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**POMPE A PISTONI ASSIALI PER CIRCUITO  
CHIUSO A CILINDRATA VARIABILE**

***VARIABLE DISPLACEMENT  
CLOSED CIRCUIT AXIAL PISTON PUMPS***

***AXIALKOLBENVERSTELLPUMPEN  
FÜR DEN GESCHLOSSENEN KREISLAUF***

**HP P6  
55.65.78**

398SCP0113A00

# HP P6

## POMPE A PISTONI ASSIALI A CILINDRATA VARIABILE VARIABLE DISPLACEMENT AXIAL PISTON PUMPS AXIALKOLBENVERSTELLPUMPEN

Le pompe a pistoni assiali serie HP P6 sono state concepite per operare in circuito chiuso per impieghi a media e alta pressione. I vari sistemi di comando disponibili le rendono facilmente adattabili alle esigenze applicative sia per il settore industriale che per quello del mobile in generale. Per una migliore risposta al comando le pompe HP P6 vengono normalmente fornite con oscillante su cuscinetti a rulli. Lo sviluppo di gruppi rotanti appositamente concepiti, unito ad uno studio accurato delle sezioni di passaggio dell'olio, consentono a queste pompe di raggiungere elevate velocità di rotazione, come quelle consentite dai moderni motori diesel, garantendo una elevata affidabilità per pressioni di funzionamento fino a 420 bar in continuo (500 bar di picco). Le pompe possono essere composte in versione tandem, utilizzando le opportune predisposizioni disponibili a richiesta.

*The HP P6 series axial piston pumps have been designed to work in a closed circuit both for application at medium and at high pressure.*

*Control systems actually available are making easy to use these pumps in any application for industrial and mobile field. Typically the pumps HP P6 are equipped with roller bearings for the swash plate suspension. Development of rotating groups, especially designed, united to an accurate study of oil passage sections, allow high speed rotation, like required by modern diesel engines, giving extreme reliability for working continuous pressure until 420 bar and working peak pressure until 500 bar.*

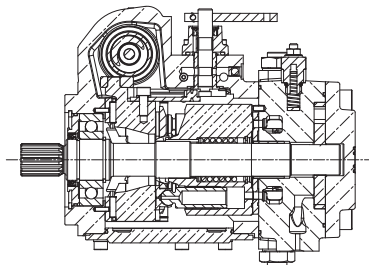
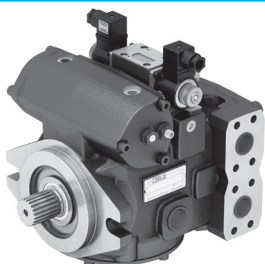
*It is possible to couple tandem versions, by means of coupling flanges optionally available.*

Die Axialkolbenpumpen der Serie HP P6 sind sowohl im offenen als auch im geschlossenen Kreislauf einsetzbar.

Durch die lieferbaren unterschiedlichen Steuerungssysteme eignen sie sich sowohl für stationäre als auch für mobile Anwendungen.

Für eine bessere Verstellodynamik wird die Pumpe HP P6 normalerweise mit einer Rollenlagerung für die Schwenkscheibenverstellung ausgestattet. Speziell entwickelte Zylinderblöcke mit optimalen Saugverhältnissen erlauben den Einsatz bei hohen Pumpendrehzahlen, wie von modernen Antriebsaggregaten gefordert. Dabei ist ein kontinuierlicher Betriebsdruck von bis zu 420 Bar und ein Spitzenwert von 500 Bar für die Serie HP P6 gewährleistet. Die Pumpen können in der Tandemversion mit auf Wunsch erhältlichen Flanschschlüssen geliefert werden.

## HP P6 55.65.78



### DATI TECNICI TECHNICAL DATA TECHNISCHE MERKMALE

GRUPPO GROUP BAUREIHE	CILINDRATA TEORICA NOMINAL DISPLACEMENT FÖRDERVOLUMEN (TM)		OSCILLANTE SWASHPLATE SCHWENKWINKEL	CONTINUA CONTINUOUS DAUER		PRESSIONE PRESSURE DRUCK		PICCO PEAK SPITZEN		VELOCITÀ DI ROTAZIONE SPEED DREHZAHL MAX MIN		MASSA WEIGHT GEWICHT	
	cm <sup>3</sup>	in <sup>3</sup>		°	bar	psi	bar	psi	bar	psi	min <sup>-1</sup>	min <sup>-1</sup>	kg
HP P6	55	3,35	16,3	420	6090	450	6525	500	7250	3000	500	44	97
	65	3,97	17,3	420	6090	450	6525	500	7250	3000	500	44	97
	78	4,76	17,7	400	5800	420	6090	450	6525	3000	500	45	99,2

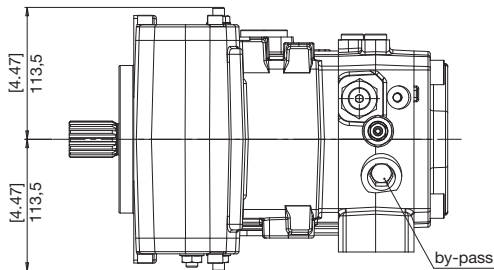
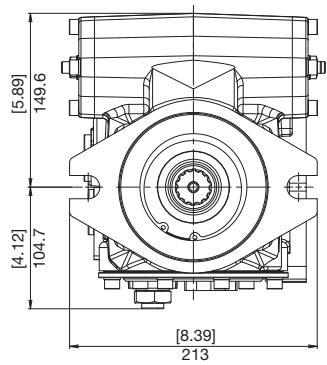
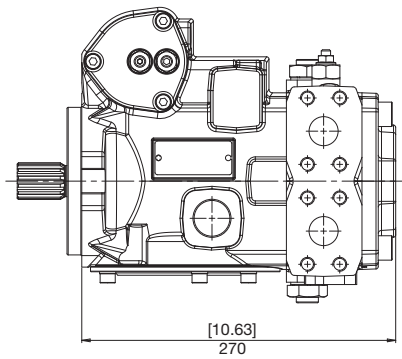
### POMPA DI ALIMENTAZIONE BOOST PUMP SPEISEPUMPE

TIPO TYPE TYP	CILINDRATA STANDARD POMPA DI ALIMENTAZIONE BOOST PUMP STANDARD DISPLACEMENT FÖRDERVOLUMEN STANDARD SPEISEPUMPE		bar	psi
	cm <sup>3</sup>	in <sup>3</sup>		
HPP6 055	17	1,04	22	319
HPP6 065	17	1,04	22	319
HPP6 078	21	1,28	22	319



