POMPE E MOTORI A PISTONI ASSIALI AD ASSE INCLINATO

BENT AXIS AXIAL PISTON PUMPS AND MOTORS

AXIALKOLBENPUMPEN-MOTOREN

HM PF
23•28•32

398SBF0023A01

HM PF

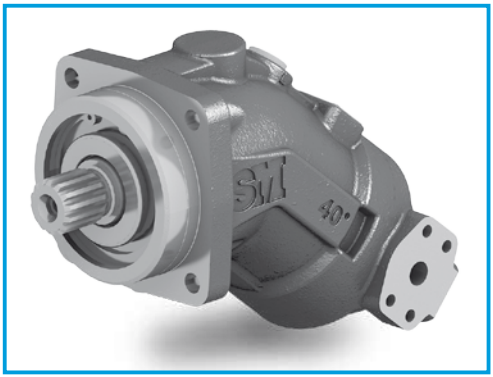
POMPE A PISTONI ASSIALI PER CIRCUITO APERTO A CILINDRATA FISSA
OPEN CIRCUIT AXIAL FIXED-DISPLACEMENT PISTON PUMPS
AXIALKOLBENPUMPEN FÜR DEN OFFENEN KREISLAUF

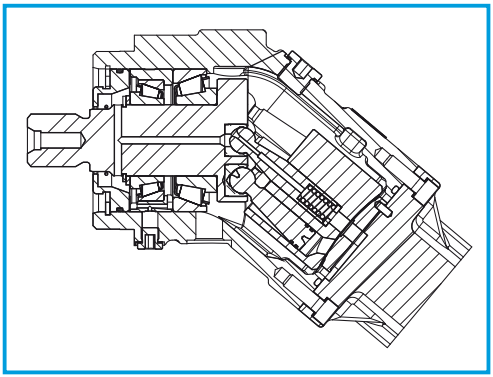
Le pompe a pistoni assiali serie HM PF sono a cilindrata fissa del tipo ad asse inclinato e sono stati concepiti per operare in circuito aperto.
Il sistema è stato progettato in modo da ottenere un angolo di inclinazione di 40° dei pompanti rispetto all'asse dell'albero uscente.
Tale geometria permette:
- elevata coppia di spunto
- elevata efficienza volumetrica e meccanica
- elevate pressioni massime

Axial piston pumps series HM PF are fixed displacement and bent axis and have been designed to work both in an open circuit.
The system has been designed in order to obtain 40° angle of inclination of the pumps with respect to the axle of the outgoing shaft.
This geometry allows:
- *high static torque*
- *high volumetric and mechanical efficiency*
- *high maximum pressures*

Die Axialkolbenpumpen der Baureihe HM PF sind Schrägachsenmotoren mit konstantem Verdrängungsvolumen und können sowohl im offenen Kreislauf arbeiten.
Die Schrägachsenmotoren wurden so konstruiert, daß sie einen großen Schwenkwinkel von 40° haben.
Dies ermöglicht:
- Höheres Anlaufmoment
- Gute mechanisch hydraulische und volumetrische Wirkungsgrade
- Hohe Enddrehzahl
- Hohe Betriebsdrücke

