POMPE E MOTORI A PISTONI ASSIALI AD ASSE INCLINATO

BENT AXIS AXIAL PISTON PUMPS AND MOTORS

AXIALKOLBENPUMPEN-MOTOREN

HM BF 56•63

398SBF0103A01

HM BF

MOTORI A PISTONI ASSIALI A CILINDRATA FISSA
AXIAL PISTON FIXED-DISPLACEMENT MOTORS
KONSTANTMOTOREN

I motori a pistoni assiali serie HM BF sono a cilindrata fissa del tipo ad asse inclinato e sono stati concepiti per operare sia in circuito chiuso che 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
- elevata velocità massima
- elevate pressioni massime

Questi motori possono essere forniti a richiesta completi di valvola di flussaggio, sensore di giri, valvole di massima anticavitazione.

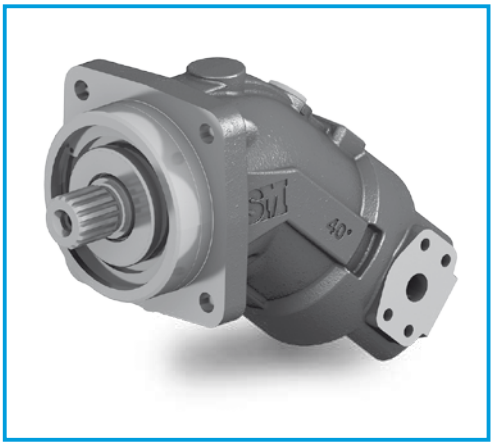
Axial piston motors series HM BF are fixed displacement and bent axis and have been designed to work both in an open and in a closed circuit.
The system has been designed in order to obtain 40° angle of inclination of the pumps with respect to the axle of the outgoing shaft.
This geometry allows:
- *high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

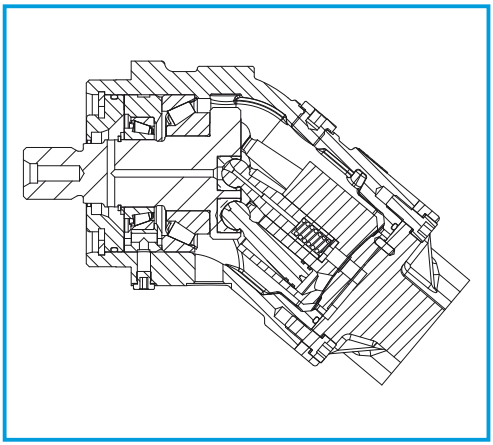
Motors can be supplied on request with flushing valve, speed sensor, relief and anticavitation valve.

Die Axialkolbenmotore der Baureihe HM BF sind Schrägachsenmotoren mit konstantem Verdrängungsvolumen und können sowohl im offenen, als auch im geschlossenen 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

Die Motoren können komplett mit Spül- und Speisedruckventil, Drehwinkelsensor ausgestattet werden, Druckbegrenzungs- und Nachsaugventil ausgestattet werden.

