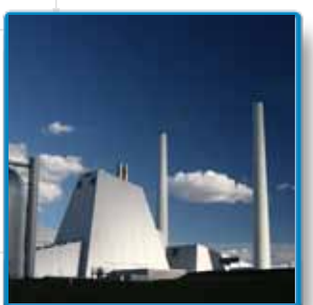
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TECHNOLOGY IN MOTION





INDUSTRIAL



POWER GEN



OIL & GAS

SMT16B Series

Dry & submersible screw pumps for industrial applications - 40 bar pressure

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

www.settima.it

SMT16B pump series / Serie SMT16B

Three screw pumps

Three screw pumps represent the largest class of multiple screw pumps in service today. No matter the applications and the environmental conditions, three screw pump is the most flexible pump on the market. Well known to be very reliable, at reasonable cost, virtually pulsation-free flow, very low acoustic emissions, three screw pumps are extensively used in meeting the requirements of oil & gas, chemical, marine, industrial, mobile, alternative energy, food processing, paper, power gen, pharmaceutical and many other industries. **SMT16B** three screw pumps represent one of the most used pumps all over the world after thirty five years of experience. **SMT16B** has been designed to reduce the dimensions of the traditional **SMT** series in order to be ideal where reduced dimensions are a must**.**

Le pompe a tre viti

*Le pompe a tre viti, oggi, rappresentano la classe di pompe a viti maggiormente utilizzate, indipendentemente dal tipo di applicazione e dalle condizioni ambientali, in quanto sono le più flessibili sul mercato. Sono considerate le più affidabili, a prezzi ragionevoli, e raggiungono bassissimi livelli di emissioni acustiche e assenza di vibrazioni nella trasmissione del flusso. Le pompe a tre viti sono ampiamente utilizzate in quanto rispettano i requisiti di settori quali oil & gas, chimico, navale, mobile, agroalimentare, power generation ed energie alternative, industria della carta, industria farmaceutica e molte altre. Le pompe a tre viti della serie **SMT16B**, sono tra le più usate in tutto il mondo e vantano oltre trent'anni di esperienza. Le pompe **SMT16B** sono state progettate per ridurre gli ingombri, in quanto le dimensioni sono minori rispetto alle tradizionali pompe **SMT.***

No pulsation – smooth flow. Low noise

SMT16B three screw pumps are designed to avoid any pulsation, to ensure a smooth operation and to reduce to the lowest level the acoustic emissions, reducing all costs of second noise reduction measures. The pulsation-free flow of **SMT16B** pumps, allows Settima screw pumps also in output condition management critical to applications such as precision hydraulic controls and fuel metering.

Flusso omogeneo – Nessuna pulsazione. Basse emissioni acustiche

*Le pompe a tre viti della serie **SMT16B** sono progettate per eliminare le pulsazioni, assicurare un funzionamento omogeneo e ridurre al minimo le emissioni acustiche, riducendo in questo modo i costi legati alla necessità di ricorrere a misure secondarie per la riduzione del rumore. Il flusso privo di pulsazioni delle pompe **SMT16B**, permette l'applicazione delle pompe Settima anche in condizioni critiche, come ad esempio idraulica di precisione, dosaggio e misurazione di carburanti.*

Magnetic coupling sealless leackage free pumps - FGM option

SMT16B pump can be equipped with a magnetic coupling if required. The hermetically sealed magnetic coupling is a permanent magnetic synchronous coupling able to transmit torque through magnetic forces between the internal and external rotor. Applying a magnetic coupling, the drive and the driven sides are hermetically separated. In case of critical media the magnetic coupling is a reliable seal and avoids any serious leaking. The magnetic coupling is the containment shroud that is fixed to the driven sided power unit and separates internal and external rotor from each other. Due to the absence of mechanical connection the vibrations torque transmission are very low, with completely leak-proof separation of product and atmosphere. The magnetic coupling is used to ensure no media leaking or when working in environments with potentially explosive atmospheres.



Giunto magnetico senza tenute rotanti assenza di perdite garantita - Opzione FGM

*Le pompe **SMT16B** possono, su richiesta, essere dotate di giunto magnetico. Il giunto magnetico permette di sigillare l'accoppiamento che trasmette la coppia tra il rotore interno ed esterno tramite forza magnetica. Con l'applicazione del giunto magnetico, l'elemento di trasmissione e quello condotto sono ermeticamente separati. In caso di fluidi pericolosi, il giunto magnetico garantisce una tenuta affidabile che impedisce perdite. Il giunto magnetico consiste nella copertura fissata sull'elemento condotto che separa il rotore interno da quello esterno. Grazie all'assenza di connessioni meccaniche, le vibrazioni dovute alla trasmissione di potenza sono molto ridotte, senza possibilità di contaminazione dell'atmosfera da parte del fluido e viceversa. Il giunto magnetico è utilizzato per prevenire in modo sicuro perdite in ambienti con atmosfera potenzialmente esplosiva.*

Technical characteristics / Caratteristiche tecniche

Types ***Tipi***	Dry (SMT16B) or submerged (SMIT16B) *Esterno (SMT16B) o sommerso (SMIT16B)*	
Models / *Modelli*	20 – 25 – 32 – 40 – 45 – 55 – 60 – 70 – 80 – 90S - 110	
Installation ***Installazione***	Free for SMT16B. Submerged (totally or partially) for SMIT16B *Qualsiasi per SMT16B. Sommersa (parzialmente o completamente) per SMIT16B*	
Flanges / *Flange*	ISO 3019/2	
Connections / *Connessioni*	SAE 3000 - BSPP	
Drive loading ***Carichi***	No axial or radial loads *Nessun carico assiale o trasversale*	
Shaft rotation ***Rotazione albero***	Clockwise (from shaft end) , (suitable also for counter clockwise rotation) *Destra (disponibile anche per rotazione sinistra)*	
Shaft speed ***Velocità di rotazione***	From 500 to 3.600 rpm(1) *Da 500 a 3.600 rpm(1)*	
Flows ***Portate***	From 8 up to 3.200 L/min *Da 8 a 3.200 L/min*	
Outlet Pressure ***Pressione di mandata***	Up to 40 bar *Fino a 40 bar*	
Inlet Pressure ***Pressione in aspirazione***	Min. -0.7 bar max. 3 bar(2) *Min. -0.7 bar max. 3 bar(2)*	
Fluids(3) ***Fluidi(3)***	• Mineral oil HLP e HVLP • Ecologic fluids HETG, HEPG, HEE • Synthetic fluid or emulsion: HFA oil-water emulsion, HFB water-oil emulsion 40% of volume, HFC water/ glycole – water max 35 to 55%, HFDR phosphate ester • Lubrication high viscosity oils • Special synthetic fluid: MIL-H, SKYDROL, • Fuel oil: MGO, MDO, Low sulfur MDO and HFO • DMX (ISO8217), DMA, DMB, DMC, DMZ • Bunker oil, furnace oil, engines oil, heating oil, hydraulics oils DIN 51524	• *Oli minerali HLP e HVLP* • *Fluidi ecologici HETG, HEPG, HEE* • *Fluidi sintetici o emulsioni: HFA emulsione olio-acqua, HFB emulsione acqua-olio 40% dl volume, HFC acqua/ glicole – acqua max 35 to 55%, HFDR phosphate ester* • *Olio ad alta viscosità per lubrificazione* • *Fluidi speciali sintetici: MIL-H, SKYDROL,* • *Fuel oil: MGO, MDO, Basso livello di zolfo MDO e HFO* • *DMX (ISO8217), DMA, DMB, DMC, DMZ* • *Bunker oil, furnace oil, olio per motori, heating oil, olio idraulico DIN 51524*
Viscosity ***Viscosità***	From 2 up to 10.000 cSt(4) *Da 2 fino a 10.000 cSt(4)*	
Seals polymer (shaft, O-ring) ***Polimero guarnizioni (albero, anello di tenuta)***	NBR, FKM, EPDM (5)	
Seal type ***Tipo di guarnizioni***	TM, TMK, TMZ, FGM	
Acoustic Emissions ***Emissioni Acustiche***	From 52 up to 68 db(A) at 2.950 rpm value based on ISO 4412 test procedure *Da 52 fino a 68 db(A) a 2.950 rpm (ISO 4412 test)*	
Pump body ***Corpo pompa***	Extruded aluminum alloy *Alluminio estruso*	
Pump body (special applications) ***Corpo pompa (applicazioni speciali)***	Cast iron, carbon steel *Ghisa, acciaio*	
Screws ***Viti***	Steel for main screw , idler cast iron *Acciaio vite principale, ghisa viti secondarie*	
Screws (special applications) ***Viti (applicazioni speciali)***	Core hardened steel screws, surface treated screws *Viti in acciaio temprato, viti trattate superficialmente*	
Environment temperature ***Temperatura ambiente***	From -50° up to +60°C *Da -50° a +60°C*	
Hydraulic Temperature ***Temperature olio***	Suggested from -20°C to +120°C */ Consigliato da -20°C a +120°C* Allowable from -40°C to + 250°C (6) */ Possibile da -40°C a + 250°C* (6)	
Filtration ***Filtrazione***	Permissible degree of fluid contamination NAS to 1638 class 10 or ISO DIS 4406 – 19/16. Recommended filtration ß 25 ≥ 75. *Contaminazione NAS tipo 1638 classe 10 o ISO DIS 4406 – 19/16 . Filtrazione raccomandata ß 25 ≥ 75.*	

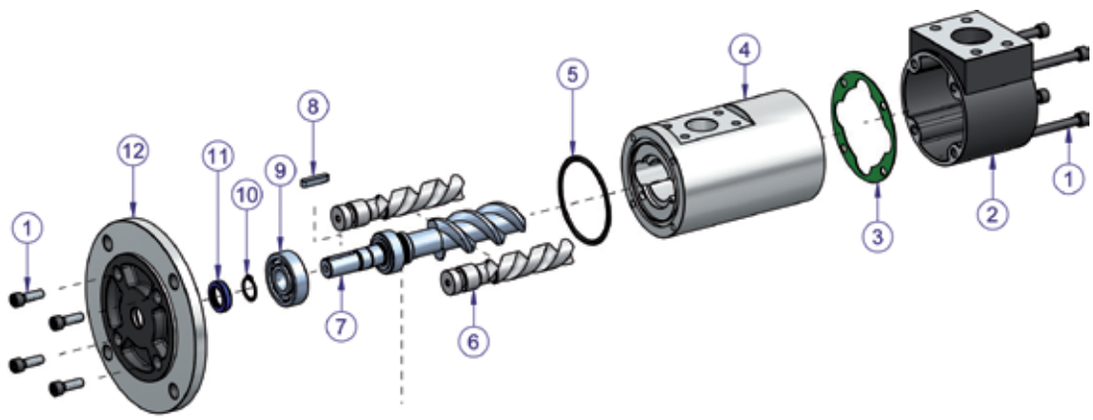
All data reported by catalogue can change without any notice. *I dati presenti nel catalogo possono cambiare senza preavviso.*
(1) For shaft speed lower than 1.000 rpm and over 1.800 rpm please contact Settima. *Per velocità inferiori a 1.000 rpm e maggiori di 1.800 rpm contattare Settima.*
(2) For higher pressure please contact Settima. *Per pressioni maggiori contattare Settima.*
(3) For request of different fluids please contact Settima. *Per l'utilizzo di diversi fluidi contattare Settima.*
(4) For level of viscosity lower than 20 cSt and over 320 cSt please contact Settima. *Per livelli di viscosità inferiori a 20 cSt e superiori a 320 cSt contattare Settima.*
(5) For special seals, contact Settima. *Per tenute speciali, contattare Settima.*
(6) For operating temperature lower than -20°C and/or higher than +120°C please contact Settima. *Per temperature di esercizio inferiori a -20°C e/o superiori a +120°C contattare Settima*

Product description / Descrizione prodotto

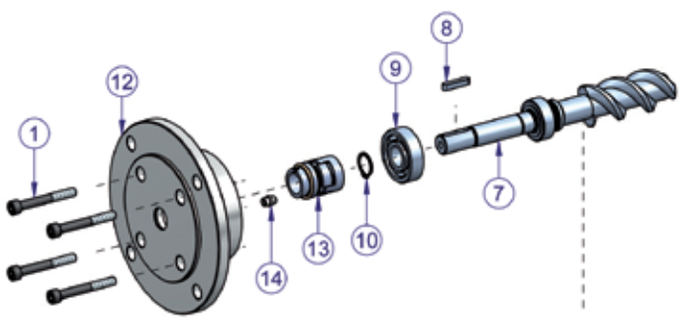
DIFFERENT COMBINATIONS OF SMT16B PUMP / *DIFFERENTI COMBINAZIONI DELLA POMPA SMT16B*

Flange configurations view / *Configurazioni flangia*

A



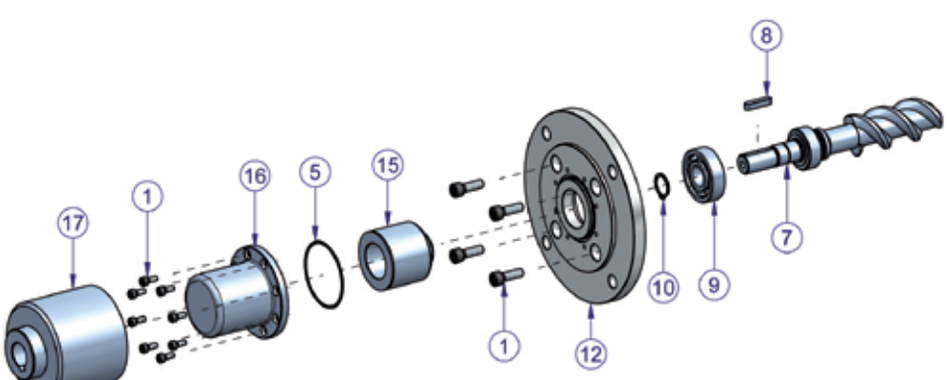
B



C



D



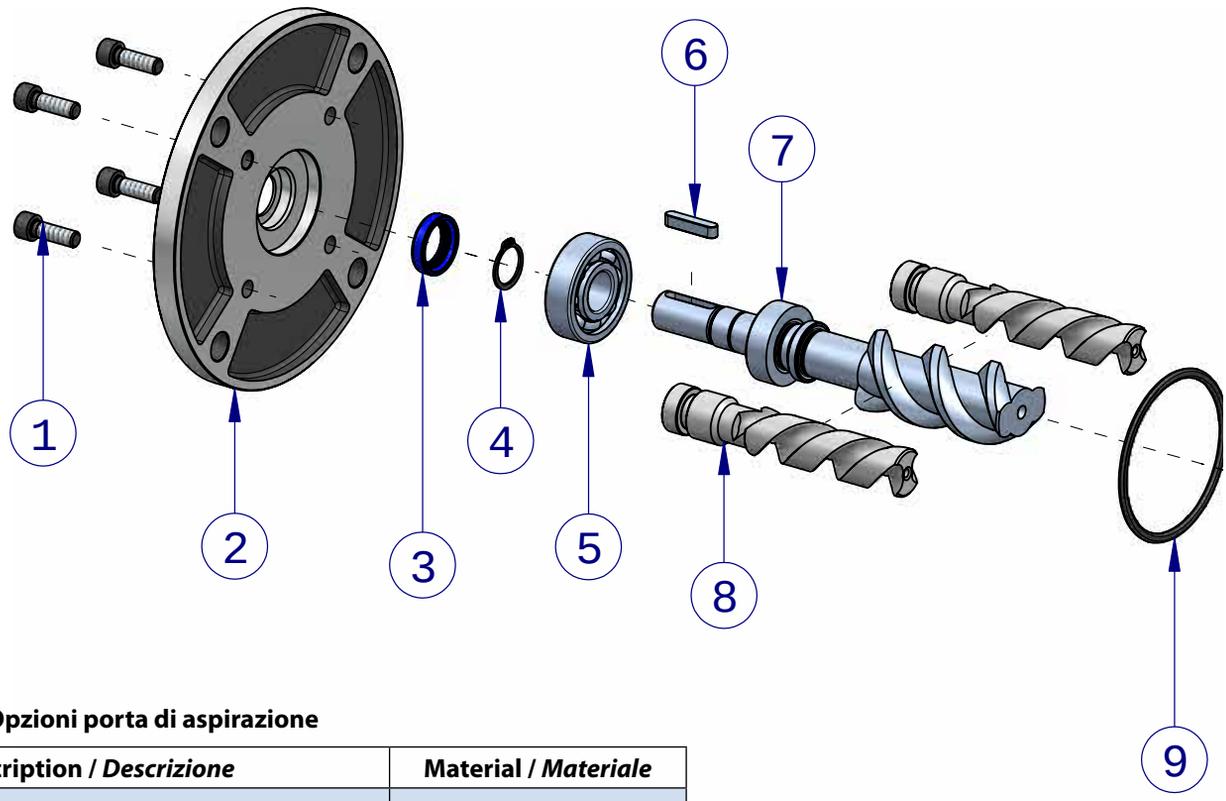
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Product description / Descrizione prodotto

Shaft and seal options / *Opzioni alberi e tenute*

N°	Parts description / *Descrizione componenti*	Material / *Materiale*
1	Screw / *Vite*	Common components
2	Radial suction cover / *Tappa radiale*	Common components
3	Plane gasket / *Guarnizione piana*	Common components
4	Pump body / *Corpo pompa*	Common components
5	O-ring / *Anello O-ring*	Common components
6	Idler screw / *Vite laterale*	Common components
A	**SMT16B (LIP SEAL) / *SMT16B (TENUTA A LABBRO)***	
7	Main screw / *Vite centrale*	Common components
8	Key / *Linguetta*	Common components
9	Ball bearing / *Cuscinetto*	Common components
10	Seeger	Common components
11	Seal / *Anello di tenuta*	Common components
12	Flange / *Flangia*	Common components
1	Screw / *Vite*	Common components
B	**SMT16B (MECHANICAL SEAL) - TM OPTION / *SMT16B (TENUTA MECCANICA) - OPZIONE TM***	
7	Main screw / *Vite centrale*	Common components
8	Key / *Linguetta*	Common components
9	Ball bearing / *Cuscinetto*	Common components
10	Seeger	Common components
13	Mechanical seal /*Tenuta meccanica*	Common components
14	Driving oil bushing / *Boccola convoglia olio*	Common components
12	Flange / *Flangia anteriore*	Common components
1	Screw / *Vite*	Common components
C	**SMT16B HOLLOW SHAFT (LIP SEAL) / *SMT16B ALBERO CAVO (TENUTA A LABBRO)***	
7	Main screw / *Vite centrale*	Common components
9	Ball bearing / *Cuscinetto*	Common components
10	Seeger	Common components
11	Seal / *Anello di tenuta*	Common components
12	Flange / *Flangia anteriore*	Common components
1	Screw / *Vite*	Common components
D	**SMT16B MAGNETIC COUPLING - FGM OPTION / *SMT16B GIUNTO MAGNETICO - OPZIONE FGM***	
7	Main Screw / *Vite centrale*	Common components
8	Key / *Linguetta*	Common components
9	Ball bearing / *Cuscinetto*	Common components
10	Seeger	Common components
12	Flange / *Flangia anteriore*	Common components
1	Screw / *Vite*	Common components
15	Internal rotor MC / *Rotore interno MC*	Common components
5	O-ring / *Anello O-ring*	Common components
16	Containment shroud MC / *Cappuccio MC*	Common components
1	Screw / *Vite*	Common components
17	External rotor MC / *Rotore esterno MC*	Common components

