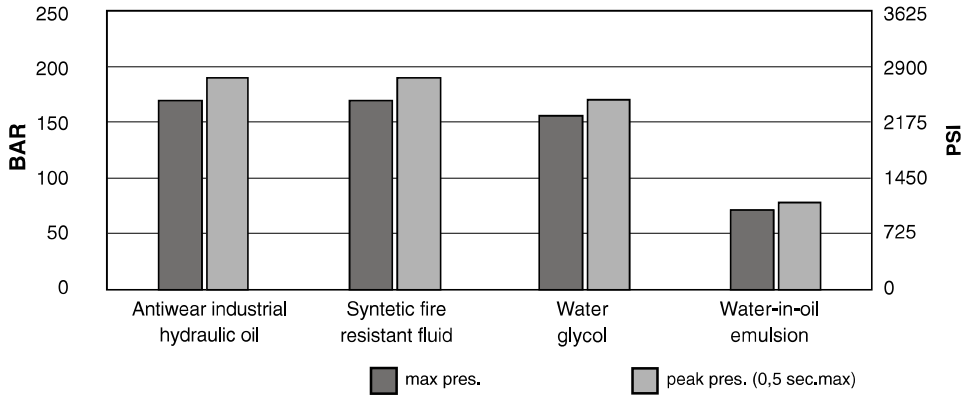
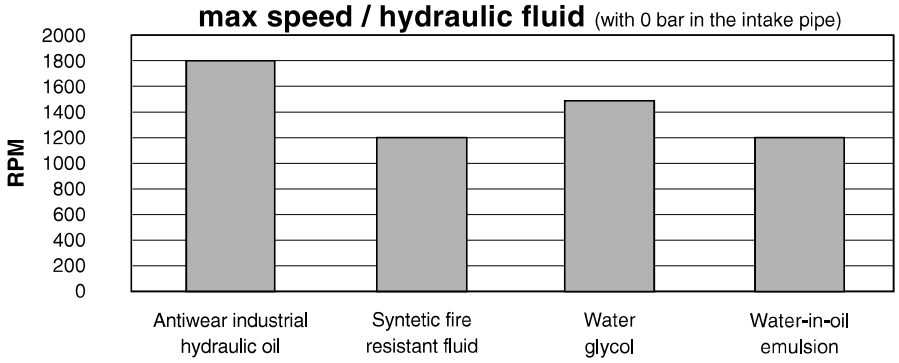
Single Pump Type BV05

Main operating data

max pressure / hydraulic fluid

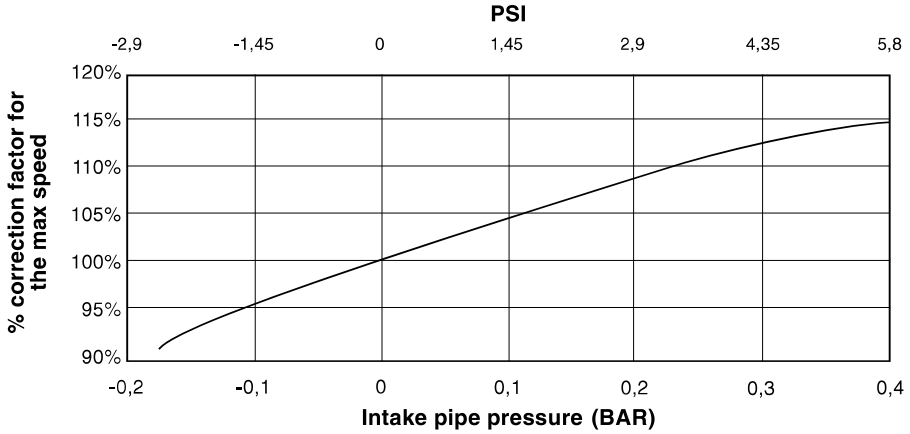


max speed / hydraulic fluid (with 0 bar in the intake pipe)

