





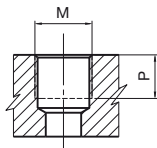




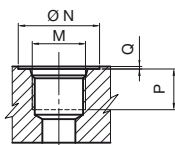


**BOCCHIE  
PORTS  
ANSCHLÜSSE**

**HM POB**



TIPO TYPE TYP		M		P	
		Nm	mm	mm	in
<b>G1</b>	1/8" GAS BSPP	8	8		0,31
<b>G2</b>	1/4" GAS BSPP	17	9		0,35
<b>G4</b>	1/2" GAS BSPP	70	14,5		0,57



TIPO TYPE TYP	DIMENSIONE SIZE GRÖSSE	N		P		Q		M	
		mm	in	mm	in	mm	in		Nm
<b>U2</b>	1/4"	20	0,79	12	0,47	0,3	0,01	7/16-20 UNF	17
<b>U5</b>	5/8"	34	1,34	18	0,71	0,3	0,01	3/4-16 UNF	70

**COMBINAZIONI  
COMBINATIONS  
KOMBINATIONEN**

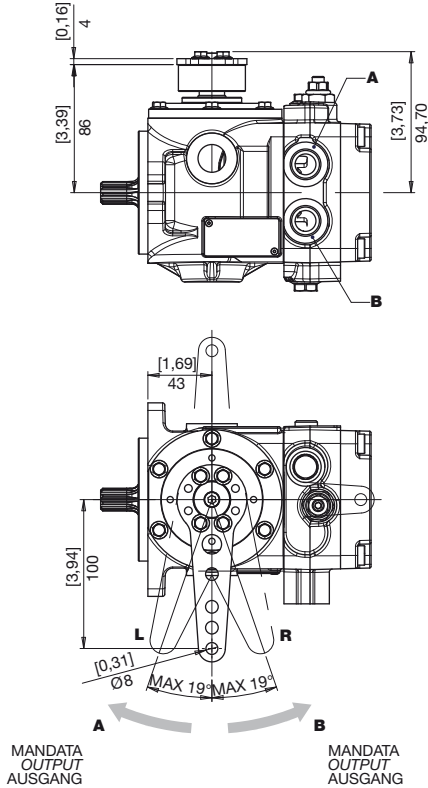
TIPO TYPE TYP	S ASPIRAZIONE INLET SAUGSEITE	A - B MANDATA OUTLET AUSGANG	L1 - L2 DRENAGGI DRAIN LECKÖLANSCHLUSS	PRESE PRESSIONE PRESSURE INTAKE DRUCKANSCHLÜSSE	
				MA-MB	G
<b>G</b>	G4	G4	G4	G1	G2
<b>U</b>	U5	U5	U5	G1	U2



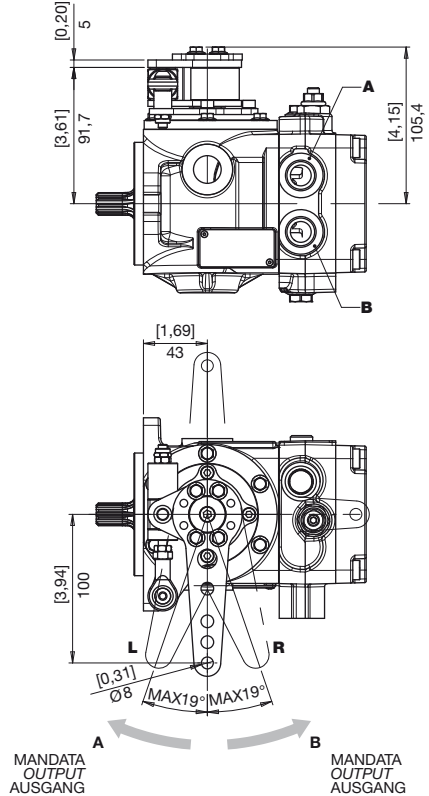
**COMANDI  
CONTROLS  
STEUERUNGEN**

**HM POB**

**L** MANUALE SENZA AZZERATORE  
MANUAL WITHOUT ZEROING  
MANUELL OHNE NULLSTELLUNG

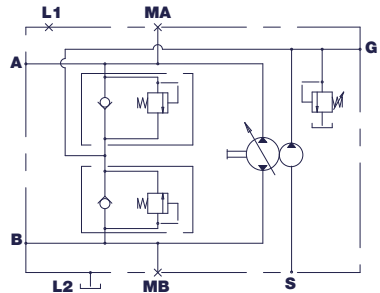


**M** MANUALE CON AZZERATORE  
MANUAL WITH ZEROING  
MANUELL MIT NULLSTELLUNG



**L M**

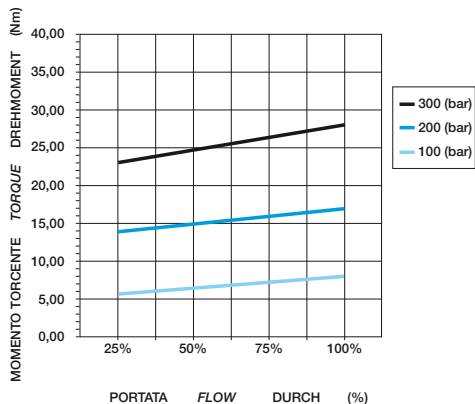
ROTAZIONE DIRECTION DREHRICHTUNG	POSIZIONE LEVA LEVER POSITION HEBELSTELLUNG	MANDATA OUTPUT AUSGANG	ASPIRAZIONE SUCTION SAUGSEITE
DESTRA RIGHT RECHTS	R	A	B
	L	B	A
SINISTRA LEFT LINKS	R	B	A
	L	A	B