**DIMENSIONI  
SIZE  
ABMESSUNGEN**

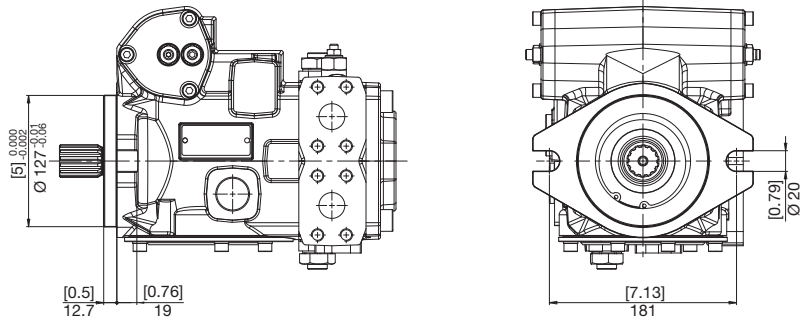
**HP P6**



FLANGE  
 FLANGES  
 FLANSCH

HP P6

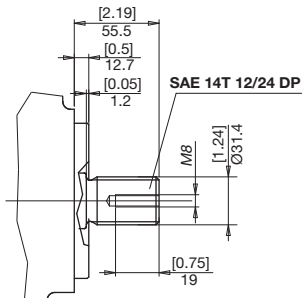
**B** SAE C  
 SAE C  
 SAE C



ESTREMITÀ ALBERI  
 SPLINE SHAFTS  
 WELLENPROFILE

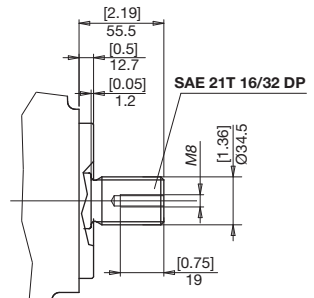
**3** COPPIA MAX  
 MAX TORQUE  
 MAX DREHMOMENT

850 N•m



**7** COPPIA MAX  
 MAX TORQUE  
 MAX DREHMOMENT

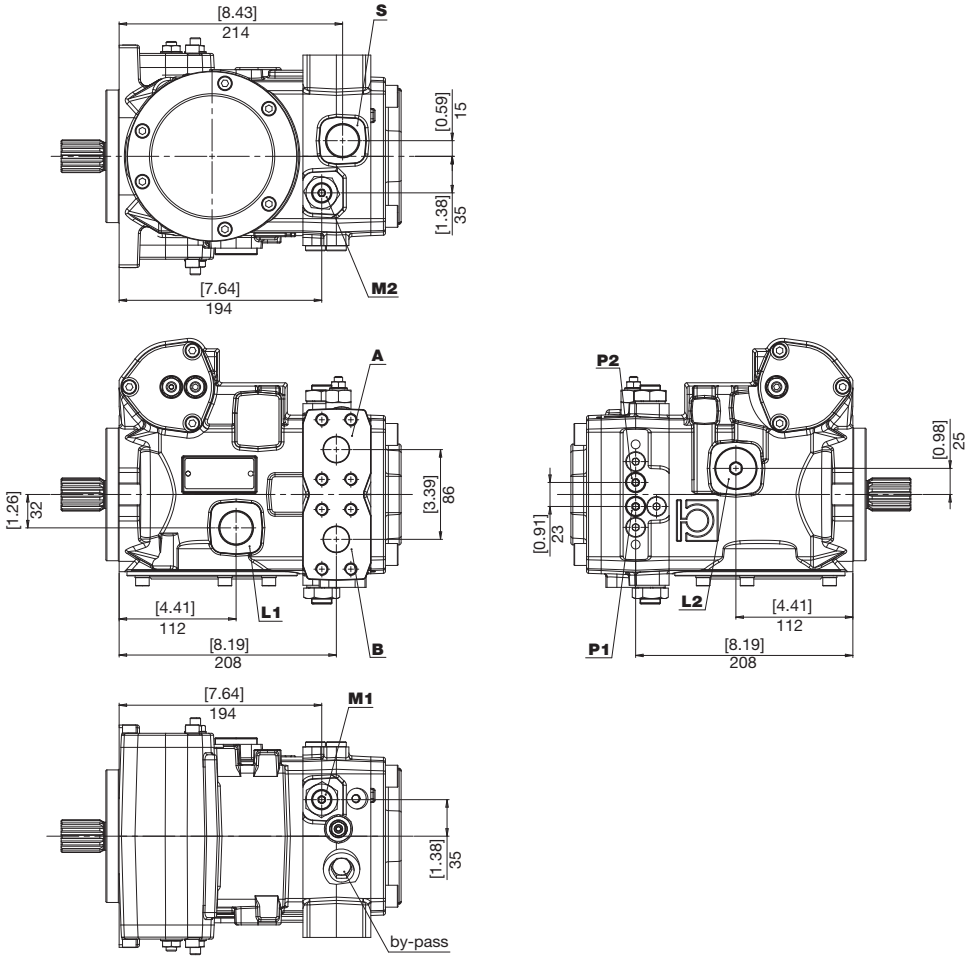
1100 N•m





**BOCCHIE  
PORTS  
ANSCHLÜSSE**

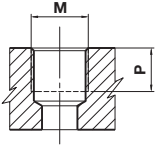
**HP P6**



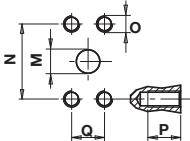
<b>A</b> Utilizzo Use Verbraucher	<b>P1</b> Presa pressione Pressure intake Druckanschluss
<b>L1</b> Drenaggio Drain	<b>M1</b> Presa manometro Manometer intake
<b>L2</b> Leckölanschluss	<b>M2</b> Manometeranschluss
<b>S</b> Aspirazione Feeding pump inlet Ansaugöffnung	

**BOCCHE  
PORTS  
ANSCHLÜSSE**

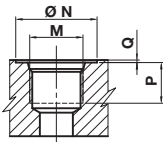
**HP P6**



TIPO TYPE TYP		M	Nm	mm	P	in
<b>G2</b>	Port ISO 1179-1 - G 1/4		17	12		0,47
<b>G7</b>	Port ISO 1179-1 - G 1		160	18		0,75



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



TIPO TYPE TYP	DIMENSIONE SIZE GRÖSSE	N		P		Q		M	
		mm	in	mm	in	mm	in		Nm
<b>U2</b>	1/4"	21	0,83	12	0,47	0,3	0,01	Port ISO 1196-1-7/16-20	17
<b>U7</b>	1"	49	1,93	18	0,70	0,3	0,01	Port ISO 1196-1-1 5/16-12	160