HM BF 56•63





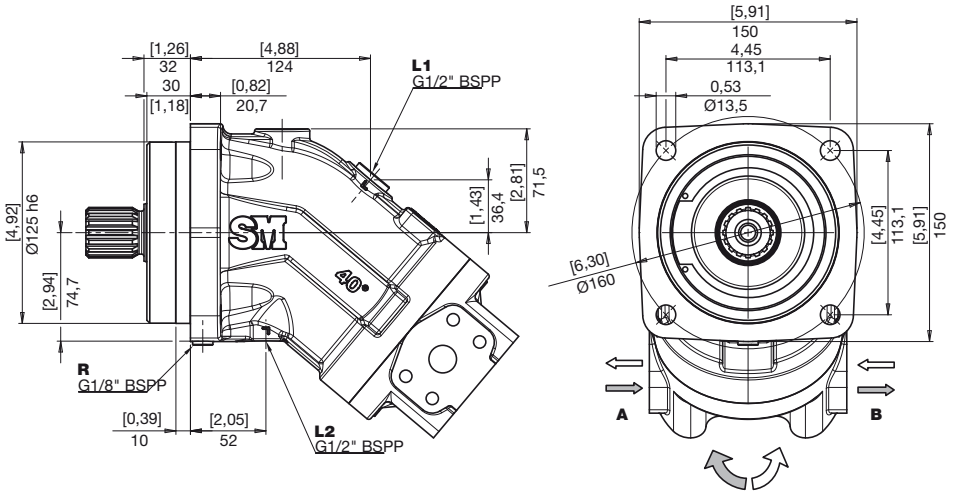
DATI TECNICI
TECHNICAL DATA
TECHNISCHE MERKMALE

GRUPPO *GROUP* BAUREIHE	CILINDRATA TEORICA *NOMINAL DISPLACEMENT* FÖRDERVOLUMEN		PRESSIONE *PRESSURE* DRUCK						VELOCITÀ DI ROTAZIONE *SPEED* DREHZAHL		MASSA *WEIGHT* GEWICHT		MOMENTO POLARE D'INERZIA *INERTIAL MASS* TRAGHEITSMOMENT
			CONTINUA *CONTINUOS* DAUER		INTERMITTENTE *INTERMITTENT* INTERMITTIERENDER		PICCO *PEAK* SPITZEN		MAX CONTINUA *MAX CONTINUOUS* KONTINUIERLICH MAX	MAX INTERMITTENTE *MAX INTERMITTENT* INTERMITTIERENDER MAX			
	cm³	in³	bar	psi	bar	psi	bar	psi	min⁻¹	min⁻¹	kg	lbs	kg • m²
HM BF	56	3,42	350	5075	400	5800	450	6525	5000	5500	19,9	43,9	0,0042
	63	3,84	350	5075	400	5800	450	6525	5000	5500	19,9	43,9	0,0042

La velocità di rotazione minima è 50 min^{-1} *The minimum rotation speed is 50 min^{-1}* Die Mindestdrehgeschwindigkeit beträgt 50 min^{-1}

DIMENSIONI
SIZE
ABMESSUNGEN

I FLANGIA ISO
ISO FLANGE
ISO FLANSCH

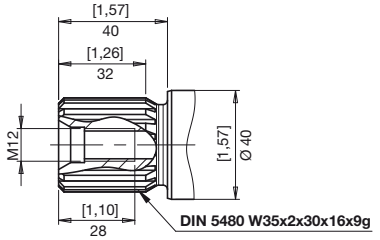


L1 **L2**	Drenaggi *Drain* Leckölanschluss	**R**	Spurgo *Air bleed* Entlüftung
A **B**	Ingresso / Uscita *Inlet / Outlet* Eingang / Ausgang	**L1** **R**	Tappati *Plugged* Verschlossen

ESTREMITÀ ALBERI
SPLINE SHAFTS
WELLENPROFILE

Z

COPPIA MAX
MAX TORQUE **990 N•m**
MAX DREHMOMENT

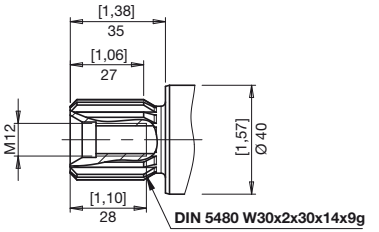


PRESSIONE CONTINUA
CONTINUOUS PRESSURE
NENNDRUCK
400 bar / 5800 psi

PRESSIONE DI PICCO
PEAK PRESSURE
HOCHSTDRUCK
450 bar / 6525 psi

X

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

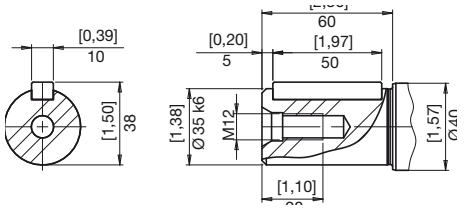


PRESSIONE CONTINUA
CONTINUOUS PRESSURE
NENNDRUCK
350 bar / 5075 psi

PRESSIONE DI PICCO
PEAK PRESSURE
HOCHSTDRUCK
400 bar / 5800 psi

C

COPPIA MAX
MAX TORQUE **315 N•m**
MAX DREHMOMENT

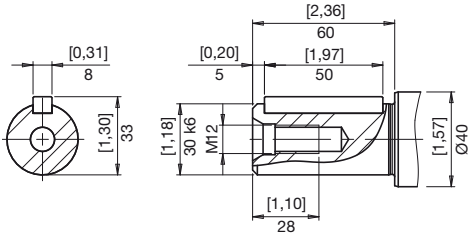


PRESSIONE CONTINUA
CONTINUOUS PRESSURE
NENNDRUCK
350 bar / 5075 psi

PRESSIONE DI PICCO
PEAK PRESSURE
HOCHSTDRUCK
400 bar / 5800 psi

Y

COPPIA MAX
MAX TORQUE **235 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.