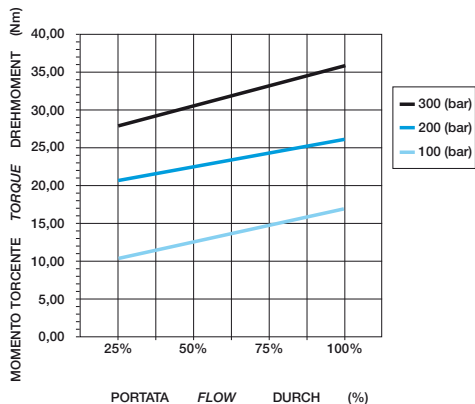
**MOMENTI TORCENTI LEVA DI COMANDO**  
**TORQUE FOR CONTROL PIN ACTUATION**  
**DREHMOMENT FÜR SCHWENKWINKELVERSTELLUNG**

**HM POB**

**L** **MANUALE SENZA AZZERATORE**  
**MANUAL WITHOUT ZEROING**  
**MANUELL OHNE NULLSTELLUNG**



**M** **MANUALE CON AZZERATORE**  
**MANUAL WITH ZEROING**  
**MANUELL MIT NULLSTELLUNG**



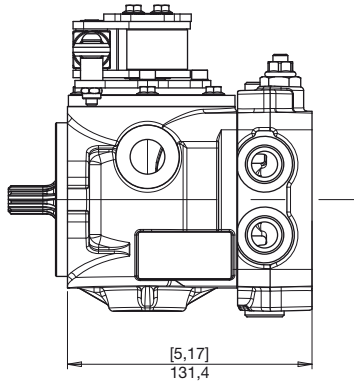




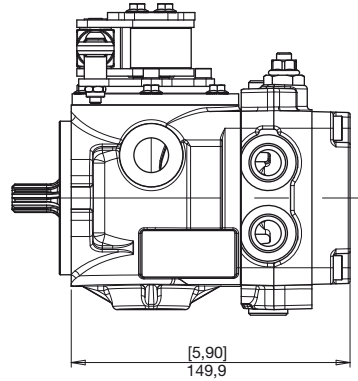
**PREDISPOSIZIONI  
VERSION  
BAUART**

**HM POB**

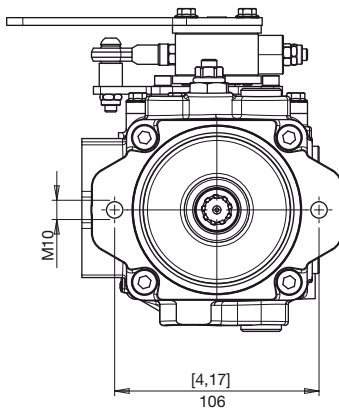
**0** NESSUNA PREDISPOSIZIONE SENZA POMPA DI ALIMENTAZIONE  
**NO AUXILIARY MOUNT WITHOUT CHARGE PUMP**  
**OHNE ANSCHLUSSFLANSCH OHNE SPEISEPUMPE**



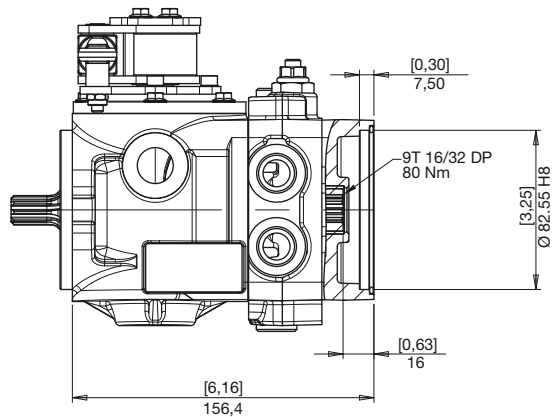
**1** NESSUNA PREDISPOSIZIONE CON POMPA DI ALIMENTAZIONE  
**NO AUXILIARY MOUNT WITH CHARGE PUMP**  
**OHNE ANSCHLUSSFLANSCH MIT SPEISEPUMPE**