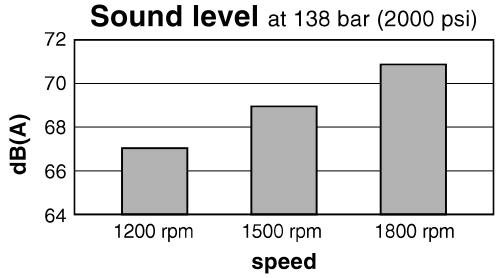


If the intake pressure is not zero bar, use the graph below to find the percentage correction factor to apply to the maximum speed

max speed / intake pipe pressure

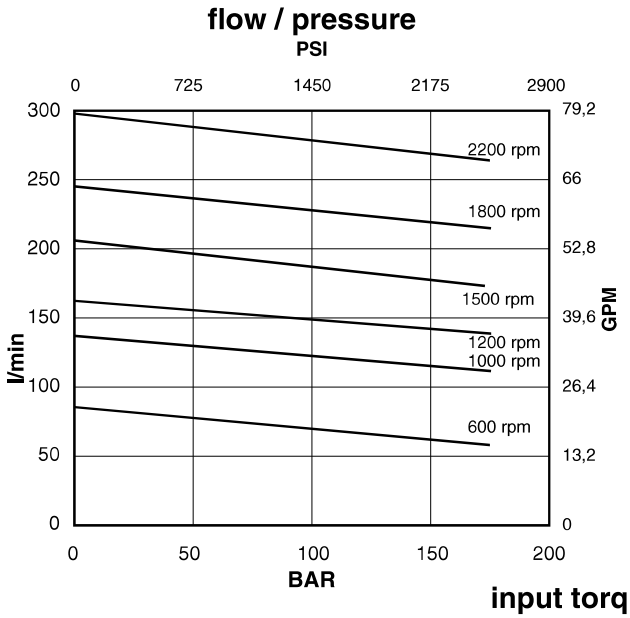


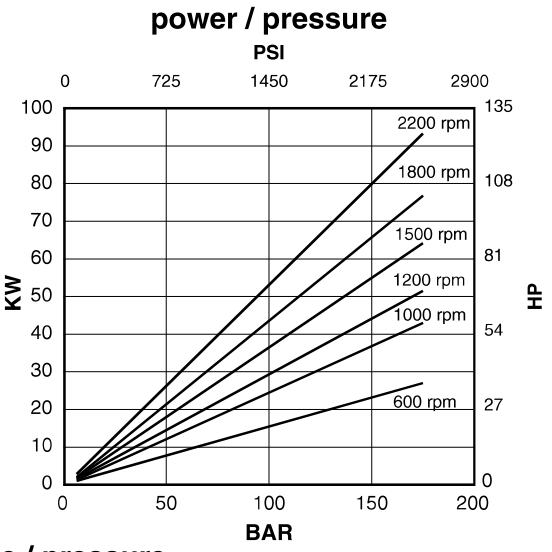
Sound level at 138 bar (2000 psi)

