

HIGH PRECISION  
GEAR METERING PUMP ADP

## DESCRIPTION

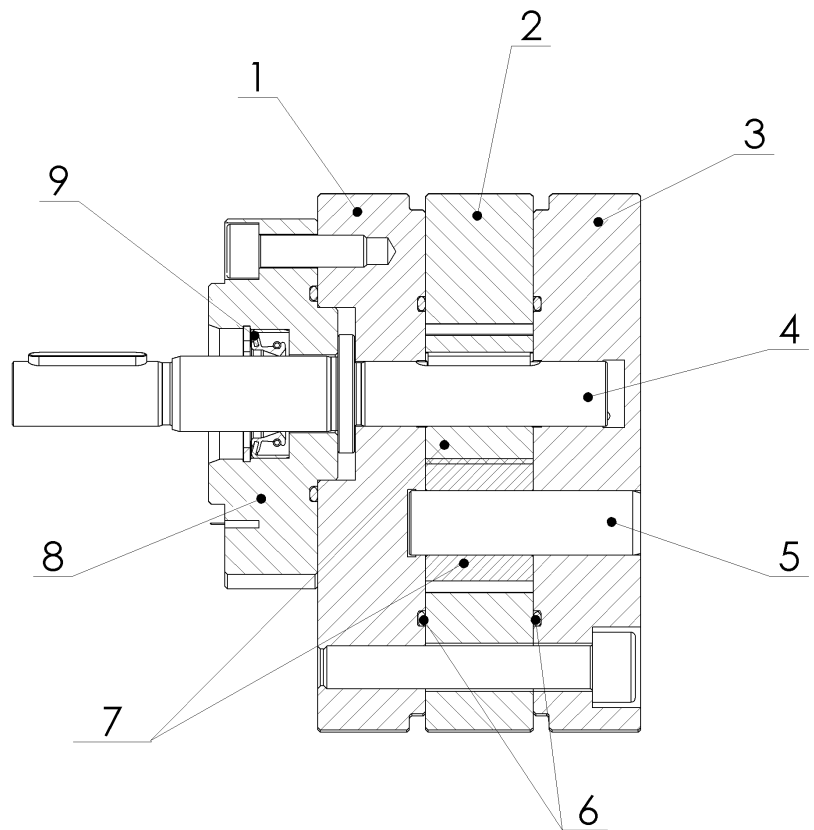


The ADP is a high precision external gear metering pump. With extremely small clearances and an optimal gear geometry the ADP has a very high volumetric efficiency also at difficult combinations e.g. high pressure together with low turning speed and low viscosities.

The main parts of the pump are made of stainless steel. Because of that a wide range of fluids can be pumped. For various kinds of applications different types of radial lip-type seals, a stuffing box packing or a magnetic coupling are available. On request the ADP can be supplied as a pump-motor unit.

## DESIGN

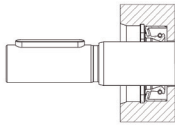
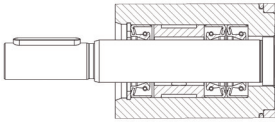
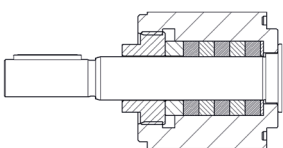
- 1: Front plate
- 2: Center plate
- 3: Rear plate
- 4: Drive shaft
- 5: Arbor
- 6: O-rings
- 7: Gears
- 8: Seal carrier
- 9: Shaft sealing



## MATERIALS

Material Pump plates:	Stainless steel 1.4112
Material Gears:	Stainless steel 1.4112
Material Drive shaft and arbor:	Stainless steel 1.4112
Material O-rings:	FKM, PTFE
Options:	<ul style="list-style-type: none"> <li>- Coating for fluids with poor lubricity</li> <li>- Coating for abrasive fluids</li> </ul>

## SHAFT SEALING

Type of shaft sealing	View	Material	Pressure inlet side	Fluid temperature
Single radial lip-type seal		FKM	0...+10 bar	-20°C...+150°C
		PTFE	0...+5 bar	-20°C...+200°C
Triple radial lip-type seal		FKM	0...+10 bar	-20°C...+150°C
		PTFE	0...+5 bar	-20°C...+200°C
Stuffing box packing		PTFE/Graphite	0...+50 bar	-20°C...+200°C

## PRODUCT DATA

Geometrical discharge volume:	0,1 – 0,3 – 0,6 – 1,2 – 1,8 – 2,4 – 3,0 – 4,8 – 6,0 cm <sup>3</sup> /revolution
Clearance group:	S - M - L
Direction of rotation:	clockwise (facing shaft end)
Type of fixation for motor connection:	Flange ADP 1 for bellhousing
Shaft end:	cylindrical ø 12mm
Type of pipe connection:	Inlet: rear threading connection G 3/8" Outlet: rear threading connection G 1/4"