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

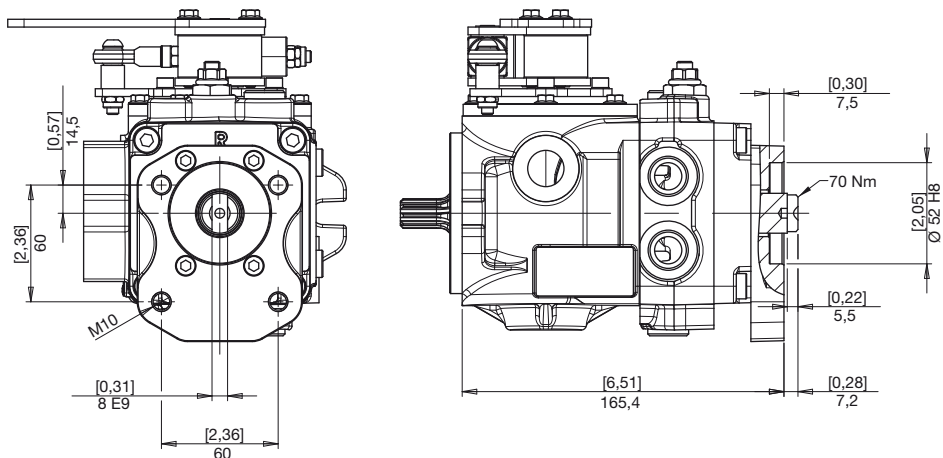


**5** SAE A SENZA POMPA SOVRALIMENTAZIONE  
**SAE A WITHOUT CHARGE PUMP**  
**SAE A OHNE SPEISEPUMPE**

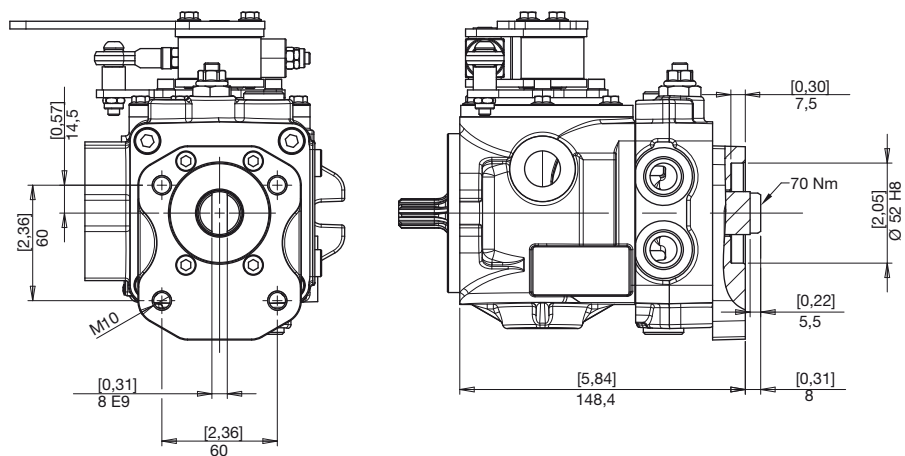


Su richiesta è possibile avere la flangia ruotata di 90°  
On request it is possible to have the flange rotated by 90°  
Auf Wunsch kann der Flansch eine um 90° gedrehte Stellung einnehmen.

**4** POMPA INGRANAGGI TEDESCA Ø 52 CON POMPA SOVRALIMENTAZIONE  
GEAR PUMP GERMAN Ø 52 WITH CHARGE PUMP  
ZAHNRADPUMPE DIN-NORME Ø 52 MIT SPEISEPUMPE



**7** POMPA INGRANAGGI TEDESCA Ø 52 SENZA POMPA SOVRALIMENTAZIONE  
GEAR PUMP GERMAN Ø 52 WITHOUT CHARGE PUMP  
ZAHNRADPUMPE DIN-NORME Ø 52 OHNE SPEISEPUMPE