HM PF 23•28•32





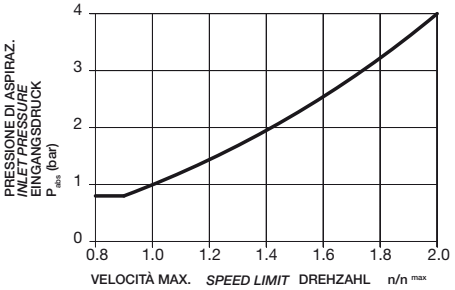
DATI TECNICI
TECHNICAL DATA
TECHNISCHE MERKMALE

GRUPPO *GROUP* BAUREIHE	CILINDRATA TEORICA *NOMINAL DISPLACEMENT* FÖRDERVOLUMEN		PRESSIONE *PRESSURE* DRUCK						VELOCITÀ DI ROTAZIONE *SPEED* DREHZAHL	COPPIA *TORQUE* DREHMOMENT	MASSA *WEIGHT* GEWICHT		MOMENTO POLARE D'INERZIA *INERTIAL MASS* TRAGHEITSMOMENT
			CONTINUA *CONTINUOS* DAUER		INTERMITTENTE *INTERMITTENT* INTERMITTIERENDER		PICCO *PEAK* SPITZEN		n_{max}	at 350 bar			
	cm³	in³	bar	psi	bar	psi	bar	psi	min⁻¹	Nm	kg	lbs	kg • m²
HM PF	23	1,4	350	5075	400	5800	450	6525	2500	126	10,9	23,9	0,0012
	28	1,71	350	5075	400	5800	450	6525	2500	156	10,9	23,9	0,0012
	32	1,95	350	5075	400	5800	450	6525	2500	178	10,9	23,9	0,0012

La velocità massima ammissibile può essere incrementata aumentando la pressione in alimentazione (vedi grafico).

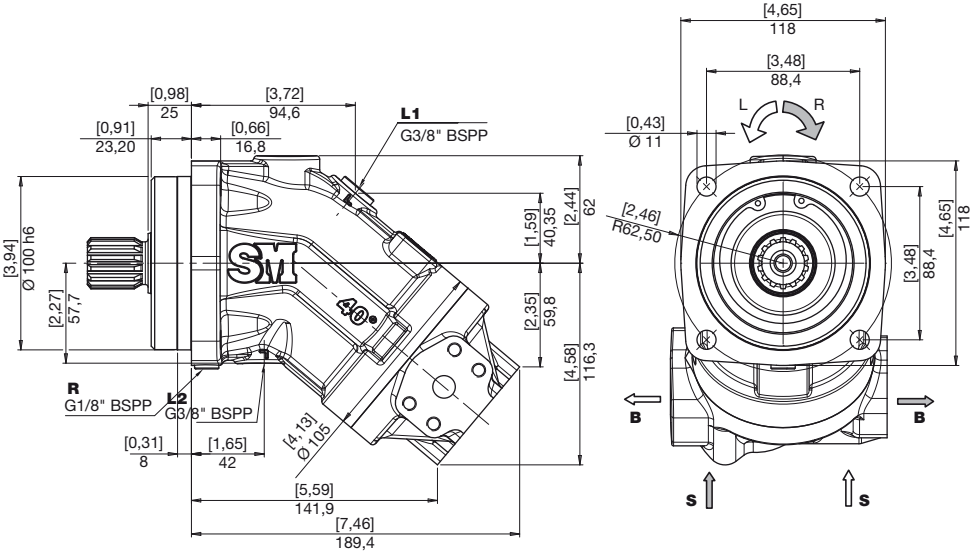
By increase of the input pressure the max speed can be increased (see diagram).

Die zulässige Höchstgeschwindigkeit kann gesteigert werden, indem der Versorgungsdruck erhöht wird (siehe graphische Abbildung).



DIMENSIONI
SIZE
ABMESSUNGEN

I **FLANGIA ISO**
ISO FLANGE
ISO FLANSCH

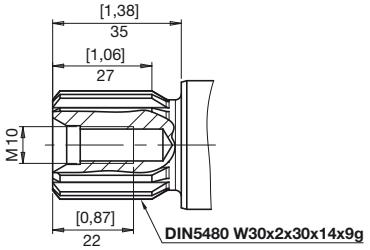


L1 **L2**	Drenaggi *Drain* Leckölanschluss	**R**	Spurgo *Air bleed* Entlüftung
S	Aspirazione *Feeding pump inlet* Ansaugöffnung	**B**	Mandata *Outlet* Ausgang
L1 **R**	Tappati *Plugged* Verschlossen		