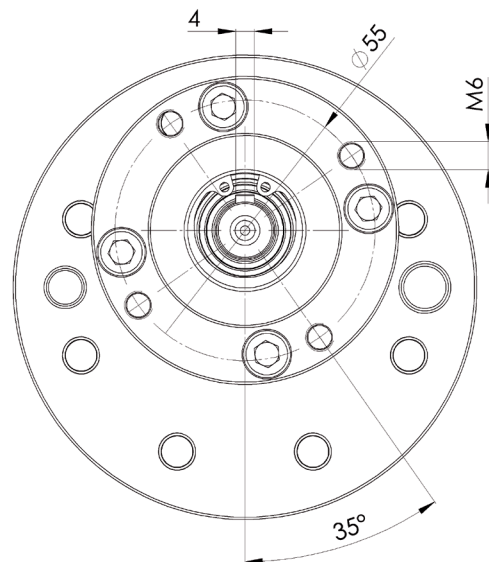
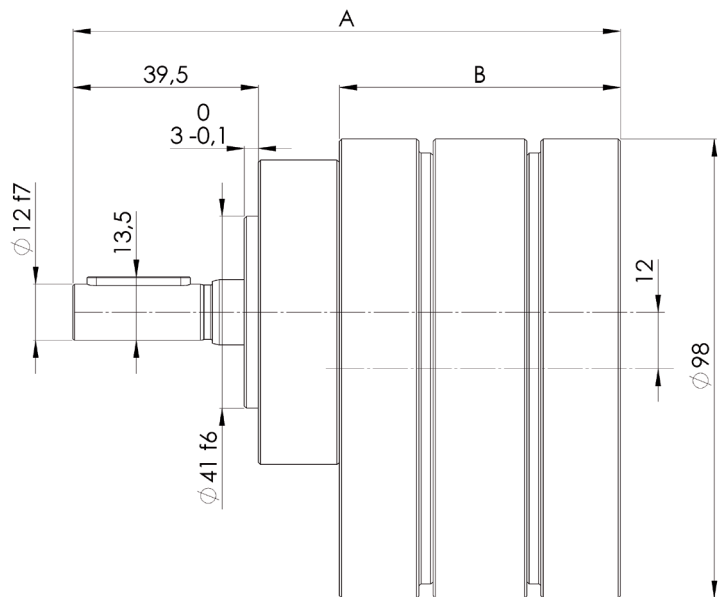
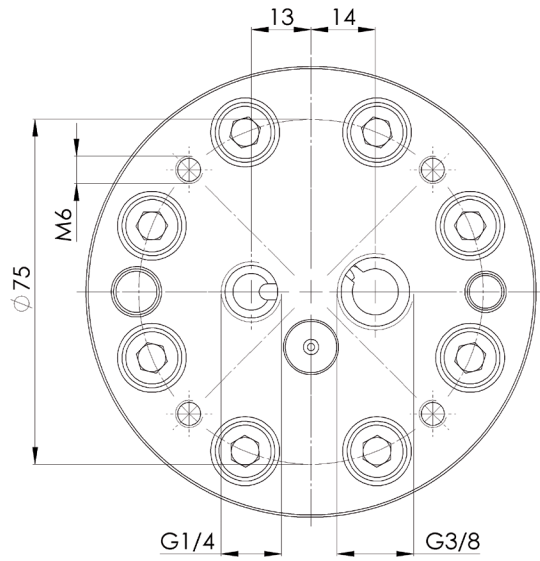
## SPECIFIC DATA

Operating pressure (Inlet side):	see table „shaft sealing“
Max. Operating pressure (Outlet side):	200 bar (depending on viscosity, speed and motor power)
Fluid temperature:	see table „shaft sealing“
Ambient temperature:	-30°C...+60°C
Minimum viscosity:	1 mPas (depending on pressure and speed)
Maximum viscosity:	1 Mio. mPas (depending on inlet conditions, speed and motor power)
Speed range:	10...200 rpm (depending on pressure, viscosity and motor power)

