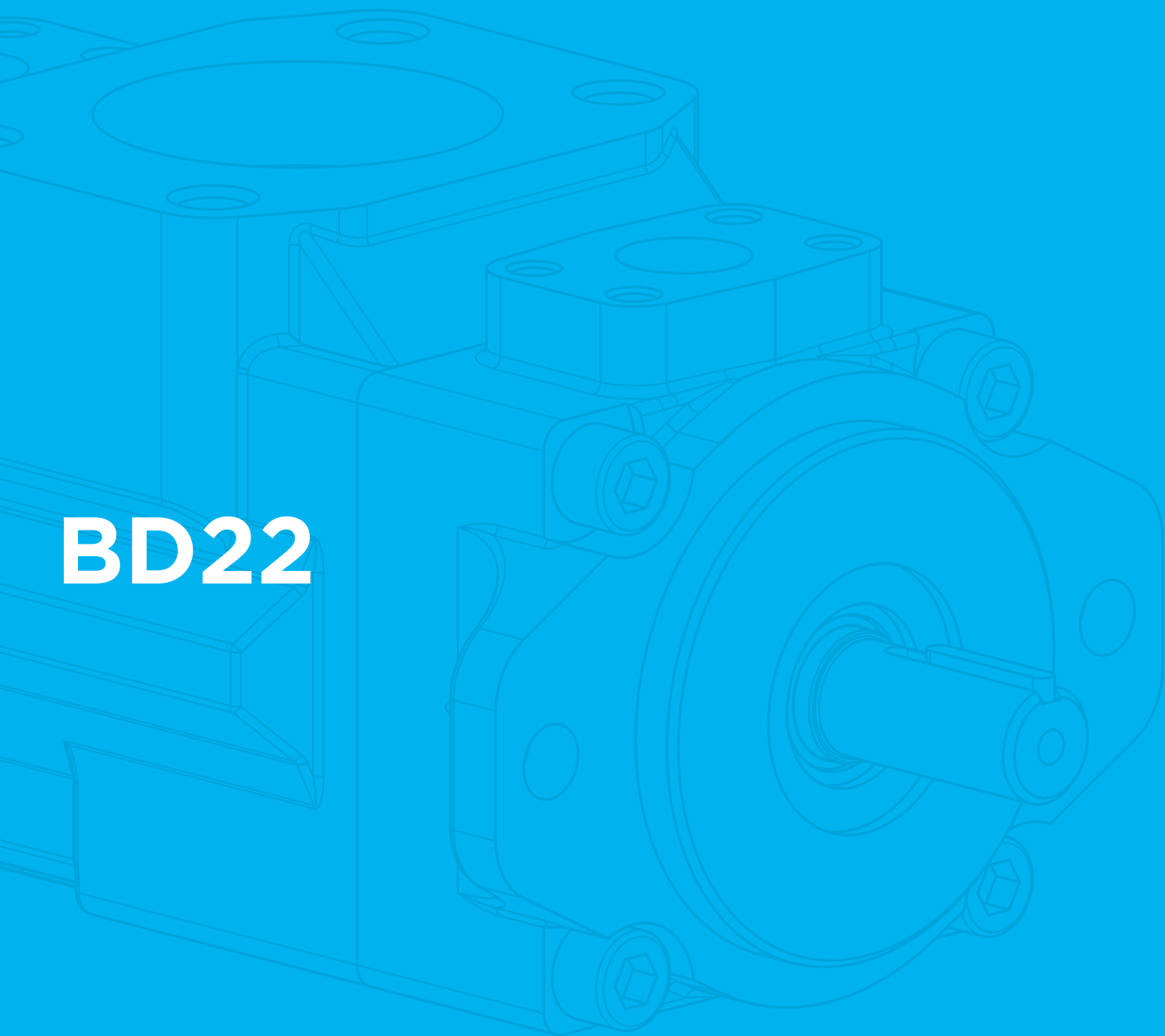
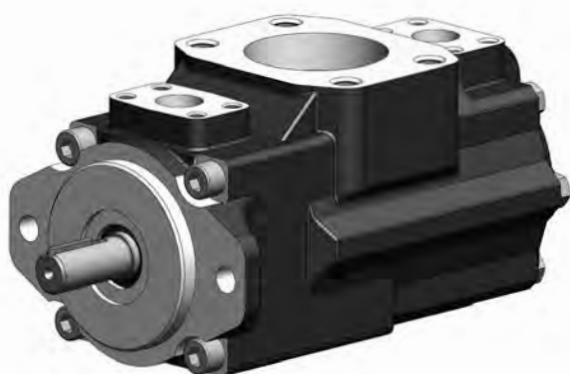