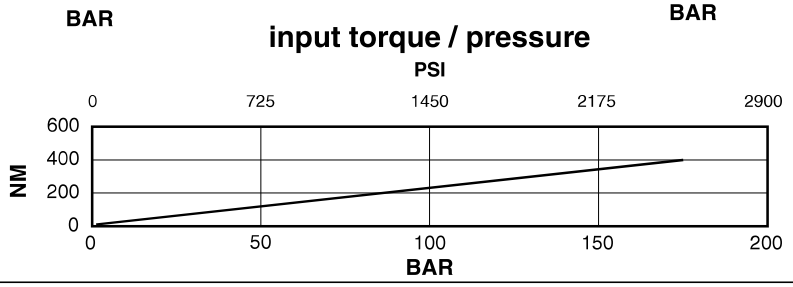


Single Pump Type BV05

Cartridge V05-42

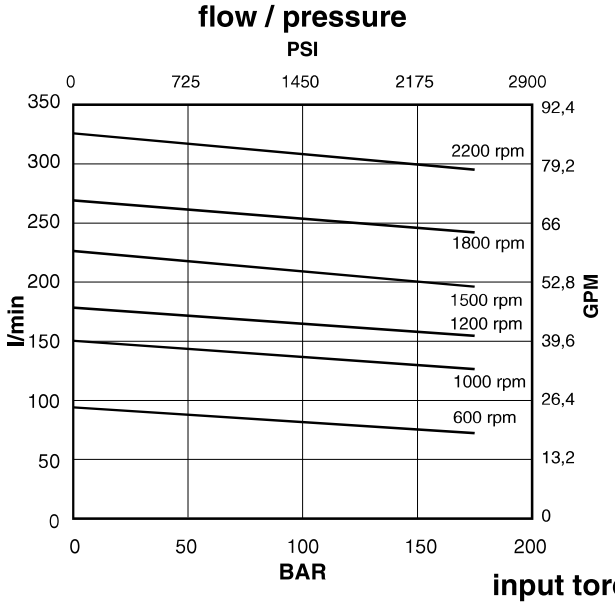


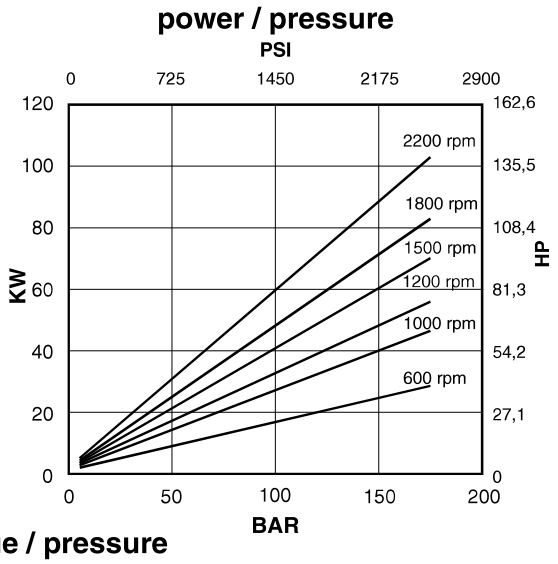


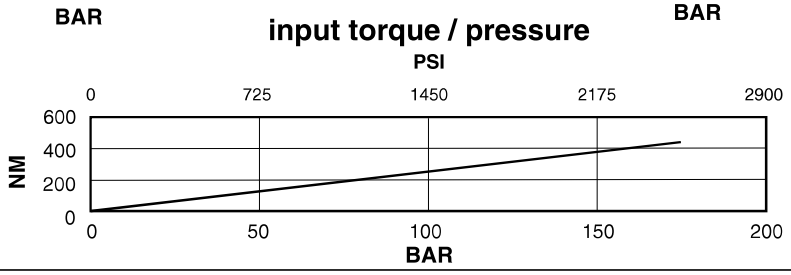


Oil viscosity: 25 c.St.(10W)
Temperature: 45°C
Inlet pressure: 0 BAR

Cartridge V05-47





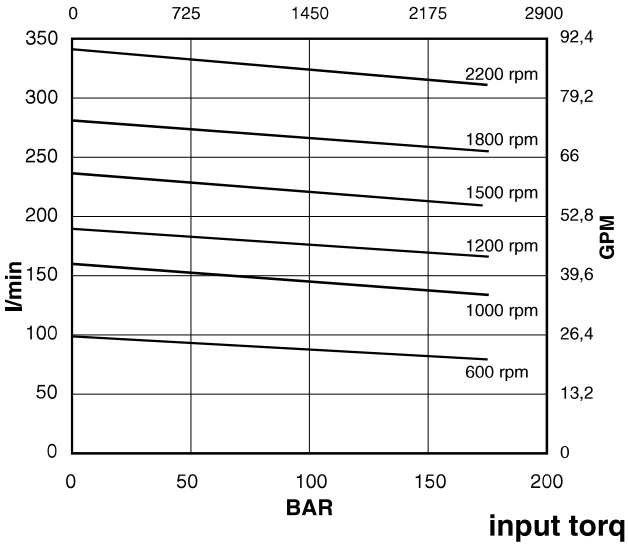


Oil viscosity: 25 c.St.(10W)
