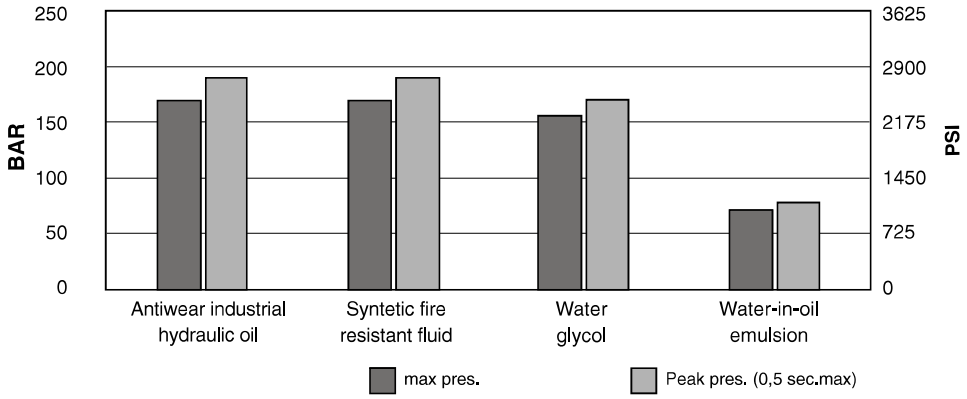
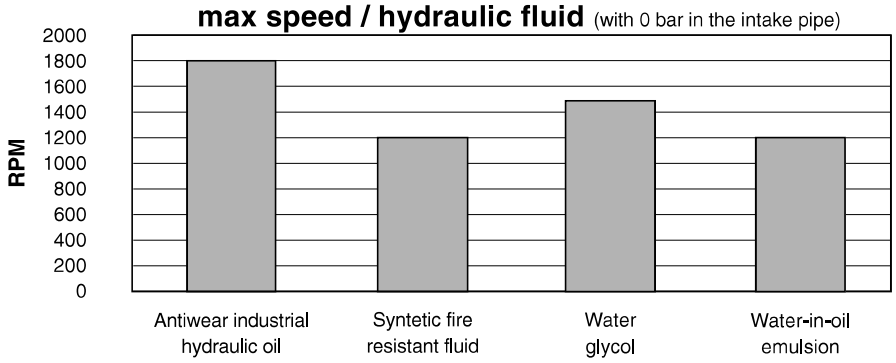
Single Pump Type BV02

Main operating data

max pressure / hydraulic fluid

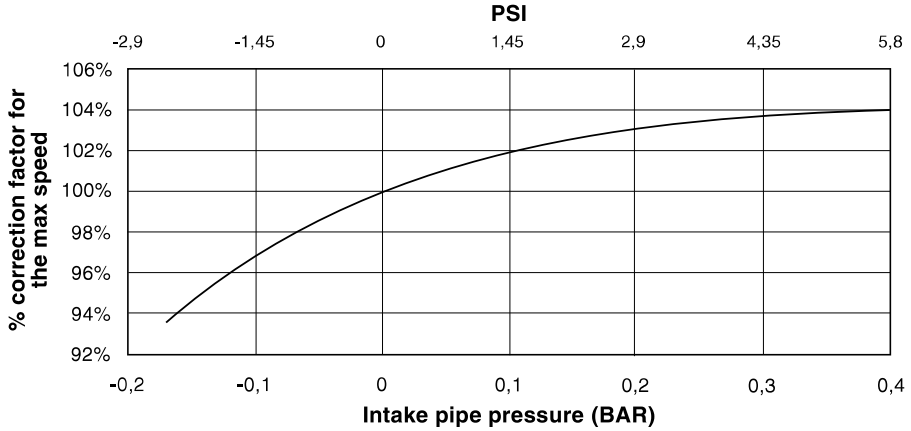


max speed / hydraulic fluid (with 0 bar in the intake pipe)

