

## Special radial piston pumps

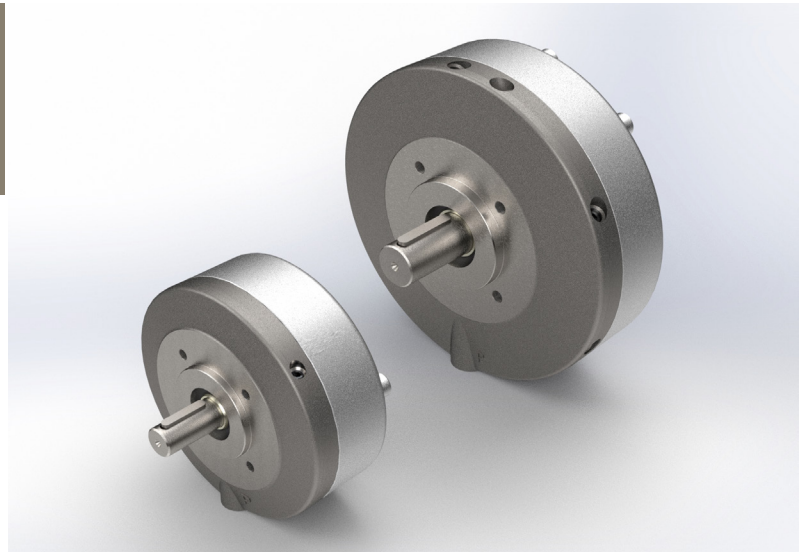
### Type SRK-ATEX

up to 700 bar

0.24 to 8.14 cm<sup>3</sup>/rev

#### Features

- High volumetric efficiency
- Self-venting and priming
- Low pulsation
- Robust design



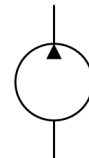
CE  II 2Gc Ex h IIC T4 Gb  
Atex

#### Applications

- Specially designed for demanding applications with continuous pressures up to 700 bar → long economic lifetime!
- Test benches
- Explosion-prone hydraulic constructions (according ATEX standard)
- Installation outside of the tank is possible even under ATEX conditions, submerging in the fluid is not required
- Suitable for operation with fluids with reduced lubricating properties

#### Design

- Radial piston pump of modular design
- With valve controlled pumping elements
- With 3, 5, 7 or 9 pumping elements
- Multiple circuit pump version on request
- Optimized pistons with hard coating
- Polygon eccentric



#### Technical data

Hydraulic fluid	mineral oil according to DIN 51524 (other fluids on request)
Fluid temperature range	-20 to 80 °C
Ambient temperature range	-20 to 40 °C (-40 °C on request)
Viscosity range	5 to 220 mm <sup>2</sup> /s
Max. operating pressure	700 bar
Operation pressure suction side	-0.2 bar to 0.5 bar gauge pressure
Displacement volume	0.24 to 8.14 cm <sup>3</sup> /rev
Filtration (recommendation)	according to NAS 1638 class 6 resp. ISO/DIN 4406 17/15/12
Axial force onto driving shaft	can't be taken up
Radial force onto driving shaft	on request
Max. rotation speed	1800 rpm
Direction of rotation	any
Suction height	max. 500 mm
Weight	see overview "Product information"
Materials	pressure flange: forged steel driving shaft: steel cover: diecast aluminium