Temperature: 45°C
Inlet pressure: 0 BAR

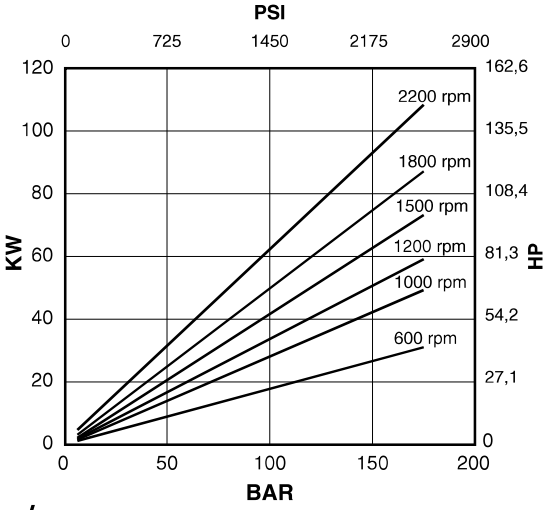
Single Pump Type BV05

Cartridge V05-50

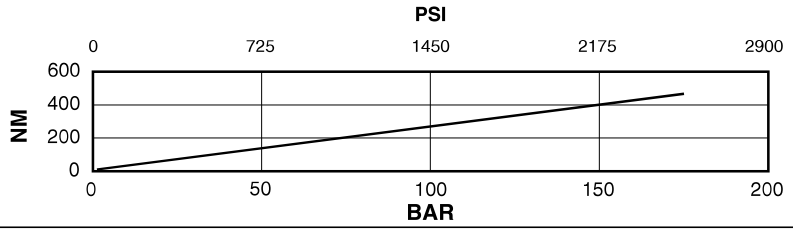
flow / pressure



power / pressure



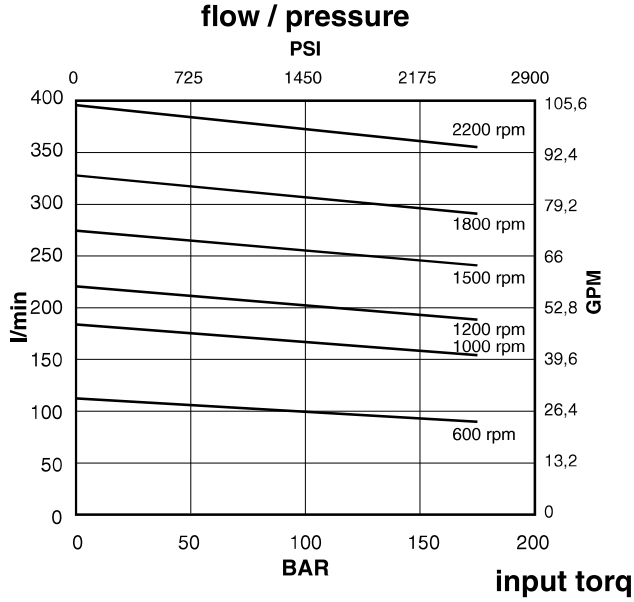
input torque / pressure



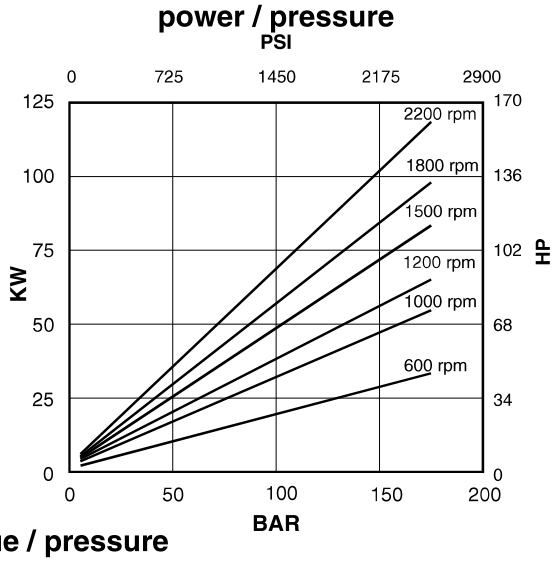
Oil viscosity: 25 c.St.(10W)
Temperature: 45°C
Inlet pressure: 0 BAR

