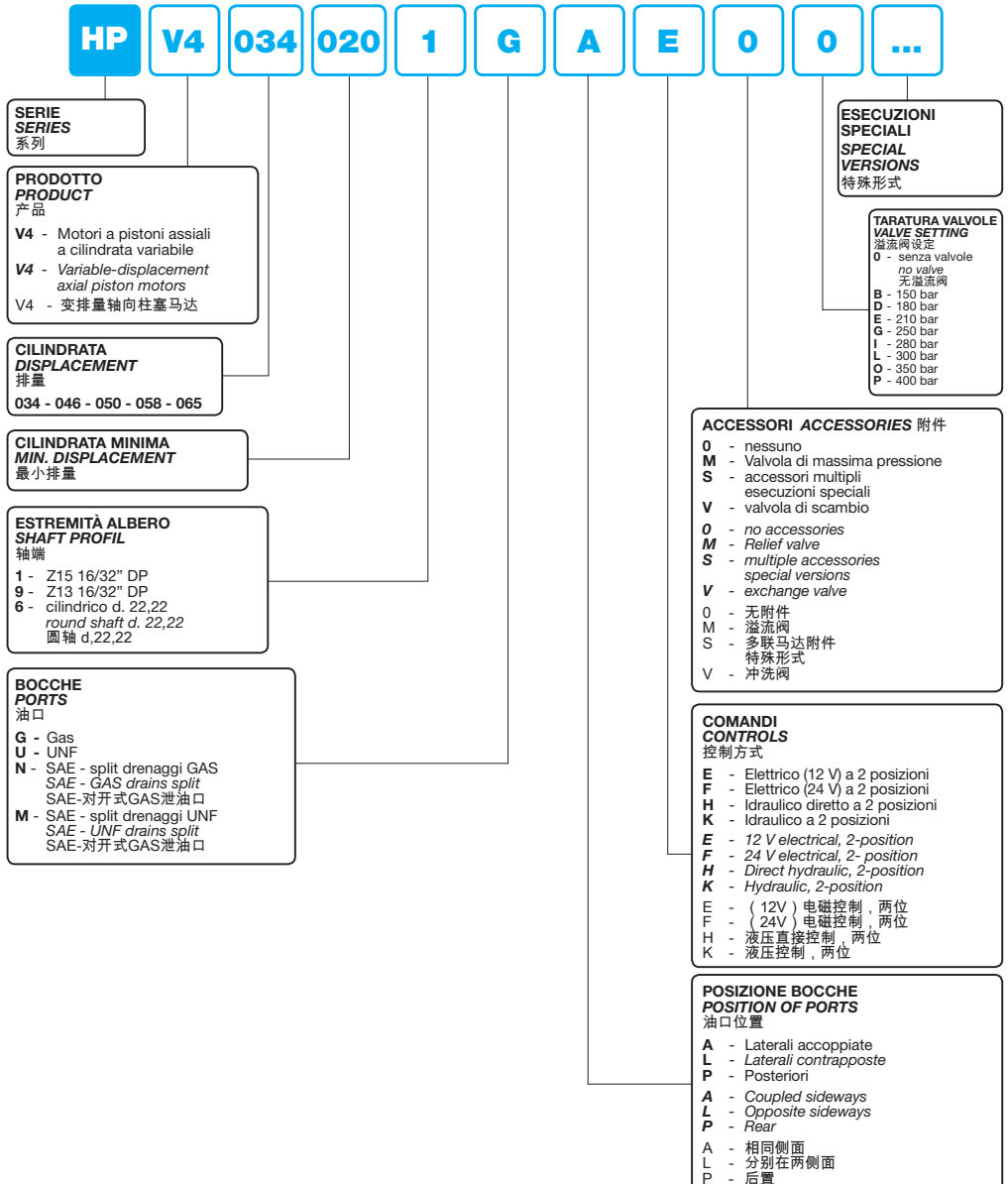






ISTRUZIONI PER L'ORDINAZIONE
ORDERING INSTRUCTIONS
订货示例

HP V4



M5 MV

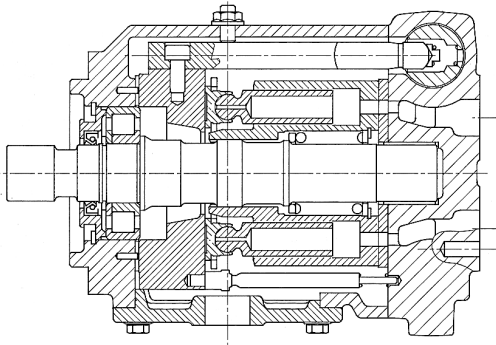
MOTORI A PISTONI ASSIALI A CILINDRATA VARIABILE
VARIABLE DISPLACEMENT AXIAL PISTON MOTORS
变排量轴向柱塞马达

I motori a pistoni assiali a cilindrata variabile HP sono del tipo a piatto inclinato e possono operare sia in circuito aperto che in circuito chiuso.
I sistemi di comando disponibili per la variazione della cilindrata sono:
- Comando elettrico on/off
- Servocomando idraulico a distanza
A richiesta sui motori a pistoni assiali HP a cilindrata variabile è possibile montare la valvola di scambio. Sempre a richiesta è possibile adattare la cilindrata massima e minima alle singole esigenze dell'utilizzatore.

The variable-displacement axial piston motors feature a swashplate-system and may operate in either a closed open circuit.
The following control systems are available for varying displacement.
- Electric on/off control
- Remote hydraulic servo-control
Upon request, an exchange valve can be mounted on the HP variable-displacement axial piston motors. Upon request max. and min. displacement can be adapted to user requirements.