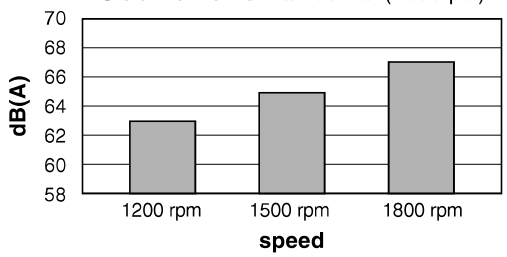


If the intake pressure is not zero bar, use the graph below to find the percentage correction factor to apply to the maximum speed

max speed / intake pipe pressure

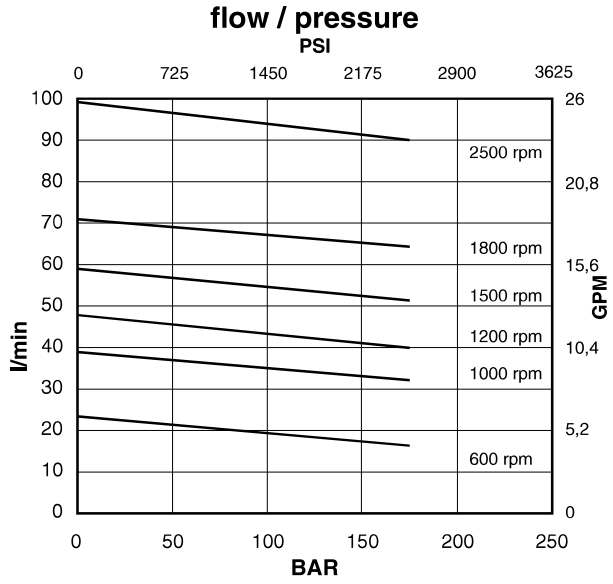


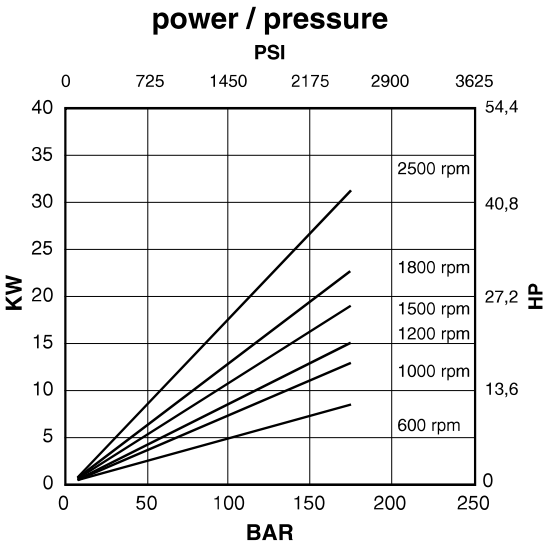
Sound level at 138 bar (2000 psi)