BD22



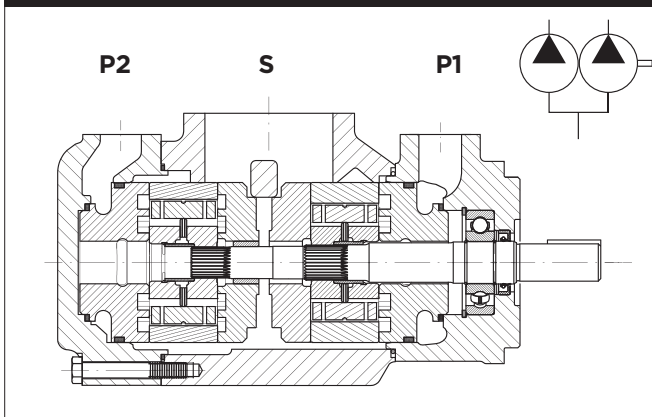


DESCRIZIONI GENERALI GENERAL DESCRIPTION

Pompa a palette a cilindrata fissa, idraulicamente bilanciata, con portate determinate di tipi di cartuccia utilizzati e dalla velocità di rotazione.

La pompa è disponibile in varie combinazioni con portata totale da 32 a 300 l/min (da 8 a 80 gpm) a 1500 rpm e 0 bar.

SEZIONE SECTION



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 several versions with rated capacity from 32 to 300 l/min (from 8 to 80 gpm) at 1500 rpm and pressure 0 bar.

CARATTERISTICHE TECNICHE (P1 E P2) - TECHNICAL CHARACTERISTICS (P1 AND P2)

Tipo cartuccia Cartridge model	Cilindrata geometrica Geometric displacement		Portata nominale a 1200 rpm 0 bar Rated capacity at 1000 rpm 0 bar		Portata nominale a 1500 rpm 0 bar Rated capacity at 1200 rpm 0 bar		Pressione massima Maximum pressure				Gamma velocità Speed range
							Intermittente Intermittent		Continua Continuos		
	ml/rev.	(in³/r)	l/min	(gpm)	l/min	(gpm)	bar	(psi)	bar	(psi)	
03	10,8	(0.66)	12,93	(3.42)	16,2	(4.29)	275	(4000)	240	(3500)	400 - 2800
05	17,2	(1.05)	20,60	(5.45)	25,8	(6.83)	275	(4000)	240	(3500)	400 - 2800
06	21,3	(1.30)	25,52	(6.75)	31,9	(8.44)	275	(4000)	240	(3500)	400 - 2800
08	26,4	(1.61)	31,64	(8.37)	39,6	(10.48)	275	(4000)	240	(3500)	400 - 2800
10	34,1	(2.08)	40,86	(10.81)	51,1	(13.52)	275	(4000)	240	(3500)	400 - 2800
12	37,1	(2.26)	44,45	(11.76)	55,6	(14.71)	275	(4000)	240	(3500)	400 - 2800
14	46,0	(2.81)	55,11	(14.58)	69,0	(18.25)	275	(4000)	240	(3500)	400 - 2800
17	58,3	(3.56)	69,85	(18.48)	87,4	(23.12)	275	(4000)	240	(3500)	400 - 2800
20	63,8	(3.89)	76,47	(20.23)	95,7	(25.32)	275	(4000)	240	(3500)	400 - 2800
22	70,3	(4.29)	84,26	(22.29)	105,4	(27.88)	275	(4000)	240	(3500)	400 - 2800
25	79,3	(4.84)	95,03	(25.14)	118,9	(31.46)	275	(4000)	240	(3500)	400 - 2500
28	88,8	(5.42)	106,41	(28.15)	133,2	(35.24)	210	(3000)	160	(2300)	400 - 2500
31	100,0	(6.10)	119,83	(31.70)	150,0	(39.68)	210	(3000)	160	(2300)	400 - 2500

Fluidi idraulici consentiti: olio minerale, fluidi sintetici, acqua-glicole ed emulsioni inverse.

Campo di viscosità (per olio minerale): con olio minerale da 10 a 2000 c.St. (consigliato da 10 a 108 c.St.). Con altri fluidi da 18 a 2000 c.St. (consigliato da 18 a 108 c.St.). Usare 30 c.St. per la massima durata. Indice di viscosità: 90° minimo.

Grado di filt azione: mantenere la filtrazione ad un livello ISO 18/14 o NAS 1638 classe 8. Filtri: in aspirazione installare filtro da 149 micron ass. (da evitare in applicazioni con partenze molto fredde o con fluidi ininfiammabili); sul ritorno installare filtro da 25 micron ass. o migliore.

Contaminazione acquosa: in olio minerale max 0.10%. Con altri fluidi max 0.05%.

Pressione intermittente: tipicamente è permesso un tempo di lavoro a tale pressione, di durata inferiore al 30% del ciclo di lavoro. Se il ciclo di lavoro è superiore ai 15 min. contattare l'ufficio tecnico di B&C.