变排量轴向柱塞马达采用斜盘式设计，可应用于闭式或开式系统中。
以下控制方式可改变排量
- 电磁开关控制
- 液压遥控伺服控制
根据客户要求，可选配冲洗阀。最大和最小排量也可以根据客户要求来设定。

M5 MV 75.80.100.115



DATI TECNICI		TECHNICAL DATA		技术参数		M5MV 75	M5MV 80	M5MV 100	M5MV 115
Cilindrata massima	cm³	Max. Displacement	cm³	最大排量	cm³	75	80	100	115
Cilindrata minima	cm³	Min. Displacement	cm³	最小排量	cm³	30	30	40	40
Regime max di rot. continuo in cil. max.	min ⁻¹	Continuous speed at max. displacement	min ⁻¹	最大排量持续转速	min ⁻¹	3600		3500	
Regime max di rot. continuo in cil. min.	min ⁻¹	Continuous speed at min. displacement	min ⁻¹	最小排量持续转速	min ⁻¹	4000		3800	
Pressione nominale	bar	Pressure rating	bar	额定压力	bar	380			
Pressione di punta	bar	Peak pressure	bar	峰值压力	bar	420			
Pressione massima in carcassa	bar	Max. housing pressure	bar	最大壳体压力	bar	1,5			
Massima temperatura continua olio	°C	Max. oil continuous temperature	°C	最高持续油温	°C	80			
Classe di filtrazione ISO		ISO filtration class		ISO清洁度等级		ISO 18/16/13, NAS 8			
Viscosità olio ottimale	mm²/s	Optimized oil viscosity	mm²/s	推荐油粘度	mm²/s	15 ÷ 35			
Massa	kg	Weight	kg	重量	kg	40		48	
Momento polare di inerzia	N•m•s²	Inertial mass	N•m•s²	惯性质量	N•m•s²	96 x 10 ⁻⁴		150 x 10 ⁻⁴	



ISTRUZIONI PER L'ORDINAZIONE ORDERING INSTRUCTIONS 订货示例

M5MV		100 - 115/40		E	B	1	B	8	-	-	
Serie Series 系列		Cilindrate nominali: Rated displacement: 额定排量								Esecuzioni speciali Special versions 特殊形式	
		75 cm ³ 100 cm ³								Opzioni: V = Valvola di scambio Options: V = Exchange valve 选配: V=冲洗阀	
Cilindrate Std (max/min): Std Displacement (max/min): 标准排量 (max/min)										Tipo di albero d'entrata: 3 = scanalato maschio 12/24" d.p. Z 14 7 = scanalato maschio 16/32" d.p. Z 21 8 = scanalato maschio 16/32" d.p. Z 23 Input shaft: 3 = Male splined shaft Z 14 12/24" d.p. 7 = Male splined shaft Z 21 16/32" d.p. 8 = Male splined shaft Z 23 16/32" d.p. 输入轴: 3 = 公花键轴 Z 14 - 12/24" d.p. 7 = 公花键轴 Z 21 - 16/32" d.p. 8 = 公花键轴 Z 23 - 16/32" d.p.	
(Valori intermedi a richiesta) (Intermediate values on request) 根据要求选取		75/30 cm ³ 80/30 cm ³ 100/40 cm ³ 115/40 cm ³								Senso di rotazione: B = Bidirezionale (Std) Direction of rotation: B = Bidirectional (Std) 转向: B=双向 (标准)	
Tipo di comando: E = Comando elettrico (12 V) F = Comando elettrico (24 V) K = Servocomando idraulico a distanza Type of control: E = Electric control (12 V) F = Electric control (24 V) K = Remote servo-control 控制方式: E = 电磁控制 (12V) F = 电磁控制 (24V) K = 遥控伺服控制										Connessioni: 1 = Utilizzi A - B posteriori 2 = Utilizzi A - B laterali - contrapposti Ports: 1 = Users A - B rear 2 = Users A - B opposite sideways 油口: 1 = 工作口 A - B 在后端 2 = 工作口 A - B 分别在两侧面	
Tipo di oscillante: B = oscillante su bronzina Swashplate type: B = mounted on bronze bearings 斜盘类型: B=安装在青铜轴承上											

Esempio di ordinazione motore:

Motore bidirezionale a cilindrata variabile.
Cilindrata max. da 75 cm³, cilindrata min. da 30 cm³, con comando elettrico, oscillante su bronzina, utilizzi posteriori, albero scanalato Z 21 - 16/32" d.p., valvola di scambio.

M5MV 75-75/30 E B1 B7V

Note:

- Comando elettrico on/off: predispone il motore in cilindrata massima o minima mediante una elettrovalvola a 2 vie e 2 posizioni, che agisce sul pistone di regolazione collegato all'oscillante.
- In posizione di riposo il motore si trova alla massima cilindrata (Std). La valvola di scambio viene montata a richiesta. Tutte le dimensioni rimangono invariate.

How to order a motor:

Bidirectional variable displacement motor.
Max. displacement 75 cm³, min. displacement 30 cm³, with electric control, swashplate mounted on bronze bearings, rear user ports, splined shaft Z 21 16/32" dp.

M5MV 75-75/30 E B1 B7V

Notes:

- Electric on/off control: sets max. or min. motor displacement by means of a 2 way-2 position solenoid valve, which acts on the regulator piston connected to the swashplate.
- In rest position the motor is at max. displacement (Std). Exchange valve fitted as optional. All dimensions are unchanged.

怎样订购马达:

双向变量马达, 最大排量 75 cm³, 最小排量 30 cm³, 电磁控制, 斜盘安装在滚针轴承上, 工作油口后置, 花键轴 Z 21 - 16/32" d.p.

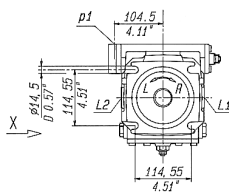
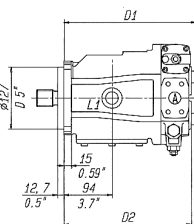
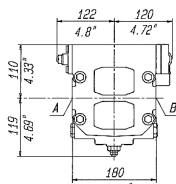
M5MV 75-75/30 E B1 B7V

注意:

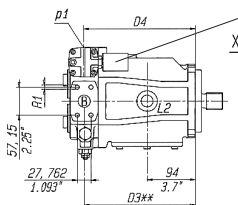
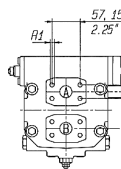
- 电磁开关控制: 通过两位两通电磁阀来设定最大或最小排量, 电磁阀作用在与斜盘相连接的调节活塞上。
- 不工作时, 马达作用在最大排量上, 可选配冲洗阀, 所有尺寸不可改变。

变排量轴向柱塞马达

E, F

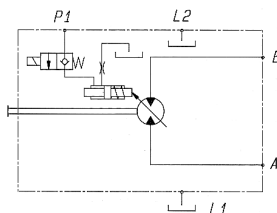


INGRESSO <i>INLET</i> 进油口	ROTAZIONE <i>DIRECTION</i> 转向
B	DESTRA <i>RIGHT</i> 右
A	SINISTRA <i>LEFT</i> 左