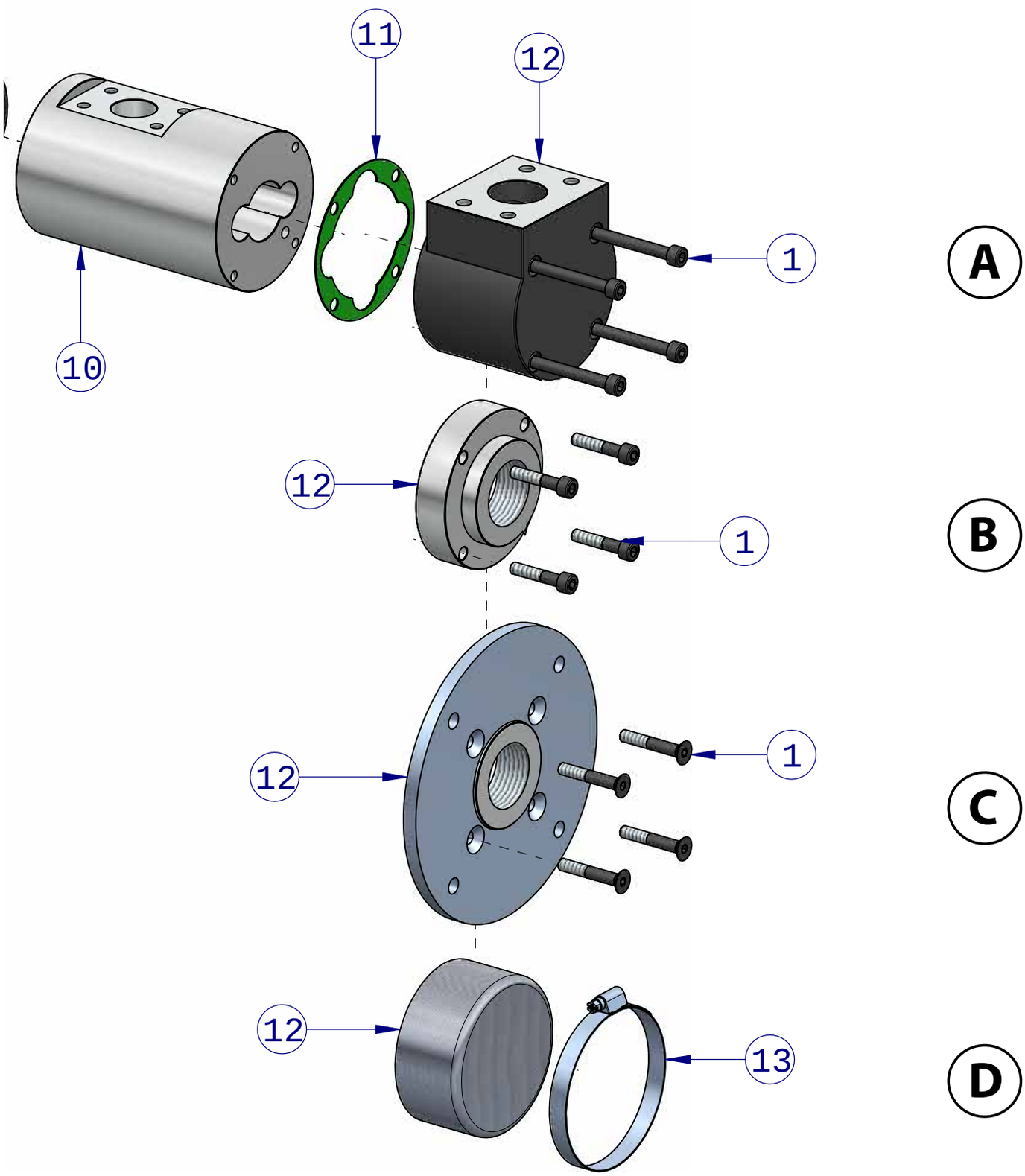
Product description / Descrizione prodotto



Suction port options / Opzioni porta di aspirazione

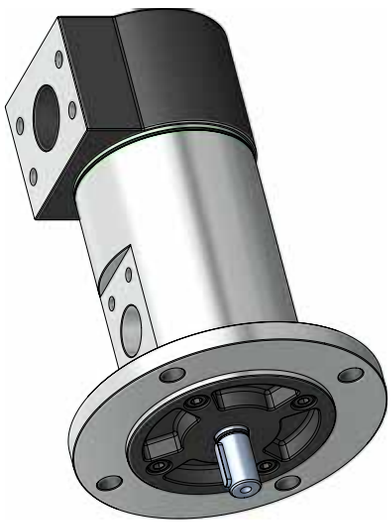
N°	Description / *Descrizione*	Material / *Materiale*
1	Screw / *Vite*	Common components
2	Flange / *Flangia anteriore*	Common components
3	Seal / *Anello di tenuta*	Common components
4	Seeger	Common components
5	Ball bearing / *Cuscinetto*	Common components
6	Key / *Linguetta*	Common components
7	Main screw / *Vite centrale*	Common components
8	Idler screw / *Vite laterale*	Common components
9	O-ring / *Anello O-ring*	Common components
10	Body pump / *Corpo pompa*	Common components
11	Plane gasket / *Guarnizione piana*	Common components
A	**SMT16B**	
12	Radial suction cover / *Tappa radiale*	Common components
1	Screw / *Vite*	Common components
B	**SMT16B AX (axial BSPP) / *SMT16B AX (assiale BSPP)***	
1	Screw / *Vite*	Common components
12	Axial suction cover / *Tappa assiale*	Common components
C	**SMT16B AL (top flange for vertical installation over the tank)** ***SMT16B AL (tappa aspirazione per installazione verticale sopra serbatoio)***	
1	Screw / *Vite*	Common components
12	Tank top flange / *Tappa aspirazione sopra serbatoio*	Common components
D	**SMIT16B (submersible) / *SMIT16B (sommersa)***	
12	Filter / *Filtro*	Common components
13	Clamp / *Fascetta*	Common components

Product description / Descrizione prodotto



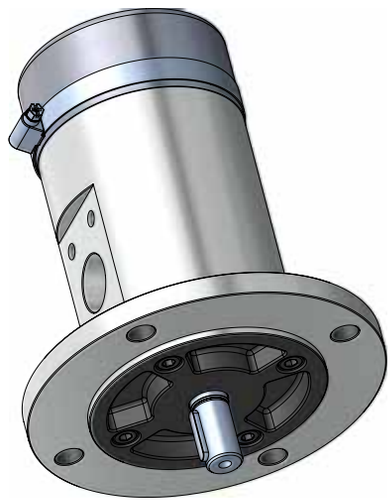
SMT16B pump - Dimensional drawings / Disegni dimensionali

SMT16B

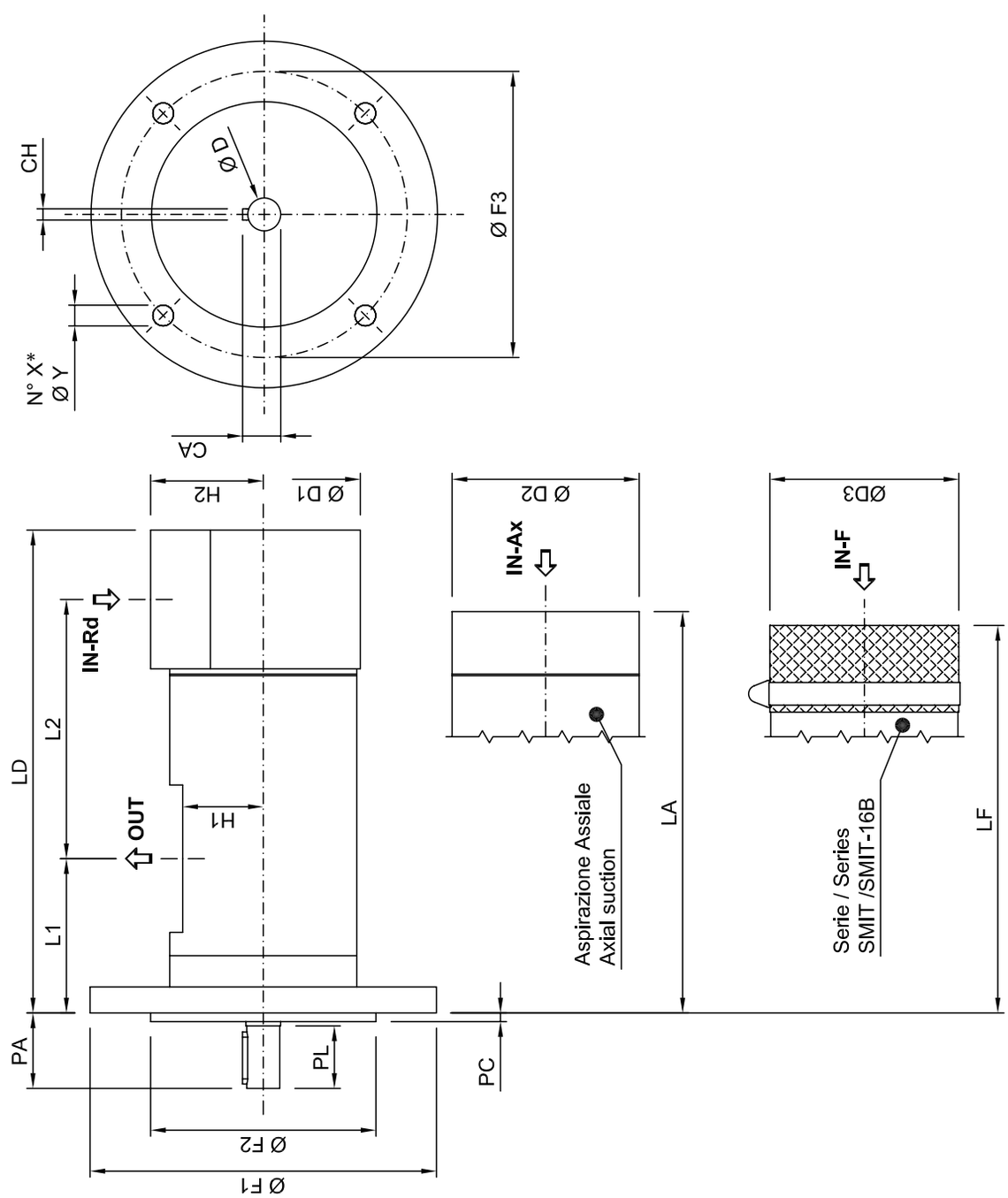


Dry screw pump
Pompa per uso esterno

SMIT16B



Submersible screw pump
Pompa per uso sommerso



* 2 holes for GR20, 4 holes for the other models. / *2 fori per GR20, 4 fori per gli altrimodelli.*

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SMT16B Series / *Serie SMT16B*

Dry/ *Per uso esterno*

SMIT16B Series/ *Serie SMIT 16B*

Submersible / *Per uso sommerso*

	Flange / Flangia				Shaft/Albero				Suction / Aspirazione			Discharge / Mandata		Pump / Pompa							Pump / Pompa	
Type/Tipo	**ØF2**	**ØY**	**ØF3**	**ØF1**	**PL**	**ØD**	**CA**	**CH**	**IN-Rd**	**IN-Ax**	**H2**	**OUT**	**H1**	**PA**	**ØD2**	**L1**	**L2**	**LD**	**LA**	**Kg**	**ØD3**	**LF**
GR20 SMT16B 8L-12L-15L-20L	80.0	11.0	103.0	125.0	30.0	14.0	16.0	5.0	½" BSPP	½" BSPP	26.0	½" BSPP	25.0	37.0	59.0	53.0	78.5	153.0	134.0	1.5	60.0	133.0
GR25 SMT16B 25L-30L	80.0	11.0	103.0	125.0	36.0	19.0	21.5	6.0	¾" BSPP	¾" BSPP	27.0	½" BSPP	27.5	42.0	65.0	72.5	87.0	178.0	178.0	2.7	66.0	158.5
GR32 SMT16B 35L-45L-55L-75L	100.0	11.0	125.0	150.0	35.0	19.0	21.5	6.0	1" ¼SAE - 3000	1" ¼ BSPP	55.0	1" SAE - 3000	41.0	41.0	94.0	61.0	123.0	218.0	171.0	4.4	95.0	162.0
GR40 SMT16B 100L-125L-150L	125.0	14.0	160.0	188.0	36.0	19.0	21.5	6.0	1" ½ SAE - 3000	1" ½ BSPP	65.0	1" ¼ SAE -3000	46.5	42.5	108.0	69.0	149.5	257.5	211.5	7	109.0	203.5
GR45 SMT16B 180L-210L	125.0	14.0	160.0	188.0	55.0	32.0	35.0	10.0	2" SAE - 3000	2" BSPP	85.0	1" ½ SAE -3000	51.5	64.5	122.5	75.4	190.1	310.5	258.5	11	123.5	240.5
GR55 SMT16B 250L-300L-330L-380L	160.0	18.0	200.0	235.0	55.0	32.0	35.0	10.0	2" ½ SAE - 3000	2" ½ BSPP	95.0	2" SAE - 3000	55.0	64.5	142.5	83.5	202.5	338.0	274.0	15.5	143.5	284.0
GR60 SMT16B 440L-500L	160.0	18.0	200.0	235.0	55.0	32.0	35.0	10.0	3" SAE -3000	3" BSPP	105.0	2" ½ SAE - 3000	63.0	65.5	155.0	83.5	228.5	374.5	292.5	25	154.0	299.5
GR70 SMT16B 600L-660L-800L	200.0	22.0	250.0	300.0	55.0	32.0	35.0	10.0	3" ½ SAE - 3000	3" ½ BSPP	110.0	3" SAE - 3000	73.0	65.5	180.0	94.5	279.0	441.5	365.5	30	179.0	379.5
GR80 SMT16B 1.000L-1.200L	200.0	22.0	250.0	300.0	60.0	38.0	41.0	10.0	4" SAE - 3000	4" BSPP	125.0	3" SAE - 3000	83.0	75.0	210.0	150.0	294.5	519.0	468.0	47.5	204.0	452.0
GR90S SMT16B 1.220L-1.500L-1.700L-2.000L-2.200L	200.0	22.0	250.0	300.0	60.0	38.0	41.0	10.0	5" SAE - 3000	5" SAE - 3000	110.0	3" SAE - 3000	85.0	75.0	206.0	144.5	488.0	731.0	635.5	61.5	204.0	620.0
GR110 SMT16B 2.300L-2.500L-2.800L-3.200L	250.0	26.0	300.0	350.0	110.0	55.0	59.0	16.0	5" SAE - 3000	5" SAE - 3000	140.0	4" SAE - 3000	100.0	118.0	250.0	287.0	489.0	879.0	811.0	120	251.0	716.0

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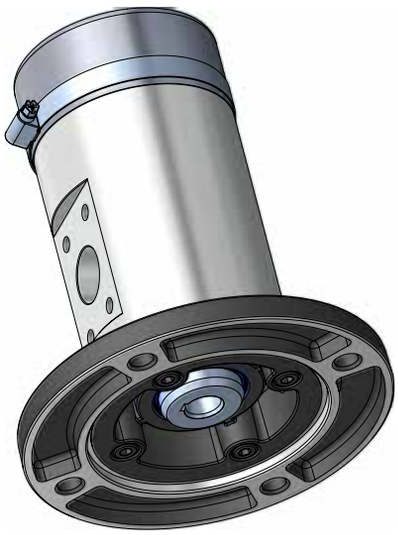
SMT16B AC pump - Dimensional drawings / Disegni dimensionali

SMT16B AC

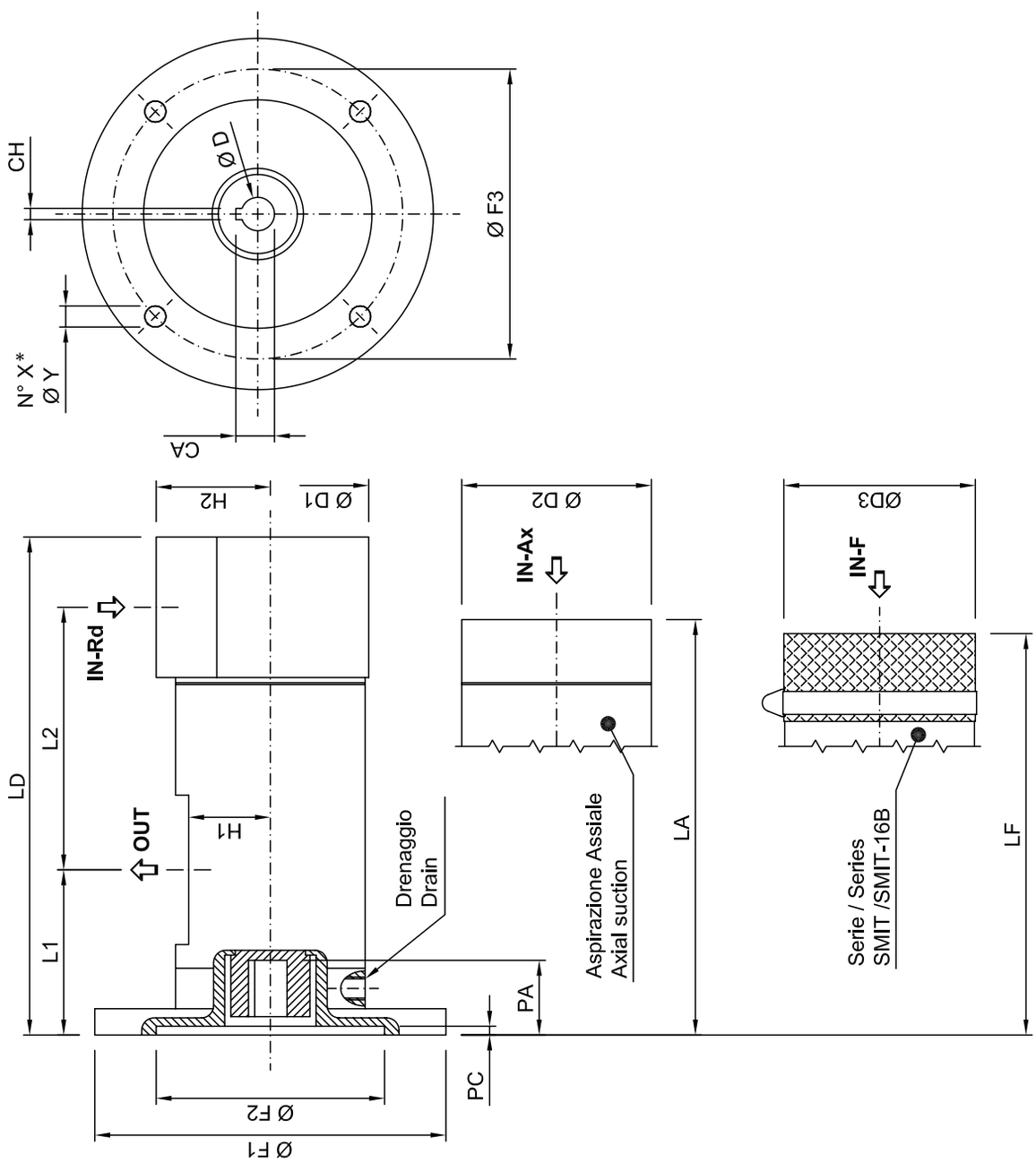


Dry screw pump
Pompa per uso esterno

SMIT16B AC



Submersible screw pump
Pompa per uso sommerso



* 2 holes for GR20, 4 holes for the other models. / *2 fori per GR20, 4 fori per gli altrimodelli.*

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SMT16B AC Series / *Serie SMT16B AC*