ESTREMITÀ ALBERI
SPLINE SHAFTS
WELLENPROFILE

Z

COPPIA MAX
MAX TORQUE **730 N•m**
MAX DREHMOMENT

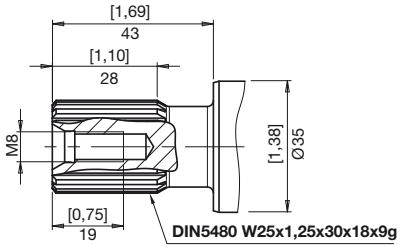


PRESSIONE CONTINUA
CONTINUOUS PRESSURE
NENNDRUCK
400 bar / 5800 psi

PRESSIONE DI PICCO
PEAK PRESSURE
HOCHSTDRUCK
450 bar / 6525 psi

X

COPPIA MAX
MAX TORQUE **450 N•m**
MAX DREHMOMENT

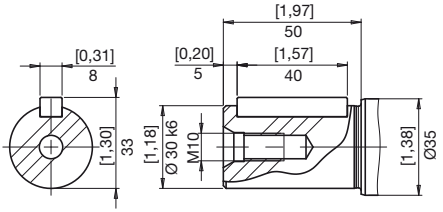


PRESSIONE CONTINUA
CONTINUOUS PRESSURE
NENNDRUCK
400 bar / 5800 psi

PRESSIONE DI PICCO
PEAK PRESSURE
HOCHSTDRUCK
450 bar / 6525 psi

C

COPPIA MAX
MAX TORQUE **190 N•m**
MAX DREHMOMENT

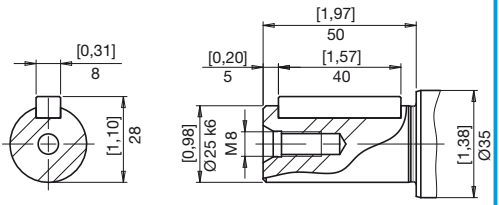


PRESSIONE CONTINUA
CONTINUOUS PRESSURE
NENNDRUCK
350 bar / 5075 psi

PRESSIONE DI PICCO
PEAK PRESSURE
HOCHSTDRUCK
400 bar / 5800 psi

Y

COPPIA MAX
MAX TORQUE **160 N•m**
MAX DREHMOMENT



PRESSIONE CONTINUA
CONTINUOUS PRESSURE
NENNDRUCK
350 bar / 5075 psi

PRESSIONE DI PICCO
PEAK PRESSURE
HOCHSTDRUCK
400 bar / 5800 psi

Per applicazioni con carico radiale sull'albero motore (pignoni, cinghie trapezoidali), con albero tipo X e Y è consentita una pressione continua di 315 bar (Pmax = 350 bar).
In caso di carico pulsante sopra 315 bar, utilizzare la versione con albero scanalato Z.

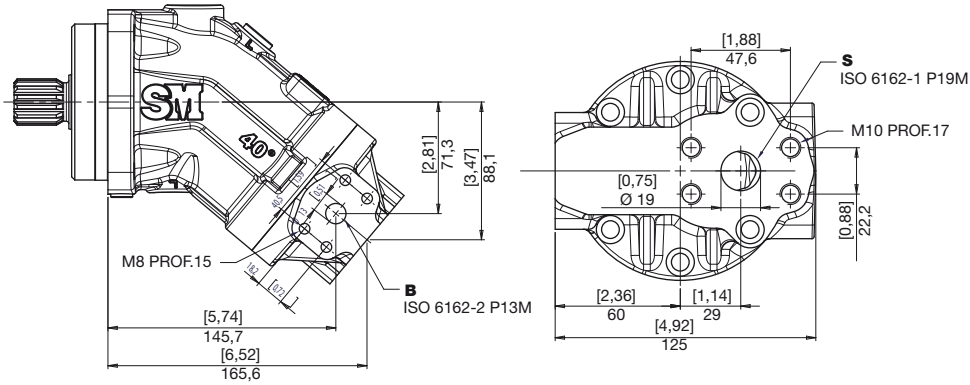
With shaft type X and Y is allowed a continuous pressure of 315 bar (Pmax = 350 bar) for applications with radial load of the drive shaft (pinions, belts).
In cases of pulsating loading above 315 bar must be use the version with splined shaft Z.