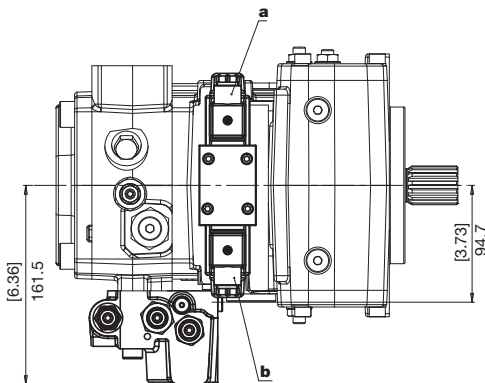
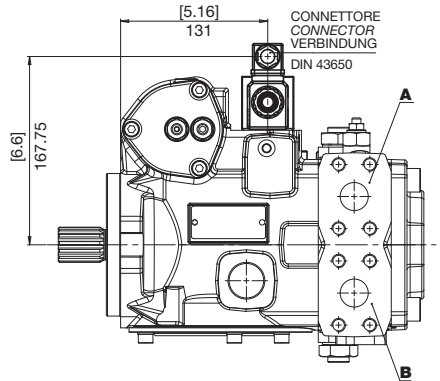
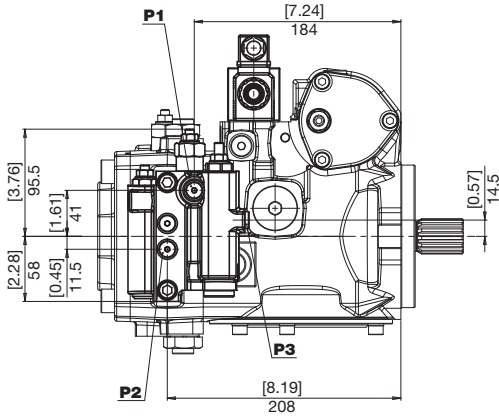
**COMBINAZIONI  
COMBINATIONS  
KOMBINATIONEN**

TIPO TYPE TYP	S ASPIRAZIONE INLET SAUGSEITE	A - B MANDATA OUTLET AUSGANG	L1 - L2 DRENAGGIO DRAIN LECKÖLANSCHLUSS	a - b PILOTAGGIO PILOT STEUERDRUCK	P1 - P2 PRESE PRESSIONE PRESSURE INTAKE DRUCKANSCHLUSS	M1 - M2 PRESE MANOMETRO MANOMETER INTAKE MANOMETER- ANSCHLUSS
<b>G</b>	G7	G7	G7	G2	G2	G2
<b>U</b>	U7	U7	U7	U2	G2	U2

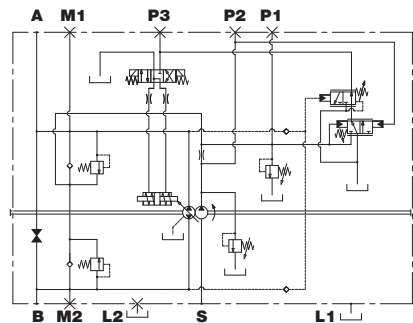
**COMANDI  
CONTROLS  
STEUERUNGEN**

**HP P6**

**A** AUTOMOTIVE  
AUTOMOTIVE  
AUTOMOTIVE  
12 V



ROTAZIONE DIRECTION DREHRICHTUNG	SOLENOIDE IN TENSIONE EXCITED SOLENOID SOLENOID UNTER SPANNUNG	MANDATA OUTPUT AUSGANG
DESTRA RIGHT RECHTS	a	A
SINISTRA LEFT LINKS	b	B
	a	B
	b	A

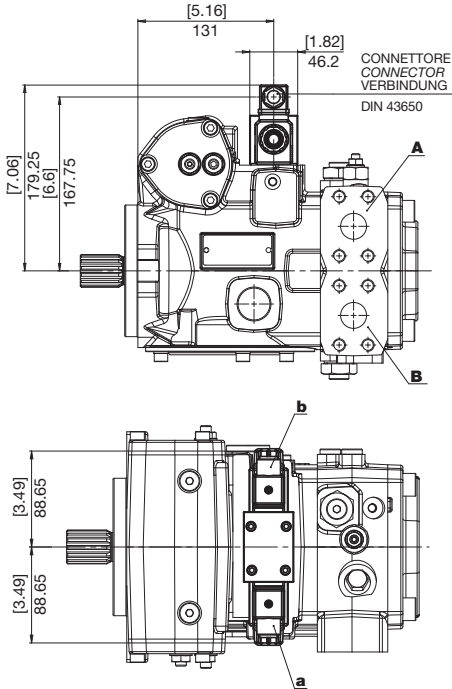


POMPA DI ALIMENTAZIONE 14cc PER TUTTE LE CILINDRATE  
14cc BOOST PUMP FOR THE WHOLE DISPLACEMENT RANGE  
SPEISEPUMPE 14cc FÜR ALLE FORDERVOLUMEN

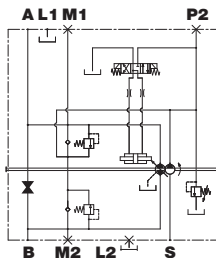
**E F**

ELETRICO ON/OFF CENTRO CHIUSO  
ELECTRICAL ON/OFF, CLOSED CENTER  
ELEKTRISCH ON/OFF, GESCHLOSSENES VENTIL

12 V 24 V



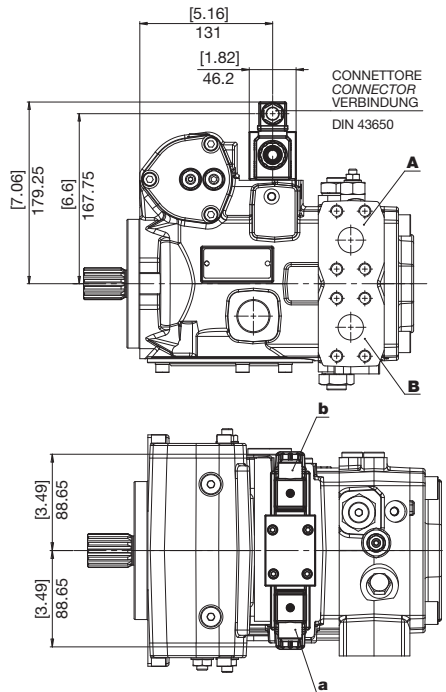
ROTAZIONE DIRECTION DREHRICHTUNG	SOLENOIDE IN TENSIONE EXCITED SOLENOID SOLENOID UNTER SPANNUNG	MANDATA OUTPUT AUSGANG
DESTRA RIGHT RECHTS	a	A
	b	B
SINISTRA LEFT LINKS	a	B
	b	A



