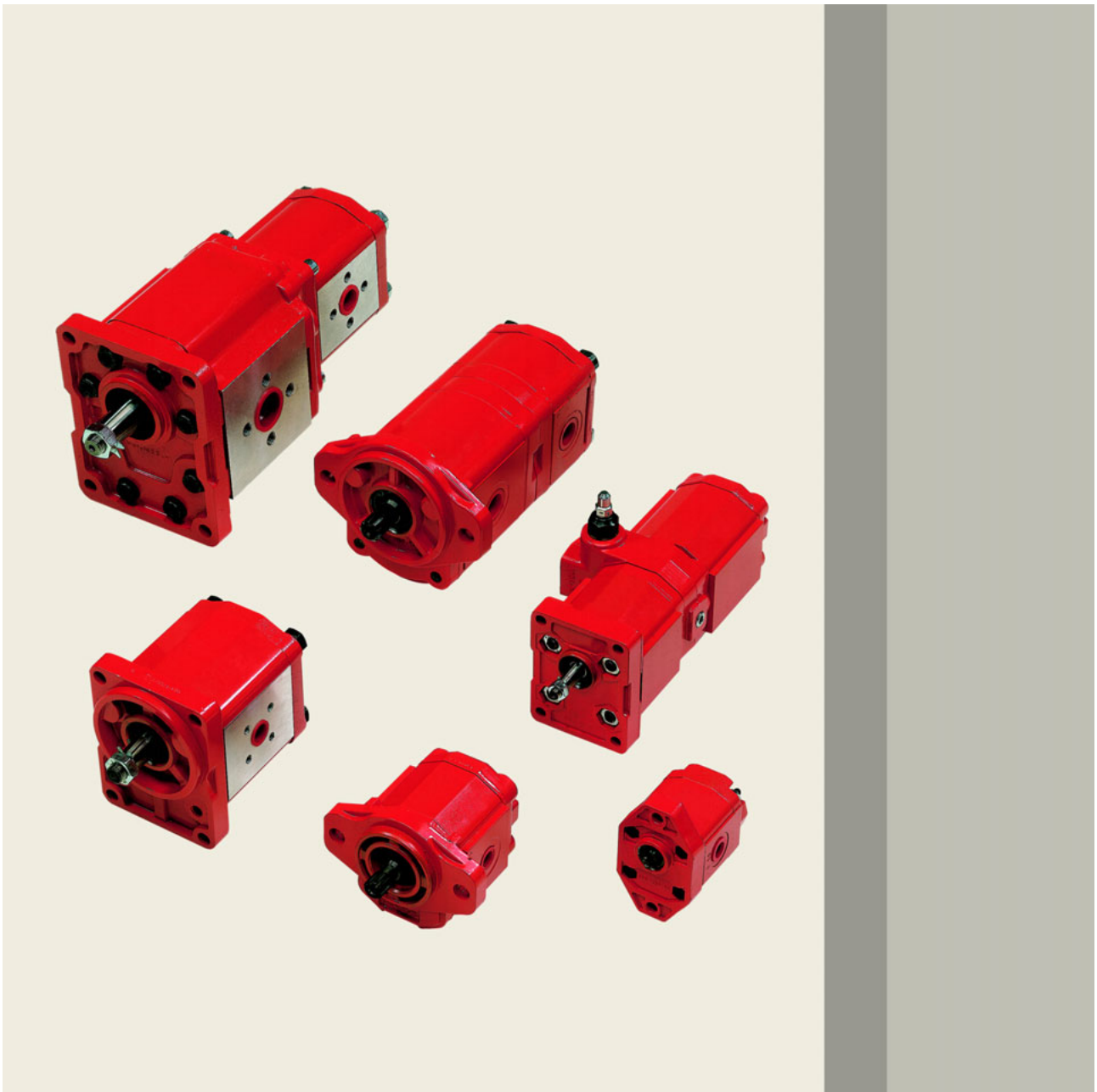


Gear Pumps



motion and progress

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1 General information

1.1 Introduction to the product

Gear pumps are widely used in modern hydraulic systems due to their high performance, long service life and low purchase and maintenance costs.

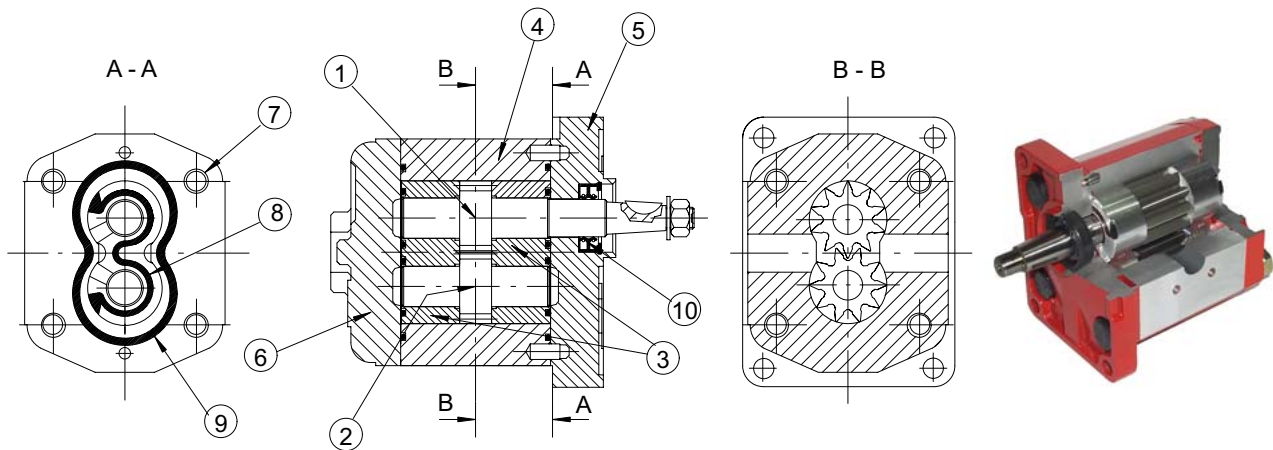
Product development has made it possible to achieve high operating pressures, excellent volumetric and mechanical efficiency, and lower noise levels, in operation, by means of:

- meticulous CAD design of the gear teeth and balancing areas
- an exacting choice of high-performance materials

- carefully controlled heat treatments
- increasingly tight coupling tolerances, and a high standard of surface finish.

Bucher Hydraulics S.p.A. has achieved these results by constantly improving its design, control, and manufacturing techniques in line with the latest technological developments, while simultaneously introducing a Quality Control System which ensures that every single product offers the same high standards.

Product description



1. Drive gear
2. Driven gear
3. Balancing
4. Pump body
5. Front cover

6. Rear cover
7. Mounting tie rod
8. Balancing seal
9. Oil seal
10. Shaft seal

Referring to the pump shown in the figure, the drive gear (1) drives round the driven gear (2), transferring the oil from the suction port to the pressure port as it turns round.

The gears are made from high strength steel alloy.

The bushings (3) serve a dual purpose:

- to act as a bearing for the gears
- to balance axial and radial thrust in proportion to the change in operating pressure.

The gears-bushings assembly is fitted inside the pump body (4), in which generally the suction and pressure ports are formed.

The pump body is made of high strength extruded aluminium alloy.

The front cover (5), which also acts as a mounting flange, and the rear cover (6) are connected to one another by mounting tie rods (7).

The pump assembly is completed by a series of seals:

- Balancing seals (8) can be fitted in recesses in the bushings as shown in the figure, or in the covers. Their purpose is to delimit the longitudinal balancing area separating the suction and pressure zones.
- Oil seals (9) prevent oil from leaking out.

- An oil retaining ring with the dual purpose of preventing oil leaks from the drive gear shaft and preventing dust or other pollutants from entering the pump itself. Unless otherwise specified, the seals are in nitrilic compound offering high mechanical strength and heat resistance.

- Viton seals are available on request.

(see 2.2 Recommended fluids/Allowed temperatures).

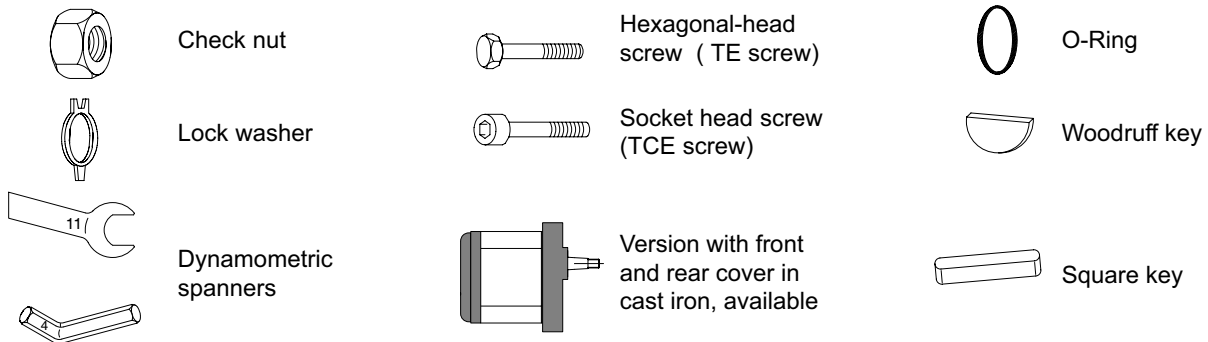
Versions available

The Bucher Hydraulics S.p.A. product range includes single pumps of groups 05-100-200-300 (corresponding to the common group denominations: 05-1-2-3) and several combinations of double pumps, triple pumps, and so on, that can be assembled together according to versions of displacement, flanging, and auxiliary valves indicated in this catalogue.

Bucher Hydraulics S.p.A. will examine any request for special versions, features, and customisations not shown in this catalogue.

To make such a request, please contact our Sales Department.

1.2 Non-standard symbols used in the text



2 Technical information

2.1 Identifying the rotation direction

The rotation direction of a gear pump is identified by looking at the pump from the front and with the drive gear turned upwards (see figures below).

Pumps with clockwise rotation (**D**) have a drive gear which turns clockwise, with the suction port on the left and the pressure port on the right.

Pumps with counterclockwise rotation (**S**) have a drive gear which turns counterclockwise, with the suction port on the right and the pressure port on the left.

The figure also shows the pressure flow inside the pumps as the oil is transferred from the suction port to the pressure port.

As regards reversible pumps (**R**), the ports are alternatively for suction and pressure.

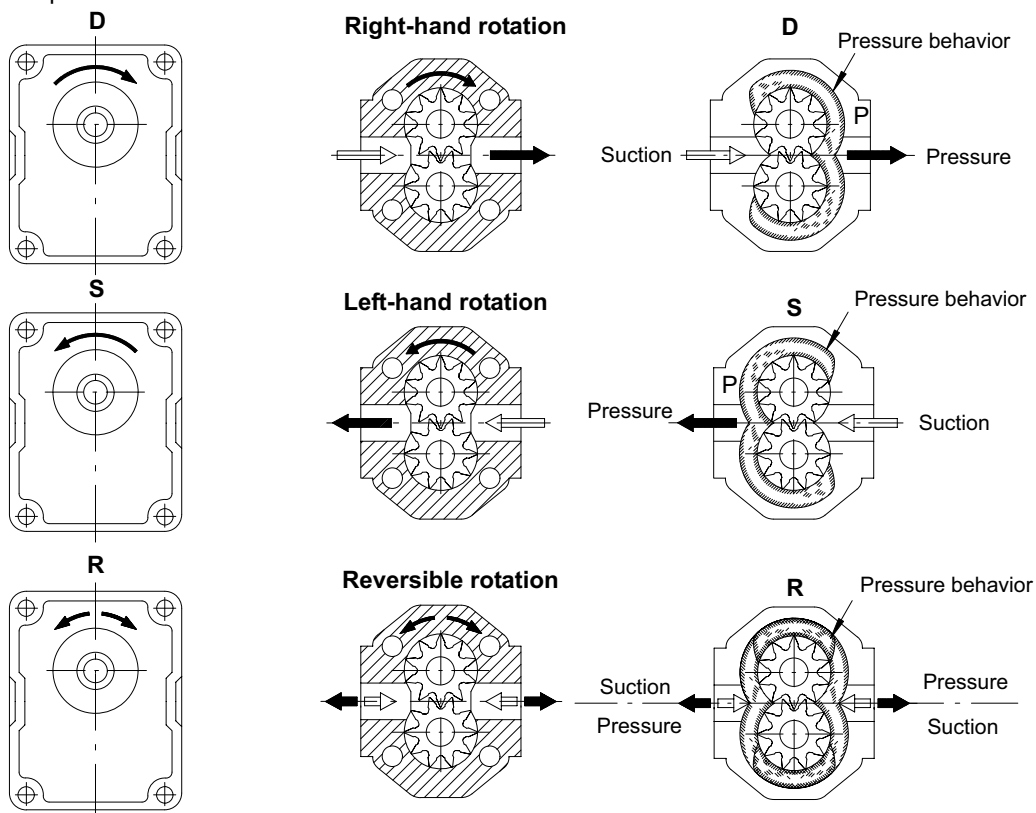
Pumps with a unidirectional rotation (**D** or **S**) have the denomination **AP**.

Pumps with reversible rotation have the denomination **APR**.

It is possible to change the rotation direction of the entire range of pumps without having to replace any component, except for the AP100 group, for which it is necessary to replace the front cover.

To ensure a good technical result, we recommend in any case that such inversion be carried out at our factory.

Technical descriptions are available on request, which show the correct procedure for the pump rotation inversion.



2.2 Recommended fluids/Allowed temperatures

We recommend using only mineral oil-based hydraulic fluids that comply with the ISO/DIN standards.

Viscosity range:

recommended **20 ÷ 120 mm²/s (cSt)**

permitted up to **700 mm²/s (cSt)**

Operating temperature

Type of seals	Temperature	
	AP05-APR05	AP100-AP200-AP300
Buna N	-15 ÷ 65 °C	-15 ÷ 80 °C
Viton*	-10 ÷ 80 °C	-10 ÷ 120 °C



Attention: Use of pumps at temperatures above 80°C must always be agreed upon with our Technical Office, and in any case this can cause a significant worsening in the volumetric efficiency. For use under conditions different from those indicated in this catalogue, please contact our Sales Department

2.3 Suction

The absolute suction pressure must be **V ≥ 0.75 bar (11 PSI)**; therefore, the following must be avoided:

- large height differences between pump and tank
- long stretches of piping
- special features such as:
 - bends
 - reductions in diameter
 - quick couplings
 - etc.

It is also advisable to choose a filter of a suitable size to minimise any pressure drop and to take measures to prevent gradual clogging over time.

(Example 1)

In certain cases, the suction pressure can exceed 1 bar (14.3 PSI), or atmospheric pressure.

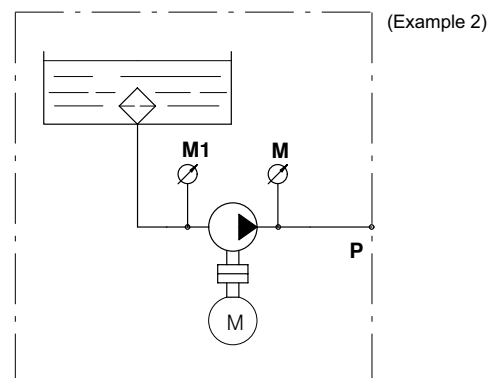
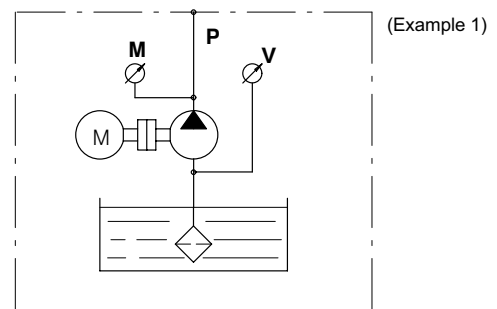
Please contact our Sales Department, solution for

M1 ≤ 3.5 bar (50 PSI), are available.

If in a particular application the M1 pressure is higher than the recommended value, contact our Sales Office.

The diameter of the suction pipe should ensure that the oil speed will fall within the range: **v = 0.6 - 1.2 m/s**.

(Example 2)



2.4 Filtration

A short service life of a gear pump is normally due to the presence of impurities in the oil.

It is therefore essential to have an effective filter in the system and to carry out regular maintenance to ensure a long, trouble-free service life.

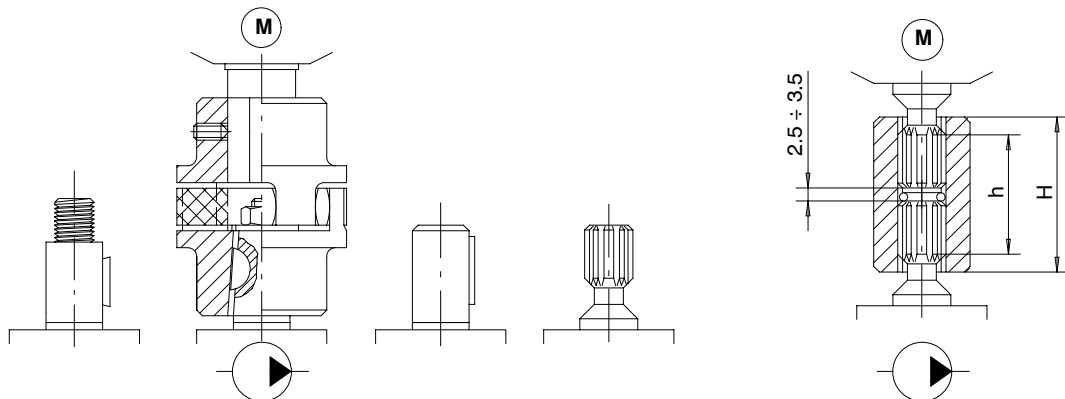
When possible and compatible with the hydraulic circuit installed, Bucher Hydraulics S.p.A. recommends that the system have total filtration (suction, pressure, return).

In any case, the filtering system must constantly ensure an oil contamination class equal to or less than those shown in the following table.

Operating pressure	> 170 bar 2430 PSI	< 170 bar 2430 PSI
Contamination class NAS 1638	9	10
Contamination class ISO 4406	18/15	19/16
Obtain with filter β _x = 75	20	25

We also recommend that an adequate air filter be installed on the tank to prevent contaminating substances such as dust, sand, etc. from getting into the oil, as these substances can enter the tank through the air flow caused by the level variations in the tank itself.

2.5 Motor-pump coupling



Absolutely no radial or axial forces should be transmitted to the drive shaft in the motor-pump coupling.

Such forces cause rapid and irregular wear on the balancing surface of the bushings and gear support, with a consequent worsening in pump performance.

The coupling joint must be able to absorb any discrepancies in the coaxial alignment of the motor-pump shafts without placing any load on the pump shaft.

In the couplings between splined shafts, the connecting sleeve must be free to move along its axis.

The length of the sleeve must be sufficient to cover the splined sections of the motor-pump shafts completely in any position.

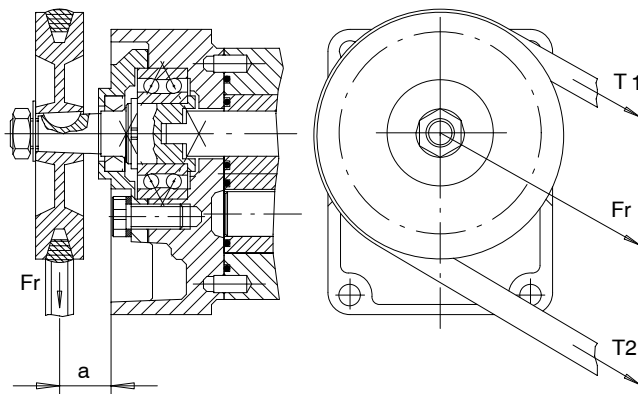
The distance between the ends of the shafts must be between $2.5 \div 3.5 \text{ mm}$ ($.10" \div .14"$).

Make sure that the splined coupling is suitably lubricated to protect it against rapid deterioration.

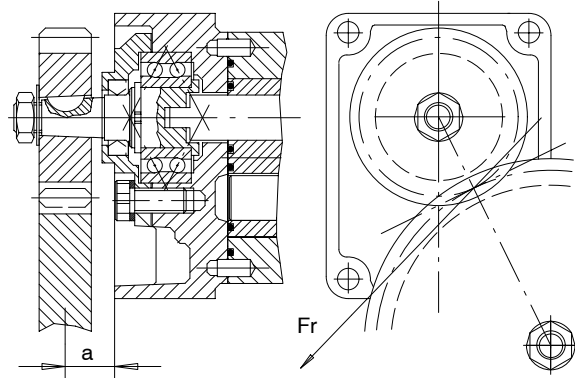
If there are radial and/or axial loads on the drive shaft, such as when it is driven by a V-belt and pulley or pair of gear wheels, it should be fitted with a front cover with supporting bearings. (See examples 1 and 2)

Depending on the pump model concerned, these supports can replace the front cover of the pump or can be fitted in addition to and over the front cover.

(Example 1)



(Example 2)



Note: The allowed radial load values "Fr" in relation to "a" are shown in the diagrams of each version equipped with cover with support bearings.

2.6 General precaution

In addition to the recommendations regarding fluids, filtration, coupling, etc., we suggest the following:

- Always check the rotation direction of the pump's drive shaft; it must be compatible with the rotation direction of the pump itself.
- Be particularly careful in cleaning and make sure, when connecting the suction and pressure piping, that no chips, rag threads, teflon tape, etc. get into the pump circulation system.
- Check the tightness of the suction and pressure fittings, the correct positioning of the O-Ring, and make sure there is no dirt between the flange and the pump body.
- The first pump start-up can be facilitated by manually filling the suction piping and the pump itself with oil. To facilitate air bleeding, start the pump with the circuit not pressurised.

- To ensure the best heat distribution inside the tank, make sure the return pipe is not too close to the pump's suction piping. The pipings themselves should be below oil tank level to prevent the formation of foam.
- Do not subject the pumps to operating conditions different from those indicated on page 8/96; for extreme operations, always contact our Technical Department.
- Never use fluids different from those indicated in section 2.2.
- In the event of pump painting, do not use solvents or paints that are incompatible with the material of the seals. Do not bake paint with excessively high temperatures. Do not paint over the product identification plate; the warranty will not be valid if this plate is illegible.

2.6.1 Directives and standards

Atex



Attention: The equipment and protective systems of these catalogue ARE NOT intended for use in potentially explosive atmospheres that is to say where there is an explosive atmosphere referred to in Article 2 of the Directive 99/92/EC and referred to Article 1.3 of the Directive 94/9/EC

2.7 Pressure

Pressure levels:

P1 = continuous pressure

P2 = intermittent pressure

P3 = peak pressure

The recommended oil speed in the pressure pipes is:

v = 2 to 5 m/s

The characteristic data of each pump is given in the tables on the following pages.

Machinery safety

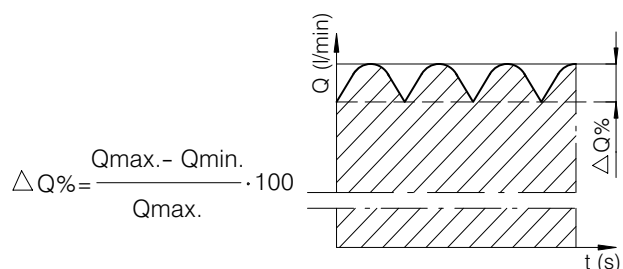
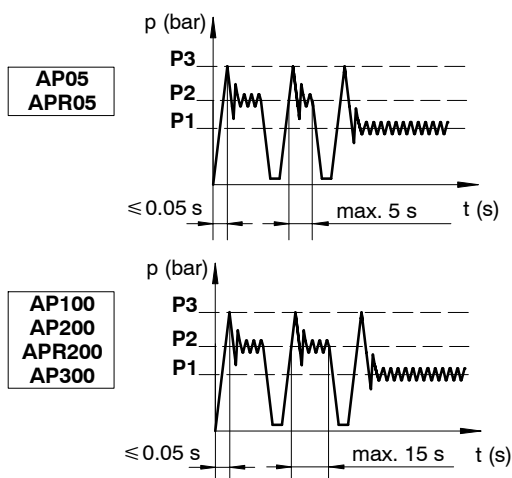
Hydraulic pumps are excluded by Directive 98/37/EC

ISO 9001: 2000

Bucher Hydraulics S.p.A. is certified for research, development and production of directional control valves, gear pumps and motors, power units, electro pumps, cartridge valves and integrated manifolds for hydraulic applications.

Pressure flow rate surging

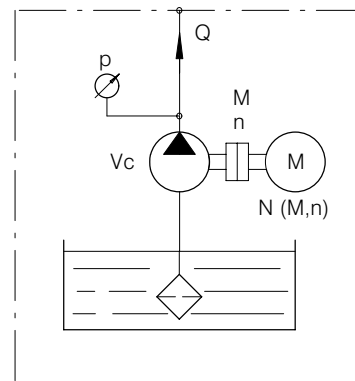
Pump	z	$\Delta Q\%$
AP05 - APR05	13	13
AP100	12	15
AP200 - APR200	10	16
AP300	10	16



2.8 Calculating the specification of a gear pump

The following parameters are defined:

- V_c** = (cm³/r) pump displacement;
- n** = (r/min) no. of rpms of the drive shaft;
- Q** = (l/min) flow rate;
- p** = (bar) operating pressure;
- M** = (Nm) drive torque;
- N** = (kW) power;
- η_v** = (%) volumetric efficiency;
- η_m** = (%) mechanical efficiency;
- η_t** = (%) total efficiency



$$Q = \frac{V_c \cdot n}{100000} \cdot \eta_v \quad V_c = \frac{100000 \cdot Q}{n \cdot \eta_v} \quad n = \frac{100000 \cdot Q}{V_c \cdot \eta_v}$$

$$N = \frac{V_c \cdot n \cdot p}{6120 \cdot \eta_m} \quad N = \frac{Q \cdot p}{6.12 \cdot \eta_t} \quad p = \frac{N \cdot 6.12 \cdot \eta_t}{Q} \quad p = \frac{N \cdot 6120 \cdot \eta_m}{V_c \cdot n}$$


$$M = 9555 \cdot \frac{N}{n} \quad \eta_t = \eta_v \cdot \eta_m$$

Example

AP100/2.5 V_c= 2.5 cm³/r n= 1500 r/min p=200 bar η_v= 94% η_m= 87%

$$Q = \frac{2.5 \cdot 1500}{100000} \cdot 94 = 3.52 \text{ l/min.} \quad \eta_t = 0.94 \cdot 0.87 = 0.82 = 82\%$$

$$N = \frac{3.52 \cdot 200}{6.12 \cdot 82} = 1.4 \text{ kW} \quad M = 9555 \cdot \frac{1.4}{1500} = 9 \text{ Nm}$$

 Important: Please contact our Sales Department if even one of the operating limits indicated in the tables below (temperature, pressure, rpm) is exceeded, as well as in the case of two or more maximum values at the same time, or for applications with particularly heavy-duty cycles.

AP/APR05 Type	Displacement		Max. pressure						n.min.		n.max.	
	cm ³ /rev	Cu.In.P.R.	P1		P2		P3		P ≤ P1	P > P1	P ≤ P1	P > P1
			bar	P.S.I.	bar	P.S.I.	bar	P.S.I.				
AP05/0.25	0.25	.015	170	2400	180	2600	200	2900	800	1000	6000	7000
AP05/0.5	0.5	.030	190	2700	210	3000	230	3300	650	800	6000	7000
AP05/0.75	0.75	.045	190	2700	210	3000	230	3300	650	800	6000	7000
AP05/0.9	0.9	.055	190	2700	210	3000	230	3300	650	800	6000	7000
AP05/1.2	1.2	.073	170	2400	180	2600	200	2900	550	700	5000	6000
AP05/1.6	1.6	.097	170	2400	180	2600	200	2900	550	700	5000	6000
APR05/0.25	0.25	.015	150	2200	160	2300	180	2600	800	1000	6000	7000
APR05/0.5	0.5	.030	170	2400	190	2700	210	3000	650	800	6000	7000
APR05/0.75	0.75	.045	170	2400	190	2700	210	3000	650	800	6000	7000
APR0.5/0.9	0.9	.055	170	2400	190	2700	210	3000	650	800	6000	7000
APR05/1.2	1.2	.073	150	2200	160	2300	180	2600	550	700	5000	6000

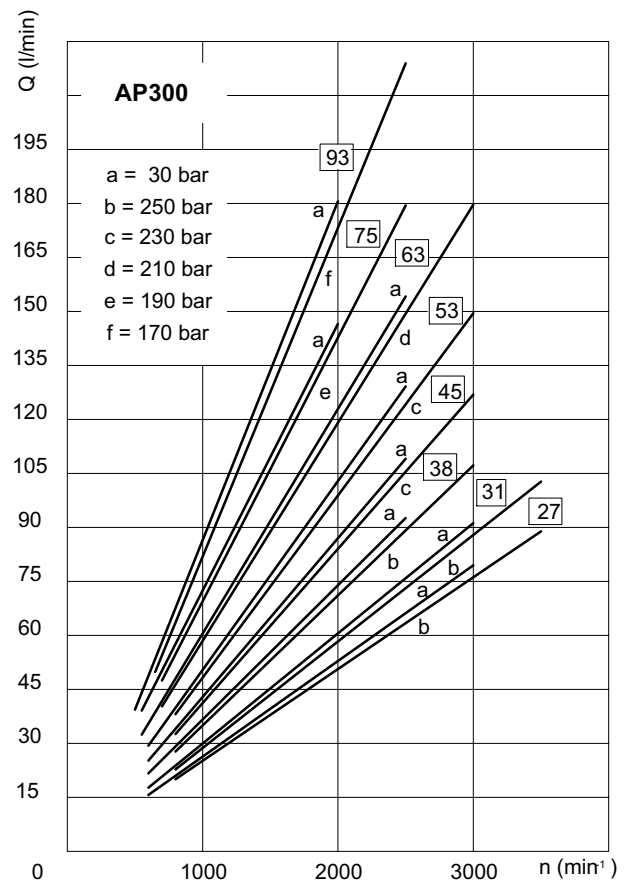
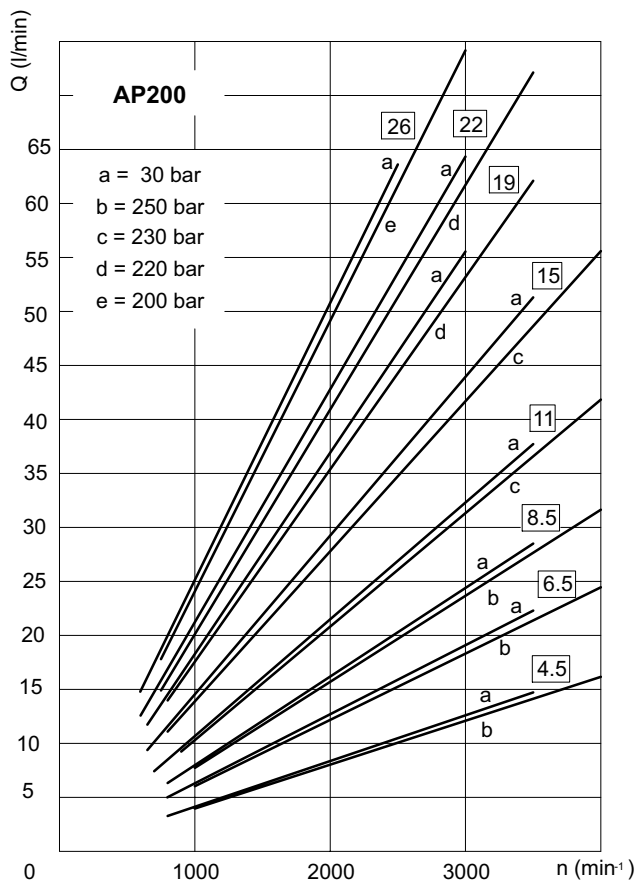
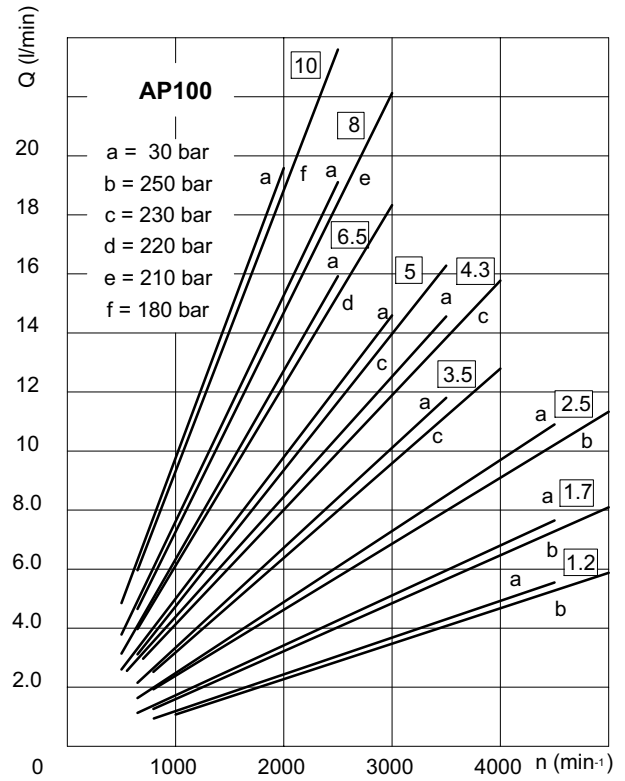
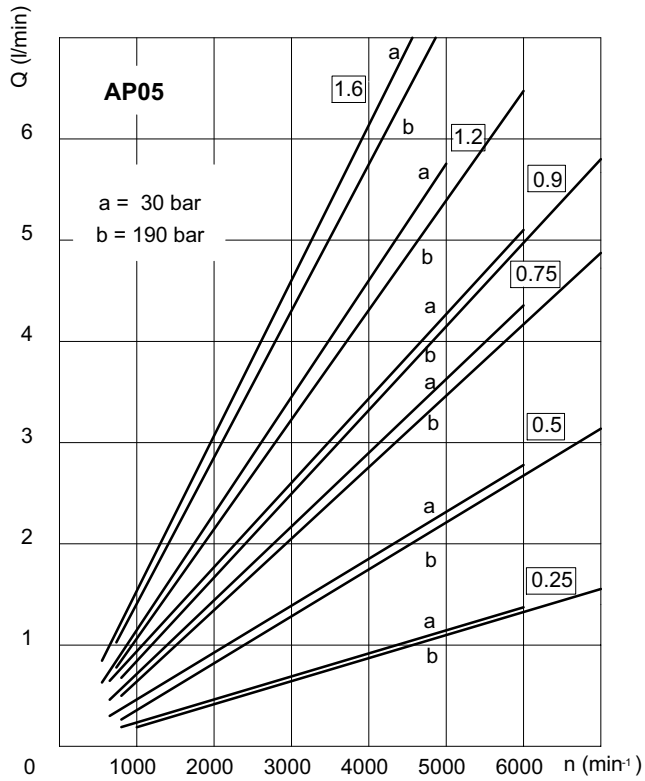
AP100 Type	Displacement		Max. pressure						n min.		n max.	
	cm ³ /rev	Cu. In. P. R.	P1		P2		P3		P ≤ P1	P > P1	P ≤ P1	P > P1
			bar	P.S.I.	bar	P.S.I.	bar	P.S.I.				
AP100/1.2	1.2	.073	210	3000	250	3600	280	4000	800	1000	4500	5000
AP100/1.7	1.7	.103	210	3000	250	3600	280	4000	650	800	4500	5000
AP100/2.5	2.5	.152	210	3000	250	3600	280	4000	650	800	4500	5000
AP100/3.5	3.5	.213	210	3000	230	3300	250	3600	650	800	3500	4000
AP100/4.3	4.3	.262	210	3000	230	3300	250	3600	550	700	3500	4000
AP100/5	5.0	.305	210	3000	230	3300	250	3600	500	650	3000	3500
AP100/6.5	6.5	.396	190	2700	220	3150	240	3400	500	650	2500	3000
AP100/8	7.8	.476	180	2600	210	3000	230	3300	500	650	2500	3000
AP100/10	10.0	.610	150	2150	180	2600	200	2900	500	650	2000	2500

AP/APR200 Type	Displacement		Max. pressure						n min.		n max.	
	cm ³ /rev	Cu.In.P .R.	P1		P2		P3		P ≤ P1	P > P1	P ≤ P1	P > P1
			bar	P.S.I.	bar	P.S.I.	bar	P.S.I.				
AP200/4.5	4.3	.262	220	3150	250	3600	280	4000	800	1000	3500	4000
AP200/6.5	6.3	.384	220	3150	250	3600	280	4000	800	1000	3500	4000
AP200/8.5	8.3	.506	220	3150	250	3600	280	4000	800	1000	3500	4000
AP200/11	11.0	.671	210	3000	230	3300	250	3600	700	900	3500	4000
AP200/15	15.0	.915	210	3000	230	3300	250	3600	650	800	3500	4000
AP200/19	18.9	1.159	210	3000	230	3300	250	3600	650	800	3000	3500
AP200/22	21.9	1.342	200	2900	220	3150	240	3400	600	750	3000	3500
AP200/26	25.9	1.586	190	2700	210	3000	230	3300	600	750	2500	3000
APR200/4.5	4.3	.262	220	3150	250	3600	280	4000	800	1000	3500	4000
APR200/6.5	6.3	.384	220	3150	250	3600	280	4000	800	1000	3500	4000
APR200/8.5	8.3	.506	220	3150	250	3600	280	4000	800	1000	3500	4000
APR200/11	11.0	.671	210	3000	230	3300	250	3600	700	900	3500	4000
APR200/15	15.0	.915	210	3000	230	3300	250	3600	650	800	3500	4000
APR200/19	18.9	1.159	210	3000	230	3300	250	3600	650	800	3000	3500
APR200/22	21.9	1.342	200	2900	220	3150	240	3400	600	750	3000	3500
APR200/26	25.9	1.586	190	2700	210	3000	230	3300	600	750	2500	3000

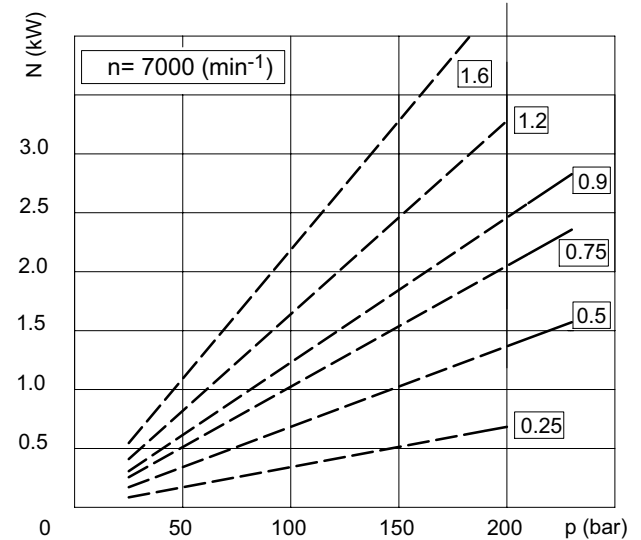
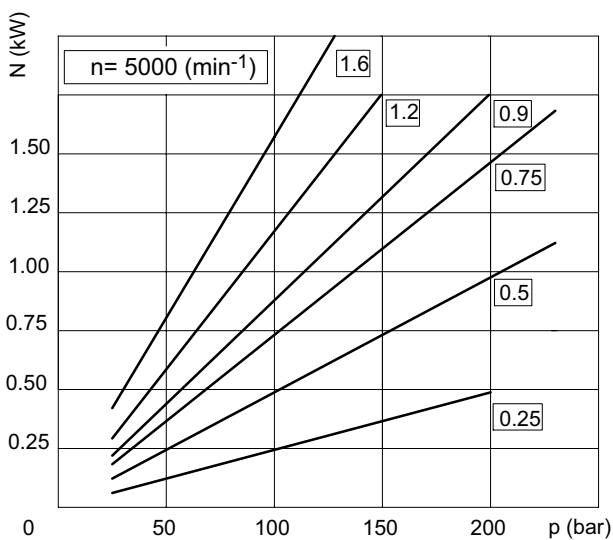
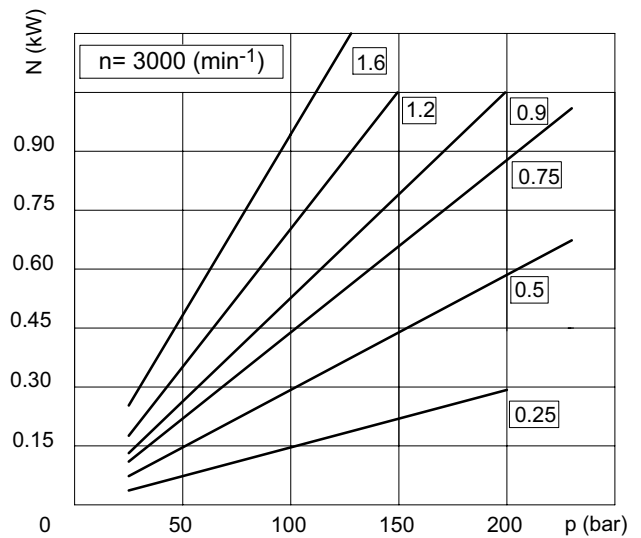
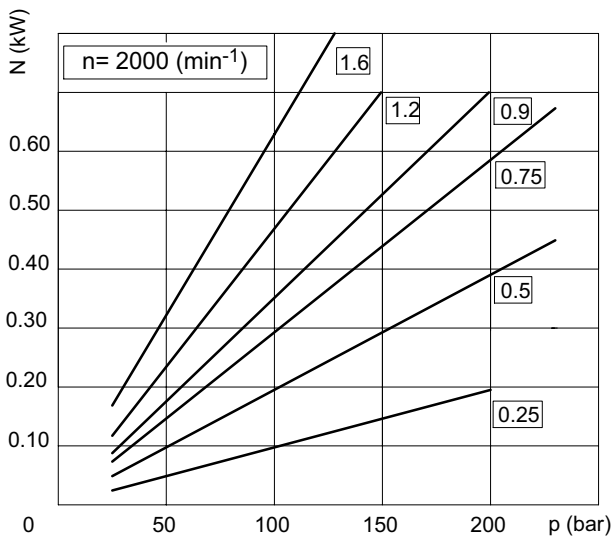
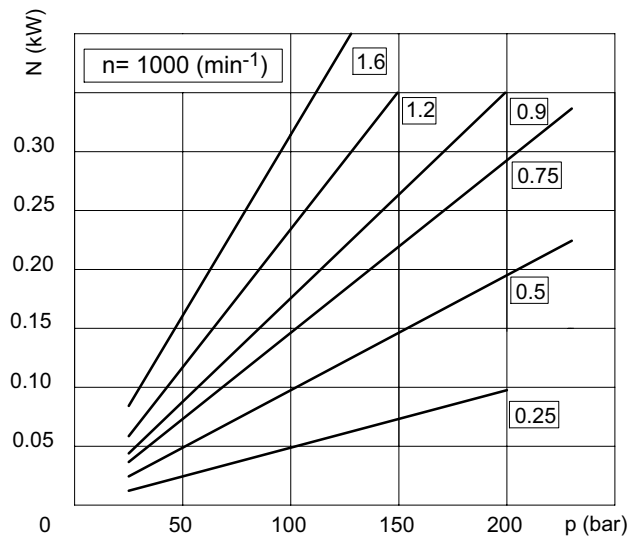
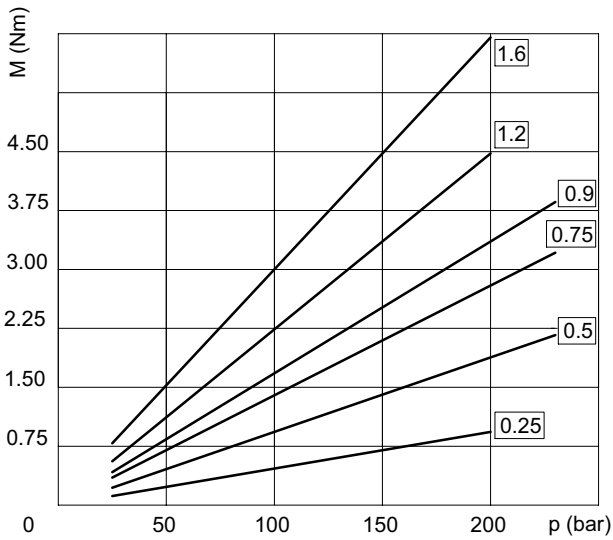
AP300 Type	Displacement		Max. pressure						n min.		n max.	
	cm ³ /rev	Cu. In. P. R.	P1		P2		P3		P ≤ P1	P > P1	P ≤ P1	P > P1
			bar	P.S.I.	bar	P.S.I.	bar	P.S.I.				
AP300/27	27.0	1.674	220	3150	250	3600	280	4000	600	800	3000	3500
AP300/31	31.0	1.891	220	3150	250	3600	280	4000	600	800	3000	3500
AP300/38	38.0	2.318	220	3150	250	3600	280	4000	600	800	2500	3000
AP300/45	45.0	2.745	200	2900	230	3300	260	3700	600	800	2500	3000
AP300/53	53.0	3.233	200	2900	230	3300	260	3700	600	800	2500	3000
AP300/63	63.0	3.843	180	2600	210	3000	240	3400	550	700	2500	3000
AP300/75	75.0	4.575	170	2400	190	2700	220	3150	550	700	2000	2500
AP300/93	93.0	5.673	150	2100	170	2400	200	2900	500	650	2000	2500