Cartridge V05-57

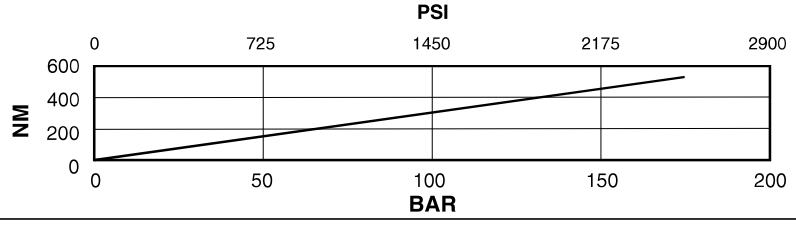
flow / pressure



power / pressure



input torque / pressure

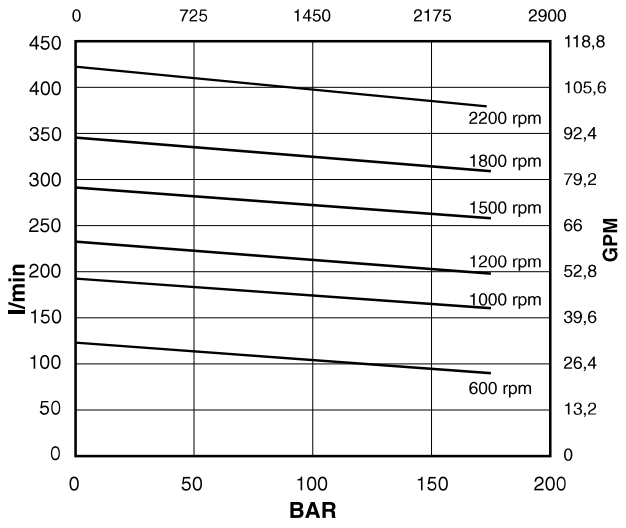


Oil viscosity: 25 c.St.(10W)
Temperature: 45°C
Inlet pressure: 0 BAR

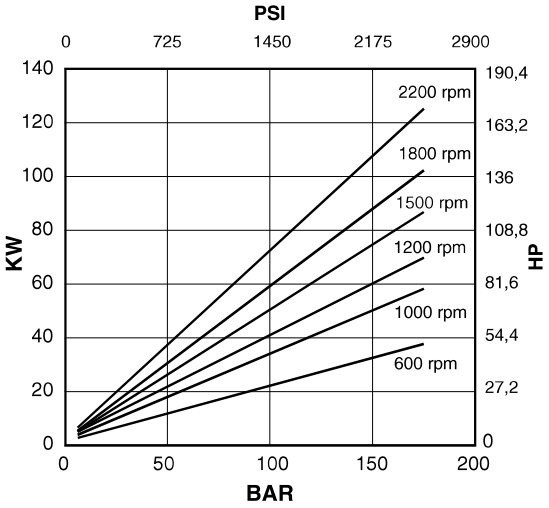
Single Pump Type BV05

Cartridge V05-60

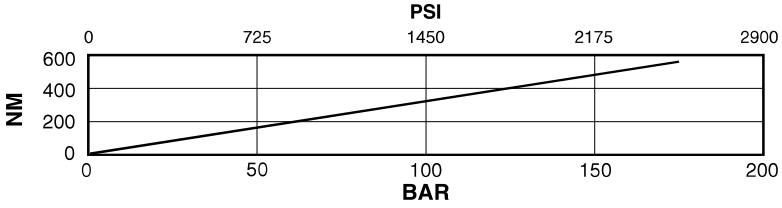
flow / pressure



power / pressure

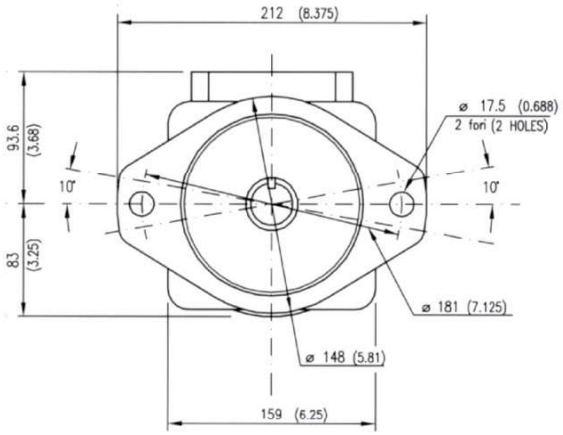


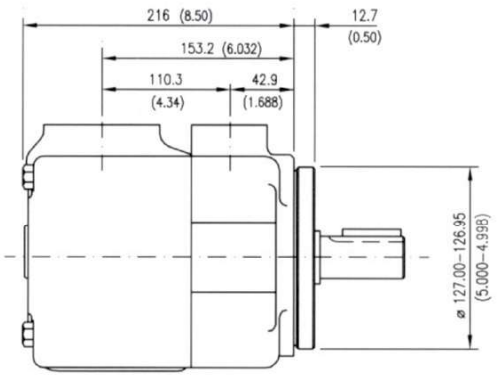
input torque / pressure

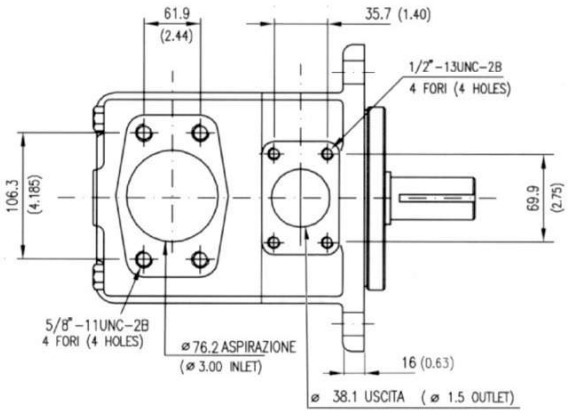


Oil viscosity: 25 c.St.(10W)
Temperature: 45°C
Inlet pressure: 0 BAR

Installation dimensions mm (inches)







Approx. weight: 34 Kg. (75 lbs.)

Single Pump Type BV05

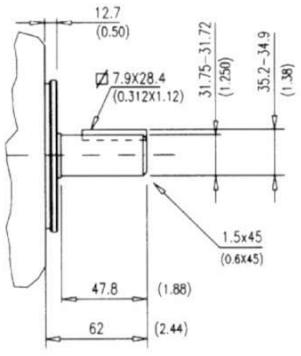
Model code breakdown

BV 05 G * * * * * (L) * (A)