Minima pressione in entrata: con olio minerale 10-65 c.St.: 0.8 bar ass. (3 psi abs.). Nelle cilindrate maggiori di ogni serie e con le velocità più alte, si richiede una pressione più alta (vedere i dettagli alle singole sezioni). In caso di pompe multiple, va scelta la pressione maggiore tra quelle indicate ai vari stadi.

Temperatura di esercizio: con olio minerale da -18 a +100°C; con acqua-glicole ed emulsione acqua in olio: da +10 a +50°C; con fluidi sintetici: da -18 a +70°C; olio di colza ed esteri: da -20 a + 70°C. Nelle partenze a freddo le pompe devono operare a bassa velocità e pressione fintanto che tutto il fluido dell'applicazione raggiunga temperature e viscosità accettabili.

Azionamento: diretto e coassiale, tramite giunto elastico. Piccoli carichi radiali ed assiali sono consentiti secondo le indicazioni date in ogni sezione specifica.

Hydraulic fluids: antiwear petroleum base, synthetic fluid, water glycols and invert emulsions.

Viscosity range / Viscosity index: with antiwear petroleum base, from 10 to 2000 c.St. (10 to 108 c.St. recommended). Other fluids from 18 to 2000 c.St. (18 to 108 c.St. recomm.). Choose 30 c.St. for max lifetime. Viscosity index: 90° min.

Filtration: to maintain contamination level to ISO 18/14 or NAS 1638 class 8.

Filters: for the inlet, use strainer with mesh not less than 149 micron abs. (omit strainer with application requiring cold start or when using fire resistant fluids); for the return line - 25 micron abs. or better.

Water contamination level: max 0.10% for mineral oil. With other fluids, max 0.05%

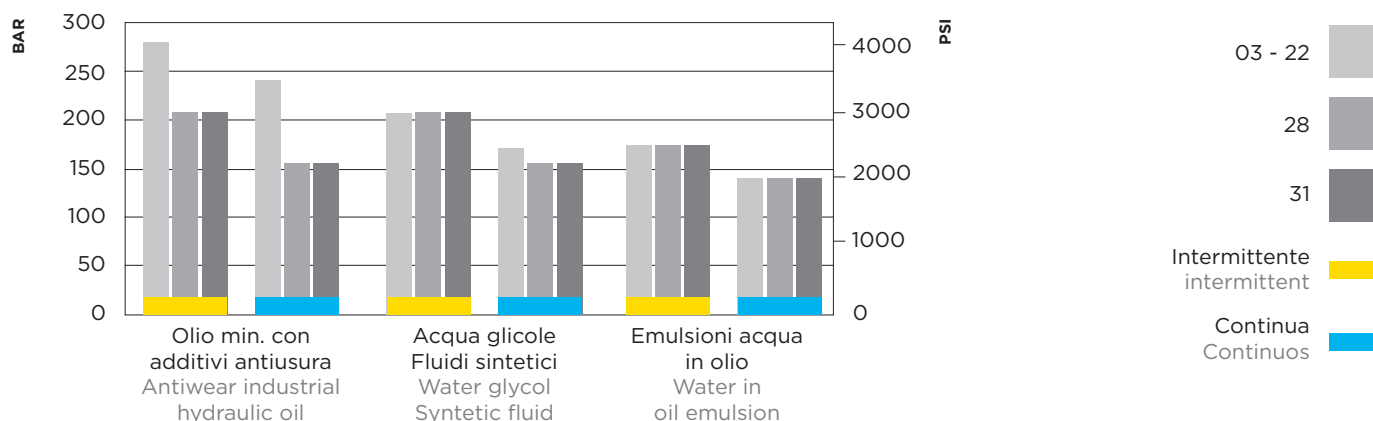
Intermittent pressure: typically the working time permitted at such pressure is < 30% of the duty cycle. With duty cycles longer than 15 minutes, please contact the technical office of B&C.

Minimum inlet pressure: (with mineral oil 10-65 c.St.): 0.8 bar abs. (3 psi abs.). In the biggest displacements of each series and with the highest speeds, is required an higher inlet pressure. Please consult the specific section for details. In case of tandem pump, supply the inlet port with the highest pressure requested among the pump stages.