CONNETTORE
CONNECTOR
连接管

DIN 43650



		D1	D2	D3	D4	R1
M5MV75	 inc.	266 10.47	256.3 10.1	222.8 8.77	224.3 8.83	M12
M5MV100	 inc.	274 10.8	264.6 10.42	231.1 9.1	232.6 9.16	4 for prof 19 4 Threads 19 deep 螺距4，深19

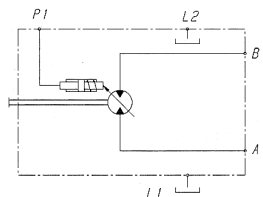
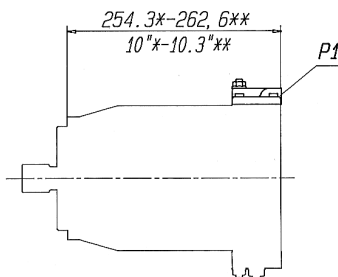
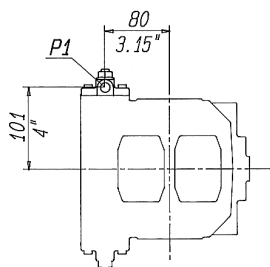
A, B	Utilizzi flangia SAE Use SAE flange 工作油口SAE法兰	1" - 6000 PSI
L1, L2	Drenaggi Drain 泄油口	1" - GAS
p1	Pilotaggio (max 30bar) Control pressure (max 30bar) 控制压力 (最大30bar)	1/4" - GAS

(**) Attacchi laterali contrapposti.

(**) Users opposite sideways.

(**) 工作油口分别在兩側面

K



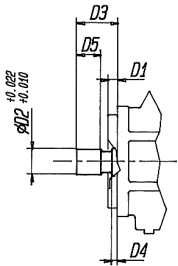
P1	Pilotaggio (max 30 bar) Control pressure (max 30 bar) 控制压力 (最大30bar)	1/4" - GAS
-----------	--	------------

(*) M5MV75
(**) M5MV100



TIPO
TYPE
类型

3, 7, 8



TIPO TYPE 类型			D1	ø D2	D3	D4	D5
3	Z14-12/24" D.P.	$\frac{mm}{inc.}$	12.7 0.5	31.4 1.236	55.5 2.19	7.87 0.31	35 1.38
7	Z21-16/32" D.P.	$\frac{mm}{inc.}$		34.5 1.36			
8	Z23-16/32" D.P.	$\frac{mm}{inc.}$		37.7 1.48			

**MOTORI A PISTONI ASSIALI
A CILINDRATA VARIABILE AD ASSE INCLINATO**
BENT AXIS AXIAL PISTON MOTORS

斜轴式轴向柱塞马达

BA012



ISTRUZIONI GENERALI DI IMPIEGO OPERATING INSTRUCTIONS 操作说明	3
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HP BA 080-110	MOTORI IDRAULICI A CILINDRATA VARIABILE AD ASSE INCLINATO VARIABLE-DISPLACEMENT AXIAL PISTON MOTORS 变排量轴向柱塞马达	4
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ISTRUZIONI GENERALI DI IMPIEGO OPERATING INSTRUCTIONS

操作说明



**BONDIOLI
& PAVESI**
HP Hydraulic

FLUIDO IDRAULICO

Fluidi idraulici HLP (DIN 51224 parte 2)
Oli lubrificanti per motori API CD (SAE) Fluidi idraulici HLPV DIN 51224 parte 3 (J183).

TEMPERATURE LIMITE DI FUNZIONAMENTO

Temperatura minima -20°C
Temperatura massima continua +90°C
Temperatura massima di picco +100°C
Deve essere verificata la rispondenza alla viscosità del fluido richiesta per il corretto funzionamento.

VISCOSITA

Minima 10 mm²/s (per brevi periodi)
Massima 1000 mm²/s (per brevi periodi alla partenza)
Campo di viscosità raccomandato 15-90 mm²/s

PRESSIONE DI FUNZIONAMENTO IN ASPIRAZIONE

Pressione massima assoluta:

P min 0,8 bar

P max 2 bar

PRESSIONE DI DRENAGGIO

P max 2 bar (assoluti)

GRADO DI FILTRAZIONE

Le classi di contaminazione consigliate sono le seguenti:

Classe ISO4406 20/18/15 (NAS1638 - 9)

INSTALLAZIONE

Prima di far funzionare la pompa, assicurarsi che tutto il circuito idraulico sia accuratamente riempito d'olio e disareato.

Filtrare l'olio di riempimento in modo da garantire la classe ISO o NAS richiesta.

Prevedere nel circuito un sistema di filtraggio che garantisca la classe ISO o NAS richiesta. Avviare l'impianto lentamente a vuoto, facendolo spurgare bene dell'aria residua prima di applicare il carico.

Sostituire i filtri dopo le prime 50 ore di lavoro.

Sostituire il filtro del circuito idraulico ogni 500 ore di funzionamento.

Sostituire il fluido idraulico come da specifiche del fornitore.

In caso di mancato funzionamento di pompe o motori HP HYDRAULIC non insistere inutilmente; ricontrollare la corretta esecuzione dell'impianto ed eventualmente contattare il ns. ufficio tecnico.

HYDRAULIC FLUID

Use only HLP (DIN 51224 part 2) hydraulic fluids.

API CD Engine lubricating oils (SAE). HLPV Hydraulic fluids DIN 51224 part 3 (J183).

MAX WORKING TEMPERATURE

Min. temperature -20°C

Max continuous temperature +90°C

Max peak temperature +100°C

Check oil viscosity respects operation requirements.

OIL VISCOSITY

Min. oil viscosity 10 mm²/s (for brief intervals).

Max. oil viscosity 1000 mm²/s (for brief intervals during start-up).

Recommended oil viscosity range 15-90 mm²/s.

INLET CONTINUOUS OPERATION

PRESSURE

Absolute max pressure:

P min 0,8 bar

P max 2 bar

DRAIN PRESSURE

P max 2 bar (absolute)

FILTERING RATIO

The suggested contamination classes are: Class ISO4406 20/18/15 (NAS1638 - 9)

INSTALLATION

Before operation make sure the hydraulic circuit has been completely filled with oil and is purged from air.