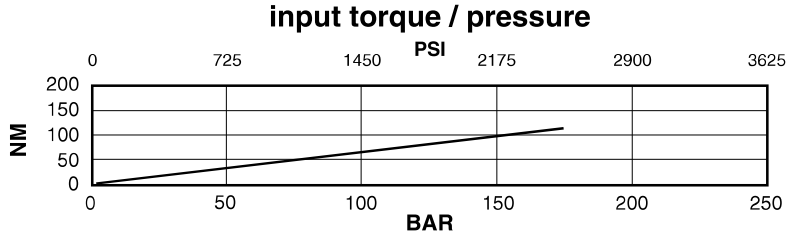


Single Pump Type BV02

Cartridge V02-12

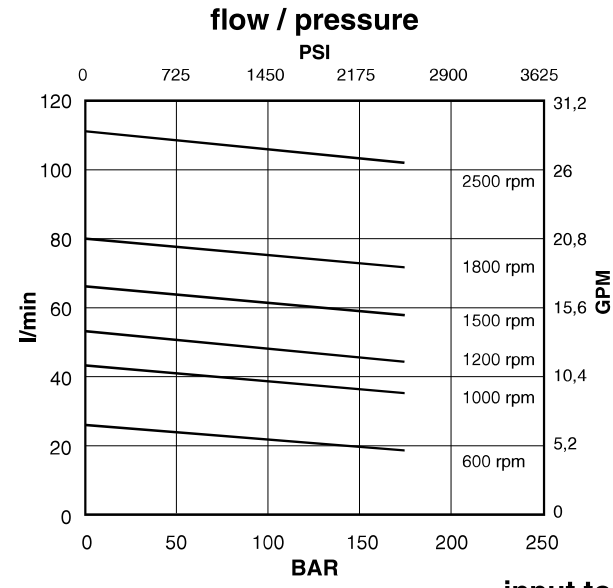


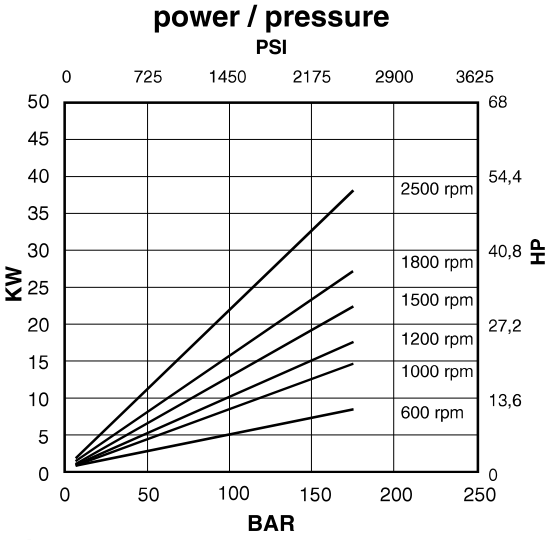


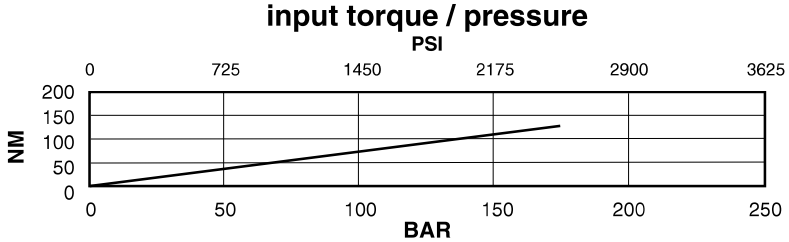


Oil viscosity: 25 c.St.(10W)
Temperature: 45°C
Inlet pressure: 0 BAR

Cartridge V02-14





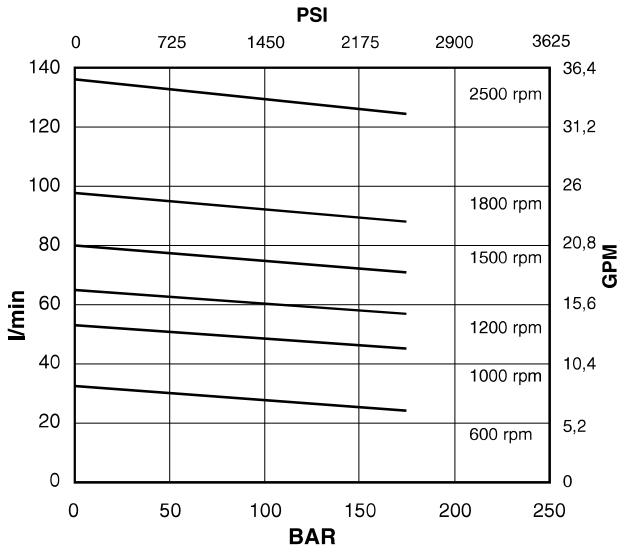


Oil viscosity: 25 c.St.(10W)