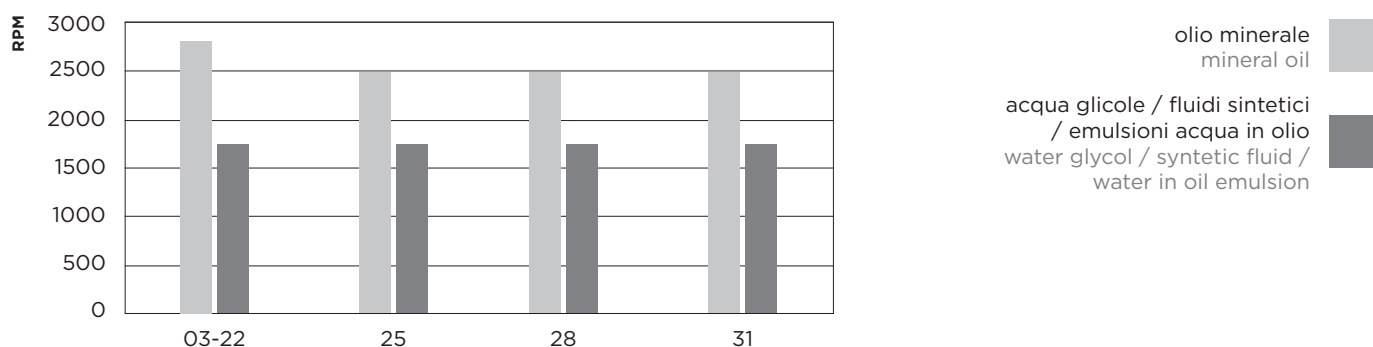
Operating temperature: with "antiwear petroleum base" the permitted temperature is: from -18 to +100° C; with water glycol and "water in oil emulsion": from +10 to +50°C; with syntetic fluid: from -18 to +70°C; with rapeseed and esters: from -20 to + 70°C. During cold start the pumps should be operated at low speed and pressure until fluid warms up to an acceptable viscosity for full power operation.

Drive: direct and coaxial by means of a flexible coupling. Low axial and radial loads allowed. Consult specific section for more detail.

PRESSIONE MAX/TIPO FLUIDO - MAX PRESSURE/HYDRAULIC FLUID



VELOCITÀ MAX/TIPO FLUIDO - MAX SPEED/HYDRAULIC FLUID*



PRESSIONE MIN. CONSENTITA IN ASPIRAZIONE / VELOCITÀ (BAR ASS.)* MIN. ALLOWABLE INLET PRESSURE / ROTATION SPEED (ABS. BAR)*

Velocità r.p.m. Speed r.p.m.	da 03 a 10 from 03 to 10	12	14	17	20	22	25	28	31
2800	1.00	1.00	1.00	1.03	1.03	1.05	-	-	-
2500	0.90	0.92	0.95	0.95	0.95	0.98	1.05	1.08	1.11
2300	0.80	0.85	0.85	0.90	0.90	0.90	0.95	0.98	1.0
2200	0.80	0.80	0.80	0.85	0.85	0.90	0.95	0.98	0.90
2100	0.80	0.80	0.80	0.80	0.80	0.85	0.90	0.90	0.85
1800	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
1500	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
1200	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80

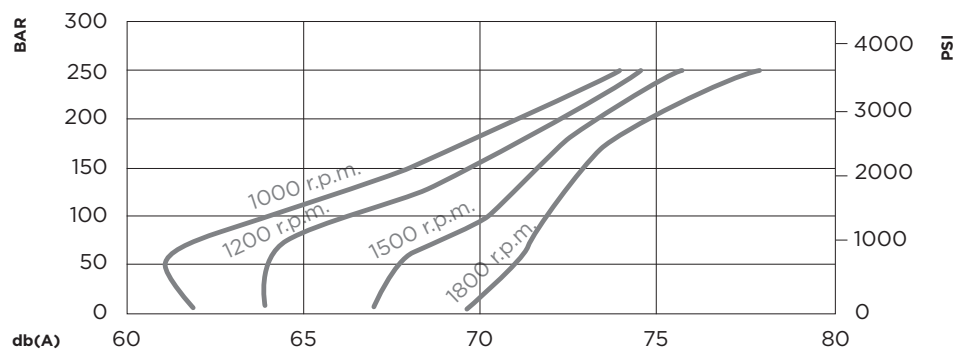
*Misurata nella flangia di aspirazione; con olio minerale a viscosità da 10 a 65 c.St.
Moltiplicare la pressione ass. per 1.25 in caso di acqua-glicole o emulsione acqua in olio, per 1.35 con fluidi sintetici e per 1.1 con olio di colza o esteri.

Measured inside the inlet flange; with petroleum base fluid (visc. 10 to 65 c.St.).
Multiply the abs. pressure by 1.25 when using water-glycol or "water in oil emulsion", by 1.35 with synthetic fluids, and by 1.1 with ester or rapeseed base.