Filter oil in order to guarantee a class equal to required ISO or NAS class.

Equip the circuit with a filtering system that guarantees a class equal to required ISO or NAS class.

Start the machine slowly, without load, making a good air purging before loading the circuit.

Replace filters after the first 50 hours working. Replace hydraulic circuit filter each 500 hours of work.

Replace hydraulic fluid as per supplier's specifications.

In case of failure of HP HYDRAULIC pumps and motors, do not retry uselessly: recheck the complete circuit assembling and, eventually, contact Customer Service HP Hydraulic - Bondioli&Pavesi.

液圧油

仅限用HLP (DIN 51224 第2部分) 液圧油
API CD 柴油机油滑油 (SAE)
HLPV 液圧油 (DIN51224 第3部分) (J183)

工作温度

最低温度 -20°C;

最高温度 +90°C;

最高峰值温度 +100°C.

根据操作要求检测液圧油粘度

油液粘度

最小油液粘度: 10平方毫米每秒 (短时间运行)

最大油液粘度: 1000平方毫米每秒 (泵启动时短时间运行)

推荐油液粘度范围: 15-90平方毫米每秒

吸油口持续吸油压力

最大绝对压力

P min. 0,8 Bar

P max. 2 Bar

泄油口压力

P max. 2 Bar

过滤精度

推荐油液清洁度等级:

Klasse ISO4406 20/18/15 (NAS1638 - 9)

安装

在操作之前, 确保将液圧管路内注满液圧油, 排净空气。

过滤液圧油, 以确保清洁度等级达到ISO或NAS标准。

将过滤系统安装在回路中, 以确保清洁度等级达到ISO或NAS标准。

慢慢启动设备, 不带负载, 在给回路加载前将空气全部排净。

在第一次工作50小时后, 更换过滤器。

以后没工作500小时更换过滤器。

根据每位供应商的说明定期更换液圧油。如果泵和马达出现问题, 请不要继续重试, 请先检查全部的安装管路, 最后联系HP Hydraulic-Bondioli&Pavesi客户服务。



Operare sempre prestando la massima attenzione agli organi in movimento; non utilizzare indumenti larghi o svolazzanti.

Non approssimarsi a ruote, cingoli, trasmissioni a catena o ad albero non adeguatamente protette ed in movimento, o che potrebbero iniziare a muoversi in qualsiasi istante senza preavviso.

Non svitare e scollegare raccordi e tubi con il motore in moto.

Evitare le fughe di olio, per prevenire l'inquinamento ambientale.

HP Hydraulic si solleva da ogni responsabilità riguardante la non osservanza di queste indicazioni e del rispetto delle normative di sicurezza vigenti, anche se non contemplate nel presente manuale.



When operating pay always your best attention to moving machine parts; do not use loose or fluttering clothes.

Do not approach to wheels, tracks, chain drives or shaftings if they are moving and not properly protected, or if they could start moving suddenly and without any warning.

Do not screw out or link off connectors and pipes if engine is working.

Avoid oil leak in order to prevent environment pollution.

HP Hydraulic relieves from all and any responsibilities concerning non compliance with these instructions and observance of safety rules in force, also if not provided for in this manual.



当操作时请注意设备的动作部分, 不要穿松散和摆动的衣服。

不要接近动作中的或者没有完全保护好的轮子、轨道、链条和轴, 如果他们可能突然启动或没安全告示时也要注意。在电机或柴油运行时, 不要拆下联轴器管路, 避免油液泄露以保护环境, 防止污染。

HP Hydraulic公司不承担因不按此手册规定所引起的所有责任, 同样包括不包含在此手册中的安全守则。

HP BA

MOTORI IDRAULICI A CILINDRATA VARIABILE AD ASSE INCLINATO VARIABLE-DISPLACEMENT AXIAL PISTON MOTORS 变量轴向柱塞马达

Il sistema è stato progettato in modo da ottenere un elevato angolo di inclinazione dei pompanti rispetto all'asse dell'albero uscente. Rispetto a motori a piatto inclinato che raggiungono i 18° l'angolo di inclinazione nella versione Bent Axis raggiunge i 25°.

Tale geometria permette:

- elevata coppia di spunto
- elevato range di variazione della cilindrata
- elevata efficienza volumetrica e meccanica
- elevata velocità massima
- elevate pressioni massime

Il motore in oggetto è provvisto di valvola di scambio di serie con strozzatore di diametro di 1.7 mm. La variazione della cilindrata da massima a minima avviene tramite pilotaggio idraulico ad alta o a bassa pressione oppure tramite comando elettrico in funzione delle richieste del cliente. Questa configurazione permette un ampio range di variazione della cilindrata fino ad un minimo del 30% rispetto alla massima. Nella versione a comando elettrico l'elettrovalvola ha un range di funzionamento in corrente di $\pm 10\%$ del valore nominale.

The system has been designed in order to obtain a high angle of inclination of the pumps with respect to the axle of the outgoing shaft.

With respect to motors with a tilted plate which reach 18°, the angle of inclination in the Bent Axis version reaches 25°.

This geometry allows:

- high static torque
- high range of displacement variation
- high volumetric and mechanical efficiency
- high maximum reachable speed
- high maximum pressures

This motor is equipped with a standard exchange valve with choke diameter 1.7 mm.

Displacement is varied from maximum to minimum by means of a high or low pressure hydraulic control or by an electric control, as requested by the customer.

This configuration allows an ample range of variation of displacement down to a minimum of 30% with respect to the maximum.

Il sistema è stato progettato, per ottenere un elevato angolo di inclinazione dei pompanti rispetto all'asse dell'albero uscente. Rispetto a motori a piatto inclinato che raggiungono i 18° l'angolo di inclinazione nella versione Bent Axis raggiunge i 25°.

Per quanto riguarda i motori con piastra inclinata che raggiungono i 18°, l'angolo di inclinazione nella versione Bent Axis raggiunge i 25°.