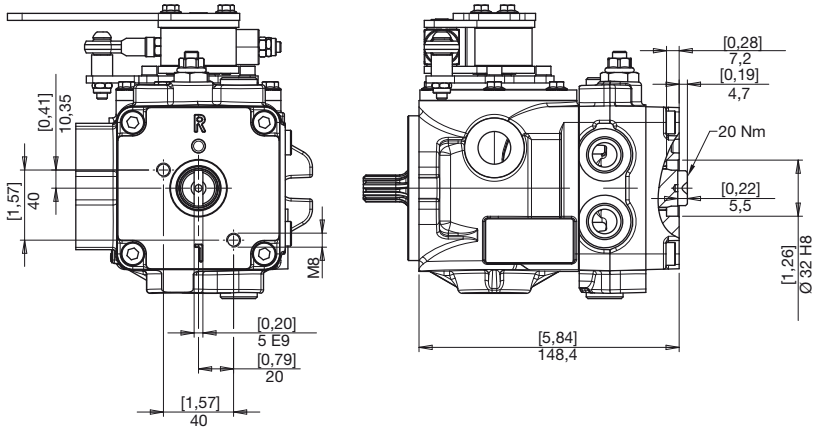




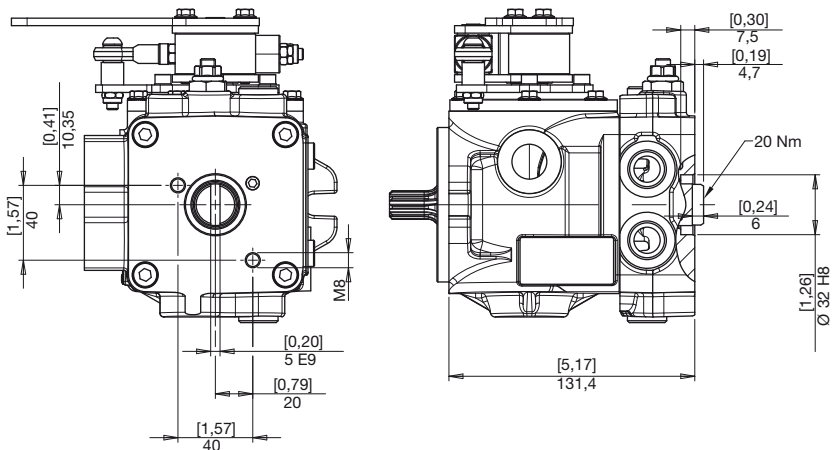
**PREDISPOSIZIONI  
VERSION  
BAUART**

**HM POB**

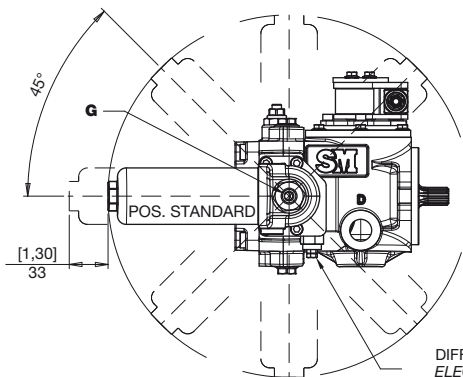
**8** POMPA INGRANAGGI GR 1 CON POMPA SOVRALIMENTAZIONE  
GEAR PUMP GR 1 WITH CHARGE PUMP  
ZAHNRADPUMPE GR 1 MIT SPEISEPUMPE



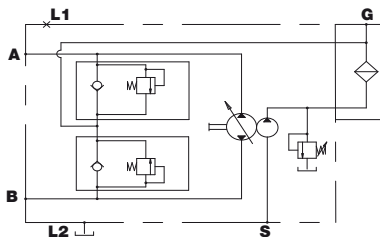
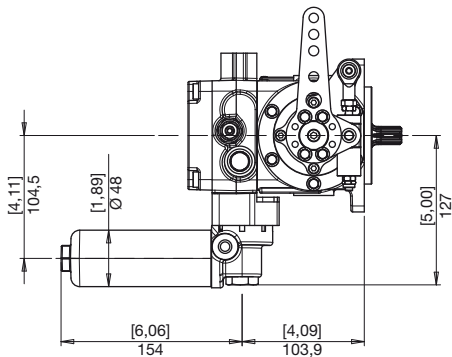
**9** POMPA INGRANAGGI GR 1 SENZA POMPA SOVRALIMENTAZIONE  
GEAR PUMP GR 1 WITHOUT CHARGE PUMP  
ZAHNRADPUMPE GR 1 OHNE SPEISEPUMPE



**X** FILTRO CON INDICATORE DI INTASAMENTO ELETTRICO  
FILTER WITH ELECTRIC CLOGGING INDICATOR  
FILTER MIT ELEKTRISHEM VERSTOPFUNGSANZEIGER



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

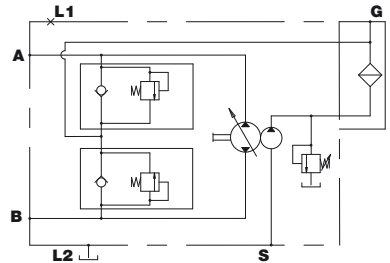
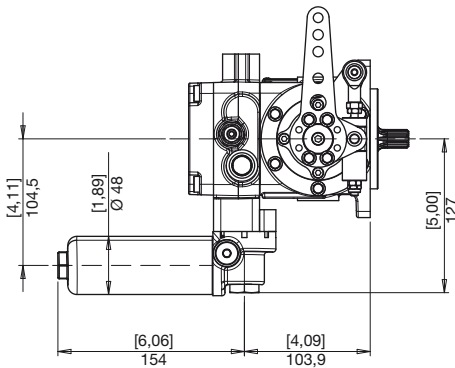
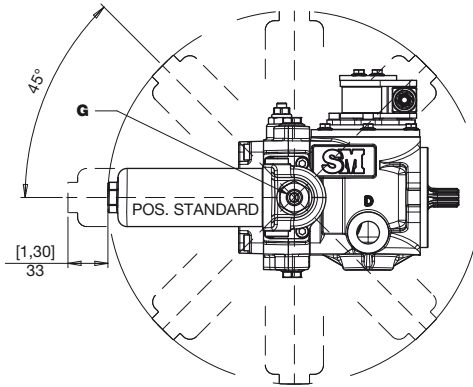


È possibile richiedere il filtro ruotato ad intervalli di 45°  
You can ask the filter rotated at intervals of 45°  
Sie können den Filter bei 45°-Schritten gedreht gelten

<b>G</b>	Preso olio filtrato Filtered oil intake Anschluss filtriertes Öl	G 1/4" BSPP
		7/16-20 UNF



