

Type F30D

Fixed displacement axial piston pump



Product documentation

2024-08-01



Structural form: single pump

Nominal pressure p_{nom} : 420 bar

Peak pressure p_{max} : 450 bar

Displacement V_{max} : 520 cm³/rev

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1 Overview: Fixed displacement axial piston pump type F30D

1.1 General

The axial piston fixed displacement pumps of the type F30 of D offer extremely high function safety. Its remarkably low noise levels, the high pressure rating, optimised power-to-weight-ratio make it possible to employ it for most industrial.

The latest knowledge and experience with regard to noise reduction has been used in the development of this pump design. F30D is therefore rather quiet, even when taken to the limit. All components used in the V30D are manufactured from high grade materials and machined with close tolerances. The wide range of modular controllers along with a thru-shaft (option for mounting auxiliary pumps or a second V30D) open up a wide range of application possibilities.

Therefore type F30D features a pump design, which ideally suits the special requirements of modern industrial, marine, offshore, and other industries.

Features and benefits:

- Low-noise emissions
- Full torque available at the second pump in tandem pump applications

Intended applications:

- Coal mining
- Concrete pump
- Extruder
- Industrial plants
- Marine cranes and winches
- Pile driving machine
- Power pack assembly
- Presses
- Tunnel boring machine
- Ship engine



F30D

Fixed displacement
axial piston pump

2 Available versions, main data

2.1 Basic version

Order coding example:

F30D -520 R D G N

Shaft seals: N = NBR (Nitril)
V = FKM (Viton)

Mounting flange:
315 B8 HW ISO 3019-2 (G)

Shaft design:
D= **Spline shaft** (DIN 5480 W80×3×25×9g); K= **Spline shaft** (AS22×14×125)

Direction of rotation: R = clockwise
L = counter clockwise

Nominal size Table 1: Nominal size

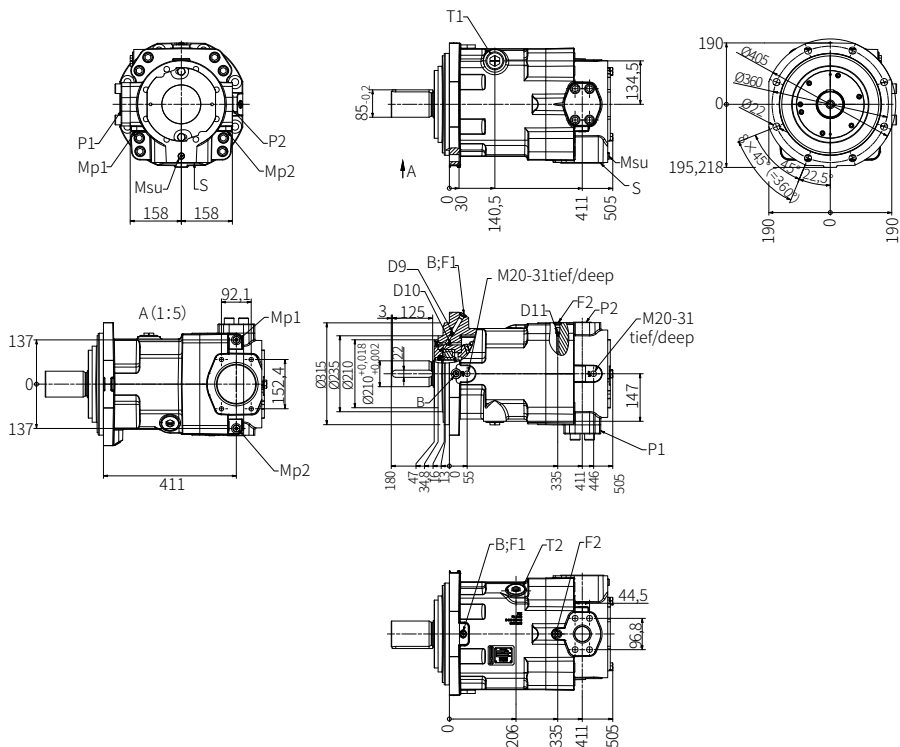
Basic type

Circuit symbol:



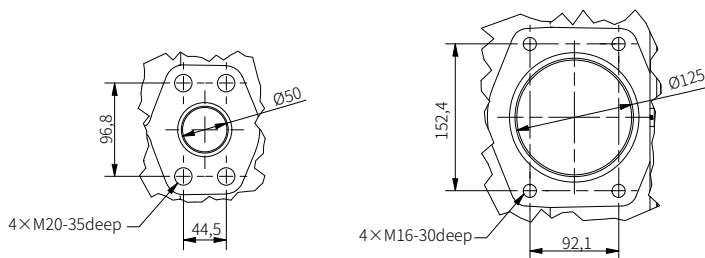
3 Dimensions

All dimensions in mm, subject to change without notice !



Pressure Port X

Suction Port Y

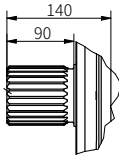


3 Dimensions

Shaft versions

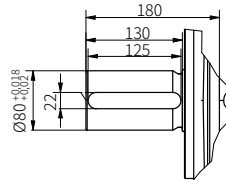
Spline shaft Coding D

(DIN 5480 W80×3×25×9g)



Key shaft Coding K

(AS22×14×125)



Port description

port	description	Standard	Size	Notice
S	suction port	SAE J518 code 61 DIN 13	5 in M16; 30 deep	protected by cap
P1	pressure port	SAE J518 code 61 DIN 13	2 in M20; 35 deep	protected by cap
P2	pressure port	SAE J518 code 61 DIN 13	2 in M20; 35 deep	plugged with flange plate
Mp1, Mp2	measuring port working pressure P1, P2	DIN 3852-Type X	M18x1,5; 12 deep	plugged on delivery
Msu	measuring port suction pressure	DIN 3852-Type X	M14x1,5; 12 deep	plugged on delivery
T1	drain port	DIN 3852-Type X	M48x2; 22 deep	most upper port must be connected (protected by cap)
T2	drain port	DIN 3852-Type X	M48x2; 22 deep	most upper port must be connected (plugged on delivery)
F1; F2	bearin flashing port	DIN 3852-Type X	M14x1,5; 12deep	see installation instruction (plugged on delivery)
B	bleeding port	DIN 3852-Type X	M14x1,5; 12deep	see installation instruction (plugged on delivery)
D9	Orifice front bearing flushing	DIN13	M8	see installation instruction (w/o on delivery)
D10	plug front bearing flushing	DIN13	M8	see installation instruction (w/o on delivery)
D11	Orifice rear bearing flushing	DIN13	M8	see installation instruction (w/o on delivery)

Table 1: Nominal size

	Displacement (cm³/rev.)	Rated pressure (bar)	Minimum oil suction pressure (bar)	Shell pressure (bar)	Self suction speed (rpm)	Minimum speed (rpm)	Temperature range (°C)	Weight (kg)
F30D - 520	520	420	0.85	1 instantaneous 2	1500	500	-25~100	252

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