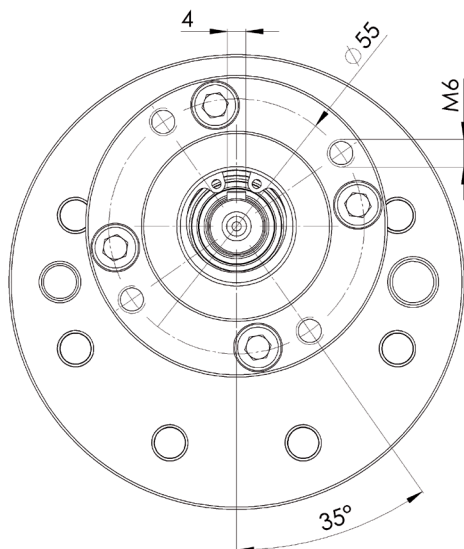
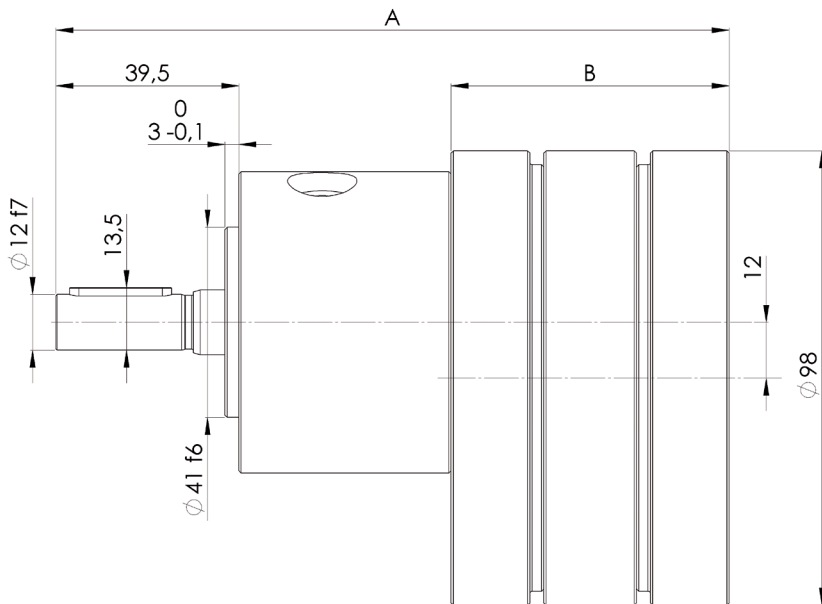
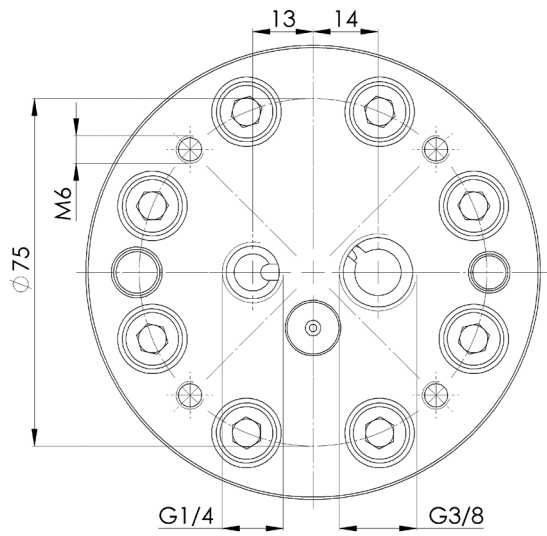
Product name	ADP	ADP
	-	
Series	1	Series 1
	-	
Geometrical discharge volume	0,1	0,1 cm <sup>3</sup> / revolution
	0,3	0,3 cm <sup>3</sup> / revolution
	0,6	0,6 cm <sup>3</sup> / revolution
	1,2	1,2 cm <sup>3</sup> / revolution
	1,8	1,8 cm <sup>3</sup> / revolution
	2,4	2,4 cm <sup>3</sup> / revolution
	3,0	3,0 cm <sup>3</sup> / revolution
	4,8	4,8 cm <sup>3</sup> / revolution
	6,0	6,0 cm <sup>3</sup> / revolution
	-	
Clearance group	S	Small clearance
	M	Medium clearance
	L	Large clearance
	-	
Direction of rotation	R	clockwise (facing shaft end)
	-	
Type of fixation	F	flange
	-	
Type of pipe connection	A	Inlet: rear threading connection G 3/8"
		Outlet: rear threading connection G 1/4"
	-	
Material code	EEF	Pump plates: Stainless steel - Gears: Stainless steel - Sealings: FKM Without coating
	EEP	Pump plates: Stainless steel - Gears: Stainless steel - Sealings: PTFE Without coating
	BEF	Pump plates: Stainless steel - Gears: Stainless steel - Sealings: FKM With coating for fluids with poor lubricity
	BEP	Pump plates: Stainless steel - Gears: Stainless steel - Sealings: PTFE With coating for fluids with poor lubricity
	BBF	Pump plates: Stainless steel - Gears: Stainless steel - Sealings: FKM With coating for abrasive fluids
	BBP	Pump plates: Stainless steel - Gears: Stainless steel - Sealings: PTFE With coating for abrasive fluids
	-	
Bearing	N	Without bearing bushing
	-	
Shaft sealing	1W	Single radial lip-type
	3W	Triple radial lip-type
	PA	Stuffing Box Packing
	MK	Prepared for magnetic coupling

# SEALING VERSION 1W

	A (mm)	B (mm)
ADP-1-0,1	99	42
ADP-1-0,3	103	46
ADP-1-0,6	109	52
ADP-1-1,2	105	48
ADP-1-1,8	109	52
ADP-1-2,4	113	56
ADP-1-3,0	117	60
ADP-1-4,8	118	61
ADP-1-6,0	123	66



## SEALING VERSION 3W



	A (mm)	B (mm)
ADP-1-0,1	127	42
ADP-1-0,3	131	46
ADP-1-0,6	137	52
ADP-1-1,2	133	48
ADP-1-1,8	137	52
ADP-1-2,4	141	56
ADP-1-3,0	145	60
ADP-1-4,8	146	61
ADP-1-6,0	151	66



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