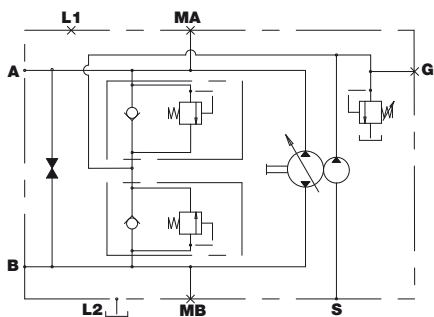
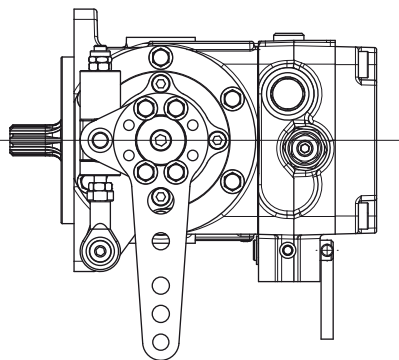
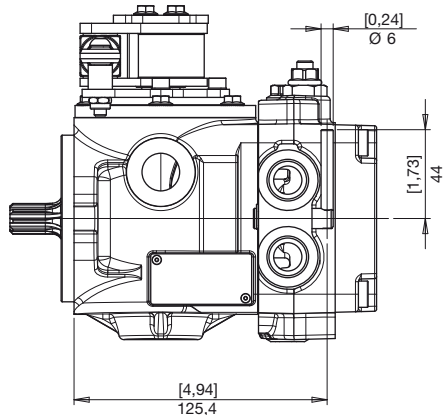
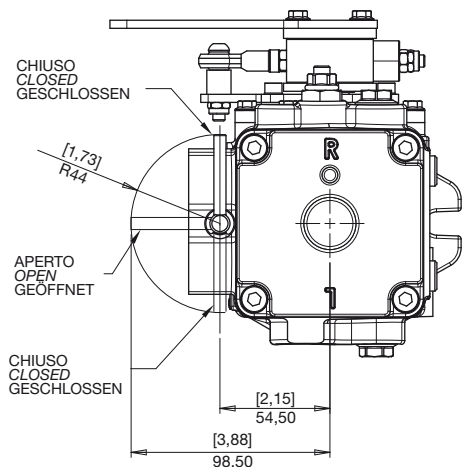
**Y** **FILTRO SENZA INDICATORE DI INTASAMENTO**  
**FILTER WITHOUT ELECTRIC CLOGGING INDICATOR**  
**FILTER OHNE ELEKTRISCHEN VERSTOPFUNGSANZEIGER**



È possibile richiedere il filtro ruotato ad intervalli di 45°  
*You can ask the filter rotated at intervals of 45°*  
Sie können den Filter bei 45°-Schritten gedreht gelten

<b>G</b>	Preso olio filtrato <i>Filtered oil intake</i> Anschluss filteriertes Öl	G 1/4" BSPP
		7/16-20 UNF

**B** BY-PASS  
BY-PASS  
BY-PASS



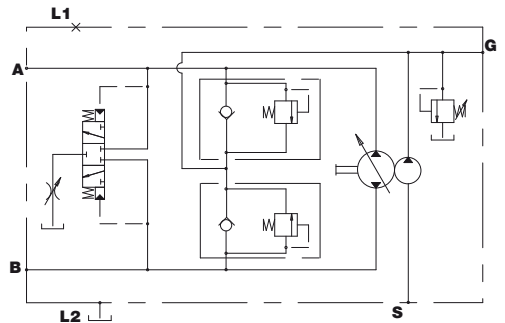
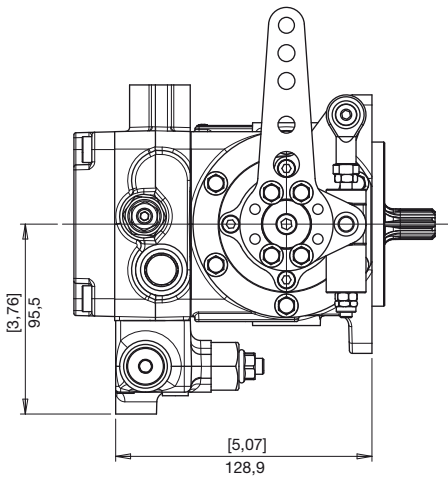
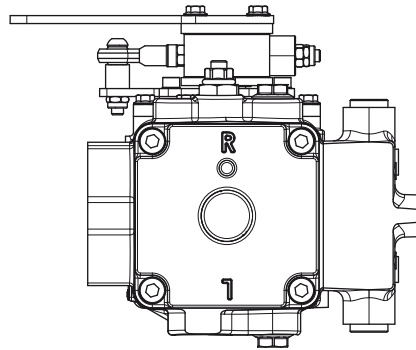
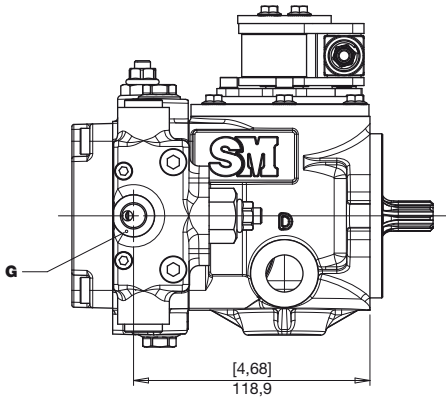