2.9 Diagrams

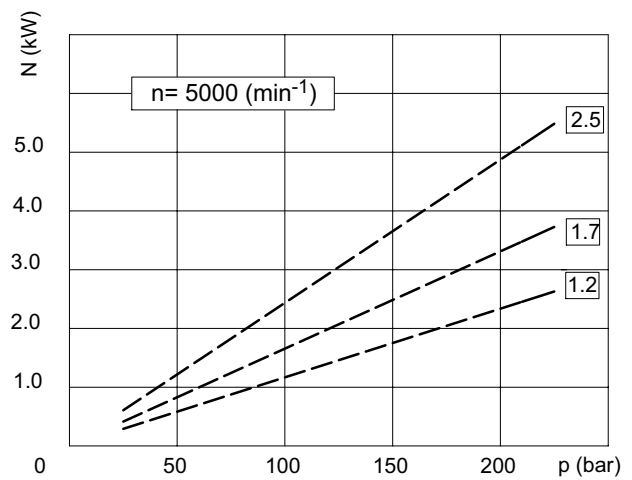
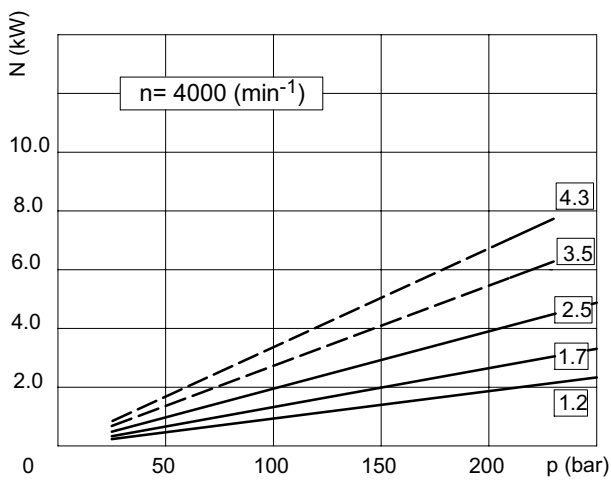
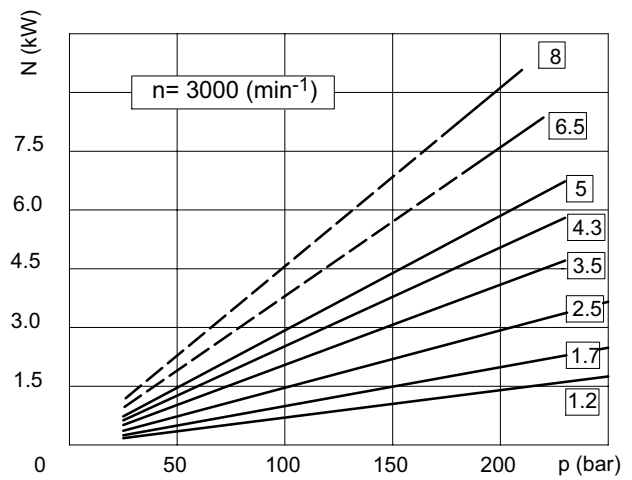
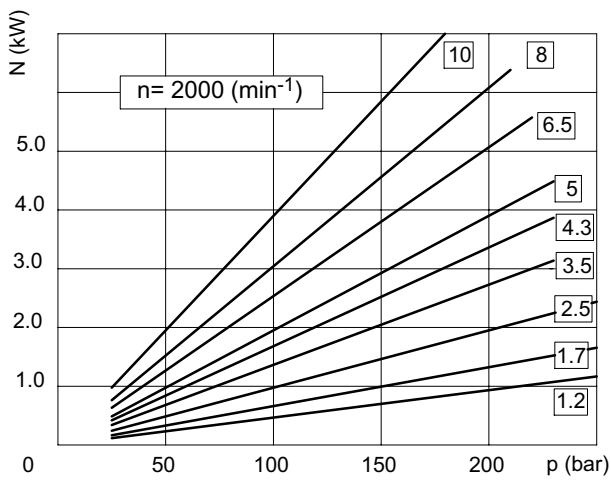
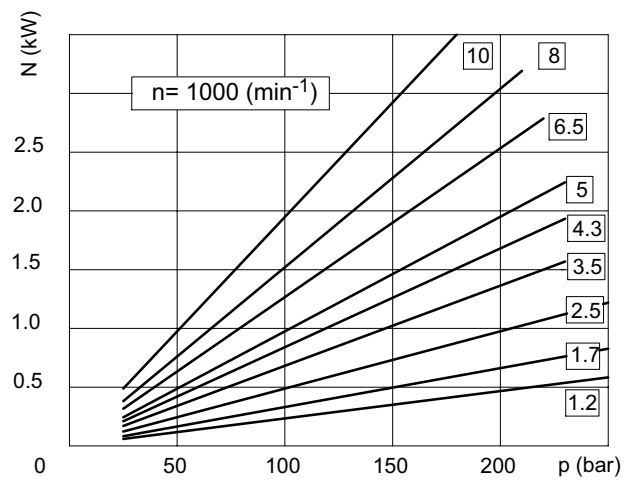
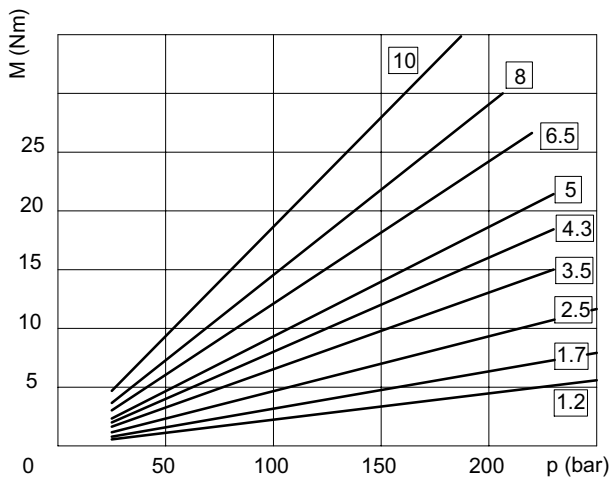
Oil viscosity: 37 mm²/s
Oil temperature: 40° C



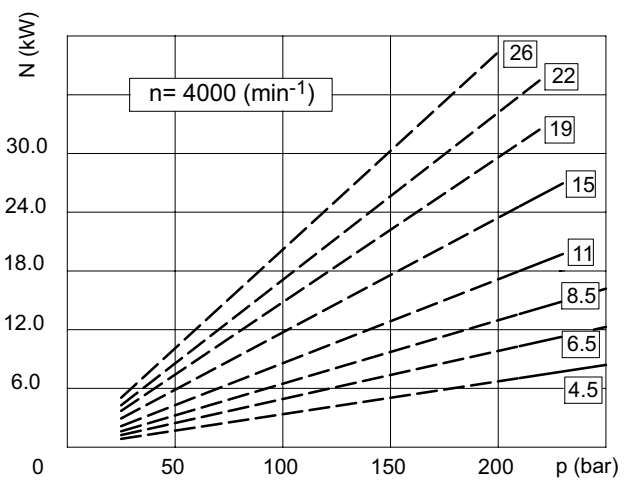
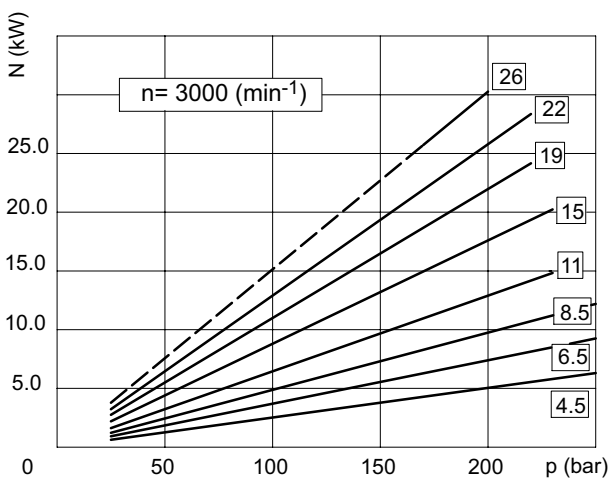
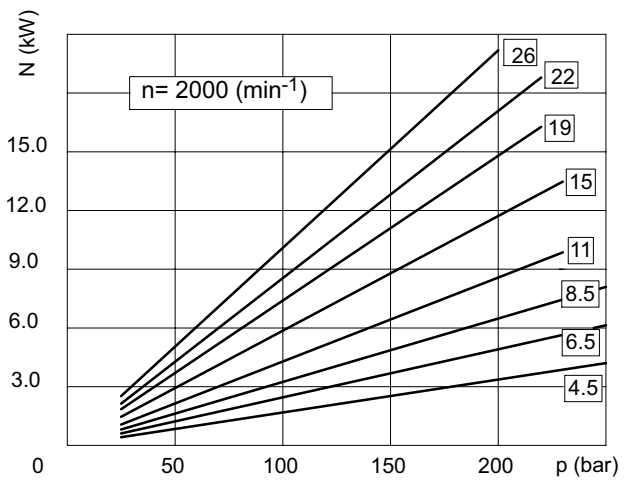
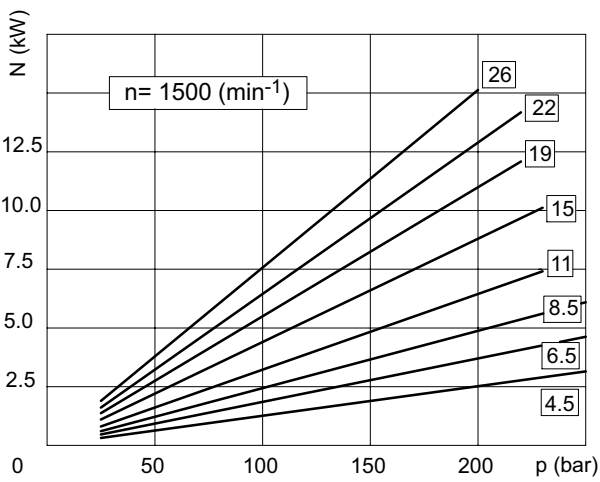
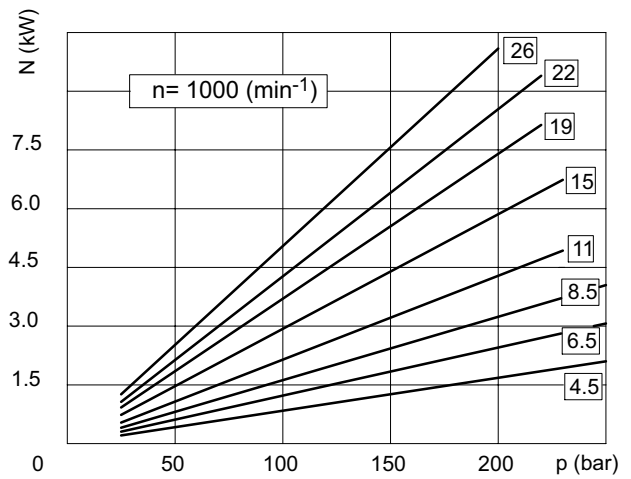
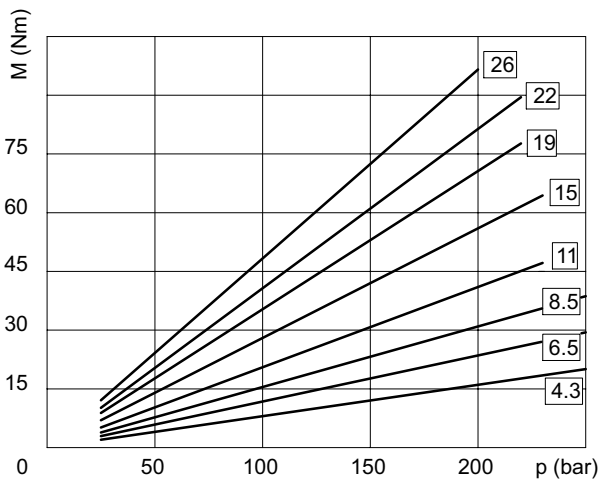
AP05



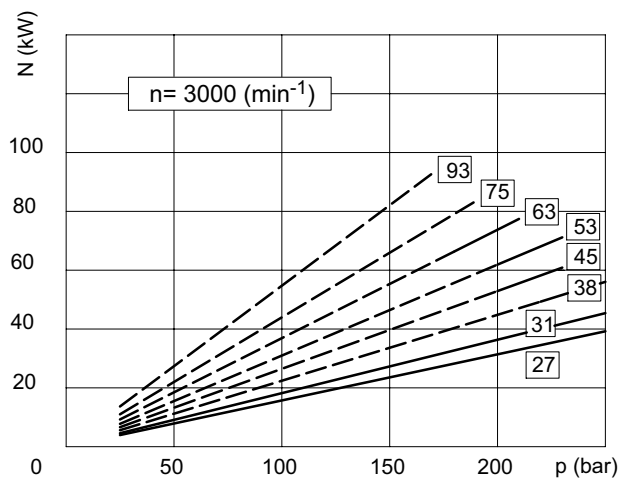
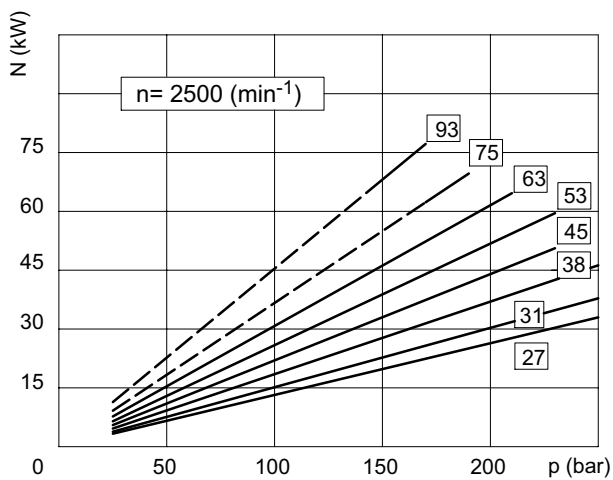
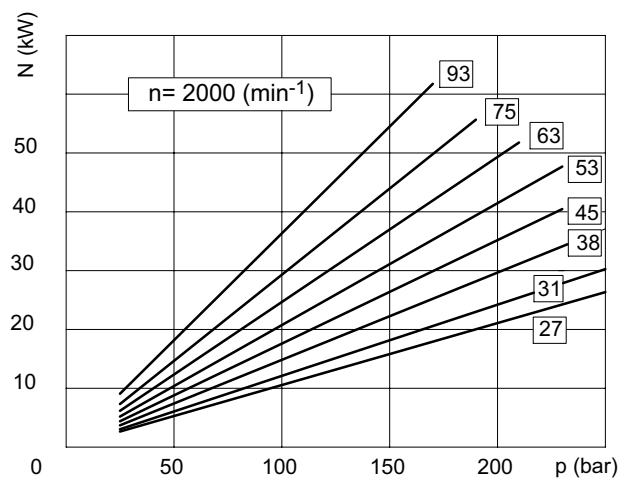
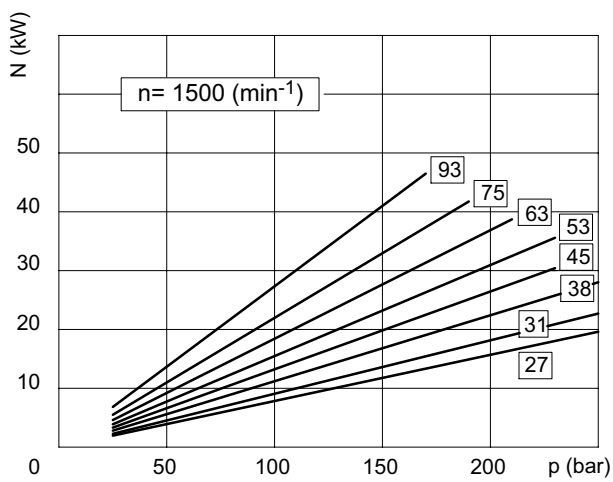
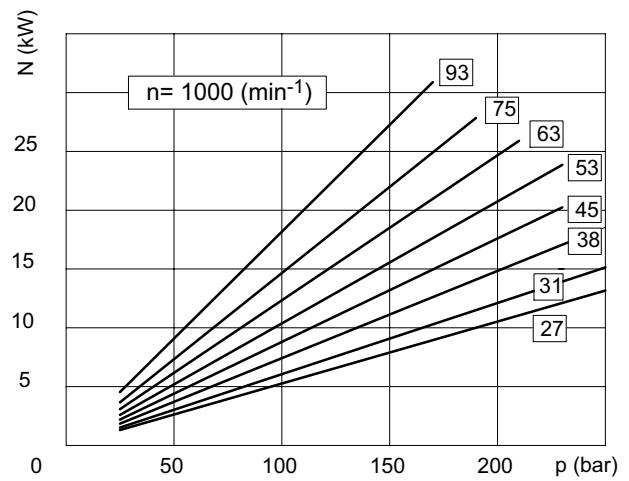
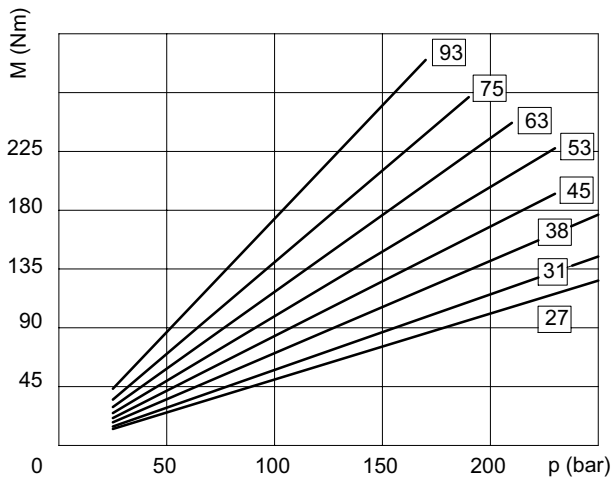
AP100



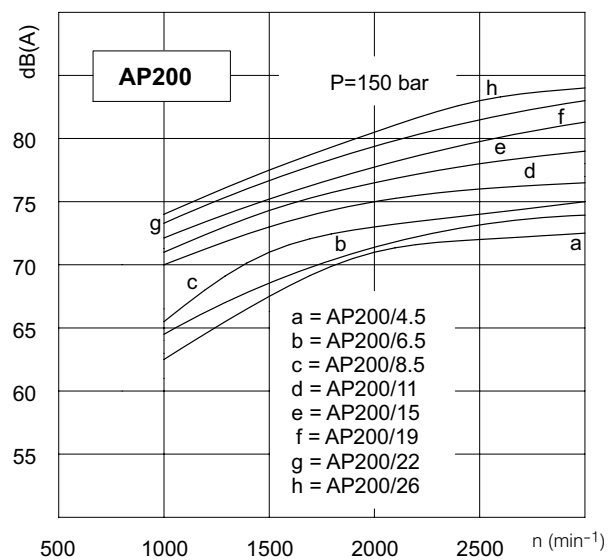
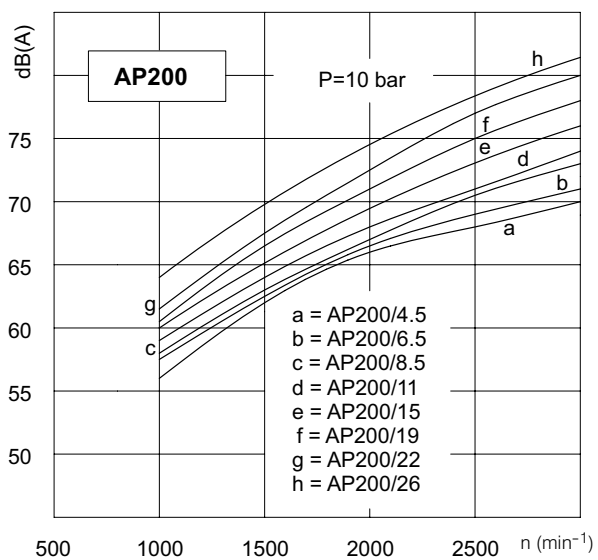
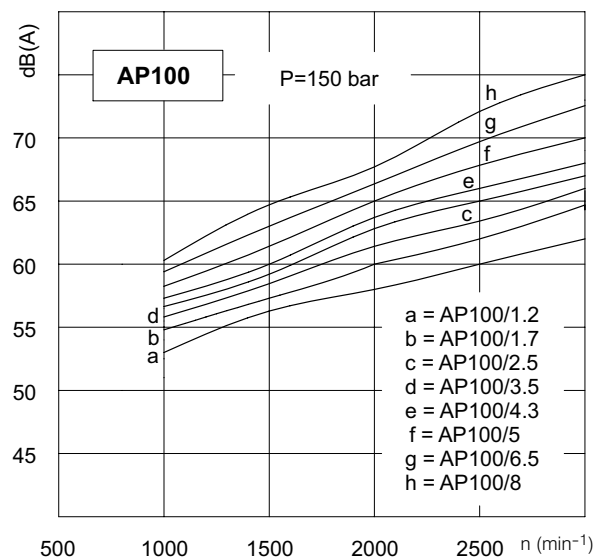
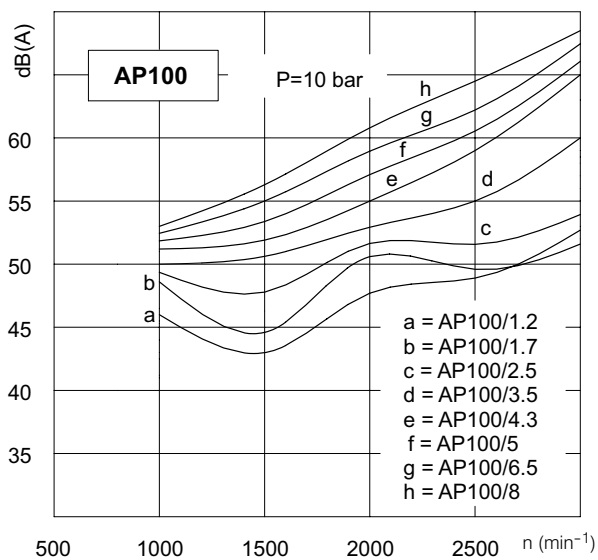
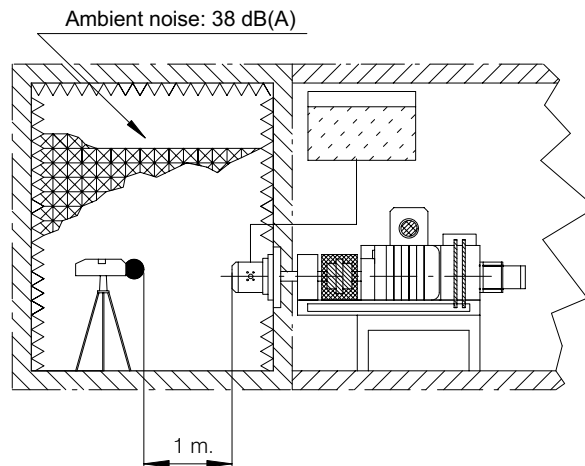
AP200



AP300



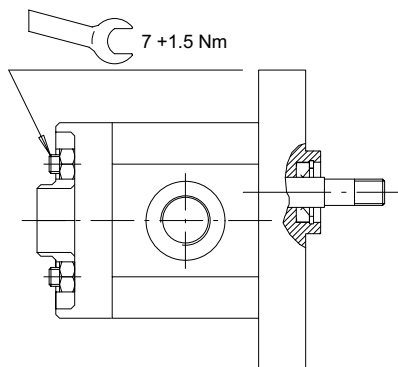
2.10 Information about the medium level of sound pressure given out



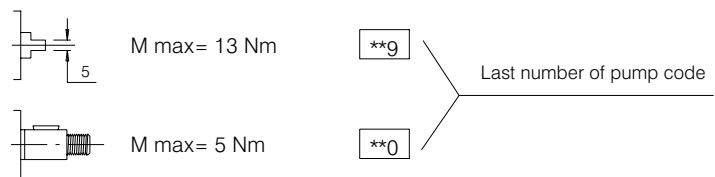
3 Gear pump group AP05



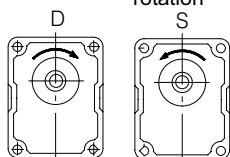
AP/APR05	Displacement		Max. pressure						n.min.		n.max.	
	cm ³ /rev	Cu.In.P.R.	P1		P2		P3		P ≤ P1	P > P1	P ≤ P1	P > P1
			bar	P.S.I.	bar	P.S.I.	bar	P.S.I.				
AP05/0.25	0.25	.015	170	2400	180	2600	200	2900	800	1000	6000	7000
AP05/0.5	0.5	.030	190	2700	210	3000	230	3300	650	800	6000	7000
AP05/0.75	0.75	.045	190	2700	210	3000	230	3300	650	800	6000	7000
AP05/0.9	0.9	.055	190	2700	210	3000	230	3300	650	800	6000	7000
AP05/1.2	1.2	.073	170	2400	180	2600	200	2900	550	700	5000	6000
AP05/1.6	1.6	.097	170	2400	180	2600	200	2900	550	700	5000	6000
APR05/0.25	0.25	.015	150	2200	160	2300	180	2600	800	1000	6000	7000
APR05/0.5	0.5	.030	170	2400	190	2700	210	3000	650	800	6000	7000
APR05/0.75	0.75	.045	170	2400	190	2700	210	3000	650	800	6000	7000
APR0.5/0.9	0.9	.055	170	2400	190	2700	210	3000	650	800	6000	7000
APR05/1.2	1.2	.073	150	2200	160	2300	180	2600	550	700	5000	6000



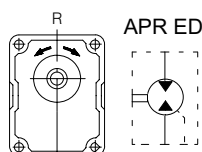
Max torque allowed to the shaft



Clockwise (D) Counter-clockwise (S)
rotation



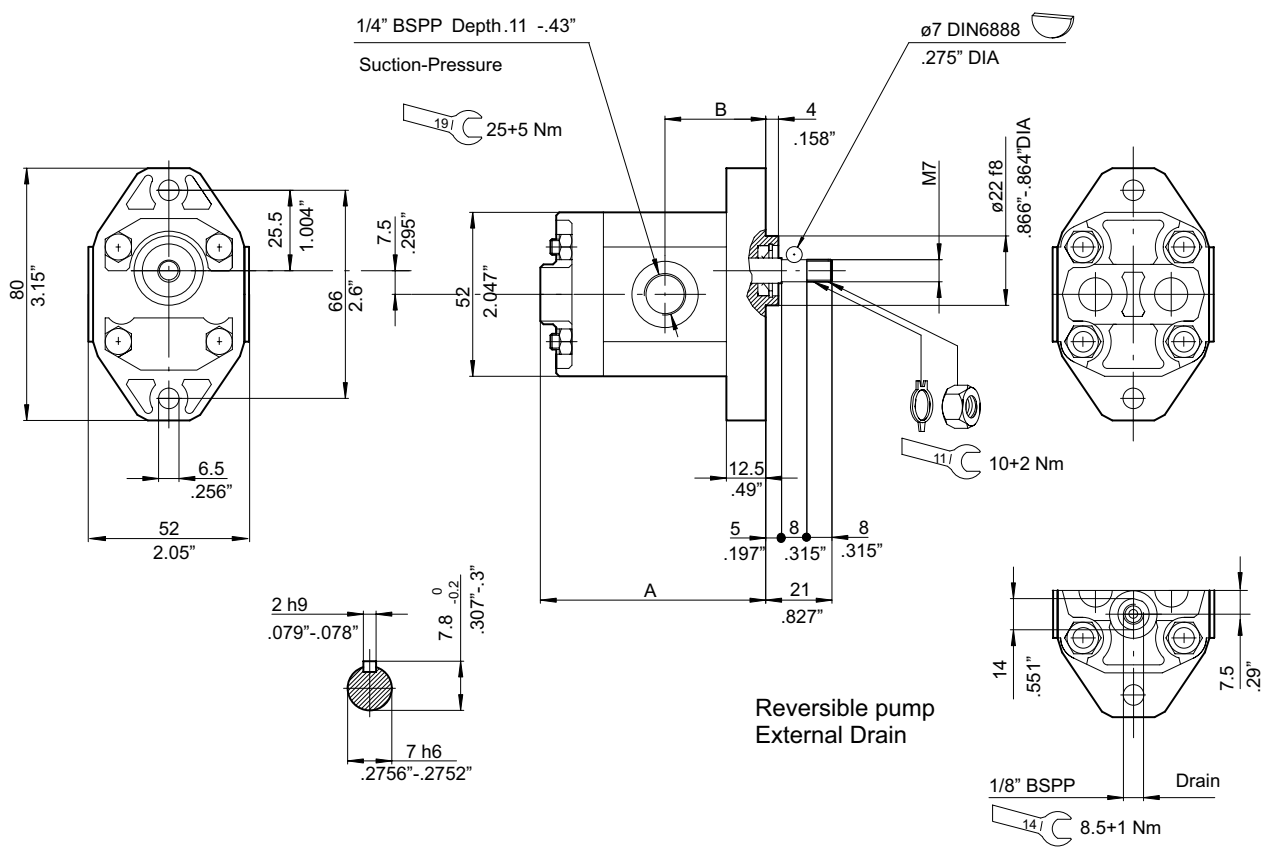
Reversible rotation



Notes:

- For uses at the operating limits, see note on page 8/96
- For codes and dimensions regarding accessories, see section 7.
- For the types of pumps without ordering code, contact our Sales Dept.

Group **AP05** Code **810**
APR05

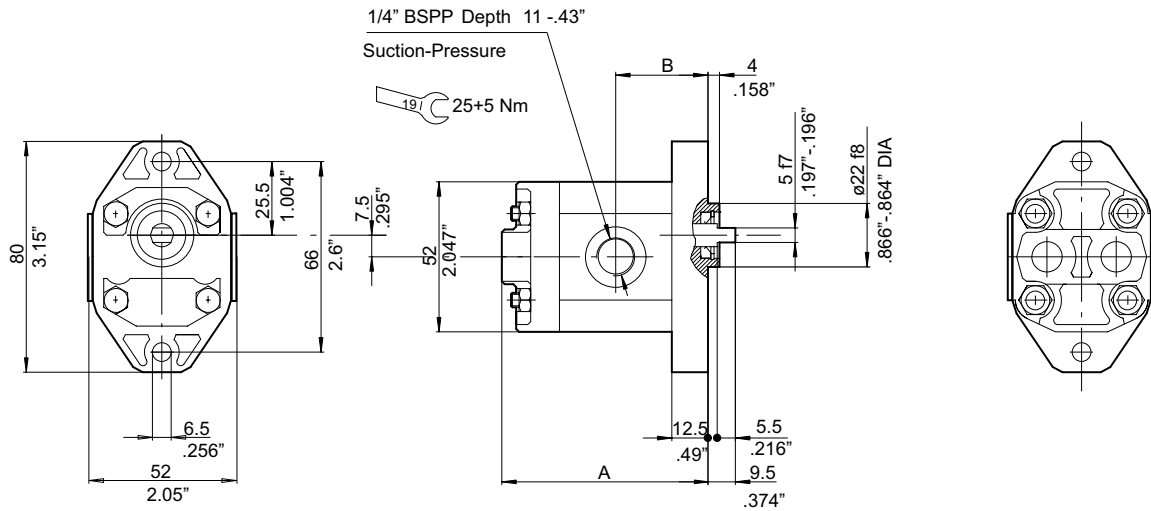


Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP05/0.25	0.25	64.5	2.54	29	1.41
AP05/0.5	0.5	67	2.64	30.5	1.2
AP05/0.75	0.75	69	2.72	31.5	1.24
AP05/0.9	0.9	70.5	2.77	32	1.26
AP05/1.2	1.2	73	2.87	33.5	1.32

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump - External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP05/0.25 D	200.1002.612.04	AP05/0.25 S	200.1002.613.02	APR05/0.25	200.1002.611.01
AP05/0.5 D	200.1003.612.02	AP05/0.5 S	200.1003.613.02	APR05/0.5	200.1003.611.01
AP05/0.75 D	200.1004.612.02	AP05/0.75 S	200.1004.613.02	APR05/0.75	200.1004.611.01
AP05/0.9 D	200.1005.612.02	AP05/0.9 S	200.1005.613.02	APR05/0.9	200.1005.611.01
AP05/1.2 D	200.1006.612.02	AP05/1.2 S	200.1006.613.02	APR05/1.2	200.1006.611.01

Accessories

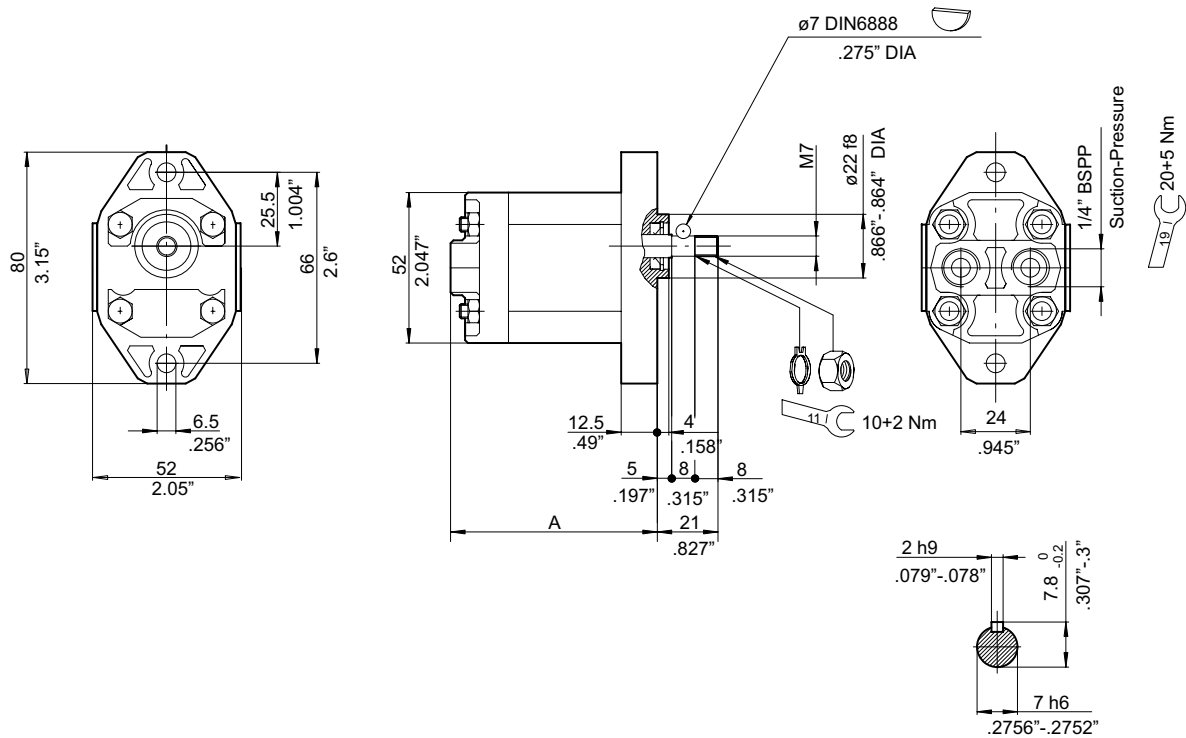
Splined couplings: GSH-06



Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP05/0.25	0.25	64.5	2.54	29	1.41
AP05/0.5	0.5	67	2.64	30.5	1.2
AP05/0.75	0.75	69	2.72	31.5	1.24
AP05/0.9	0.9	70.5	2.77	32.3	1.26
AP05/1.2	1.2	73	2.87	33.5	1.32
AP05/1.6	1.6	77	3.03	35.5	1.40

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP05/0.25 D	200.1002.642.08	AP05/0.25 S	200.1002.643.04
AP05/0.5 D	200.1003.642.02	AP05/0.5 S	200.1003.643.02
AP05/0.75 D	200.1004.642.02	AP05/0.75 S	200.1004.643.02
AP05/0.9 D	200.1005.642.04	AP05/0.9 S	200.1005.643.04
AP05/1.2 D	200.1006.642.02	AP05/1.2 S	200.1006.643.02
AP05/1.6 D	200.1008.642.02	AP05/1.6 S	200.1008.643.01

Group **AP05** Code **310**



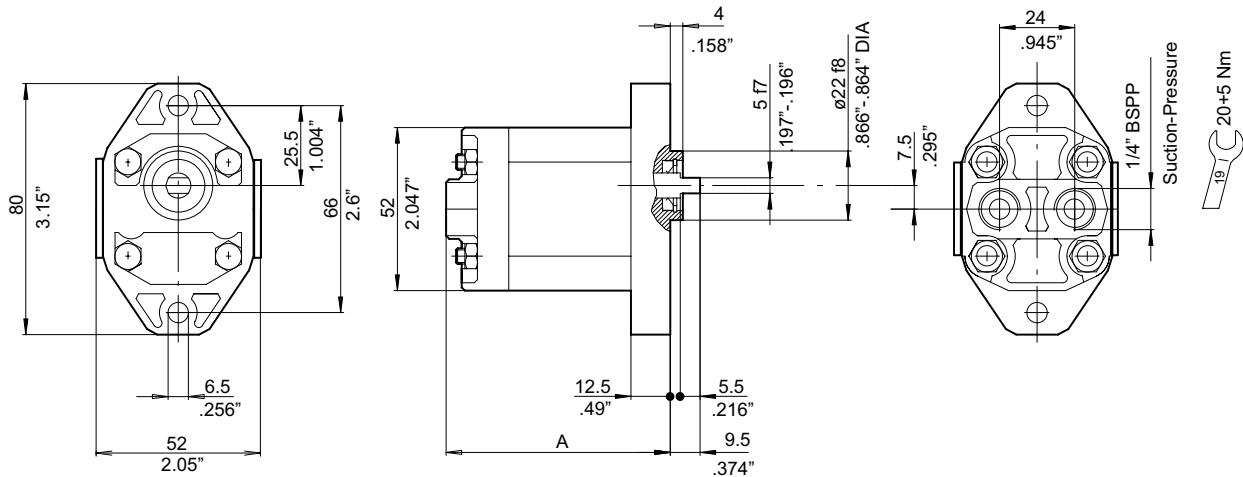
Type	Displacement cm ³ /rev	Dimensions	
		mm	inch.
AP05/0.25	0.25	64.5	2.54
AP05/0.5	0.5	67	2.64
AP05/0.75	0.75	69	2.72
AP05/0.9	0.9	70.5	2.77
AP05/1.2	1.2	73	2.87

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP05/0.25 D	200.1002.612.01	AP05/0.25 S	200.1002.613.01
AP05/0.5 D	200.1003.612.01	AP05/0.5 S	200.1003.613.01
AP05/0.75 D	200.1004.612.01	AP05/0.75 S	200.1004.613.01
AP05/0.9 D	200.1005.612.01	AP05/0.9 S	200.1005.613.01
AP05/1.2 D	200.1006.612.01	AP05/1.2 S	200.1006.613.01

Accessories

Splined couplings: GSH-06

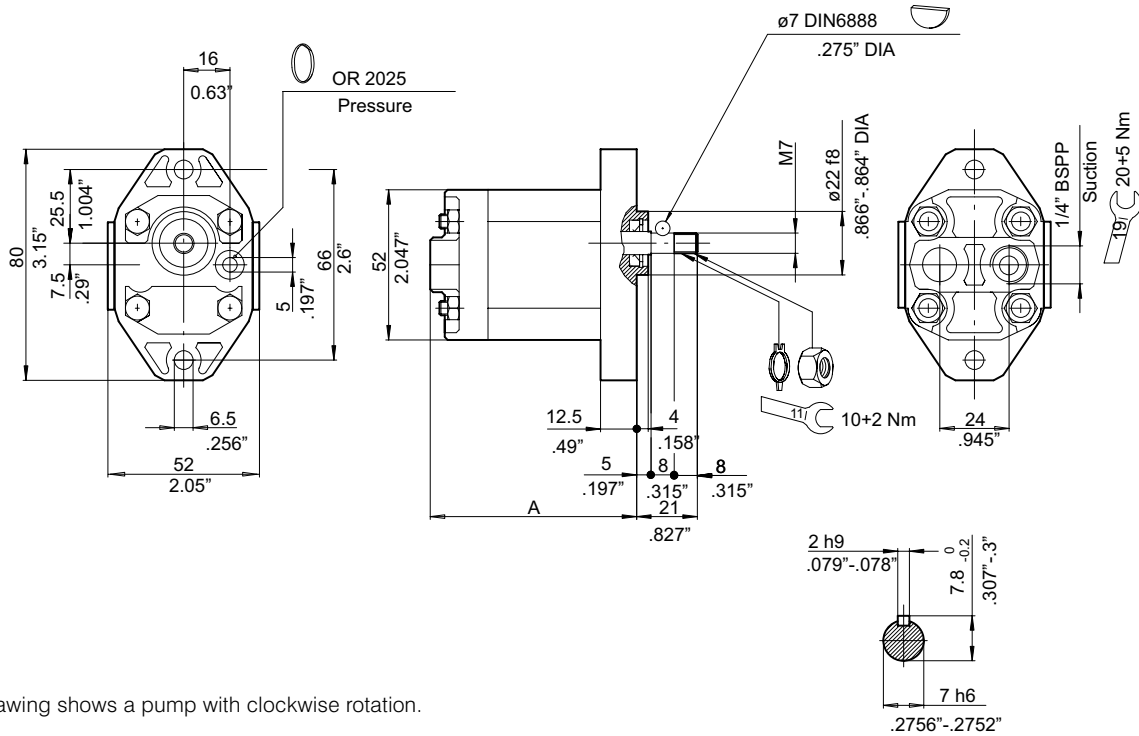
Group AP05 Code 319



Type	Displacement cm ³ /rev	Dimensions	
		A	
		mm	inch.
AP05/0.25	0.25	64.5	2.54
AP05/0.5	0.5	67	2.64
AP05/0.75	0.75	69	2.72
AP05/0.9	0.9	70.5	2.77
AP05/1.2	1.2	73	2.87

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP05/0.25 D	200.1002.142.02	AP05/0.25 S	200.1002.143.01
AP05/0.5 D	200.1003.142.01	AP05/0.5 S	200.1003.143.01
AP05/0.75 D	200.1004.142.01	AP05/0.75 S	200.1004.143.01
AP05/0.9 D	200.1005.142.01	AP05/0.9 S	200.1005.143.01
AP05/1.2 D	200.1006.142.01	AP05/1.2 S	200.1006.143.01
AP05/1.6 D	200.1008.142.01	AP05/1.6 S	200.1008.143.01

Group **AP05** Code **410**



The drawing shows a pump with clockwise rotation.

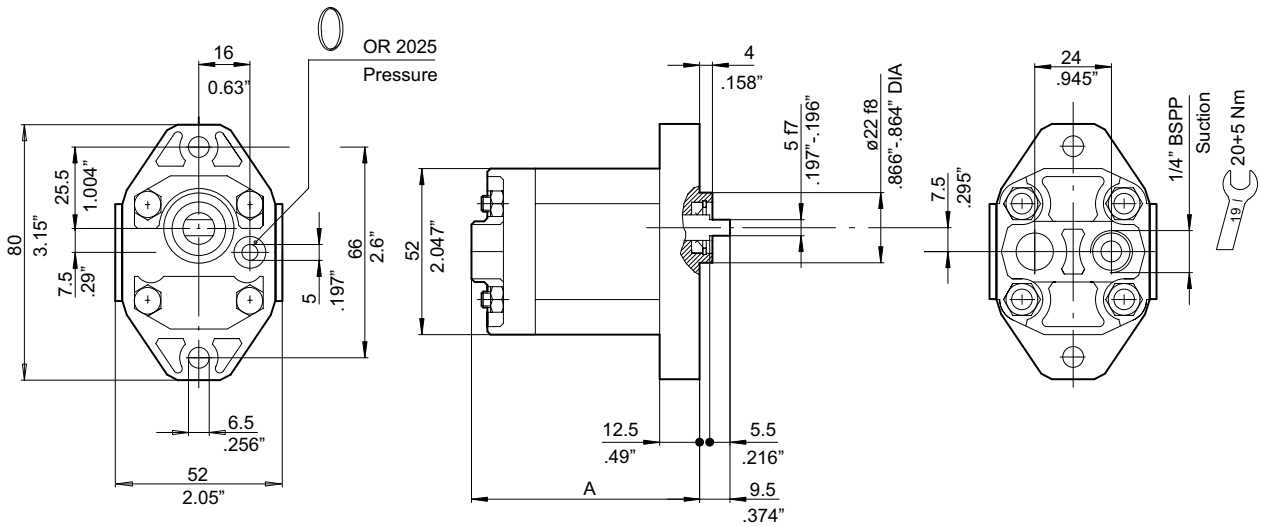
Type	Displacement cm ³ /rev	Dimensions	
		A	
		mm	inch.
AP05/0.25	0.25	64.5	2.54
AP05/0.5	0.5	67	2.64
AP05/0.75	0.75	69	2.72
AP05/0.9	0.9	70.5	2.77
AP05/1.2	1.2	73	2.87

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP05/0.25 D		AP05/0.25 S	200.1002.613.04
AP05/0.5 D		AP05/0.5 S	200.1003.613.04
AP05/0.75 D		AP05/0.75 S	
AP05/0.9 D	200.1005.612.04	AP05/0.9 S	
AP05/1.2 D		AP05/1.2 S	

Accessories

Splined couplings: GSH-06

Group **AP05** Code **419**

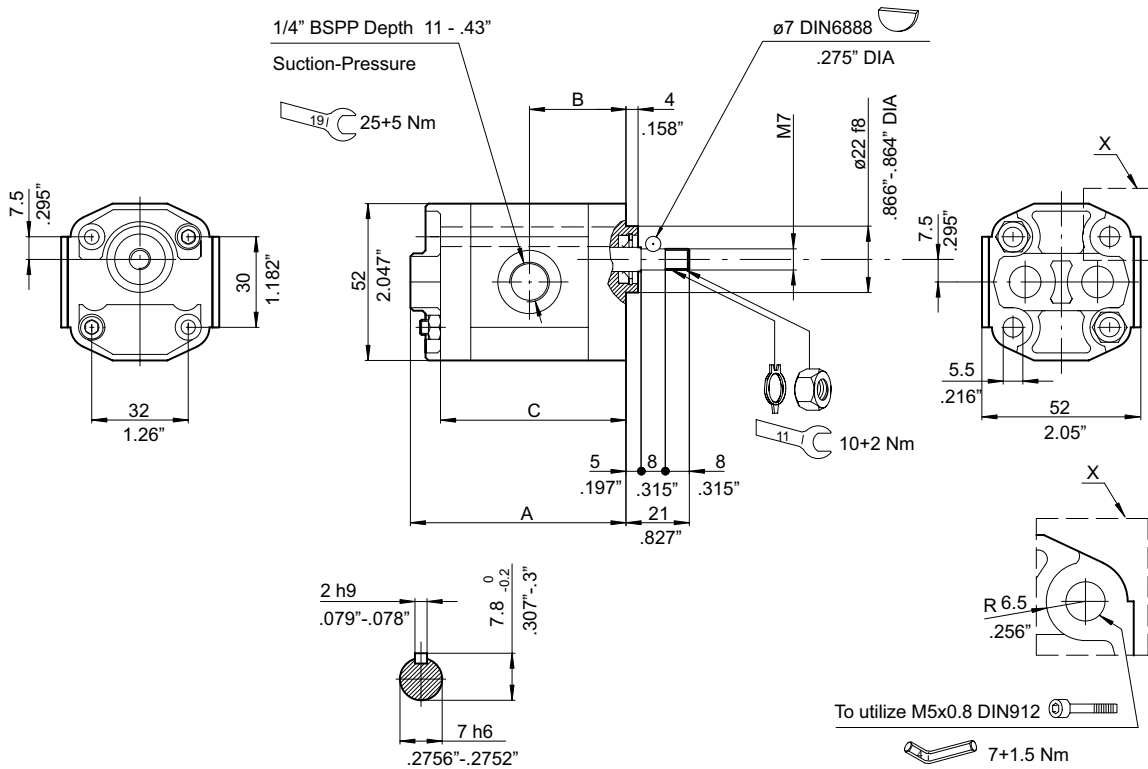


The drawing shows a pump with clockwise rotation.