Questa geometria consente:

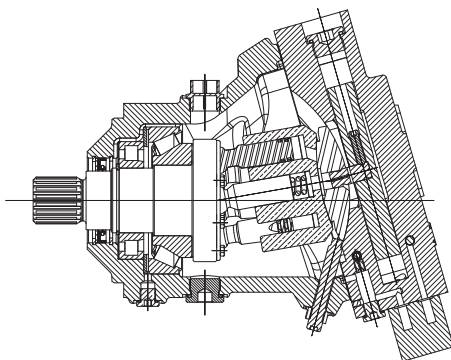
- alta coppia statica
- ampio range di variazione della cilindrata
- alta efficienza volumetrica e meccanica
- alta velocità massima raggiungibile
- alte pressioni massime

Il motore è equipaggiato con una valvola di scambio standard con diametro di strozzatura di 1.7 mm.

La variazione della cilindrata da massima a minima avviene tramite pilotaggio idraulico ad alta o a bassa pressione oppure tramite comando elettrico in funzione delle richieste del cliente. Questa configurazione permette un ampio range di variazione della cilindrata fino ad un minimo del 30% rispetto alla massima. Nella versione a comando elettrico l'elettrovalvola ha un range di funzionamento in corrente di $\pm 10\%$ del valore nominale.

Questa configurazione consente un'ampia gamma di variazione della cilindrata fino ad un minimo del 30% rispetto alla massima.

HP BA 80.110

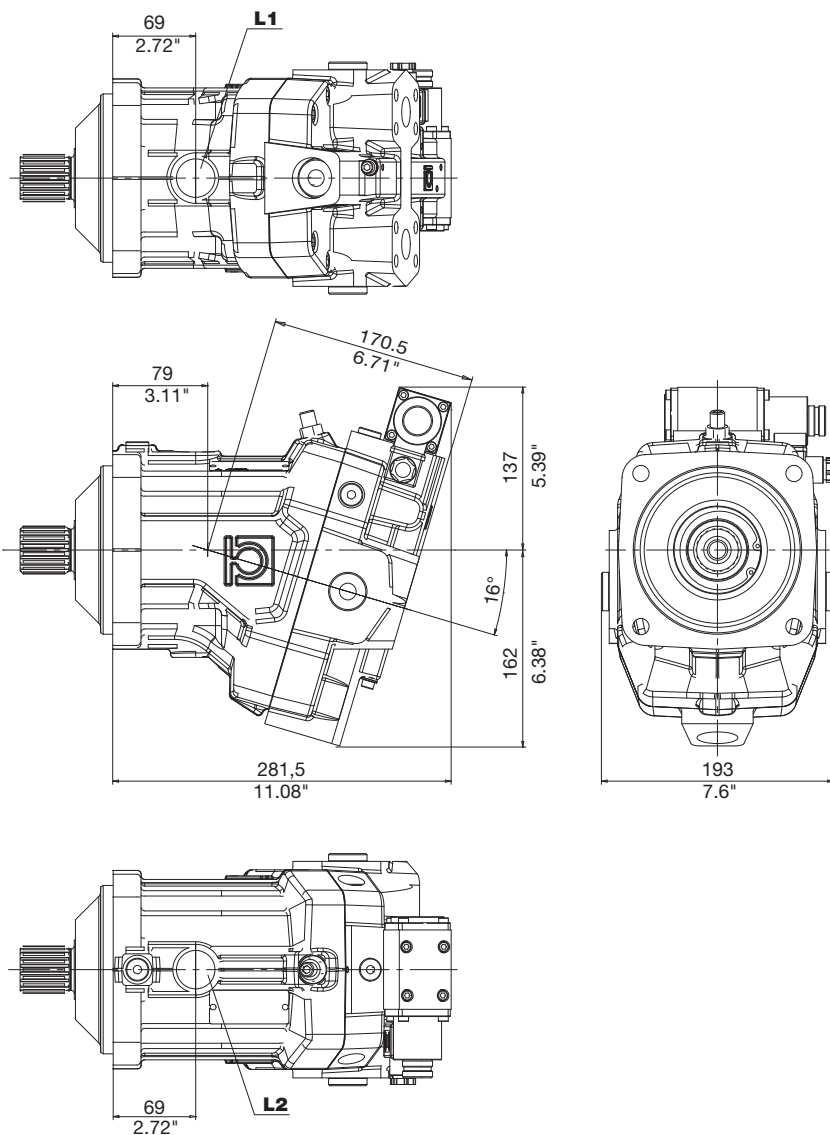


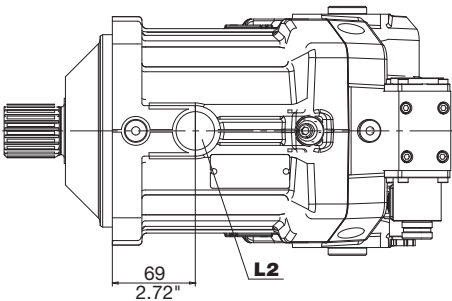
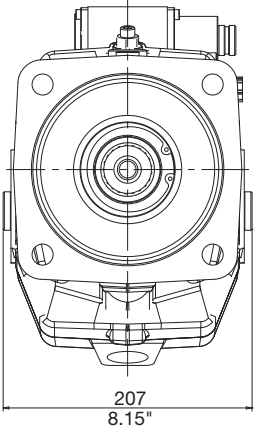
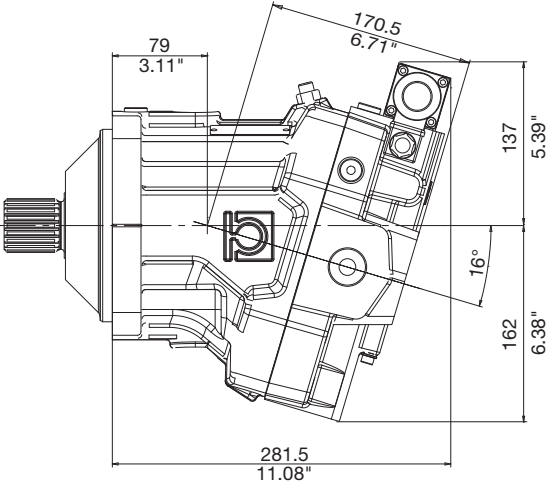
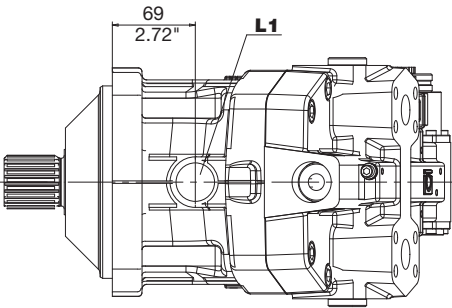
DATI TECNICI TECHNICAL DATA 技术参数