**ACCESSORI  
ACCESSORIES  
ZUBEHÖR**

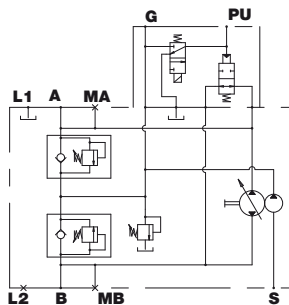
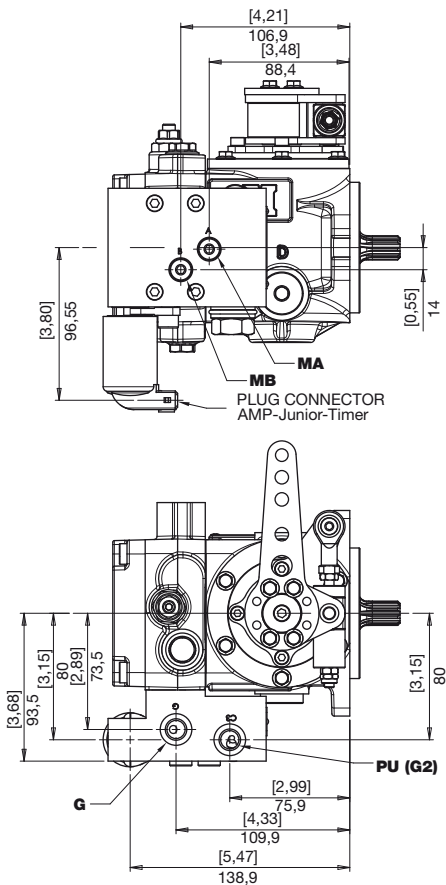
**HM POB**



**VALVOLA DI FLUSSAGGIO  
FLUSHING AND BOOST VALVE  
SPUL- UND SPEISEDRIKVENTIL**



**W** VALVOLA BY-PASS + SBLOCCO FRENO  
BY-PASS VALVE + BRAKE RELEASE  
BY-PASS VENTIL + BREMSE LÖSEN



**PU** Pilotaggio sblocco freno (G2)  
Brake opening pressure (G2)  
Bremsen öffnung druck (G2)





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

**HM POB**



**PRODOTTO  
PRODUCT  
PRODUKT**

**SERIE  
SERIES  
SERIE**

**CILINDRATA  
DISPLACEMENT  
FÖRDERVOLUMEN**  
07 = 7 cc 12 = 12 cc  
08 = 8 cc 13 = 13 cc  
09 = 9 cc 14 = 14 cc  
10 = 10 cc 16 = 16 cc  
11 = 11 cc 18 = 18 cc

**SENSO DI ROTAZIONE  
ROTATION  
DREHRICHTUNG**  
R - Destra L - Sinistra  
Right Left  
Rechts Links

**S - Pompa singola  
Single pump  
Einzelne Pumpe**  
**T - Pompa ant. Tandem  
Tandem front pump  
Vordere Tandem-Pumpe**  
**C - Pompa post. Tandem  
Tandem rear pump  
Hintere Tandem-Pumpe**

**ESTREMITÀ D'ALBERO  
SHAFT PROFILE  
WELLENENDE**  
J - Ø 22,22  
P - Ø 15,85  
V - 9T 16/32 DP  
X - SAE 11T 16/32" DP  
9 - SAE 13T 16/32" DP  
Special for high torque  
R - SAE 13T 16/32" DP  
A - Rear pump shaft Z21

**BOCCH  
PORTS  
ANSCHLÜSSE**  
G - Gas  
U - UNF

**COMANDO CONTROL STEUERUNG**  
L - Manuale senza azzeratore  
M - Manuale con azzeratore (Molla Standard)  
B - Manuale con azzeratore (Molla Soft)  
A - Manuale con azzeratore (Molla Hard)  
C - Manuale con azzeratore (Molla Extra Hard)  
L - Manual without zeroing  
M - Manual with zeroing (Standard spring)  
B - Manual with zeroing (Soft spring)  
A - Manual with zeroing (Hard spring)  
C - Manual with zeroing (Extra Hard spring)  
L - Manuell ohne Nullstellung  
M - Manuell mit Nullstellung (Feder Standard)  
B - Manuell mit Nullstellung (Feder Soft)  
A - Manuell mit Nullstellung (Feder Hard)  
C - Manuell mit Nullstellung (Feder Extra Hard)