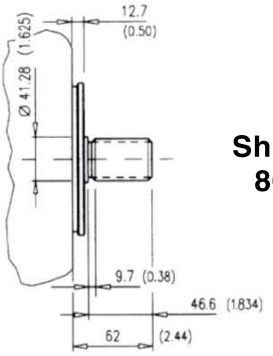
- **BV** — Pump series
- **05** — Pump type
- **G** — Design
- *** *** — Cartridge type: **42 47 50 57 60**
- ***** — Outlet port positions (outlet viewed from cover end)
  - **A** = Outlet opposite end
  - **B** = Outlet 90° CCW from inlet
  - **C** = Outlet in line with inlet
  - **D** = Outlet 90° CW from inlet
- *** *** — Shaft end options
  - **01** = Straight with key (standard), **11** = Splined
  - **86** = Heavy duty straight keyed, **90** = Splined SAE C
- **(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)

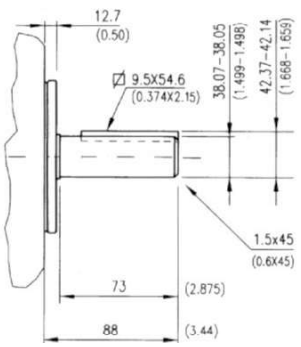
Shaft 01



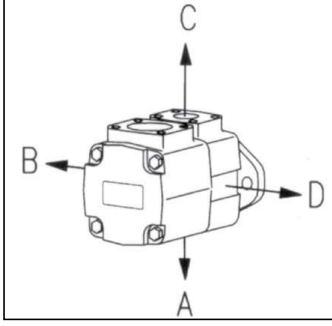
Shaft 11



Shaft 86



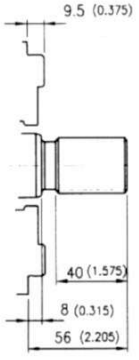
PORT ORIENTATIONS



Spline data
(shaft 11 and shaft 90)