GRUPPO GROUP 组别	CILINDRATA TEORICA NOMINAL DISPLACEMENT 公称排量 (TM)		CONTINUA CONTINUOUS 持续压力		PRESSIONE PRESSURE 压力		PICCO PEAK 峰值压力		VELOCITÀ DI ROTAZIONE SPEED 转速			MASSA WEIGHT 重量	
									MAX (max V)	MAX (min V)	MIN		
	cm ³	in ³	bar	psi	bar	psi	bar	psi	min ⁻¹	min ⁻¹	min ⁻¹	kg	lbs
HP BA	80	4,88	350	5075	400	5800	450	6525	3200	5000	500	38	84
	109	6,65	350	5075	400	5800	450	6525	2900	4500	500	45	99

DIMENSIONI
SIZE
 尺寸

HP BA080



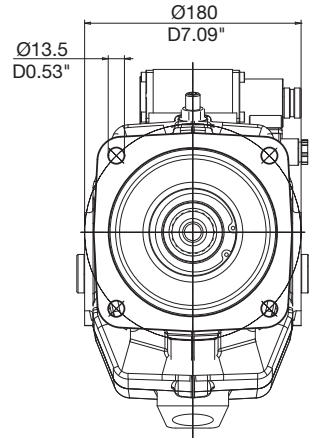
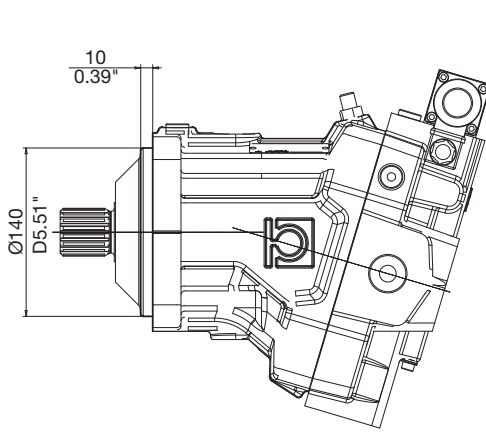




**FLANGE
FLANGES
法兰**

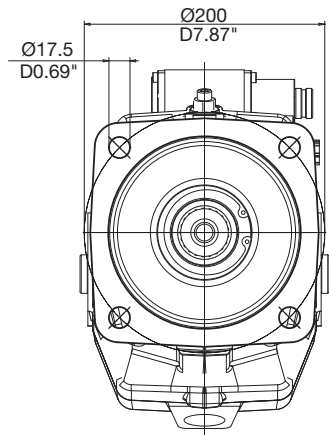
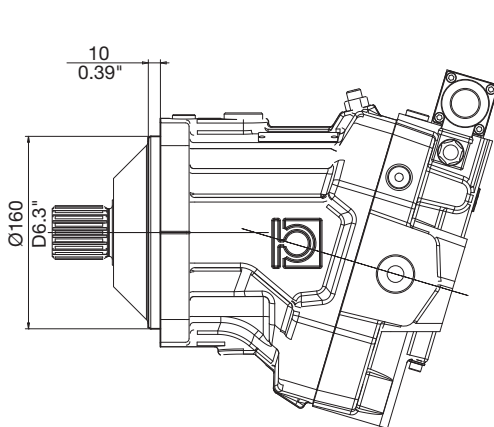
HP BA080

I ISO 4 FORI
ISO 4 HOLES
ISO 4 孔



HP BA110

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ISO 4 HOLES
ISO 4 孔

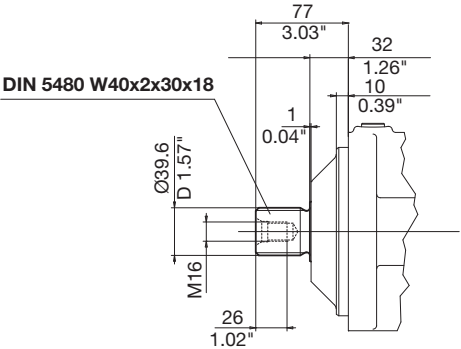


ESTREMITÀ ALBERI
SPLINE SHAFTS
花键轴

HP BA080

B COPPIA MAX
MAX TORQUE
最大扭矩

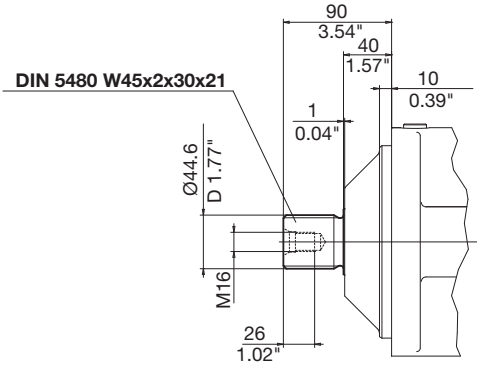
510 N•m



HP BA110

D COPPIA MAX
MAX TORQUE
最大扭矩

680 N•m

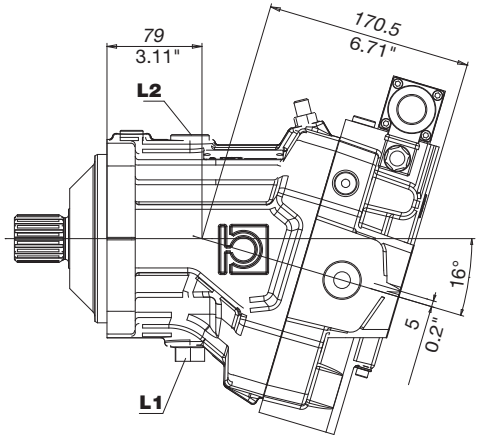
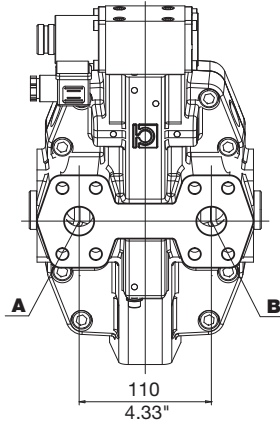