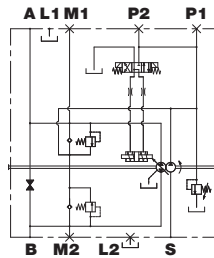
**N Q**

ELETRICO ON/OFF CENTRO APERTO  
ELECTRICAL ON/OFF, OPEN CENTER  
ELEKTRISCH ON/OFF, VENTIL GEÖFFNET

12 V 24 V



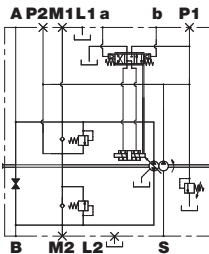
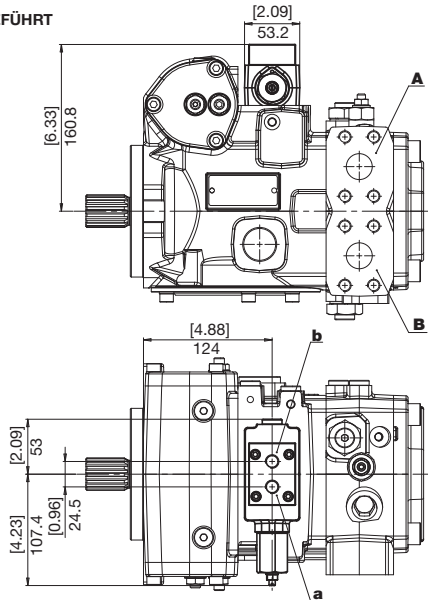
ROTAZIONE DIRECTION DREHRICHTUNG	SOLENOIDE IN TENSIONE EXCITED SOLENOID SOLENOID UNTER SPANNUNG	MANDATA OUTPUT AUSGANG
DESTRA RIGHT RECHTS	a	A
	b	B
SINISTRA LEFT LINKS	a	B
	b	A







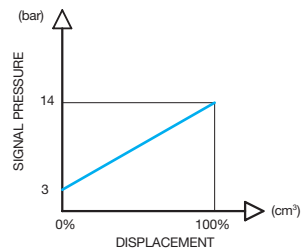
**IDRAULICO RETROAZIONATO  
HYDRAULIC, FEEDBACK  
HYDRAULISCH, RÜCKGEFÜHRT**



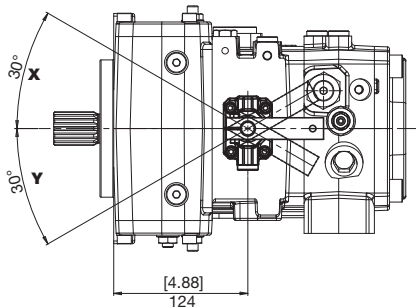
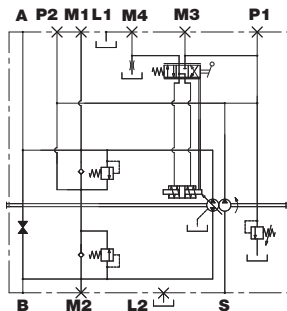
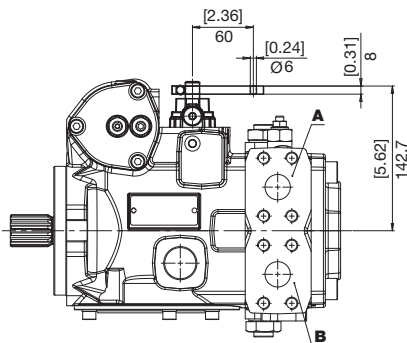
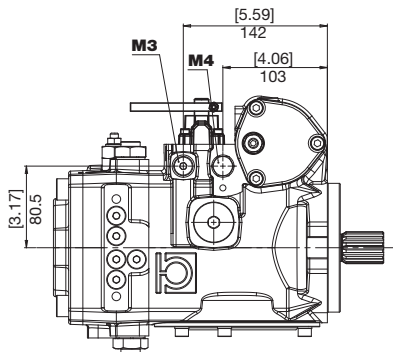
ROTAZIONE DIRECTION DREHRICHTUNG	PILOTAGGIO PILOT PRESSURE STEUERDRUCK	MANDATA OUTPUT AUSGANG
DESTRA RIGHT RECHTS	a	B
	b	A
SINISTRA LEFT LINKS	a	B
	b	A

**a** Pressione di pilotaggio  
Pilot Pressure

**b** Steuerdruck



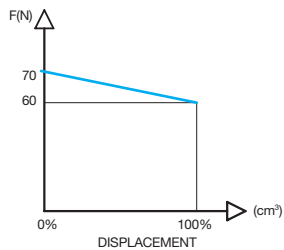
**I** SERVOCOMANDO A LEVA  
LEVER-OPERATED SERVO-CONTROL  
HYDRAULISCHE HEBEL-SERVOSTEUERUNG



ROTAZIONE DIRECTION DREHRICHTUNG	LEVA COMANDO CONTROL LEVER STEUERHEBEL	MANDATA OUTPUT AUSGANG
DESTRA RIGHT RECHTS	Y	B
SINISTRA LEFT LINKS	X	A
	Y	A
	X	B

**M3** Strozziatore in alimentazione  
Intake restrictor  
Eingangsdrossel

**M4** Strozziatore in scarico  
Outlet restrictor  
Ausgangsdrossel



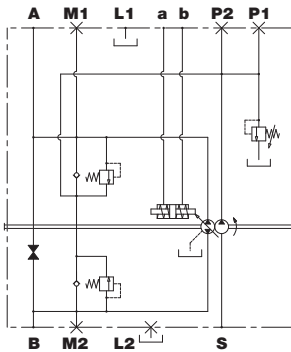
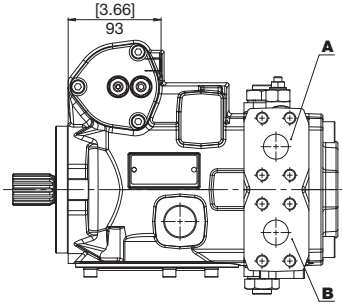
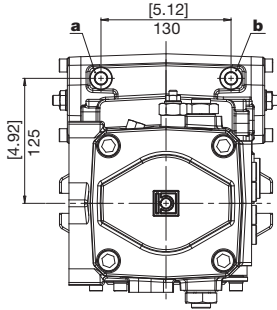