Type	Displacement cm ³ /rev	Dimensions	
		A	
		mm	inch.
AP05/0.25	0.25	64.5	2.54
AP05/0.5	0.5	67	2.64
AP05/0.75	0.75	69	2.72
AP05/0.9	0.9	70.5	2.77
AP05/1.2	1.2	73	2.87
AP05/1.6	1.6	77	3.03

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP05/0.25 D		AP05/0.25 S	
AP05/0.5 D	200.1003.642.03	AP05/0.5 S	200.1003.643.04
AP05/0.75 D		AP05/0.75 S	200.1004.643.03
AP05/0.9 D		AP05/0.9 S	
AP05/1.2 D		AP05/1.2 S	
AP05/1.6 D		AP05/1.6 S	200.1008.643.02

Group **AP05** Code **830**



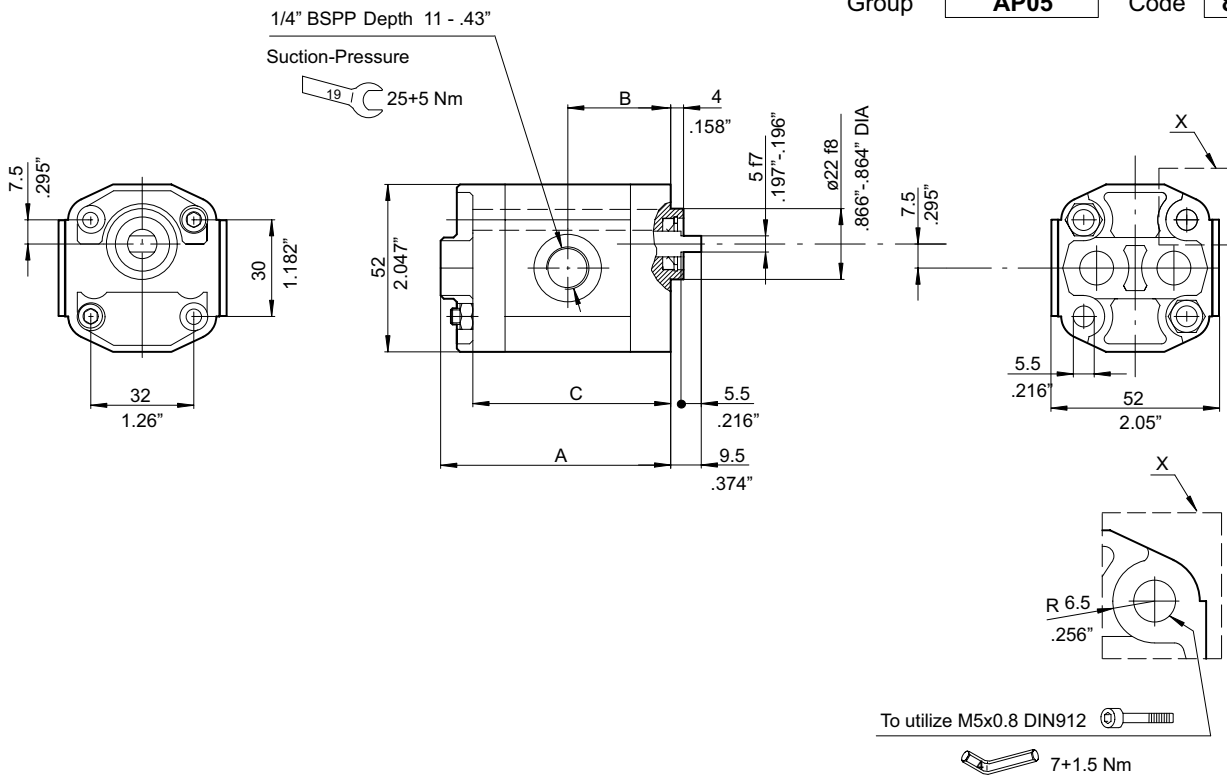
Type	Displacement cm ³ /rev	Dimensions					
		A		B		C	
		mm	inch.	mm	inch.	mm	inch.
AP05/0.25	0.25	64.5	2.54	29	1.41	53.5	2.11
AP05/0.5	0.5	67	2.64	30.5	1.2	56	2.20
AP05/0.75	0.75	69	2.72	31.5	1.24	58	2.28
AP05/0.9	0.9	70.5	2.77	32	1.26	59.5	2.34
AP05/1.2	1.2	73	2.87	33.5	1.32	62	2.44

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP05/0.25 D	200.1002.302.01	AP05/0.25 S	200.1002.303.01
AP05/0.5 D		AP05/0.5 S	200.1003.303.01
AP05/0.75 D		AP05/0.75 S	200.1004.303.01
AP05/0.9 D		AP05/0.9 S	200.1005.303.01
AP05/1.2 D		AP05/1.2 S	200.1006.313.01

Accessories

Splined couplings: GSH-06

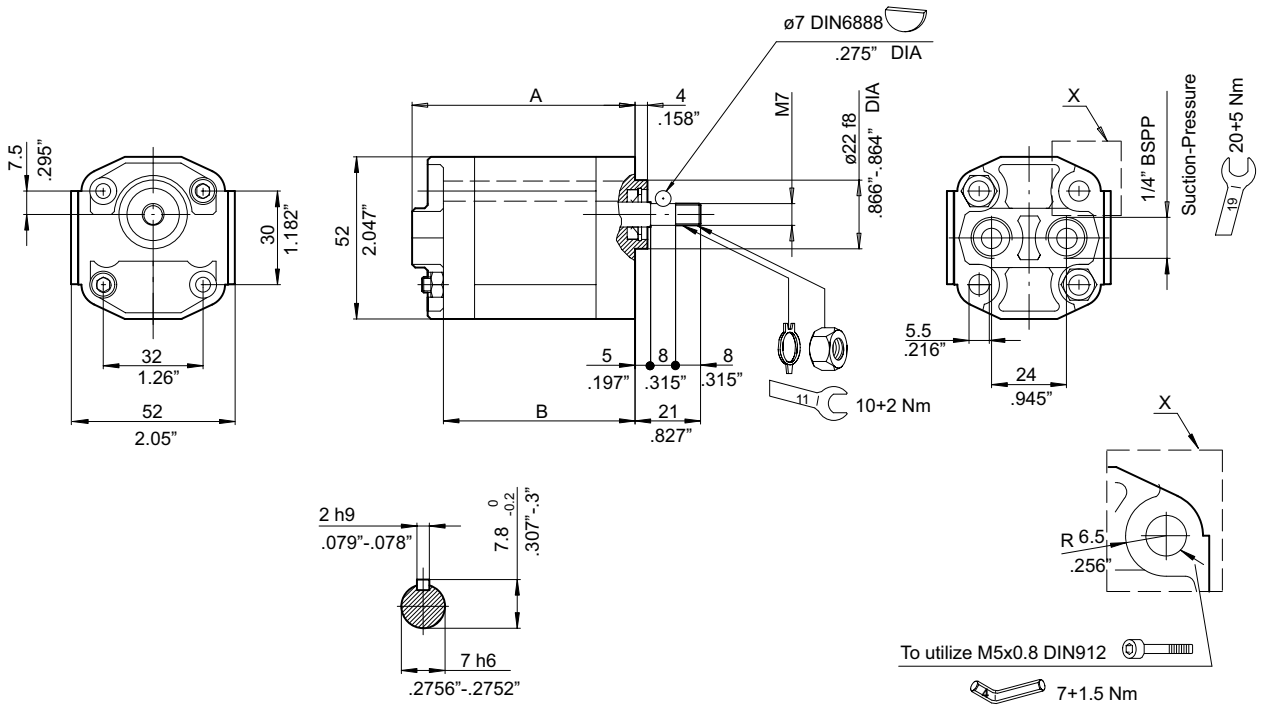
Group **AP05** Code **839**



Type	Displacement cm ³ /rev	Dimensions					
		A		B		C	
		mm	inch.	mm	inch.	mm	inch.
AP05/0.25	0.25	64.5	2.54	29	1.41	53.5	2.11
AP05/0.5	0.5	67	2.64	30.5	1.2	56	2.20
AP05/0.75	0.75	69	2.72	31.5	1.24	58	2.28
AP05/0.9	0.9	70.5	2.77	32	1.26	59.5	2.34
AP05/1.2	1.2	73	2.87	33.5	1.32	62	2.44
AP05/1.6	1.6	77	3.03	35.5	1.40	66	2.60

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP05/0.25 D		AP05/0.25 S	
AP05/0.5 D	200.1003.342.01	AP05/0.5 S	
AP05/0.75 D	200.1004.342.01	AP05/0.75 S	200.1004.343.04
AP05/0.9 D	200.1005.342.01	AP05/0.9 S	200.1005.343.02
AP05/1.2 D	200.1006.342.04	AP05/1.2 S	200.1006.343.01
AP05/1.6 D	200.1008.342.01	AP05/1.6 S	200.1008.343.01

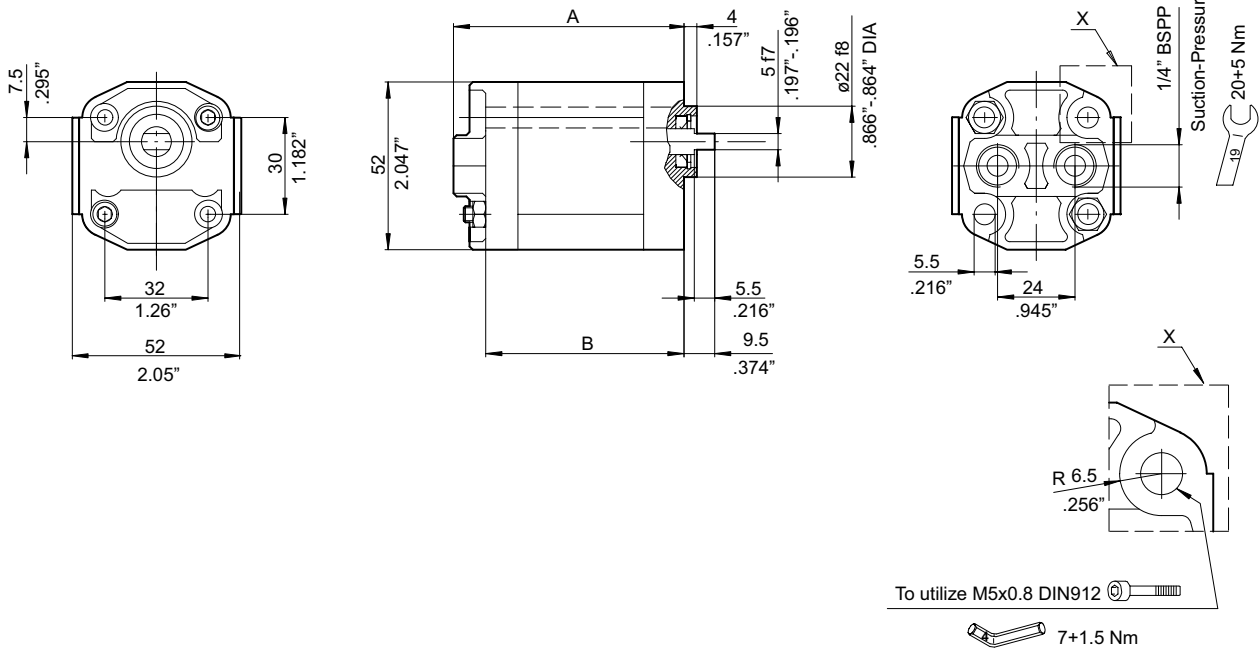
Group **AP05** Code **330**



Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP05/0.25	0.25	64.5	2.54	53.5	2.11
AP05/0.5	0.5	67	2.64	56	2.20
AP05/0.75	0.75	69	2.72	58	2.28
AP05/0.9	0.9	70.5	2.77	59.5	2.34
AP05/1.2	1.2	73	2.87	62	2.44

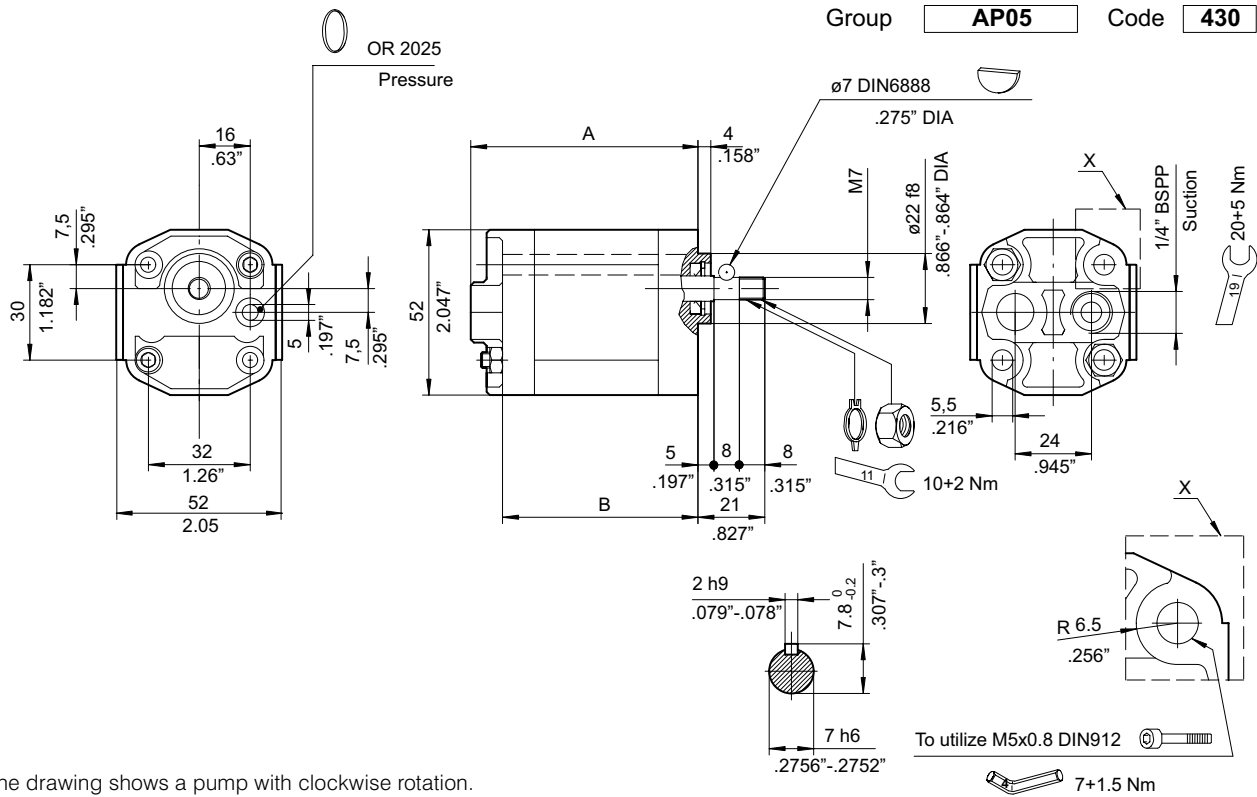
Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP05/0.25 D		AP05/0.25 S	
AP05/0.5 D		AP05/0.5 S	
AP05/0.75 D		AP05/0.75 S	
AP05/0.9 D	200.1005.312.01	AP05/0.9 S	
AP05/1.2 D		AP05/1.2 S	

Group **AP05** Code **339**



Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP05/0.25	0.25	64.5	2.54	53.5	2.11
AP05/0.5	0.5	67	2.64	56	2.20
AP05/0.75	0.75	69	2.72	58	2.28
AP05/0.9	0.9	70.5	2.77	59.5	2.34
AP05/1.2	1.2	73	2.87	62	2.44
AP05/1.6	1.6	77	3.03	66	2.60

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP05/0.25 D	200.1002.342.01	AP05/0.25 S	200.1002.343.03
AP05/0.5 D	200.1003.342.03	AP05/0.5 S	200.1003.343.03
AP05/0.75 D	200.1004.342.02	AP05/0.75 S	200.1004.343.02
AP05/0.9 D	200.1005.342.03	AP05/0.9 S	200.1005.343.03
AP05/1.2 D	200.1006.342.03	AP05/1.2 S	200.1006.343.03
AP05/1.6 D	200.1008.342.02	AP05/1.6 S	200.1008.343.02



The drawing shows a pump with clockwise rotation.

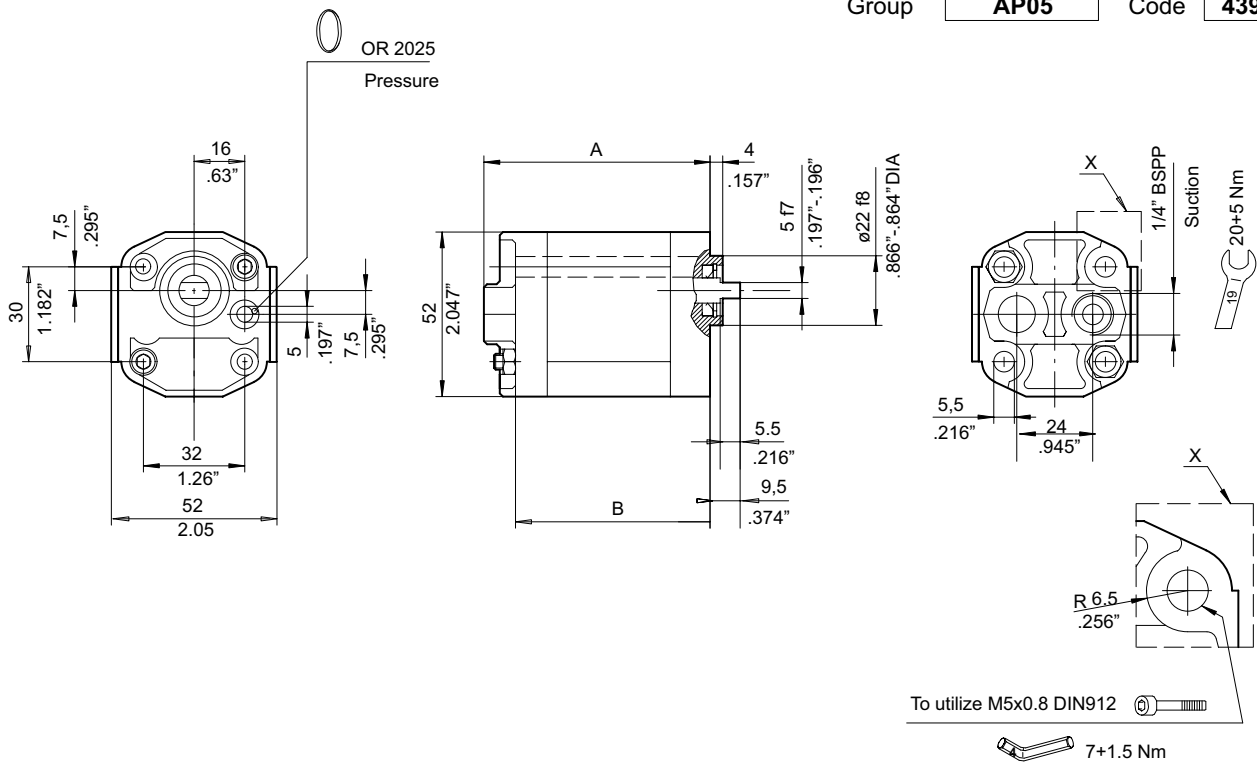
Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP05/0.25 D	0.25	64.5	2.54	53.5	2.11
AP05/0.5 D	0.5	67	2.64	56	2.20
AP05/0.75 D	0.75	69	2.72	58	2.28
AP05/0.9 D	0.9	70.5	2.77	59.5	2.34
AP05/1.2 D	1.2	73	2.87	62	2.44

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP05/0.25 D		AP05/0.25 S	
AP05/0.5 D		AP05/0.5 S	
AP05/0.75 D		AP05/0.75 S	
AP05/0.9 D		AP05/0.9 S	
AP05/1.2 D		AP05/1.2 S	

Accessories

Splined couplings: GSH-06

Group **AP05** Code **439**

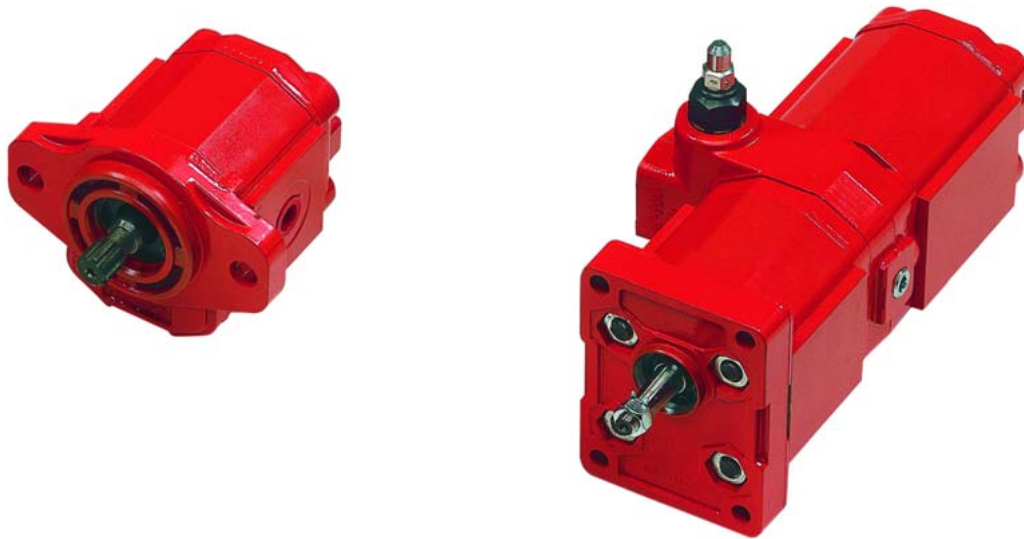


The drawing shows a pump with clockwise rotation.

Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP05/0.25 D	0.25	64.5	2.54	53.5	2.11
AP05/0.5 D	0.5	67	2.64	56	2.20
AP05/0.75 D	0.75	69	2.72	58	2.28
AP05/0.9 D	0.9	70.5	2.77	59.5	2.34
AP05/1.2 D	1.2	73	2.87	62	2.44
AP05/1.6 D	1.6	77	3.03	66	2.60

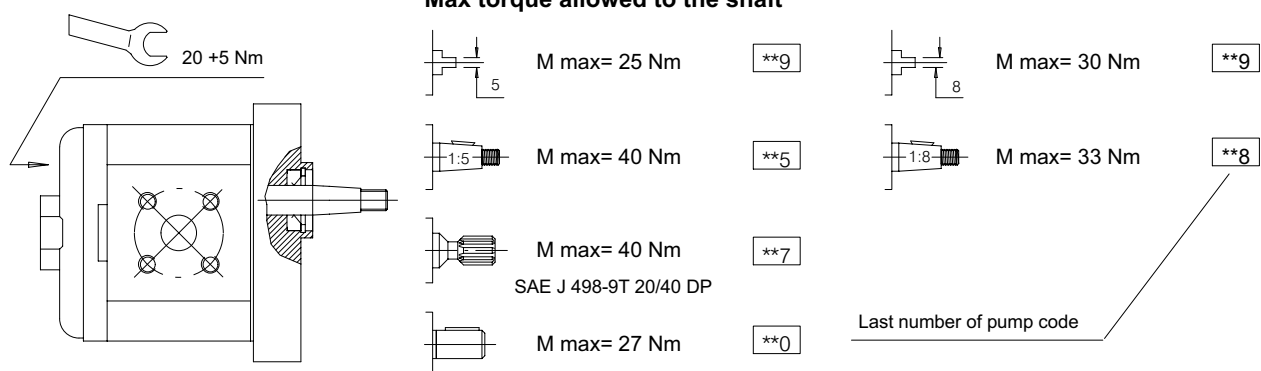
Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP05/0.25 D	200.1002.342.02	AP05/0.25 S	200.1002.343.02
AP05/0.5 D	200.1003.342.02	AP05/0.5 S	200.1003.343.02
AP05/0.75 D		AP05/0.75 S	200.1004.343.03
AP05/0.9 D	200.1005.342.02	AP05/0.9 S	
AP05/1.2 D	200.1006.342.02	AP05/1.2 S	200.1006.343.05
AP05/1.6 D		AP05/1.6 S	

4 Gear pump group AP100



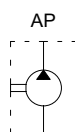
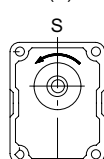
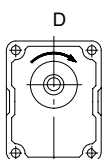
AP100 Type	Displacement		Max. pressure						n min.		n max.	
	cm ³ /rev	Cu.In.P.R.	P1		P2		P3		P ≤ P1	P > P1	P ≤ P1	P > P1
			bar	P.S.I.	bar	P.S.I.	bar	P.S.I.				
AP100/1.2	1.2	.073	210	3000	250	3600	280	4000	800	1000	4500	5000
AP100/1.7	1.7	.103	210	3000	250	3600	280	4000	650	800	4500	5000
AP100/2.5	2.5	.152	210	3000	250	3600	280	4000	650	800	4500	5000
AP100/3.5	3.5	.213	210	3000	230	3300	250	3600	650	800	3500	4000
AP100/4.3	4.3	.262	210	3000	230	3300	250	3600	550	700	3500	4000
AP100/5	5.0	.305	210	3000	230	3300	250	3600	500	650	3000	3500
AP100/6.5	6.5	.396	190	2700	220	3150	240	3400	500	650	2500	3000
AP100/8	7.8	.476	180	2600	210	3000	230	3300	500	650	2500	3000
AP100/10	10.0	.610	150	2150	180	2600	200	2900	500	650	2000	2500

Max torque allowed to the shaft



Clockwise rotation (D)

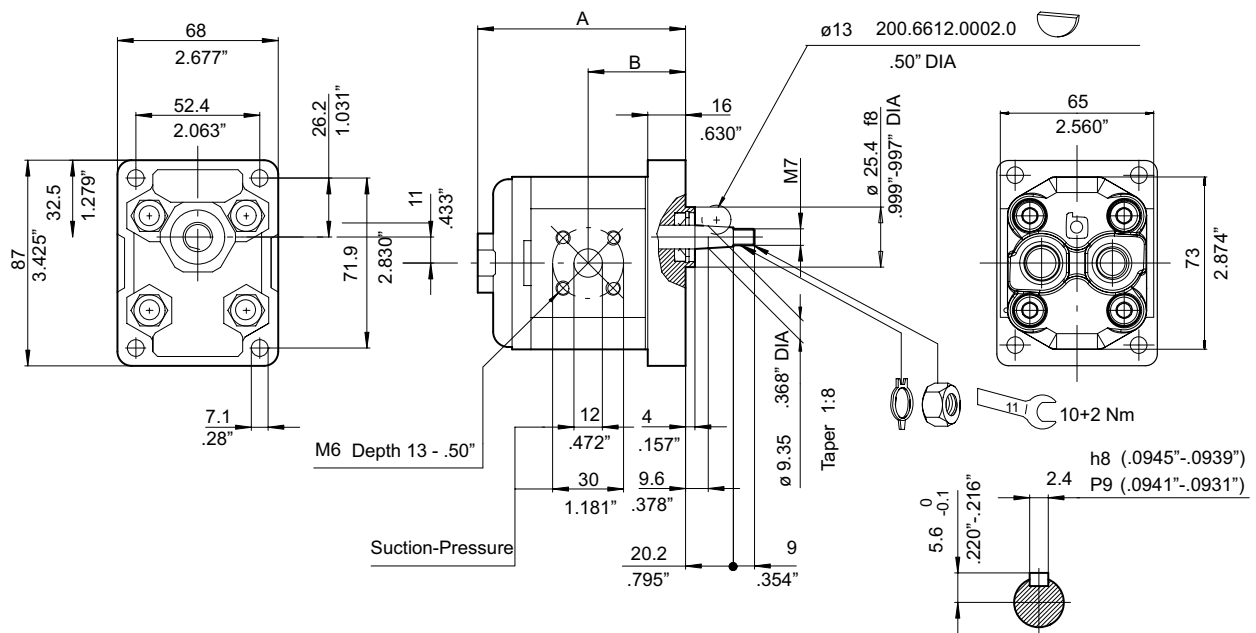
Counter-clockwise rotation (S)



Notes:

- For uses at the operating limits, see note on page 8/96.
- For codes and dimensions regarding accessories, see section 7.
- For the types of pumps without ordering code, contact our Sales Dept.

Group **AP100** Code **218**



Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP100/1.2	1.2	82.5	3.25	38.5	1.51
AP100/1.7	1.7	84.5	3.33	39.5	1.55
AP100/2.5	2.5	88	3.46	41	1.61
AP100/3.5	3.5	92	3.62	43.5	1.71
AP100/4.3	4.3	96	3.78	45	1.77
AP100/5	5	98.5	3.88	46.5	1.83
AP100/6.5	6.5	103.5	4.07	49	1.93
AP100/8	7.8	109	4.29	52	2.05

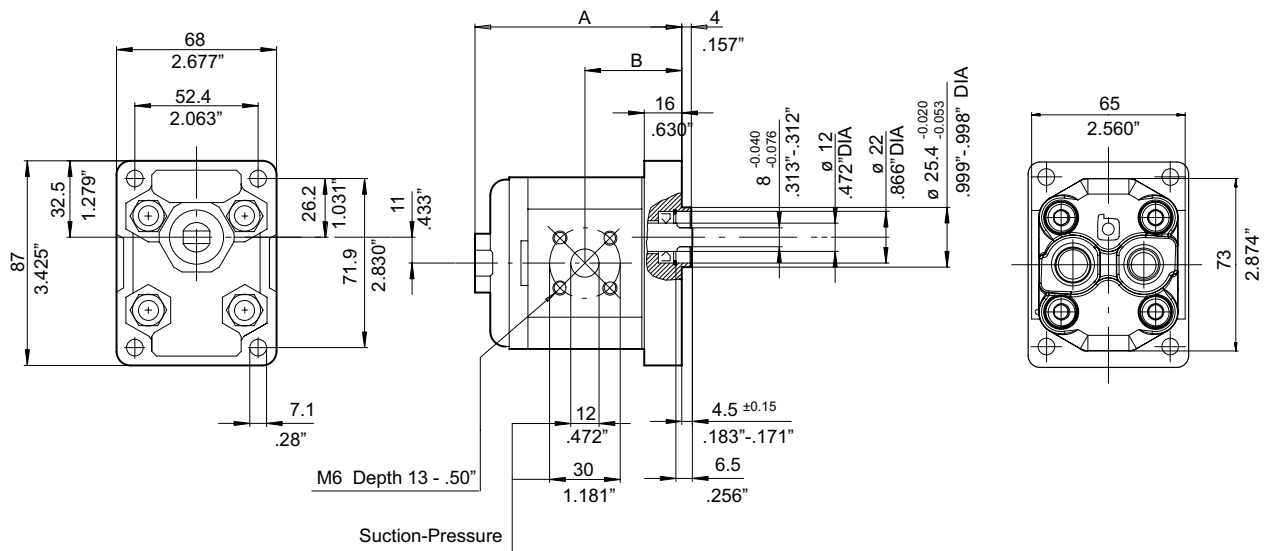
Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D	200.1011.132.04	AP100/1.2 S	200.1011.133.04
AP100/1.7 D	200.1012.132.03	AP100/1.7 S	200.1012.133.04
AP100/2.5 D	200.1013.132.03	AP100/2.5 S	200.1013.133.03
AP100/3.5 D	200.1014.132.04	AP100/3.5 S	200.1014.133.03
AP100/4.3 D	200.1015.132.03	AP100/4.3 S	200.1015.133.02
AP100/5 D	200.1016.132.03	AP100/5 S	200.1016.133.06
AP100/6.5 D	200.1017.132.03	AP100/6.5 S	200.1017.133.03
AP100/8 D	200.1018.132.02	AP100/8 S	200.1018.133.02

Accessories

Flange connectors: RF197 - RF198 - RF199

Splined couplings: GSH-1-12 - GSH-1-14

Group **AP100** Code **219**



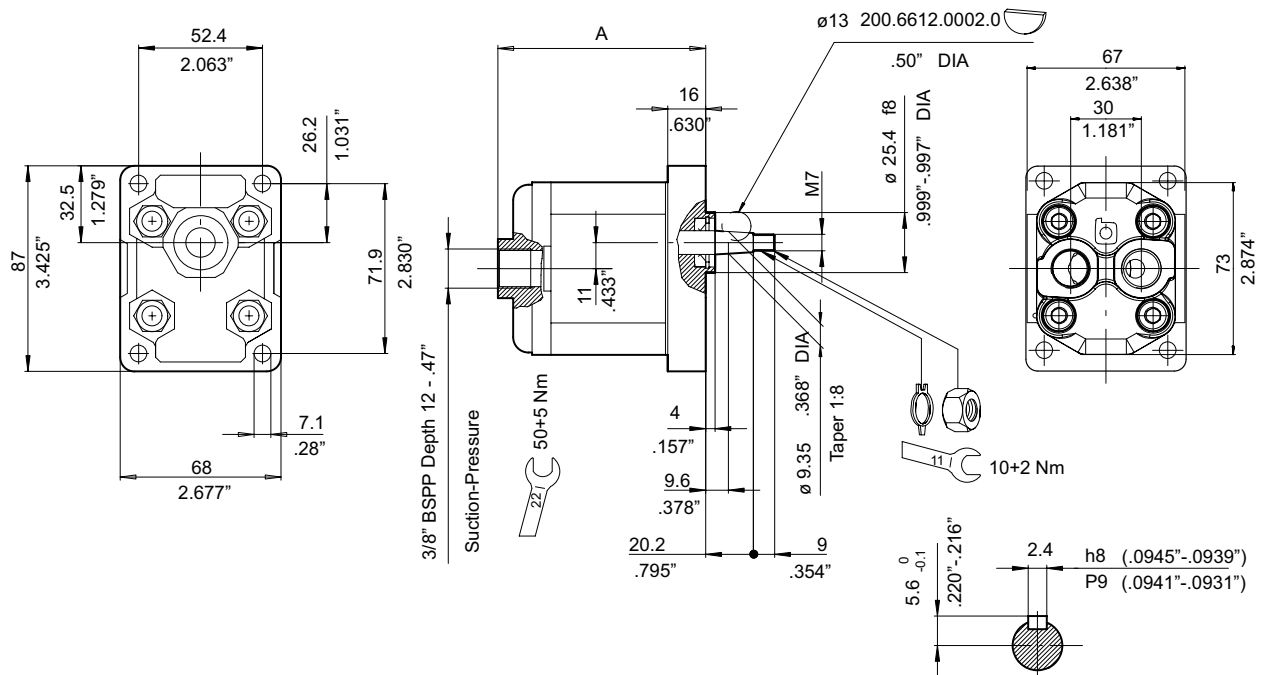
Type	Displacement cm ³ /rev	Dimensions			
		mm	A inch.	B mm	inch.
AP100/1.2	1.2	82.5	3.25	38.5	1.51
AP100/1.7	1.7	84.5	3.33	39.5	1.55
AP100/2.5	2.5	88	3.46	41	1.61
AP100/3.5	3.5	92	3.62	43.5	1.71
AP100/4.3	4.3	96	3.78	45	1.77
AP100/5	5	98.5	3.88	46.5	1.83
AP100/6.5	6.5	103.5	4.07	49	1.93
AP100/8	7.8	109	4.29	52	2.05
AP100/10	10	118	4.64	56.5	2.22

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D		AP100/1.2 S	200.1011.143.06
AP100/1.7 D		AP100/1.7 S	200.1012.143.07
AP100/2.5 D		AP100/2.5 S	200.1013.143.06
AP100/3.5 D		AP100/3.5 S	200.1014.143.06
AP100/4.3 D		AP100/4.3 S	200.1015.143.06
AP100/5 D		AP100/5 S	200.1016.143.04
AP100/6.5 D		AP100/6.5 S	200.1017.143.04
AP100/8 D		AP100/8 S	200.1018.143.02
AP100/10 D		AP100/10 S	

Accessories

Flange connectors: RF197 - RF198 - RF199

Group **AP100** Code **318**



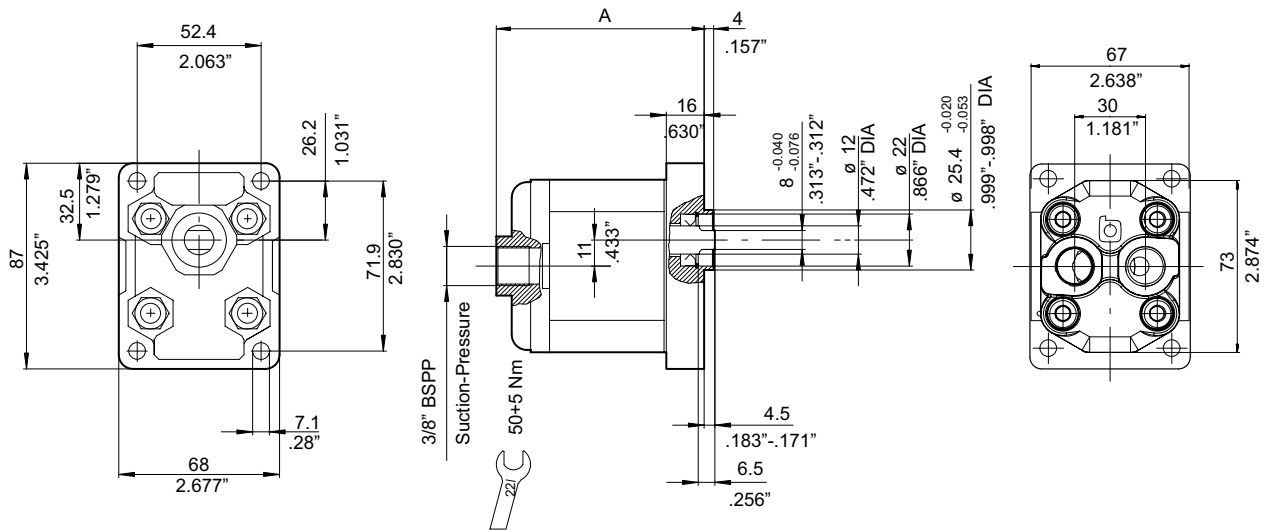
Type	Displacement cm ³ /rev	Dimensions A	
		mm	inch.
AP100/1.2	1.2	82.5	3.25
AP100/1.7	1.7	84.5	3.33
AP100/2.5	2.5	88	3.46
AP100/3.5	3.5	92	3.62
AP100/4.3	4.3	96	3.78
AP100/5	5	98.5	3.88
AP100/6.5	6.5	103.5	4.07
AP100/8	7.8	109	4.29

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D	200.1011.132.05	AP100/1.2 S	200.1011.133.05
AP100/1.7 D	200.1012.132.04	AP100/1.7 S	200.1012.133.05
AP100/2.5 D	200.1013.132.04	AP100/2.5 S	200.1013.133.04
AP100/3.5 D	200.1014.132.05	AP100/3.5 S	200.1014.133.04
AP100/4.3 D	200.1015.132.04	AP100/4.3 S	200.1015.133.05
AP100/5 D	200.1016.132.04	AP100/5 S	200.1016.133.07
AP100/6.5 D	200.1017.132.04	AP100/6.5 S	200.1017.133.04
AP100/8 D	200.1018.132.03	AP100/8 S	200.1018.133.03

Accessories

Splined couplings: GSH-1-12 - GSH-1-14

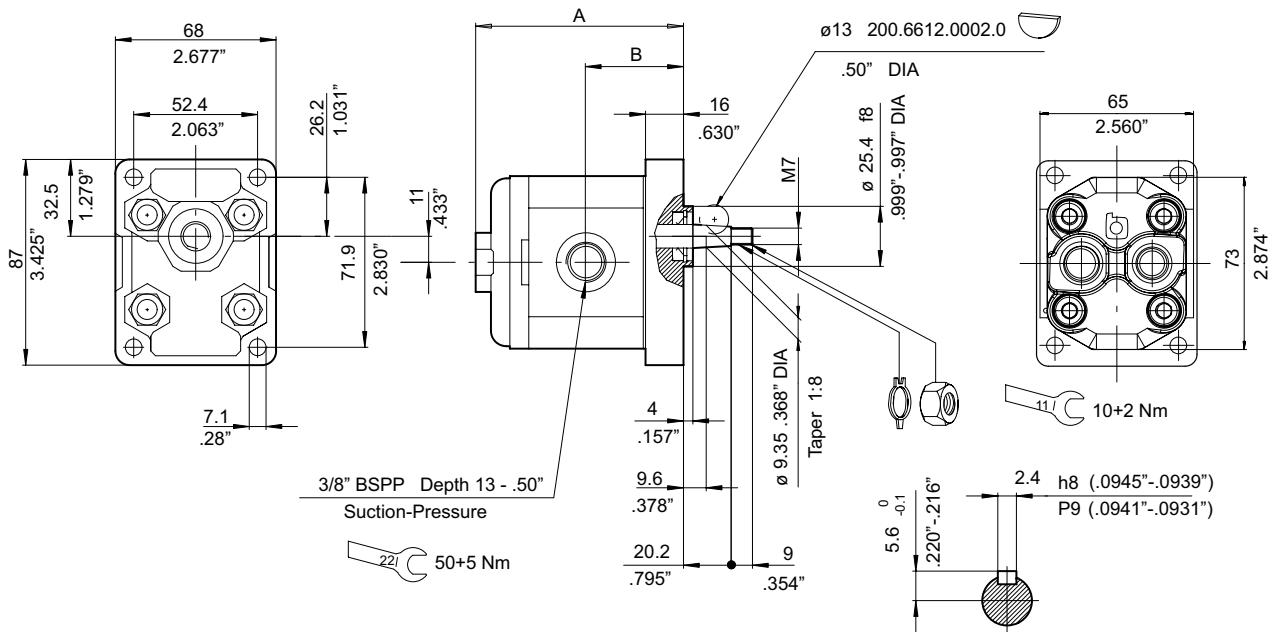
Group **AP100** Code **319**



Type	Displacement cm ³ /rev	Dimensions A	
		mm	inch.
AP100/1.2	1.2	82.5	3.25
AP100/1.7	1.7	84.5	3.33
AP100/2.5	2.5	88	3.46
AP100/3.5	3.5	92	3.62
AP100/4.3	4.3	96	3.78
AP100/5	5	98.5	3.88
AP100/6.5	6.5	103.5	4.07
AP100/8	7.8	109	4.29
AP100/10	10	118	4.64

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D		AP100/1.2 S	200.1011.143.07
AP100/1.7 D		AP100/1.7 S	200.1012.143.08
AP100/2.5 D		AP100/2.5 S	200.1013.143.07
AP100/3.5 D	200.1014.142.01	AP100/3.5 S	200.1014.143.07
AP100/4.3 D		AP100/4.3 S	200.1015.143.08
AP100/5 D	200.1016.142.01	AP100/5 S	200.1016.143.05
AP100/6.5 D	200.1017.142.02	AP100/6.5 S	200.1017.143.05
AP100/8 D		AP100/8 S	200.1018.143.03
AP100/10 D		AP100/10 S	

Group **AP100** Code **818**



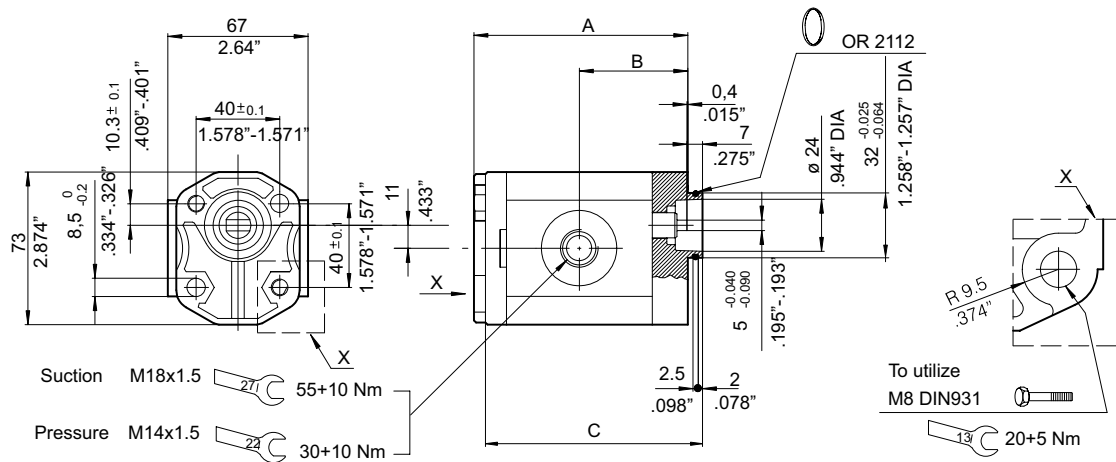
Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP100/1.2	1.2	82.5	3.25	38.5	1.51
AP100/1.7	1.7	84.5	3.33	39.5	1.55
AP100/2.5	2.5	88	3.46	41	1.61
AP100/3.5	3.5	92	3.62	43.5	1.71
AP100/4.3	4.3	96	3.78	45	1.77
AP100/5	5	98.5	3.88	46.5	1.83
AP100/6.5	6.5	103.5	4.07	49	1.93
AP100/8	7.8	109	4.29	52	2.05

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D	200.1011.132.07	AP100/1.2 S	200.1011.133.06
AP100/1.7 D	200.1012.132.05	AP100/1.7 S	200.1012.133.07
AP100/2.5 D	200.1013.132.07	AP100/2.5 S	200.1013.133.05
AP100/3.5 D	200.1014.132.06	AP100/3.5 S	200.1014.133.06
AP100/4.3 D	200.1015.132.06	AP100/4.3 S	200.1015.133.04
AP100/5 D	200.1016.132.05	AP100/5 S	200.1016.133.09
AP100/6.5 D	200.1017.132.05	AP100/6.5 S	200.1017.133.05
AP100/8 D	200.1018.132.04	AP100/8 S	200.1018.133.04

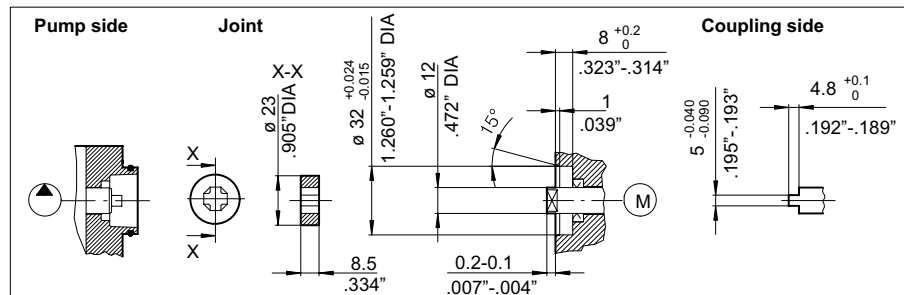
Accessories

Splined couplings: GSH-1-12 - GSH-1-14

Group **AP100** Code **849**



Max pressure (M max= 25 Nm)			
Pump	P bar (PSI)		
	P1	P2	P3
AP100/6.5	160 (2300)	180 (2600)	200 (2900)
AP100/8	130 (1900)	150 (2100)	170 (2400)

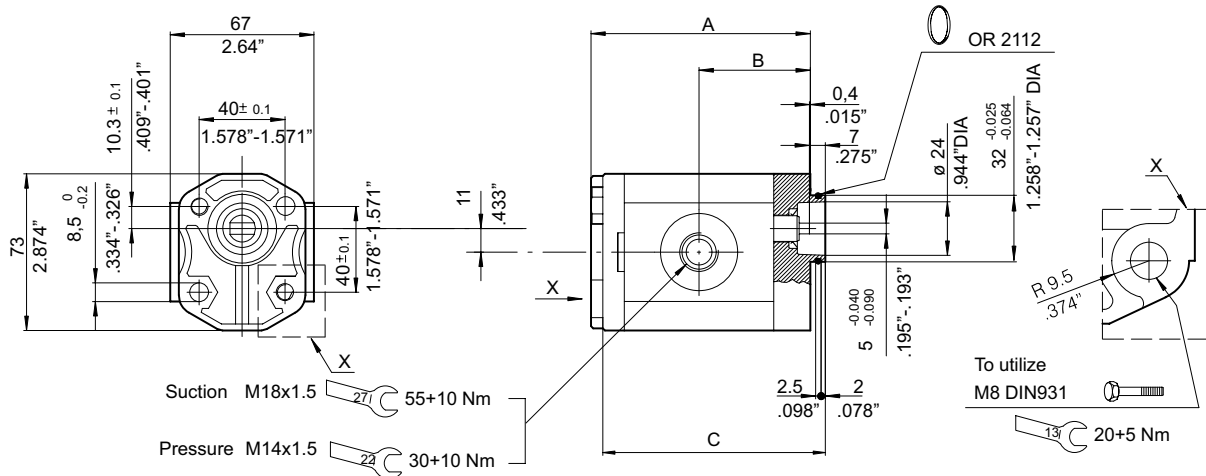


Type	Displacement cm ³ /rev	Dimensions					
		A		B		C	
		mm	inch.	mm	inch.	mm	inch.
AP100/1.2	1.2	82.5	3.25	38.5	1.51	70	2.75
AP100/1.7	1.7	84.5	3.33	39.5	1.55	72	2.83
AP100/2.5	2.5	88	3.46	41	1.61	75.5	2.97
AP100/3.5	3.5	92	3.62	43.5	1.71	80	3.15
AP100/4.3	4.3	96	3.78	45	1.77	83.5	3.29
AP100/5	5	98.5	3.88	46.5	1.83	86	3.38
AP100/6.5	6.5	103.5	4.07	49	1.93	91	3.58
AP100/8	7.8	109	4.29	52	2.05	97	3.81

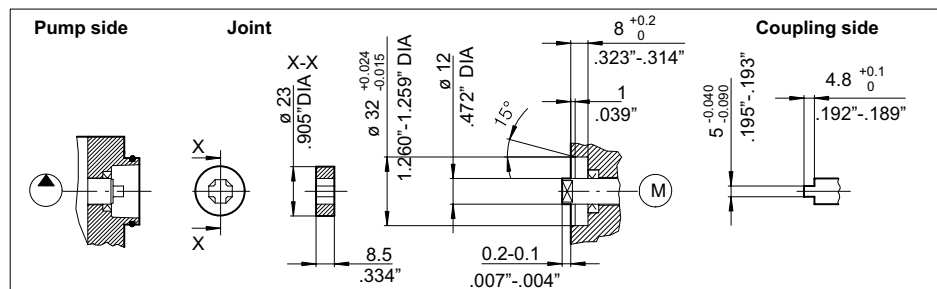
Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D	200.1011.442.01	AP100/1.2 S	200.1011.443.03
AP100/1.7 D	200.1012.442.02	AP100/1.7 S	200.1012.443.03
AP100/2.5 D	200.1013.442.03	AP100/2.5 S	200.1013.443.03
AP100/3.5 D	200.1014.442.01	AP100/3.5 S	200.1014.443.03
AP100/4.3 D	200.1015.442.01	AP100/4.3 S	200.1015.443.03
AP100/5 D	200.1016.442.01	AP100/5 S	200.1016.443.01
AP100/6.5 D	200.1017.442.01	AP100/6.5 S	200.1017.443.02
AP100/8 D	200.1018.442.01	AP100/8 S	200.1018.443.04

Note: With respect to the standards, the maximum pressures of some versions of this pump are reduced in relation to the max. torque allowed to the shaft.