CARATTERISTICHE GENERALI

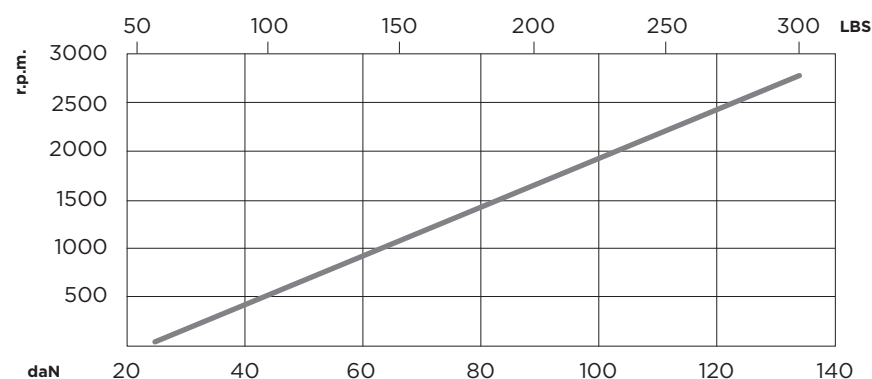
MAIN OPERATING DATA

LIVELLO RUMORE* NOISE LEVEL



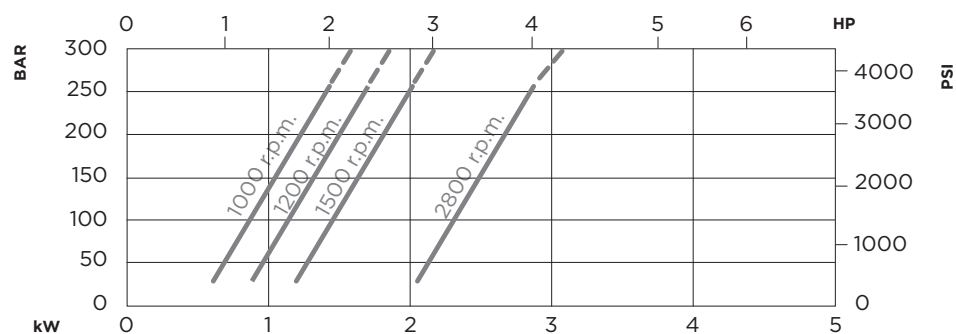
*Modello 22+22, con viscosità
32 c.St., pres. ent. 0.9 bar ass.,
Model 22+22, with fluid viscosity
32 c.St., inlet 0.9 bar abs.

CARICO RADIALE CONSENTITO* ALLOWABLE RADIAL LOAD



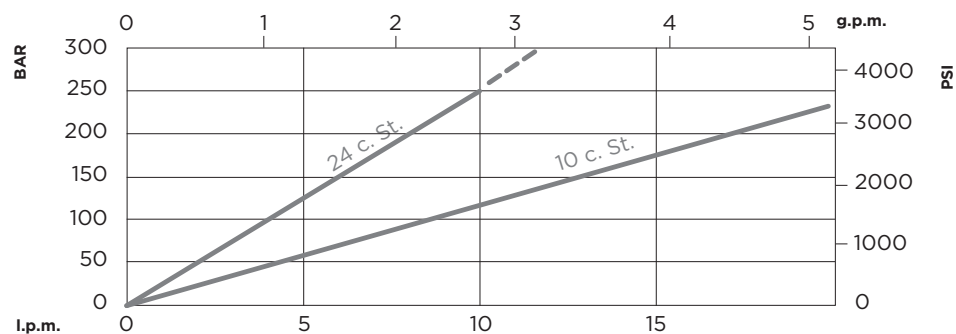
*(max. carico assiale
permesso =80 daN)
(max. permissible
axial load =80 daN)

PERDITA POTENZA* POWER LOSS



*Tipica
Typical

DRENAGGIO INTERNO TIPICO* TYPICAL INTERNAL LEAKAGE



*Se il drenaggio interno
è più del 50%
della portata
teorica, la pompa
non va utilizzata
If the internal leakage
is more than 50%
of the theoretical flow,
do not operate
the pump

CARATTERISTICHE SPECIFICHE

SPECIFIC OPERATING DATA



Tipico: 24 c.St. (115 SUS) Typical: 24 c.St. (115 SUS)