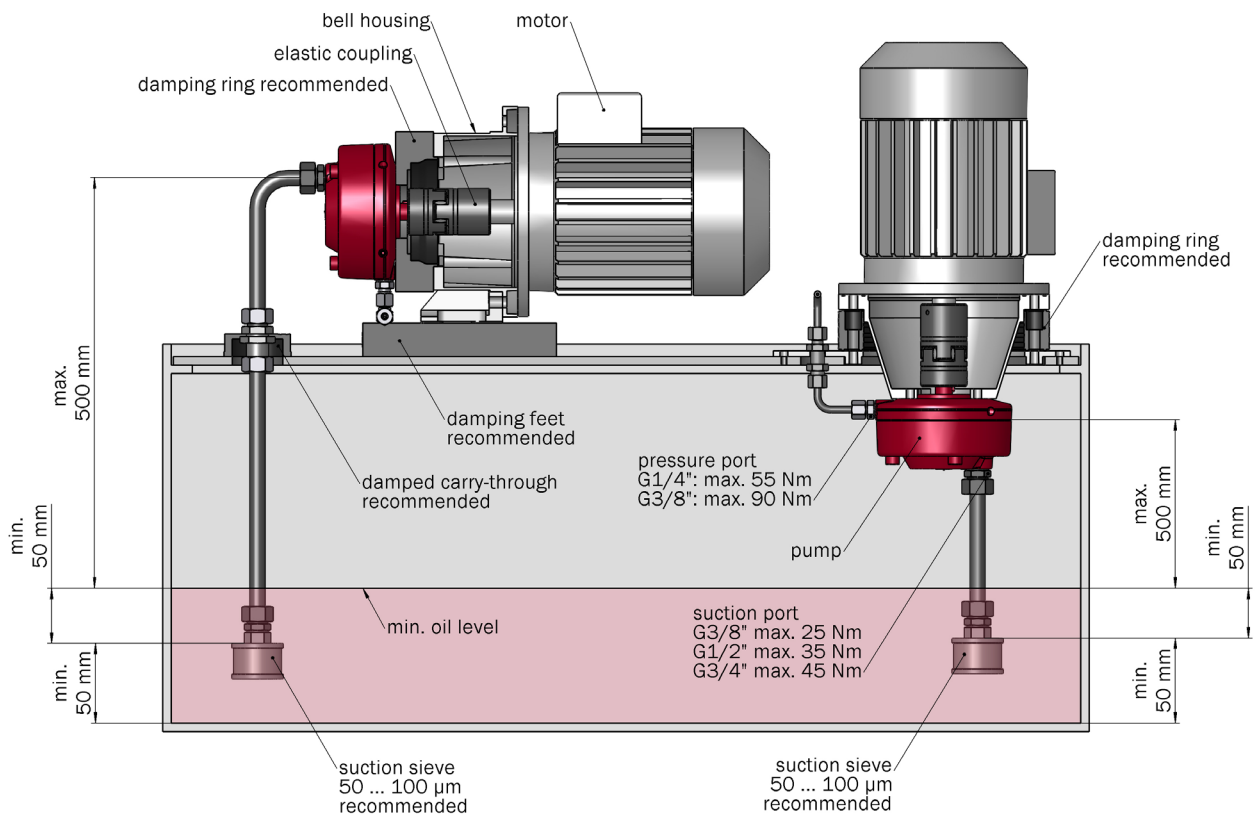
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## Type code

<b>Example</b>	<b>SRK</b>	<b>701</b>	<b>- ATEX</b>	<b>- 0,47</b>	<b>- 700</b>	<b>- V</b>	<b>- C</b>		<b>00</b>	
<b>Special radial piston pumps</b>									<b>Design</b> 00 ... 99 For internal purposes	
<b>Size</b>	701 702									<b>Index</b> Please leave blank For internal purposes
<b>Version</b>	ATEX									
<b>Displacement volume [cm<sup>3</sup>/rev]</b>	See overview „Product information“									
<b>Max. operating pressure [bar]</b>	See overview „Product information“									
<b>Seal material</b>	V	FKM								<b>Design revision</b> For internal purposes

## Mounting



Type plate

<b>CE-marking</b>	
<b>EX-marking</b>	
<b>Device group II</b>	Industrial environment
<b>Equipment category</b>	High degree of safety
<b>Type of explosive atmosphere</b>	Gas
<b>Constructive safety</b>	
<b>EX-marking</b>	
<b>Type of protection h</b>	Constructive safety
<b>Gas group IIC</b>	Suitable for gases and vapours with very low ignition energy
<b>Temperature class</b>	Max. surface temperature : 135 °C
<b>Device protection level (EPL)</b>	
<b>Manufacturer</b>	

**Type SRK-ATEX**up to 700 bar  
0.24 to 8.14 cm<sup>3</sup>/rev**Product information**

size	displacement volume [cm <sup>3</sup> /rev]	max. operating pressure [bar]	number of pumping elements	weight [kg]	max. torque [Nm]	max. power [kW]	part. no.
701	0.47	700	3	6.1	6.89	1.08	on request
701	0.68	700	3	6.2	9.92	1.56	on request
701	0.79	700	5	6.5	11.16	1.75	on request
701	1.10	700	7	6.8	15.47	2.43	on request
701	1.21	700	3	6.2	17.64	2.77	on request
701	1.53	700	3	6.2	22.33	3.51	on request
701	2.01	700	5	6.5	28.56	4.49	on request
701	2.81	700	7	6.8	39.59	6.22	on request
701	3.14	700	5	6.5	44.63	7.01	on request
701	3.56	650	7	6.8	46.53	7.31	on request
701	4.40	500	7	6.8	44.19	6.94	on request
701	6.33	350	7	6.8	44.54	7.00	on request*
702	2.81	700	7	15.2	39.59	6.22	on request
702	3.56	700	7	15.4	50.11	7.87	on request
702	4.40	700	7	15.4	61.86	9.72	on request
702	4.58	700	9	15.7	64.43	10.12	on request
702	5.65	700	9	15.7	79.54	12.49	on request
702	6.33	650	7	15.4	82.72	12.99	on request*
702	8.14	500	9	15.7	81.81	12.85	on request*