Group **AP100** Code **849P**



Max pressure (M max= 25 Nm)				
Pump	P1	P2	P3	bar (PSI)
AP100/6.5	160 (2300)	180 (2600)	200 (2900)	
AP100/8	130 (1900)	150 (2100)	170 (2400)	

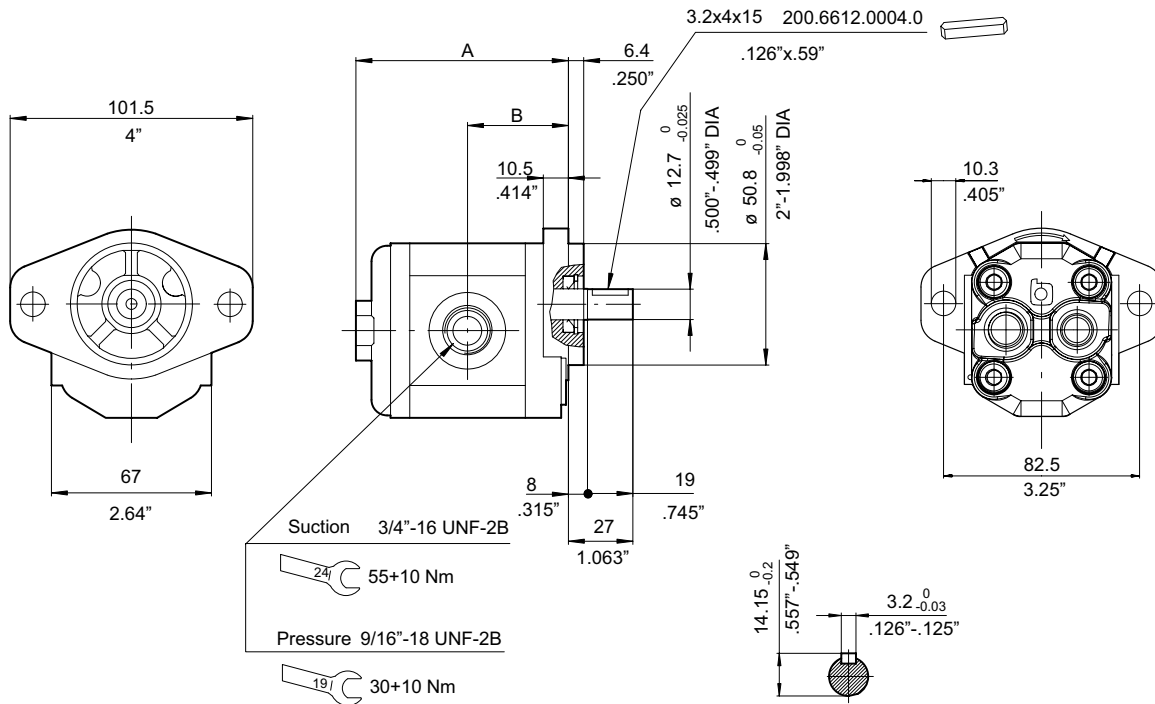


Type	Displacement cm ³ /rev	Dimensions					
		A		B		C	
		mm	inch.	mm	inch.	mm	inch.
AP100/1.2	1.2	82.5	3.25	38.5	1.51	70	2.75
AP100/1.7	1.7	84.5	3.33	39.5	1.55	72	2.83
AP100/2.5	2.5	88	3.46	41	1.61	75.5	2.97
AP100/3.5	3.5	92	3.62	43.5	1.71	80	3.15
AP100/4.3	4.3	96	3.78	45	1.77	83.5	3.29
AP100/5	5	98.5	3.88	46.5	1.83	86	3.38
AP100/6.5	6.5	103.5	4.07	49	1.93	91	3.58
AP100/8	7.8	109	4.29	52	2.05	97	3.81

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D	200.1011.442.02	AP100/1.2 S	200.1011.443.04
AP100/1.7 D	200.1012.442.03	AP100/1.7 S	200.1012.443.04
AP100/2.5 D	200.1013.442.04	AP100/2.5 S	200.1013.443.04
AP100/3.5 D	200.1014.442.02	AP100/3.5 S	200.1014.443.04
AP100/4.3 D	200.1015.442.02	AP100/4.3 S	200.1015.443.04
AP100/5 D	200.1016.442.02	AP100/5 S	200.1016.443.02
AP100/6.5 D	200.1017.442.02	AP100/6.5 S	200.1017.443.03
AP100/8 D	200.1018.442.02	AP100/8 S	200.1018.443.02

Note: With respect to the standards, the maximum pressures of some versions of this pump are reduced in relation to the max. torque allowed to the shaft.

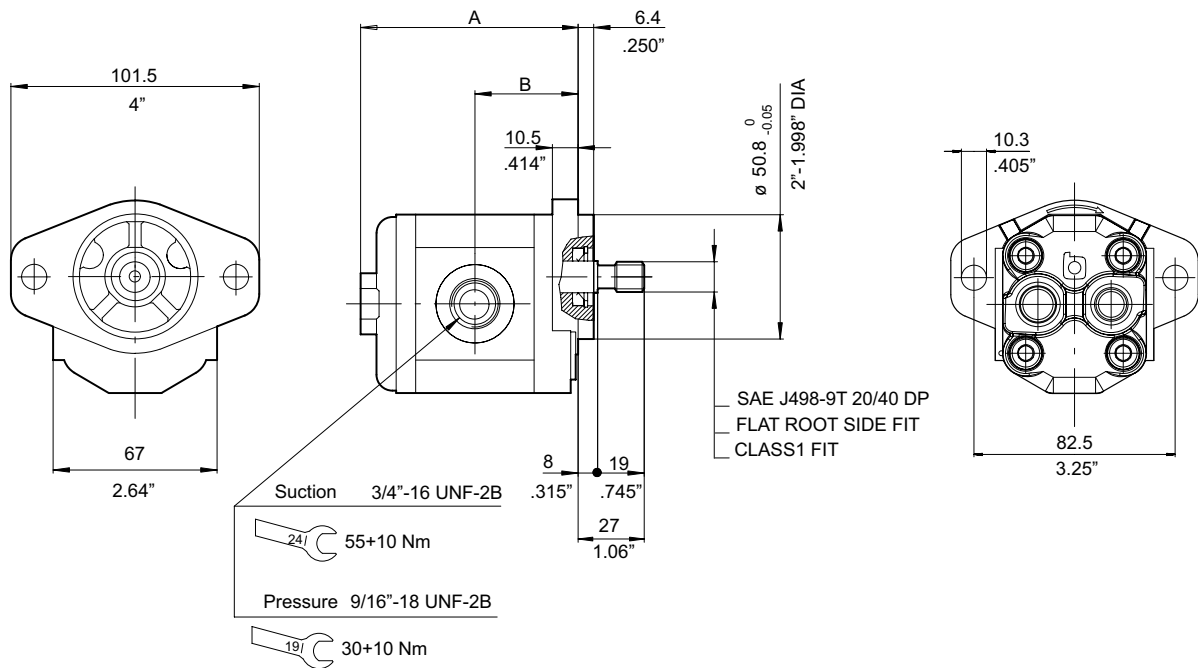
Group **AP100** Code **880**



Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP100/1.2	1.2	83.5	3.29	39.5	1.56
AP100/1.7	1.7	85.5	3.37	40.5	1.60
AP100/2.5	2.5	89	3.50	42	1.65
AP100/3.5	3.5	93	3.66	44.5	1.75
AP100/4.3	4.3	97	3.82	46	1.81
AP100/5	5	99.5	3.92	47.5	1.87
AP100/6.5	6.5	104.5	4.11	50	1.97
AP100/8	8	110	4.33	53	2.09

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D	200.1011.802.01	AP100/1.2 S	200.1011.803.01
AP100/1.7 D	200.1012.802.01	AP100/1.7 S	200.1012.803.01
AP100/2.5 D	200.1013.802.01	AP100/2.5 S	200.1013.803.01
AP100/3.5 D	200.1014.802.05	AP100/3.5 S	200.1014.803.01
AP100/4.3 D	200.1015.802.01	AP100/4.3 S	200.1015.803.03
AP100/5 D	200.1016.802.01	AP100/5 S	200.1016.803.01
AP100/6.5 D	200.1017.802.01	AP100/6.5 S	200.1017.803.01
AP100/8 D	200.1018.802.01	AP100/8 S	200.1018.803.01

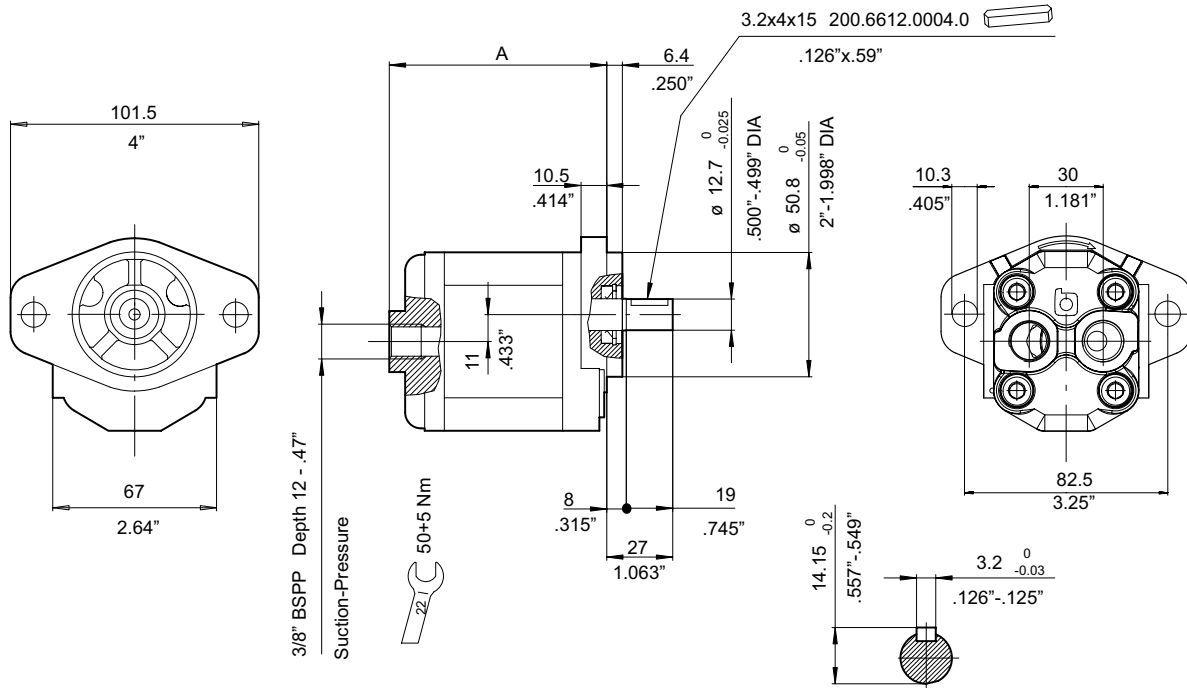
Group **AP100** Code **887S**



Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP100/1.2	1.2	83.5	3.29	39.5	1.56
AP100/1.7	1.7	85.5	3.37	40.5	1.60
AP100/2.5	2.5	89	3.50	42	1.65
AP100/3.5	3.5	93	3.66	44.5	1.75
AP100/4.3	4.3	97	3.82	46	1.81
AP100/5	5	99.5	3.92	47.5	1.87
AP100/6.5	6.5	104.5	4.11	50	1.97
AP100/8	7.8	110	4.33	53	2.09

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D	200.1011.862.01	AP100/1.2 S	200.1011.863.01
AP100/1.7 D	200.1012.862.01	AP100/1.7 S	200.1012.863.01
AP100/2.5 D	200.1013.862.01	AP100/2.5 S	200.1013.863.01
AP100/3.5 D	200.1014.862.01	AP100/3.5 S	200.1014.863.01
AP100/4.3 D	200.1015.862.01	AP100/4.3 S	200.1015.863.01
AP100/5 D	200.1016.862.01	AP100/5 S	200.1016.863.01
AP100/6.5 D	200.1017.862.01	AP100/6.5 S	200.1017.863.02
AP100/8 D	200.1018.862.01	AP100/8 S	200.1018.863.01

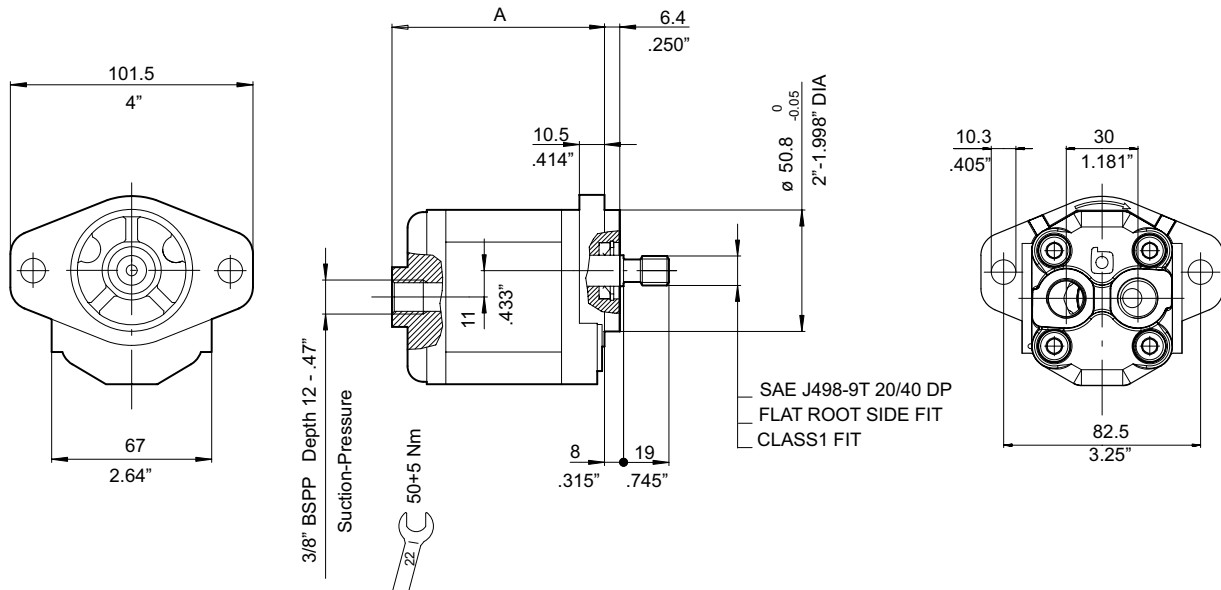
Group **AP100** Code **380**



Type	Displacement cm ³ /rev	Dimensions A	
		mm	inch
AP100/1.2	1.2	83.5	3.29
AP100/1.7	1.7	85.5	3.37
AP100/2.5	2.5	89	3.50
AP100/3.5	3.5	93	3.66
AP100/4.3	4.3	97	3.82
AP100/5	5	99.5	3.92
AP100/6.5	6.5	104.5	4.11
AP100/8	7.8	110	4.33

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D		AP100/1.2 S	
AP100/1.7 D	200.1012.802.06	AP100/1.7 S	
AP100/2.5 D		AP100/2.5 S	
AP100/3.5 D	200.1014.802.07	AP100/3.5 S	
AP100/4.3 D		AP100/4.3 S	
AP100/5 D	200.1016.802.05	AP100/5 S	
AP100/6.5 D	200.1017.802.05	AP100/6.5 S	
AP100/8 D	200.1018.802.05	AP100/8 S	

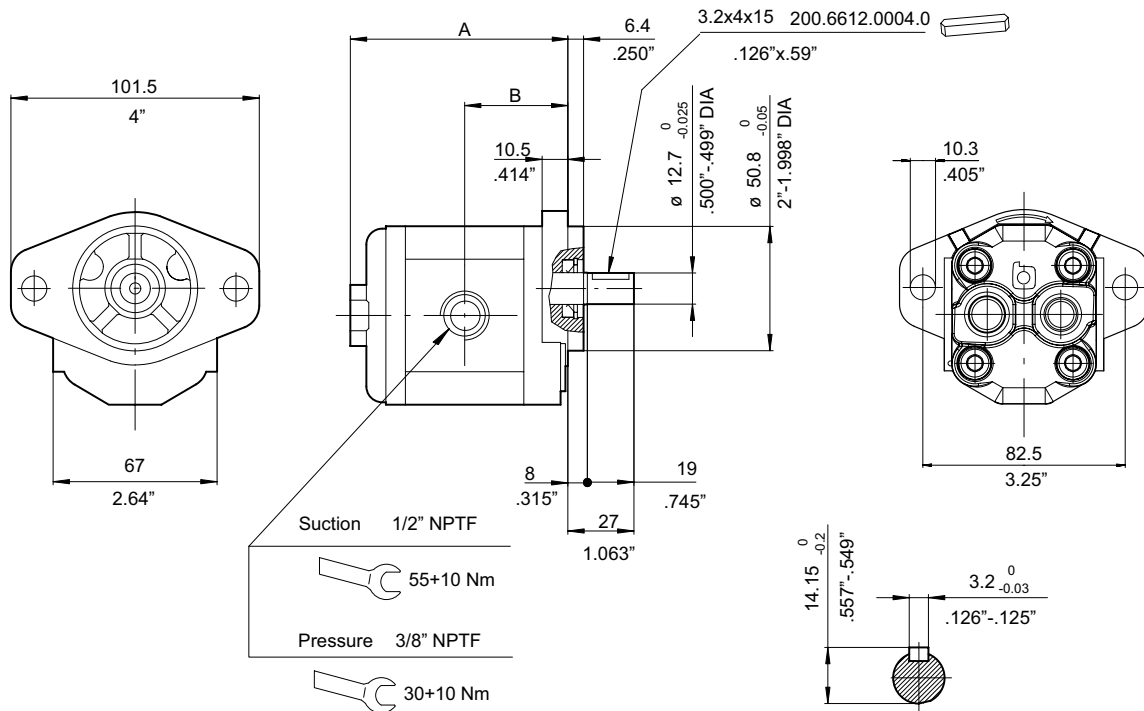
Group AP100 Code 387S



Type	Displacement cm ³ /rev	Dimensions A	
		mm	inch
AP100/1.2	1.2	83.5	3.29
AP100/1.7	1.7	85.5	3.37
AP100/2.5	2.5	89	3.50
AP100/3.5	3.5	93	3.66
AP100/4.3	4.3	97	3.82
AP100/5	5	99.5	3.92
AP100/6.5	6.5	104.5	4.11
AP100/8	8	110	4.33

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D		AP100/1.2 S	
AP100/1.7 D		AP100/1.7 S	
AP100/2.5 D		AP100/2.5 S	
AP100/3.5 D		AP100/3.5 S	
AP100/4.3 D		AP100/4.3 S	
AP100/5 D		AP100/5 S	
AP100/6.5 D		AP100/6.5 S	
AP100/8 D		AP100/8 S	

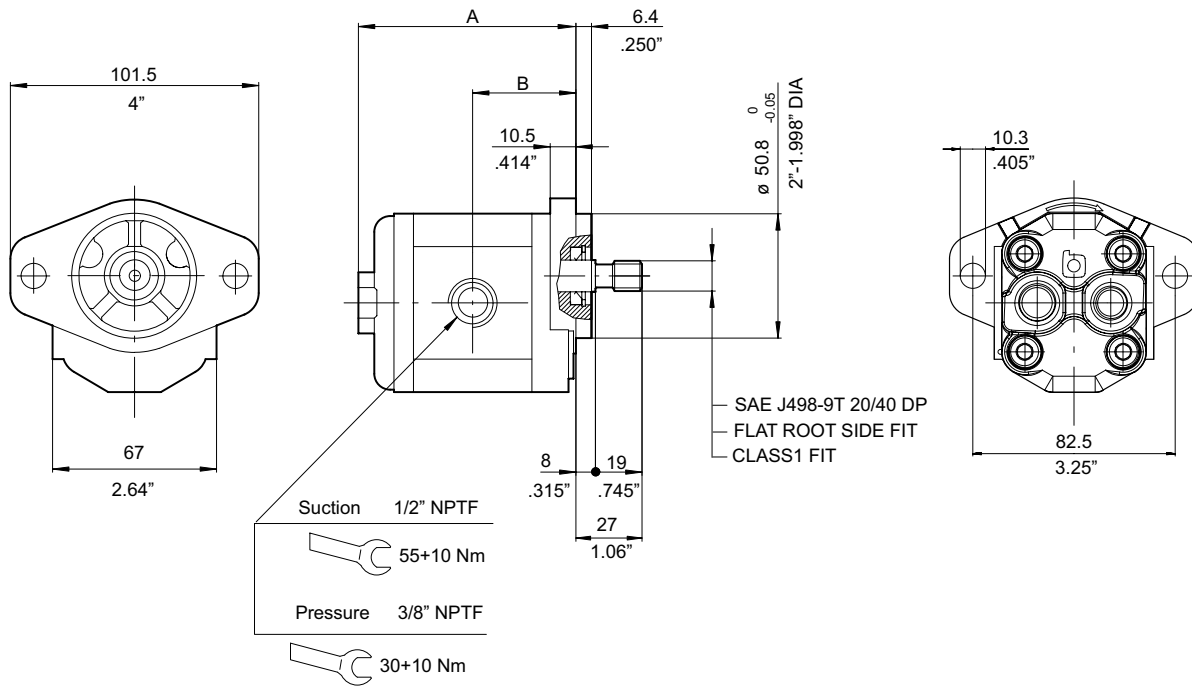
Group **AP100** Code **880 NPTF**



Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP100/1.2	1.2	83.5	3.29	39.5	1.56
AP100/1.7	1.7	85.5	3.37	40.5	1.60
AP100/2.5	2.5	89	3.50	42	1.65
AP100/3.5	3.5	93	3.66	44.5	1.75
AP100/4.3	4.3	97	3.82	46	1.81
AP100/5	5	99.5	3.92	47.5	1.87
AP100/6.5	6.5	104.5	4.11	50	1.97
AP100/8	8	110	4.33	53	2.09

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D	200.1011.802.02	AP100/1.2 S	200.1011.803.02
AP100/1.7 D	200.1012.802.02	AP100/1.7 S	200.1012.803.02
AP100/2.5 D	200.1013.802.02	AP100/2.5 S	200.1013.803.02
AP100/3.5 D	200.1014.802.02	AP100/3.5 S	200.1014.803.02
AP100/4.3 D	200.1015.802.02	AP100/4.3 S	200.1015.803.01
AP100/5 D	200.1016.802.02	AP100/5 S	200.1016.803.02
AP100/6.5 D	200.1017.802.02	AP100/6.5 S	200.1017.803.02
AP100/8 D	200.1018.802.02	AP100/8 S	200.1018.803.02

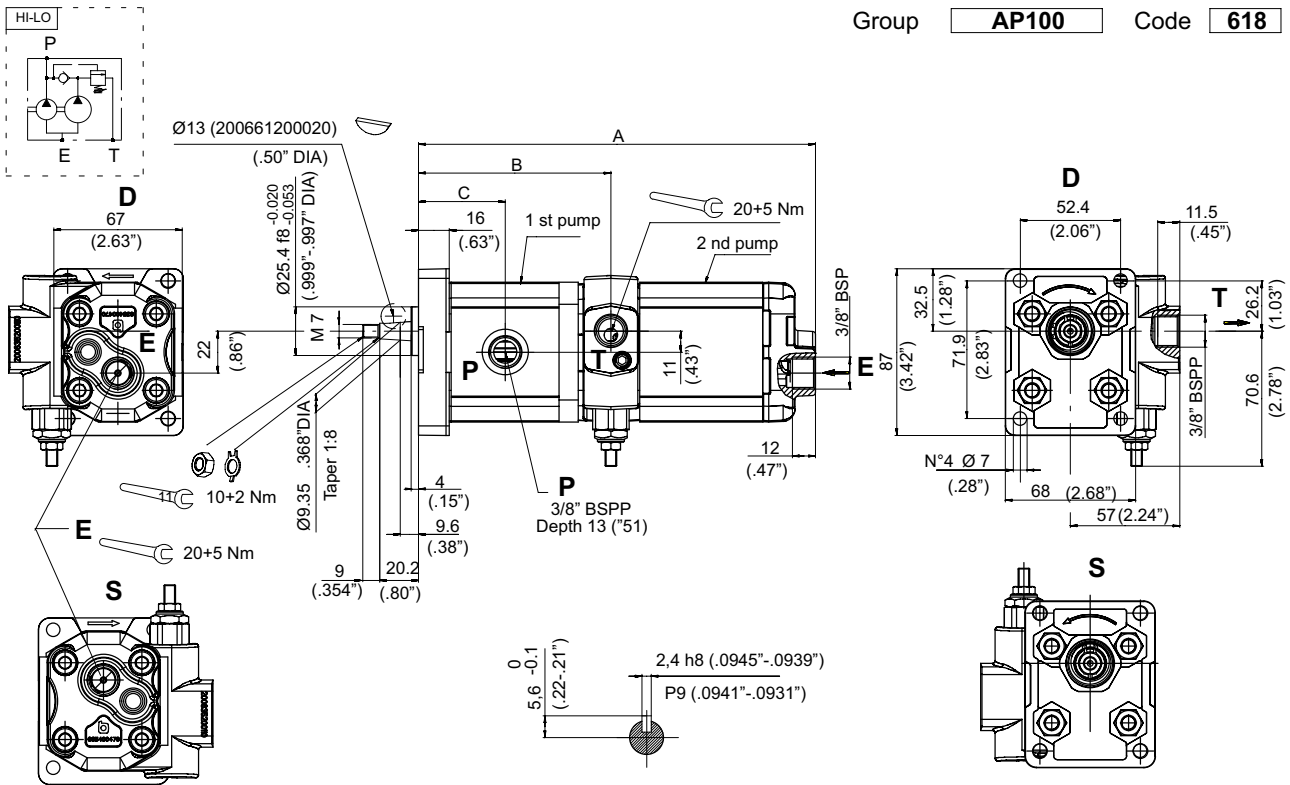
Group **AP100** Code **887S NPTF**



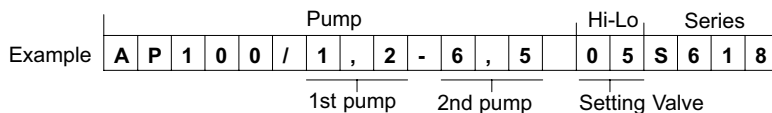
Type	Displacement cm ³ /rev	Dimensions			
		A		B	
		mm	inch.	mm	inch.
AP100/1.2	1.2	83.5	3.29	39.5	1.56
AP100/1.7	1.7	85.5	3.37	40.5	1.60
AP100/2.5	2.5	89	3.50	42	1.65
AP100/3.5	3.5	93	3.66	44.5	1.75
AP100/4.3	4.3	97	3.82	46	1.81
AP100/5	5	99.5	3.92	47.5	1.87
AP100/6.5	6.5	104.5	4.11	50	1.97
AP100/8	7.8	110	4.33	53	2.09

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP100/1.2 D		AP100/1.2 S	
AP100/1.7 D		AP100/1.7 S	
AP100/2.5 D		AP100/2.5 S	
AP100/3.5 D		AP100/3.5 S	
AP100/4.3 D		AP100/4.3 S	
AP100/5 D		AP100/5 S	
AP100/6.5 D		AP100/6.5 S	
AP100/8 D		AP100/8 S	

Group **AP100** Code **618**



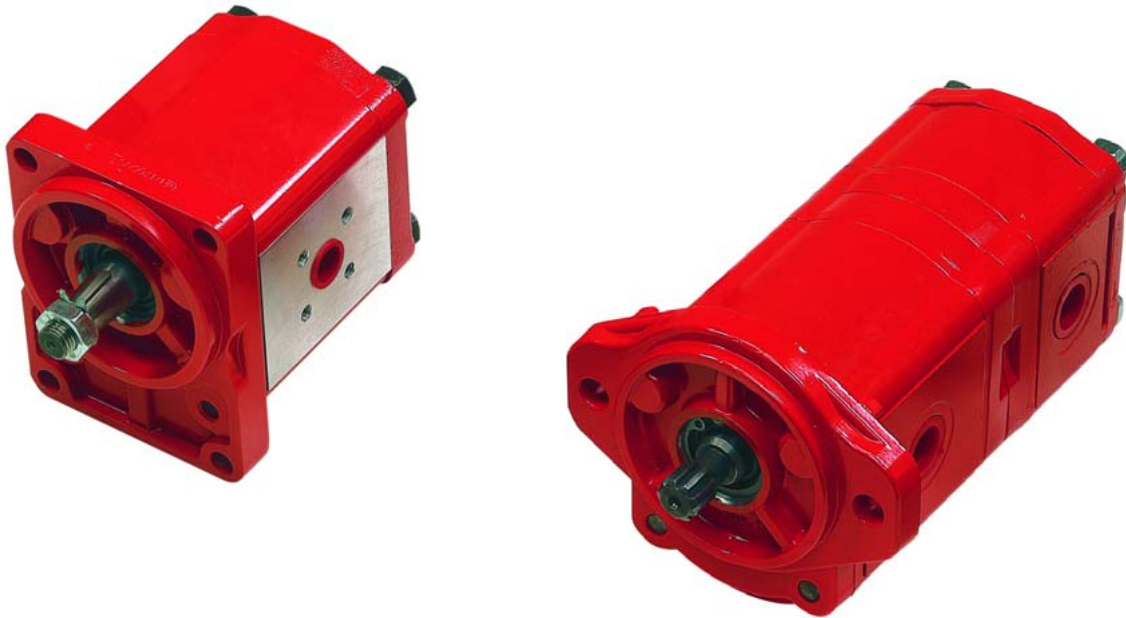
Pump AP100		Dimension				Existing code				
1 st Pump	2 nd Pump	A		B	C	Order Code	Description	Pressure Setting (bar)		
		mm	inches	mm (inch)	mm (inch)					
AP100/1,2	AP100/2,5	177,5	7,00	38,5 (1,51")	87 (3,42")	200111113213	AP100/1,2-2,5.06 D 618	60		
						200111113303	AP100/1,2-2,5.06 S 618			
AP100/1,2	AP100/3,5	182	7,17					200111113212	AP100/1,2-3,5.06 D 618	60
AP100/1,2	AP100/4,3	185,5	7,30							
AP100/1,2	AP100/5	188	7,40					200111113215	AP100/1,2-5,0.05 D 618	50
AP100/1,2	AP100/6,5	193	7,60					200111113211	AP100/1,2-6,5.05 D 618	50
						200111113216	AP100/1,2-6,5.03 D 618	30		
AP100/1,7	AP100/5	190	7,48	39,50 (1,55")	89 (3,50")	200111213206	AP100/1,7-5,0.03 D 618	30		
AP100/1,7	AP100/6,5	179,5	7,07					200111213302	AP100/1,7-6,5 .06 S 618	60
AP100/1,7	AP100/8	201	7,91							
AP100/2,5	AP100/3,5	187	7,36	41,2 (1,62")	92,50 (3,64")					
AP100/2,5	AP100/4,3	191	7,52					200111413302	AP100/3,5-4,3.05 S 618	50
AP100/2,5	AP100/5	193,5	7,62							
AP100/2,5	AP100/6,5	198,5	7,81			200111313206	AP100/2,5-6,5.05 D 618	50		
						200111313207	AP100/2,5-6,5.03 D 618	30		
AP100/3,5	AP100/4,3	195	7,68	43,35 (1,70")	97 (3,81")	200111413302	AP100/3,5-4,3.05 S 618	50		
AP100/3,5	AP100/6,5	203	8,00					200111413206	AP100/3,5-6,5.06 D 618	60
AP100/3,5	AP100/8	208,5	8,21					200111413205	AP100/3,5-8,0.03 D 618	30
AP100/4,3	AP100/4,3	199	7,83	45,15 (1,77")	100,5 (3,95")	200111513208	AP100/4,3-4,3.03 D 618	30		
								200111513304	AP100/4,3-4,3.05 S 618	50
AP100/4,3	AP100/6,5	206,5	8,13			200111513207	AP100/4,3-6,5 03 D 618	30		
						200111513209	AP100/4,3-6,5.06 D 618	60		



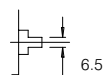
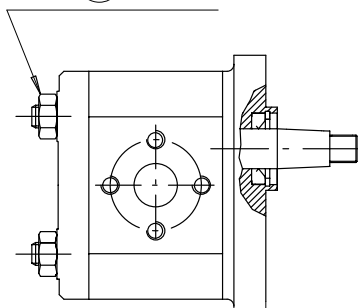
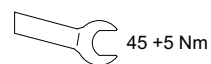
Standard setting values for HI-LO valve:
03= 30 bar (pressure range 15 ÷ 55 bar)
06= 60 bar (pressure range 55 ÷ 90 bar)

Note (*): For availability of pumps without ordering code please contact our Sales Department.

5 Gear pump group AP200



AP/APR200 Type	Displacement		Max. pressure						n min.		n max.	
	cm ³ /rev	Cu.In. P.R.	P1		P2		P3		P ≤ P1	P > P1	P ≤ P1	P > P1
			bar	P.S.I.	bar	P.S.I.	bar	P.S.I.				
AP-APR200/4.5	4.3	.262	220	3150	250	3600	280	4000	800	1000	3500	4000
AP-APR200/6.5	6.3	.384	220	3150	250	3600	280	4000	800	1000	3500	4000
AP-APR200/8.5	8.3	.506	220	3150	250	3600	280	4000	800	1000	3500	4000
AP-APR200/11	11.0	.671	210	3000	230	3300	250	3600	700	900	3500	4000
AP-APR200/15	15.0	.915	210	3000	230	3300	250	3600	650	800	3500	4000
AP-APR200/19	18.9	1.159	210	3000	230	3300	250	3600	650	800	3000	3500
AP-APR200/22	21.9	1.342	200	2900	220	3150	240	3400	600	750	3000	3500
AP-APR200/26	25.9	1.586	190	2700	210	3000	230	3300	600	750	2500	3000



M max= 65 Nm

**9



M max= 65 Nm

**9



M max= 135 Nm

**5



M max= 135 Nm

**8



M max= 110 Nm

**7

B17x14 DIN5482



M max= 90 Nm

**7S

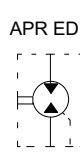
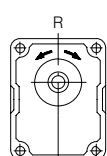
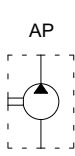
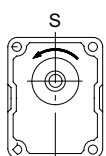
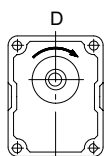
SAE J 498-9T 16/32 DP



M max= 65 Nm

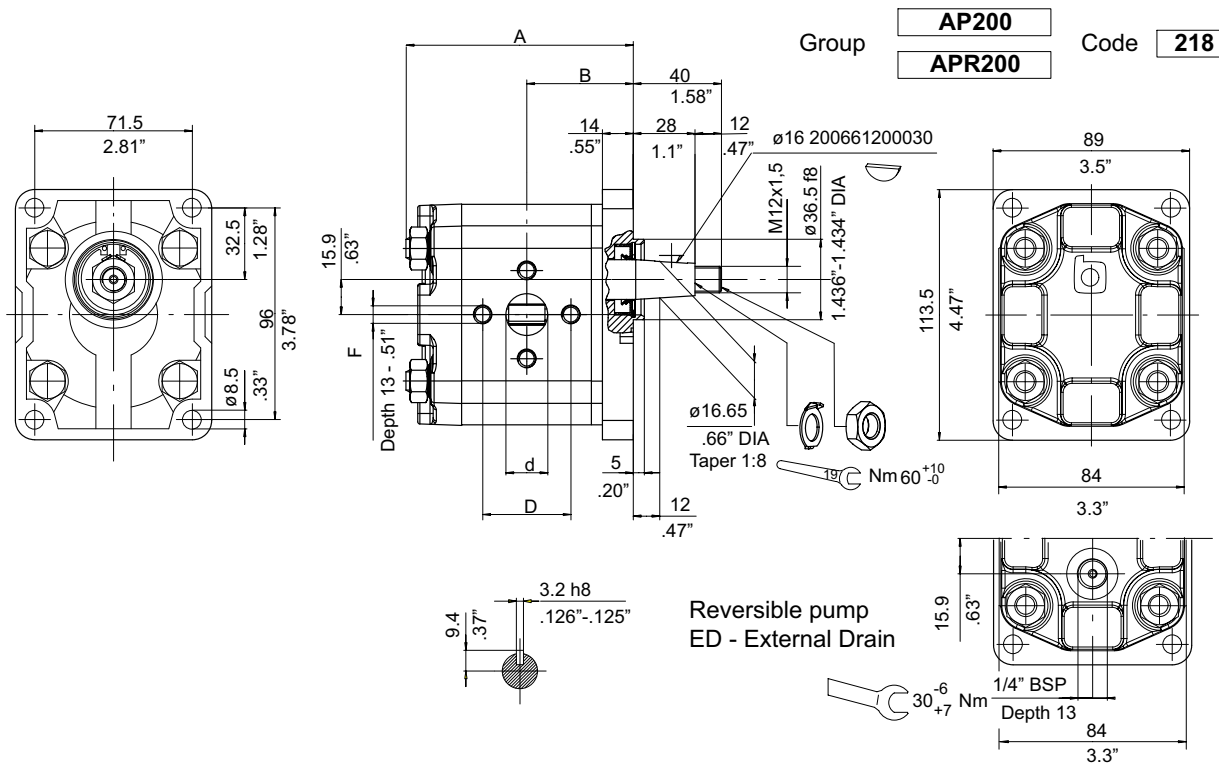
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Clockwise (D) Counter-clockwise (S) rotation Reversible rotation



Notes:

- For uses at the operating limits, see note on page 8/96
- For codes and dimensions regarding accessories, see section 7.
- For the types of pumps without ordering code, contact our Sales Dept.
- For reversible pumps alternative inlet and outlet ports have same sizes as per inlet unidirectional rotation



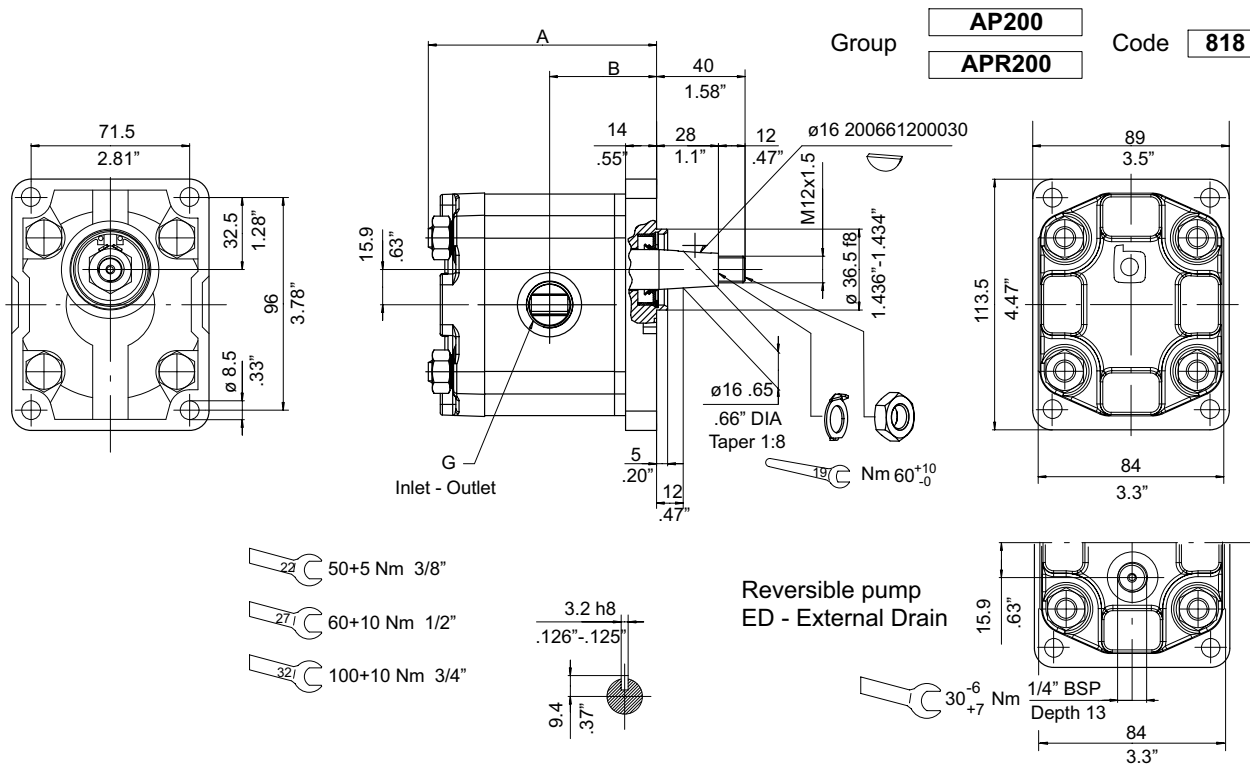
Type	Displacement cm ³ /rev	Dimensions				Suction					Pressure				
		A		B		d		D		F	d		D		F
		mm	inch	mm	inch	mm	inch	mm	inch	mm	mm	inch	mm	inch	mm
AP200/4.5	4.3	88	3.46	40.3	1.59	13.5	.53	30	1.18	M6X1	13.5	.53	30	1.18	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	104	4.09	48.3	1.90	19	.75	40	1.58	M8X1.25	19	.75	40	1.58	M8X1.25
AP200/15	14.95														
AP200/19	18.9														
AP200/22	21.9	118	4.64	56.5	2.22	19	.75	40	1.58	M8X1.25	19	.75	40	1.58	M8X1.25
AP200/26	25.9														

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.132.02	AP200/4.5 S	200.1021.133.02	APR200/4.5 ED	
AP200/6.5 D	200.1022.132.02	AP200/6.5 S	200.1022.133.05	APR200/6.5 ED	
AP200/8.5 D	200.1023.132.02	AP200/8.5 S	200.1023.133.02	APR200/8.5 ED	
AP200/11 D	200.1024.132.02	AP200/11 S	200.1024.133.02	APR200/11 ED	
AP200/15 D	200.1025.132.02	AP200/15 S	200.1025.133.02	APR200/15 ED	
AP200/19 D	200.1026.132.02	AP200/19 S	200.1026.133.02	APR200/19 ED	
AP200/22 D	200.1027.132.02	AP200/22 S	200.1027.133.02	APR200/22 ED	
AP200/26 D	200.1028.132.02	AP200/26 S	200.1028.133.02	APR200/26 ED	

Accessories

Flange connectors: RF223 - RF224 - RF225 - RF238 - RF246 - RF251

Splined couplings: GSH-2B-14 - GSH-2B-15 - GSH-2B-18

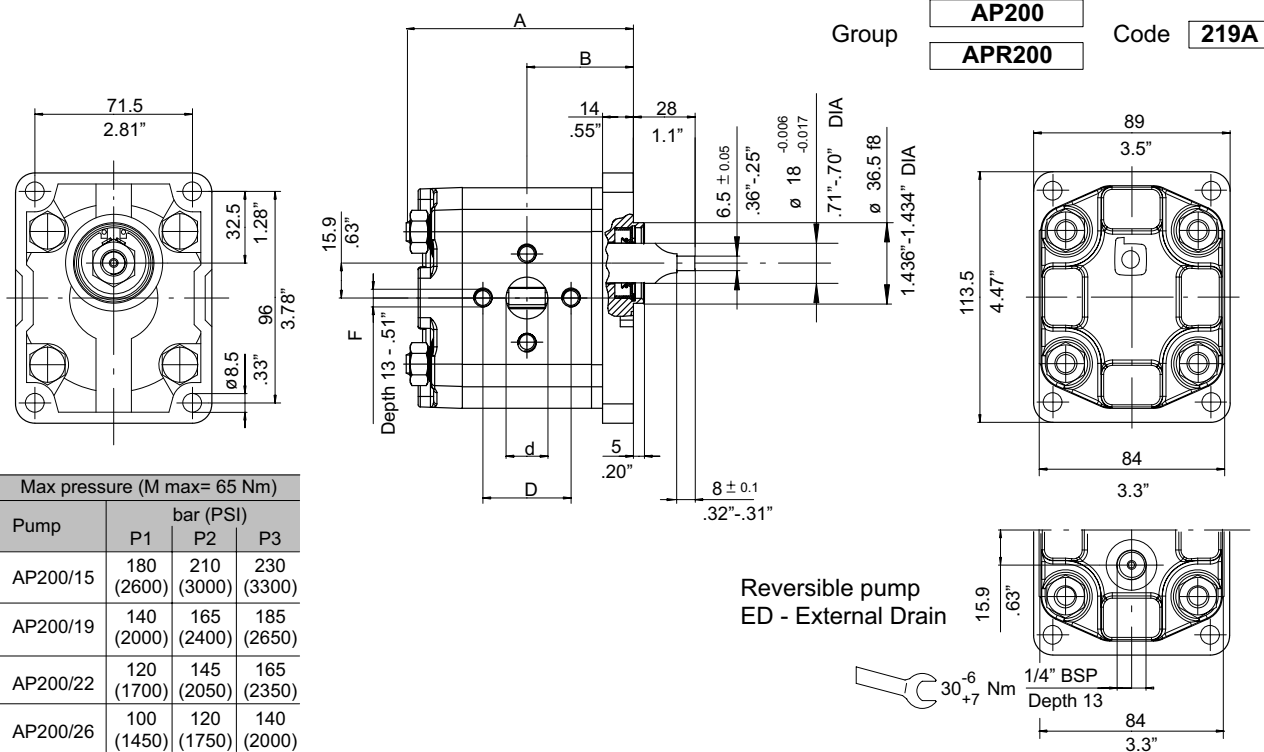


Type	Displacement cm ³ /rev	Dimensions				Suction G BSPP	Pressure G BSPP
		A		B			
		mm	inch	mm	inch		
AP200/4.5	4.3	88	3.46	40.3	1.59	3/8"	3/8"
AP200/6.5	6.3						
AP200/8.5	8.3						
AP200/11	10.95	104	4.09	48.3	1.90	1/2"	
AP200/15	14.95						
AP200/19	18.9	114	4.50	54.3	2.14	3/4"	1/2"
AP200/22	21.9						
AP200/26	25.9	118	4.64	56.5	2.22		

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.132.04	AP200/4.5 S	200.1021.133.03	APR200/4.5 ED	
AP200/6.5 D	200.1022.132.03	AP200/6.5 S	200.1022.133.04	APR200/6.5 ED	
AP200/8.5 D	200.1023.132.04	AP200/8.5 S	200.1023.133.03	APR200/8.5 ED	
AP200/11 D	200.1024.132.04	AP200/11 S	200.1024.133.05	APR200/11 ED	
AP200/15 D	200.1025.132.07	AP200/15 S	200.1025.133.05	APR200/15 ED	
AP200/19 D	200.1026.132.05	AP200/19 S	200.1026.133.04	APR200/19 ED	
AP200/22 D	200.1027.132.05	AP200/22 S	200.1027.133.03	APR200/22 ED	
AP200/26 D	200.1028.132.03	AP200/26 S	200.1028.133.04	APR200/26 ED	

Accessories

Splined couplings: GSH-2B-14 - GSH-2B-15 - GSH-2B-18



Max pressure (M max= 65 Nm)			
Pump	bar (PSI)		
	P1	P2	P3
AP200/15	180 (2600)	210 (3000)	230 (3300)
AP200/19	140 (2000)	165 (2400)	185 (2650)
AP200/22	120 (1700)	145 (2050)	165 (2350)
AP200/26	100 (1450)	120 (1750)	140 (2000)

Type	Displacement cm ³ /rev	Dimensions				Suction					Pressure				
		A		B		d		D		F	d		D		F
		mm	inch	mm	inch	mm	inch	mm	inch	mm	mm	inch	mm	inch	mm
AP200/4.5	4.3	88	3.46	40.3	1.59	13.5	.53	30	1.18	M6X1	13.5	.53	30	1.18	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	104	4.09	48.3	1.90	19	.75	40	1.58	M8X1.25	19	.75	40	1.58	M8X1.25
AP200/15	14.95														
AP200/19	18.9														
AP200/22	21.9	118	4.64	56.5	2.22	19	.75	40	1.58	M8X1.25	19	.75	40	1.58	M8X1.25
AP200/26	25.9														

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D		AP200/4.5 S		APR200/4.5 ED	
AP200/6.5 D		AP200/6.5 S		APR200/6.5 ED	
AP200/8.5 D		AP200/8.5 S		APR200/8.5 ED	
AP200/11 D		AP200/11 S		APR200/11 ED	
AP200/15 D		AP200/15 S		APR200/15 ED	
AP200/19 D	200.1026.142.02	AP200/19 S		APR200/19 ED	
AP200/22 D		AP200/22 S		APR200/22 ED	
AP200/26 D		AP200/26 S		APR200/26 ED	

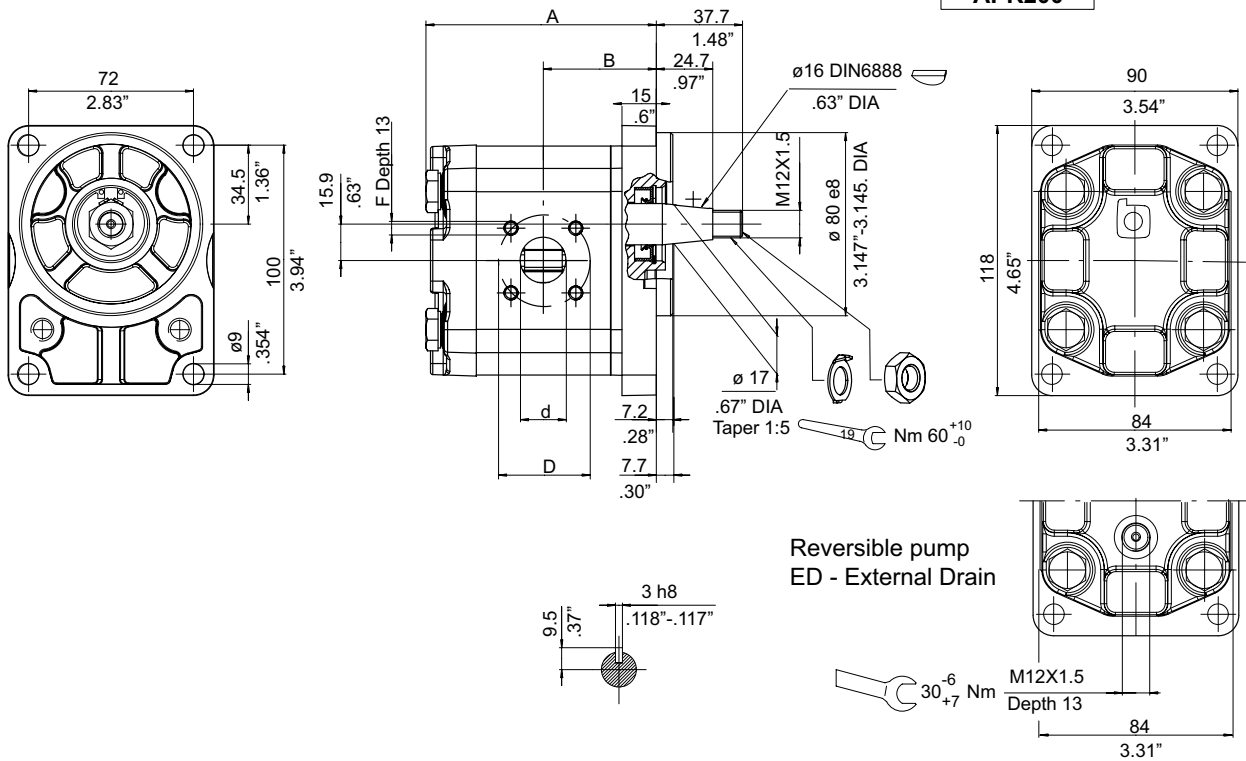
Accessories

Flange connectors: RF223 - RF224 - RF225 - RF238 - RF246 - RF251

Note: With respect to the standards, the maximum pressures of some versions of this pump are reduced in relation to the max. torque allowed to the shaft.