**ESECUZIONI SPECIALI  
SPECIAL VERSIONS  
SONDERBAUARTEN**

**ACCESSORI ACCESSORIES ZUBEHÖR**  
0 - nessuno  
B - By-pass  
M - Valvola di flusso taratura regolabile  
U - Valvola di flusso taratura fissa  
W - Valvola by-pass+ sblocco freno  
X - filtro con indicatore di intasamento  
Y - filtro senza indicatore di intasamento  
0 - no accessories  
B - By-pass  
M - Flushing and boost valve adjustable setting  
U - Flushing and boost valve fixed setting  
W - By-pass valve+ brake release  
X - filter with electric clogging indicator  
Y - filter without electric clogging indicator  
0 - Ohne Zubehör  
B - By-pass  
M - Spül- und speisedruckventil  
U - Spül- und speisedruckventil  
W - By-pass ventili + bremse lösen  
X - Filter mit Verstopfungsanzeiger  
Y - Filter ohne Verstopfungsanzeiger

**PREDISPOSIZIONI VERSION BAUART**  
0 - nessuna, senza pompa di alimentazione  
1 - nessuna, con pompa di alimentazione 5cc  
A - nessuna, con pompa di alimentazione 8cc  
5 - SAE A, senza pompa di alimentazione  
2 - SAE A, con pompa di alimentazione 5cc  
B - SAE A, con pompa di alimentazione 8cc  
4 - GR2 senza pompa di alimentazione  
4 - GR2 con pompa di alimentazione 5cc  
9 - GR1, senza pompa di alimentazione  
8 - GR1, con pompa di alimentazione 5cc  
N - predispo. tandem, senza pompa di alimentazione  
Z - predispo. tandem, con pompa di alimentazione 5cc  
P - predispo. tandem, con pompa di alimentazione 8cc  
0 - No auxiliary mount without charge pump  
1 - No auxiliary mount with charge pump 5cc  
A - No auxiliary mount with charge pump 8cc  
5 - SAE A mounting without charge pump  
2 - SAE A mount with charge pump 5cc  
B - SAE A mount with charge pump 8cc  
4 - GR2 mount without charge pump  
4 - GR2 mount with charge pump 5cc  
9 - GR1 mount without charge pump  
8 - GR1 mount with charge pump 5cc  
N - Tandem pump mount without charge pump  
Z - Tandem pump mount with charge pump 5cc  
P - Tandem pump mount with charge pump 8cc  
0 - Ohne Anschlussflansch, ohne Speisepumpe  
1 - Ohne Anschlussflansch, mit Speisepumpe 5cc  
A - Ohne Anschlussflansch, mit Speisepumpe 8cc  
5 - SAE A-Anschlussflansch, ohne Speisepumpe  
2 - SAE A -Anschlussflansch, mit Speisepumpe 5cc  
B - SAE A -Anschlussflansch, mit Speisepumpe 8cc  
4 - GR2-Anschlussflansch, ohne Speisepumpe  
4 - GR2 -Anschlussflansch, mit Speisepumpe 5cc  
9 - GR1 ohne Speisepumpe  
8 - GR1 mit Speisepumpe 5cc  
N - Vorbereitet für Tandempumpe, ohne Speisepumpe  
Z - Vorbereitet für Tandempumpe, mit Speisepumpe 5cc  
P - Vorbereitet für Tandempumpe, mit Speisepumpe 8cc

**TARATURA VALVOLE  
VALVE SETTING  
VENTILE**  
B - 150 bar G - 250 bar  
D - 180 bar I - 280 bar  
E - 210 bar L - 300 bar  
H - 230 bar

**TIPO DI OSCILLANTE SWASHPLATE TYPE  
SCHWENKSCHLEIBENLAGERUNG**  
A = oscillante su rullini  
B = oscillante su bronzone  
A = mounted on needle bearing  
B = mounted on bronze bearings  
A = Rollengelager  
B = Bronze-Gleitlager

**POMPE MULTIPLE  
MULTIPLE PUMPS  
MEHRFACHPUMPEN**

**POMPA DOPPIA CON 1 POMPA DI SOVRALIMENTAZIONE  
DOUBLE PUMP WITH 1 BOOST PUMP  
TANDEMPUMPE MIT 1 SPEISEPUMPE**

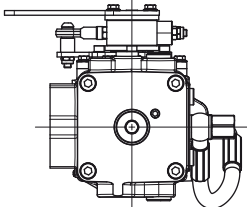
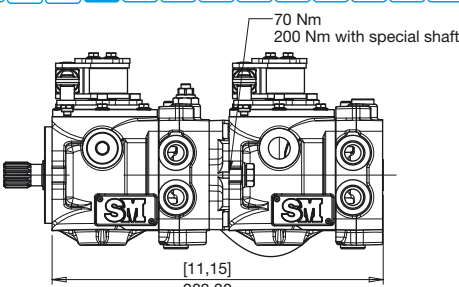
Il codice di ordinazione di una pompa multipla si ottiene sommando, come mostrato in esempio, i codici delle singole pompe (stadi) ricavati seguendo le regole di ordinazione delle pompe singole.