Temperature: 45°C
Inlet pressure: 0 BAR

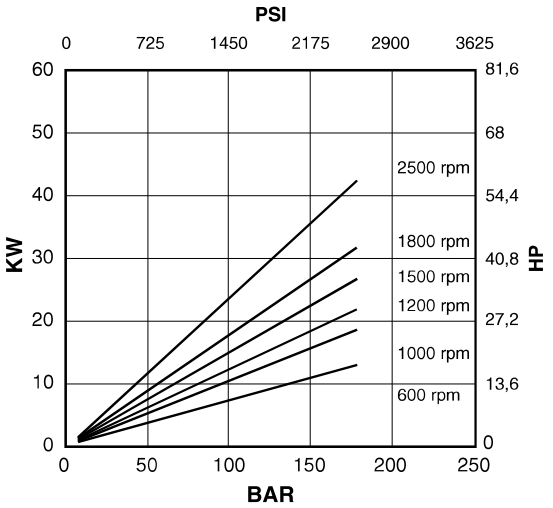
Single Pump Type BV02

Cartridge V02-17

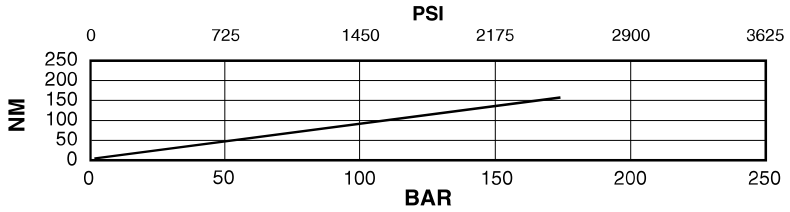
flow / pressure



power / pressure



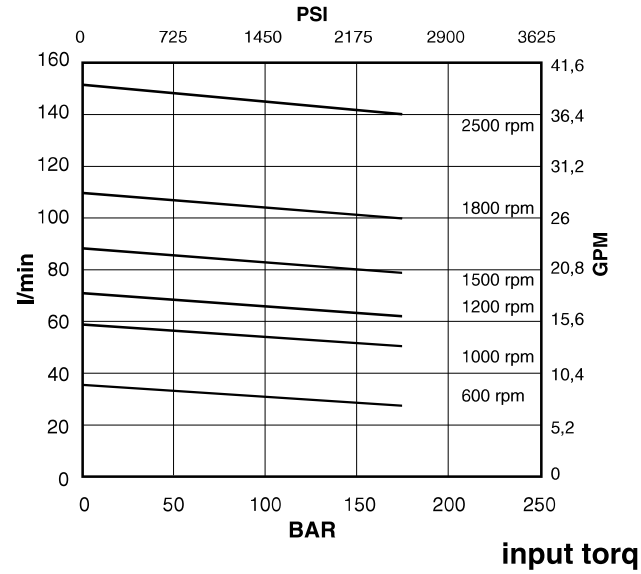
input torque / pressure



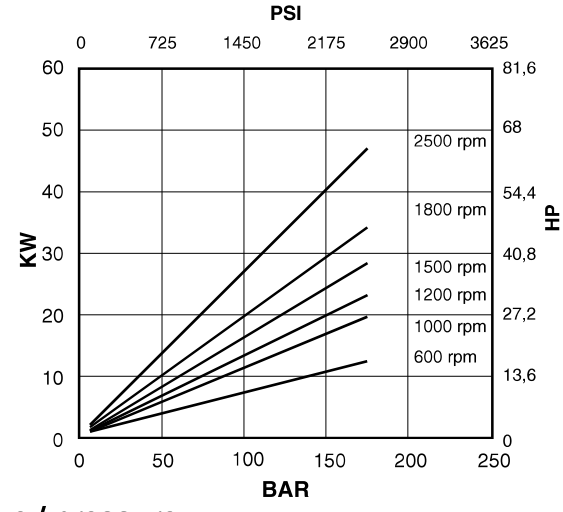
Oil viscosity: 25 c.St.(10W)
Temperature: 45°C
Inlet pressure: 0 BAR