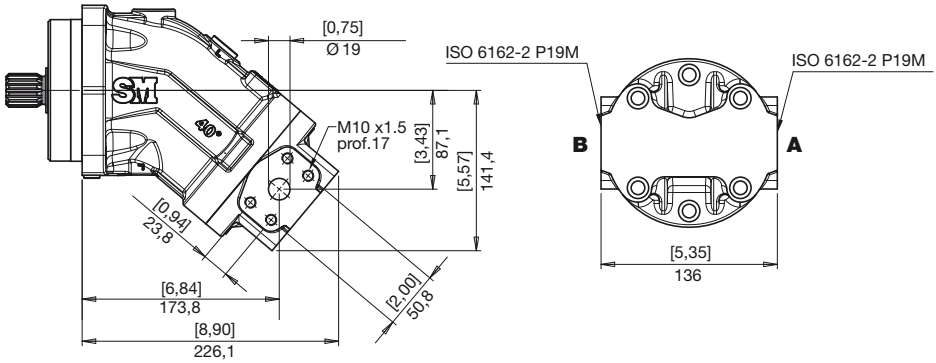
With shaft type X and Y is allowed a continuous pressure of 315 bar (Pmax = 350 bar) for applications with radial load of the drive shaft (pinions, belts).
In cases of pulsating loading above 315 bar must be use the version with splined shaft Z.