POSIZIONE BOCHE
POSITION OF PORTS
油口位置

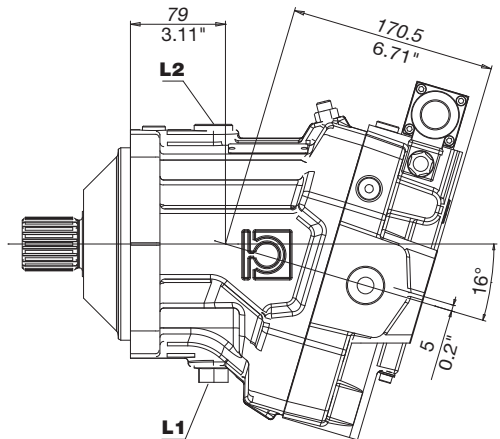
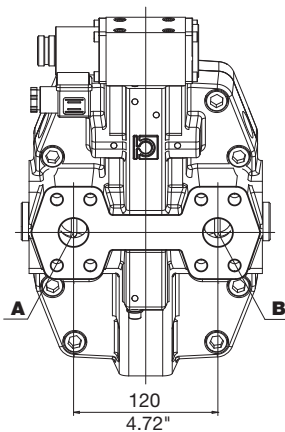
HP BA080

P POSTERIORI
REAR
后面



HP BA110

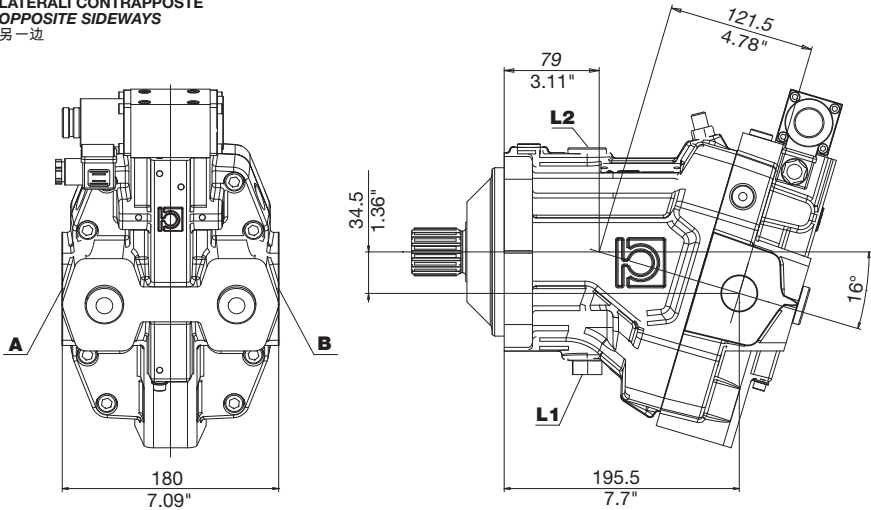
P POSTERIORI
REAR
后面



POSIZIONE BOCCHE
POSITION OF PORTS
油口位置

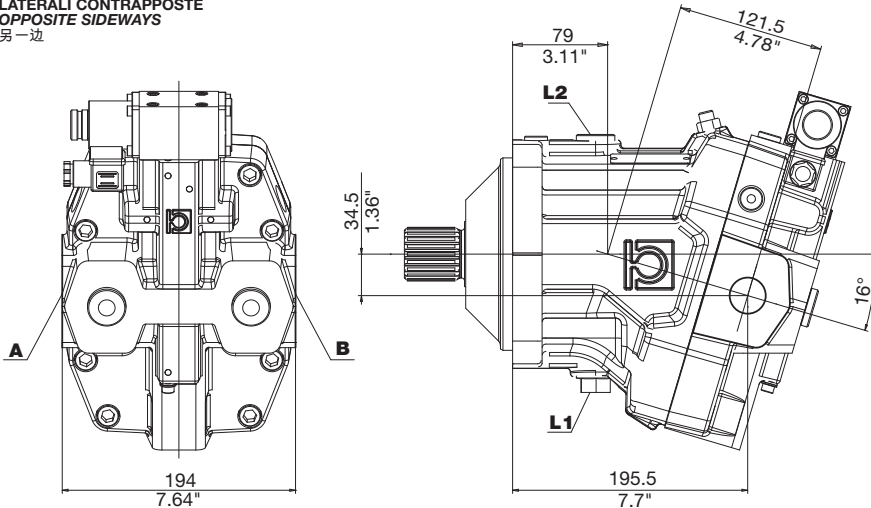
HP BA080

L LATERALI CONTRAPPOSTE
OPPOSITE SIDEWAYS
另一边



HP BA110

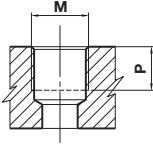
L LATERALI CONTRAPPOSTE
OPPOSITE SIDEWAYS
另一边



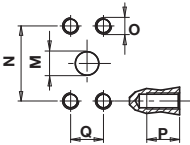


**BOCCHIE
PORTS
油口**

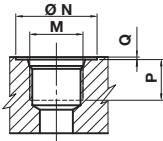
HP BA



TIPO TYPE 类型	M		P	
		Nm	mm	in
G2	1/4" GAS BSPP	17	8	0,31
G6	3/4" GAS BSPP	90	19	0,75
G7	1" GAS BSPP	160	19	0,75



TIPO TYPE 类型	M		N		P		Q		O	
	mm	in	mm	in	mm	in	mm	in		Nm
N7	25	1	57,15	2,25	27,76	1,09	20	0,79	M12	70



TIPO TYPE 类型	DIMENSIONE SIZE 尺寸	N		P		Q		M	
		mm	in	mm	in	mm	in		Nm
U2	1/4"	20	0,79	12	0,47	0,3	0,01	7/16"-20 UNF	17
U6	3/4"	41	1,61	20	0,79	0,3	0,01	1-1/16"-12 UNF	90
U7	1"	49	1,93	18	0,70	0,3	0,01	1-5/16"-12 UNF	160

**COMBINAZIONI
COMBINATIONS
组合**

TIPO TYPE 类型	A - B INGRESSO/USCITA INLET / OUTLET 进/出油口	L1 - L2 DRENAGGIO DRAIN 泄油口	a - b - x PILOTAGGIO PILOT 先导油口
G	G7	G6	G2
U	U7	U6	U2
N	N7	G6	G2
M	N7	U6	U2