*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												
HM	PO	B	08	R	T	V	G	M	E	B	P	0	HM	PO	B	08	R	C	V	G	M	E	B	0	0
HM	PO	B	08	R	T	R	G	M	E	B	N	0	HM	PO	B	08	R	C	A	G	M	E	B	A	0

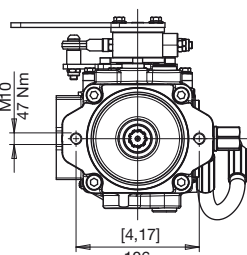
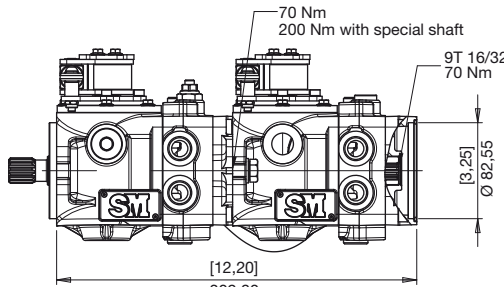
**With reinforced shaft 200 Nm**

1° STADIO STAGE STUFE													2° STADIO STAGE STUFE												
HM	PO	B	08	R	T	V	G	M	E	B	P	0	HM	PO	B	08	R	C	V	G	M	E	B	5	0
HM	PO	B	08	R	R	V	G	M	E	B	N	0	HM	PO	B	08	R	C	A	G	M	E	B	B	0

**With reinforced shaft 200 Nm**

SAE A

Nelle pompe tandem con una pompa di sovralimentazione è obbligatorio installare nell'impianto un tubo di collegamento (non fornito) tra un drenaggio del primo stadio ed un drenaggio del secondo stadio.

- La configurazione Tandem standard è con pompa da 8cc nel primo stadio.
- Con albero rinforzato è disponibile una sola configurazione con pompa da 8cc nel secondo stadio.

*In the tandem pumps with one boost pump it is mandatory to assemble in the plant a connecting pipe (not supplied) between a drain of the first stage and a drain of the second one.*

- The standard Tandem configuration is with a 8cm<sup>3</sup> pump in the first stage.
- With reinforced shaft only one configuration with 8cm<sup>3</sup> pump in the second stage is available.

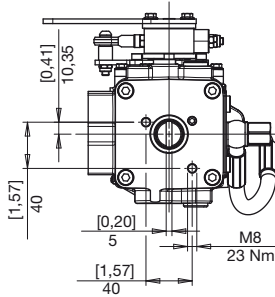
Bei den Tandempumpen mit einer Verstärkerpumpe muss in der Anlage ein Verbindungsrohr (nicht beige stellt) zwischen einer Drainage der ersten Stufe und einer Drainage der zweiten Stufe installiert werden.

- Die serienmäßige Tandemversion hat eine 8cc Pumpe in der ersten Stufe.
- Mit verstärkter Welle ist nur eine einzige Ausführung mit 8cc in der zweiten Stufe erhältlich.



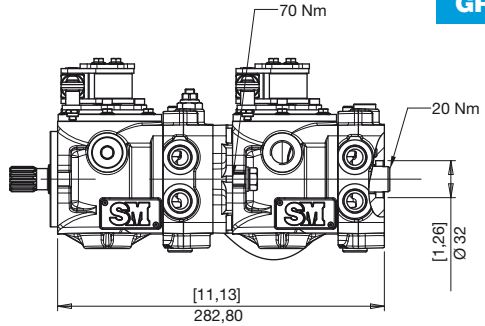
1° STADIO STAGE STUFE

HM PO A 08 R T V G M E B P O



2° STADIO STAGE STUFE

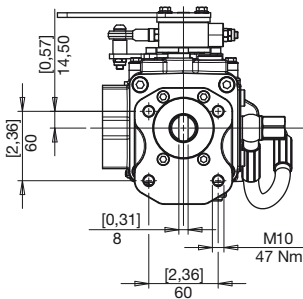
HM PO A 08 R C V G M E B 9 O



**GR1**

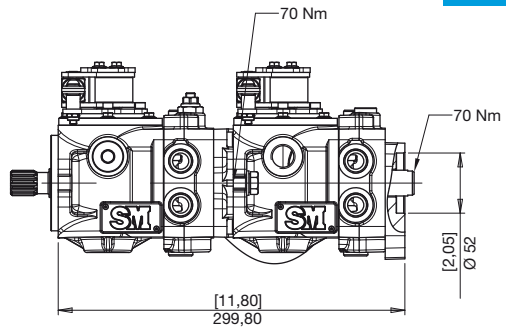
1° STADIO STAGE STUFE

HM PO A 08 R T V G M E B P O



2° STADIO STAGE STUFE

HM PO A 08 R C V G M E B 7 O



**GR2**

Nelle pompe tandem con una pompa di sovralimentazione è obbligatorio installare nell'impianto un tubo di collegamento (non fornito) tra un drenaggio del primo stadio ed un drenaggio del secondo stadio.

*In the tandem pumps with one boost pump it is mandatory to assemble in the plant a connecting pipe (not supplied) between a drain of the first stage and a drain of the second one.*

Bei den Tandempumpen mit einer Verstärkerpumpe muss in der Anlage ein Verbindungsrohr (nicht beigelegt) zwischen einer Drainage der ersten Stufe und einer Drainage der zweiten Stufe installiert werden.