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

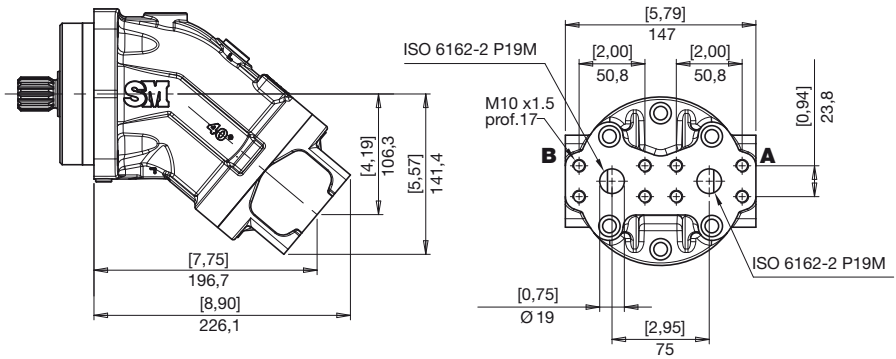
SL

ATTACCHI FLANGE SAE LATERALI
SAE PORTS AT SIDE
SAE FLANSCHANSCHLÜSSE SEITLICH GEGENÜBERLIEGEND



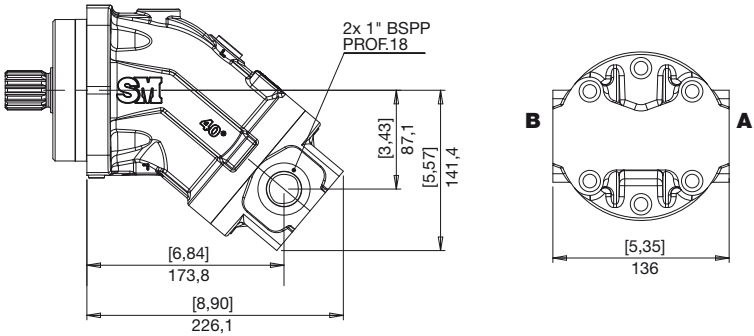
SP

ATTACCHI FLANGE SAE POSTERIORI
SAE PORTS REAR
SAE FLANSCHANSCHLÜSSE HINTEN



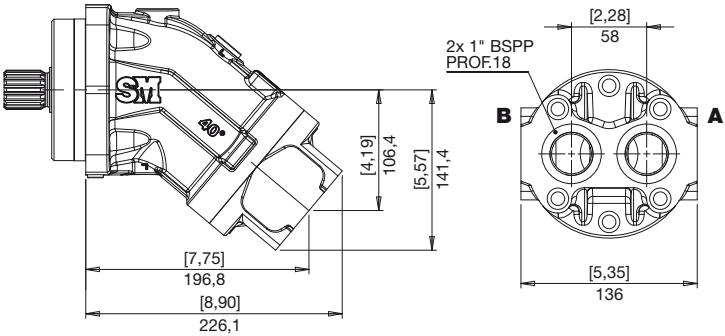
FL

ATTACCHI FILETTATI LATERALI
THREADED PORTS AT SIDE
GEWINDEANSCHLUSSE SEITLICH GEGENUBERLIEGEND



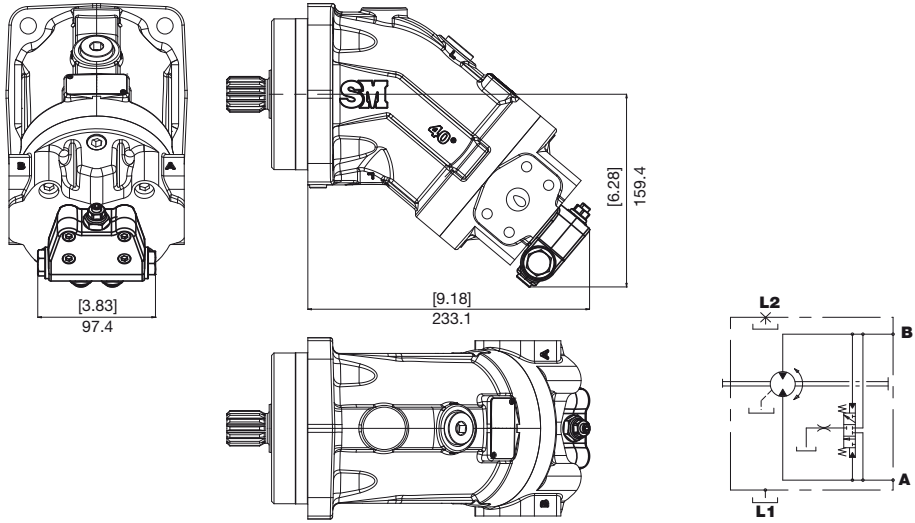
FP

ATTACCHI FILETTATI POSTERIORI
THREADED PORTS REAR
GEWINDEANSCHLUSSE SEITLICH HINTEN



V

VALVOLA DI FLUSSAGGIO
FLUSHING AND BOOST VALVE
SPUL- UND SPEISEDRUCKVENTIL



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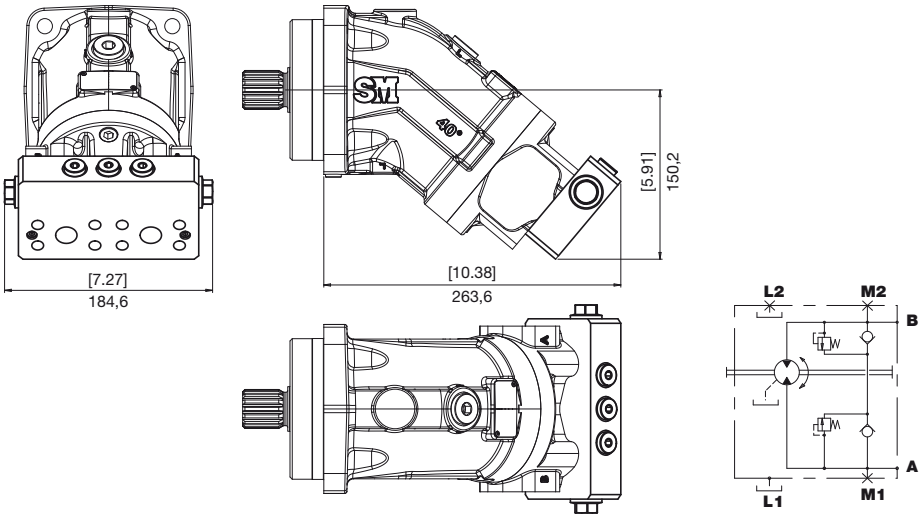
VALVOLA LIMITATRICE DI PRESSIONE E ANTICAVITAZIONE
PRESSURE LIMITER AND ANTICAVITATION VALVE
DRUCKBEGRENZUNGS UND NACHSAUGVENTIL