Cartridge V02-19

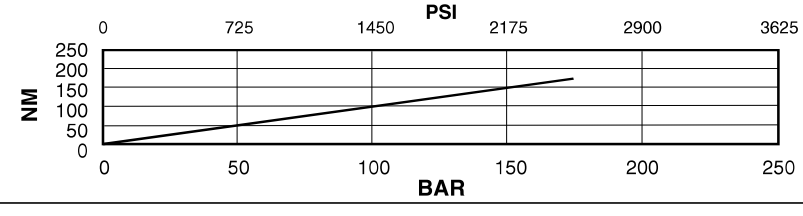
flow / pressure



power / pressure



input torque / pressure

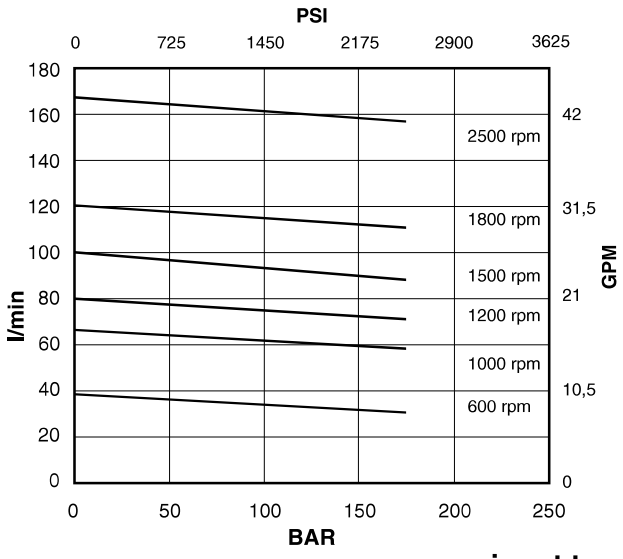


Oil viscosity: 25 c.St.(10W)
Temperature: 45°C
Inlet pressure: 0 BAR

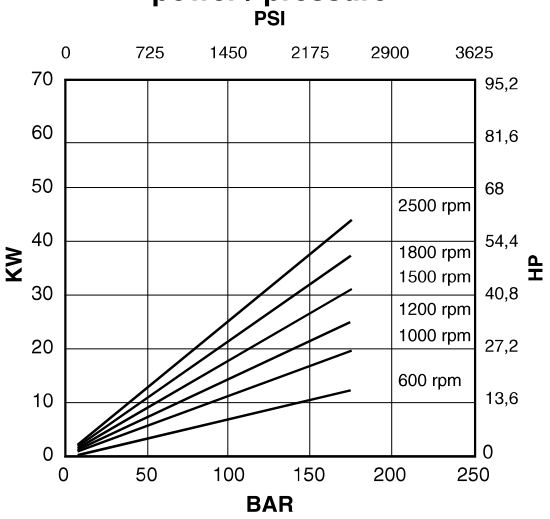
Single Pump Type BV02

Cartridge V02-21

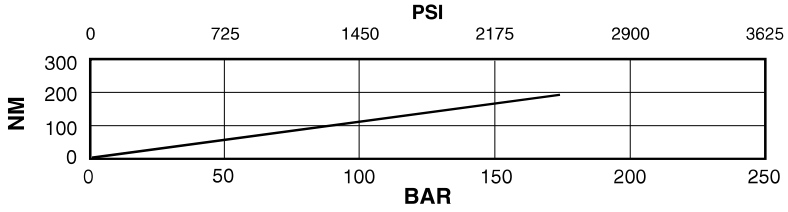
flow / pressure



power / pressure

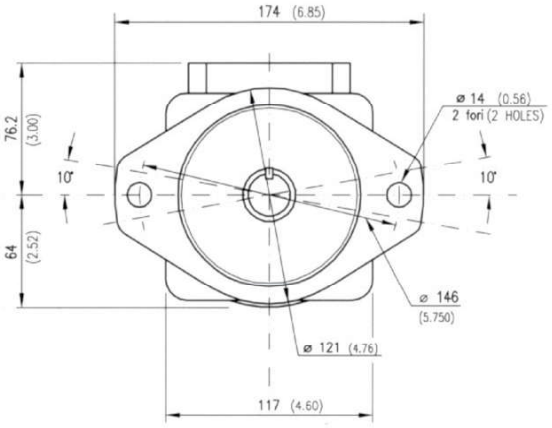


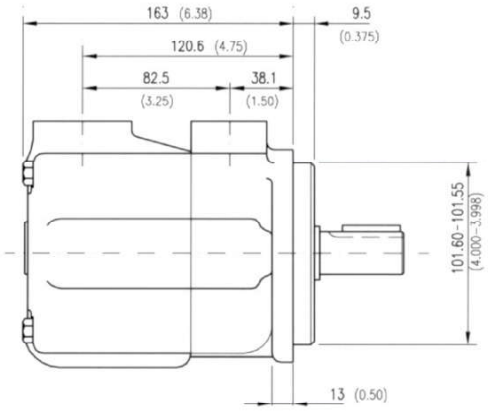
input torque / pressure

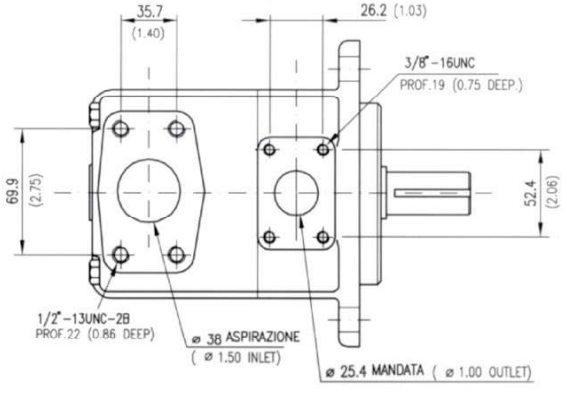


Oil viscosity: 25 c.St.(10W)
Temperature: 45°C
Inlet pressure: 0 BAR

Installation dimensions mm (inches)







Approx. weight: 15 Kg. (33 lbs.)

Single Pump Type BV02

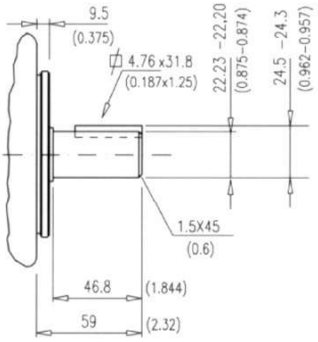
Model code breakdown

BV 02 G * * * * * (L) * (A)

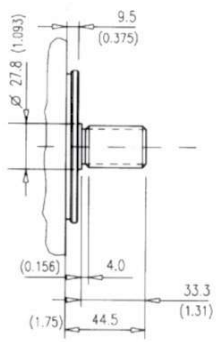
- **BV** — Pump series
- **02** — Pump type
- **G** — Design
- *** *** — Cartridge type: **12 14 17 19 21**
- ***** — Outlet port positions (outlet viewed from cover end)
  - **A** = Outlet opposite end
  - **B** = Outlet 90° CCW from inlet
  - **C** = Outlet in line with inlet
  - **D** = Outlet 90° CW from inlet
- *** *** — Shaft end options
  - **01** = Straight with key (standard), **11** = Splined