Group **AP200**
APR200

Code **225**



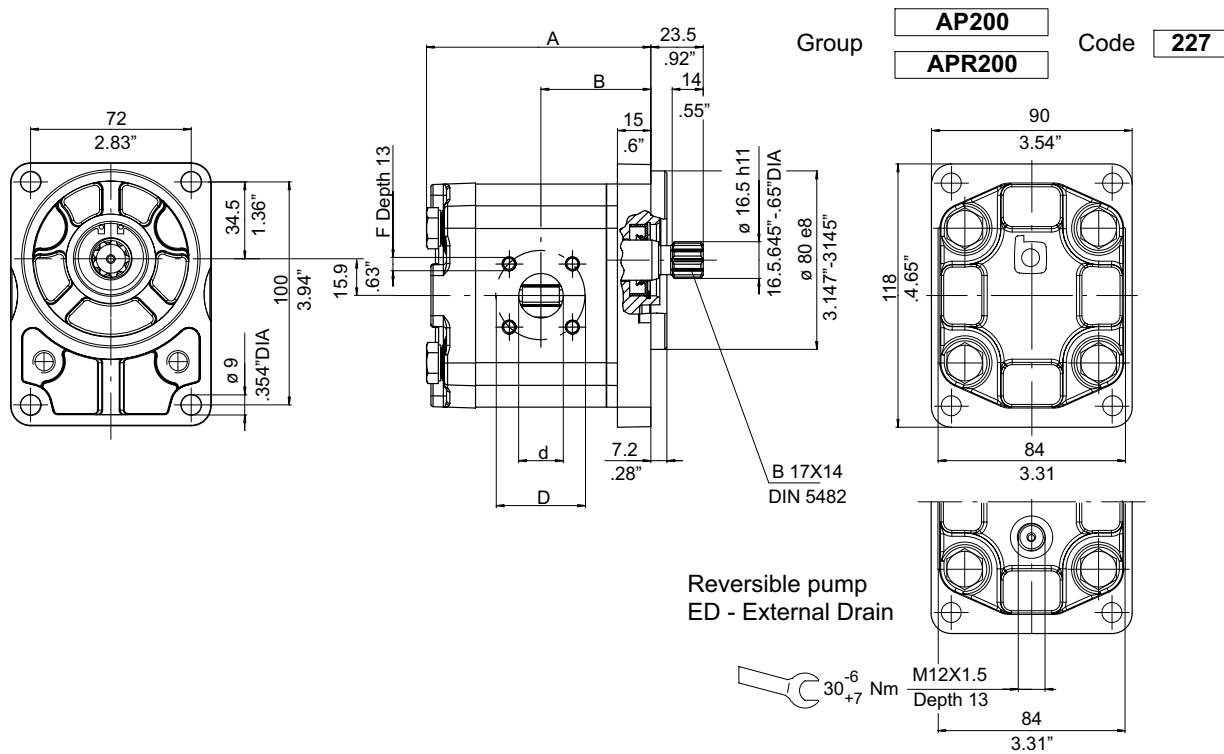
Type	Displacement cm ³ /rev	Dimensions				Suction					Pressure				
		A		B		d		D		F	d		D		F
		mm	inch	mm	inch	mm	inch	mm	inch	mm	mm	inch	mm	inch	mm
AP200/4.5	4.3	85	3.35	41.3	1.63	15	.59	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	101	4	49.3	1.94	20	.79								
AP200/15	14.95														
AP200/19	18.9														
AP200/22	21.9	117	4.60	57.5	2.26										

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.222.03	AP200/4.5 S	200.1021.223.03	APR200/4.5 ED	
AP200/6.5 D	200.1022.222.03	AP200/6.5 S	200.1022.223.03	APR200/6.5 ED	
AP200/8.5 D	200.1023.222.03	AP200/8.5 S	200.1023.223.03	APR200/8.5 ED	
AP200/11 D	200.1024.222.02	AP200/11 S	200.1024.223.02	APR200/11 ED	
AP200/15 D	200.1025.222.03	AP200/15 S	200.1025.223.01	APR200/15 ED	
AP200/19 D	200.1026.222.03	AP200/19 S	200.1026.223.03	APR200/19 ED	
AP200/22 D	200.1027.222.03	AP200/22 S	200.1027.223.01	APR200/22 ED	

Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

Splined couplings: GSH-2B-14 - GSH-2B-15 - GSH-2B-18

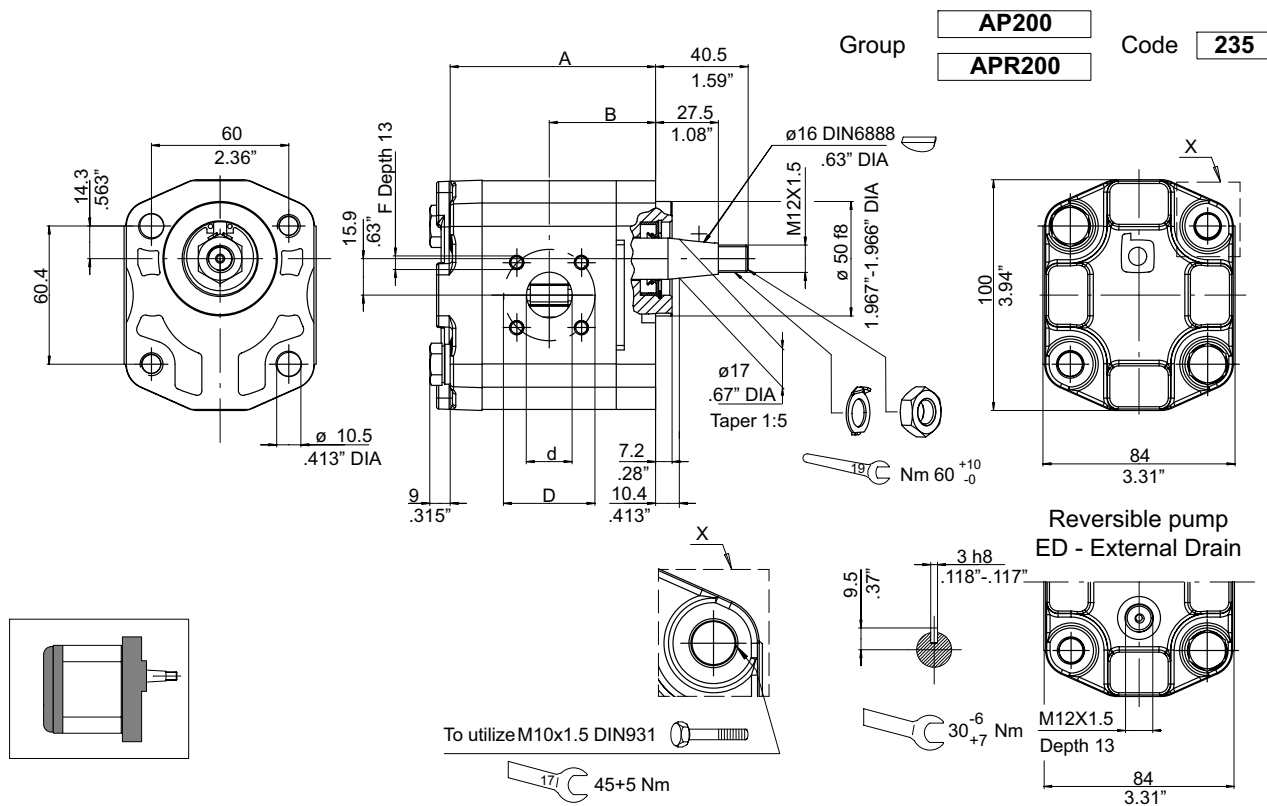


Type	Displacement cm ³ /rev	Dimensions				Suction					Pressure				
		A mm	inch	B mm	inch	d mm	inch	D mm	inch	F mm	d mm	inch	D mm	inch	F mm
AP200/4.5	4.3	85	3.35	41.3	1.63	15	.59	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	101	4	49.3	1.94	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/15	14.95														
AP200/19	18.9	113	4.44	55.3	2.18	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/22	21.9														
AP200/26	25.9	117	4.60	57.5	2.26	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.252.01	AP200/4.5 S	200.1021.253.01	APR200/4.5 ED	
AP200/6.5 D	200.1022.252.01	AP200/6.5 S	200.1022.253.01	APR200/6.5 ED	
AP200/8.5 D	200.1023.252.01	AP200/8.5 S	200.1023.253.01	APR200/8.5 ED	
AP200/11 D	200.1024.252.01	AP200/11 S	200.1024.253.01	APR200/11 ED	
AP200/15 D	200.1025.252.01	AP200/15 S	200.1025.253.01	APR200/15 ED	
AP200/19 D	200.1026.252.01	AP200/19 S	200.1026.253.01	APR200/19 ED	
AP200/22 D	200.1027.252.01	AP200/22 S	200.1027.253.01	APR200/22 ED	
AP200/26 D	200.1028.252.01	AP200/26 S	200.1028.253.01	APR200/26 ED	

Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.



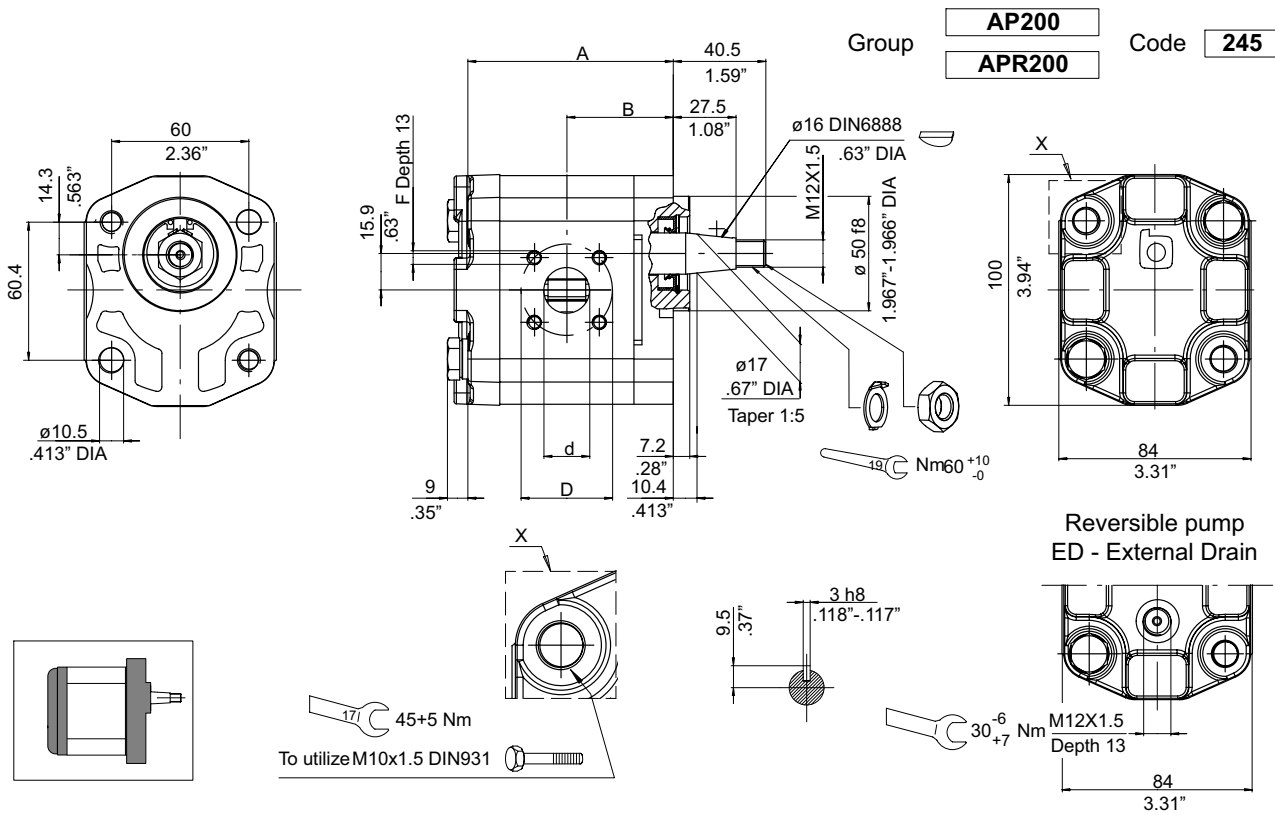
Type	Displacement cm ³ /rev	Dimensions				Suction			Pressure						
		A		B		d		D	F	d		D	F		
		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch		
AP200/4.5	4.3	74	2.9	40	1.57	15	.59	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	90	3.55	46.5	1.83	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/15	14.95														
AP200/19	18.9														
AP200/22	21.9														

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.322.01	AP200/4.5 S	200.1021.323.01	APR200/4.5 ED	
AP200/6.5 D	200.1022.322.01	AP200/6.5 S	200.1022.323.01	APR200/6.5 ED	
AP200/8.5 D	200.1023.322.01	AP200/8.5 S	200.1023.323.01	APR200/8.5 ED	
AP200/11 D	200.1024.322.01	AP200/11 S	200.1024.323.02	APR200/11 ED	
AP200/15 D	200.1025.322.02	AP200/15 S	200.1025.353.01	APR200/15 ED	
AP200/19 D	200.1026.322.01	AP200/19 S	200.1026.323.01	APR200/19 ED	
AP200/22 D	200.1027.322.01	AP200/22 S	200.1027.323.01	APR200/22 ED	

Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

Splined couplings: GSH-2B-14 - GSH-2B-15 - GSH-2B-18



Type	Displacement cm ³ /rev	Dimensions				Suction			Pressure						
		A	B	d	D	F	d	D	F						
		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
AP200/4.5	4.3	74	2.9	40	1.57	15	.59	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	90	3.55	46.5	1.83	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/15	14.95														
AP200/19	18.9	102	4	52.3	2.06	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/22	21.9	106	4.17	54.5	2.15										

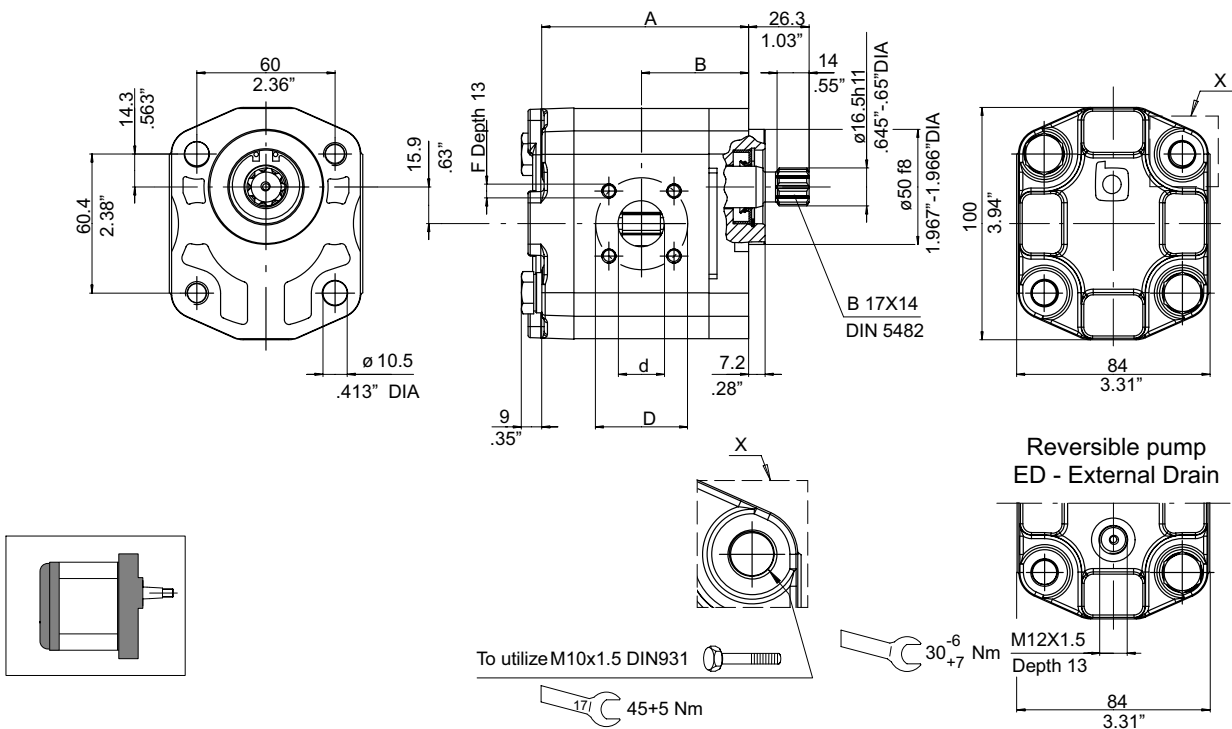
Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.422.02	AP200/4.5 S	200.1021.423.02	APR200/4.5 ED	
AP200/6.5 D	200.1022.422.02	AP200/6.5 S	200.1022.423.02	APR200/6.5 ED	
AP200/8.5 D	200.1023.422.02	AP200/8.5 S	200.1023.423.02	APR200/8.5 ED	
AP200/11 D	200.1024.422.01	AP200/11 S	200.1024.423.01	APR200/11 ED	
AP200/15 D	200.1025.422.03	AP200/15 S	200.1025.423.01	APR200/15 ED	
AP200/19 D	200.1026.422.02	AP200/19 S	200.1026.423.02	APR200/19 ED	
AP200/22 D	200.1027.422.02	AP200/22 S	200.1027.423.01	APR200/22 ED	

Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

Splined couplings: GSH-2B-14 - GSH-2B-15 - GSH-2B-18

Group **AP200** Code **237**
APR200



Type	Displacement cm ³ /rev	Dimensions				Suction						Pressure			
		A mm	inch	B mm	inch	d mm	inch	D mm	inch	F mm	d mm	inch	D mm	inch	F mm
AP200/4.5	4.3	74	2.9	40	1.57	15	.59	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	90	3.55	46.5	1.83	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/15	14.95														
AP200/19	18.9	102	4	52.3	2.06	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/22	21.9	106	4.17	54.5	2.15										

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D		AP200/4.5 S		APR200/4.5 ED	
AP200/6.5 D		AP200/6.5 S		APR200/6.5 ED	
AP200/8.5 D	200.1023.352.01	AP200/8.5 S		APR200/8.5 ED	
AP200/11 D	200.1024.352.02	AP200/11 S		APR200/11 ED	
AP200/15 D		AP200/15 S		APR200/15 ED	
AP200/19 D		AP200/19 S		APR200/19 ED	
AP200/22 D	200.1027.352.01	AP200/22 S		APR200/22 ED	

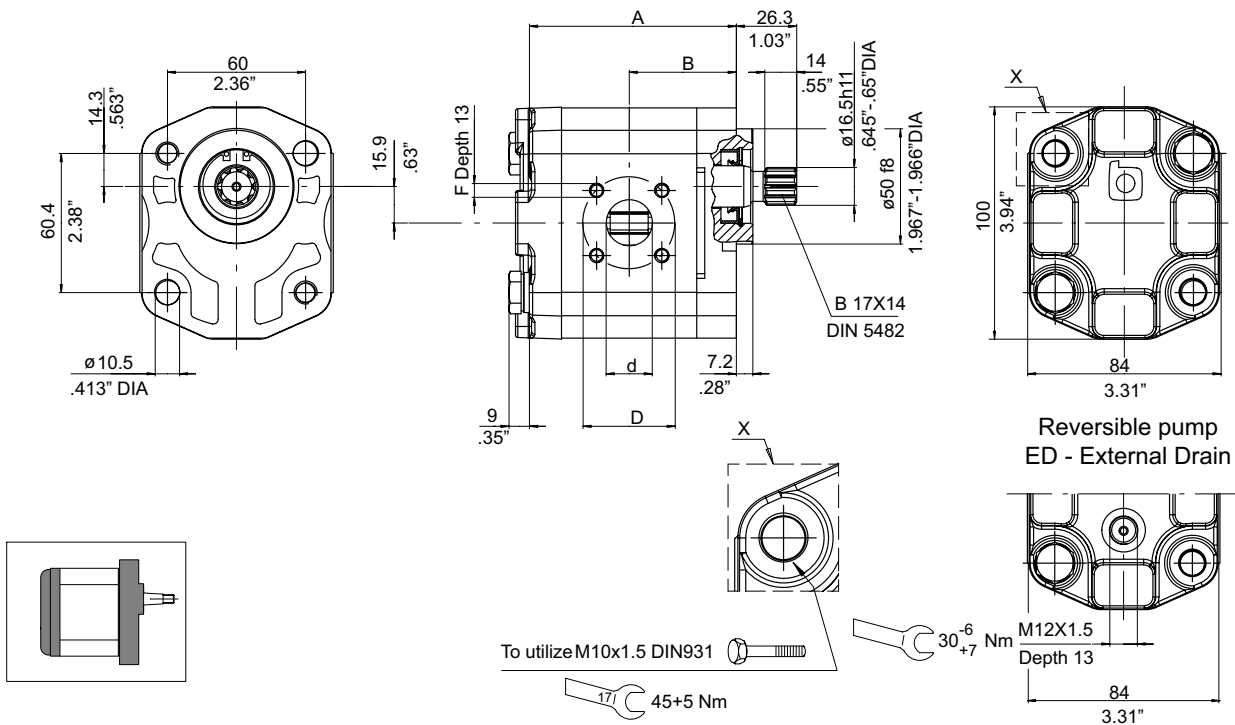
Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

Splined couplings: GSH-2B-14 - GSH-2B-15 - GSH-2B-18

Group **AP200**
APR200

Code **247**



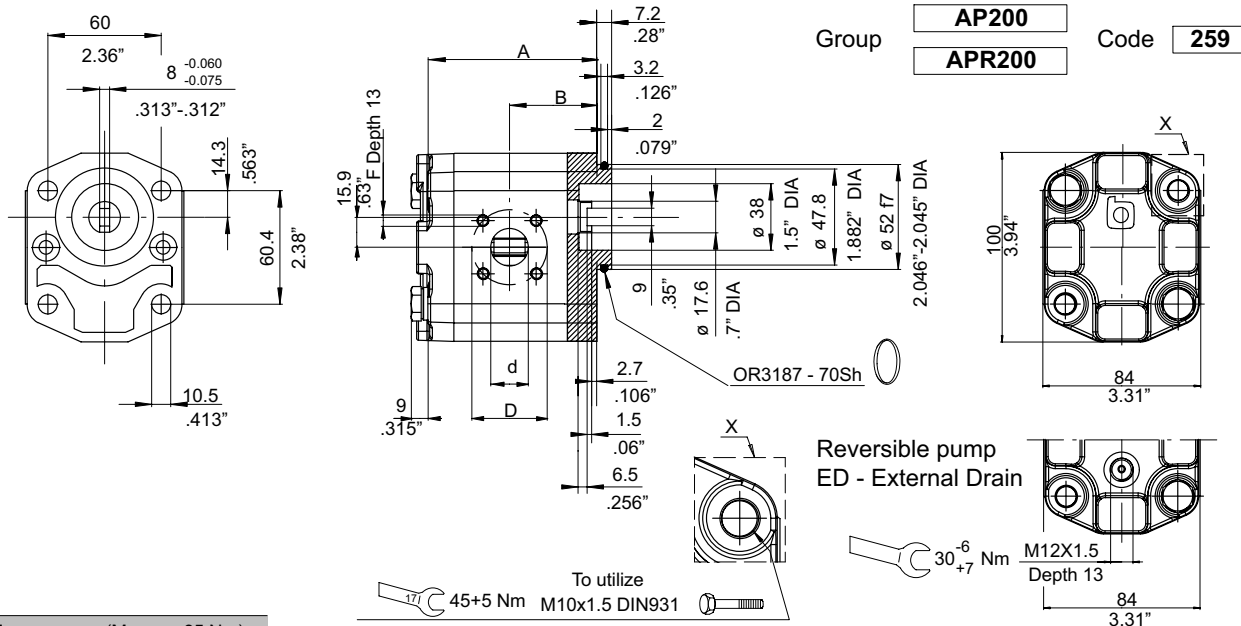
Type	Displacement cm ³ /rev	Dimensions				Suction					Pressure				
		A	B	d	D	F	d	D	F	d	D	F			
		mm	inch	mm	inch	mm	inch	mm	inch	mm	mm	inch	mm	inch	mm
AP200/4.5	4.3	74	2.9	40	1.57	15	.59	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	90	3.55	46.5	1.83	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/15	14.95														
AP200/19	18.9	102	4	52.3	2.06	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/22	21.9	106	4.17	54.5	2.15										

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D		AP200/4.5 S		APR200/4.5 ED	
AP200/6.5 D		AP200/6.5 S		APR200/6.5 ED	
AP200/8.5 D	200.1023.452.01	AP200/8.5 S		APR200/8.5 ED	
AP200/11 D	200.1024.452.02	AP200/11 S	200.1024.453.01	APR200/11 ED	
AP200/15 D		AP200/15 S		APR200/15 ED	
AP200/19 D	200.1026.452.01	AP200/19 S	200.1026.453.01	APR200/19 ED	
AP200/22 D	200.1027.452.01	AP200/22 S		APR200/22 ED	

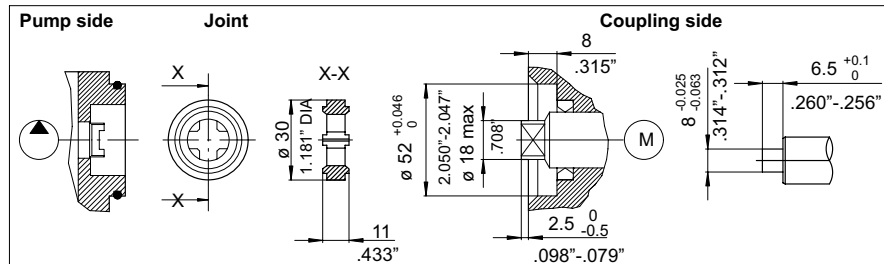
Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

Splined couplings: GSH-2B-14 - GSH-2B-15 - GSH-2B-18



Max pressure (M max= 65 Nm)			
Pump	bar (PSI)		
	P1	P2	P3
AP200/15	180 (2600)	210 (3000)	230 (3300)
AP200/19	140 (2000)	165 (2400)	185 (2650)
AP200/22	120 (1700)	145 (2050)	165 (2350)
AP200/26	100 (1450)	120 (1750)	140 (2000)

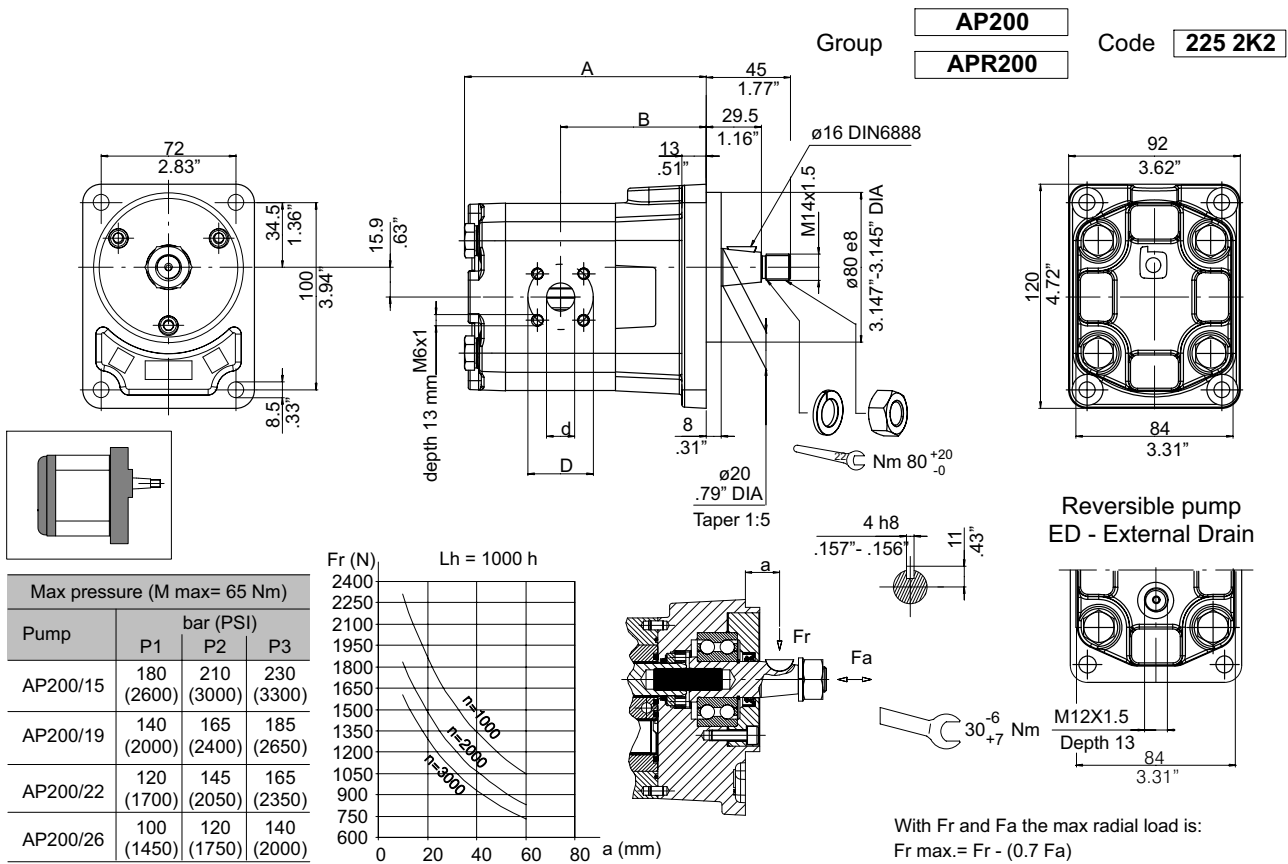


Type	Displacement cm ³ /rev	Dimensions				Suction				Pressure					
		A		B		d		D		d		D		F	
		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
AP200/4.5	4.3	74	2.9	38.5	1.51	15	.59	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	90	3.54	46.5	1.83	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/15	14.95														
AP200/19	18.9														
AP200/22	21.9														

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.542.01	AP200/4.5 S	200.1021.543.02	APR200/4.5 ED	
AP200/6.5 D	200.1022.542.01	AP200/6.5 S	200.1022.543.01	APR200/6.5 ED	
AP200/8.5 D	200.1023.542.01	AP200/8.5 S	200.1023.543.01	APR200/8.5 ED	
AP200/11 D	200.1024.542.01	AP200/11 S	200.1024.543.01	APR200/11 ED	
AP200/15 D	200.1025.542.02	AP200/15 S	200.1025.543.01	APR200/15 ED	
AP200/19 D	200.1026.542.01	AP200/19 S	200.1026.543.01	APR200/19 ED	
AP200/22 D	200.1027.542.01	AP200/22 S	200.1027.543.01	APR200/22 ED	

Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

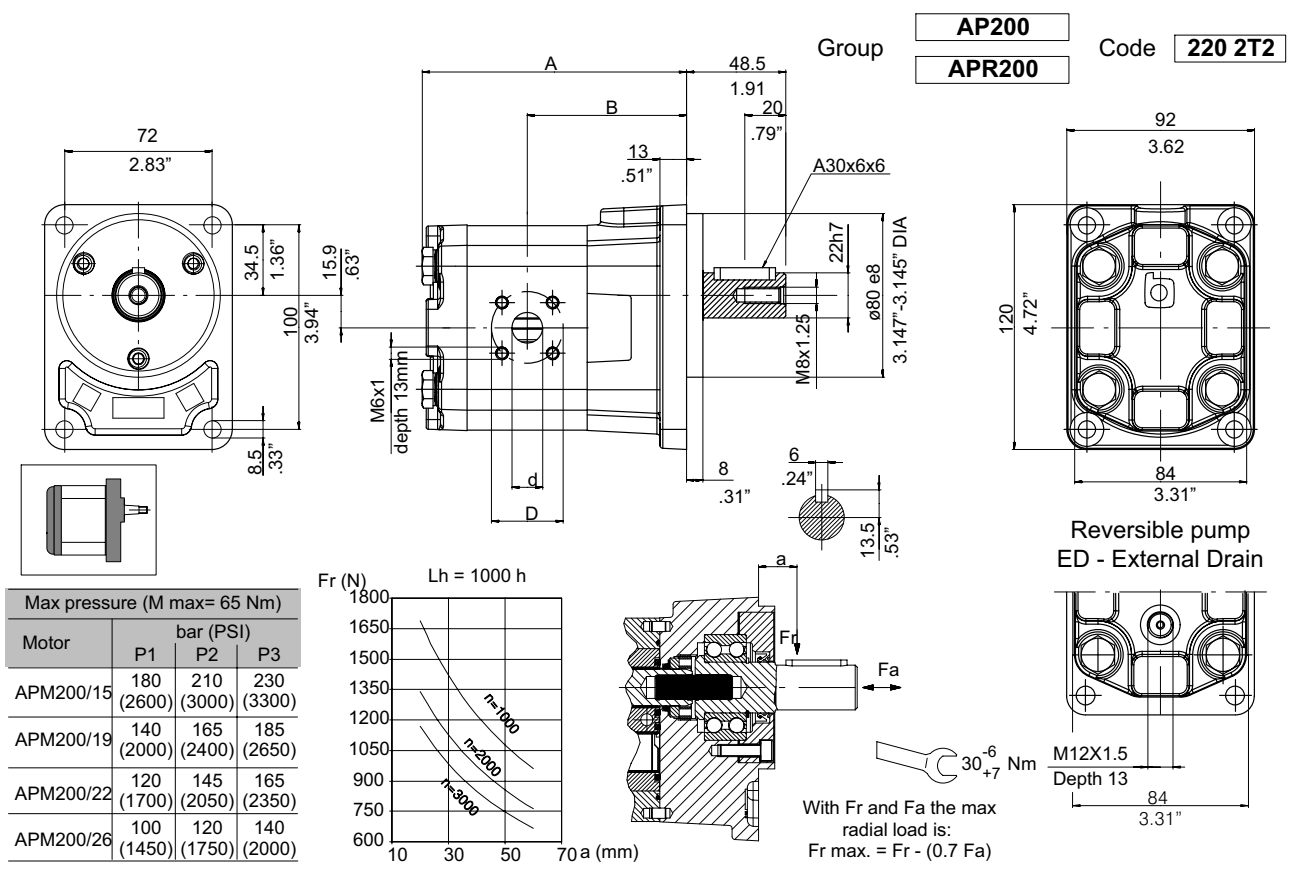


Type	Displacement cm ³ /rev	Dimensions				Suction			Pressure						
		A	B	d	D	F	d	D	F						
		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
AP200/4.5	4.3	92	3.62	70	2.75	15	.59	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	100	3.93	78	3.1	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/15	14.95														
AP200/19	18.9	106	4.17	84	3.30	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/22	21.9	108	4.25	86	3.39										
AP200/26	25.9														

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.222.05	AP200/4.5 S		APR200/4.5 ED	
AP200/6.5 D		AP200/6.5 S		APR200/6.5 ED	
AP200/8.5 D		AP200/8.5 S		APR200/8.5 ED	
AP200/11 D		AP200/11 S		APR200/11 ED	
AP200/15 D		AP200/15 S		APR200/15 ED	
AP200/19 D	200.1026.222.06	AP200/19 S		APR200/19 ED	
AP200/22 D	200.1027.222.07	AP200/22 S		APR200/22 ED	
AP200/26 D	200.1028.222.01	AP200/26 S		APR200/26 ED	

Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.



Type	Displacement cm ³ /rev	Dimensions				Suction					Pressure				
		A	B	d	D	F	d	D	F	d	D	F			
		mm	inch	mm	inch	mm	inch	mm	inch	mm	mm	inch	mm	inch	mm
AP200/4.5	4.3	112	4.45	70	2.75	15	.59	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	129	5.08	78	3.1	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/15	14.95														
AP200/19	18.9	141	5.55	84	3.30	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1
AP200/22	21.9														
AP200/26	25.9	145	5.73	86	3.39	20	.79	40	1.58	M6X1	15	.59	35	1.38	M6X1

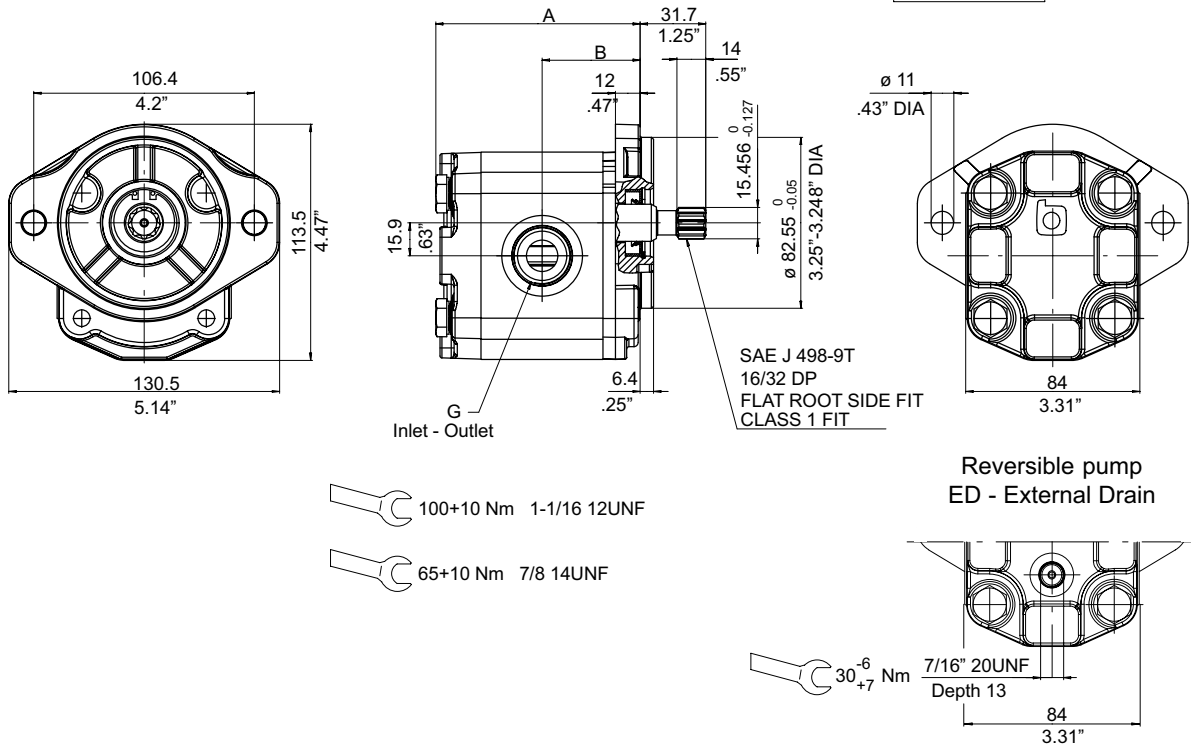
Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D		AP200/4.5 S		APR200/4.5 ED	
AP200/6.5 D		AP200/6.5 S		APR200/6.5 ED	
AP200/8.5 D		AP200/8.5 S		APR200/8.5 ED	
AP200/11 D		AP200/11 S		APR200/11 ED	
AP200/15 D		AP200/15 S		APR200/15 ED	
AP200/19 D		AP200/19 S		APR200/19 ED	
AP200/22 D		AP200/22 S		APR200/22 ED	
AP200/26 D		AP200/26 S		APR200/26 ED	

Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

Group **AP200**
APR200

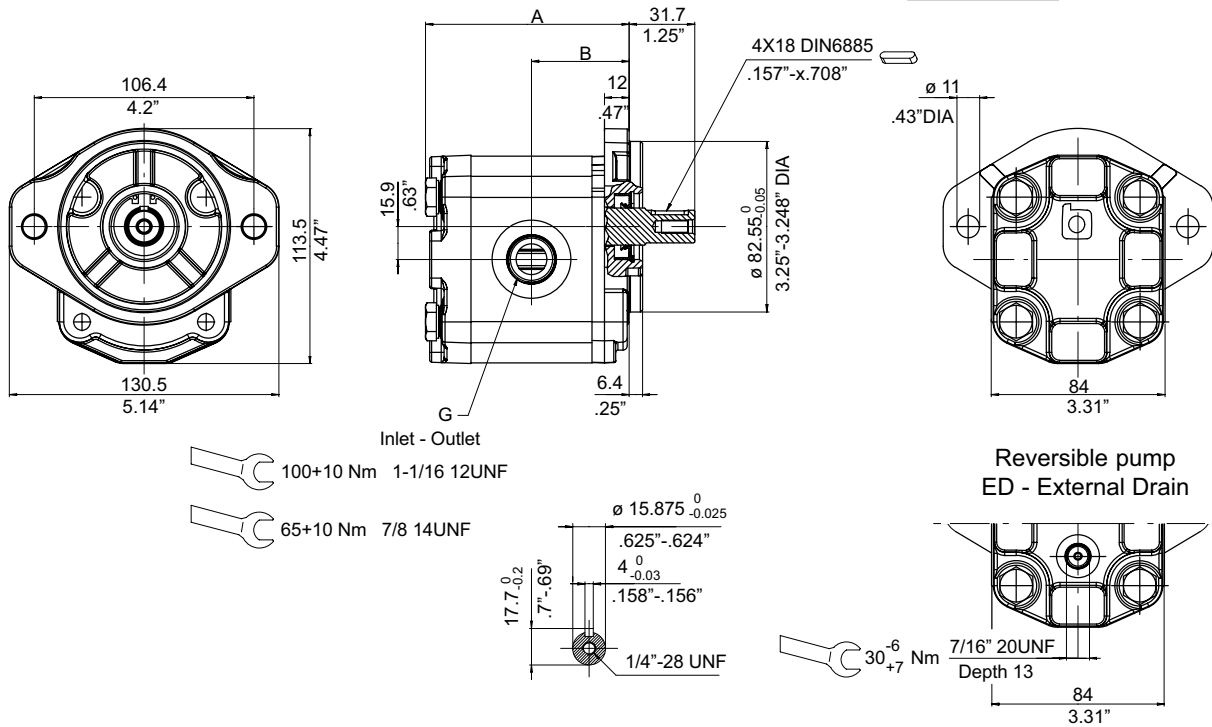
Code **887S**



Type	Displacement cm ³ /rev	Dimensions				Suction G 12UNF	Pressure G 14UNF
		A		B			
		mm	inch	mm	inch		
AP200/4.5	4.3	82.5	3.23	39.5	1.55	SAE12 1-1/16	SAE10 7/8
AP200/6.5	6.3						
AP200/8.5	8.3						
AP200/11	10.95	98.5	3.9	47.5	1.87		
AP200/15	14.95						
AP200/19	18.9	110.5	4.35	53.5	2.11		
AP200/22	21.9	115	4.53	55.5	2.18		
AP200/26	25.9						

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.862.02	AP200/4.5 S	200.1021.863.02	APR200/4.5 ED	
AP200/6.5 D	200.1022.862.02	AP200/6.5 S	200.1022.863.02	APR200/6.5 ED	
AP200/8.5 D	200.1023.862.02	AP200/8.5 S	200.1023.863.02	APR200/8.5 ED	
AP200/11 D	200.1024.862.01	AP200/11 S	200.1024.863.03	APR200/11 ED	
AP200/15 D	200.1025.862.04	AP200/15 S	200.1025.863.04	APR200/15 ED	
AP200/19 D	200.1026.862.02	AP200/19 S	200.1026.863.02	APR200/19 ED	
AP200/22 D	200.1027.862.02	AP200/22 S	200.1027.863.02	APR200/22 ED	
AP200/26 D	200.1028.862.02	AP200/26 S	200.1028.863.02	APR200/26 ED	