Bei Wellenende X und Y ist bei Abtrieben mit Querkraftbelastung der Triebwelle (Ritzel, Keilriemen) ein Nenndruck von 315 bar zulässig (pmax = 350 bar).
Bei pulsierender Belastung über 315 bar empfehlen wir die Ausführung mit Zahnwelle Z.

DISTRIBUTORI
PORT PLATES
ANSCHLUSSPLATTE

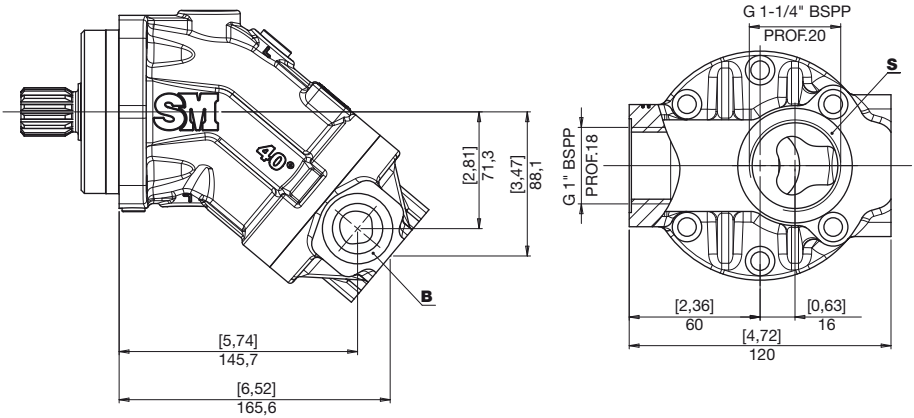
SS

ATTACCHI FLANGIA SAE
SAE PORTS
SAE FLANSCHANSCLÜSSE



FS

ATTACCHI FILETTATI GAS
GAS THREADED PORTS
GEWINDEANSCHLUSSE GAS



Nella versione sinistra il distributore è ruotato 180°.

In left version the port plate is 180° rotated.

In der linken Version ist der Verteiler um 180° gedreht.

ISTRUZIONI PER L'ORDINAZIONE
ORDERING INSTRUCTIONS
BESTELLANLEITUNG

HM **PF** **I** **032** **Z** **SS** **R** **0** **...**

SERIE
SERIES
BAUREIHE

FLANGIA
FLANGE
FLANSCHE
I - ISO

CILINDRATA
DISPLACEMENT
FÖRDERVOLUMEN
023 - 23 cc
028 - 28 cc
032 - 32 cc

ESTREMITÀ ALBERO
SHAFT PROFIL
WELLENENDE

Z - dentato DIN 5480
C - cilindrico DIN 6885
X - dentato DIN 5480
Y - cilindrico DIN 6885

Z - splined shaft *DIN 5480*
C - round shaft *DIN 6885*
X - splined shaft *DIN 5480*
Y - round shaft *DIN 6885*

Z - Zahnwelle DIN 5480
C - zylindrisch DIN 6885
X - Zahnwelle DIN 5480
Y - zylindrisch DIN 6885

ESECUZIONI SPECIALI
SPECIAL VERSIONS
SONDERBAUARTEN

GUARNIZIONI
SEALS
DICHTUNGEN
0 - NBR
application range -30 °C to +100 °C
F - FKM (VITON)
application range -20 °C to +200 °C

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

DISTRIBUTORI
PORT PLATES
ANSCHLÜSSPLATTE
SS - Attacchi flangia SAE
FS - Attacchi flangia GAS

SS - *SAE ports*
FS - *GAS ports*

SS - SAE Flanschansclüsse
FS - GAS Flanschansclüsse