  - **86** = Heavy duty straight keyed, **90** = Splined SAE B
- **(L)** — Rotation (viewed from shaft end)
  - **L** = left hand rotaton CCW (omit if CW)
- ***** — Seals (omit with standard seals and one shaft-seal in NBR)
  - **V** = seals and shaft-seal in FPM (Viton®)
  - **D** = standard seals and double shaft-seals in NBR
  - **F** = seals and double shaft-seals in FPM (Viton®)
- **(A)** — Mounting (omit if not required)

Shaft options mm (inches)

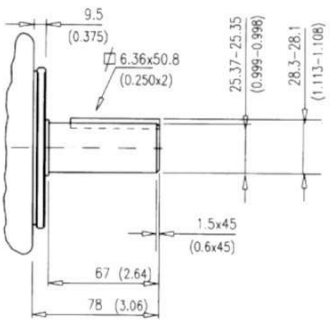
Shaft 01



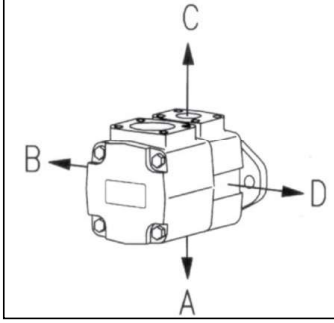
Shaft 11



Shaft 86



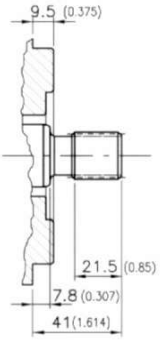
PORT ORIENTATIONS



Spline data
(shaft 11 and shaft 90)

Spline	Involute side fit (ASA B5.15)	
Pressure angle	30°	
No. of teeth	13	
Pitch	16/32	
Major dia.	22.00 - 21.90	(0.866 - 0.862)
Pitch dia.	20.638	(0.8125)
Minor dia.	18.63 - 18.35	(0.733 - 0.722)
Wildhaber	11.67 - 11.70	(0.459 - 0.461)

Shaft 90



Single Pump Type BV02

Id. codes of pump components

Cartridge			
Series	Model	Part No.	Pump rotat.
V02	12	V0212030	right hand
	14	V0214070	right hand
	17	V0217110	right hand
	19	V0219150	right hand
	21	V0221190	right hand
V02	12	V0212040	left hand
	14	V0214080	left hand
	17	V0217120	left hand
	19	V0219160	left hand
	21	V0221200	left hand