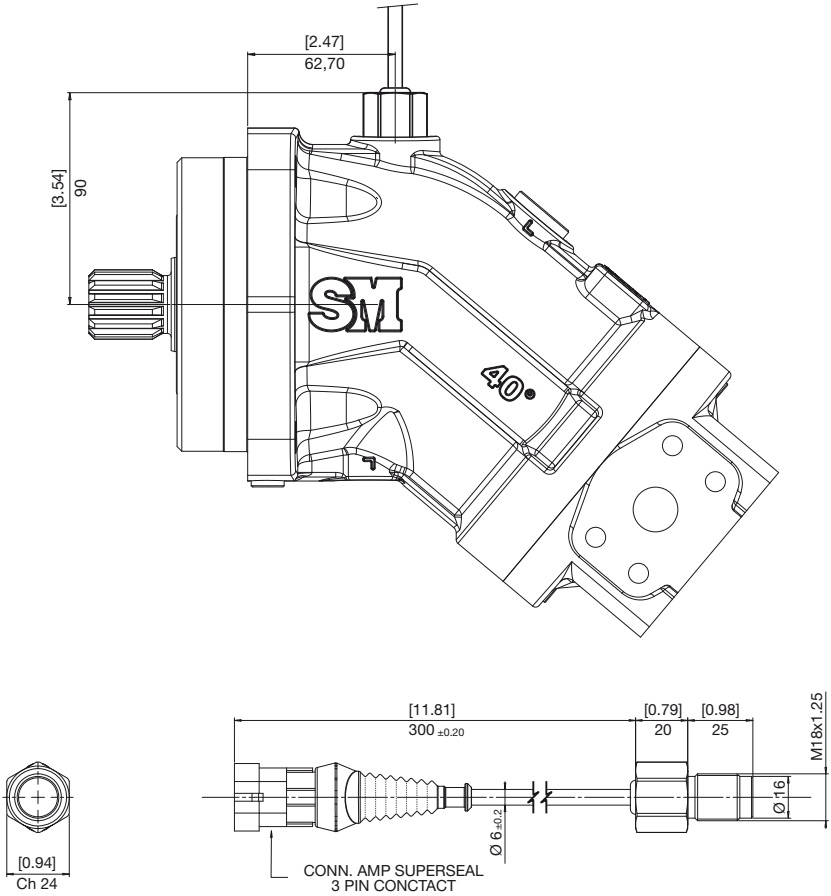


*Vedi pagina 9 istruzioni per l'ordinazione

**See page 9 for ordering instructions*

*Siehe Seite 9 Bestellungsanweisungen

S **SENSORE DI GIRI**
RPM SENSOR
DREHZAHLSENSOR



Questa versione è dotata di un albero speciale. Mediante una dentatura sullo stesso genera un segnale che viene rilevato da un sensore durante la rotazione.

This version mounts a special shaft. By a toothing on it, during rotation, generates a signal that is detected by a sensor.

Diese Version erfordert den Einbau einer speziellen Welle mit einer Verzahnung am Umfang, welche der Drehzahlsensor abtastet und in ein Spannungssignal transformiert.

ISTRUZIONI PER L'ORDINAZIONE
ORDERING INSTRUCTIONS
BESTELLANLEITUNG

HM BF I 056 Z SL 0 0 0 ...

PRODOTTO
PRODUCT
PRODUKT

BF - Motori a pistoni assiali a cilindrata fissa flangia ISO
BF - *Fixed-displacement axial piston motor ISO flange*
BF - Konstant-Axialkolbenmotoren ISO Flansch

FLANGIA
FLANGE
FLANSCHE

I - ISO

CILINDRATA STANDARD
STANDARD DISPLACEMENT
FÖRDERVOLUMEN STANDARD

056 - 56 cc
063 - 63 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

DISTRIBUTORI
PORT PLATES
ANSCHLÜSSPLATTE

SL - attacchi flangia SAE laterali
SP - attacchi flangia SAE posteriori
FL - attacchi filettati laterali
FP - attacchi filettati posteriori

SL - *SAE ports at side*
SP - *SAE ports rear*
FL - *threaded ports at side*
FP - *threaded ports rear*

SL - SAE Flanschanschlüsse seitlich gegenüberliegend
SP - SAE Flanschanschlüsse hinten
FL - Gewindeanschlüsse seitlich gegenüberliegend
FP - Gewindeanschlüsse seitlich hinten

GUARNIZIONI
SEALS
DICHTUNGEN

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

VALVOLE
VALVES
VENTILE

0 - nessuna valvola
0 - *Without valve*
0 - Öhne Ventil

V - con valvola di flussaggio
V - *Flushing and boost valve*
V - Spül- und Speisedruckventil

con valvole di massima/ anticavitazione
With pressure limiter and anticavitation valve
Mit druckbegrenzungs und nachsaugventil

B - setting 150 bar (2175 psi)
D - setting 180 bar (2610 psi)
E - setting 210 bar (3045 psi)
H - setting 230 bar (3335 psi)
G - setting 250 bar (3625 psi)
I - setting 280 bar (4060 psi)
L - setting 300 bar (4350 psi)
M - setting 320 bar (4640 psi)
O - setting 350 bar (5075 psi)
P - setting 400 bar (5800 psi)

ACCESSORI
ACCESSORIES
ZUBEHÖR

0 - nessuna opzione
S - con sensore di giri

0 - *no accessories*
S - *RPM sensor*

0 - kein Zubehör
S - Drehzahlsensor

ESECUZIONI SPECIALI
SPECIAL VERSIONS
SONDERBAUARTEN