Tipo cartuccia Cartridge model	Cilindrata geometrica Geometric displacement		velocità rpm speed rpm	140 bar		240 bar		Potenza in entrata (kW) Input power (kW)		
	ml/rev.	(in ³ /r)		l/min	(gpm)	l/min	(gpm)	7 bar (100 psi)	140 bar (2000 psi)	240 bar (3500 psi)
03	10,8	(0.66)	1000	-	-	-	-	1.00	-	-
			1200	-	-	-	-	1.05	-	-
			1500	10,7	(2.84)	-	-	1.30	5.30	-
			1800	13,6	(3.61)	-	-	1.55	8.45	-
05	17,2	(1.05)	1000	11,7	(3.09)	-	-	1.10	5.10	-
			1200	15,1	(3.99)	-	-	1.14	8.17	-
			1500	20,3	(5.37)	15,8	(4.18)	1.40	7.50	12.2
			1800	25,1	(6.65)	21,0	(5.56)	1.68	12.0	14.4
06	21,3	(1.30)	1000	15,80	(4.18)	11,30	(2.99)	1.10	6.00	10.00
			1200	19,73	(5.22)	15,61	(4.13)	1.19	7.13	11.86
			1500	26,50	(7.01)	22,00	(5.82)	1.50	8.90	14.70
			1800	32,51	(8.60)	28,39	(7.51)	1.76	10.50	17.33
08	26,4	(1.61)	1000	20,90	(5.53)	16,40	(4.34)	1.20	7.20	12.10
			1200	25,86	(6.84)	21,74	(5.75)	1.26	8.51	14.29
			1500	34,10	(9.02)	29,60	(7.83)	1.60	10.70	17.70
			1800	41,66	(11.02)	37,54	(9.93)	1.87	12.58	20.98
10	34,1	(2.08)	1000	28,60	(7.57)	24,10	(6.38)	1.30	8.90	15.10
			1200	35,08	(9.28)	30,96	(8.19)	1.37	10.61	17.96
			1500	45,70	(12.09)	41,20	(10.90)	1.70	13.40	22.30
			1800	55,53	(14.69)	51,41	(13.60)	2.03	15.72	26.47
12	37,1	(2.26)	1000	31,60	(8.36)	27,10	(7.17)	1.30	9.60	16.30
			1200	38,67	(10.23)	34,55	(9.14)	1.41	11.42	19.38
			1500	50,20	(13.28)	45,70	(12.09)	1.70	14.40	24.10
			1800	60,90	(16.11)	56,78	(15.02)	2.09	16.95	28.62
14	46,0	(2.81)	1000	40,50	(10.71)	36,00	(9.52)	1.40	11.70	19.90
			1200	49,33	(13.05)	45,21	(11.96)	1.53	13.85	23.62
			1500	63,50	(16.80)	59,00	(15.61)	1.90	17.60	29.50
			1800	76,92	(20.35)	72,80	(19.26)	2.27	20.58	34.97
17	58,3	(3.56)	1000	52,80	(13.97)	48,30	(12.78)	1.60	14.50	24.80
			1200	64,07	(16.95)	59,95	(15.86)	1.70	17.19	29.47
			1500	82,00	(21.69)	77,50	(20.50)	2.10	21.90	36.90
			1800	99,04	(26.20)	94,92	(25.11)	2.52	25.60	43.76
20	63,8	(3.89)	1000	58,30	(15.42)	53,80	(14.23)	1.60	15.80	27.00
			1200	70,69	(18.70)	66,57	(17.61)	1.77	18.68	32.09
			1500	90,20	(23.86)	85,70	(22.67)	2.20	23.80	40.20
			1800	108,90	(28.81)	103,65	(27.42)	2.63	27.84	47.68
22	70,3	(4.29)	1000	64,80	(17.14)	60,30	(15.95)	1.70	17.30	29.60
			1200	78,47	(20.76)	74,35	(19.67)	1.86	20.46	35.18
			1500	100,00	(26.46)	95,50	(25.26)	2.30	26.10	44.10
			1800	120,58	(31.90)	116,46	(30.81)	2.76	30.49	52.32
25 ¹⁾	79,3	(4.84)	1000	73,80	(19.52)	69,30	(18.33)	1.80	19.30	33.20
			1200	89,25	(23.61)	85,13	(22.52)	1.99	22.90	39.47
			1500	113,50	(30.03)	109,00	(28.84)	2.50	29.20	49.50
			1800	136,76	(36.18)	132,64	(35.09)	2.95	34.16	58.75
28 ¹⁾	88,8	(5.42)	1000	83,30	(22.04)	80,10 ²⁾	(21.19) ²⁾	1.90	21.90	32.50 ²⁾
			1200	100,62	(26.62)	97,75 ²⁾	(25.86) ²⁾	2.11	25.49	37.77 ²⁾
			1500	127,70	(33.78)	124,50 ²⁾	(32.94) ²⁾	2.80	32.70	48.50 ²⁾
			1800	153,85	(40.70)	150,97 ²⁾	(39.94) ²⁾	3.14	38.04	56.42 ²⁾
31 ¹⁾	100,0	(6.10)	1000	94,50	(25.00)	91,30 ²⁾	(24.15) ²⁾	2.00	24.40	36.40 ²⁾
			1200	114,04	(30.17)	111,17 ²⁾	(29.41) ²⁾	2.26	28.53	42.34 ²⁾
			1500	144,50	(38.23)	141,30 ²⁾	(37.38) ²⁾	2.80	36.50	54.40 ²⁾
			1800	173,99	(46.03)	171,12 ²⁾	(45.27) ²⁾	3.37	42.61	63.28 ²⁾

Drenaggio interno eccedente il 50% della portata teorica

1) 2500 r.p.m. max.

2) 210 bar (3000 p.s.i.) max. int.

