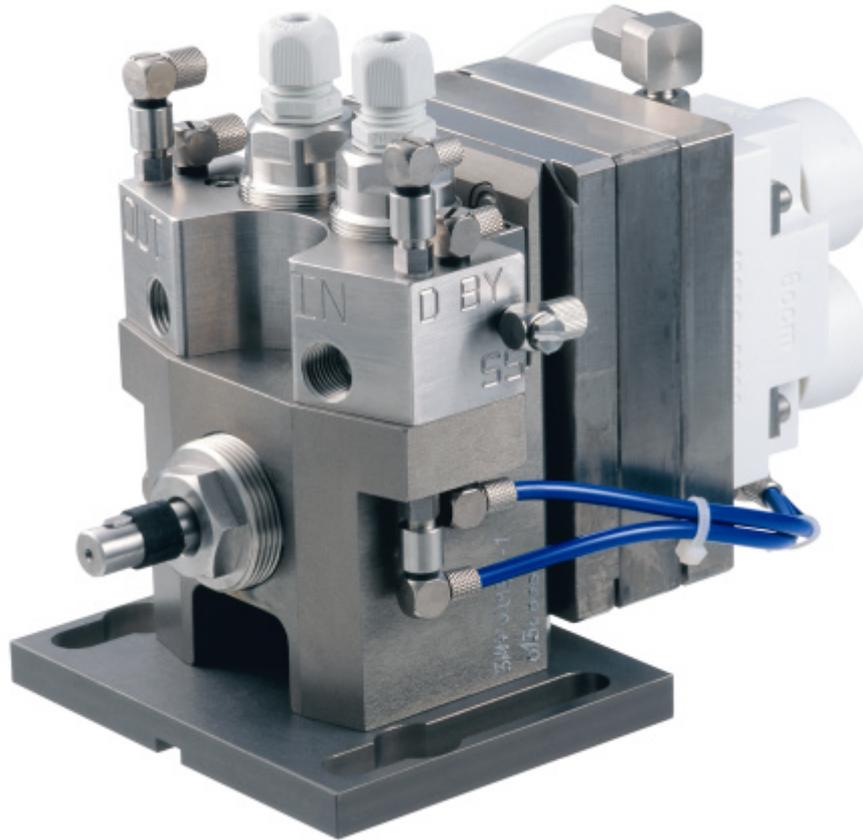


Gear Pump

Precision Gear Pump



Fast Color Change

ABB's precision paint pumps are specifically designed for fast color change. With the unique shaft cleaning function, fast and outstanding cleaning results are achieved.

During flushing and loading there is a bypass function around the gearwheels, in parallel to an internal flushing of gearwheels and shafts.

ABB's Pump Technology

ABB's precision gear pumps are available in these models:

- 1.2 CCM/REV.
- 3.0 CCM/REV.
- 6.0 CCM/REV.

The wearing parts are of hardened Stainless Steel to withstand a wide variety of paints.

Two different steel qualities are prepared for Waterborne and Solvent based paints. All pump models have the same outer dimensions regarding system-integration, and are therefore interchangeable.

Modular Design

The modular pump design consists of four main parts:

Pump Body - including gearwheels and pump shaft,
Pressure Sensor Block - including all external connections,

Cleaning Adapter - including three valves for Bypass and internal flushing of gearwheels

Pump Block - including shaft sealing.

Easy Maintenance

The pump can be dismantled from the application without disconnecting any external hoses or cables.

All external hoses and cables are connected to the Pressure Sensor Block. By loosening four screws, the Pressure Sensor Block is disconnected. Quick release of the pump from the system is done by loosening 2 screws. This design allows very fast maintenance, MTTR < 15 min.

Since the pressure sensors are not dismantled from the block while changing the pump, there is no need of re-calibration.