Dry / *Per uso esterno*

SMIT16B AC Series/ *Serie SMIT 16B AC*

Submersible / *Per uso sommerso*

	Flange/Flangia				Shaft / Albero			Suction / Aspirazione			Discharge / Mandata		Pump / Pompa							Pump / Pompa	
Type/Tipo	**ØF2**	**ØY**	**ØF3**	**ØF1**	**ØD**	**CA**	**CH**	**IN-Rd**	**IN-Ax**	**H2**	**OUT**	**H1**	**PA**	**ØD2**	**L1**	**L2**	**LD**	**LA**	**Kg**	**ØD3**	**LF**
GR20 SMT16B AC11 B5 8-12-15-20	95.0	9.0	115.0	140.0	11.0	12.8	4.2	1/2″BSPP	1/2″BSPP	26.0	1/2″BSPP	25.0	25.0	59.0	57.0	78.5	157.0	138.0	1.5	60.0	137.0
GR20 SMT16B AC14 B5 8-12-15-20	110.0	9.5	130.0	160.0	14.0	161.1	5.2	1/2″BSPP	1/2″BSPP	26.0	1/2″BSPP	25.0	33.5	59.0	56.0	78.5	156.0	137.0	1.5	60.0	136.0
GR20 SMT16B AC19 B5 8-12-15-20	130.0	11.0	165.0	200.0	19.0	21.7	6.5	1/2″BSPP	1/2″BSPP	26.0	1/2″BSPP	25.0	42.0	59.0	75.0	78.5	175.0	156.0	1.5	60.0	155.0
GR25 SMT16B AC14 B5 25-30	110.0	9.5	130.0	160.0	14.0	16.2	5.2	3/4″BSPP	3/4″BSPP	27.0	1/2″BSPP	27.5	32.5	65.0	73.5	87.0	179.0	179.0	2.7	66.0	159.5
GR25 SMT16B AC19 B5 25-30	130.0	10.5	165.0	200.0	19.0	21.9	6.5	3/4″BSPP	3/4″BSPP	27.0	1/2″BSPP	27.5	42.5	65.0	76.5	87.0	182.0	182.0	2.7	66.0	162.5
GR32 SMT16B AC19 B5 35-45-55-75	130.0	12.0	165.0	200.0	19.0	21.9	6.5	1″1/4 SAE - 3000	1″1/4 BSPP	55.0	1″SAE - 3000	41.0	43.7	94.0	84.7	123.0	241.7	194.7	4.4	95.0	185.7
GR32 SMT16B AC24 B5 35-45-55-75	130.0	12.0	165.0	200.0	24.0	27.3	8.5	1″1/4 SAE - 3000	1″1/4 BSPP	55.0	1″SAE - 3000	41.0	52.7	94.0	84.7	123.0	241.7	194.7	4.4	95.0	185.7
GR40 SMT16B AC19 B5 100-125-150	130.0	12.0	165.0	200.0	19.0	22.0	6.5	1" 1/2 SAE - 3000	1″1/2 BSPP	65.0	1″1/4 SAE -3000	46.5	42.5	108.0	94.0	149.5	282.5	236.5	7	109.0	228.5
GR40 SMT16B AC24 B5 100-125-150	130.0	12.0	165.0	200.0	24.0	27.5	8.5	1" 1/2 SAE - 3000	1″1/2 BSPP	65.0	1″1/4 SAE -3000	46.5	52.5	108.0	94.0	149.5	282.5	236.5	7	109.0	228.5
GR40 SMT16B AC28 B5 100-125-150	180.0	14.0	215.0	250.0	28.0	31.5	8.5	1" 1/2 SAE - 3000	1″1/2 BSPP	65.0	1″1/4 SAE -3000	46.5	64.0	108.0	104.5	149.5	293.0	247.0	7	109.0	239.0
GR45 SMT16B AC28 B5 180-210	180.0	14.0	215.0	250.0	28.0	31.5	8.5	2" SAE - 3000	2″BSPP	85.0	1″1/2 SAE -3000	51.5	63.5	122.5	106.4	190.1	341.5	289.5	7	123.5	271.5
GR45 SMT16B AC38 B5 180-210	230.0	15.0	265.0	300.0	38.0	42.0	10.5	2″SAE - 3000	2″BSPP	85.0	1″1/2 SAE -3000	51.5	81.0	122.5	119.9	190.1	355.0	303.0	7	123.5	285.0
GR55 SMT16B AC28 B5 250-300-330-380	180.0	14.0	215.0	250.0	28.0	31.5	8.5	2″1/2 SAE - 3000	2″1/2 BSPP	95.0	2″SAE - 3000	55.0	62.5	142.5	108.5	202.5	363.0	299.0	15.5	143.5	309.0
GR55 SMT16B AC38 B5 250-300-330-380	230.0	15.0	265.0	300.0	38.0	42.0	10.5	2″1/2 SAE - 3000	2″1/2 BSPP	95.0	2″SAE - 3000	55.0	82.5	142.5	128.5	202.5	383.0	319.0	15.5	143.5	329.0
GR60 SMT16B AC28 B5 440-500	180.0	14.0	215.0	250.0	28.0	31.5	8.5	3″SAE -3000	3″BSPP	105.0	2″1/2 SAE - 3000	63.0	65.0	155.0	108.5	228.5	399.5	317.5	25	154.0	324.5
GR60 SMT16B AC38 B5 440-500	230.0	14.5	265.0	300.0	38.0	41.8	10.5	3″SAE -3000	3″BSPP	105.0	2″1/2 SAE - 3000	63.0	83.0	155.0	128.5	228.5	419.5	337.5	25	154.0	344.5
GR70 SMT16B AC28 B5 600-660-800	180.0	14.0	215.0	250.0	28.0	31.5	8.5	3″1/2 SAE - 3000	3″1/2 BSPP	110.0	3″SAE - 3000	73.0	63.1	180.0	118.3	279.0	465.3	389.3	30	179.0	403.3
GR70 SMT AC38 B5 600-660-800	230.0	14.5	265.0	300.0	38.0	41.8	10.5	3″1/2 SAE - 3000	3″1/2 BSPP	110.0	3″SAE - 3000	73.0	87.3	180.0	139.5	279.0	486.5	410.5	30	179.0	424.5

All data reported by catalogue can change without any notice. *I dati presenti nel catalogo possono cambiare senza preavviso.*

Applications / Applicazioni

INDUSTRIAL

Lube services
Power hydraulics (presses, machine tools, working machines rolling mill, dumping equipment, elevators, variable pitch propellers, hydraulic winches)
Power unit & mini power packs
Hydraulic governors
Cooling, heating, recycling
Driving and filtering
Process technology and chemistry
Filtration applications
Chip conveyors
Hydro power (turbines & compressor lubrication power)
Paper & Pulp (lubrication & filtration)
Gear box lube and filtration system (high viscosity lube, air emulsion)



POWER GENERATION

Lube oil service
Control oil service
Sealing oil service for gas turbine
Fuel unloading station
Fuel transfer
Fuel feeding
Burner operations service
Filtration & cooling



MARINE

Off-line filtration
Off-line filtration cart and trolleys
Filtration & oil transfer
Fuel service
Lube oil circulation service
Lubricating liquids (machines, turbines, gear sets, motors)



OIL & GAS

Oil filtration & cooling
Oil and fuel oil lubrication
Oil rigs
Refineries (transport, meter and mix)
Off-shore platform
Petrochemical industry
Transfer service

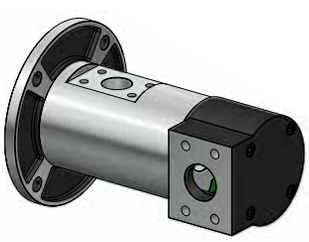
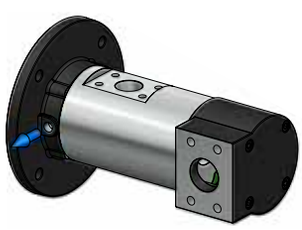
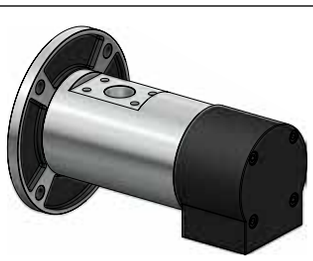
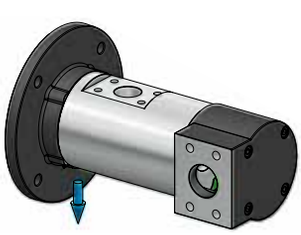
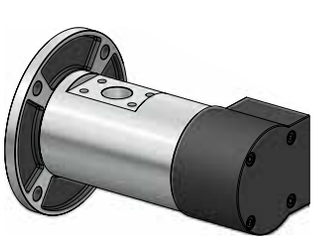
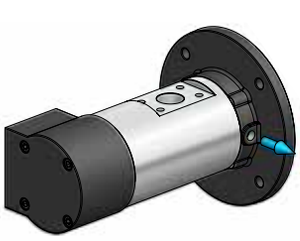
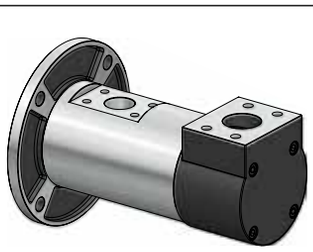
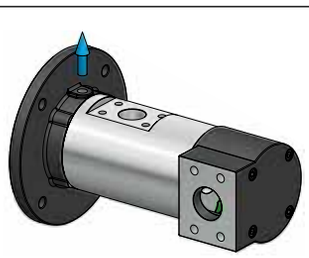


Suction and drain configuration / Configurazioni aspiraz. e drenaggio

Suction and drain hole configuration available as per table below (orientations relative to pressure port).
Configurazioni di porte di aspirazione, mandata e drenaggio. Vedi tabella sotto.

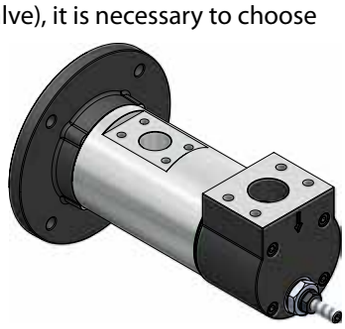
Standard configuration / Configurazioni standard

Standard configuration: T1 – D2
Configurazione standard: T1 – D2
Standard configuration for pumps WITH RP VALVE: T4 – D2
Configurazione standard per pompa CON VALVOLA RP: T4 – D2

SUCTION CONFIGURATION CODES *CODICI CONFIGURAZIONE ASPIRAZIONE*	**DRAIN CONFIGURATION CODES** *CODICI CONFIGURAZIONE DRENAGGIO*
T1 	**D1** 
T2 	**D2** 
T3 	**D3** 
T4 	**D4** 

Settima recommends that in case of request of pump with RP valve (external variable regulation valve), it is necessary to choose very carefully the suction and drain configuration. Once the external valve is built on the pump it will be not possible any change of both configurations.

Settima raccomanda di scegliere attentamente la configurazione delle porte nel caso di pompa con valvola RP (valvola regolazione variabile esterna). La valvola RP impedisce di modificare l'orientamento delle porte una volta installata sulla pompa.

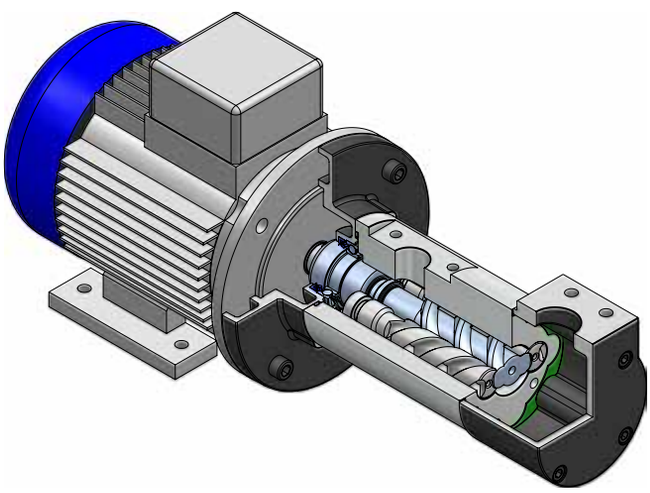


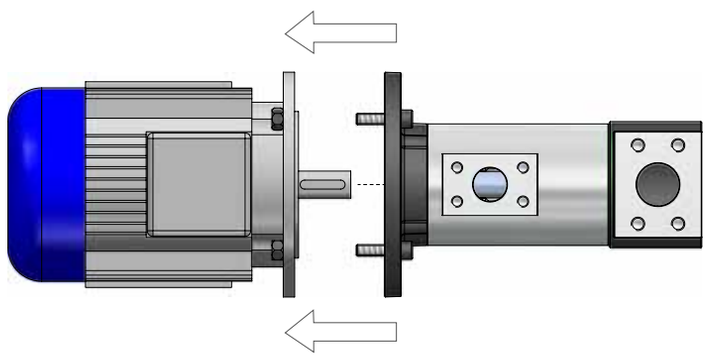
Motor pump selection / Selezione motore

Please check the table below to select the right motor.
Controllare la tabella per selezionare il motore adatto.

Size	Motor form/ *Forma motore*	56 AC9	63 AC11	71 AC14	80 AC19	90 AC24	100 AC28	112 AC28	132 AC38
GR 20	B14	✓	✓	✓	✓				
	B5		✓	✓	✓				
GR 25	B14			✓	✓				
	B5			✓	✓				
GR 32	B14				✓	✓			
	B5				✓	✓			
GR40	B14				✓	✓	✓	✓	
	B5				✓	✓	✓	✓	
GR45	B5				✓	✓	✓	✓	✓
GR55	B5						✓	✓	✓
GR60	B5						✓	✓	✓
GR70	B5						✓	✓	✓

All data reported by catalogue can change without any notice. *I dati presenti nel catalogo possono cambiare senza preavviso.*
GR80, GR90, GR110 are not available with hollow shaft. *GR80, GR90, GR110 non sono disponibili con albero cavo.*





IEC standard motor

Ordering code table / Tabella codici di ordinazione

Pump type *Tipo*	Pump model *Modello*	Nominal flow *Portata nominale* [1]	High viscosity flag *Alta viscosità*	Shaft type *Tipo albero*	Hollow shaft flange *Flangia albero cavo*	Pump body *Corpo pompa* [4]	Seals polymer (shaft, O-ring) *Polimero guarnizioni (albero, anello di tenuta)*	Screw treatment *Trattamento viti*	Seal type *Tipo di tenuta*	Suction configuration code *Codice portata aspirazione*	Drain configuration codes (hollow shaft only) *Drenaggio (solo AC)*	Pressure relief valve *Valvola di sicurezza*	Suction flange *Flangia d'aspirazione* [7]	Rotation *Rotazione*	Bearing type *Tipo cuscinetto*
GR20	**SMT16B** dry *esterna* **SMIT16B** submersible *sommersa*	**8L, 12L, 15L, 20L**	Standard up to/*fino a* 100 cSt **(none)** Optional **S1** [2] from/*da* 100 cSt to/*a* 250 cSt **S2** [2] from/*da* 250 cSt to/*a* 500 cSt **S3** [2] from/*da* 500 cSt to/*a* 800 cSt **S4** [2] over/*oltre* 800 cSt	Standard normal shaft & flange type *albero maschio e flangia* **(none)** Optional hollow shaft type [3] *Albero cavo* [3] **AC9 AC11 AC14 AC19 AC24 AC28 AC38**	**B5 B14** (hollow shaft only) *(solo AC)*	Standard aluminium *alluminio* **(none)** Optional **G** cast iron *ghisa* **A** carbon steel *acciaio*	Standard NBR **(none)** Optional **V** FKM **E** EPDM	Standard steel main screw cast iron idler screws *vite centrale in acciaio viti laterali in ghisa* **(none)** Optional **HA** core hardened steel screws *viti in acciaio temprato*	Standard Lip seal **(none)** Optional **TM** [5] mechanical seal for oil **TMK** [5] mechanical seal for water and glycole and coolant fluids **TMZ** [5] mechanical seal for fuel oil **FGM** [5] magnetic sealless coupling	Standard T1 **(none)** Optional **T2** **T3** **T4**	Standard D2 **(none)** Optional **D1** **D3** **D4**	Standard No pressure relief valve *Nessuna valvola di sicurezza* **(none)** Optional **RF1** 5 bar security *sicurezza 5 bar* **RF2** 10 bar security *sicurezza 10 bar* **RF3** 15 bar security *sicurezza 15 bar* **RP** [6] variable regulation valve *valvola a regolazione variabile*	Standard radial *radiale* **(none)** Optional **AXS** axial SAE *assiale SAE* **AX** axial BSPP *assiale BSPP* **AL** tank-top flange *tappa d'aspirazione sopra serbatoio*	Standard Clockwise *destra* **(none)** Optional **SX** counter clockwise *sinistra*	Standard **(none)** Optional **CS** encapsulated ball bearing *cuscinetto schermato*
GR25		**25L, 30L**													
GR32		**35L, 45L, 55L, 75L**													
GR40		**100L, 125L, 150L**													
GR45		**180L, 210L**													
GR55		**250L, 300L, 330L, 380L**													
GR60		**440L, 500L**													
GR70		**600L, 660L, 800L**													
GR80		**1.000L, 1.200L**													
GR90S		**1.220L, 1.500L, 1.700L, 2.000L, 2.200L**													
GR110		**2.300L, 2.500L, 2.800L, 3.200L**													

(1) At 3.000 RPM. *A 3.000 RPM*

(2) This option may reduce the efficiency of the pump. *Questa opzione potrebbe ridurre l'efficenza della pompa.*

(3) To request the right hollow shaft, please, check chapter "Motor pump selection" at page 14. *Per richiedere il giusto tipo di albero cavo, si prega di vedere il capitolo "Selezione motore" a pagina 14.*

(4) Please contact Settima for different materials and treatments. *Contattare Settima per differenti materiali e trattamenti.*

(5) Option TM is not available for version AC (hollow shaft) and is not possible with aluminium body. *L'opzione TM non è disponibile per i modelli AC (albero cavo) nè con corpo in alluminio.*

(6) RP valve is available only for SMT16B models with radial suction flange. *Valvola RP disponibile solo per modelli SMT16B con flangia d'aspirazione radiale.*

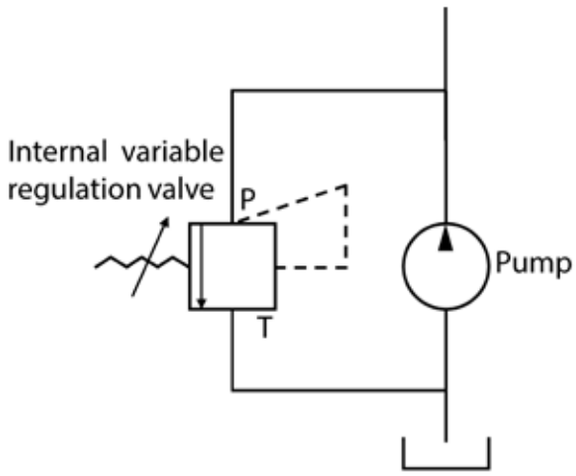
(7) Option not available for model SMIT16B. *Opzione non disponibile per modelli SMIT16B.*

RP Pressure relief valve / Valvola di sicurezza RP

Internal bypass variable regulation valve / *Valvola a regolazione variabile con bypass interno*

Available for models */ Disponibile per i modelli GR20, GR25, GR32, GR40, GR45, GR55, GR60, GR70*

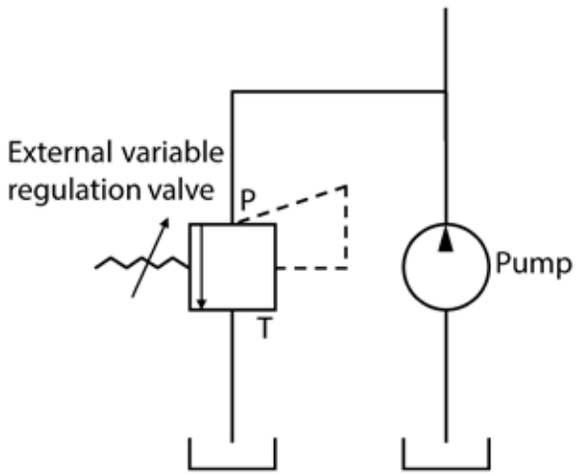




External bypass variable regulation valve / *Valvola a regolazione variabile con bypass esterno*

Available for models */ Disponibile per i modelli GR80, GR90S, GR110*





SETTIMA®
research & innovation, always

Samples application summary / Esempi possibili per applicazioni

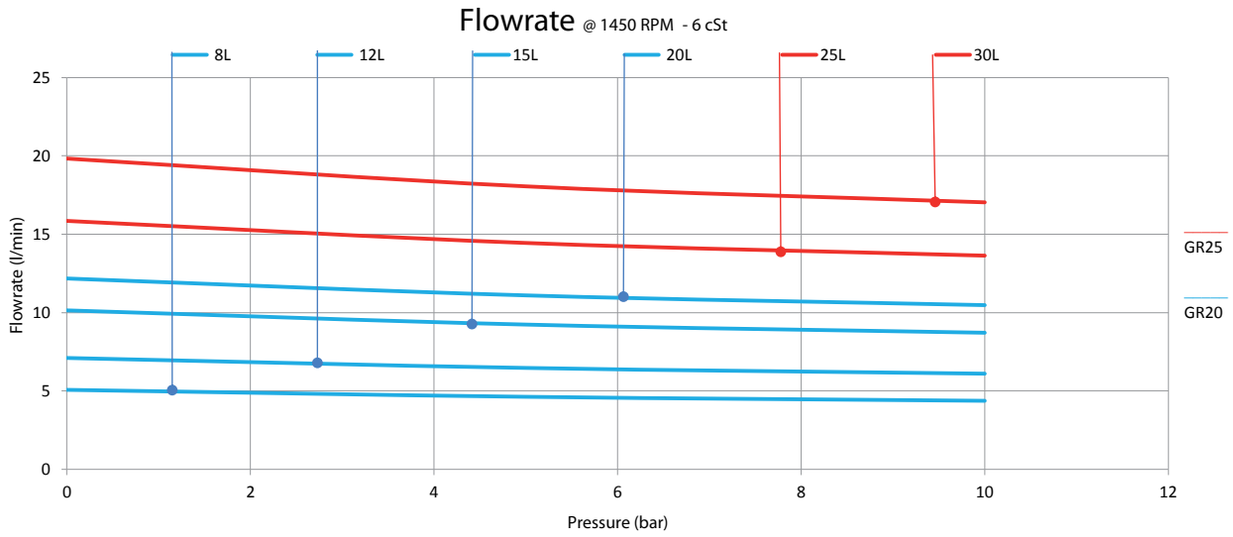
Low pressure (1) fluid applications *Applicazioni fluidi a bassa pressione (1)*	**High viscosity configuration** *Configurazione per elevate viscosità*	**Body material** *Materiale corpo*	**Screw material** *Materiale viti*	**Seals** *Tenute*	**Bearing type** *Tipo cuscinetto*
Diesel fuel, marine distillate fuel, marine residual fuel, low viscosity fuel oil *Diesel, distillati marini, residui, fuel oil a bassa viscosità*		G cast iron ghisa	HA Core hardened steel screws viti in acciaio temprato	TMZ Mechanical seal for fuel oil	*
Heavy fuel oil transfer *Trasferimento di olio combustibile*		G cast iron ghisa	HA Core hardened steel screws viti in acciaio temprato	TMZ Mechanical seal for fuel oil	*
Lube services high viscosity *Lubrificazione ad alta viscosità*	Standard up to/fino a 100 cSt (none) S1 from/da 100 cSt to/a 250 cSt S2 from/da 250 cSt to/a 500 cSt S3 from/da 500 cSt to/a 800 cSt S4 over/oltre 800 cSt	*	*	*/TM Mechanical seal for oil	*
Water glicole emulsion (low % of water (1)) *Emulsioni acqua-glicole (bassa % di acqua (1))*		G cast iron ghisa	HA Core hardened steel screws viti in acciaio temprato	TMK Mechanical seal for water and glycole and coolant fluids	CS encapsulated ball bearing cuscinetto schermato