\*Please contact us if a hydraulic medium with a viscosity less than 15 mm<sup>2</sup>/s is used!**Calculation of driving motor power**

$$P = \frac{p \cdot V_g \cdot n \cdot k}{\eta_t \cdot 600 \cdot 10^3}$$

P = driving power [kW]  
 p = operating pressure [bar]  
 V<sub>g</sub> = displacement volume [cm<sup>3</sup>/rev]  
 n = speed [rpm]  
 η<sub>t</sub> = efficiency approx. 0.8

k = pulsation factor  
 - with 3 pumping elements: k approx. 1.05  
 - with 5 pumping elements: k approx. 1.02  
 - with 7 pumping elements: k approx. 1.01  
 - with 9 pumping elements: k approx. 1.00

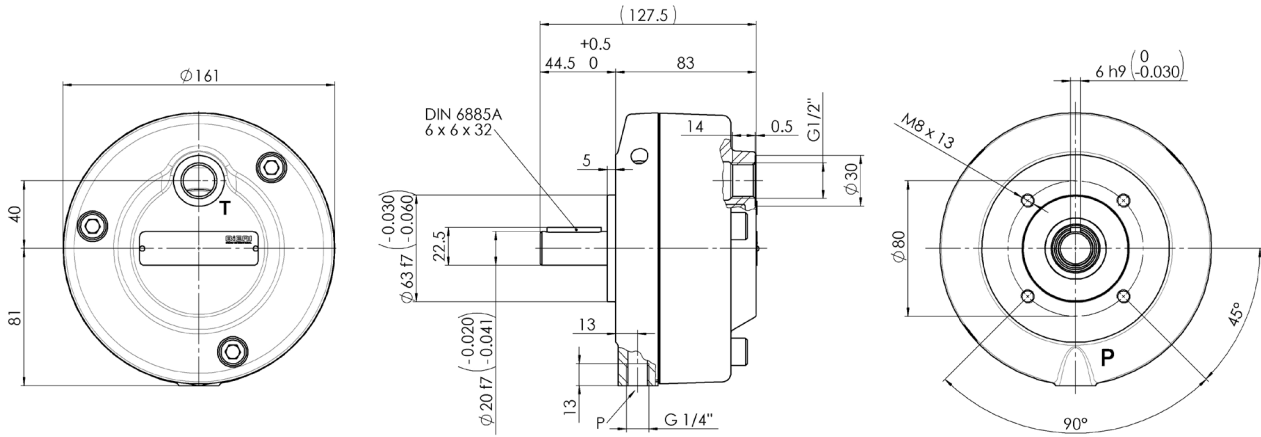
**Calculation of driving motor torque**

$$M = \frac{p \cdot V_g}{62,8 \cdot \eta_t}$$

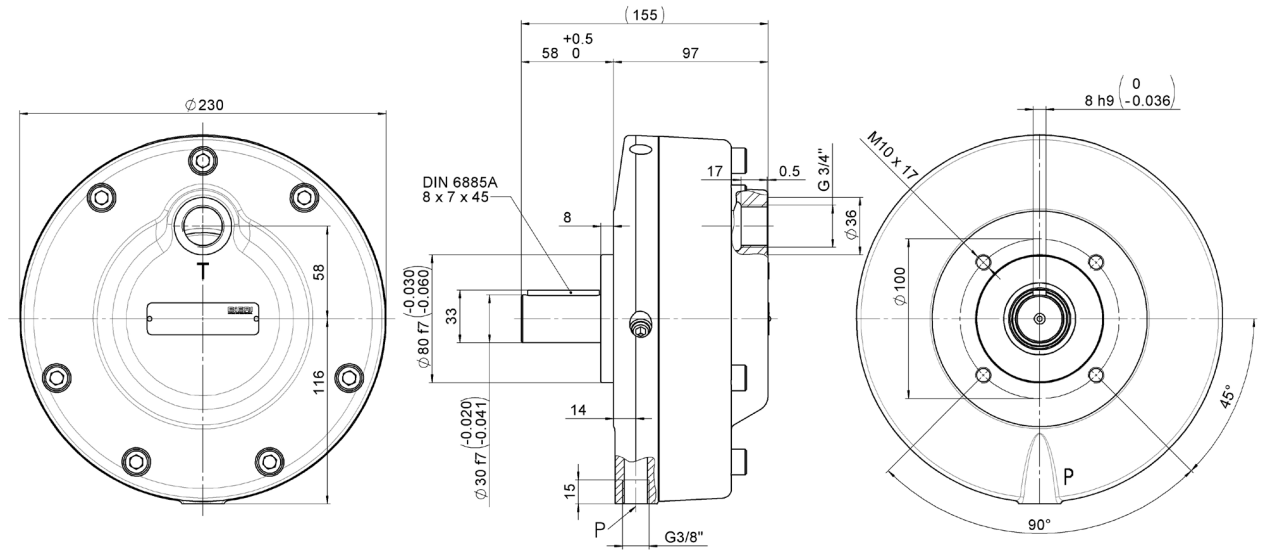
M = torque [Nm]

**Dimensional drawings**

**Size SRK701-ATEX**



**Size SRK702-ATEX**



**Spare parts**

item description	part no.
seals kit for SRK701-ATEX	4006555
seals kit for SRK702-ATEX	4006559