**COMANDI  
CONTROLS  
STEUERUNGEN**

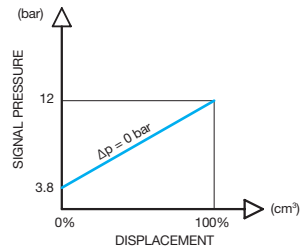
**HP P6**

**K**

**IDRAULICO A DISTANZA  
REMOTE HYDRAULIC  
HYDRAULISCHE FERNSTEUERUNG**



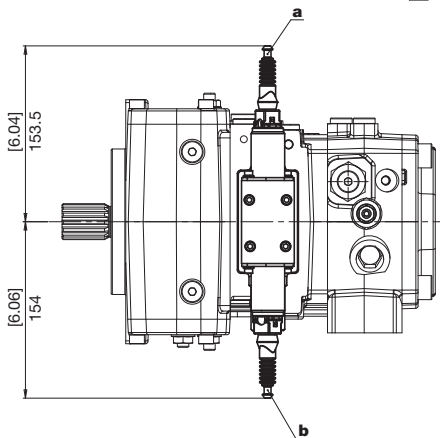
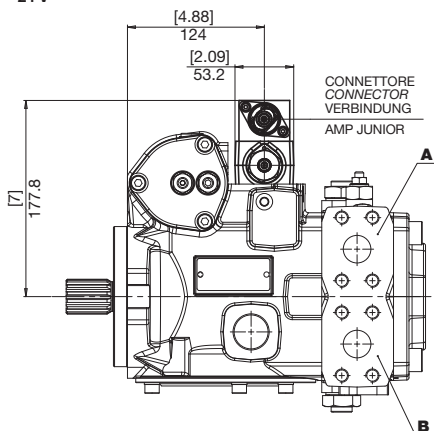
ROTAZIONE DIRECTION DREHRICHTUNG	PILOTAGGIO PILOT PRESSURE STEUERDRUCK	MANDATA OUTPUT AUSGANG
DESTRA RIGHT	a	A
RECHTS	b	B
SINISTRA LEFT	a	B
LINKS	b	A





ELETTRICO PROPORZIONALE RETROAZIONATO  
ELECTRICAL PROPORTIONAL FEEDBACK CONTROL  
ELEKTRISCH PROPORZIONALSTEUERUNG RÜCHGEFÜHRT

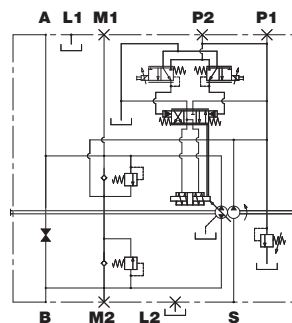
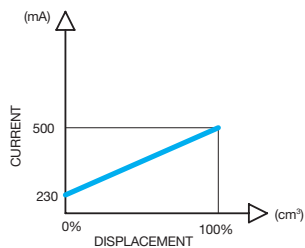
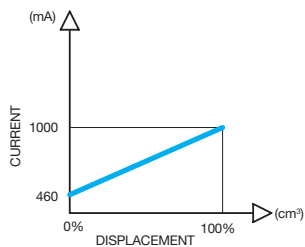
12 V 24 V



ROTAZIONE DIREZIONE DREHRICHTUNG	SOLENOIDE IN TENSIONE EXCITED SOLENOID SOLENOID UNTER SPANNUNG	MANDATA OUTPUT AUSGANG
DESTRA RIGHT RECHTS	a	B
	b	A
SINISTRA LEFT LINKS	a	A
	b	B



Tensione nominale Rated voltage Nennspannung	12	24	V
Corrente min (I1) Min. current Mindeststrom	300	180	mA
Corrente max (I2) Max. current Maximaler Strom	1500	850	mA
Frequenza PWM PWM Frequency Frequenz PWM	100	100	Hz



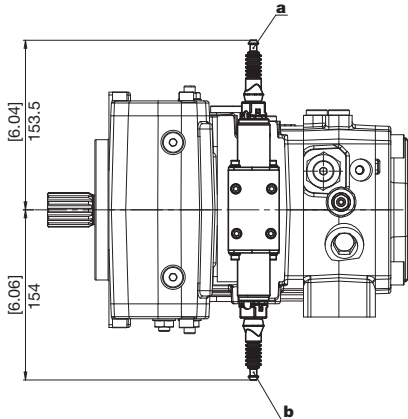
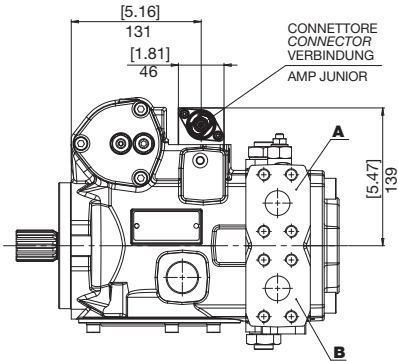


**COMANDI  
CONTROLS  
STEUERUNGEN**

**HP P6**

**S W**  
12 V 24 V

**ELETTRICO PROPORZIONALE DIRETTO  
ELECTRICAL PROPORTIONAL CONTROL  
ELEKTRISCH PROPORZIONALSTEUERUNG**

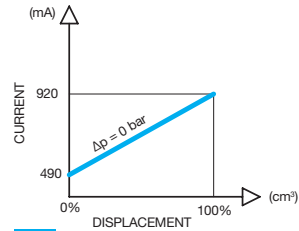


ROTAZIONE DIREZIONE DREHRICHTUNG	SOLENOIDE IN TENSIONE EXCITED SOLENOID SOLENOID UNTER SPANNUNG	MANDATA OUTPUT AUSGANG
DESTRA RIGHT RECHTS	a	A
	b	B
SINISTRA LEFT LINKS	a	B
	b	A

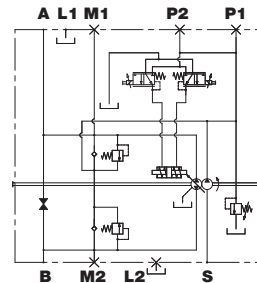
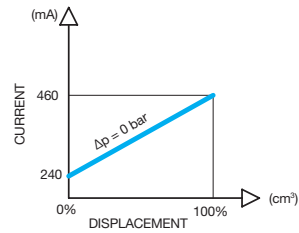
**S W**

Tensione nominale Rated voltage Nennspannung	12 24	V
Corrente min (I1) Min. current Mindeststrom	300 180	mA
Corrente max (I2) Max. current Maximaler Strom	1500 850	mA
Frequenza PWM PWM Frequency Frequenz PWM	100 100	Hz