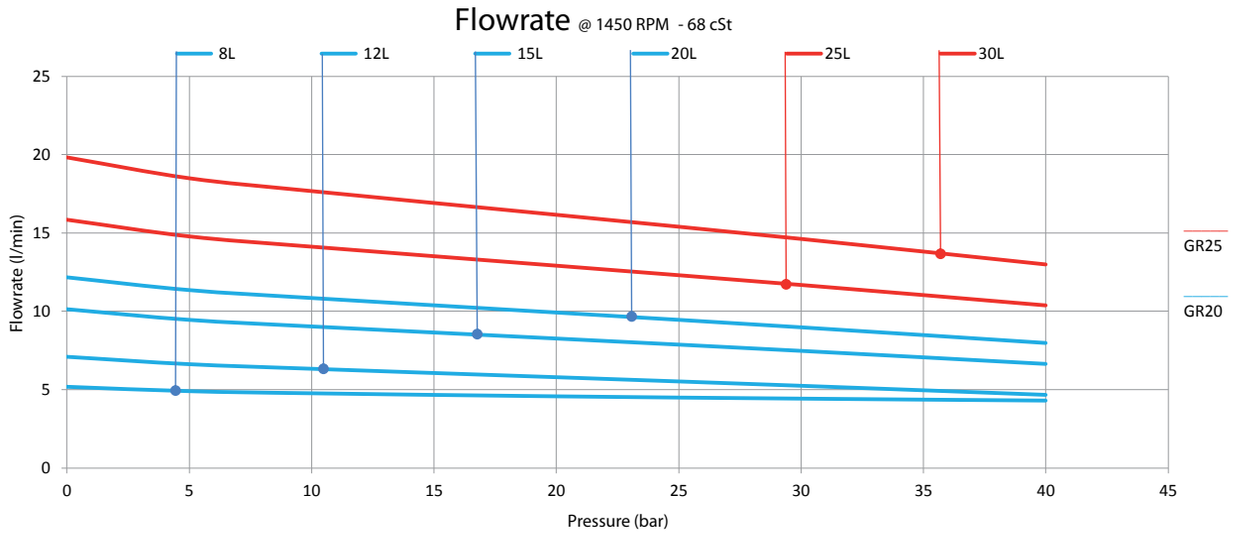
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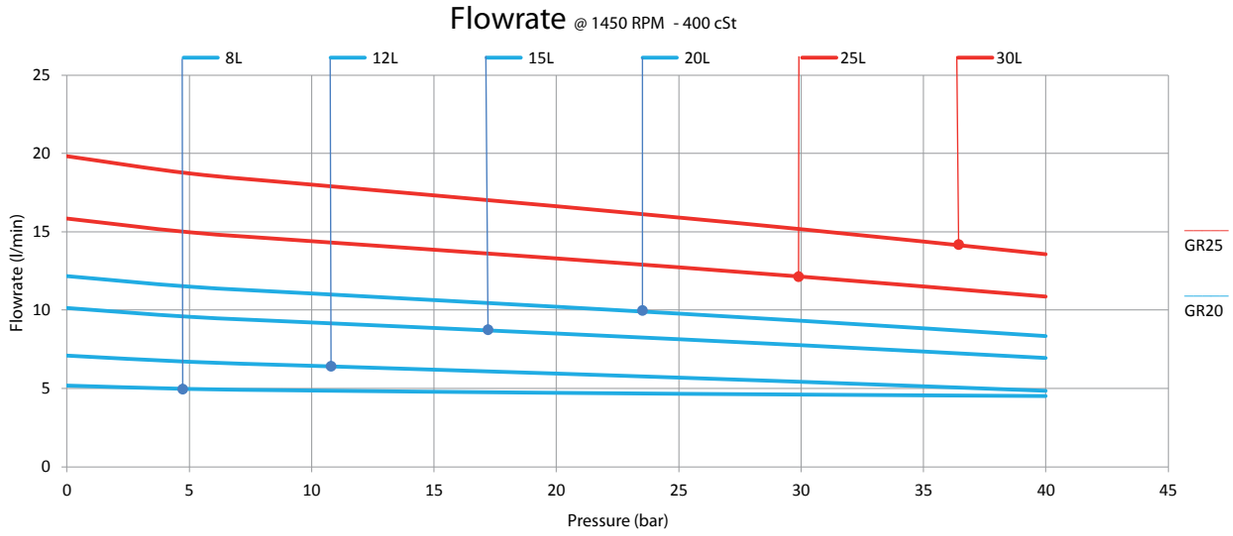
(1) Contact Settima for high pressure, speed and fluid temperature applications. *Contattare Settima per applicazioni ad alta pressione, velocità e temperatura fluido.*

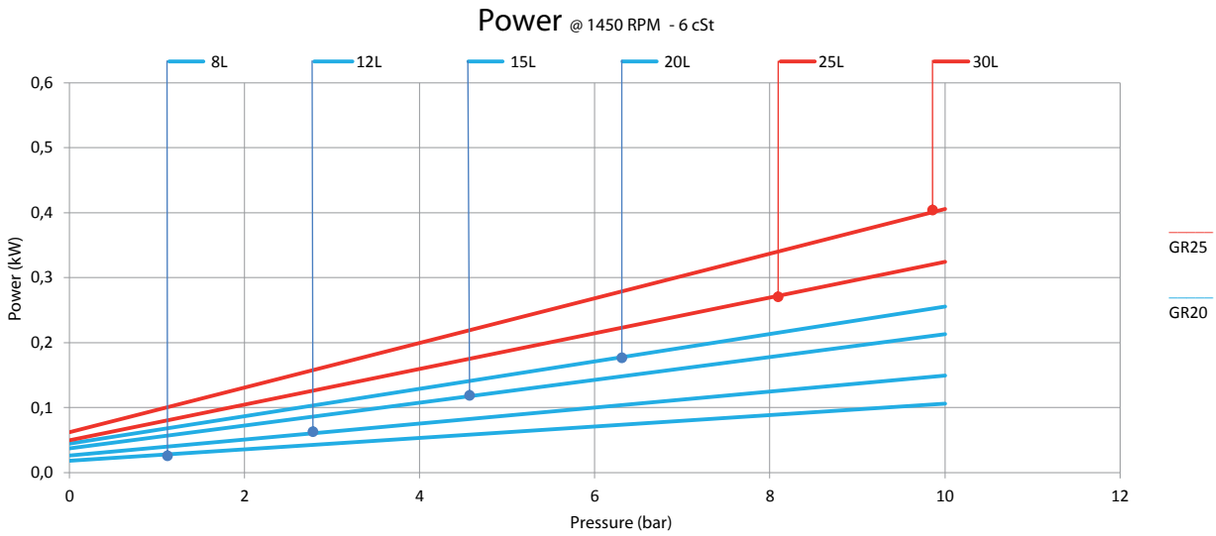
*Standard configuration and material. *Confgurazione e materiali standard.*

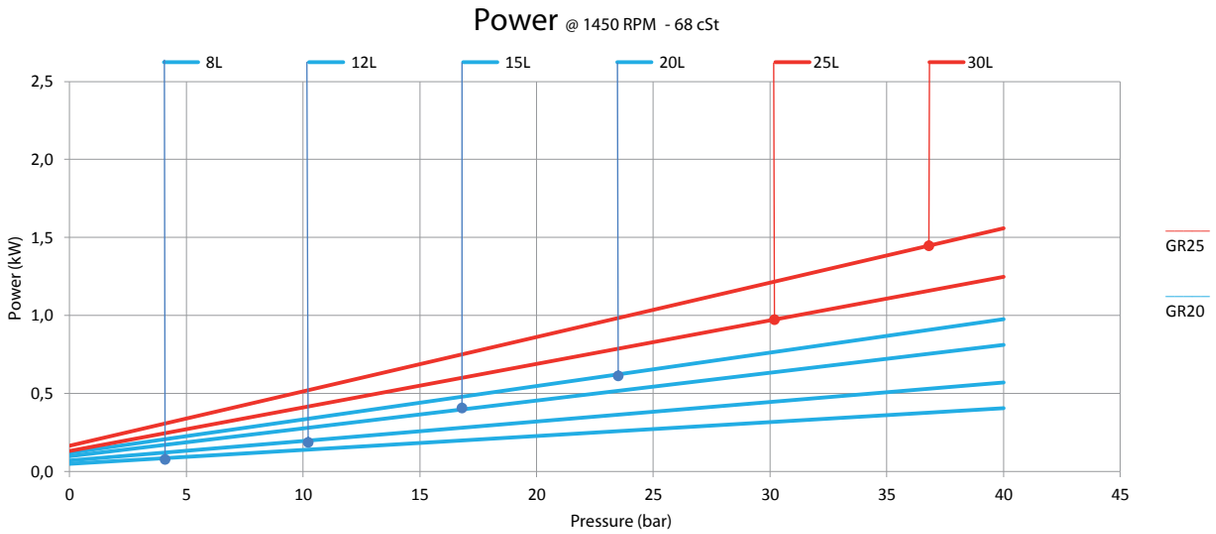
Performances @ 1500 - GR 20-25

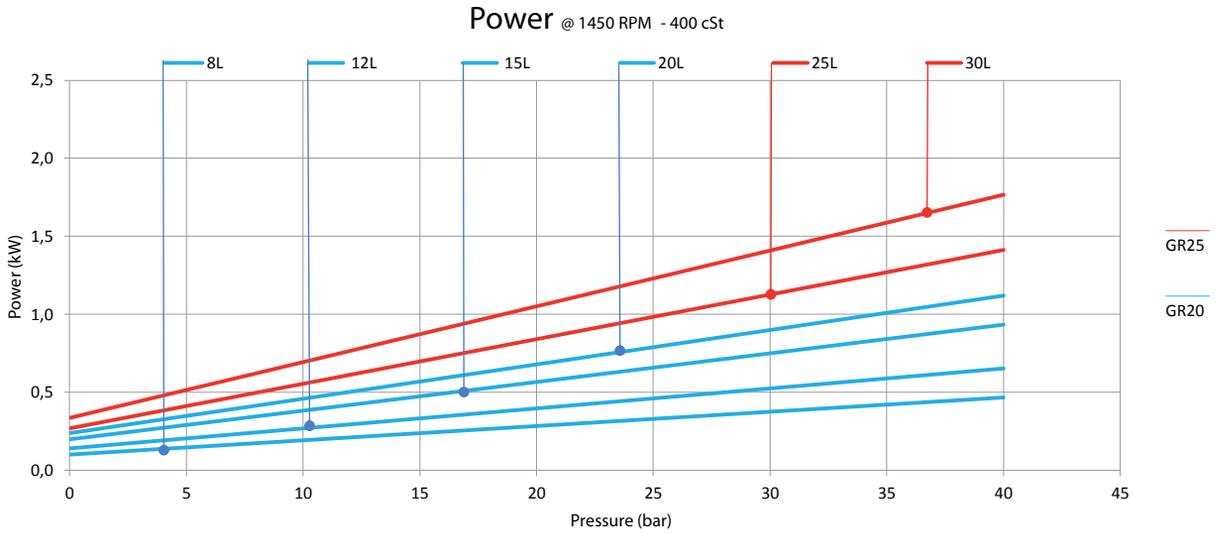




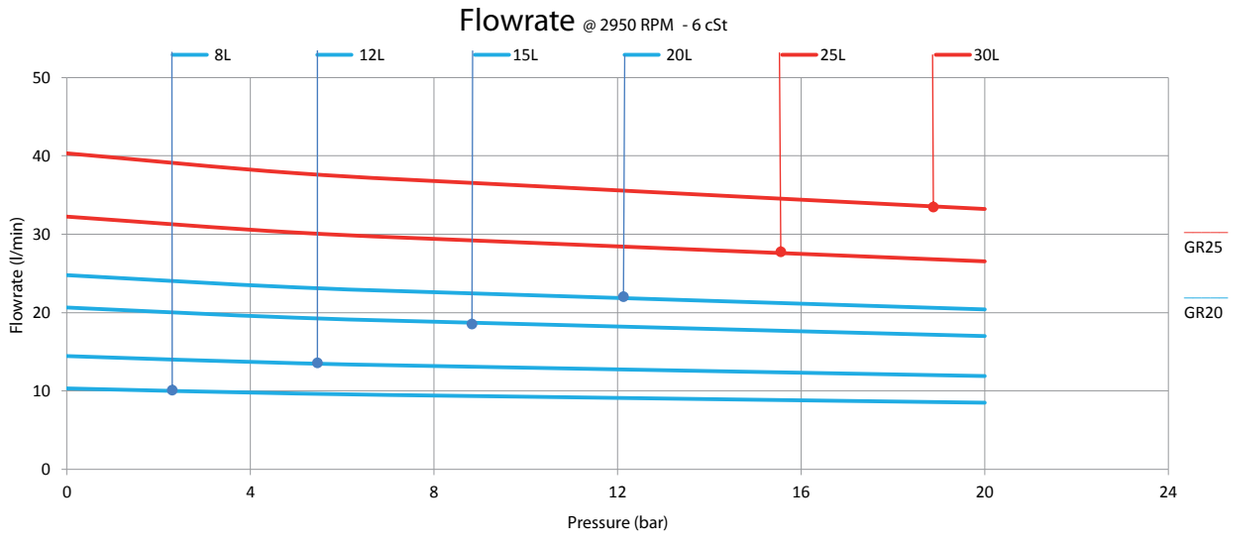


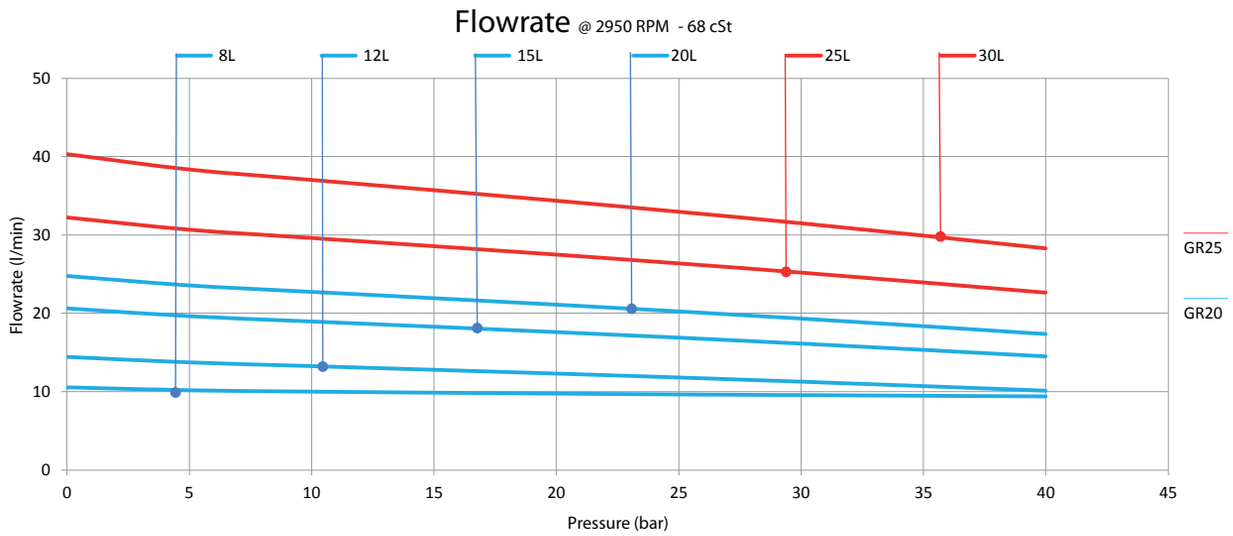

Power @ 1450 RPM - 6 cSt
8L
12L
15L
20L
25L
30L
Power (kW)
0,0
0,1
0,2
0,3
0,4
0,5
0,6
0
2
4
6
8
10
12
Pressure (bar)
GR25
GR20

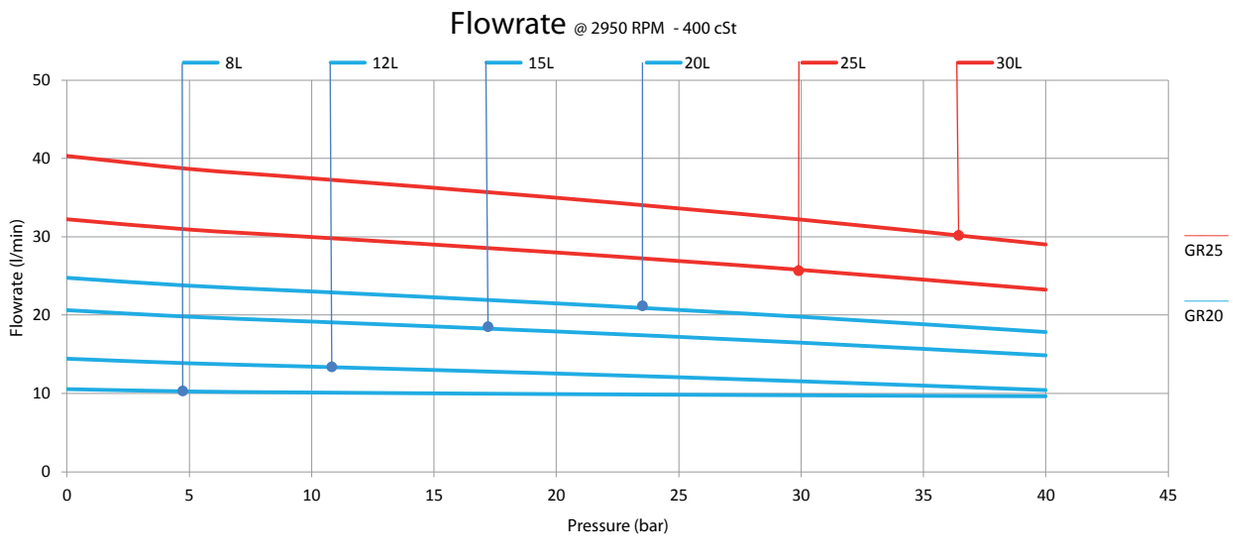

Power @ 1450 RPM - 68 cSt
8L
12L
15L
20L
25L
30L
Power (kW)
0,0
0,5
1,0
1,5
2,0
2,5
0
5
10
15
20
25
30
35
40
45
Pressure (bar)
GR25
GR20


Power @ 1450 RPM - 400 cSt
8L
12L
15L
20L
25L
30L
Power (kW)
0,0
0,5
1,0
1,5
2,0
2,5
0
5
10
15
20
25
30
35
40
45
Pressure (bar)
GR25
GR20