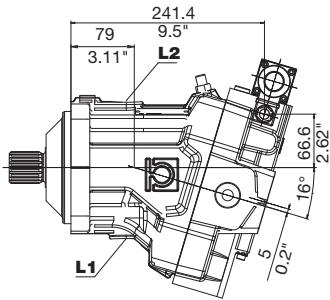
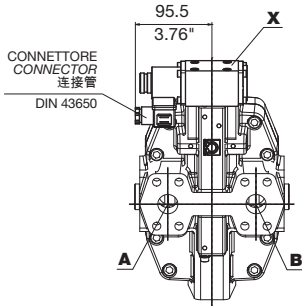
COMANDI
CONTROLS
控制方式

HP BA

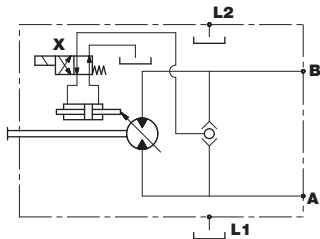
E F

ELETTRICO A 2 POSIZIONI
ELECTRICAL, 2-POSITION
电磁开关控制, 2-位

12 V 24 V

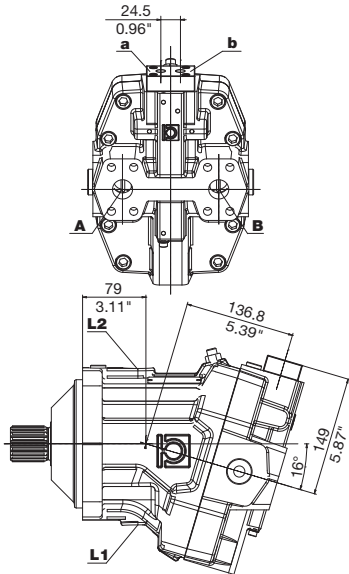


INGRESSO INLET 吸油口	ROTAZIONE DIRECTION 转向	A B	Bocche Ports 油口
A	SINISTRA LEFT 左	L1 L2	Drenaggio Drain 泄油口
B	DESTRA RIGHT 右	X	Elettrovalvola Solenoid Valve 电磁阀

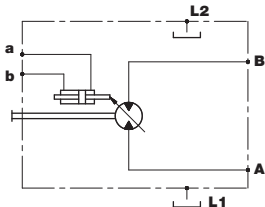
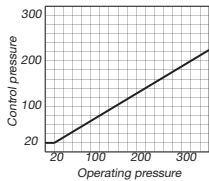


H

IDRAULICO DIRETTO A 2 POSIZIONI
DIRECT HYDRAULIC, 2-POSITION
直接液压控制, 2-位



INGRESSO INLET 吸油口	ROTAZIONE DIRECTION 转向	A B	Bocche Ports 油口
A	SINISTRA LEFT 左	L1 L2	Drenaggio Drain 泄油口
B	DESTRA RIGHT 右	a b	Comando idraulico diretto Direct hydraulic control 直接液压控制



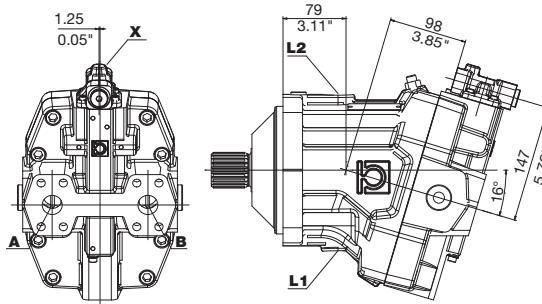


**COMANDI
CONTROLS**
控制方式

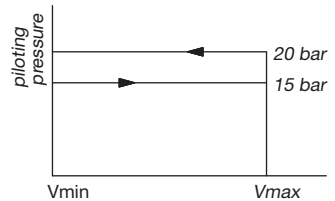
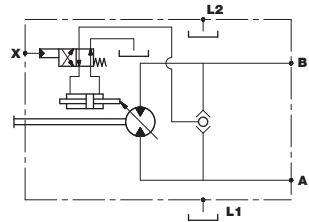
HP BA



IDRAULICO A 2 POSIZIONI A BASSA PRESSIONE
HYDRAULIC, 2-POSITION - LOW PRESSURE
液控，2位，低压



INGRESSO INLET 吸油口	ROTAZIONE DIRECTION 转向	A	Bocche Ports 油口
A	SINISTRA LEFT 左	L1 L2	Drenaggio Drain 泄油口
B	DESTRA RIGHT 右	X	Pilotaggio Pilot 先导油口



Normalmente il motore é in cilindrata massima. Applicando una pressione esterna sul pilotaggio si ottiene la variazione di cilindrata alla minima.
Per una corretta variazione della cilindrata attenersi ai valori di pressione di pilotaggio riportati nel diagramma.

*The motor is usually at maximum displacement. By applying external pressure on pilot "X" the displacement is changed to a minimum.
To correctly change displacement, follow the pilot pressure values as shown in the chart.*

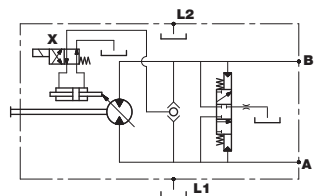
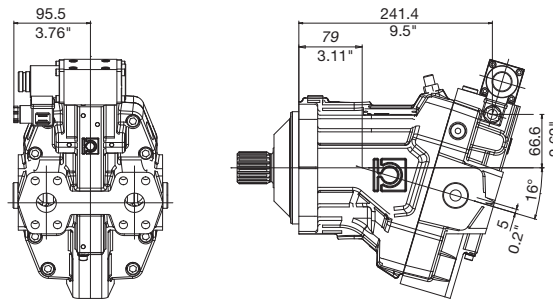
马达通常是在最大排量。采用外部压力试验的“x”排量变为最小。

正确地改变排量，后续试验的压力值显示在图表。

**ACCESSORI
ACCESSORIES**
附件



VALVOLA DI SCAMBIO (5 - 7 l/min)
EXCHANGE VALVE (5- 7 l/min)
冲洗阀 (5-7 l/min)







ISTRUZIONI PER L'ORDINAZIONE
ORDERING INSTRUCTIONS
订货示例

HP BA