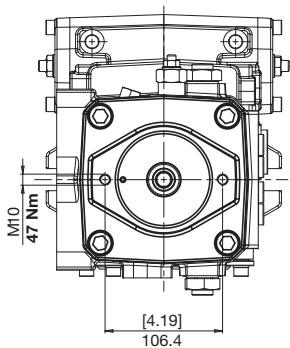
**S**



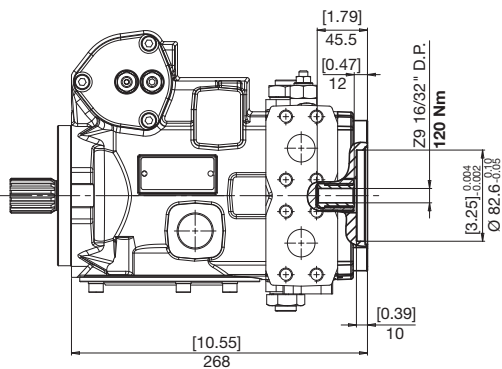
**W**



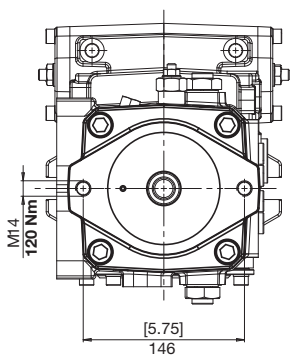
**2** SAE A CON POMPA SOVRALIMENTAZIONE  
SAE A WITH BOOST PUMP  
SAE A MIT SPEISEPUMPE



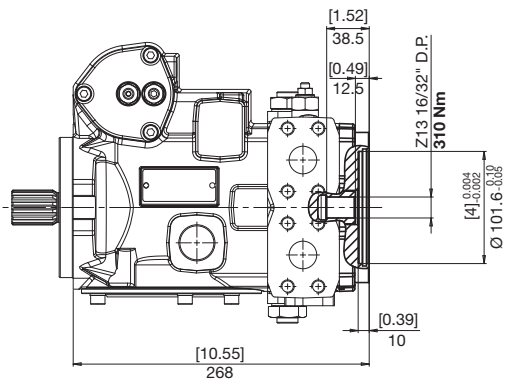
**5** SAE A SENZA POMPA SOVRALIMENTAZIONE  
SAE A WITHOUT BOOST PUMP  
SAE A OHNE SPEISEPUMPE



**3** SAE B CON POMPA SOVRALIMENTAZIONE  
SAE B WITH BOOST PUMP  
SAE B MIT SPEISEPUMPE



**6** SAE B SENZA POMPA SOVRALIMENTAZIONE  
SAE B WITHOUT BOOST PUMP  
SAE B OHNE SPEISEPUMPE

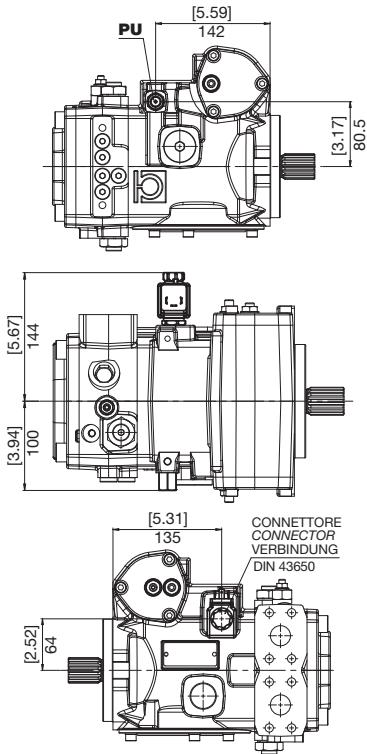


**ACCESSORI  
ACCESSORIES  
ZUBEHÖR**

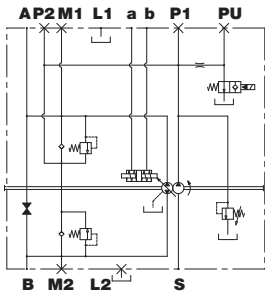
**HP P6**

**E** SICUREZZA OPERATORE ASSENTE  
NO OPERATOR SAFETY  
SICHERUNG KEIN ARBEITER

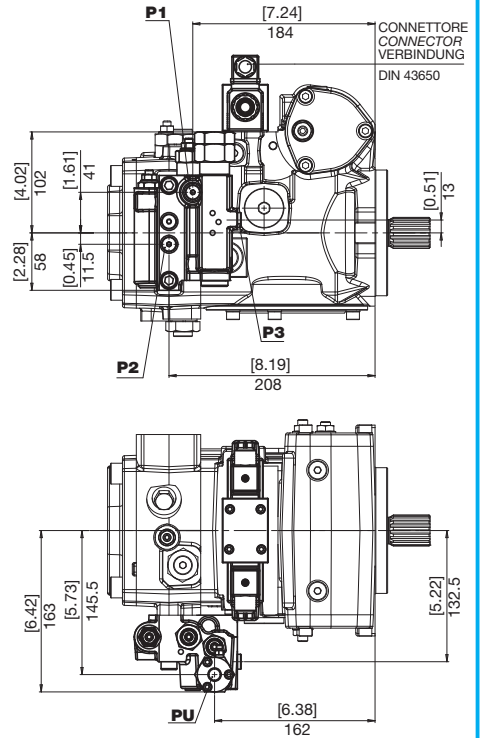
12 V



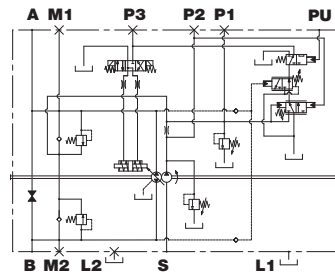
**PU** Pilotaggio sblocco freno (1/4" GAS)  
Brake opening pressure (1/4" GAS)  
Bremsen Öffnung Druck (1/4" GAS)



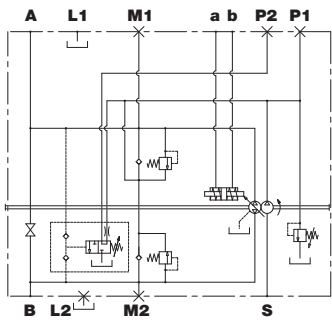
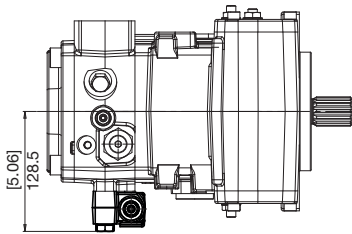
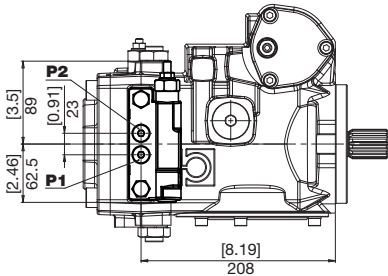
**H** INCHING IDRAULICO (SOLO COMANDO A)  
HYDRAULIC INCHING ("A" CONTROL)  
HYDRAULISCHE INCH-VENTIL (NUR STEUERUNG A)