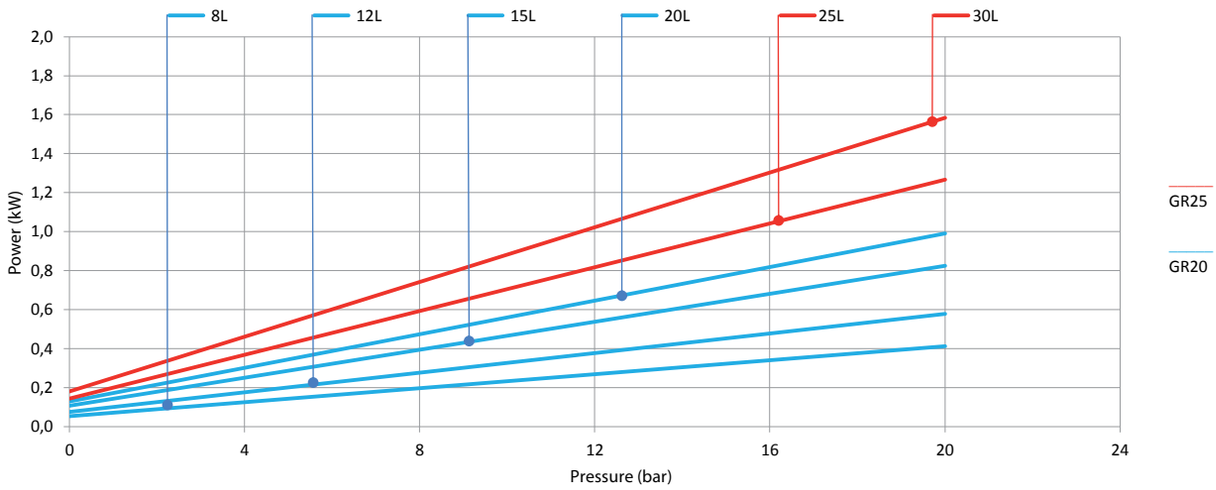
Performances @ 3000 - GR 20-25



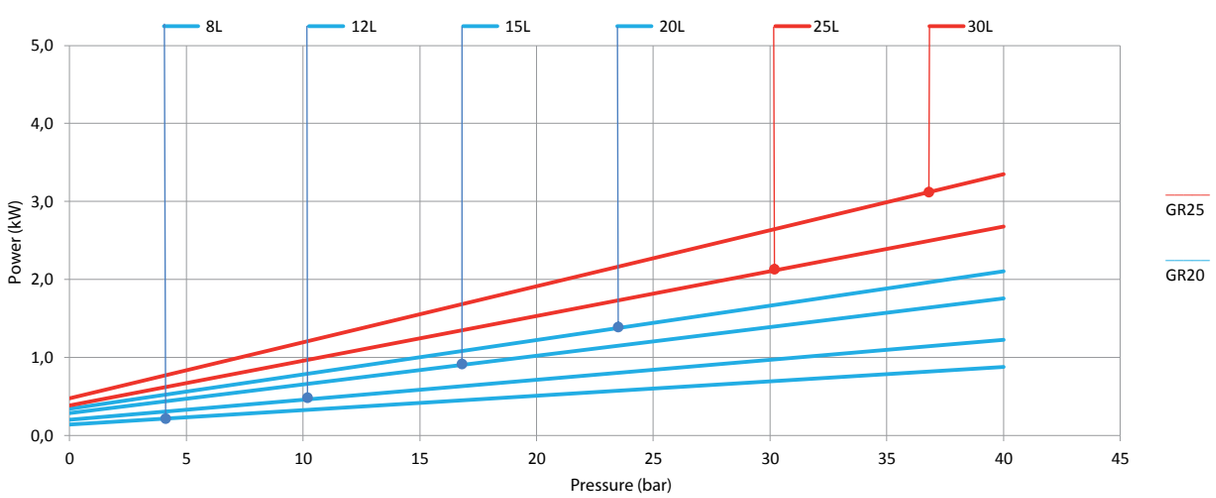




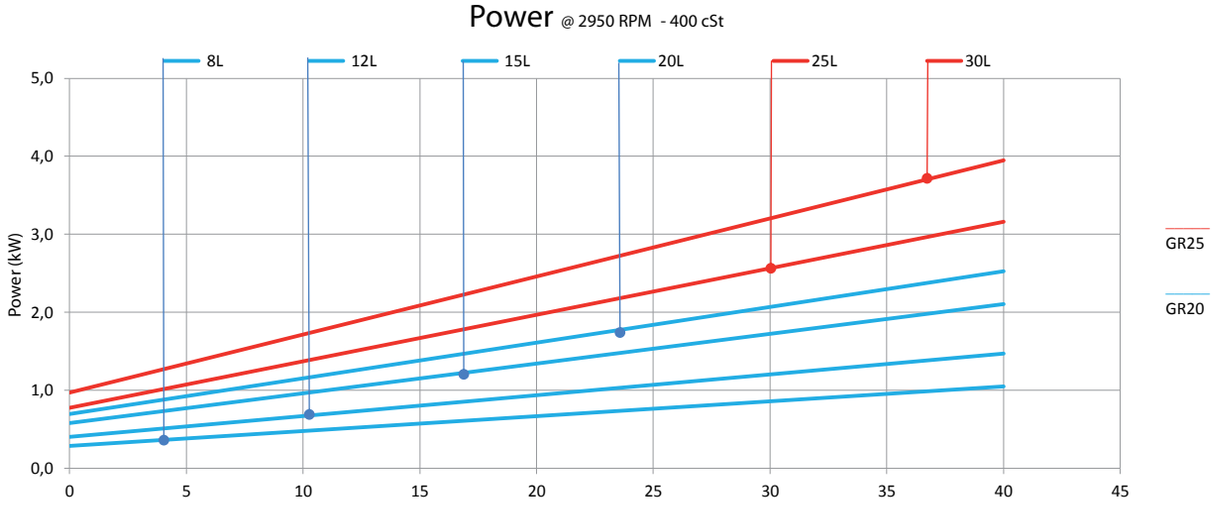
Power @ 2950 RPM - 6 cSt



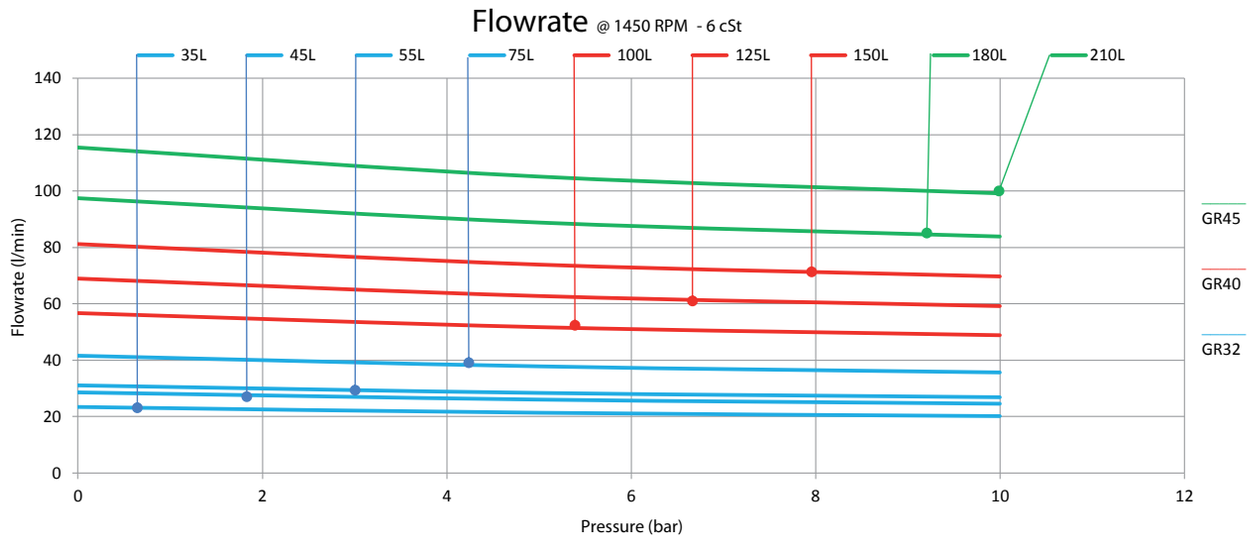
Power @ 2950 RPM - 68 cSt

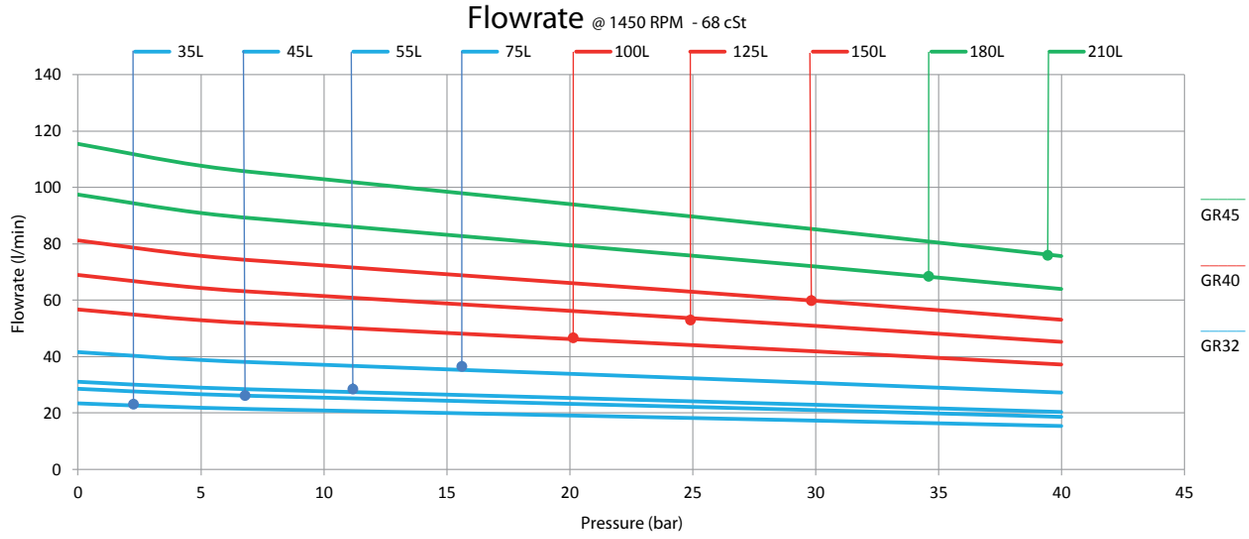


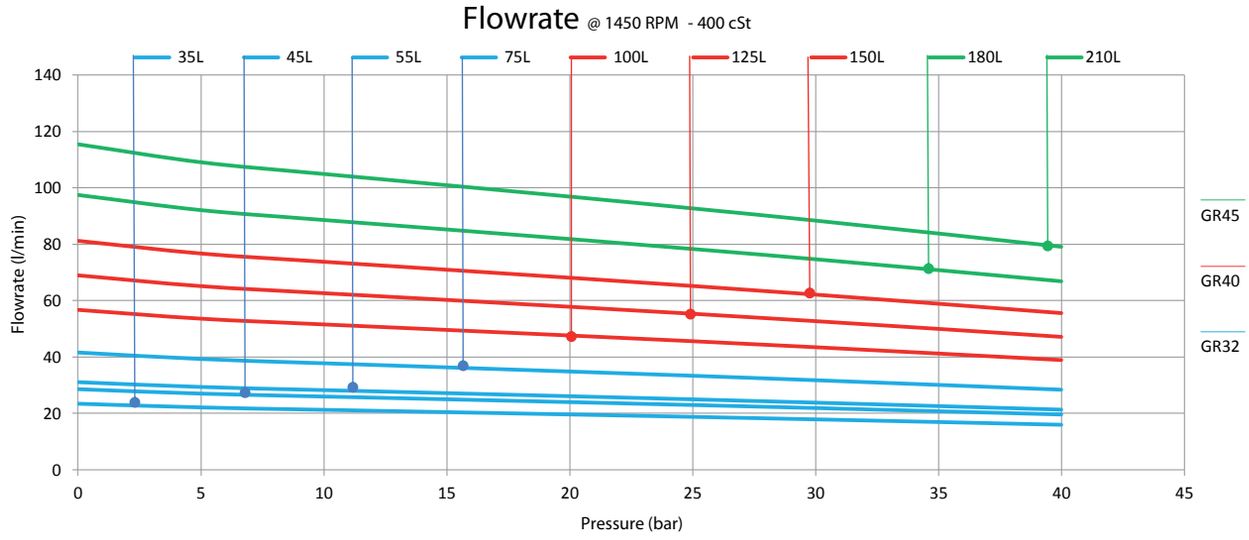
Power @ 2950 RPM - 400 cSt



Performances @ 1500 - GR 32-40-45

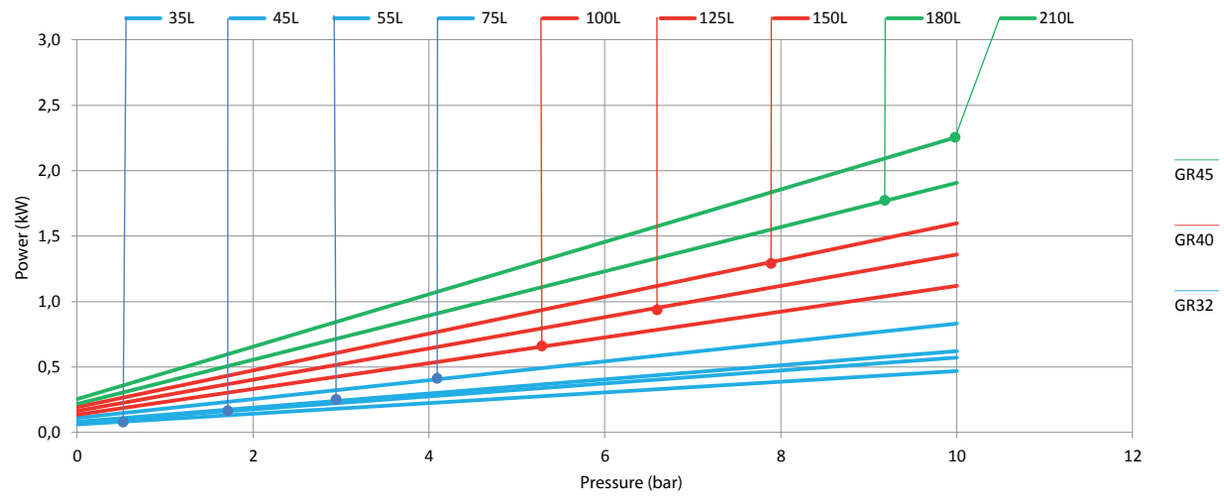




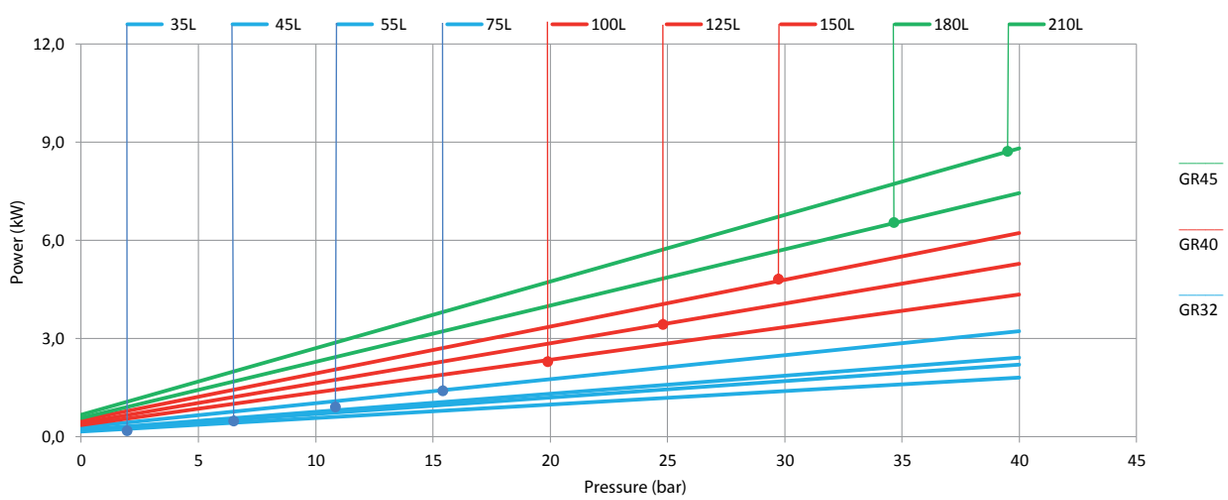


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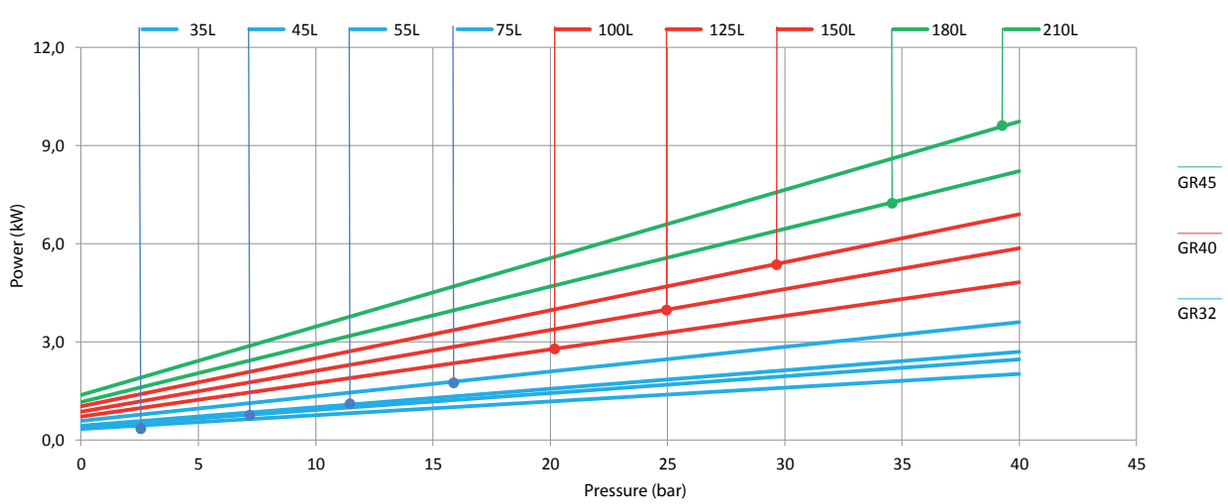
Power @ 1450 RPM - 6 cSt