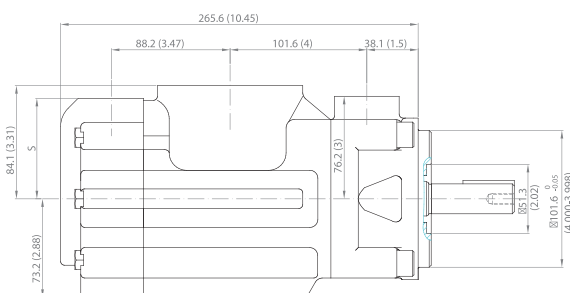
Internal leakage exceeding 50% of the theoretical flow

1) 2500 r.p.m. max.

2) 210 bar (3000 p.s.i.) max. int.

INSTALLATION DIMENSIONS

MM/INCHES



Peso a secco: 26 Kg.
Approx. weight: 57 lbs.

[illegible]

OPZIONE ALBERI SHAFT OPTIONS

MM/INCHES

P1+P2
CALCOLO DELLA COPPIA MASSIMA*
CALCULATION OF THE MAX PERMITTED TORQUE

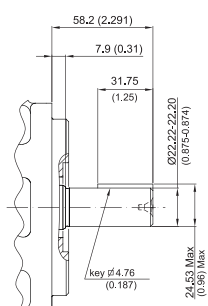
Albero N° Shaft No.	(ml/rev) x bar (ml/rev) x bar	(in ³ /rev) x psi (in ³ /rev) x psi
1	14300	12666
3	32670	28937
5	20600	18246

*Valori da non superare Avoid to exceed

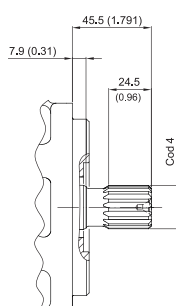
CODICE DENTATURA - SPLINE CODE

Codice Code	3	5
Designazione Designation	Sae B-B	Sae B
Angolo pressione Pressure angle	30°	30°
Numero denti No. of teeth	15	13
Modulo Pitch	16/32 d.p.	16/32 d.p.
Profilo Spline type	evolv. trasc. sui fianchi flat root side fit	evolv. trasc. sui fianchi flat root side fit
Classe Class	1- J498 b	1- J498 b

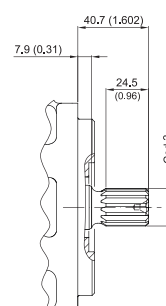
1 A chiavetta (No Sae)
Keyed (No Sae)



3 Dentato (Sae B-B) Splined (Sae B-B)



5 Dentato (Sae B)
Splined (Sae B)



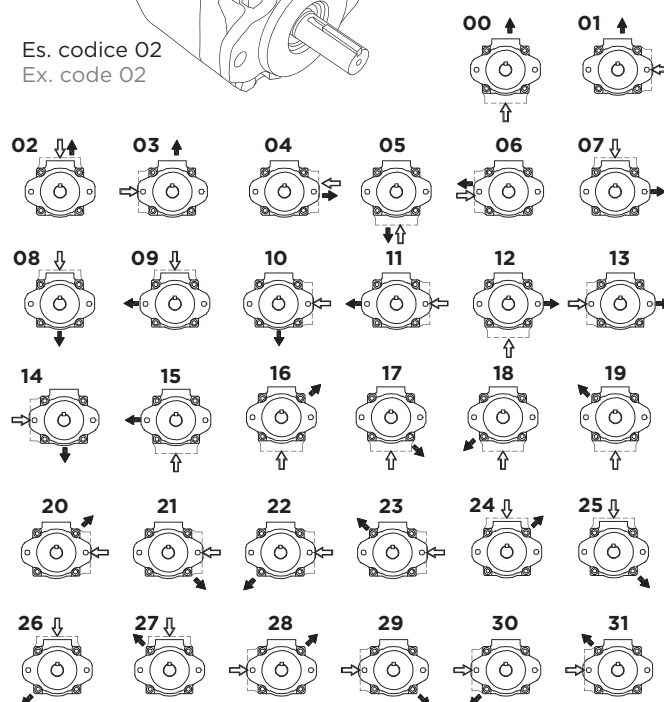
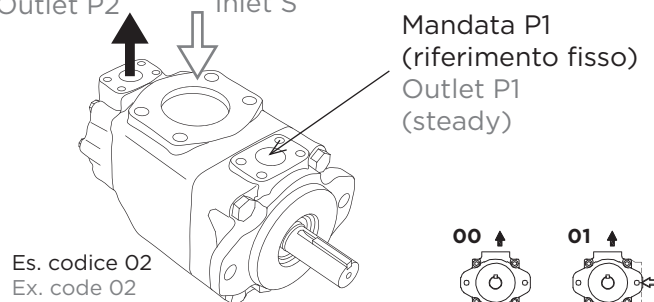
** DIMENSIONE BOCCHIE - PORT DIMENSIONS			
	S	P1	P2
A	3" SAE	1" SAE	1" SAE
B	3" SAE	1" SAE	3/4" SAE
C	2 1/2" SAE	1" SAE	1" SAE
D	2 1/2" SAE	1" SAE	3/4" SAE