Group **AP200** Code **880**
APR200



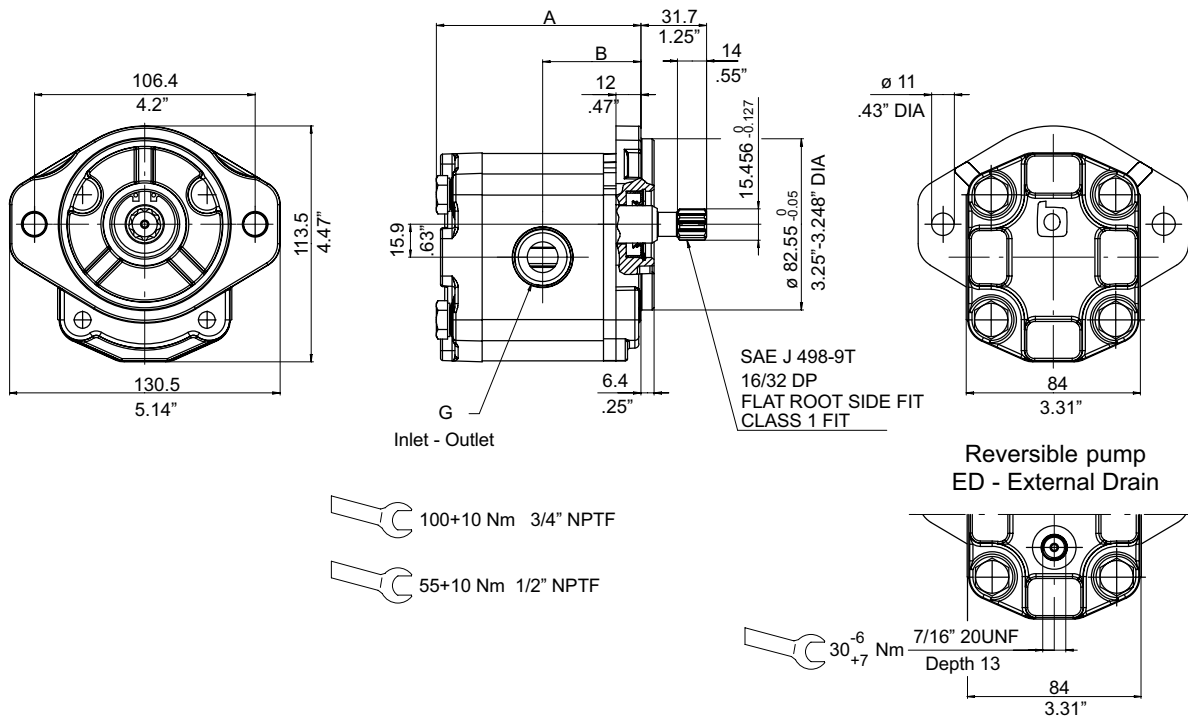
Reversible pump
ED - External Drain

Type	Displacement cm ³ /rev	Dimensions				Suction G 12UNF	Pressure G 14UNF
		A		B			
		mm	inch	mm	inch		
AP200/4.5	4.3	82.5	3.23	39.5	1.55	SAE12 1-1/16	SAE10 7/8
AP200/6.5	6.3						
AP200/8.5	8.3						
AP200/11	10.95	98.5	3.9	47.5	1.87		
AP200/15	14.95	110.5	4.35	53.5	2.11		
AP200/19	18.9						
AP200/22	21.9						
AP200/26	25.9	115	4.53	55.5	2.18		

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External Drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.802.02	AP200/4.5 S	200.1021.803.03	APR200/4.5 ED	
AP200/6.5 D	200.1022.802.02	AP200/6.5 S	200.1022.803.05	APR200/6.5 ED	
AP200/8.5 D	200.1023.802.02	AP200/8.5 S	200.1023.803.02	APR200/8.5 ED	
AP200/11 D	200.1024.802.02	AP200/11 S	200.1024.803.02	APR200/11 ED	
AP200/15 D	200.1025.802.02	AP200/15 S	200.1025.803.02	APR200/15 ED	
AP200/19 D	200.1026.802.02	AP200/19 S	200.1026.803.02	APR200/19 ED	
AP200/22 D	200.1027.802.02	AP200/22 S	200.1027.803.02	APR200/22 ED	
AP200/26 D	200.1028.802.02	AP200/26 S	200.1028.803.02	APR200/26 ED	

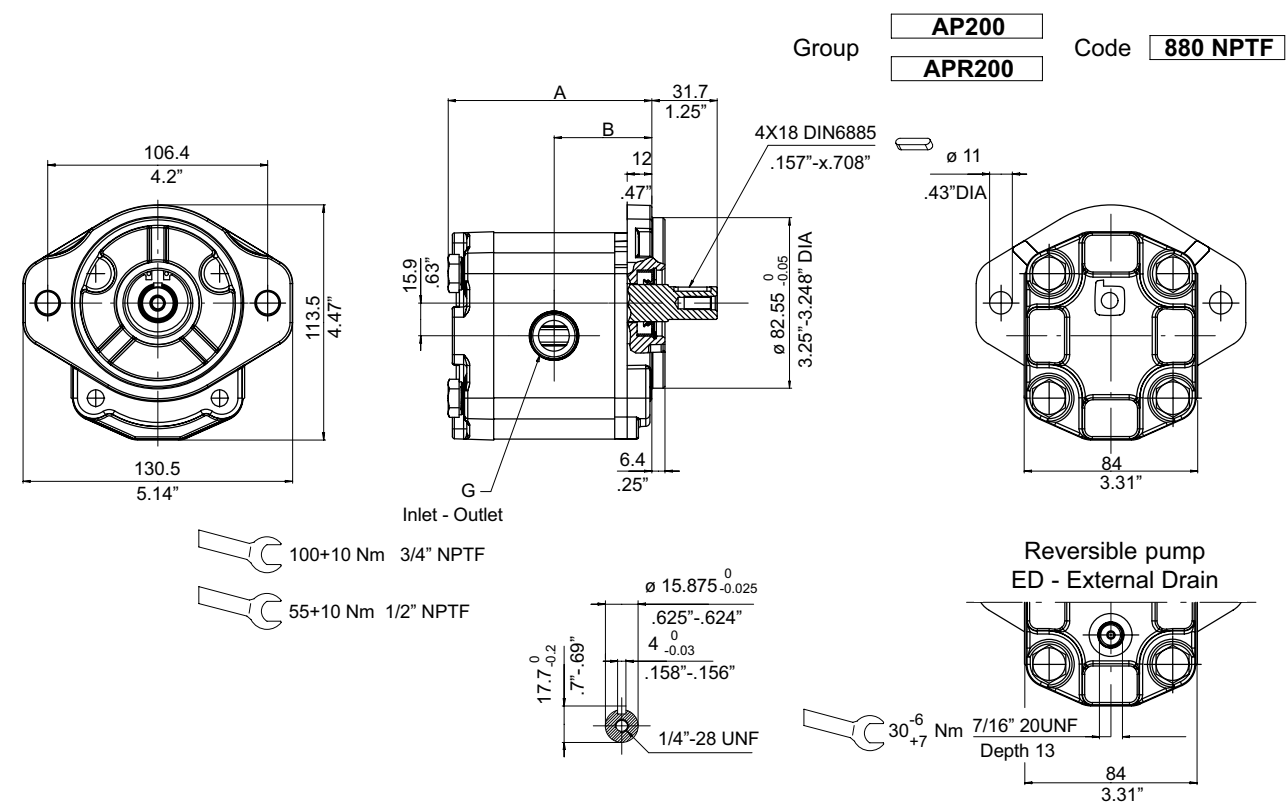
Group **AP200**
APR200

Code **887S NPTF**



Type	Displacement cm ³ /rev	Dimensions				Suction G NPTF	Pressure G NPTF
		A		B			
		mm	inch	mm	inch		
AP200/11	10.95	98.5	3.9	47.5	1.87	3/4"	1/2"
AP200/15	14.95						
AP200/19	18.9	110.5	4.35	53.5	2.11		
AP200/22	21.9	115	4.53	55.5	2.18		
AP200/26	25.9						

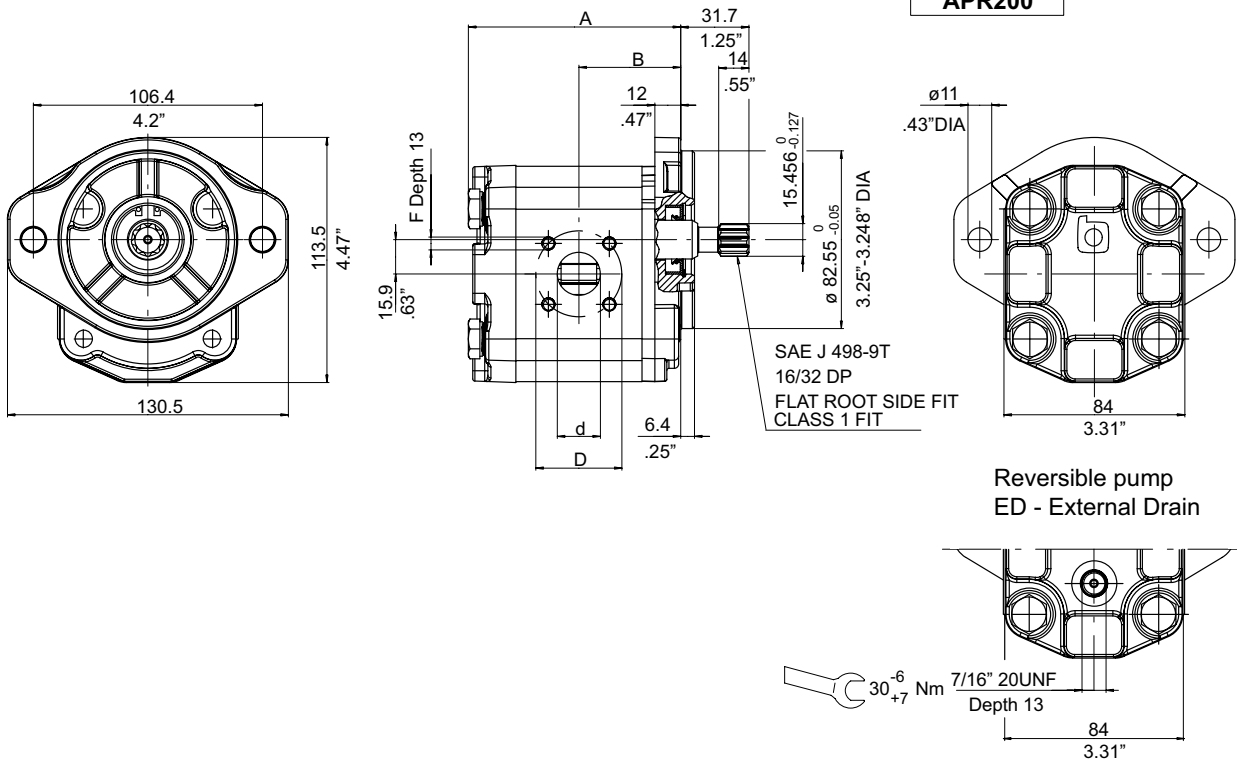
Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/11 D		AP200/11 S		APR200/11 ED	
AP200/15 D		AP200/15 S		APR200/15 ED	
AP200/19 D		AP200/19 S		APR200/19 ED	
AP200/22 D		AP200/22 S		APR200/22 ED	
AP200/26 D		AP200/26 S		APR200/26 ED	



Type	Displacement cm ³ /rev	Dimensions				Suction G NPTF	Pressure G NPTF
		A		B			
		mm	inches	mm	inches		
AP200/4.5	4.3	82.5	3.23	39.5	1.55	1/2"	1/2"
AP200/6.5	6.3						
AP200/8.5	8.3						
AP200/11	10.95	98.5	3.9	47.5	1.87	3/4"	1/2"
AP200/15	14.95						
AP200/19	18.9	110.5	4.35	53.5	2.11		
AP200/22	21.9	115	4.53	55.5	2.18		
AP200/26	25.9						

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.802.07	AP200/4.5 S	200.1021.803.05	APR200/4.5 ED	
AP200/6.5 D	200.1022.802.06	AP200/6.5 S	200.1022.803.08	APR200/6.5 ED	
AP200/8.5 D	200.1023.802.07	AP200/8.5 S	200.1023.803.04	APR200/8.5 ED	
AP200/11 D	200.1024.802.03	AP200/11 S		APR200/11 ED	
AP200/15 D	200.1025.802.03	AP200/15 S		APR200/15 ED	
AP200/19 D	200.1026.802.03	AP200/19 S		APR200/19 ED	
AP200/22 D	200.1027.802.03	AP200/22 S		AP200/22 ED	
AP200/26 D	200.1028.802.03	AP200/26 S		AP200/26 ED	

Group **AP200** Code **287S-B**
APR200



Reversible pump
ED - External Drain

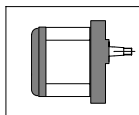
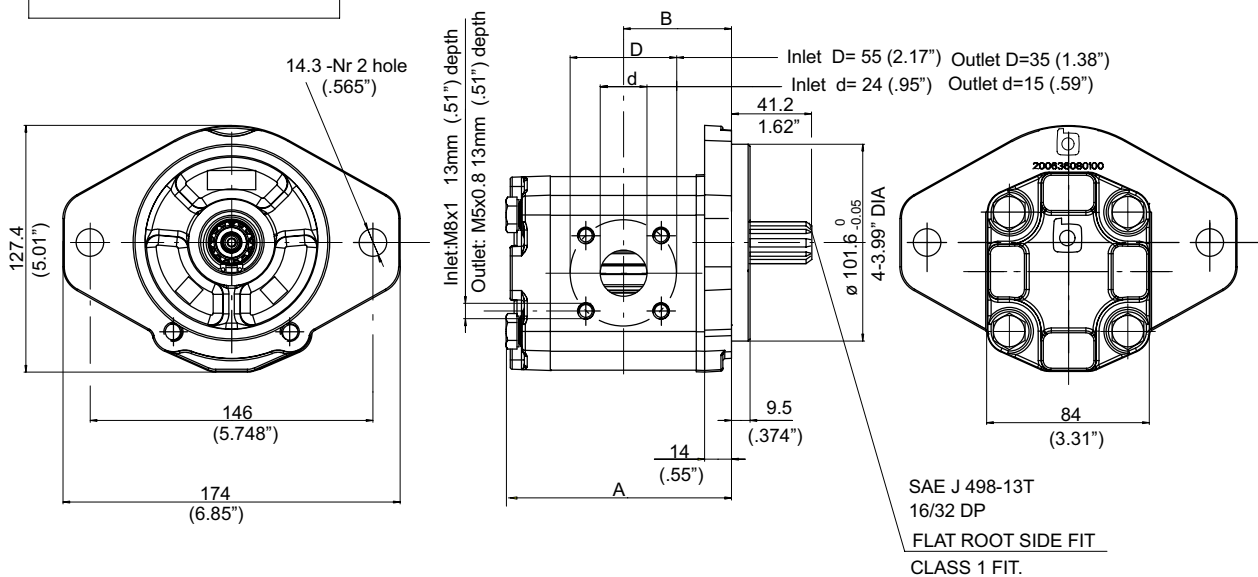
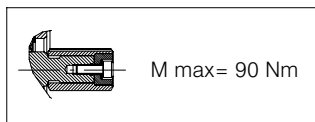
Type	Displacement cm ³ /rev	Dimensions				Suction				Pressure					
		A mm	inch	B mm	inch	d mm	inch	D mm	inch	F mm	d mm	inch	D mm	inch	F mm
AP200/4.5	4.3	82.5	3.23	39.5	1.55	15	.59	40	1.58	M6X1	13.5	.53	35	1.38	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	98.5	3.9	47.5	1.87	20	.79	40	1.58	M6X1	13.5	.53	35	1.38	M6X1
AP200/15	14.95														
AP200/19	18.9	110.5	4.35	53.5	2.11	20	.79	40	1.58	M6X1	13.5	.53	35	1.38	M6X1
AP200/22	21.9	115	4.53	55.5	2.18										
AP200/26	25.9														

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.862.01	AP200/4.5 S	200.1021.863.01	APR200/4.5 ED	
AP200/6.5 D	200.1022.862.01	AP200/6.5 S	200.1022.863.01	APR200/6.5 ED	
AP200/8.5 D	200.1023.862.01	AP200/8.5 S	200.1023.863.01	APR200/8.5 ED	
AP200/11 D	200.1024.862.04	AP200/11 S	200.1024.863.04	APR200/11 ED	
AP200/15 D	200.1025.862.02	AP200/15 S	200.1025.863.03	APR200/15 ED	
AP200/19 D	200.1026.862.01	AP200/19 S	200.1026.863.01	APR200/19 ED	
AP200/22 D	200.1027.862.01	AP200/22 S	200.1027.863.01	APR200/22 ED	
AP200/26 D	200.1028.862.01	AP200/26 S	200.1028.863.01	APR200/26 ED	

Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

Group **AP200** Code **287S-SAEB**

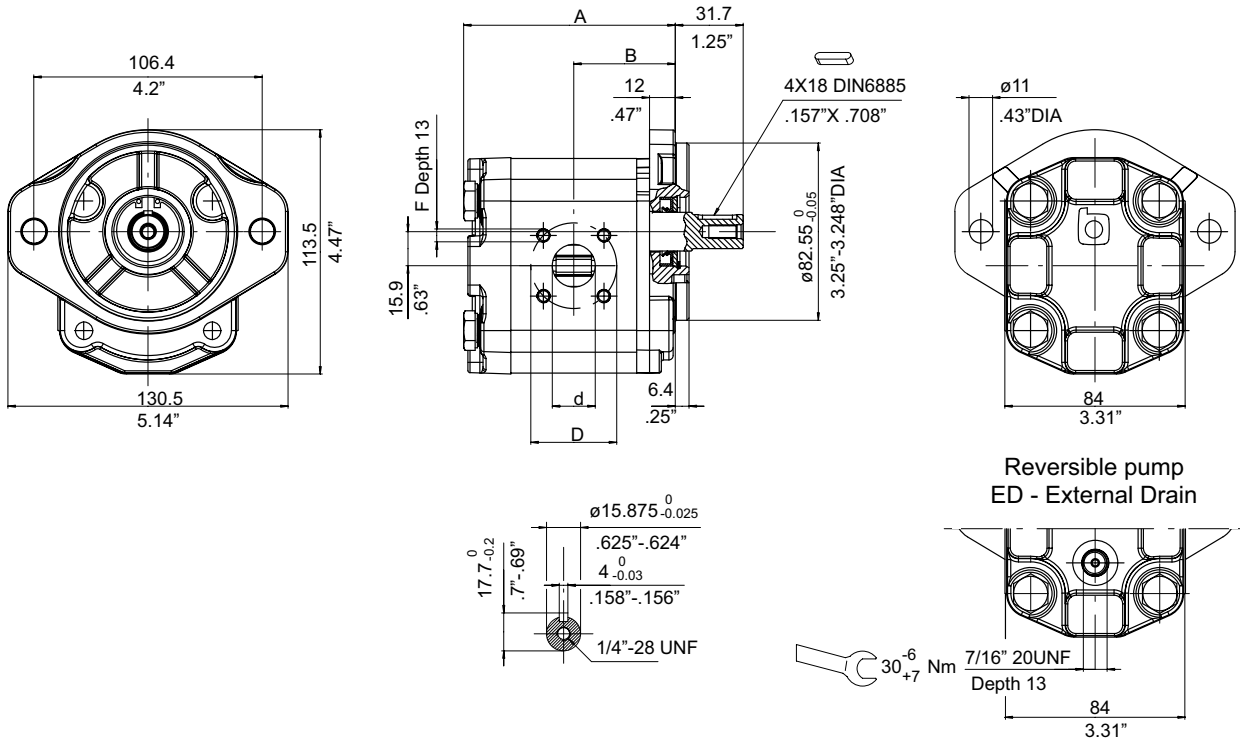


Type	Displacement cm ³ /rev	Dimensions				Suction					Pressure				
		A		B		d		D		F	d		D		F
		mm	inch	mm	inch	mm	inch	mm	inch	mm	mm	inch	mm	inch	mm
AP200/19	18.9	111	4.35	53.5	2.11	24	.95	55	2.17	M8x1	15	.59	35	1.38	M5x0.8
AP200/22	21.9	115	4.53	55.5	2.18										
AP200/26	25.9														

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP200/19 D		AP200/19 S	
AP200/22 D		AP200/22 S	
AP200/26 D		AP200/26 S	

Group **AP200**
APR200

Code **280B**



Type	Displacement cm ³ /rev	Dimensions				Suction				Pressure					
		A mm	inch	B mm	inch	d mm	inch	D mm	inch	F mm	d mm	inch	D mm	inch	F mm
AP200/4.5	4.3	82.5	3.23	39.5	1.55	15	.59	40	1.58	M6X1	13.5	.53	35	1.38	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	98.5	3.9	47.5	1.87	20	.79	40	1.58	M6X1	13.5	.53	35	1.38	M6X1
AP200/15	14.95														
AP200/19	18.9	110.5	4.35	53.5	2.11	20	.79	40	1.58	M6X1	13.5	.53	35	1.38	M6X1
AP200/22	21.9														
AP200/26	25.9	115	4.53	55.5	2.18	20	.79	40	1.58	M6X1	13.5	.53	35	1.38	M6X1

Clockwise rotation: D		Counter-clockwise rotation: S		Reversible pump External drain	
Type	Order Code	Type	Order Code	Type	Order Code
AP200/4.5 D	200.1021.802.01	AP200/4.5 S	200.1021.803.02	APR200/4.5 ED	
AP200/6.5 D	200.1022.802.01	AP200/6.5 S	200.1022.803.01	APR200/6.5 ED	
AP200/8.5 D	200.1023.802.01	AP200/8.5 S	200.1023.803.01	APR200/8.5 ED	
AP200/11 D	200.1024.802.10	AP200/11 S	200.1024.803.01	APR200/11 ED	
AP200/15 D	200.1025.802.01	AP200/15 S	200.1025.803.01	APR200/15 ED	
AP200/19 D	200.1026.802.01	AP200/19 S	200.1026.803.01	APR200/19 ED	
AP200/22 D	200.1027.802.01	AP200/22 S	200.1027.803.01	APR200/22 ED	
AP200/26 D	200.1028.802.01	AP200/26 S	200.1028.803.01	APR200/26 ED	

Accessories

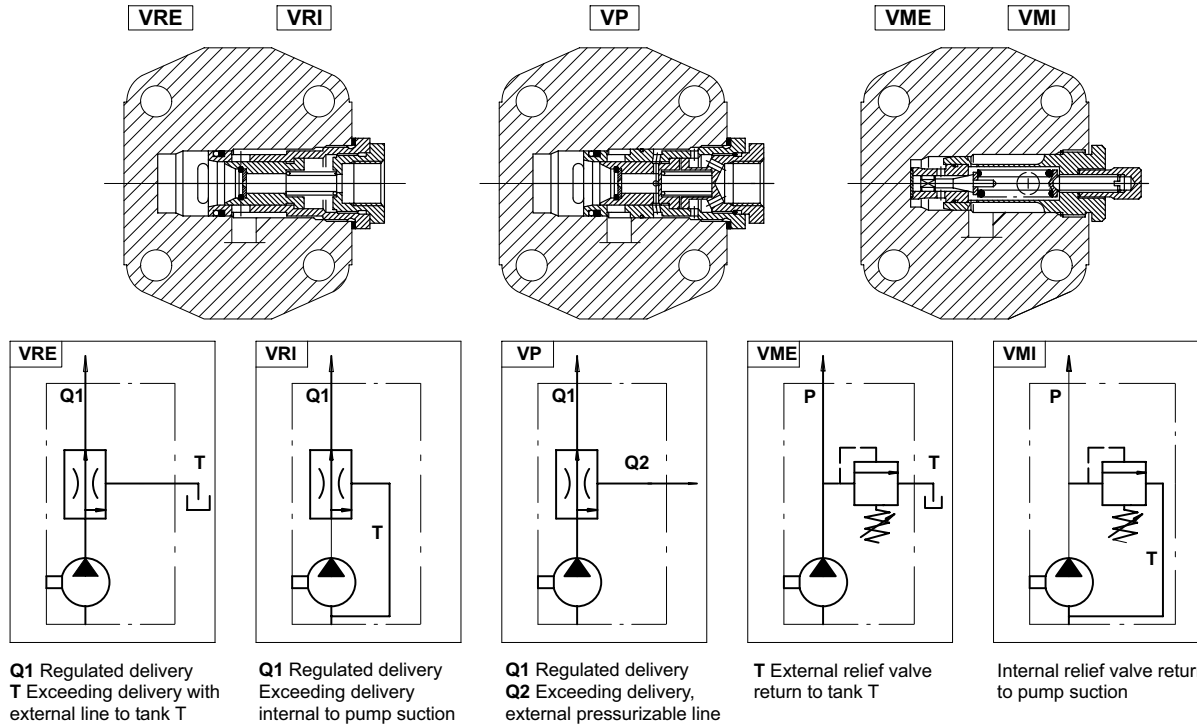
Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

AP200 with built-in valves

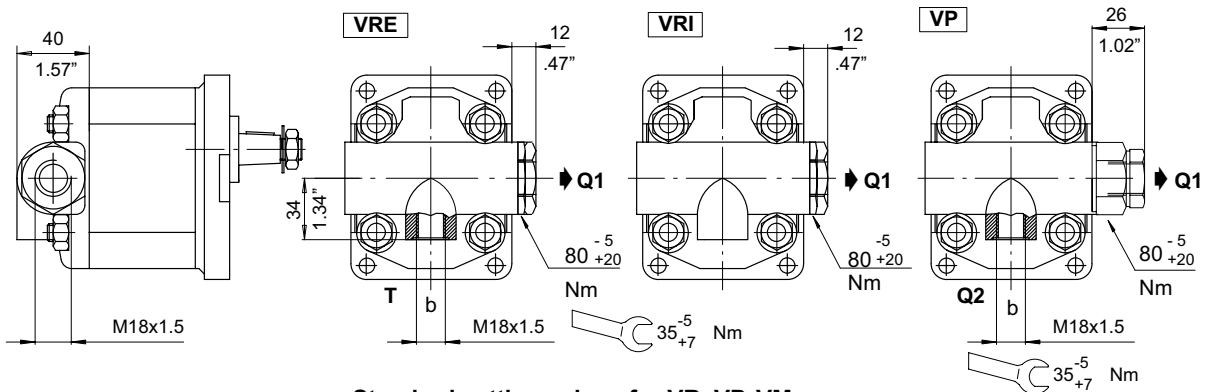
AP200 pumps (except pump code 259) can be provided by a rear cover with a built in flow control valve **VR** , priority

valve **VP** or pressure relief valve **VM**.

For the exemple composition product code see section 8

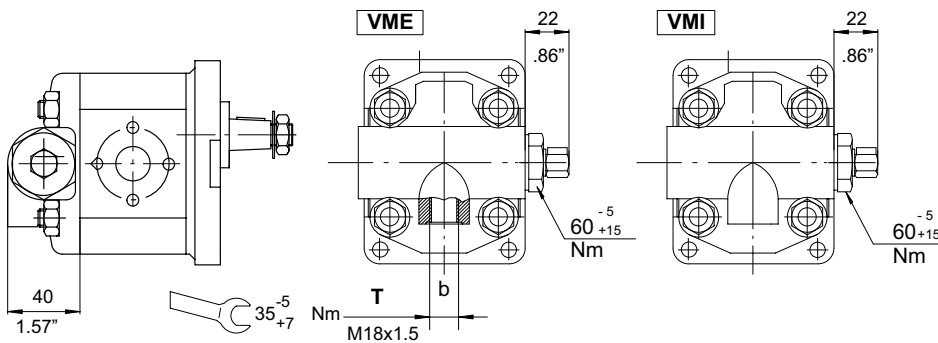


Q1 Regulated delivery
T Exceeding delivery with external line to tank T
Q1 Regulated delivery
T Exceeding delivery internal to pump suction
Q1 Regulated delivery
Q2 Exceeding delivery, external pressurizable line
T External relief valve return to tank T
 Internal relief valve return to pump suction



Standard setting values for VR, VP, VM

Type	VRE VRI	02	03	05	06	08	09	12	16	19	23	Type	VP	02	03	05	06	08	10	13	16	20	24
l/min	+15% -10%	2	3.5	5	6	7.5	9	12	16	19	23	l/min	+15% -10%	2.5	3.5	5	6	8.5	10.5	13	16	20	24



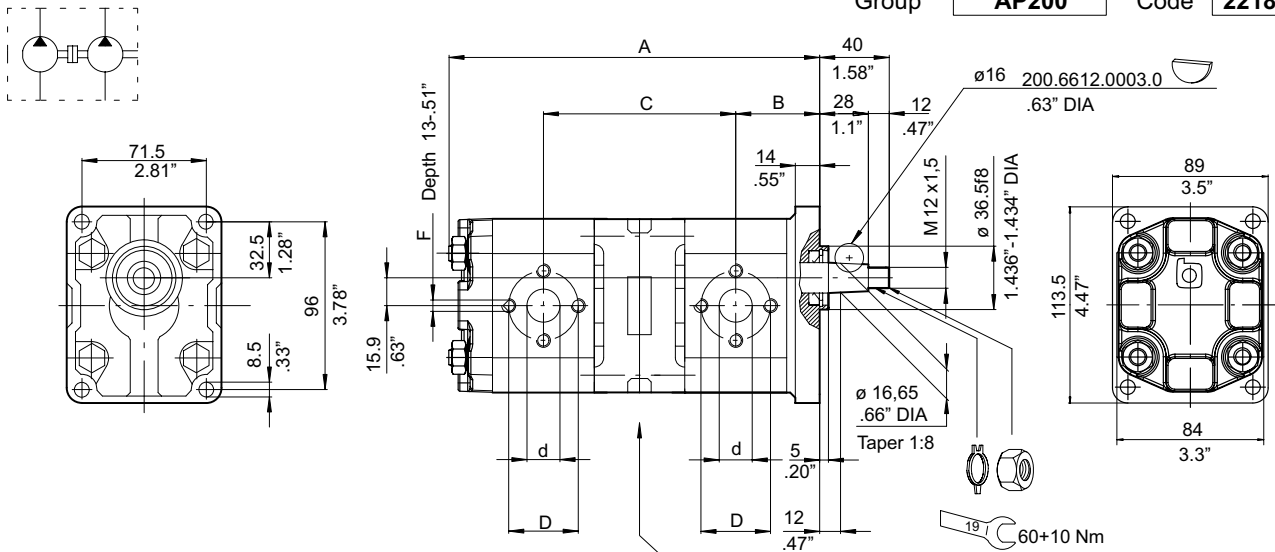
Type	VME VMI	06	15
Bar	+10%	60	150

(spring **YE** with adjustment range from 30 up to 80 bar)

(spring **GR** with adjustment range from 70 up to 210 bar)

All the above drawings refer to clockwise rotation pumps.
 For the remaining dimensions look at the correspondent pump code.

Group **AP200** Code **2218**



Displacement cm ³ /rev	Suction					Pressure				
	d	D	F	d	D	F	d	D	F	
mm	inch.	mm	inch.	mm	mm	inch.	mm	inch.	mm	
4.5	13.5	.53	30	1.2	6x1	13.5	.53	30	1.2	6x1
6.5										
8.5										
11	19	.75	40	1.57	8x1.25	19	.75	40	1.57	8x1.25
15										
19										
22										
26										

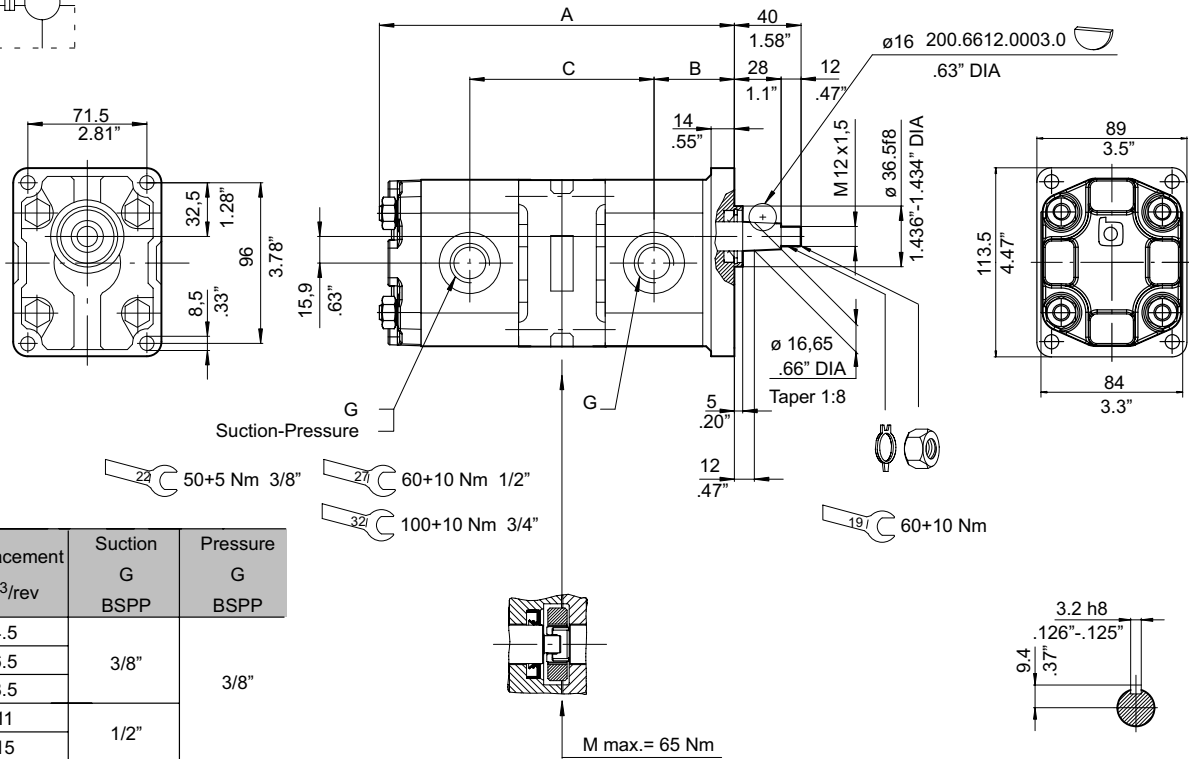
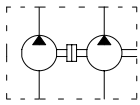
Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
4.5+4.5	163.5	6.4	40.5	1.6	78.5	3.10
6.5+4.5						
6.5+6.5						
8.5+4.5						
8.5+6.5						
8.5+8.5						
11+4.5	179.5	7.07	48.5	2	86.5	3.41
11+6.5						
11+8.5						
11+11	199.5	7.85			94.5	3.72
15+4.5						
15+6.5						
15+8.5	179.5	7.07	86.5	3.41		
15+11						
15+15						
19+4.5	191.5	7.54	54.5	2.1	92.5	3.64
19+6.5						
19+8.5						
19+8.5						

Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
19+11	211.5	8.32	54.5	2.1	100.5	3.96
19+15						
19+19						
22+4.5	196	7.72	56.5	2.3	95	3.74
22+6.5						
22+8.5						
22+11	216	8.50			103	4.06
22+15						
22+19						
22+22	226	8.90	109	4.29		
26+4.5						
26+6.5						
26+8.5	196	7.72	95	3.74		
26+11						
26+15						
26+19	226	8.90	109	4.29		
26+22						
26+26						

Accessories

Flange connectors: RF201 - RF202 - RF207 - RF210 - RF212 - RF213 - RF223 - RF224 - RF225 - RF238 - RF246 - RF251
 Splined couplings: GSH-2-14 - GSH-2-15 - GSH-2-18
 See section 8.4 for an example of ordering code

Group **AP200** Code **8818**



Displacement cm ³ /rev	Suction G BSP	Pressure G BSP
4.5	3/8"	3/8"
6.5		
8.5		
11	1/2"	
15	3/4"	1/2"
19		
22		
26		

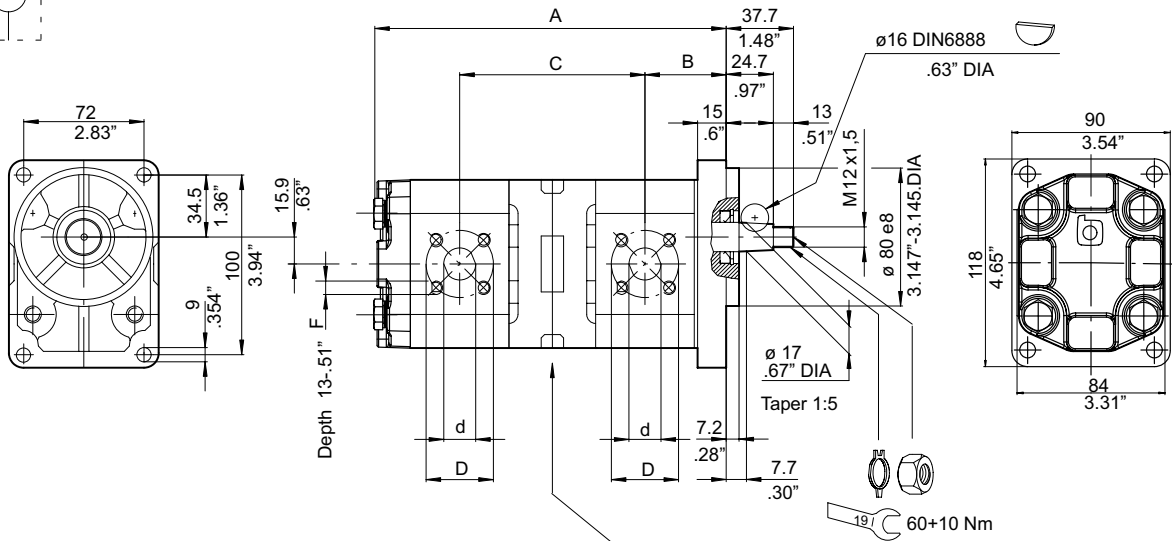
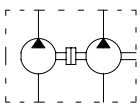
Displacement cm ³ /rev	A		B		C							
	mm	inch	mm	inch	mm	inch						
4.5+4.5	163.5	6.4	40.5	1.6	78.5	3.10						
6.5+4.5												
6.5+6.5												
8.5+4.5												
8.5+6.5												
8.5+8.5												
11+4.5	179.5	7.07	48.5	2	86.5	3.41						
11+6.5												
11+8.5												
11+11												
15+4.5												
15+6.5												
15+8.5	199.5	7.85	94.5	3.72	94.5	3.72						
15+11												
15+15												
19+4.5							191.5	7.54	54.5	2.1	92.5	3.64
19+6.5												
19+8.5												

Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
19+11	211.5	8.32	54.5	2.1	100.5	3.96
19+15						
19+19						
22+4.5	196	7.72	56.5	2.3	95	3.74
22+6.5						
22+8.5						
22+11						
22+15						
22+19						
22+22	231	9.09	111	4.37	111	4.37
26+4.5						
26+6.5						
26+8.5						
26+11						
26+15						
26+19	226	8.90	109	4.29	109	4.29
26+22						
26+26						

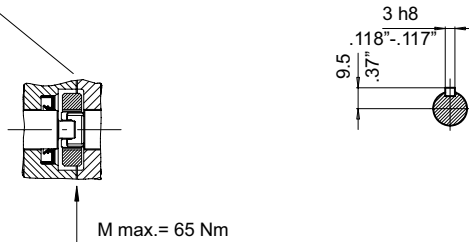
Accessories

Splined couplings: GSH-2-14 - GSH-2-15 - GSH-2-18

Group **AP200** Code **2225**



Displacement cm ³ /rev	Suction					Pressure				
	d mm	d inch.	D mm	D inch.	F mm	d mm	d inch.	D mm	D inch.	F mm
4.5	15	.6	40	1.57	6x1	15	.6	35	1.38	6x1
6.5										
8.5										
11	20	.78	49.5	1.94	7x1	20	.78	40	1.57	7x1
15										
19										
22										



Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
4.5+4.5	164.5	6.48	41.5	1.6	78.5	3.09
6.5+4.5						
6.5+6.5						
8.5+4.5						
8.5+6.5						
8.5+8.5						
11+4.5	180.5	7.11	49.5	2	86.5	3.41
11+6.5						
11+8.5						
11+11	200.5	7.89	49.5	2	94.5	3.72
15+4.5						
15+6.5						
15+8.5						
15+11	200.5	7.89	49.5	2	94.5	3.72
15+15						

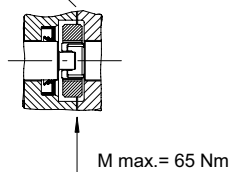
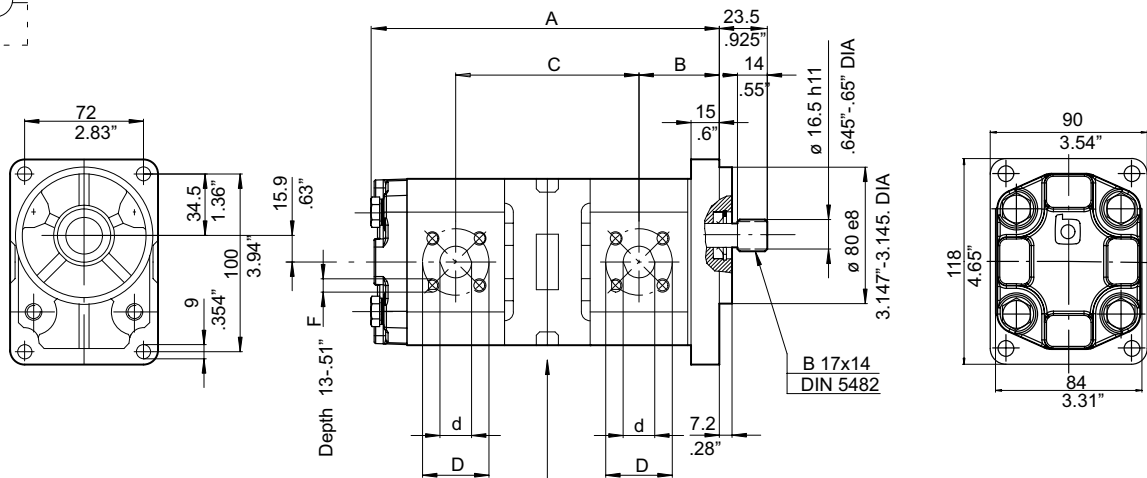
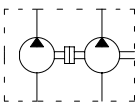
Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
19+4.5	192.5	7.58	55.5	2.2	92.5	3.64
19+6.5						
19+8.5						
19+11	212.5	8.37	57.5	2.3	100.5	3.96
19+15						
19+19						
22+4.5	197	7.76	57.5	2.3	95	3.74
22+6.5						
22+8.5						
22+11	217	8.54	57.5	2.3	115	4.5
22+15						
22+19						
22+22						
22+19	227	8.94	57.5	2.3	109	4.29
22+22						
22+22	232	9.13	57.5	2.3	111	4.37

Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

Splined couplings: GSH-2-14 - GSH-2-15 - GSH-2-18

Group **AP200** Code **2227**



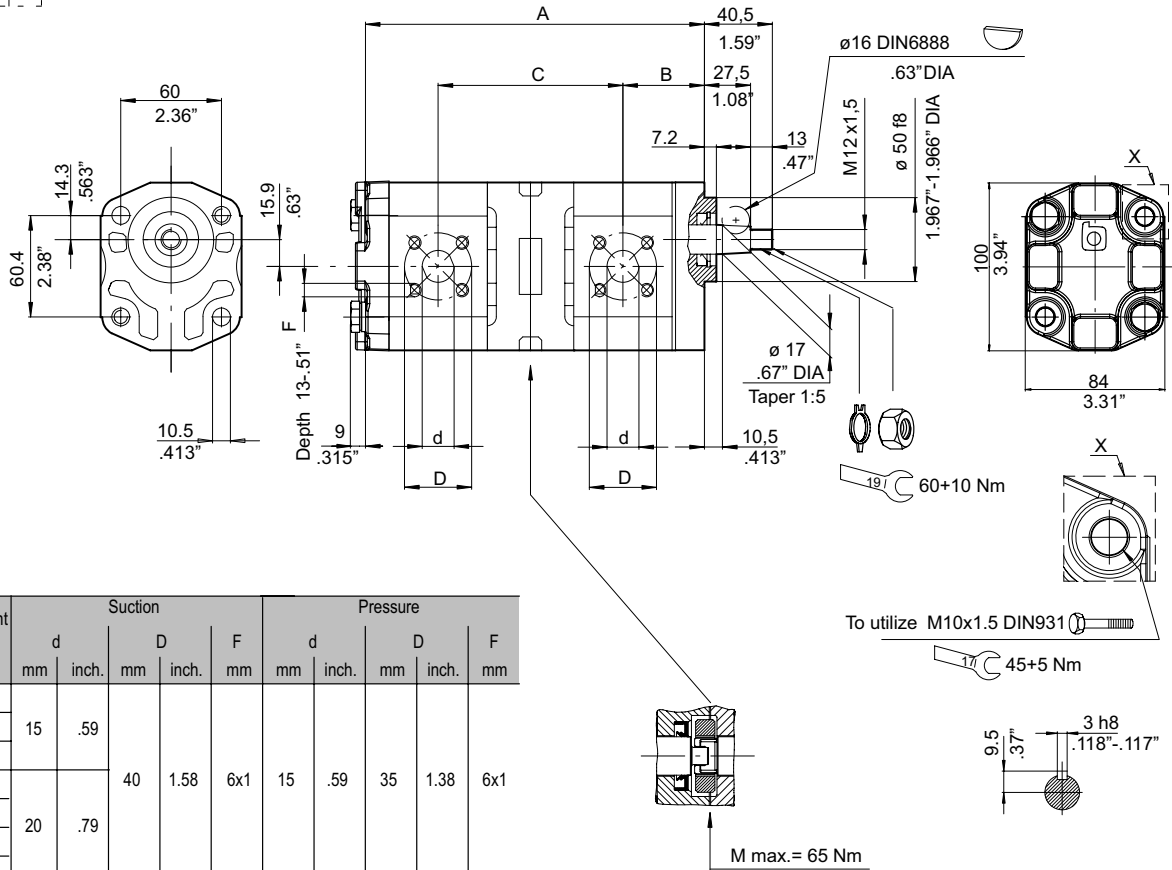
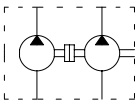
Displacement cm ³ /rev	Suction					Pressure				
	d mm	d inch.	D mm	D inch.	F mm	d mm	d inch.	D mm	D inch.	F mm
4.5	15	.6	40	1.57	6x1	15	.6	35	1.38	6x1
6.5										
8.5										
11	20	.78	40	1.57	6x1	15	.6	35	1.38	6x1
15										
19										
22										

Displacement cm ³ /rev	A		B		C			
	mm	inch	mm	inch	mm	inch		
4.5+4.5	164.5	6.48	41.5	1.6	78.5	3.09		
6.5+4.5								
6.5+6.5								
8.5+4.5								
8.5+6.5								
8.5+8.5								
11+4.5	180.5	7.11	49.5	2	86.5	3.41		
11+6.5								
11+8.5								
11+11	200.5	7.89			49.5	2	94.5	3.72
15+4.5								
15+6.5	180.5	7.11			49.5	2	86.5	3.41
15+8.5								
15+11								
15+15	200.5	7.89	49.5	2	94.5	3.72		

Displacement cm ³ /rev	A		B		C			
	mm	inch	mm	inch	mm	inch		
19+4.5	192.5	7.58	55.5	2.2	92.5	3.64		
19+6.5								
19+8.5								
19+11	212.5	8.37	55.5	2.2	100.5	3.96		
19+15								
19+19	222.5	8.76			55.5	2.2	106.5	4.19
22+4.5	197	7.76	57.5	2.3			95	3.74
22+6.5								
22+8.5								
22+11	217	8.54	57.5	2.3	103	4.05		
22+15								
22+19	227	8.93			57.5	2.3	109	4.29
22+22	232	9.13	111	4.37				

Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.