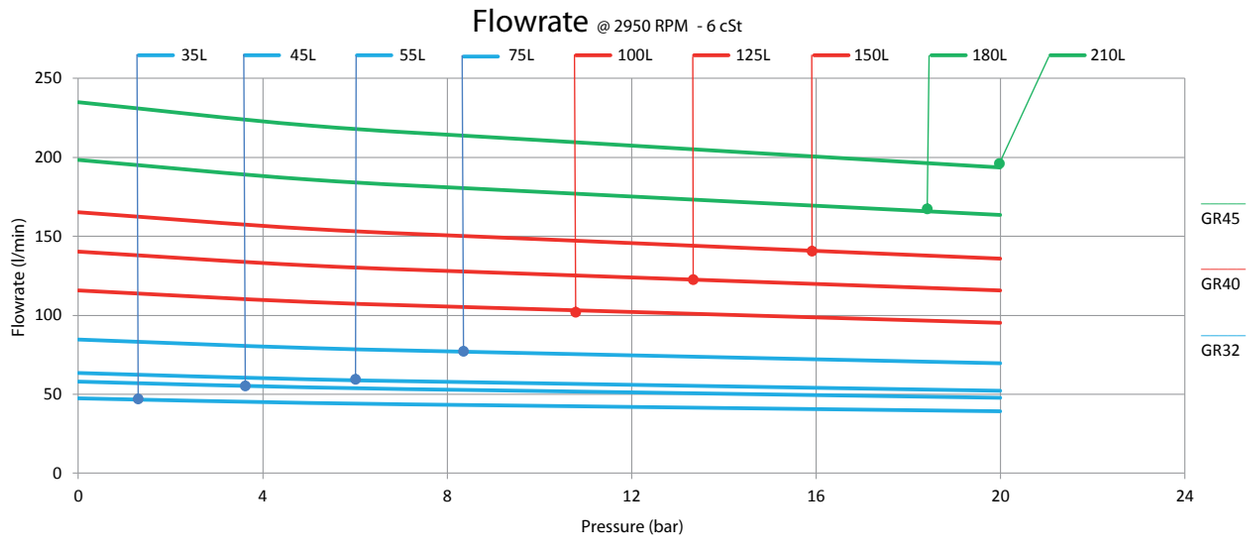
Power @ 1450 RPM - 68 cSt

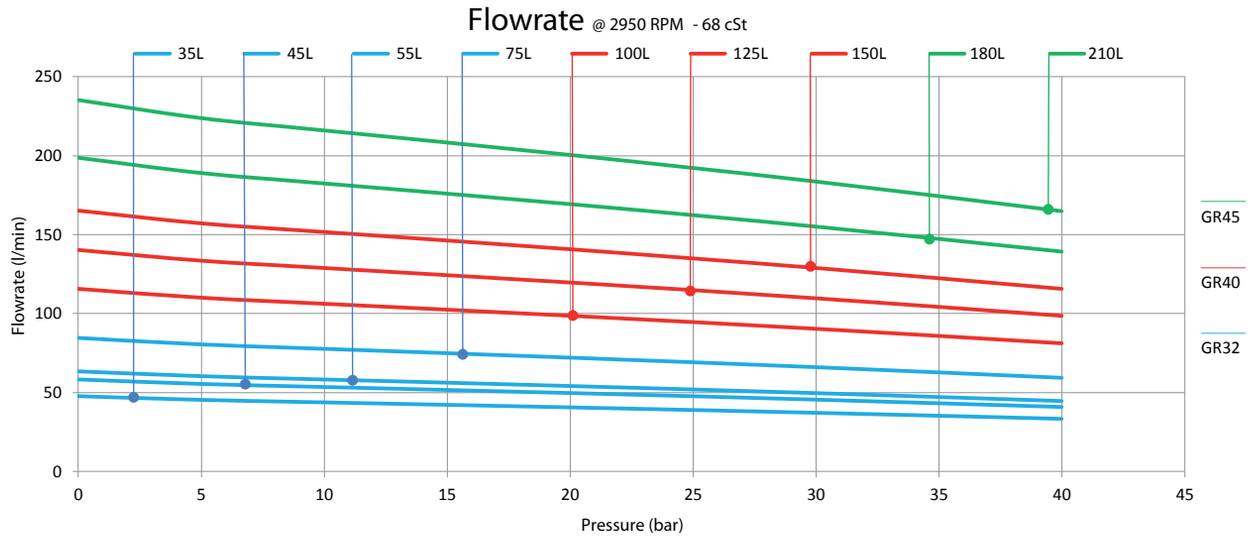


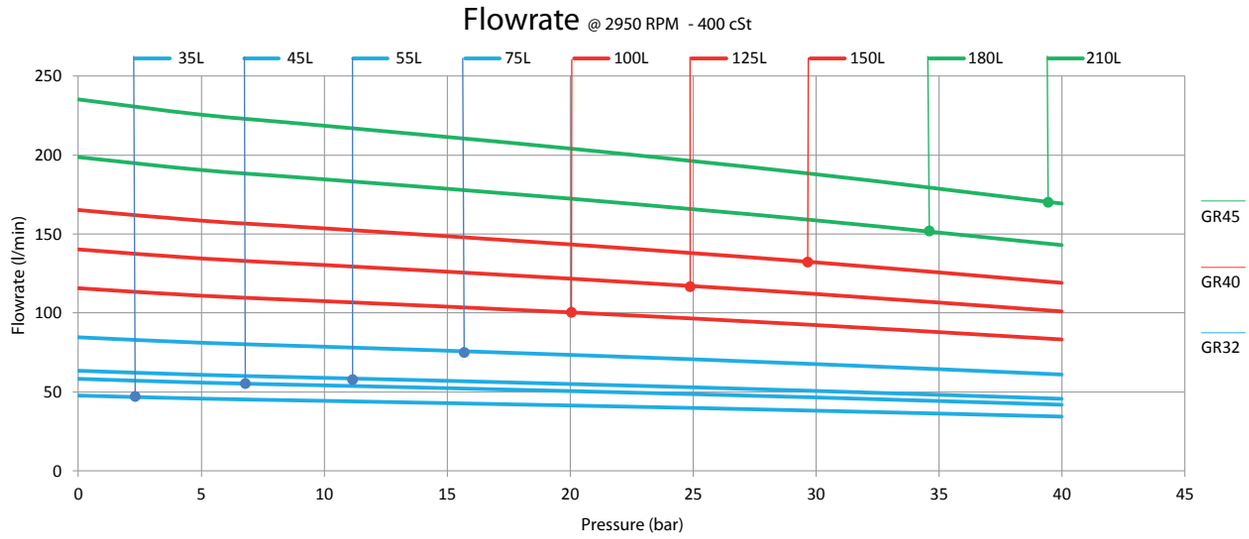
Power @ 1450 RPM - 400 cSt



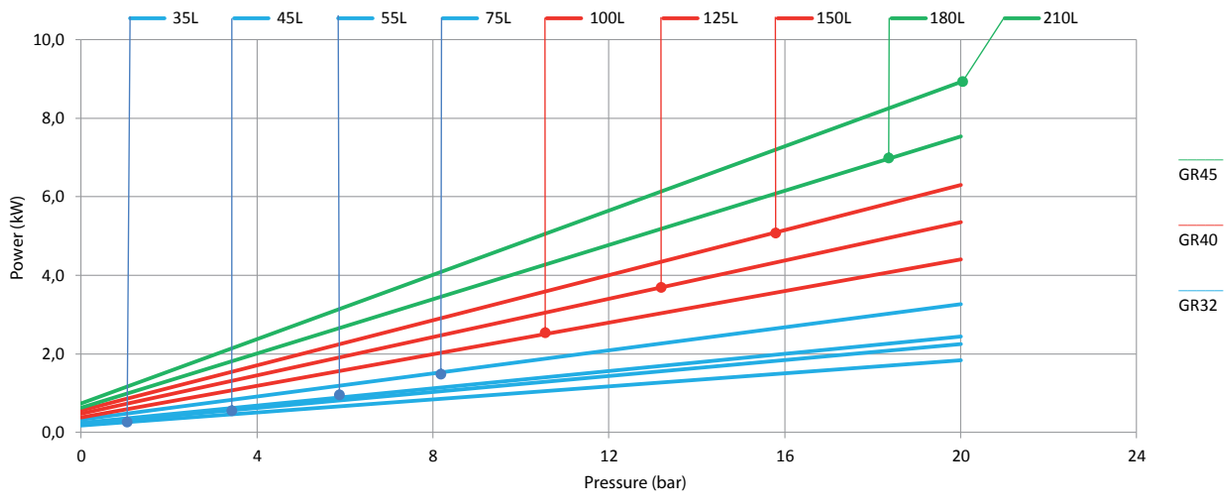
Performances @ 3000 - GR 32-40-45



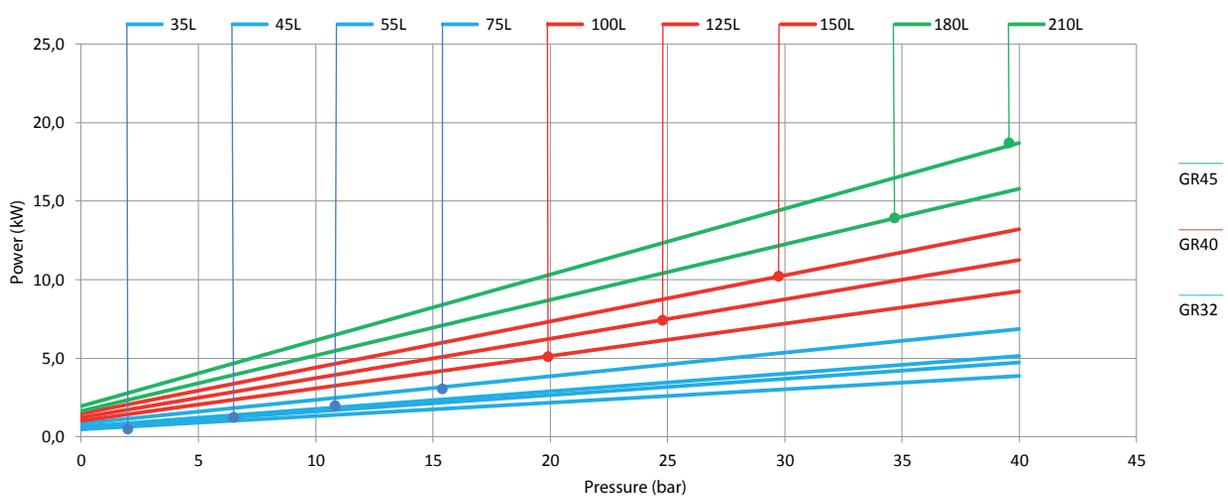




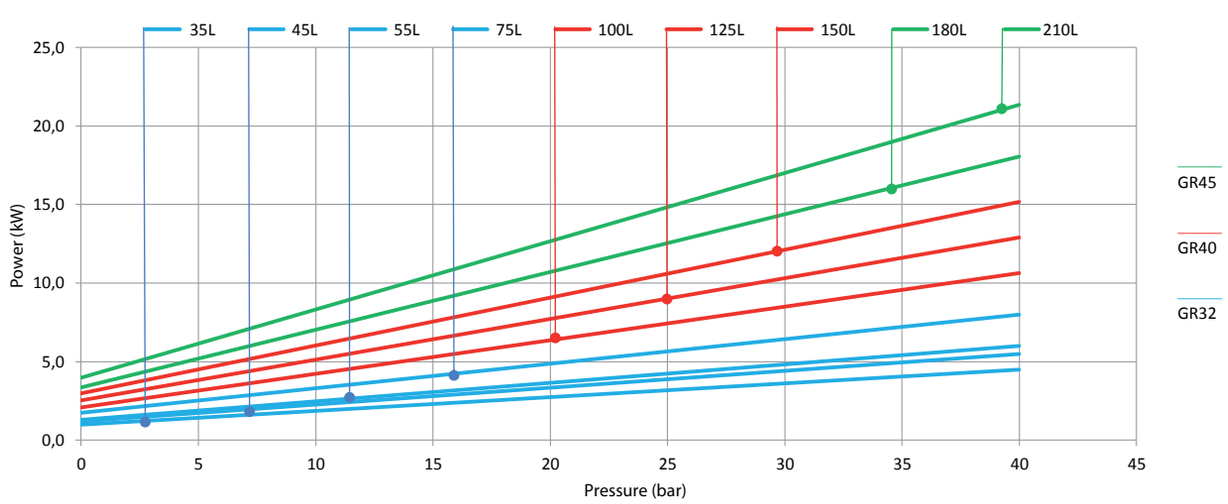
Power @ 2950 RPM - 6 cSt



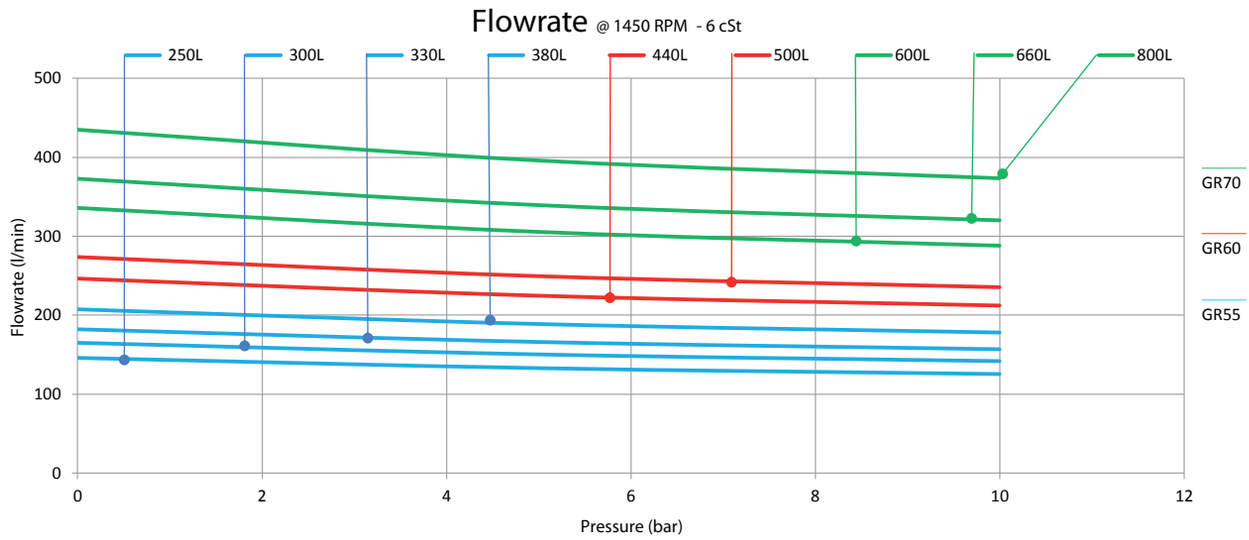
Power @ 2950 RPM - 68 cSt

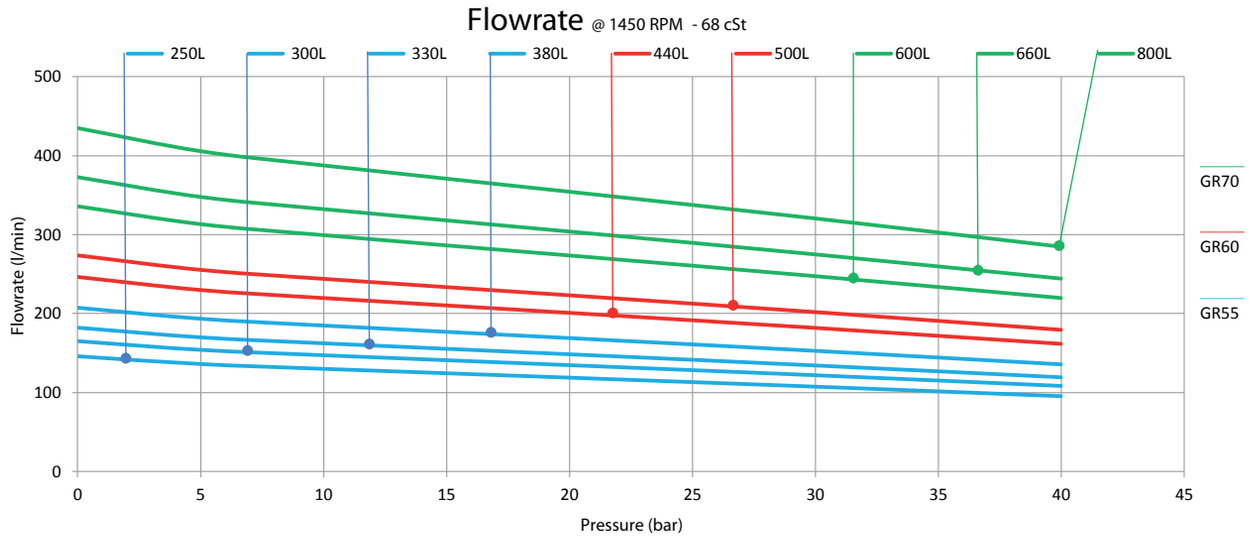


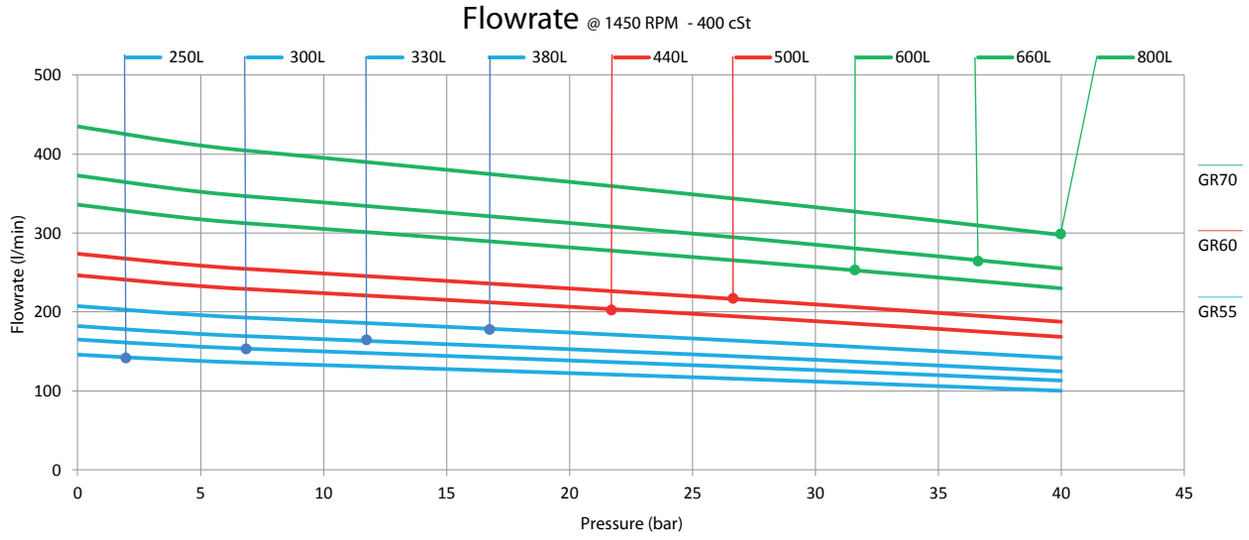
Power @ 2950 RPM - 400 cSt

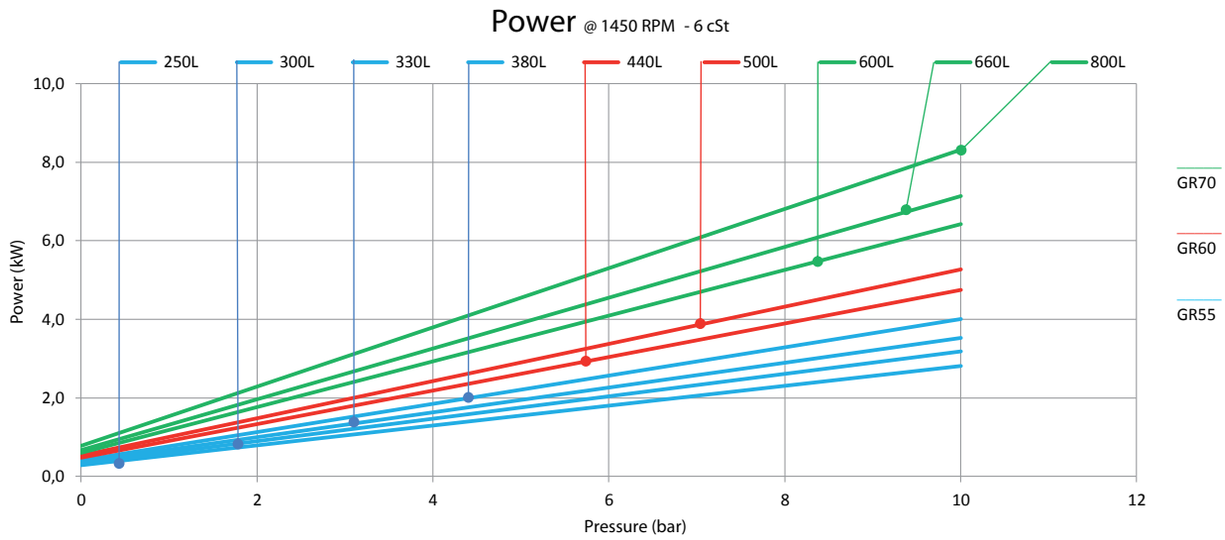


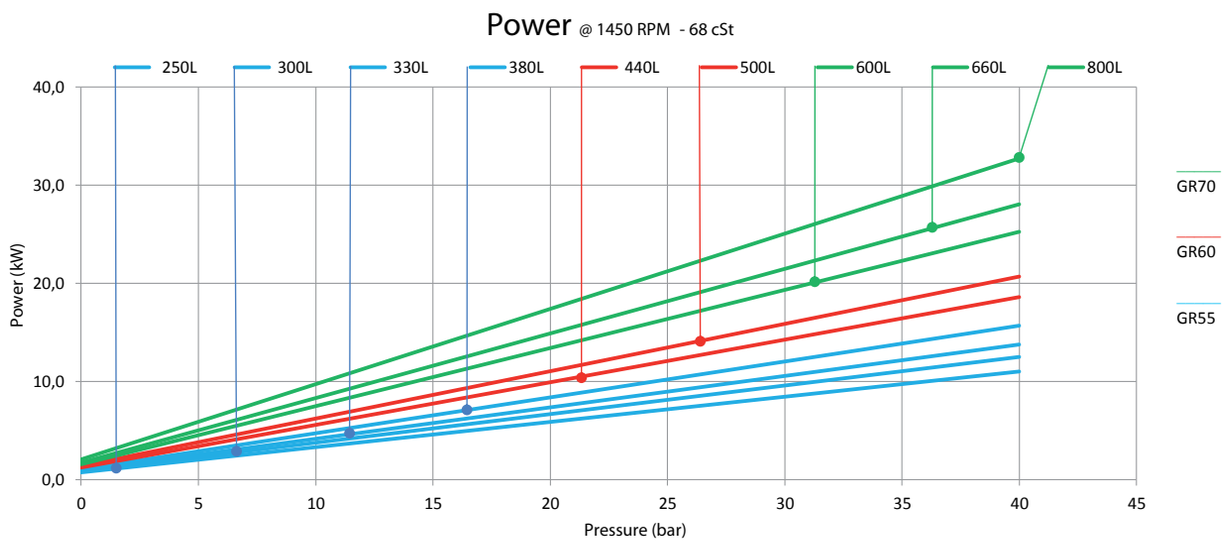
Performances @ 1500 - GR 55-60-70

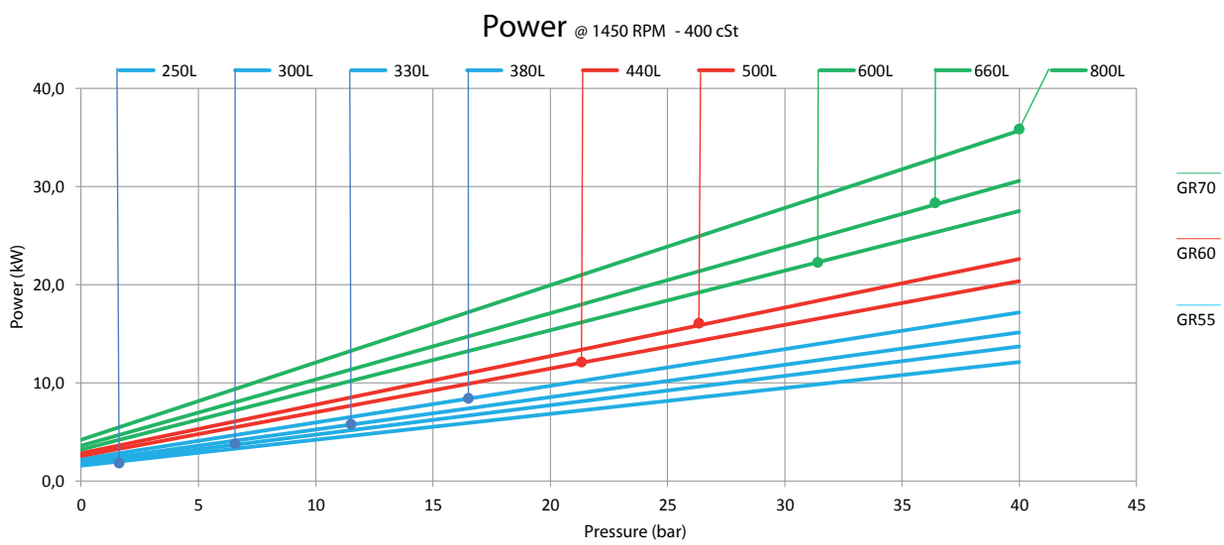




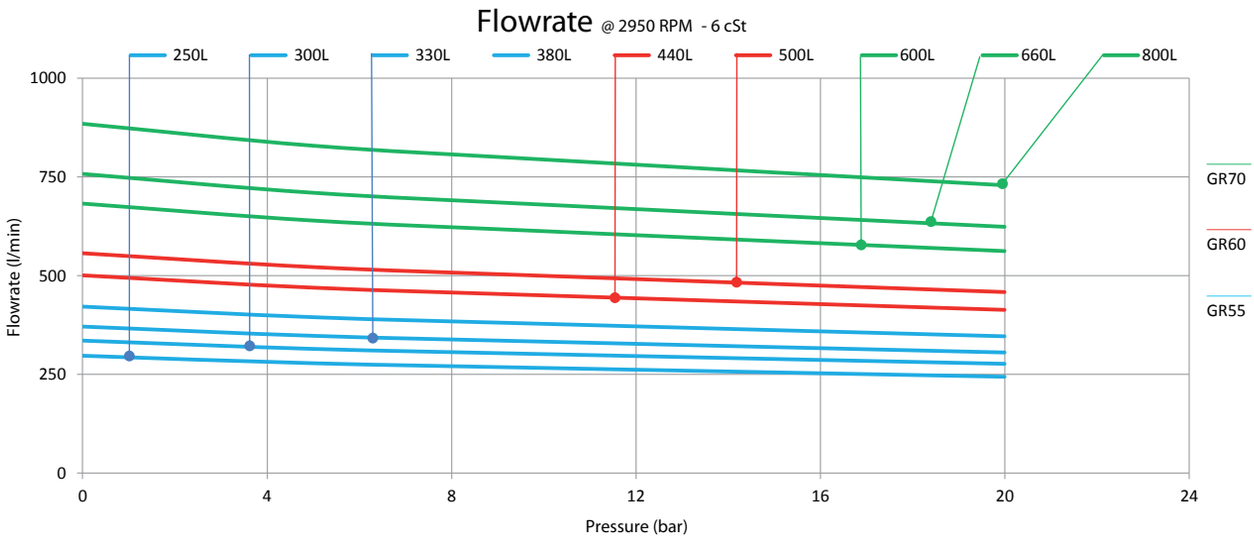


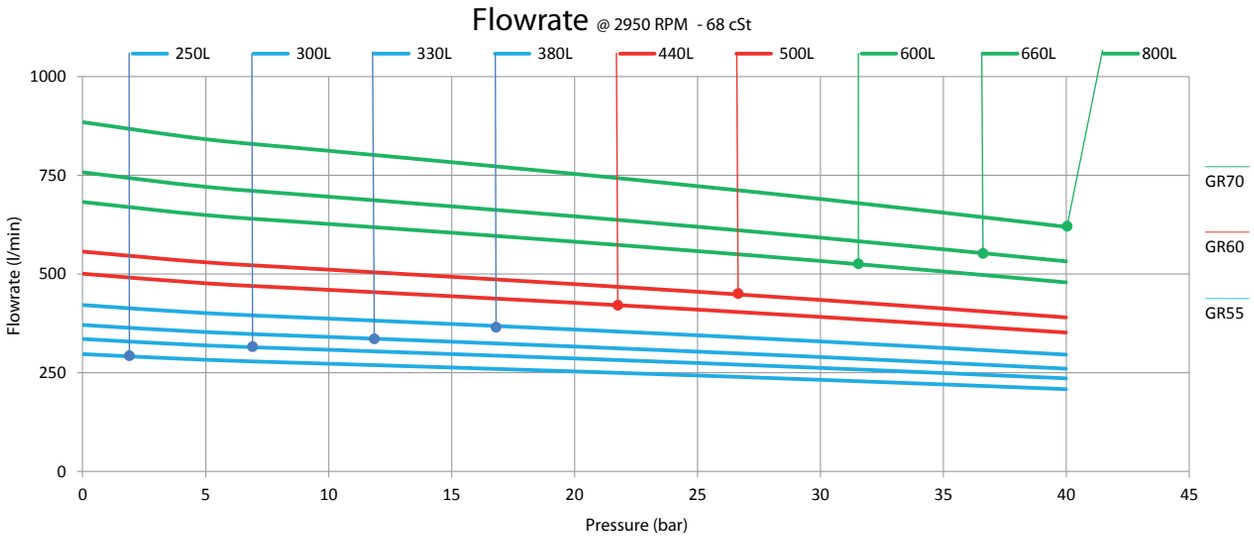

Power @ 1450 RPM - 6 cSt
250L
300L
330L
380L
440L
500L
600L
660L
800L
10,0
8,0
6,0
4,0
2,0
0,0
Power (kW)
0
2
4
6
8
10
12
Pressure (bar)
GR70
GR60
GR55

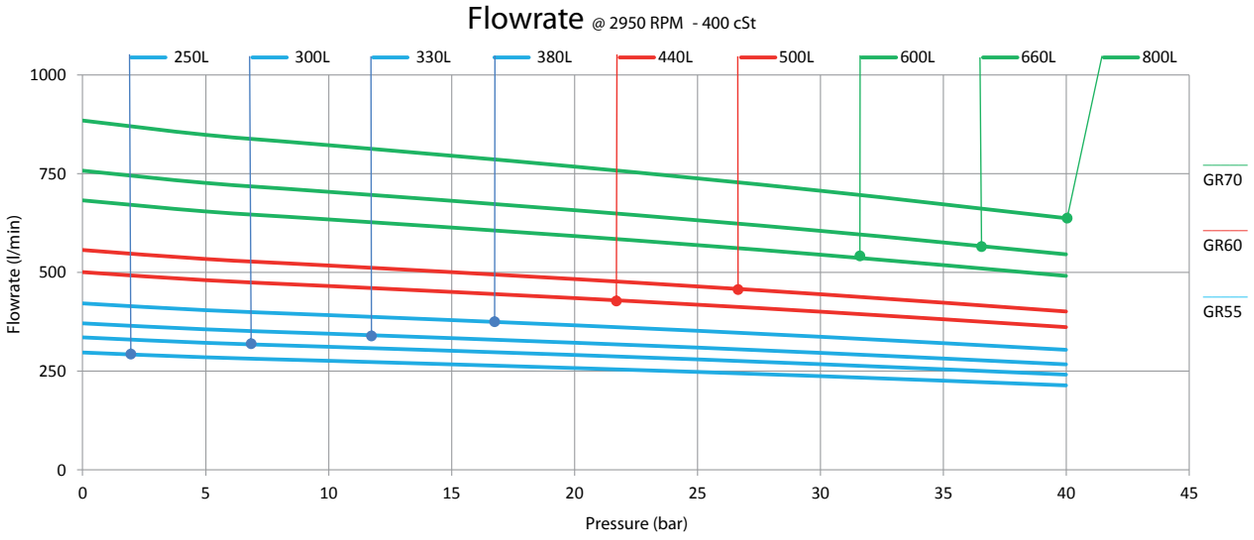

Power @ 1450 RPM - 68 cSt
250L
300L
330L
380L
440L
500L
600L
660L
800L
40,0
30,0
20,0
10,0
0,0