Gear Pump

Precision Gear Pump

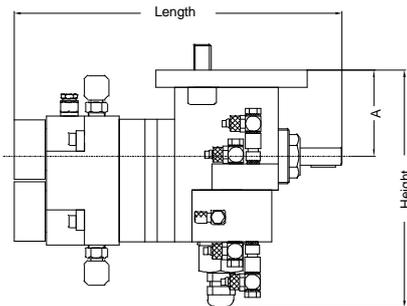
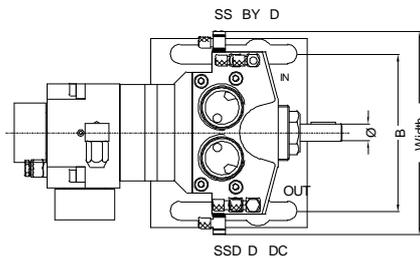
TECHNICAL DATA, GEAR PUMP

SPECIFICATIONS

Pump type Gear pump
 Cleaning Cleaning of shaft, gear and in front of shaft packing. Built in bypass for faster cleaning.
 Pressure sensors On fluid inlet and outlet.

PUMP MODELS

1.2 CCM/ 3CCM / 6CCM All models are available both in flushable and non-flushable versions. Pump design allows change of pump models without other system modifications.



Model	1,2 CCM/rev	3,0 CCM/rev	6,0 CCM/rev
Length	189	200	200
Width	118	118	118
Height	138	138	146
A	50	50	50
B	91	91	91
∅	10	10	10
Weight	3,2	3,3	4,7

PAINTYPES

Models prepared for Waterborne and Solvent based paint.

BLOCK MATERIAL

Pump Block Anodized aluminum, AlMgSi. All paint-lines with Stainless Steel bushing (1.4571)
 Pressure Sensor Block Stainless Steel; 12 CrNiS 18 8
 Pump Body (Solvent based) Hardened Steel 90CrMoV 18
 Pump Body (Waterborne) Hardened Steel 6CrNiMoTi17 22K
 Cleaning Adapter Plastic; PETP. All "paint lines" with Stainless Steel bushing (1.4571)

PERFORMANCE

Pump speed Maximum 150 rpm with paint
 Rotation Clockwise
 Max. fluid flow Max. pump speed x CCM/REV
 Min. fluid flow Min. fluid flow dependent of fluid viscosity, system pressure, needed accuracy on coated object and pump wear. Actual min. flow should be verified with actual fluid material.

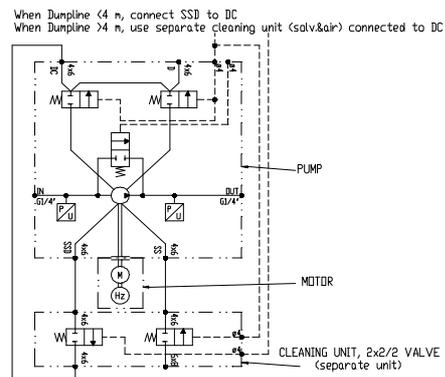
Accuracy ± 2%
 Max. fluid pressure 20 bar. The pump is designed for accurate dosing of fluid. Fluid input pressure should approximately equal fluid output pressure, but most accurate dosing with a little higher inlet- than outlet-pressure at max fluid flow. Fluid input pressure should be kept as low as possible at any time in order to avoid excessive wears.

Rec. operating fluid pressure 2-4 bar
 Max. torque on pump shaft 12 Nm
 Rec. air pilot pressure 5-10 bar
 Max. allowable fluid temp. 60 °C
 Flushing-time 7 - 10 sec
 Solvent consumption 80 - 120 ml
 Purging speed Maximum 40 rpm with cleaning agent

FEATURES

Integrated pressure sensors
 Two pressure sensors are assembled in the block to measure the pump input- and output pressure. In the seat for the pressure sensors there is a 0.2 mm thick Teflon diaphragm. The Teflon diaphragm is located directly in front of the sensors' pressure surface. Thus the pressure sensors will not get in contact with the paint, soiling is prevented and a better purge ability is ensured.

PROCESS DIAGRAM FOR FLUSHABLE PUMP SYSTEM



Recommendation When Dump line <4m, connect SSD to DC
 When Dump line >4m, use separate cleaning unit (solvent & air) connected to DC
 Please note Cleaning Unit is separate component

Data and dimensions may be changed without notice.