Displacement cm ³ /rev	Suction					Pressure				
	d mm	d inch.	D mm	D inch.	F mm	d mm	d inch.	D mm	D inch.	F mm
4.5	15	.59	40	1.58	6x1	15	.59	35	1.38	6x1
6.5										
8.5										
11	20	.79	40	1.58	6x1	15	.59	35	1.38	6x1
15										
19										
22										

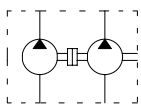
Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
4.5+4.5	152.5	6	38.5	1.5	78.5	3.09
6.5+4.5						
6.5+6.5						
8.5+4.5						
8.5+6.5						
8.5+8.5						
11+4.5						
11+6.5						
11+8.5						
11+11						
15+4.5						
15+6.5	184.5	7.26	94.5	3.72	86.5	3.41
15+8.5						
15+11						
15+15	184.5	7.26	94.5	3.72	94.5	3.72

Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
19+4.5	180.5	7.11	52.5	2	92.5	3.64
19+6.5						
19+8.5						
19+11						
19+15	196.5	7.74	55	2.2	100.5	3.96
19+19						
22+4.5						
22+6.5	185	7.28	55	2.2	95	3.74
22+8.5						
22+11						
22+15	201	7.19	55	2.2	103	4.05
22+19						
22+22						
22+19	213	8.39	55	2.2	109	4.29
22+22	218	8.58	55	2.2	111	4.37

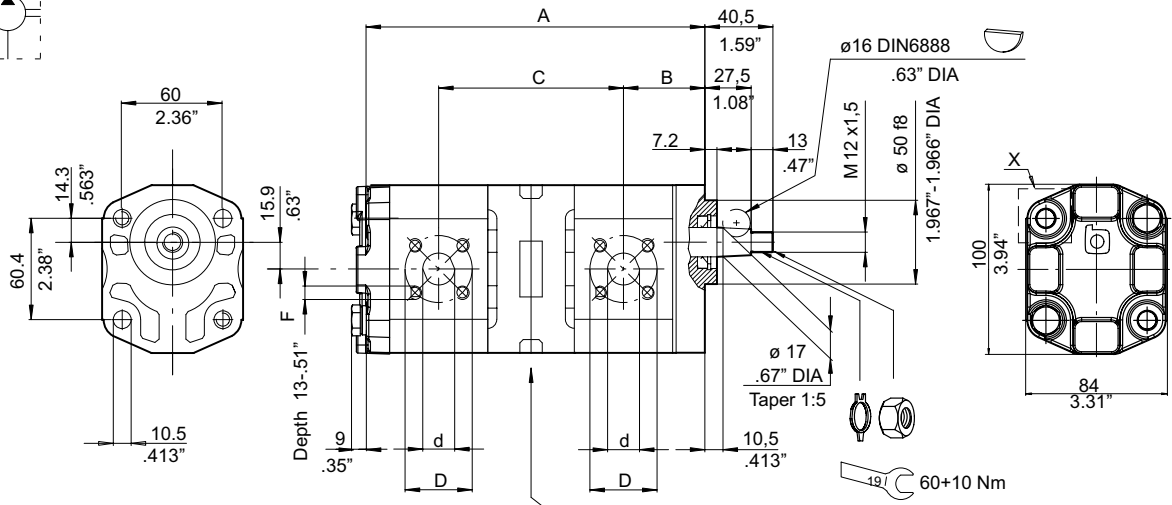
Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

Splined couplings: GSH-2-14 - GSH-2-15 - GSH-2-18



Group **AP200** Code **2245**



Displacement cm ³ /rev	Suction				Pressure					
	d mm	inch	D mm	inch	d mm	inch	D mm	inch	F mm	
4.5	15	.59	40	1.58	6x1	15	.59	35	1.38	6x1
6.5										
8.5										
11	20	.79	40	1.58	6x1	15	.59	35	1.38	6x1
15										
19										
22										

Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
4.5+4.5	152.5	6	38.5	1.5	78.5	3.09
6.5+4.5						
6.5+6.5						
8.5+4.5						
8.5+6.5						
8.5+8.5						
11+4.5	168.5	6.63	46.5	1.8	86.5	3.41
11+6.5						
11+8.5						
11+11						
15+4.5						
15+6.5						
15+8.5	184.5	7.26	46.5	1.8	94.5	3.72
15+11						
15+15						

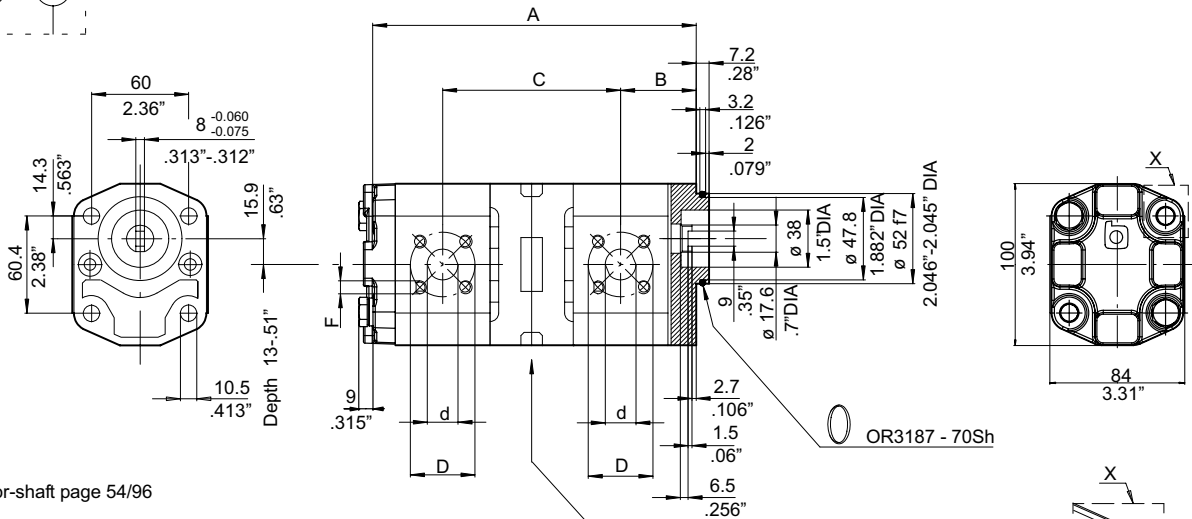
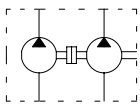
Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
19+4.5	180.5	7.11	52.5	2	92.5	3.64
19+6.5						
19+8.5						
19+11						
19+15						
19+19						
22+4.5	185	7.28	55	2.2	95	3.74
22+6.5						
22+8.5						
22+11						
22+15						
22+19						
22+22	201	7.19	55	2.2	103	4.05
	213	8.39			109	4.29
	218	8.58			111	4.37

Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

Splined couplings: GSH-2-14 - GSH-2-15 - GSH-2-18

Group **AP200** Code **2259**



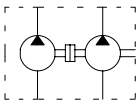
Motor-shaft page 54/96

Displacement cm ³ /rev	Suction			Pressure		
	d mm	D inch.	F mm	d mm	D inch.	F mm
4.5	15	.59	M6x1	15	.59	M6x1
6.5						
8.5						
11	20	.79	M6x1	35	1.38	M6x1
15						
19						

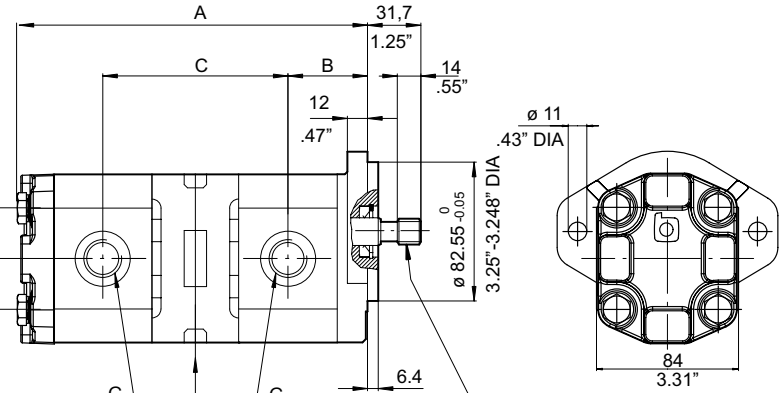
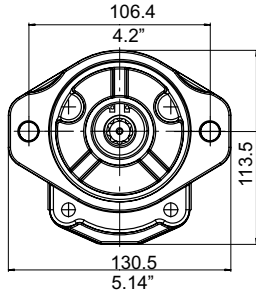
Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
4.5+4.5	152.5	6	38.5	1.5	78.5	3.09
6.5+4.5						
6.5+6.5						
8.5+4.5						
8.5+6.5						
8.5+8.5						
11+4.5	168.5	6.63	46.5	1.8	86.5	3.41
11+6.5						
11+8.5						
11+11	184.5	7.26	52.5	2	94.5	3.72
15+4.5						
15+6.5						
15+8.5	184.5	7.26	52.5	2	94.5	3.72
15+11						
15+15						
19+4.5	180.5	7.11	52.5	2	92.5	3.64
19+6.5						
19+8.5						
19+11	196.5	7.74	52.5	2	100.5	3.96
19+15						
19+19						
19+19	208.5	8.21	52.5	2	106.5	4.19

Accessories

Flange connectors:
RF221 - RF262 - RF216 - RF252 - RF217- RF220.



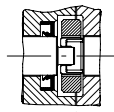
Group **AP200** Code **8887S**



100+10 Nm 1-1/16 12UNF
65+10 Nm 7/8 14UNF

SAE J 498-9T
16/32 DP
FLAT ROOT SIDE FIT
CLASS 1 FIT

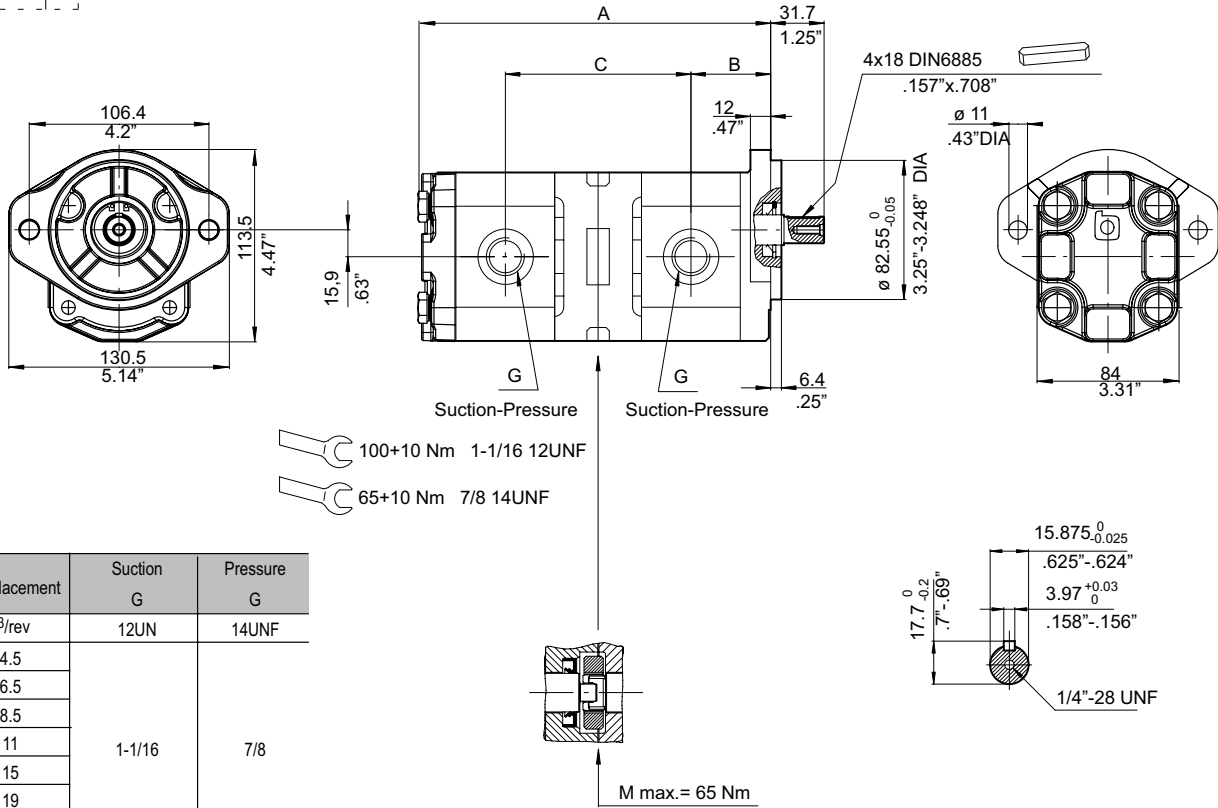
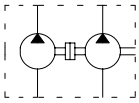
Displacement cm ³ /rev	Suction G 12UN	Pressure G 14UNF
4.5	1-1/16	7/8
6.5		
8.5		
11		
15		
19		
22		
26		



M max. = 65 Nm

Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
4.5+4.5	162.5	6.40	39.5	1.5	78.5	3.09
6.5+4.5						
6.5+6.5						
8.5+4.5						
8.5+6.5						
8.5+8.5						
11+4.5	178.5	7.03	47.5	1.9	86.5	3.41
11+6.5						
11+8.5						
11+11						
15+4.5						
15+6.5						
15+8.5	198.5	7.81	78.5	1.9	94.5	3.72
15+11						
15+15						
19+4.5						
19+6.5						
19+8.5						
19+8.5	190.5	7.5	53.5	2.1	92.5	3.64
19+8.5						

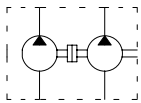
Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
19+11	210.5	8.29	53.5	2.1	100.5	3.96
19+15						
19+19						
22+4.5	195	7.68	55.5	2.2	95	3.74
22+6.5						
22+8.5						
22+11						
22+15						
22+19						
22+22	230	9.06	109	4.29	111	4.37
26+4.5						
26+6.5						
26+8.5						
26+11						
26+15						
26+19	225	8.86	109	4.29	111	4.37
26+22						
26+26						



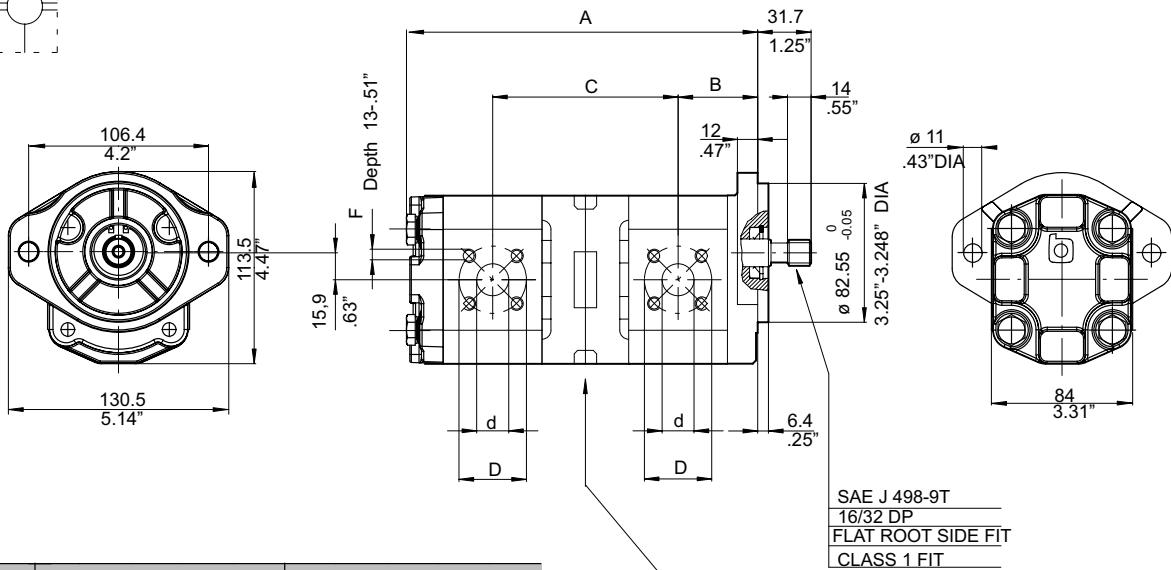
Displacement	Suction G	Pressure G
cm ³ /rev	12UN	14UNF
4.5	1-1/16	7/8
6.5		
8.5		
11		
15		
19		
22		
26		

Displacement	A		B		C					
	mm	inch	mm	inch	mm	inch				
4.5+4.5	162.5	6.40	39.5	1.5	78.5	3.09				
6.5+4.5										
6.5+6.5										
8.5+4.5										
8.5+6.5										
8.5+8.5										
11+4.5	178.5	7.03	47.5	1.9	86.5	3.41				
11+6.5										
11+8.5										
11+11										
15+4.5										
15+6.5										
15+8.5	198.5	7.81	47.5	1.9	94.5	3.72				
15+11										
15+15										
19+4.5					190.5	7.5	53.5	2.1	92.5	3.64
19+6.5										
19+8.5										
19+8.5										

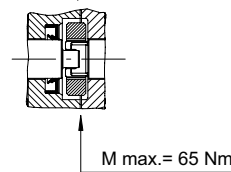
Displacement	A		B		C	
	mm	inch	mm	inch	mm	inch
19+11	210.5	8.29	53.5	2.1	100.5	3.96
19+15						
19+19						
22+4.5	195	7.68	55.5	2.2	95	3.74
22+6.5						
22+8.5						
22+11						
22+15						
22+19						
22+22	230	9.06	55.5	2.2	103	4.06
26+4.5						
26+6.5						
26+8.5						
26+11						
26+15						
26+19	225	8.86	55.5	2.2	109	4.29
26+22						
26+26						



Group **AP200** Code **2287S-B**



Displacement cm ³ /rev	Suction			Pressure						
	d mm	D inch	F mm	d mm	D inch	F mm				
4.5	15	.6	40	1.57	6x1	15	.6	35	1.38	6x1
6.5										
8.5										
11	20	.78	40	1.57	6x1	15	.6	35	1.38	6x1
15										
19										
22										
26										

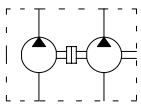


Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
4.5+4.5	162.5	6.40	39.5	1.5	78.5	3.09
6.5+4.5						
6.5+6.5						
8.5+4.5						
8.5+6.5						
8.5+8.5						
11+4.5	178.5	7.03	47.5	1.9	86.5	3.41
11+6.5						
11+8.5						
11+11						
15+4.5						
15+6.5	198.5	7.81	47.5	1.9	94.5	3.72
15+8.5						
15+11						
15+15						
19+4.5	190.5	7.5	53.5	2.1	92.5	3.64
19+6.5						
19+8.5						
19+11						

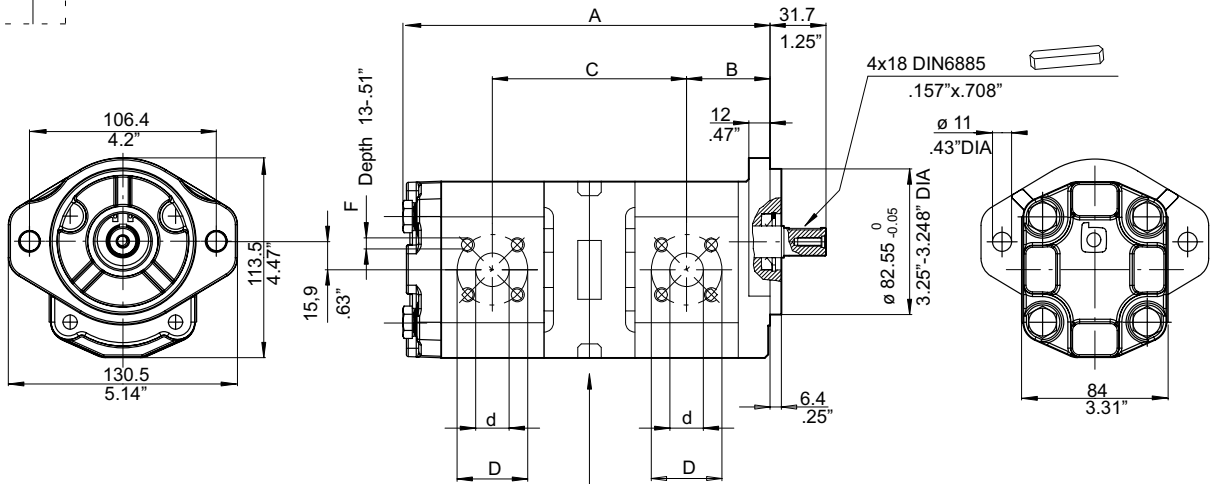
Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
19+11	210.5	8.29	53.5	2.1	100.5	3.96
19+15						
19+19						
22+4.5	195	7.68	55.5	2.2	95	3.74
22+6.5						
22+8.5						
22+11						
22+15						
22+19	225	8.86	55.5	2.2	109	4.29
22+22						
26+4.5						
26+6.5						
26+8.5	230	9.06	55.5	2.2	111	4.37
26+11						
26+15						
26+19						
26+22	230	9.06	55.5	2.2	111	4.37
26+26						

Accessories

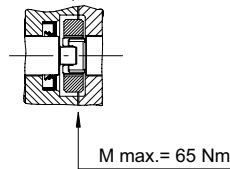
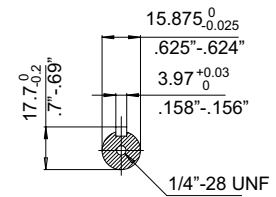
Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.



Group **AP200** Code **2280-B**



Displacement cm ³ /rev	Suction			Pressure		
	d mm	D mm	F mm	d mm	D mm	F mm
4.5	15	.6	6x1	15	.6	6x1
6.5						
8.5						
11	20	.78	40 1.57	35	1.38	6x1
15						
19						
22						
26						



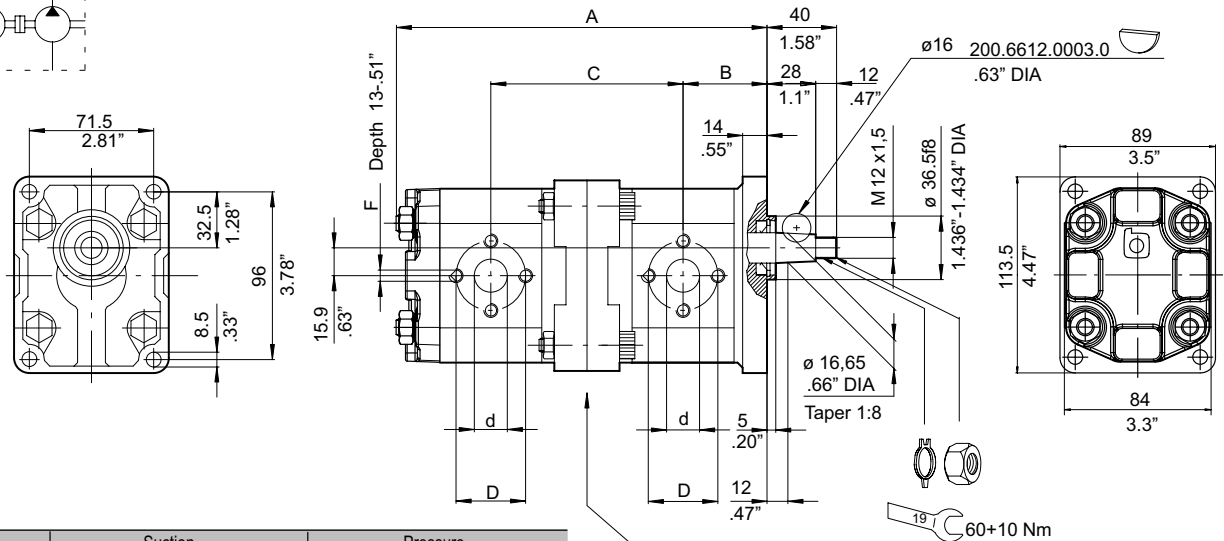
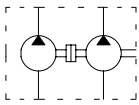
Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
4.5+4.5	162.5	6.40	39.5	1.5	78.5	3.09
6.5+4.5						
6.5+6.5						
8.5+4.5						
8.5+6.5						
8.5+8.5						
11+4.5	178.5	7.03	47.5	1.9	86.5	3.41
11+6.5						
11+8.5						
11+11						
15+4.5						
15+6.5	178.5	7.03	47.5	1.9	86.5	3.41
15+8.5						
15+11						
15+15	198.5	7.81	47.5	1.9	94.5	3.72
19+4.5						
19+6.5						
19+8.5						
19+11	190.5	7.5	53.5	2.1	92.5	3.64
19+15						
19+19						
19+22						

Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
19+11	210.5	8.29	53.5	2.1	100.5	3.96
19+15						
19+19						
22+4.5	195	7.68	55.5	2.2	95	3.74
22+6.5						
22+8.5						
22+11	215	8.46	55.5	2.2	103	4.06
22+15						
22+19						
22+22						
26+4.5	195	7.68	55.5	2.2	95	3.74
26+6.5						
26+8.5						
26+11	215	8.46	55.5	2.2	103	4.06
26+15						
26+19						
26+22						
26+26	230	9.06	55.5	2.2	111	4.37
26+22						

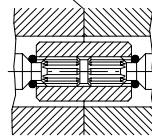
Accessories

Flange connectors: RF221 - RF262 - RF216 - RF252 - RF217 - RF220.

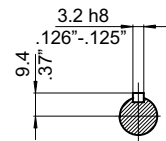
Group **AP202** Code **2218**



Displacement cm ³ /rev	Suction					Pressure				
	d	D	F	d	D	d	D	F	d	D
mm	inch.	mm	inch.	mm	mm	inch.	mm	inch.	mm	inch.
4.5	13.5	.53	30	1.2	6x1	13.5	.53	30	1.2	6x1
6.5										
8.5										
11	19	.75	40	1.57	8x1.25	19	.75	40	1.57	8x1.25
15										
19										
22										
26										



M max. = 85 Nm



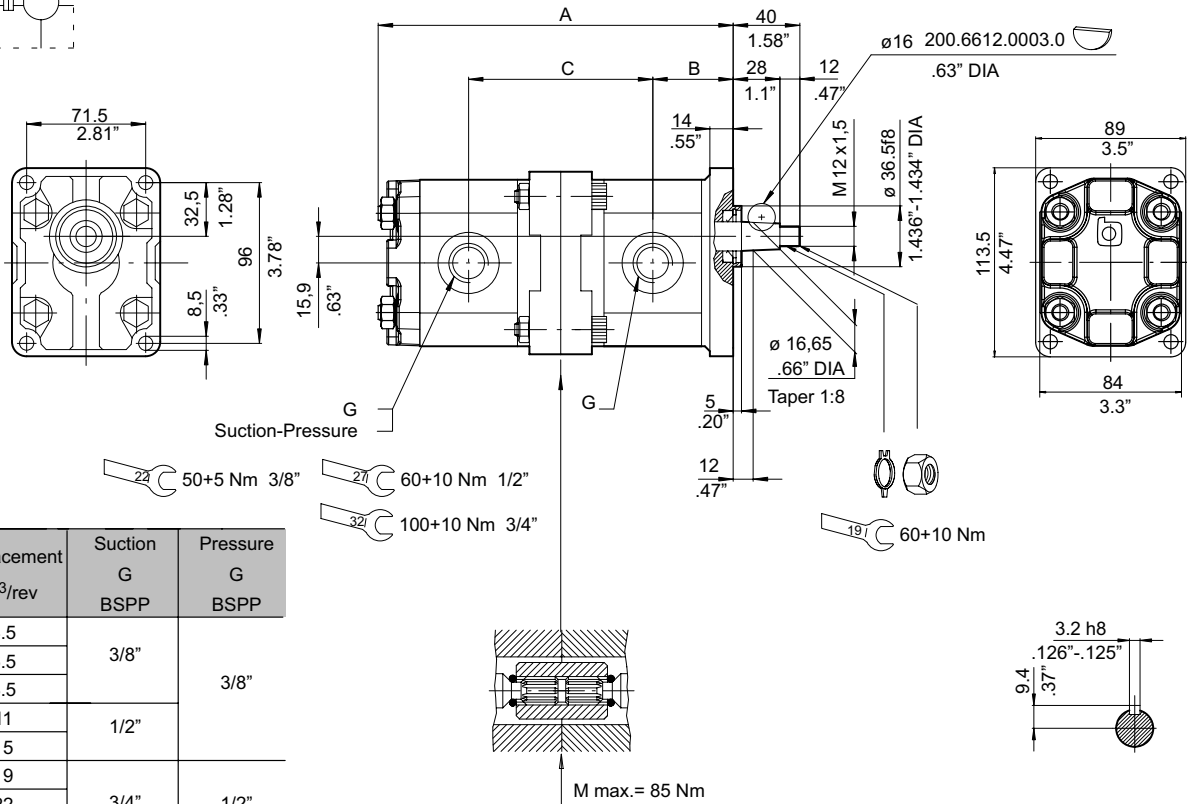
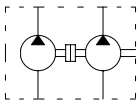
Displacement cm ³ /rev	A		B		C							
	mm	inch	mm	inch	mm	inch						
4.5+4.5	175.5	7	40.5	1.6	90.5	3.56						
6.5+4.5												
6.5+6.5												
8.5+4.5												
8.5+6.5												
8.5+8.5												
11+4.5	191.5	7.5	48.5	2	98.5	3.88						
11+6.5												
11+8.5												
11+11												
15+4.5												
15+6.5												
15+8.5	211.5	8.3	106.5	4.2	106.5	4.2						
15+11												
15+15												
19+4.5							203.5	8	54.5	2.1	104.5	4
19+6.5												
19+8.5												
19+11												
19+15												
19+19												

Displacement cm ³ /rev	A		B		C							
	mm	inch	mm	inch	mm	inch						
19+11	223.5	8.8	54.5	2.1	112.5	4.43						
19+15												
19+19												
22+4.5	208	8.2	56.5	2.3	107	4.2						
22+6.5												
22+8.5												
22+11	228	9	115	4.5	121	4.7						
22+15												
22+19												
22+22												
26+4.5							208	8.2	107	4.2	115	4.5
26+6.5												
26+8.5												
26+11												
26+15												
26+19												
26+22	243	9.5	123	4.8	123	4.8						
26+26												

Accessories

Flange connectors: RF201 - RF202 - RF207 - RF210 - RF212 - RF213 - RF223 - RF224 - RF225 - RF238 - RF246 - RF251
 Splined couplings: GSH-2-14 - GSH-2-15 - GSH-2-18
 See section 8.4 for an example of ordering code

Group **AP202** Code **8818**



Displacement cm ³ /rev	Suction G BSPP	Pressure G BSPP
4.5	3/8"	3/8"
6.5		
8.5		
11	1/2"	
15	3/4"	1/2"
19		
22		
26		

Displacement cm ³ /rev	A		B		C							
	mm	inch	mm	inch	mm	inch						
4.5+4.5	175.5	7	40.5	1.6	90.5	3.56						
6.5+4.5												
6.5+6.5												
8.5+4.5												
8.5+6.5												
8.5+8.5												
11+4.5	191.5	7.5	48.5	2	98.5	3.88						
11+6.5												
11+8.5												
11+11												
15+4.5												
15+6.5												
15+8.5	191.5	7.5	48.5	2	98.5	3.88						
15+11												
15+15												
19+4.5							211.5	8.3	48.5	2	106.5	4.2
19+6.5												
19+8.5												
19+11												
19+15												
19+19												
19+22	203.5	8	54.5	2.1	104.5	4						
19+26												

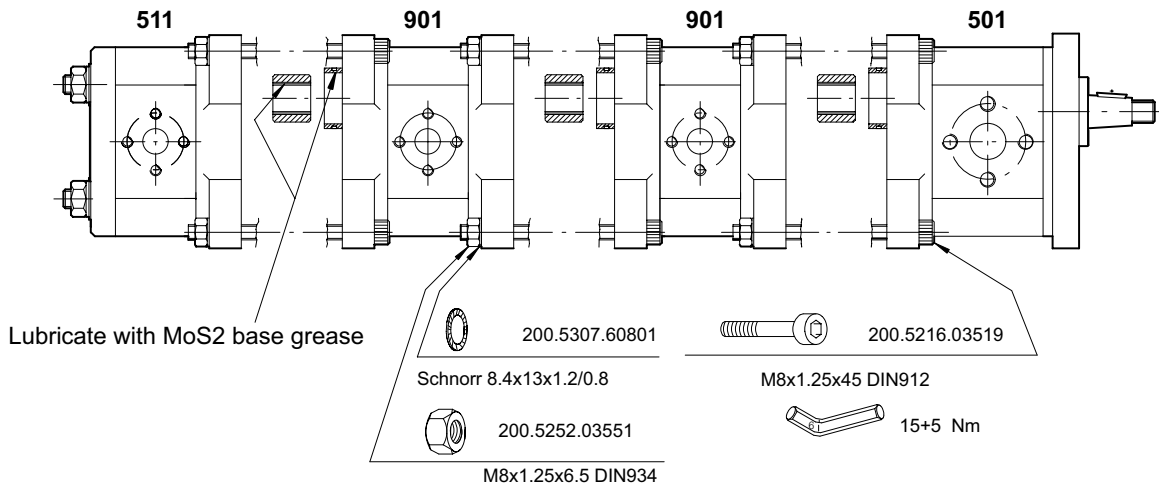
Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
19+11	223.5	8.8	54.5	2.1	112.5	4.43
19+15					118.5	4.7
19+19					123	4.8
22+4.5	208	8.2	56.5	2.3	107	4.2
22+6.5					115	4.5
22+8.5					121	4.7
22+11					123	4.8
22+15					107	4.2
22+19					115	4.5
22+22	238	9.4	56.5	2.3	121	4.7
26+4.5					123	4.8
26+6.5					107	4.2
26+8.5					115	4.5
26+11					121	4.7
26+15					123	4.8
26+19	243	9.5	56.5	2.3	107	4.2
26+22					115	4.5
26+26					121	4.7

Accessories

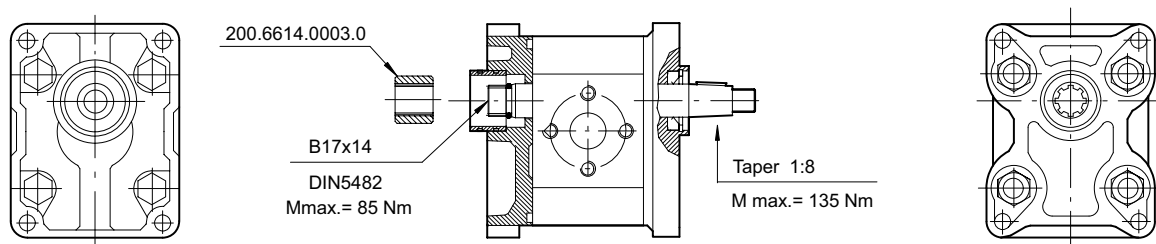
Splined couplings: GSH-2-14 - GSH-2-15 - GSH-2-18

Multiple gear pumps

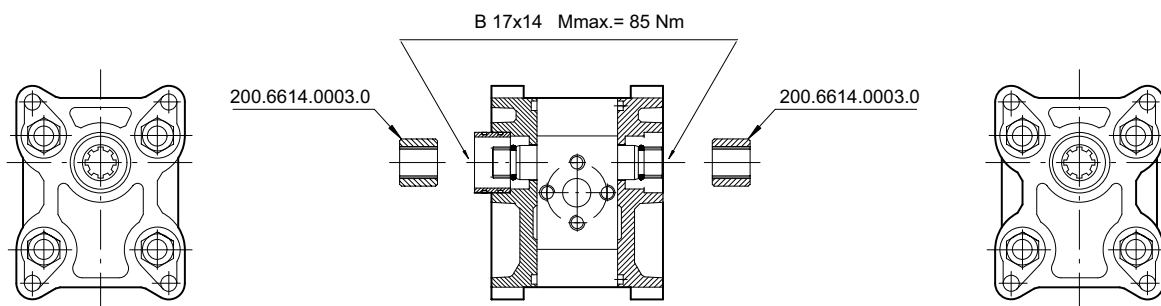
Group **AP200**



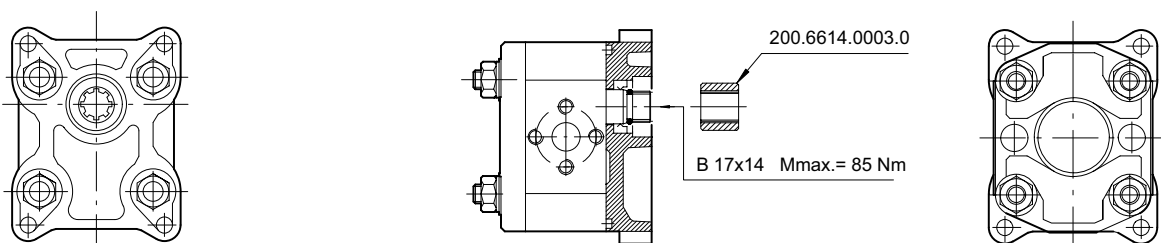
Front pump 501



Intermediate pump 901

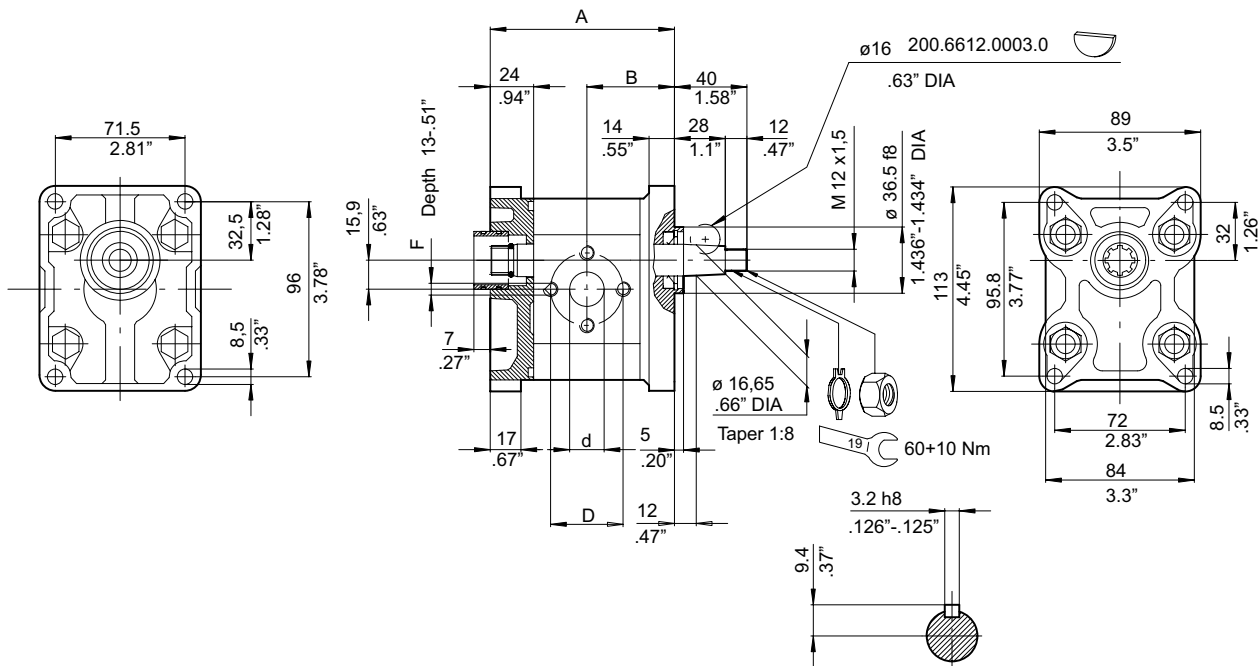


Rear pump 511



The 501, 901, and 511 code pumps are sold as single pre-assembled and tested units. They can be used in a variety of combinations in double, triple, quadruple pumps, etc..

In the case of one or more pumps with operation under pressure or at the operating limits, the recommendations indicated on page 8/96 are to be observed.



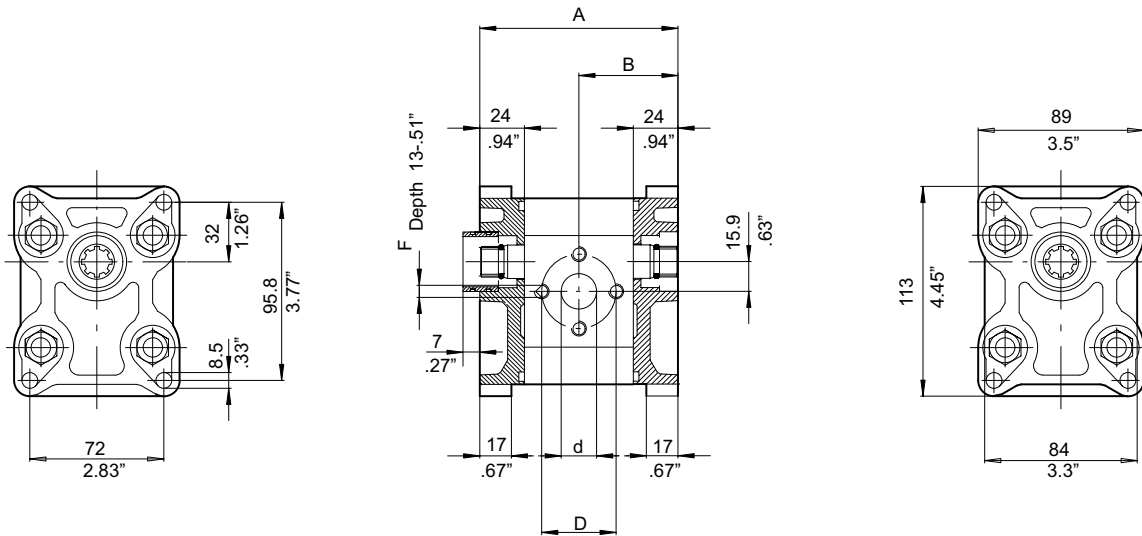
Type	Displacement cm ³ /rev	Dimensions				Suction					Pressure				
		A mm	inch	B mm	inch	d mm	inch	D mm	inch	F mm	d mm	inch	D mm	inch	F mm
AP200/4.5	4.3	85.5	3.36	40.3	1.59	13.5	.53	30	1.18	M6X1	13.5	.53	30	1.18	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	101.5	4	48.3	1.90	19	.75	40	1.58	M8X1.25	19	.75	40	1.58	M8X1.25
AP200/15	14.95														
AP200/19	18.9	113.5	4.46	54.3	2.14	19	.75	40	1.58	M8X1.25	19	.75	40	1.58	M8X1.25
AP200/22	21.9														
AP200/26	25.9														

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP200/4.5 D	200.7483.1058.0	AP200/4.5 S	200.7483.1059.0
AP200/6.5 D	200.7483.2055.0	AP200/6.5 S	200.7483.2056.0
AP200/8.5 D	200.7483.3058.0	AP200/8.5 S	200.7483.3059.0
AP200/11 D	200.7483.4058.0	AP200/11 S	200.7483.4059.0
AP200/15 D	200.7483.5056.0	AP200/15 S	200.7483.5057.0
AP200/19 D	200.7483.6057.0	AP200/19 S	200.7483.6058.0
AP200/22 D	200.7483.7055.0	AP200/22 S	200.7483.7056.0
AP200/26 D	200.7483.8047.0	AP200/26 S	200.7483.8048.0

Accessories

Flange connectors: RF223 - RF224 - RF225 - RF238 - RF246 - RF251.

Splined couplings: GSH-2-14 - GSH-2-15 - GSH-2-18 - 200.6614.0003.0



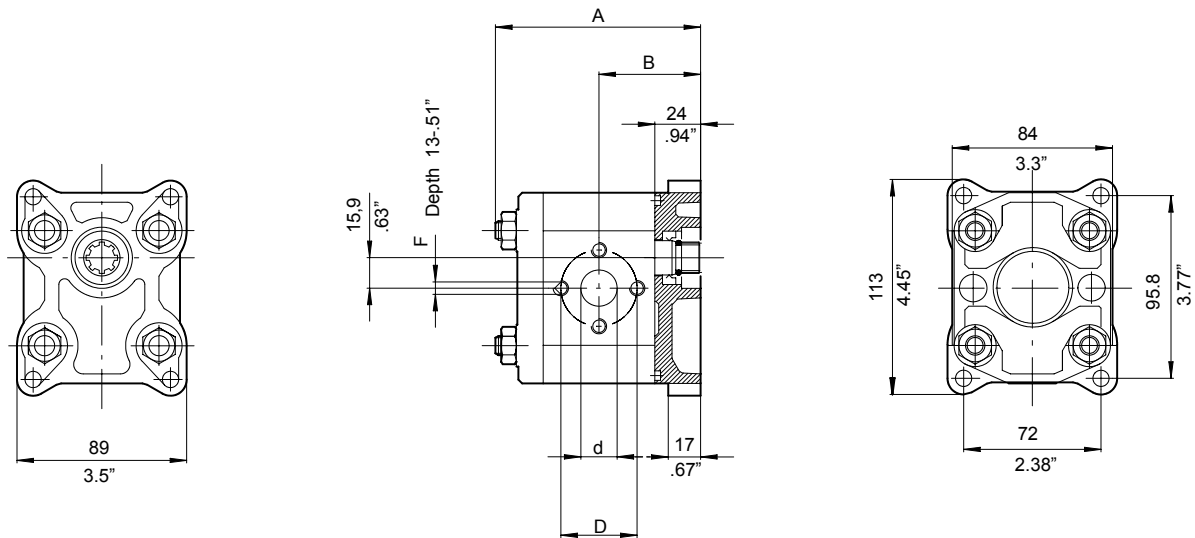
Type	Displacement cm ³ /rev	Dimensions				Suction					Pressure				
		A		B		d		D		F	d		D		F
		mm	inch	mm	inch	mm	inch	mm	inch	mm	mm	inch	mm	inch	mm
AP200/4.5	4.3	90.5	3.56	45.5	1.79	13.5	.53	30	1.18	M6X1	13.5	.53	30	1.18	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	106.5	4.2	53.5	2.10	19	.75	40	1.58	M8X1.25	19	.75	40	1.58	M8X1.25
AP200/15	14.95														
AP200/19	18.9	112.5	4.56	59.5	2.34	19	.75	40	1.58	M8X1.25	19	.75	40	1.58	M8X1.25
AP200/22	21.9	123	4.84	61.5	2.40										
AP200/26	25.9														

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP200/4.5 D	200.7483.1062.0	AP200/4.5 S	200.7483.1063.0
AP200/6.5 D	200.7483.2059.0	AP200/6.5 S	200.7483.2060.0
AP200/8.5 D	200.7483.3062.0	AP200/8.5 S	200.7483.3063.0
AP200/11 D	200.7483.4062.0	AP200/11 S	200.7483.4063.0
AP200/15 D	200.7483.5060.0	AP200/15 S	200.7483.5061.0
AP200/19 D	200.7483.6061.0	AP200/19 S	200.7483.6062.0
AP200/22 D	200.7483.7059.0	AP200/22 S	200.7483.7060.0
AP200/26 D	200.7483.8051.0	AP200/26 S	200.7483.8052.0

Accessories

Flange connectors: RF223 - RF224 - RF225 - RF238 - RF246 - RF251.