R

Mandata P2
Outlet P2

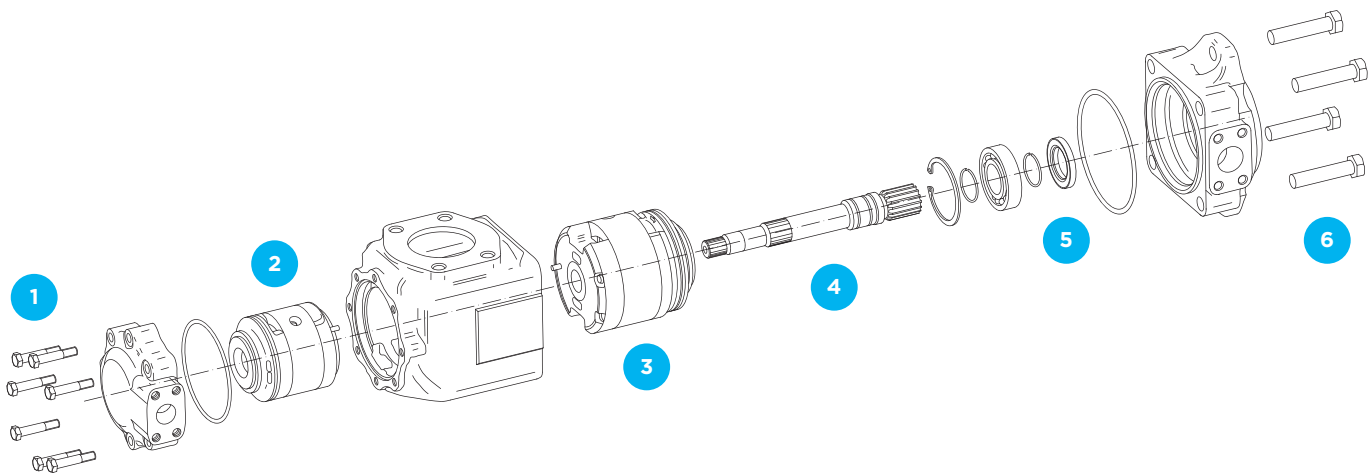
Aspirazione S
Inlet S

Mandata P1
(riferimento fisso)
Outlet P1
(steady)



CODICI COMPONENTI POMPA

ID. CODES OF PUMP COMPONENTS



1 VITE - SCREW	
Codice N° Part No.	M3020130
Serraggio a 61 Nm (544 lb. in.) Torque to 61 Nm (544 lb. in.)	

2 CARTUCCIA - CARTRIDGE			
Tipo Series	Modello Model	Codice N° Part No.	Rotaz. pompa Pump rotat.
BD22	03	N0400270	destra right hand
	05	N0400290	
	06	N0400310	
	08	N0400330	
	10	N0400350	
	12	N0400370	
	14	N0400390	
	17	N0400410	
	20	N0400430	
	22	N0400450	
	25	N0400470	
	28	N0400490	
	31	N0400510	
	03	N0400280	sinistra left hand
	05	N0400300	
	06	N0400320	
	08	N0400340	
	10	N0400360	
	12	N0400380	
	14	N0400400	
	17	N0400420	
	20	N0400440	
	22	N0400460	
	25	N0400480	
	28	N0400500	
	31	N0400520	

3 CARTUCCIA LATO ALBERO - FRONT CARTRIDGE			
Tipo Series	Modello Model	Codice N° Part No.	Rotaz. pompa Pump rotat.
BD22	03	N0400010	destra right hand
	05	N0400030	
	06	N0400050	
	08	N0400070	
	10	N0400090	
	12	N0400110	
	14	N0400130	
	17	N0400150	
	20	N0400170	
	22	N0400190	
	25	N0400210	
	28	N0400230	
	31	N0400250	
	03	N0400020	sinistra left hand
	05	N0400040	
	06	N0400060	
	08	N0400080	
	10	N0400100	
	12	N0400120	
	14	N0400140	
	17	N0400160	
	20	N0400180	
	22	N0400200	
	25	N0400220	
	28	N0400240	
	31	N0400260	

4 ALBERO - SHAFT

Tipo albero Model	Codice N° Part No.
01	K6211000
03	K6213000
05	K6215000

5 ANELLO DI TENUTA - SHAFT SEAL

Tipo Model	Codice N° Part No.
primario in NBR primary in NBR	M3020060

6 VITE - SCREW

Codice N° Part No.	M3020140
Serraggio a 159 Nm (1418 lb. in.) Torque to 159 Nm (1418 lb. in.)	

SERIE GUARNIZIONI POMPA - PUMP SEAL KIT

Codice N° Part No.	Componenti Parts	Materiale Model
M3022500	guarnizioni + 1 paraolio seals + 1 shaft seal	NBR