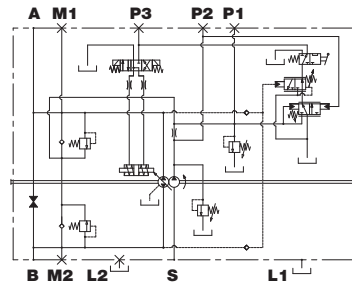
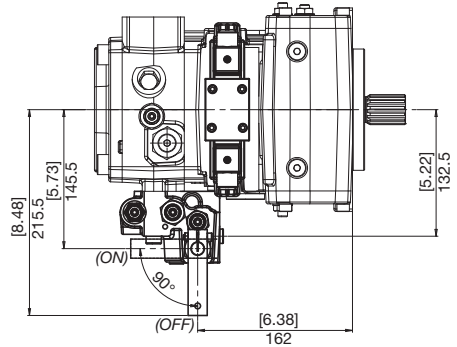
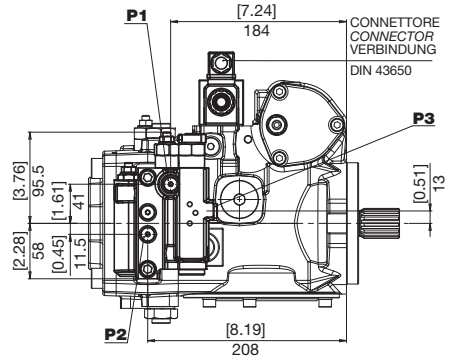
**PU** Pilotaggio (1/4" GAS)  
Pilot pressure (1/4" GAS)  
Steuerdruck (1/4" GAS)



**J** TAGLIO DI PRESSIONE  
CUT-OFF  
DRUCKABSCHNEIDUNG



**M** INCHING MECCANICO (SOLO COMANDO A)  
MECHANIC INCHING CONTROL ("A" CONTROL)  
MECHANISCHES INCH-VENTIL (NUR STEUERUNG A)



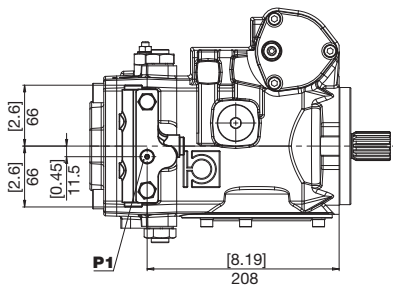




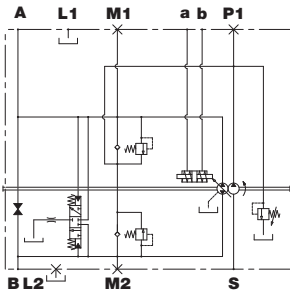
**ACCESSORI**  
**ACCESSORIES**  
**ZUBEHÖR**

**HP P6**

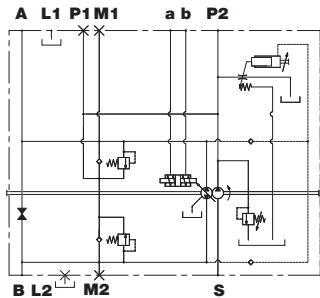
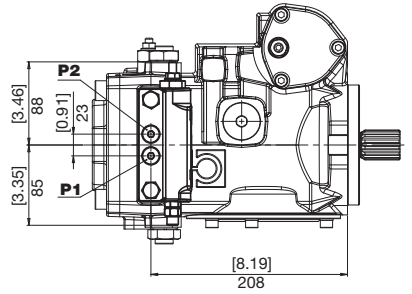
**V** VALVOLA DI FLUSSAGGIO (5-7 l/min)  
**FLUSHING AND BOOST VALVE (5-7 l/min)**  
**SPUL-UND SPEISEDRUKVENTIL (5-7 l/min)**



**P1** Presa pressione (1/8" GAS)  
Pressure intake (1/8" GAS)  
Druckanschluss (1/8" GAS)

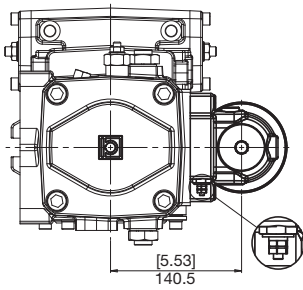


**W** LIMITATORE DI POTENZA  
**POWER LIMITER**  
**LEISTUNGSBEGRENZER**

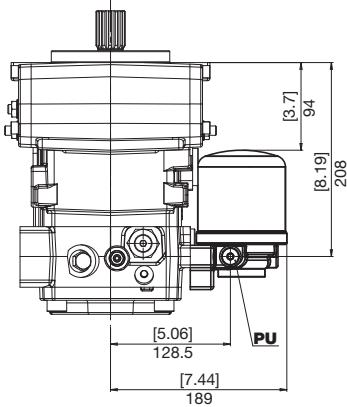


**X**

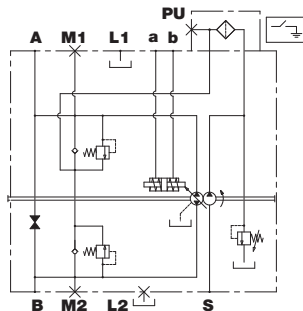
FILTRO CON INDICATORE DI INTASAMENTO ELETTRICO  
FILTER WITH ELECTRIC CLOGGING INDICATOR  
FILTER MIT ELEKTRISCHEM VERSTOPFUNGSAENZEIGER



INDICATORE DIFFERENZIALE ELETTRICO 30VDC - 0,2 A max  
ELECTRIC DIFFERENTIAL INDICATOR 30VDC - 0,2 A max  
ELEKTRISCHER DIFFERENZDRUCKANZEIGER 30VDC - 0,2 A max

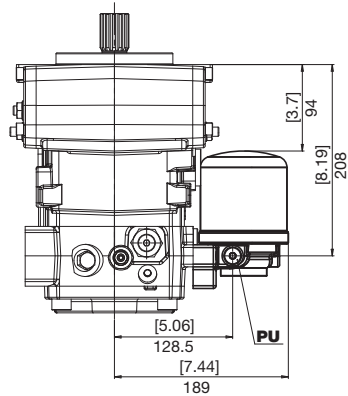
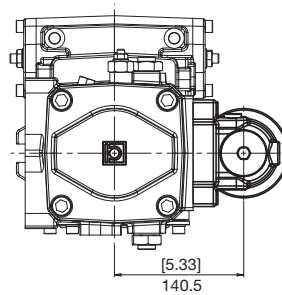