Power (kW)
0
5
10
15
20
25
30
35
40
45
Pressure (bar)
GR70
GR60
GR55

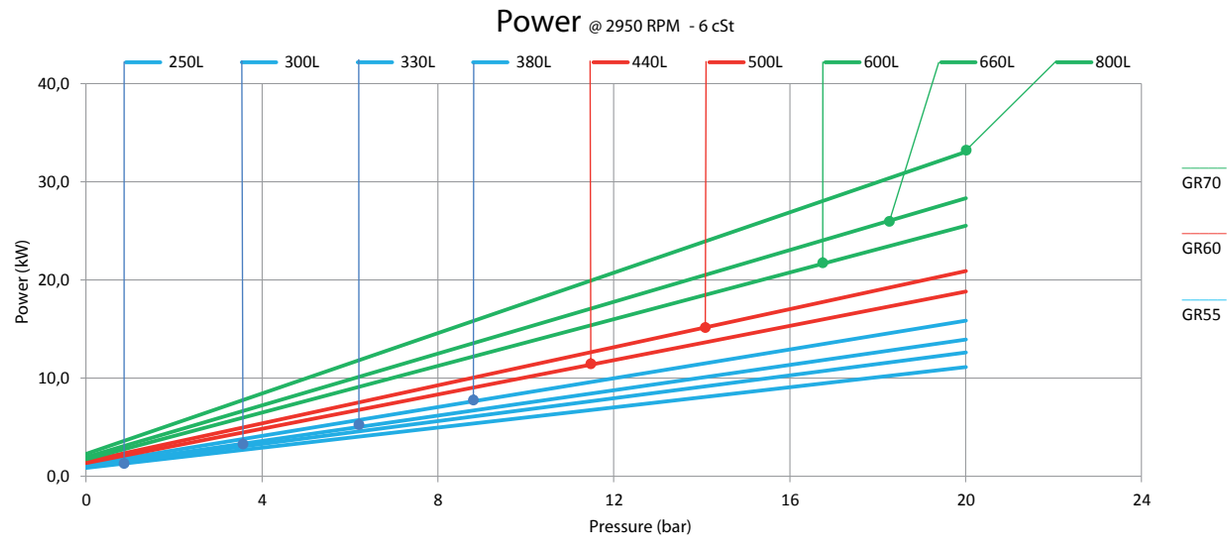

Power @ 1450 RPM - 400 cSt
250L
300L
330L
380L
440L
500L
600L
660L
800L
40,0
30,0
20,0
10,0
0,0
Power (kW)
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5
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Pressure (bar)
GR70
GR60
GR55

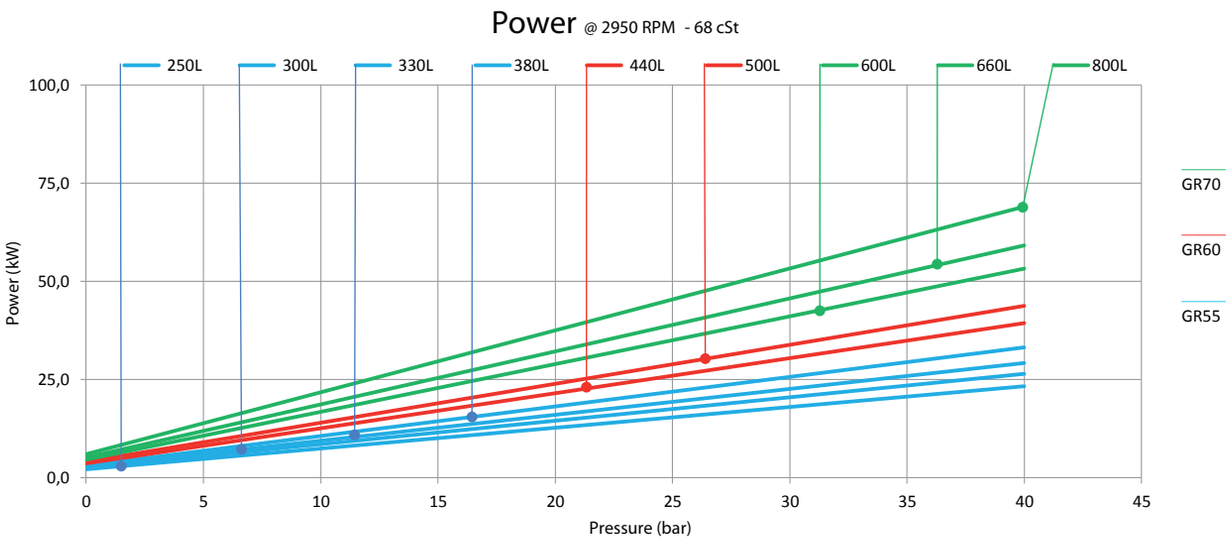
Performances @ 3000 - GR 55-60-70

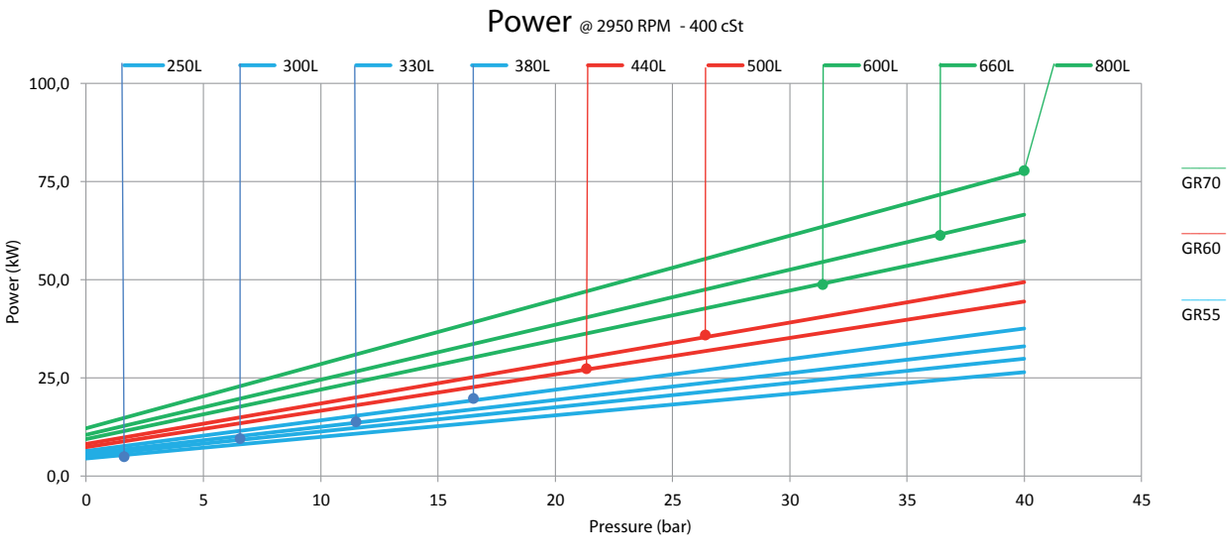




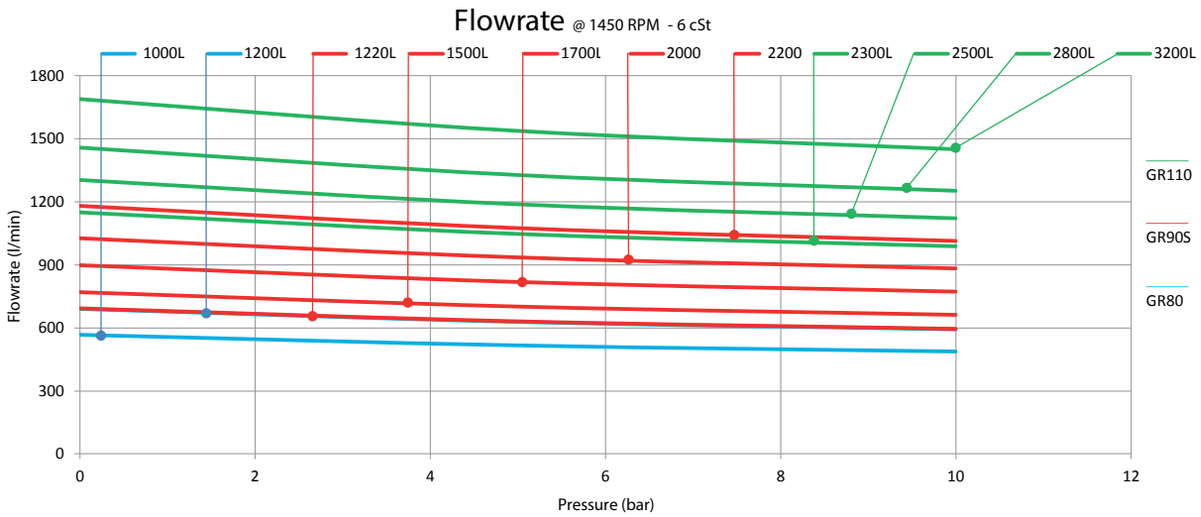


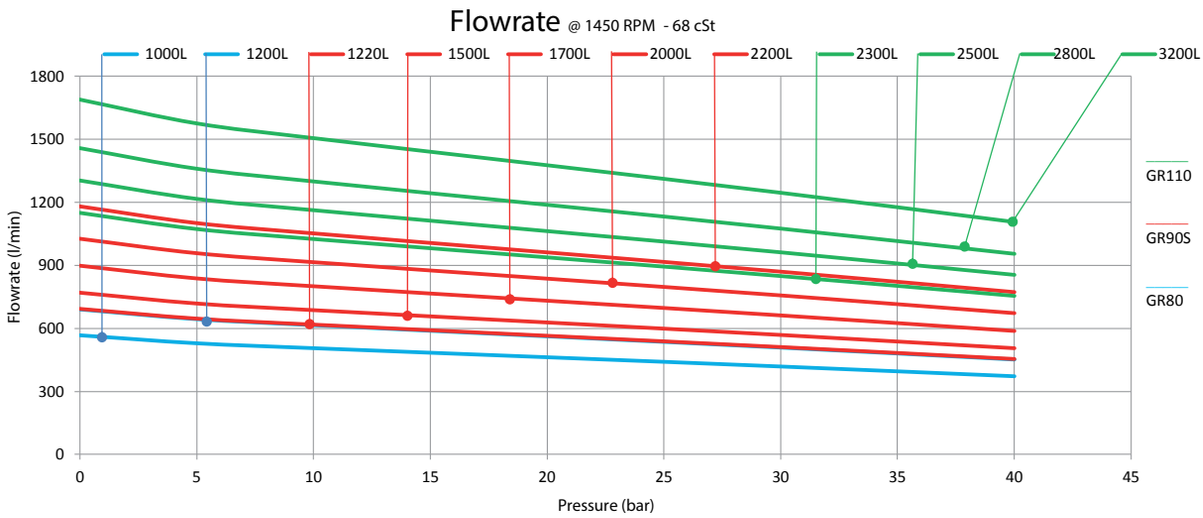

Power @ 2950 RPM - 6 cSt
250L
300L
330L
380L
440L
500L
600L
660L
800L
40,0
30,0
20,0
10,0
0,0
Power (kW)
0
4
8
12
16
20
24
Pressure (bar)
GR70
GR60
GR55

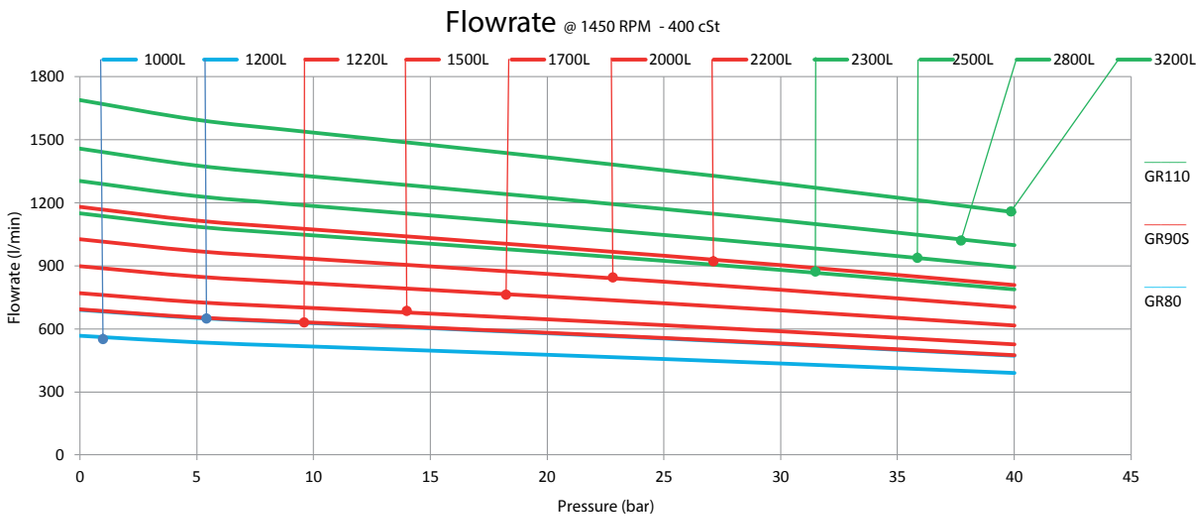

Power @ 2950 RPM - 68 cSt
250L
300L
330L
380L
440L
500L
600L
660L
800L
100,0
75,0
50,0
25,0
0,0
Power (kW)
0
5
10
15
20
25
30
35
40
45
Pressure (bar)
GR70
GR60
GR55


Power @ 2950 RPM - 400 cSt
250L
300L
330L
380L
440L
500L
600L
660L
800L
100,0
75,0
50,0
25,0
0,0
Power (kW)
0
5
10
15
20
25
30
35
40
45
Pressure (bar)
GR70
GR60
GR55