Spline	Involute side fit (ASA B5.15)	
Pressure angle	30°	
No. of teeth	14	
Pitch	12/24	
Major dia.	31.60 - 31.50	(1.244 - 1.240)
Pitch dia.	29.634	(1.1667)
Minor dia.	26.99 - 26.66	(1.0627 - 1.05)
Wildhaber	15.68 - 15.73	(0.617 - 0.619)

Shaft 90



Single Pump Type BV05

Id. codes of pump components

Cartridge			
Series	Model	Part No.	Pump rotat.
V05	42	V0542010	right hand
	47	V0547030	right hand
	50	V0550050	right hand
	57	V0557070	right hand
	60	V0560090	right hand
V05	42	V0542020	left hand
	47	V0547040	left hand
	50	V0550060	left hand
	57	V0557080	left hand
	60	V0560100	left hand

Shaft kit	
Model	Part No.
01	M8050601
11	M8050611
86	M8050686
90	M8050690

Shaft		Key
Model	Part No.	Part No.
01	K0501000	M8050100
11	K0511000	-
86	K0586000	M8058600
90	K0590000	-

Body
Part No. M8050250

Shaft seal	
Part No.	Type
M8050300	primary in NBR
M8050305	primary in FPM
M8050301	secondary in NBR
M8050306	secondary in FPM

Bearing
Part No. M8050270

Seeger
Part No. M8050290

Pump seal kit		
Part No.	Parts	Type
M8050500	seals + 1 shaft seal	NBR
M8050501	seals + 2 shaft seals	NBR
M8050503	seals + 1 shaft seal	FPM (Viton®)
M8050504	seals + 2 shaft seals	FPM (Viton®)

Seeger
Part No. M8050280

Cover
Part No. M8050260

Screw
Part No. M8050310
Torque to 398 Nm (3550 lb. in.)