**PU** Presa olio filtrato (1/4" GAS)  
Filtered oil intake (1/4" GAS)  
Anschluss filtriertes Öl (1/4" GAS)

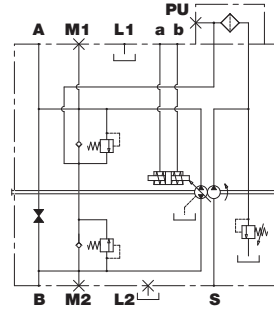


**Y**

FILTRO SENZA INDICATORE DI INTASAMENTO  
FILTER WITHOUT ELECTRIC CLOGGING INDICATOR  
FILTER OHNE ELEKTRISCHEN VERSTOPFUNGSAENZEIGER



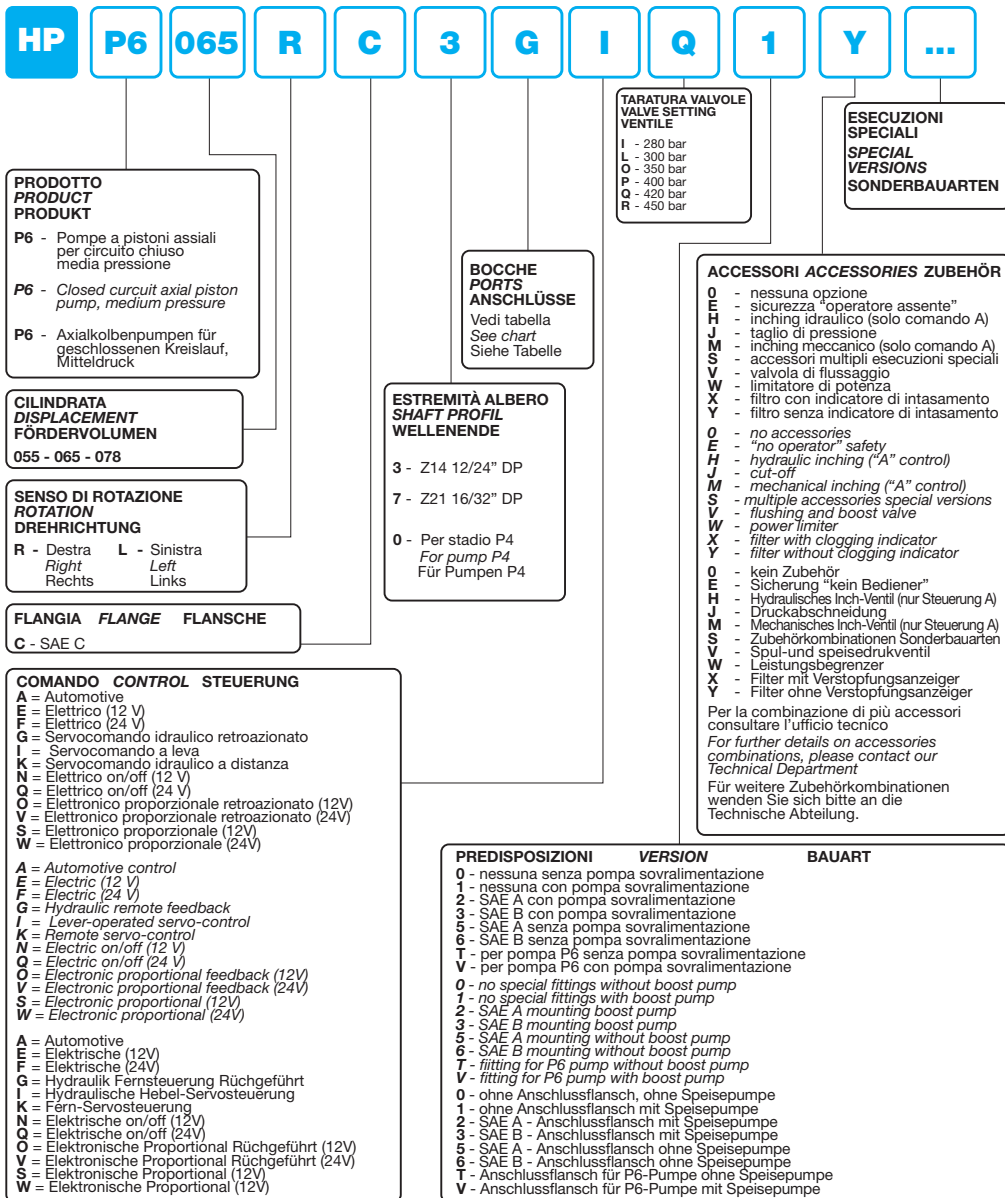
**PU** Presa olio filtrato (1/4" GAS)  
Filtered oil intake (1/4" GAS)  
Anschluss filtriertes Öl (1/4" GAS)





**ISTRUZIONI PER L'ORDINAZIONE  
ORDERING INSTRUCTIONS  
BESTELLANLEITUNG**

**HP P6**



**POMPE MULTIPLE  
MULTIPLE PUMPS  
MEHRFACHPUMPEN**

**POMPA DOPPIA CON 2 POMPE DI SOVRALIMENTAZIONE  
DOUBLE PUMP WITH 2 BOOST PUMPS  
TANDEMPUMPE MIT 2 SPEISEPUMPEN**

Il codice di ordinazione di una pompa multipla si ottiene sommando, come mostrato in esempio, i codici delle singole pompe (stadi) ricavati seguendo le regole di ordinazione delle pompe singole.

*You build the ordering code of a multiple pump by summing the order code of the individual pumps, see our example.*

Der Bestellschlüssel einer Mehrfachpumpe ergibt sich durch Summieren der Einzel-Bestellschlüssel, siehe Beispiel

1° STADIO STAGE STUFE										2° STADIO STAGE STUFE													
HP	P6	058	R	C	3	G	K	Q	V	0	000	HP	P6	065	R	C	0	G	K	Q	1	0	000
1° STADIO STAGE STUFE										2° STADIO STAGE STUFE													
HP	P4	065	R	C	3	G	K	Q	V	0	000	HP	P6	065	R	C	0	G	K	Q	2	0	000
1° STADIO STAGE STUFE										2° STADIO STAGE STUFE													
HP	P6	065	R	C	3	G	K	Q	V	0	000	HP	P6	065	R	C	0	G	K	Q	3	0	000

**SAE A**

**SAE B**