Performances @ 1500 - GR 80-90S-110

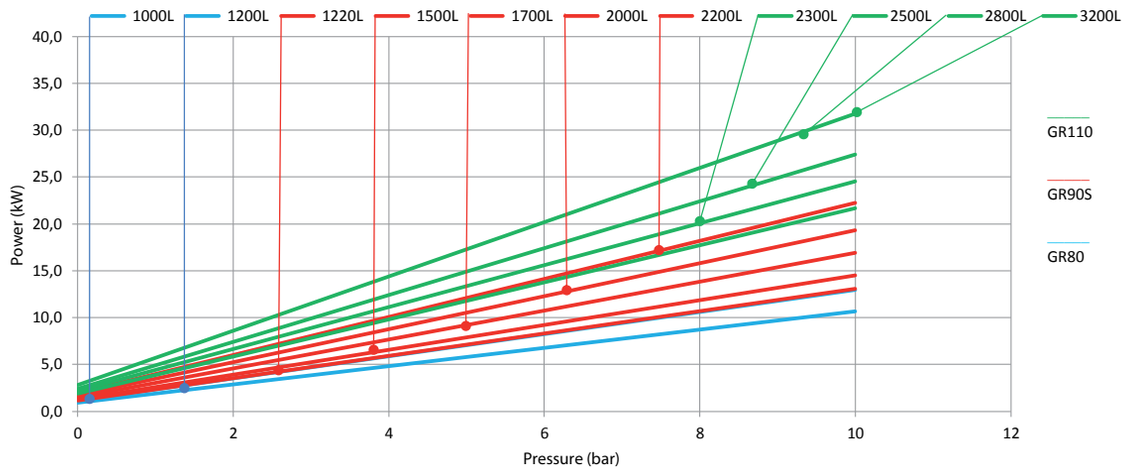




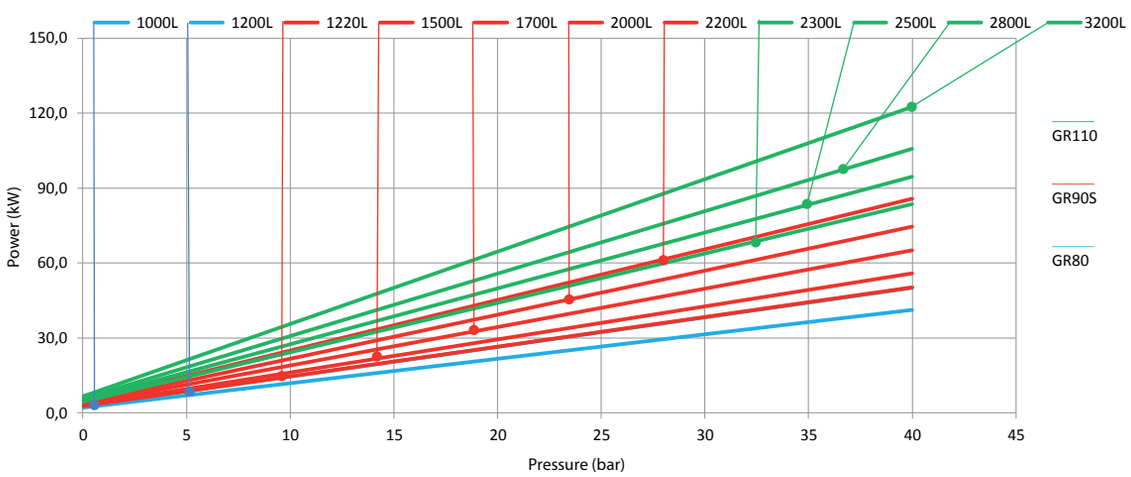


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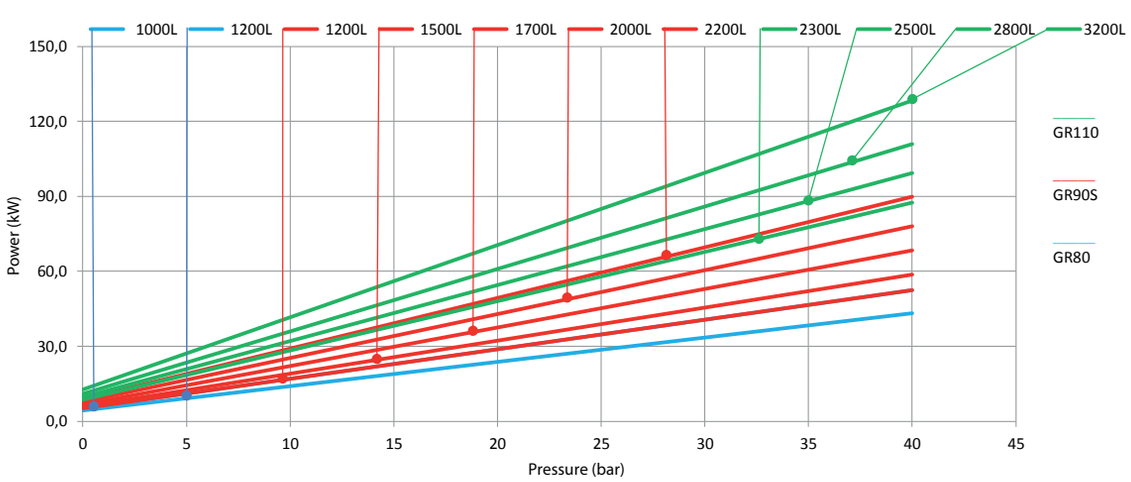
Power @ 1450 RPM - 6 cSt



Power @ 1450 RPM - 68 cSt

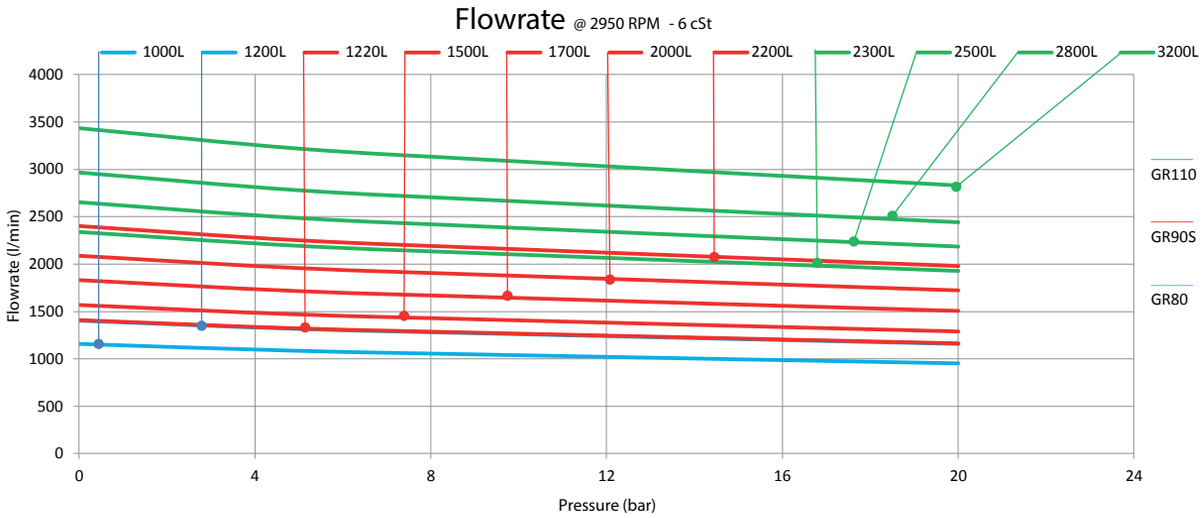


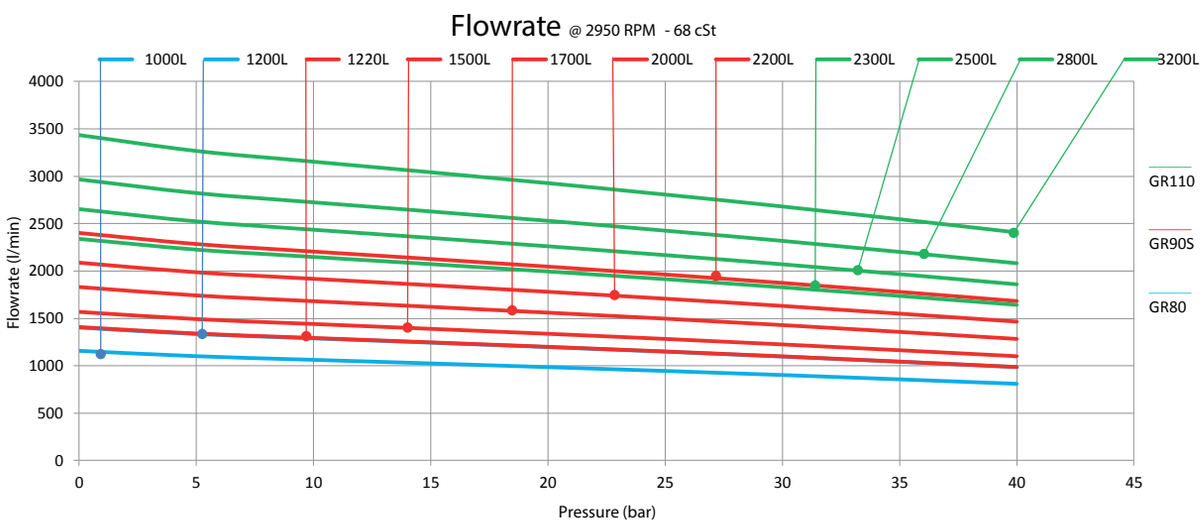
Power @ 1450 RPM - 400 cSt

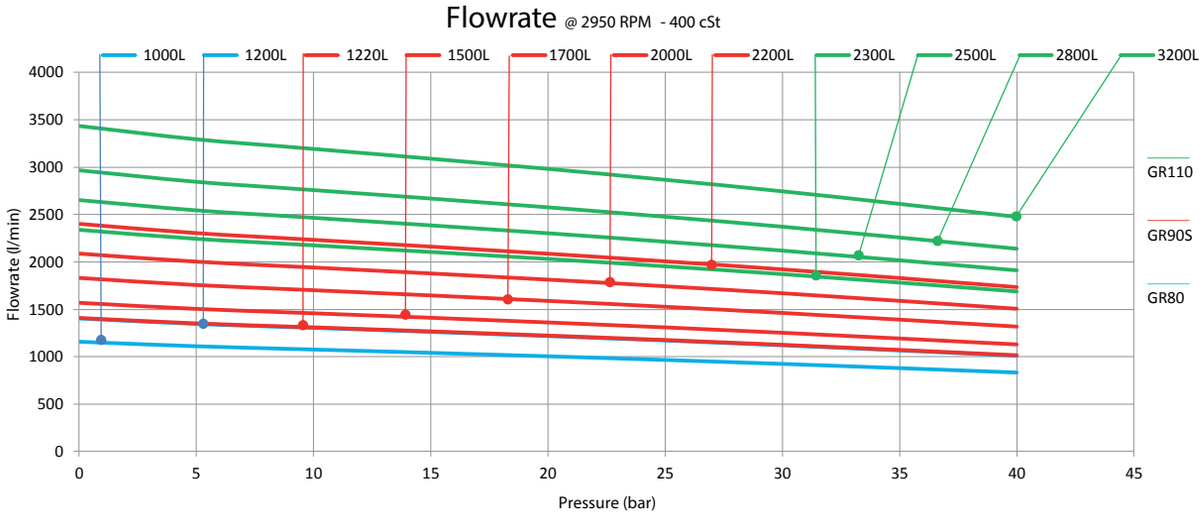


Performances @ 3000 - GR 80-90S-110

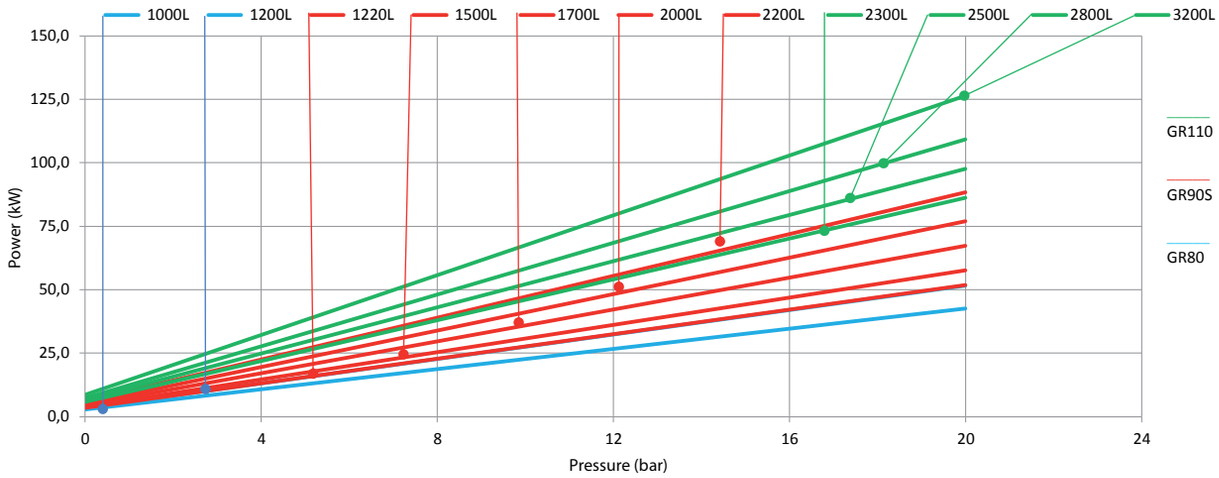
For shaft speed lower than 1.000 rpm and over 1.800 rpm please contact Settima.
Per velocità inferiori a 1.000 rpm e maggiori di 1.800 rpm contattare Settima.



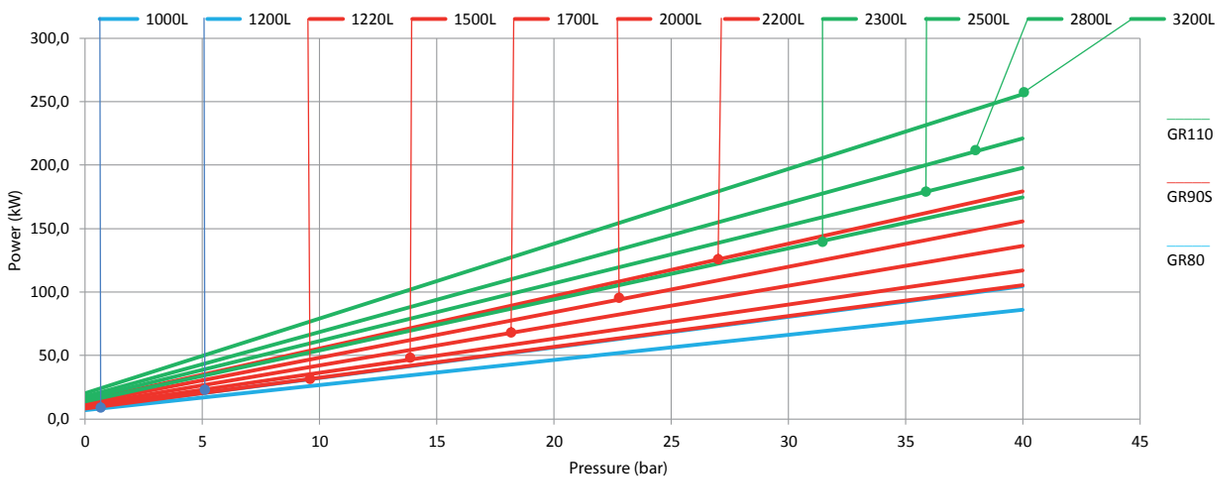




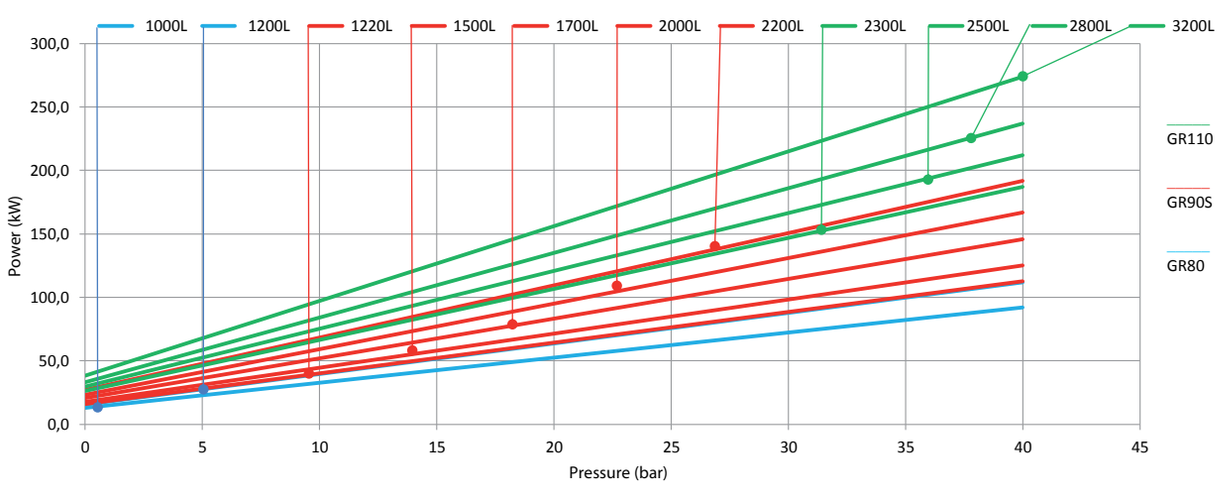
Power @ 2950 RPM - 6 cSt



Power @ 2950 RPM - 68 cSt

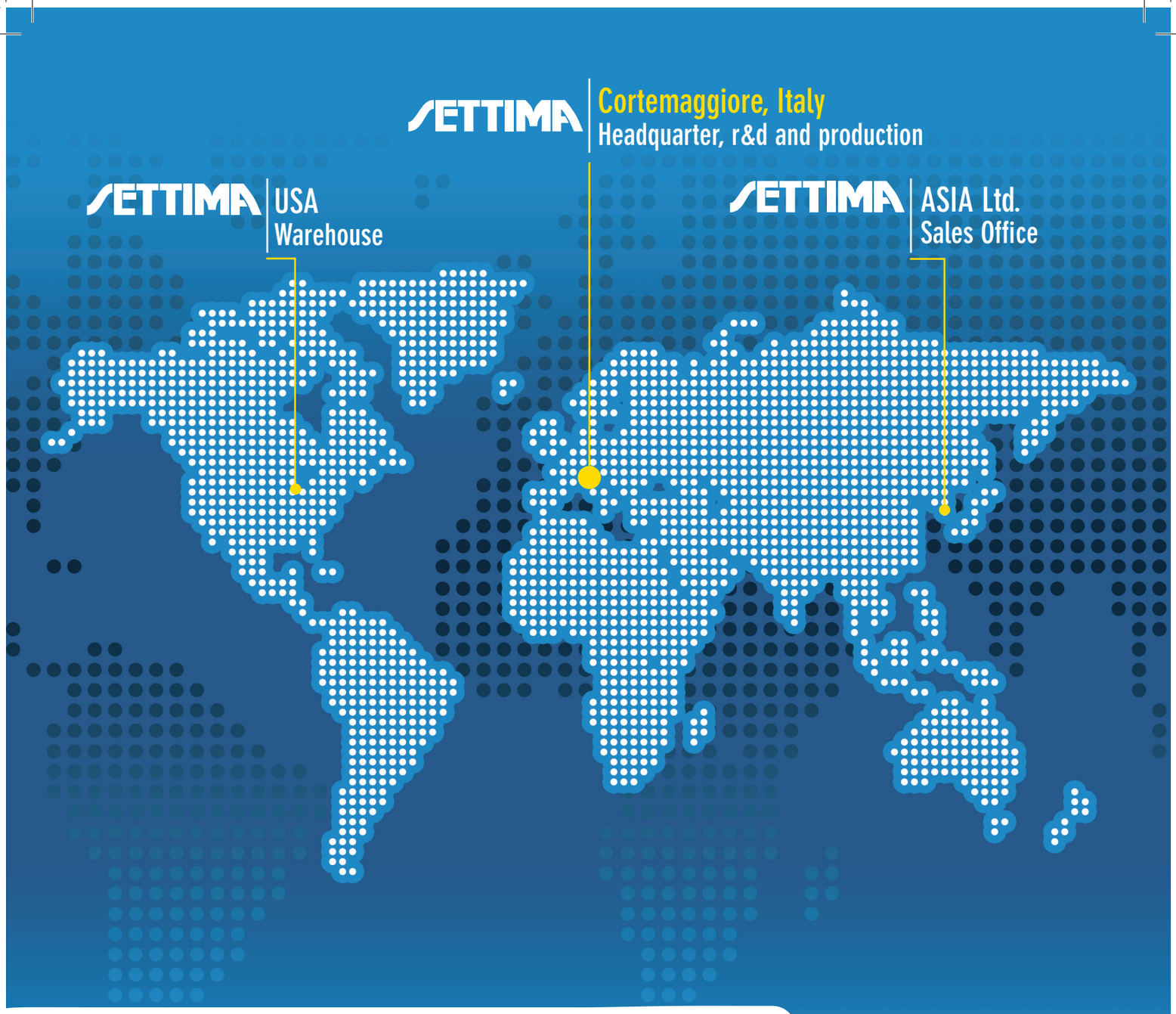


Power @ 2950 RPM - 400 cSt



Notes / Note

Notes / Note


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