Technical Characteristics

Pump Series	Cartridge Model		Geometric Displacement		Rated Capacity at 1.200 rpm 7 bar		Rated Capacity at 1.500 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.
BV21	Shaft End	12	40,1	(2.45)	46,9	(12)	58,8	(15.5)	175	(2.538)	600	1.800
		14	45,4	(2.77)	52,7	(14)	65,7	(17.4)				
		17	55,2	(3.37)	64,2	(17)	80,2	(21.2)				
		19	60,0	(3.66)	71,0	(19)	88,7	(23.4)				
		21	67,5	(4.12)	79,0	(21)	99,8	(26.4)				
BV02+BV01	Cover End	02	7,2	(0.44)	8,3	(2)	10,4	(2.8)	210	(3.050)	600	1.800
		05	18,0	(1.10)	20,8	(5)	26,1	(6.9)				
		08	27,4	(1.67)	31,8	(8)	39,4	(10.4)				
		11	36,4	(2.22)	42,4	(11)	52,6	(13.9)				
		12	39,5	(2.41)	46,9	(12)	58,7	(15.5)	160	(2.300)		
		14	45,9	(2.79)	54,9	(14)	69,6	(18.4)	140	(2.030)		
BV41	Shaft End	21	69,0	(4.2)	79,5	(21)	101,4	(26.8)	175	(2.538)	600	1.800
		25	81,6	(5)	94,0	(25)	120,1	(31.7)				
		30	97,7	(6)	113,8	(30)	141,2	(37.3)				
		35	112,7	(6.9)	131,6	(35)	167,2	(44.1)				
		38	121,6	(7.4)	139,9	(38)	177,3	(46.8)				
BV04+BV02	Cover End	02	7,2	(0.44)	8,3	(2)	10,4	(2.8)	210	(3.050)	600	1.800
		05	18,0	(1.10)	20,8	(5)	26,1	(6.9)				
		08	27,4	(1.67)	31,8	(8)	39,4	(10.4)				
		11	36,4	(2.22)	42,4	(11)	52,6	(13.9)				
		12	39,5	(2.41)	46,9	(12)	58,7	(15.5)	160	(2.300)		
		14	45,9	(2.79)	54,9	(14)	69,6	(18.4)	140	(2.030)		
BV42	Shaft End	21	69,0	(4.2)	79,5	(21)	101,4	(26.8)	175	(2.538)	600	1.800
		25	81,6	(5)	94,0	(25)	120,1	(31.7)				
		30	97,7	(6)	113,8	(30)	141,2	(37.3)				
		35	112,7	(6.9)	131,6	(35)	167,2	(44.1)				
		38	121,6	(7.4)	139,9	(38)	177,3	(46.8)				
BV04+BV01	Cover End	12	40,1	(2.45)	46,9	(12)	58,8	(15.5)	175	(2.538)	600	1.800
		14	45,4	(2.77)	52,7	(14)	65,7	(17.4)				
		17	55,2	(3.37)	64,2	(17)	80,2	(21.2)				
		19	60,0	(3.66)	71,0	(19)	88,7	(23.4)				
		21	67,5	(4.12)	79,0	(21)	99,8	(26.4)				
BV51	Shaft End	42	138,6	(8.46)	164	(42)	203,4	(53.7)	175	(2.538)	600	1.800
		47	153,5	(9.4)	180	(47)	222,7	(58.8)				
		50	162,2	(9.9)	189	(50)	234	(61.8)				
		57	183,4	(11.2)	217	(57)	267	(71.2)				
		60	193,4	(11.8)	230	(60)	285	(75.3)				
BV05+BV01	Cover End	02	7,2	(0.44)	8,3	(2)	10,4	(2.8)	210	(3.050)	600	1.800
		05	18,0	(1.10)	20,8	(5)	26,1	(6.9)				
		08	27,4	(1.67)	31,8	(8)	39,4	(10.4)				
		11	36,4	(2.22)	42,4	(11)	52,6	(13.9)				
		12	39,5	(2.41)	46,9	(12)	58,7	(15.5)	160	(2.300)		
		14	45,9	(2.79)	54,9	(14)	69,6	(18.4)	140	(2.030)		
BV52	Shaft End	42	138,6	(8.46)	164	(42)	203,4	(53.7)	175	(2.538)	600	1.800
		47	153,5	(9.4)	180	(47)	222,7	(58.8)				
		50	162,2	(9.9)	189	(50)	234	(61.8)				
		57	183,4	(11.2)	217	(57)	267	(71.2)				
		60	193,4	(11.8)	230	(60)	285	(75.3)				
BV05+BV02	Cover End	12	40,1	(2.45)	46,9	(12)	58,8	(15.5)	175	(2.538)	600	1.800
		14	45,4	(2.77)	52,7	(14)	65,7	(17.4)				
		17	55,2	(3.37)	64,2	(17)	80,2	(21.2)				
		19	60,0	(3.66)	71,0	(19)	88,7	(23.4)				
		21	67,5	(4.12)	79,0	(21)	99,8	(26.4)				
BV54	Shaft End	42	138,6	(8.46)	164	(42)	203,4	(53.7)	175	(2.538)	600	1.800
		47	153,5	(9.4)	180	(47)	222,7	(58.8)				
		50	162,2	(9.9)	189	(50)	234	(61.8)				
		57	183,4	(11.2)	217	(57)	267	(71.2)				
		60	193,4	(11.8)	230	(60)	285	(75.3)				
BV05+BV04	Cover End	21	69,0	(4.2)	79,5	(21)	101,4	(26.8)	175	(2.538)	600	1.800
		25	81,6	(5)	94,0	(25)	120,1	(31.7)				
		30	97,7	(6)	113,8	(30)	141,2	(37.3)				
		35	112,7	(6.9)	131,6	(35)	167,2	(44.1)				
		38	121,6	(7.4)	139,9	(38)	177,3	(46.8)				