Shaft kit	
Model	Part No.
01	M8020601
11	M8020611
86	M8020686
90	M8020690

Shaft		Key
Model	Part No.	Codice N°
01	K0201000	M8010100
11	K0211000	-
86	K0286000	M8028600
90	K0290000	-

Body
Part No.
M8020010

Shaft seal	
Part No.	Type
M8020060	primary in NBR
M8020065	primary in FPM
M8020061	secondary in NBR
M8020066	secondary in FPM

Bearing
Part No.
M8020030

Seeger
Part No.
M8020050

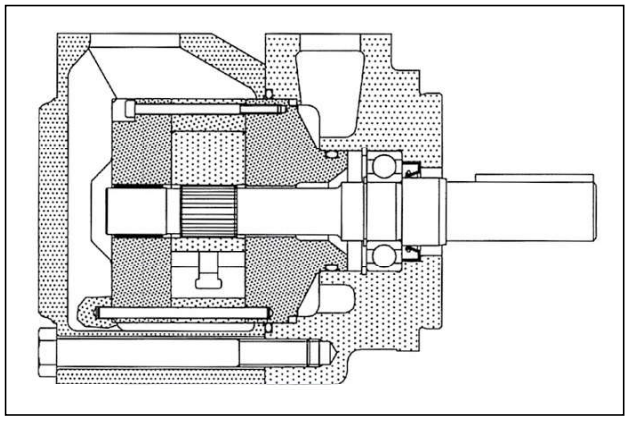
Pump seal kit		
Part No.	Parts	Type
M8020500	seals + 1 shaft seal	NBR
M8020501	seals + 2 shaft seals	NBR
M8020503	seals + 1 shaft seal	FPM (Viton®)
M8020504	seals + 2 shaft seals	FPM (Viton®)

Seeger
Part No.
M8020040

Cover
Part No.
M8020020

Screw
Part No.
M8020070
Torque to 102 Nm (910 lb. in.)

Single Pump Type BV04



General description

Fixed displacement vane pump, hydraulically balanced, with capacity determined by the type of cartridge used and the speed of rotation. The pump is available in five versions with capacities from 80 to 140 l/min *(from 21 to 38 gpm)* at 1200 rpm and 7 bar.

Technical characteristcs

Cartridge model	Geometric displacement		Rated capacity at 1200 rpm 7 bar		Rated capacity at 1500 rpm 7 bar		Maximum pressure with mineral oil		Speed range rpm	
	cm^3/g	(in^3/r)	**l/min**	(gpm)	**l/min**	(gpm)	**bar**	(psi)	**min**	**max**
V04-21	**69,0**	(4.2)	**79,5**	(21)	**101,4**	(26.8)	**175**	(2538)	**600**	**1800**
V04-25	**81,6**	(5)	**94,0**	(25)	**120,1**	(31.7)	**175**	(2538)	**600**	**1800**
V04-30	**97,7**	(6)	**113,8**	(30)	**141,2**	(37.3)	**175**	(2538)	**600**	**1800**
V04-35	**112,7**	(6.9)	**131,6**	(35)	**167,2**	(44.1)	**175**	(2538)	**600**	**1800**
V04-38	**121,6**	(7.4)	**139,9**	(38)	**177,3**	(46.8)	**175**	(2538)	**600**	**1800**

Hydraulic fluids: mineral oils, phosphate ester based fluids, water emulsions in oil, water-glycol fluids.

Viscosity range *(with mineral oil)*: from 13 to 860 cSt. *(13 to 54 cSt. recommended)*.

Filtration: for the inlet - 149 micron abs., for the return line - 25 micron abs. or better *(with synthetic fluids: for the return line - 10 micron abs. or better)*.

Inlet pressure: *(with mineral oil)*: from -0,17 to +1,4 bar *(-2.5 to + 20 psi)*

Operating temperature: with mineral oil -10°C +70°C *(+30°C to +60°C recommended),* with water based fluids +15°C to +50°C.

Drive: direct and coaxial by means of a flexible coupling.