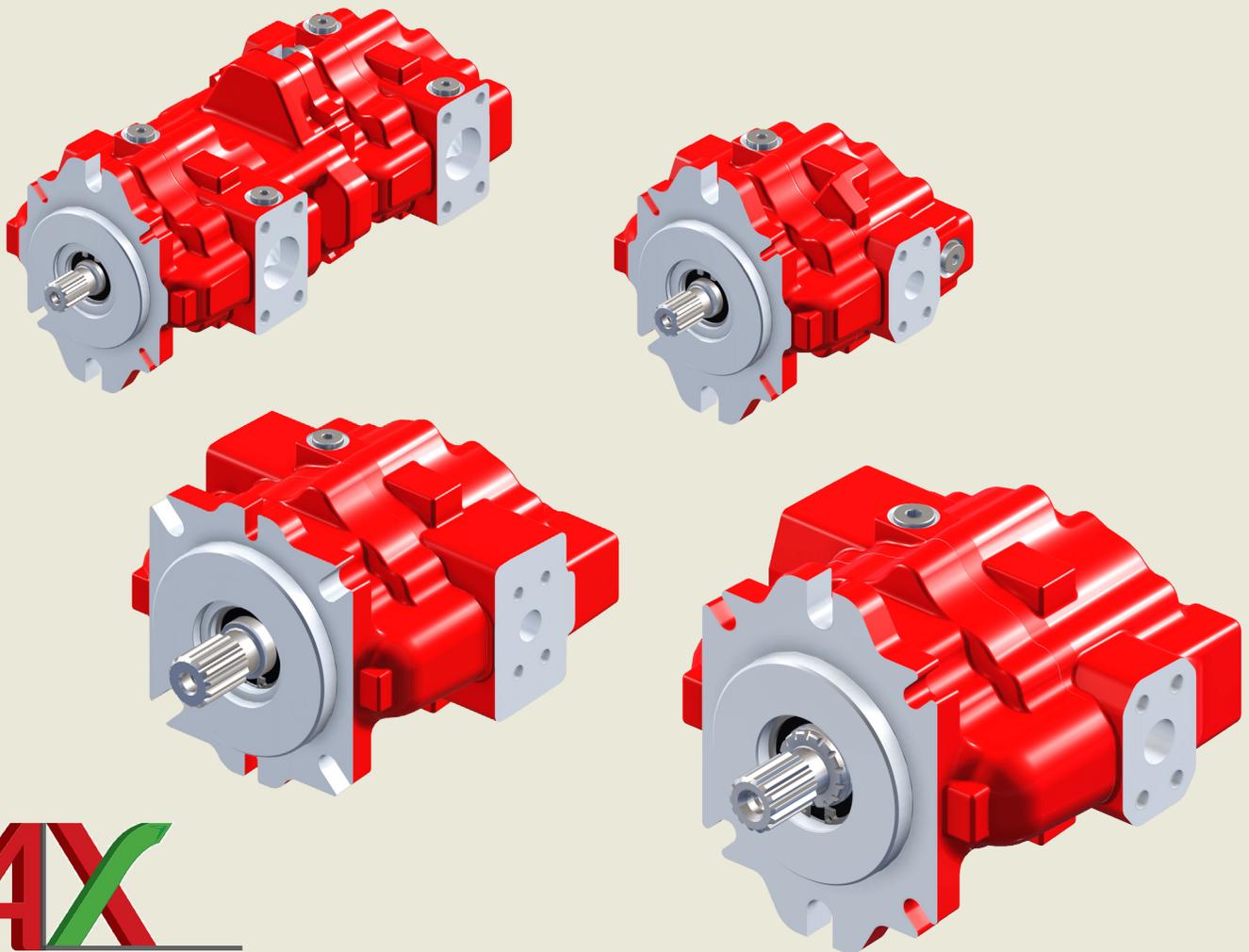


It's not an Evolution. It's a Revolution.

NEW



AX Series Piston Pumps and Motors Fixed Displacement from 18 to 76 cc/rev

Bucher Hydraulics presents the AX series, the most innovative industrialized piston pumps and motors.

Due to a mirrored design based on light rotating parts, pressure limit of 500 bar is possible with very low speed and pressure ripple.

AX units are able to work with reduced noise and low vibration even at very low speed (below 1 rpm) because of short piston stroke, small displacement angle and hydrostatic pressure compensation.

Small axial forces due to symmetrical design make the AX series very compact with high power density.

AX units provide also excellent mechanical efficiency even at starting point, allowing the available starting torque to be very close to the max theoretical value.

Product features - Benefits and advantages

Heavy duty
500 bar

Impressive maximum pressure limits allowed

- 500 bar peak working pressure
- High efficiency and long life expectancy due to very strong cast iron body for reduced deformations
- Reduced leakage and deformation thanks to top of the class steel

Best in class
99% η_{hm}

The highest hydro-mechanical efficiency

- Mechanical efficiency up to 99%, even at low speed, due to low friction and direct torque transmission between shaft and pistons
- Very high starting torque (99%) due to a high number of pistons and hydrostatic bearing
- Overall efficiency up to 95% due to short stroke, optimized displacement angle, balanced forces and hydrostatic bearings

Long life
expectancy

Long product life expectation

- No wear of rotating parts due to hydrostatic bearings
- Balanced axial forces, reduced stress on bearings
- Less temperature increase because of less friction
- Long periods between maintenance due to robust design
- Bucher Hydraulics intensive validation plan

< 1 rpm
at 500 bar

Combination of high pressure at low work speed:

- Very high starting torque (99%) due to a high number of pistons
- Motor and Pump units can work below 1 rpm minimum speed due to hydrostatic bearings and small internal axial forces on roller bearings
- Low friction of rotating parts also prevents wear and stick-slip effect

VERY HIGH
**POWER
DENSITY**

High Power Density:

- Compact dimensions and high power density [kW/kg] because of small displacement angle, short stroke, smaller bearings and no joints
- Power density increasing with displacement if compared with swash-plate or bent-axis units

Smart Solutions.
Superior Support.®

Bucher Hydraulics
www.bucherhydraulics.com/ax

For further information please
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