Splined couplings: 200.6614.0003.0



Type	Displacement cm ³ /rev	Dimensions				Suction			Pressure						
		A mm	inch	B mm	inch	d mm	inch	D mm	inch	F mm	d mm	inch	D mm	inch	F mm
AP200/4.5	4.3	90	3.54	45.5	1.79	13.5	.53	30	1.18	M6X1	13.5	.53	30	1.18	M6X1
AP200/6.5	6.3														
AP200/8.5	8.3														
AP200/11	10.95	110	4.3	53.5	2.10	19	.75	40	1.58	M8X1.25	19	.75	40	1.58	M8X1.25
AP200/15	14.95														
AP200/19	18.9	120	4.72	59.5	2.34	19	.75	40	1.58	M8X1.25	19	.75	40	1.58	M8X1.25
AP200/22	21.9														
AP200/26	25.9	125	4.92	61.5	2.40	19	.75	40	1.58	M8X1.25	19	.75	40	1.58	M8X1.25

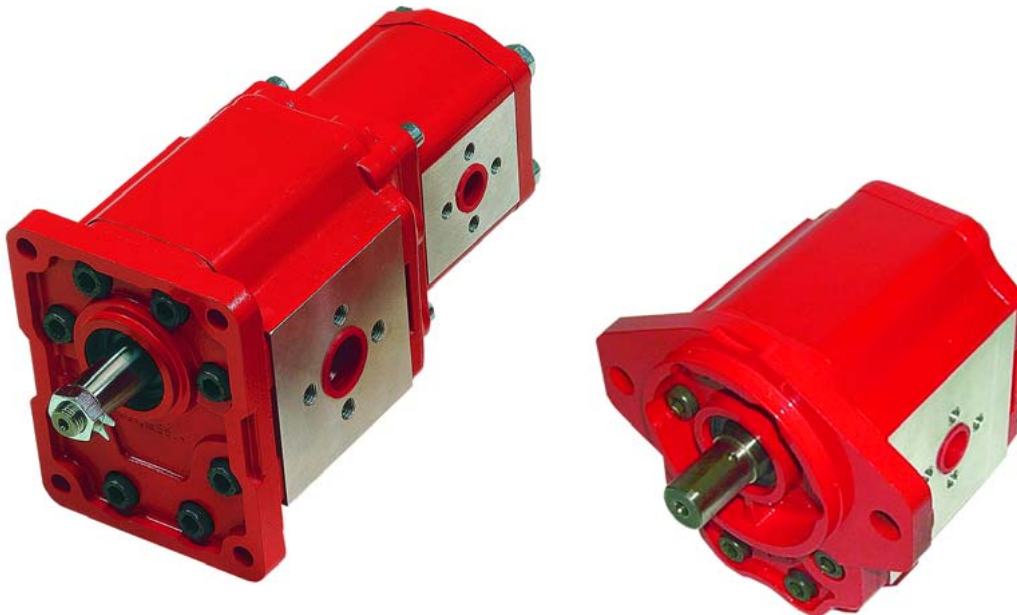
Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP200/4.5 D	200.7483.1060.0	AP200/4.5 S	200.7483.1061.0
AP200/6.5 D	200.7483.2057.0	AP200/6.5 S	200.7483.2058.0
AP200/8.5 D	200.7483.3060.0	AP200/8.5 S	200.7483.3061.0
AP200/11 D	200.7483.4060.0	AP200/11 S	200.7483.4061.0
AP200/15 D	200.7483.5058.0	AP200/15 S	200.7483.5059.0
AP200/19 D	200.7483.6059.0	AP200/19 S	200.7483.6060.0
AP200/22 D	200.7483.7057.0	AP200/22 S	200.7483.7058.0
AP200/26 D	200.7483.8049.0	AP200/26 S	200.7483.8050.0

Accessories

Flange connectors: RF223 - RF224 - RF225 - RF238 - RF246 - RF251.

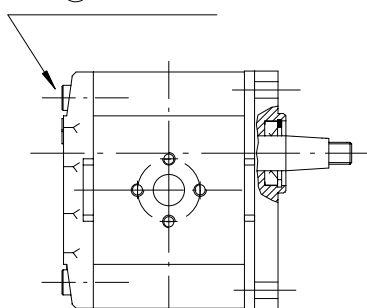
Splined couplings: 200.6614.0003.0

6 Gear pump group AP300



AP300 Type	Displacement		Max. pressure						n min.		n max.	
	cm ³ /rev	Cu. In. P. R.	P1		P2		P3		P ≤ P1	P > P1	P ≤ P1	P > P1
			bar	P.S.I.	bar	P.S.I.	bar	P.S.I.				
AP300/27	27.0	1.674	220	3150	250	3600	280	4000	600	800	3000	3500
AP300/31	31.0	1.891	220	3150	250	3600	280	4000	600	800	3000	3500
AP300/38	38.0	2.318	220	3150	250	3600	280	4000	600	800	2500	3000
AP300/45	45.0	2.745	200	2900	230	3300	260	3700	600	800	2500	3000
AP300/53	53.0	3.233	200	2900	230	3300	260	3700	600	800	2500	3000
AP300/63	63.0	3.843	180	2600	210	3000	240	3400	550	700	2500	3000
AP300/75	75.0	4.575	170	2400	190	2700	220	3150	550	700	2000	2500
AP300/93	93.0	5.673	150	2100	170	2400	200	2900	500	650	2000	2500

65 ±10 Nm



Max torque allowed to the shaft

 M max= 230 Nm ****8**

 M max= 270
SAE J 498-13T 16/32 DP ****7**

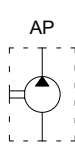
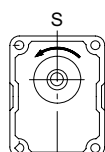
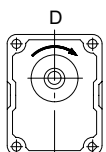
 M max= 185 Nm ****0**

 Rear and Front cover
cast iron made

Last number of pump code

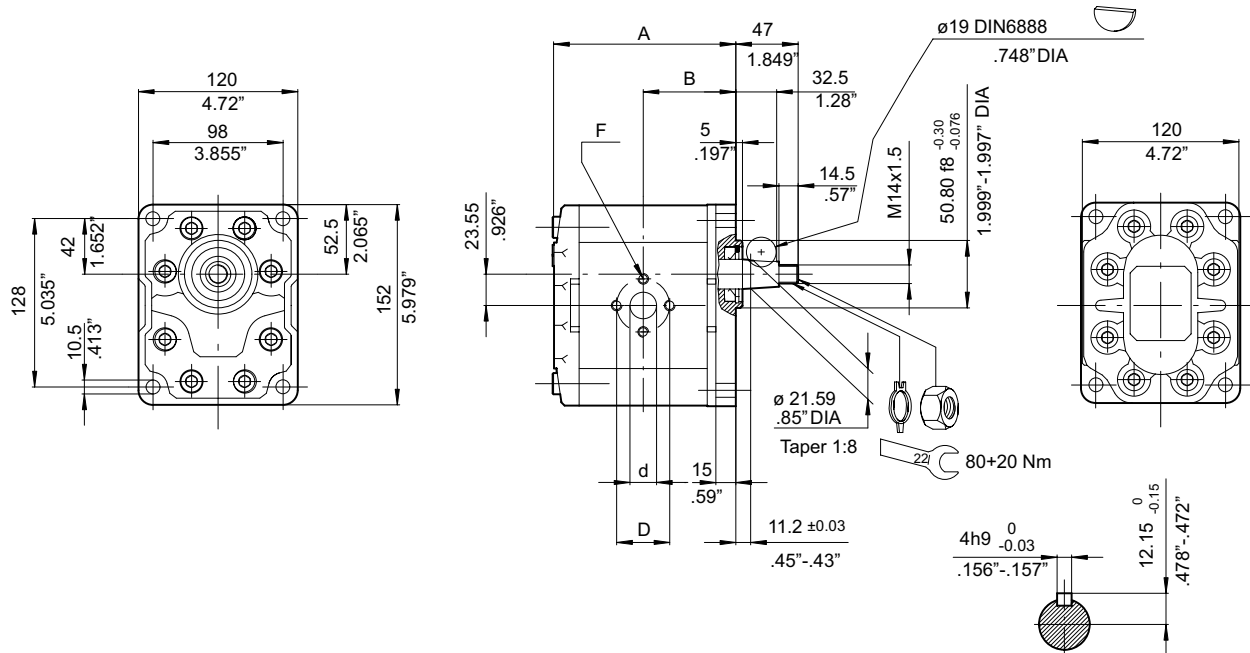
Clockwise
rotation (D)

Counter-lockwise
rotation (S)



Notes:

- For uses at the operating limits, see note on page 8/96.
- For codes and dimensions regarding accessories, see section 7.
- For the types of pumps without ordering code, contact our Sales Dept.



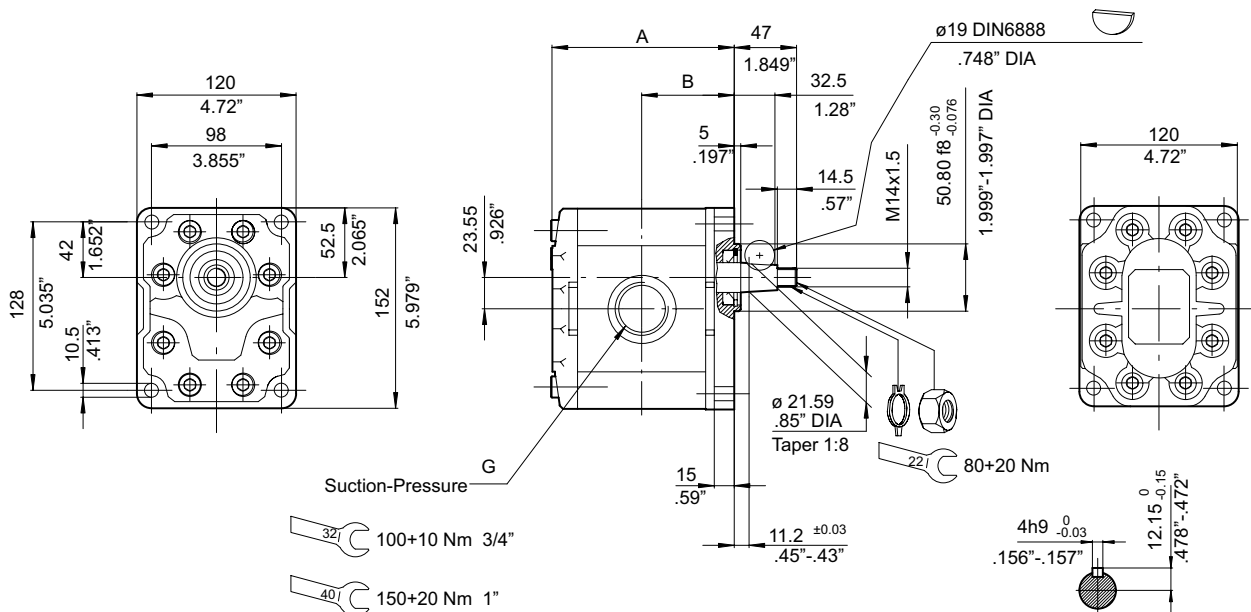
Type	Displacement cm ³ /rev	Dimensions				Suction					Pressure				
		A mm	inch	B mm	inch	d mm	inch	D mm	inch	F mm	d mm	inch	D mm	inch	F mm
AP300/27	27	126.0	4.96	64.0	2.51	27	1.06	51	2.00	M10X1.5	20	.78	40	1.56	M8X1.25
AP300/31	31	129.0	5.07	65.0	2.55										
AP300/38	38	133.5	5.25	67.5	2.65										
AP300/45	45	138.5	5.43	70.0	2.75										
AP300/53	53	143.0	5.62	72.5	2.85										
AP300/63	63	150.0	5.90	75.5	2.97	31	1.22	62	2.43	M12X1.75	25	.98	51	2.00	M10X1.5
AP300/75	75	157.5	6.20	79.5	3.13										
AP300/93	93	169.0	6.65	85.5	3.36										

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP300/27 D	200.1031.132.01	AP300/27 S	200.1031.133.01
AP300/31 D	200.1032.132.01	AP300/31 S	200.1032.133.01
AP300/38 D	200.1033.132.01	AP300/38 S	200.1033.133.01
AP300/45 D	200.1034.132.01	AP300/45 S	200.1034.133.01
AP300/53 D	200.1035.132.01	AP300/53 S	200.1035.133.02
AP300/63 D	200.1036.132.02	AP300/63 S	200.1036.133.01
AP300/75 D	200.1037.132.01	AP300/75 S	200.1037.133.01
AP300/93 D	200.1038.132.01	AP300/93 S	200.1038.133.03

Accessories

Flange connectors: RF233 - RF261 - RF272 - RF256 - RF225 - RF246 - RF251.

Splined couplings: GSH-3-18 - GSH-3-20.



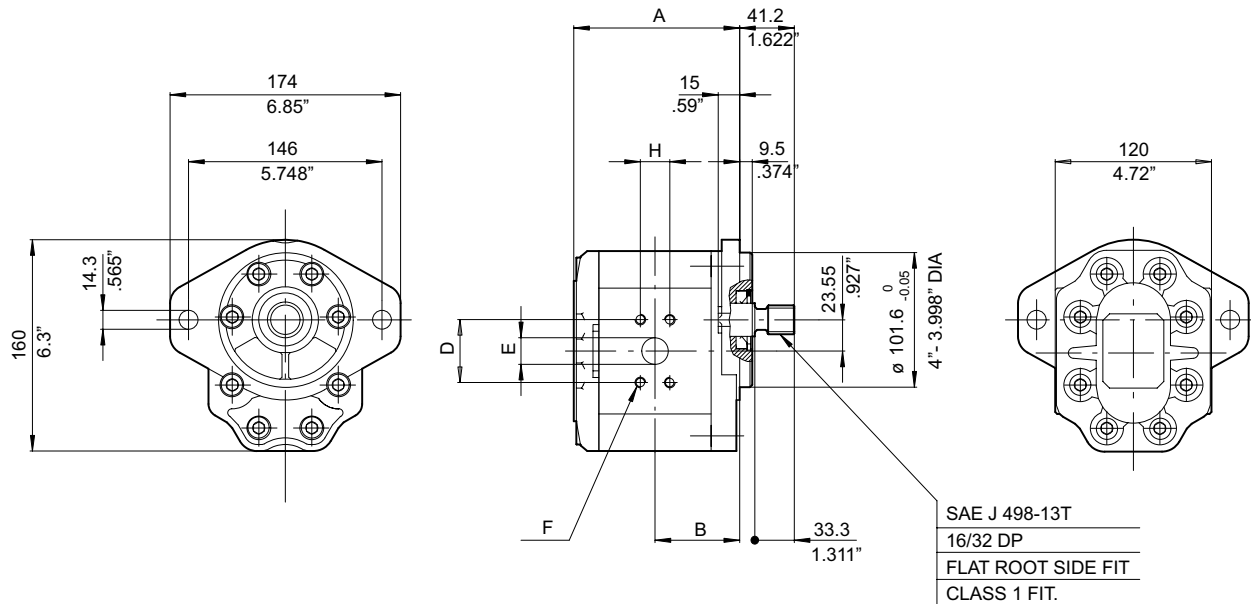
Type	Displacement cm ³ /rev	Dimensions				Suction G BSPP	Pressure G BSPP
		A		B			
		mm	inches	mm	inches		
AP300/27	27	126.0	4.96	64.0	2.51	1"	3/4"
AP300/31	31	129.0	5.07	65.0	2.55		
AP300/38	38	133.5	5.25	67.5	2.65		
AP300/45	45	138.5	5.43	70.0	2.75		
AP300/53	53	143.0	5.62	72.5	2.85		
AP300/63	63	150.0	5.90	75.5	2.97		
AP300/75	75	157.5	6.20	79.5	3.13		
AP300/93	93	169.0	6.65	85.5	3.36		

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP300/27 D	200.1031.132.03	AP300/27 S	200.1031.133.07
AP300/31 D	200.1032.132.05	AP300/31 S	200.1032.133.03
AP300/38 D	200.1033.132.02	AP300/38 S	200.1033.133.03
AP300/45 D	200.1034.132.03	AP300/45 S	200.1034.133.03
AP300/53 D	200.1035.132.04	AP300/53 S	200.1035.133.03
AP300/63 D	200.1036.132.01	AP300/63 S	200.1036.133.03
AP300/75 D	200.1037.132.02	AP300/75 S	200.1037.133.03
AP300/93 D	200.1038.132.02	AP300/93 S	200.1038.133.04

Accessories

Splined couplings: GSH-3-18 - GSH-3-20

Group **AP300** Code **287S**

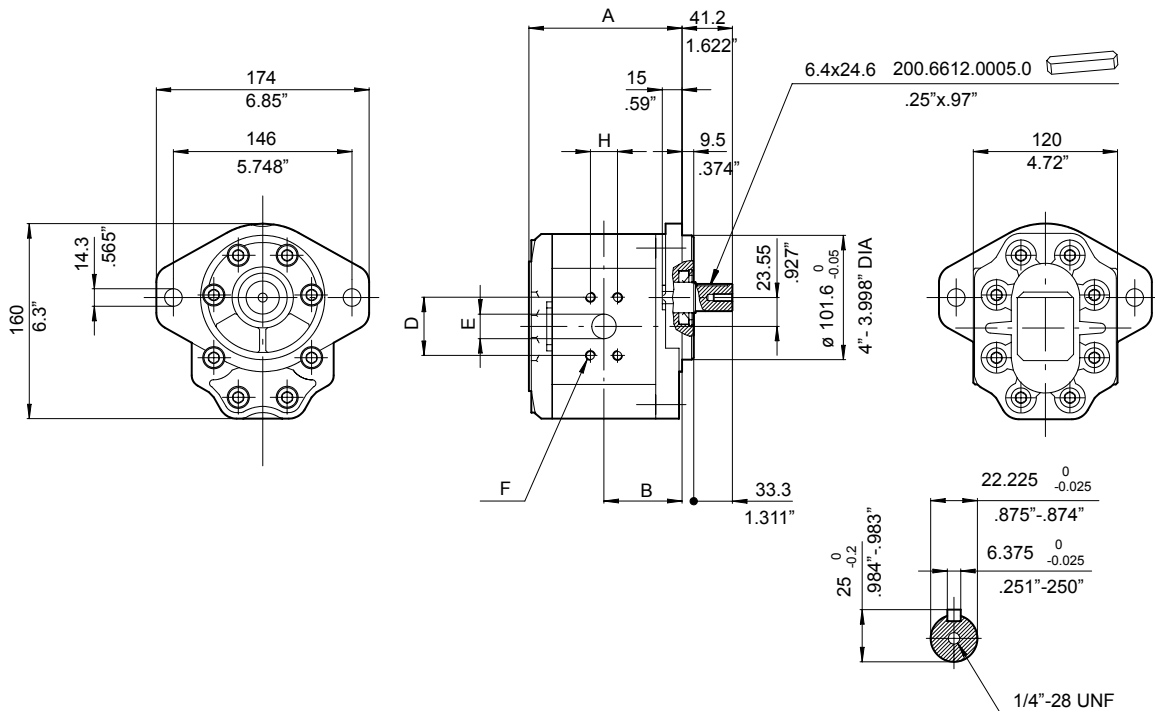


Type	Displ. cm ³ /rev	Dimensions				Suction						Pressure								
		A		B		H		D		E		F UNC 2B	H		D		E		F UNC 2B	
		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch		mm	inch	mm	inch	mm	inch		
AP300/27	27	126.0	4.96	64.0	2.51	26.2	1.03	52.4	2.06	25	.99	3/8" - 16	22.2	.88	47.6	1.88	19	.75	3/8" - 16	
AP300/31	31	129.0	5.07	65.0	2.55	30.2	1.19	58.7	2.31	31	1.22	7/16" - 14	26.2	1.03	52.4	2.06	25	.99	3/8" - 16	
AP300/38	38	133.5	5.25	67.5	2.65															
AP300/45	45	138.5	5.43	70.0	2.75															
AP300/53	53	143.0	5.62	72.5	2.85	35.7	1.40	70	2.76	38	1.5	1/2" - 13	30.2	1.19	58.7	2.31	31	1.22	7/16" - 14	
AP300/63	63	150.0	5.90	75.5	2.97															
AP300/75	75	158.0	6.22	79.5	3.13															
AP300/93	93	169.0	6.65	85.5	3.36															

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP300/27 D	200.1031.862.01	AP300/27 S	200.1031.863.01
AP300/31 D	200.1032.862.01	AP300/31 S	200.1032.863.01
AP300/38 D	200.1033.862.01	AP300/38 S	200.1033.863.01
AP300/45 D	200.1034.862.01	AP300/45 S	200.1034.863.01
AP300/53 D	200.1035.862.01	AP300/53 S	200.1035.863.01
AP300/63 D	200.1036.862.01	AP300/63 S	200.1036.863.01
AP300/75 D	200.1037.862.01	AP300/75 S	200.1037.863.01
AP300/93 D	200.1038.862.01	AP300/93 S	200.1038.863.01

Accessories

Flange connectors: RF249 - RF248 - RF275 - RF250



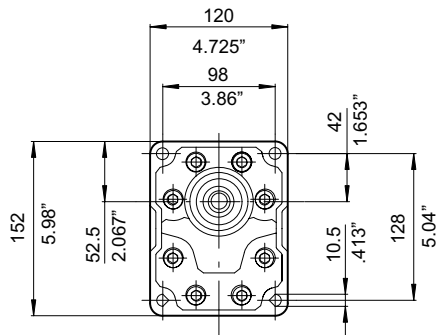
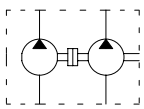
Type	Displ. cm ³ /rev	Dimensions				Suction						Pressure							
		A		B		H		D		E		F UNC 2B	H		D		E		F UNC 2B
		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch		mm	inch	mm	inch	mm	inch	
AP300/27	27	126.0	4.96	64.0	2.51	26.2	1.03	52.4	2.06	25	.99	3/8" - 16	22.2	.88	47.6	1.88	19	.75	3/8" - 16
AP300/31	31	129.0	5.07	65.0	2.55	30.2	1.19	58.7	2.31	31	1.22	7/16" - 14	26.2	1.03	52.4	2.06	25	.99	3/8" - 16
AP300/38	38	133.5	5.25	67.5	2.65														
AP300/45	45	138.5	5.43	70.0	2.75														
AP300/53	53	143.0	5.62	72.5	2.85	35.7	1.40	70	2.76	38	1.5	1/2" - 13	30.2	1.19	58.7	2.31	31	1.22	7/16" - 14
AP300/63	63	150.0	5.90	75.5	2.97														
AP300/75	75	158.0	6.22	79.5	3.13														
AP300/93	93	169.0	6.65	85.5	3.36														

Clockwise rotation: D		Counter-clockwise rotation: S	
Type	Order Code	Type	Order Code
AP300/27 D	200.1031.802.01	AP300/27 S	200.1031.803.01
AP300/31 D	200.1032.802.01	AP300/31 S	200.1032.803.01
AP300/38 D	200.1033.802.01	AP300/38 S	200.1033.803.01
AP300/45 D	200.1034.802.01	AP300/45 S	200.1034.803.01
AP300/53 D	200.1035.802.01	AP300/53 S	200.1035.803.01
AP300/63 D	200.1036.802.01	AP300/63 S	200.1036.803.01
AP300/75 D	200.1037.802.01	AP300/75 S	200.1037.803.01
AP300/93 D	200.1038.802.01	AP300/93 S	200.1038.803.01

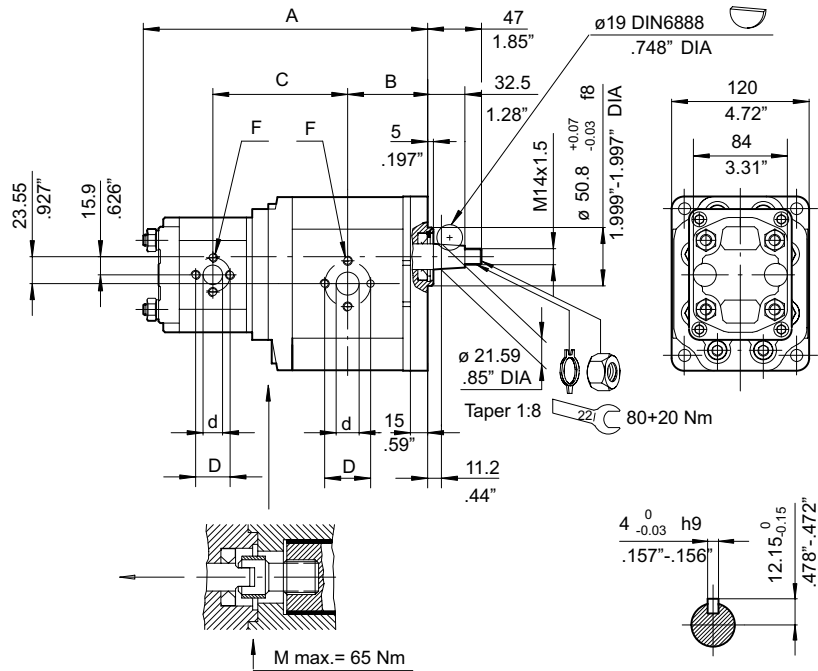
Accessories

Flange connectors: RF249 - RF248 - RF275 - RF250

Group **AP300+AP200** Code **2218**



Max pressure (M max= 65 Nm)			
Pump	bar (PSI)		
	P1	P2	P3
AP200/15	180 (2600)	210 (3000)	230 (3300)
AP200/19	140 (2000)	165 (2400)	185 (2650)
AP200/22	120 (1700)	145 (2050)	165 (2350)
AP200/26	100 (1450)	120 (1750)	140 (2000)



AP300 Displacement cm ³ /rev.	Suction					Pressure				
	d mm	d inch	D mm	D inch	F mm	d mm	d inch	D mm	D inch	F mm
27	27	1.06	51	2.01	10	20	.79	40	1.58	8
31										
38										
45										
53	32	1.26	62	2.44	12	27	1.07	51	2.01	10
63										
75										
93										

Accessories

Flange connectors: RF233 - RF261 - RF272 - RF256 - RF225 - RF246 - RF251.

Splined couplings: GSH-3-18 - GSH-3-20

AP200 Displacement cm ³ /rev.	Suction					Pressure				
	d mm	d inch	D mm	D inch	F mm	d mm	d inch	D mm	D inch	F mm
4.5	13.5	.53	30	1.18	6	13.5	.53	30	1.18	6
6.5										
8.5										
11	19	.75	40	1.58	8	19	.75	40	1.58	8
15										
19										
22										
26										

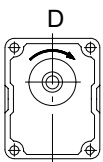
Accessories

Flange connectors: RF223 - RF224 - RF225 - RF238 - RF246 - RF251.

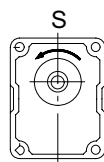
	AP300/27			AP300/31			AP300/38			AP300/45		
	A	B	C	A	B	C	A	B	C	A	B	C
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>
AP200/4.5 AP200/6.5 AP200/8.5	215.5	64	103.5	218	65	105	222.5	67.5	107.5	227	69.8	109.5
	8.5	2.52	4.08	8.6	2.56	4.14	8.76	2.66	4.23	8.94	2.75	4.31
AP200/11 AP200/15	230.5	64	111.5	233	65	113	237.5	67.5	115.5	242	69.8	117.5
	9.08	2.52	4.39	9.2	2.56	4.45	9.35	2.66	4.55	9.53	2.75	4.63
AP200/19	240.5	64	117.5	243	65	119	247.5	67.5	121.5	252	69.8	123.5
	9.47	2.52	4.62	9.57	2.56	4.69	9.75	2.66	4.78	9.92	2.75	4.86
AP200/22 AP200/26	245.5	64	120	248	65	121	252.5	67.5	123.5	257	69.8	126
	9.67	2.52	4.72	9.76	2.56	4.76	9.95	2.66	4.86	10.12	2.75	4.96

	AP300/53			AP300/63			AP300/75			AP300/93		
	A	B	C	A	B	C	A	B	C	A	B	C
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>	<i>inch</i>
AP200/4.5 AP200/6.5 AP200/8.5	232.5	72.5	112	239	75.5	115.5	246.5	79.5	119.5	258.5	85.5	125
	9.15	2.86	4.4	9.45	2.97	4.55	9.7	3.13	4.71	10.12	3.37	4.92
AP200/11 AP200/15	247.5	72.5	120	254	75.5	123.5	261.5	79.5	127.5	273.5	85.5	133
	9.74	2.86	4.72	10	2.97	4.86	10.3	3.13	5.02	10.77	3.37	5.23
AP200/19	257.5	72.5	126	264	75.5	129.5	271.5	79.5	133.5	283.5	85.5	139
	10.13	2.86	4.96	10.4	2.97	5.1	10.37	3.13	5.26	11.16	3.37	5.47
AP200/22 AP200/26	262.5	72.5	128.5	269	75.5	131.5	276.5	79.5	135.5	288.5	85.5	141.5
	10.3	2.86	5.06	10.6	2.97	5.18	10.89	3.13	5.33	11.36	3.37	5.57

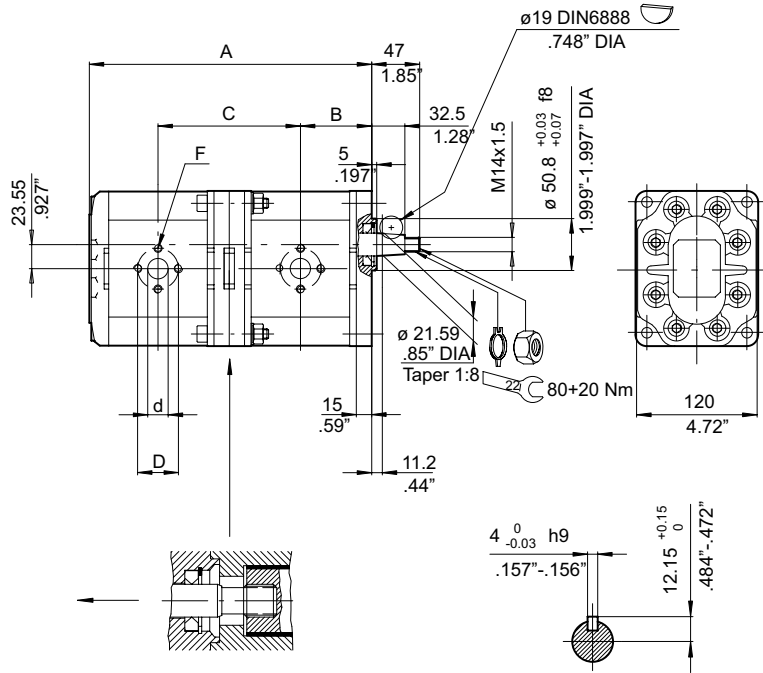
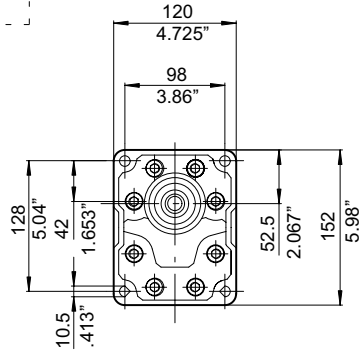
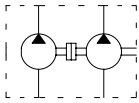
Example of product code



AP300/38 - 200/15 D 2218
(Clockwise rotation: D)



AP300/63 - 200/22 S 2218
(Counterclockwise rotation : S)



Max pressure (M max= 190 Nm)			
Pump	bar (PSI)		
	P1	P2	P3
AP300/38	200 (2900)	230 (3300)	250 (3600)
AP300/45	190 (2700)	220 (3200)	240 (3400)
AP300/53	160 (2300)	190 (2700)	210 (3000)
AP300/63	130 (1900)	160 (2300)	180 (2600)
AP300/75	100 (1450)	130 (1900)	150 (2100)
AP300/95	80 (1150)	110 (1600)	130 (1900)

Displacement cm ³ /rev	Suction					Pressure				
	d		D		F	d		D		F
	mm	inch	mm	inch	mm	mm	inch	mm	inch	mm
27	27	1.06	51	2.01	10	20	.79	40	1.58	8
31										
38										
45										
53	32	1.26	62	2.44	12	27	1.65	51	2.01	10
63										
75										
93										

Note: With respect to the standards, the maximum pressures of some versions of this pump are reduced in relation to the max. torque allowed to the shaft.

Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
27+27	254	10.00	63.8	2.51	127.5	5.02
31+27	257	10.12	65.2	2.57	129	5.08
31+31	259	10.20			130.5	5.14
38+27	261	10.27	67.5	2.66	131.5	5.18
38+31	264	10.40			132.5	5.22
38+38	269	10.60			135	5.32
45+27	266	10.00	69.8	2.75	133.5	5.26
45+31	268	10.55			135	5.31
45+38	273	10.75			137.5	5.41
45+45	278	10.95			139.5	5.50

Displacement cm ³ /rev	A		B		C	
	mm	inch	mm	inch	mm	inch
53+27	271	10.67	72.5	2.85	136	5.36
53+31	274	10.78			137.5	5.42
53+38	278	10.94			140	5.52
53+45	283	11.14			142	5.60
53+53	288	11.34			144.5	5.69
63+27	278	10.95	75.5	2.97	139.5	5.50
63+31	280	11.02			141	5.55
63+38	285	11.22			143	5.63
63+45	289	11.38			145.5	5.73
63+53	295	11.61			148	5.83
63+63	301	11.85			151	5.95
75+27	285	11.22	79.5	3.13	143.5	5.65
75+31	288	11.34			144.5	5.69
75+38	293	11.54			147	5.79
75+45	297	11.70			149.5	5.89
75+53	302	11.89			152	5.99
75+63	309	12.17			155	6.10
75+75	317	12.40			159	6.26
93+27	297	11.70	85.5	3.37	149	5.87
93+31	300	11.80			150.5	5.93
93+38	304	11.97			153	6.02
93+45	309	12.17			155	6.10
93+53	314	12.36			157.5	6.2
93+63	321	12.64			161	6.34
93+75	328	12.91			165	6.5
93+93	340	13.39			170.5	6.72

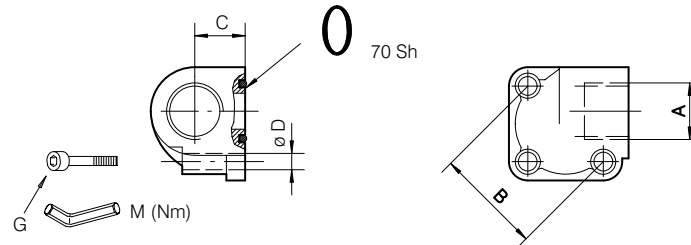
Note: For the accessories see pump group AP300 code 218 page 83/96

7 Accessories - (Restricted availability, please contact our Sales Dpt.)

7.1 Flange connectors

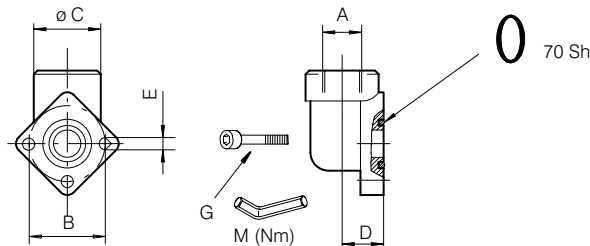
Flange connectors are supplied with bolts and O-ring seals

Material: aluminium alloy



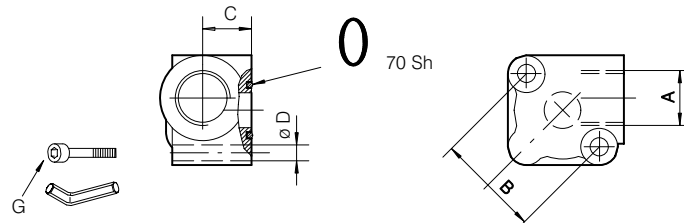
Type	Order code	A	B		C		D		M (Nm)	O-Ring	G (DIN912)
			mm	inch	mm	inch	mm	inch			
RF197	200.7702.3001.0	1/2" BSP	30	1.18	16	.63	6.5	.25	10+1	121	M6x1x30
RF198	200.7702.1001.0	M18X1.5									
RF199	200.7702.2001.0	3/8" BSP									

Material: cast-iron



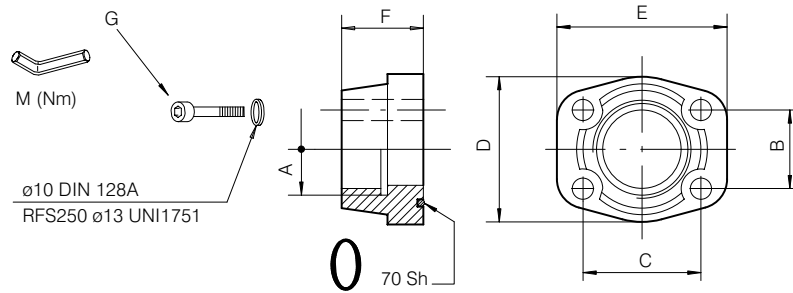
Type	Order code	A	B		C		D		E		M (Nm)	O-Ring	G (DIN912)
			mm	inch	mm	inch	mm	inch	mm	inch			
RF223	200.7702.3006.0	1/2" BSP	30	1.18	30	1.18	17.5	.63	6.5	.25	10+1	121	M6x1x18
RF224	200.7702.1007.0	M18X1.5											
RF238	200.7702.2004.0	3/8" BSP											
RF225	200.7702.4003.0	3/4" BSP	40	1.57	40	1.57	21	1.02	8.5	.33	20+2	132	M8x1.25x20
RF246	200.7702.3007.0	1/2" BSP											
RF251	200.7702.1009.0	M18X1.5											
RF233	200.7702.5008.0	1" BSP	51	2	48	2	27	.98	10.5	.41	30+5	4118	M10x1.5x25
RF261	200.7702.4008.0	3/4" BSP										3125	
RF272	200.7702.5004.0	1" BSP	62	2.44	58	2.28	34.5	1.36	12.5	.51	50+2	4150	M12x1.75x30
RF256	200.7702.9007.0	1 1/4" BSP			60	2.36			10.5	.41			M12x1.75x35

Material: aluminium alloy



Type	Order code	A	B		C		D		M (Nm)	O-Ring	G (DIN912)
			mm	inch	mm	inch	mm	inch			
RF221	200.7702.1006.0	M18x1.5	35	1.37	18.5	.73	6.5	.25	10+1	3075	M6x1x40
RF262	200.7702.2007.0	3/8" BSP									
RF216	200.7702.3004.0	1/2" BSP									
RF252	200.7702.1010.0	M18x1.5	40	1.57	21.5	.85				132	
RF217	200.7702.3005.0	1/2" BSP									
RF220	200.7702.4002.0	3/4" BSP									

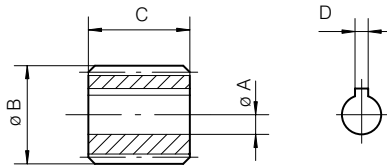
Material: cast-iron



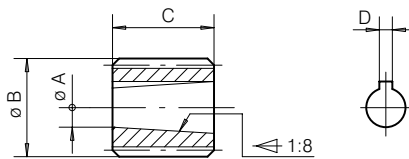
Type	Order code	A	B		C		D		E		F		M (Nm)	O-Ring	G (DIN912)
			mm	inch	mm	inch	mm	inch	mm	inch	mm	inch			
RFS249	200.7702.4006.0	3/4" BSP	22.2	.87	47.6	1.87	48	1.89	65	2.56	36	1.42	25+2	4100	3/8"16UNF
RFS248	200.7702.5003.0	1" BSP	26.2	1.03	52.4	2.06	52	2.04	70	2.75	38	1.50		4131	3/8"16UNC
RFS275	200.7702.9017.0	1 1/4" BSP	30.2	1.19	58.7	2.31	68	2.68	79	3.11	41	1.61		4150	7/16"14UNC
RFS250	200.7702.9006.0	1 1/2" BSP	35.7	1.40	70	2.99	76	2.99	93	3.66	44	1.73		4187	1/2"13UNC

7.2 Splined couplings

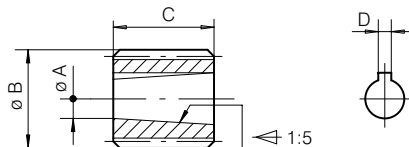
Material: UNI5331 16 CrNi4Pb Hardness 58 - 60 HRc (*)
UNI5332 38NiCrMo4Pb R= 950 - 1050 N/mm²



Type	Pump group	Order code	Splined profile DIN 482	A		B		C		D		n. of feet
				mm	inch	mm	inch	mm	inch	mm	inch	
GSH-06	AP05	200.5314.20001	20X17	7	.27	19.5	.76	9	.35	2	.08	12



Type	Pump group	Order code	Splined profile DIN 5482	A		B		C		D		n. of feet	
				mm	inch	mm	inch	mm	inch	mm	inch		
GSH-1-12	AP100	200.5315.30001	20X17	8	.31	19.5	.77	14.5	.57	2.4	.09	12	
GSH-1-14	AP100	200.5315.30002	25x22			24.5	.96						14
GSH-2-14*	AP200	200.5315.40001	25x22	14.2	.56	27.5	1.08	22	.87	3.2	.12	15	
GSH-2-15	AP200	200.5315.40002	28x25			34.5	1.36						18
GSH-2-18	AP200	200.5315.40003	35x31			39.5	1.55						
GSH-3-18*	AP300	200.5315.50001	35x31	18.7	.73	26	1.02	4	.16	20			
GSH-3-20	AP300	200.5315.50002	40x36										



Type	Pump group	Order code	Splined profile DIN 5482	A		B		C		D		n. of feet	
				mm	inch	mm	inch	mm	inch	mm	inch		
GSH-1B-12	AP100	200.5314.30001	20X17	7.6	.3	19.5	.77	12	.47	2	.08	12	
GSH-2B-14*	AP200	200.5314.40001	25x22	13	.5	24.5	.96	20	.79	3	.12	14	
GSH-2B-15	AP200	200.5314.40002	28x25			27.5	1.08						15
GSH-2B-18	AP200	200.5314.40003	35x31			34.5	1.36						

7.3 Pumps seal kit NBR standard type

AP05	
Pump code	Seal kit
AP05/810	200.9740.0018.0
AP05/819	
AP05/310	
AP05/319	
AP05/830	
AP05/839	
AP05/330	
AP05/339	
AP05/410	
AP05/419	
AP05/430	
AP05/439	
AP05/810	

AP100	
Pump code	Seal kit
AP100/218	200.9740.0031.0
AP100/219	
AP100/318	
AP100/319	
AP100/818	
AP100/845	
AP100/849	200.9740.0032.0
AP100/849P	200.9740.0033.0
AP100/880	200.9740.0034.0
AP100/887S	
AP100/380	
AP100/387S	200.9740.0097.0
AP100/887S NPTF	
AP100/880 NPTF	
AP100/2218	200.9740.0098.0
AP100/518	200.9740.0093.0

AP200	
Pump code	Seal kit
AP200/218	200.9740.0006.0
AP200/818	
AP200/219A	
AP200/279	200.9740.0099.0
AP200/225	200.9740.0006.0
AP200/227	
AP200/235	
AP200/245	
AP200/237	
AP200/247	200.9740.0008.0
AP200/259	
AP200/2K2	200.9740.0135.0
AP200/2T2	200.9740.0138.0
AP200/887S	200.9740.0006.0
AP200/880	
AP200/887S NPTF	
AP200/880 NPTF	
AP200/287S B	
AP200/287S SAEB	
AP200/280B	

APR200	
Pump code	Seal kit
APR200/218	200.9740.0146.0
APR200/818	
APR200/219A	
APR200/279	200.9740.0147.0
APR200/225	200.9740.0146.0
APR200/227	
APR200/235	
APR200/245	
APR200/237	

APR200	
Pump code	Seal kit
APR200/247	200.9740.0146.0
APR200/259	200.9740.0148.0
APR200/2K2	200.9740.0144.0
APR200/2T2	200.9740.0149.0
APR200/887S	200.9740.0146.0
APR200/880	
APR200/887S NPTF	
APR200/880 NPTF	
APR200/287S B	
APR200/280B	

AP200+AP200	
Pump code	Seal kit
AP200/2218	200.9740.0007.0
AP200/8818	200.9740.0116.0
AP200/2225	200.9740.0007.0
AP200/2227	
AP200/2235	
AP200/2245	
AP200/2259	
AP200/8887S	
AP200/8880	
AP200/2287S-B	
AP200/2280-B	
AP200/501	200.9740.0117.0
AP200/901	200.9740.0118.0
AP200/511	200.9740.0119.0

AP300	
Pump code	Seal kit
AP300/218	200.9740.0014.0
AP300/818	
AP300/287S	200.9740.0017.0
AP300/280	

AP300+AP200	
Pump code	Seal kit
AP300/2218	200.9740.0011.0

AP300+AP300	
Pump code	Seal kit
AP300/2218	200.9740.0015.0

8 Composition of product code

8.1 Single pumps

Type	Rotation	Code
AP05/**	*	****
APR05/**	-	****
AP100/**	*	****
AP200/**	*	****
APR200/**	*	****
AP300/**	*	****

Examples

AP05/0.75 D 819	200.1004.642.02
APR05/0.5 810	200.1003.611.01
AP100/4.3 S 218	200.1015.133.02
AP200/11 D 287S-B	200.1024.862.04
APR200/26 ED 218	
AP300/45 S 280	200.1034.803.01

Order Code

8.2 Single pumps with valves

Type	Rotation	Code	Valve
AP200/**	*	****	****
AP200/**	*	****	****
AP200/**	*	****	****

Examples

AP200/15 D 218 18VME	200.1025.132.34
AP200/11 S 227 06VP	200.1024.253.06
AP200/19 S 218 08VRI	200.1026.133.18

Order Code

8.3 Single pumps with support

Type	Rotation	Code	Valve
AP200/**	*	****	****
AP200/**	*	****	****

Examples

AP200/8.5 D 201-K8	200.1023.132.01
AP200/19 D 225 2K2	200.1026.222.06

Order Code

8.4 Double pumps

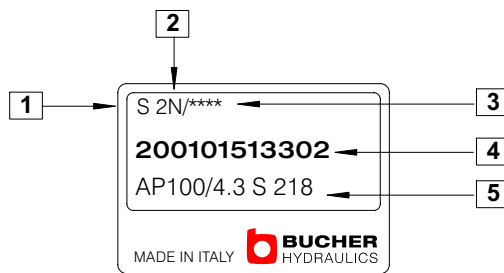
Type 1st pump	Type 2nd pump	Rotation	Code
AP200/**	AP200/**	****	****
AP300/**	AP200/**	****	****
AP300/**	AP300/**	****	****

Examples

AP200/19-200/11 D 2225	200.1226.222.01
AP300/38-200/8.5 D 2218	200.1323.132.09
AP300/53-300/38 S 2218	200.1335.133.03

Order Code

8.5 Product identification plate



1 : Rotation (D= Clockwise rotation - S= Counterclockwise rotation)

2 : Manufacturing year and month

3 : Progressive identification no. (optional)

4 : Bucher Hydraulics S.p.A. product code

5 : Description

8.6 Single pump weight

AP-APR05		AP100		AP-APR200		AP300	
Pump	Weight Kg	Pump	Weight Kg	Pump	Weight Kg	Pump	Weight Kg
AP-APR05/0.25	0.45	AP100/1.2	0.90	AP-APR200/4.5	1.93	AP300/27	8.2
AP-APR05/0.5	0.45	AP100/1.7	0.95	AP-APR200/6.5	1.94	AP300/31	8.4
AP-APR05/0.75	0.45	AP100/2.5	1.03	AP-APR200/8.5	1.95	AP300/38	8.6
AP-APR05/0.9	0.48	AP100/3.5	10.7	AP-APR200/11	2.33	AP300/45	8.8
AP-APR05/1.2	0.50	AP100/4.3	1.12	AP-APR200/15	2.34	AP300/53	9.0
AP-APR05/1.6	0.50	AP100/5	1.18	AP-APR200/19	2.65	AP300/63	9.2
		AP100/6.5	1.23	AP-APR200/22	2.78	AP300/75	9.4
		AP100/8	1.28	AP-APR200/26	2.82	AP300/93	9.6

N.B.: The weight refers to pumps with version code 810 (AP05) – 218 (AP100 – AP200 – AP300). Limited weight variations are possible for pumps having a different code.

Manufacturing month	Manufacturing year											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	
January	2M	3M	4M	5M	6M	7M	8A	9A	0A	1A	2A	
February	2N	3N	4N	5N	6N	7N	8B	9B	0B	1B	2B	
March	2P	3P	4P	5P	6P	7P	8C	9C	0C	1C	2C	
April	2Q	3Q	4Q	5Q	6Q	7Q	8D	9D	0D	1D	2D	
May	2R	3R	4R	5R	6R	7R	8E	9E	0E	1E	2E	
June	2S	3S	4S	5S	6S	7S	8F	9F	0F	1F	2F	
July	2T	3T	4T	5T	6T	7T	8G	9G	0G	1G	2G	
August	2U	3U	4U	5U	6U	7U	8H	9H	0H	1H	2H	
September	2V	3V	4V	5V	6V	7V	8I	9I	0	1I	2I	
October	2Z	3Z	4Z	5Z	6Z	7Z	8J	9J	0J	1J	2J	
November	2X	3X	4X	5X	6X	7X	8K	9K	0K	1K	2K	
December	2Y	3Y	4Y	5Y	6Y	7Y	8L	9L	0L	1L	2L	

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