

Special Radial piston pumps

Type SRK-ATEX

700 bar

0,24 up to 8,14 cm³/rev

Features

- High volumetric efficiency
- Self-priming and venting
- Low pulsation
- Low noise level



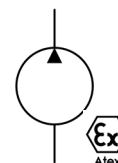
CE  II 2GcT4

Design

- Radial piston pump of modular design
- With valve controlled pump elements
- can be supplied with 3, 5 or 7 pistons per section (depending on size)
- Design as multiple circuit pump on request
- Low-friction pumping elements with low sliding speed
- Ambient temperature up to -40 °C

Applications

- Specially designed for demanding applications with continuous pressures up to 700 bar → long economic lifetime!
- Test stands
- Explosion-prone hydraulic constructions (according ATEX standard)
- Installation outside of oil reservoir possible



Technical data

Hydraulic fluid	Mineral oil according to DIN 51524 (other fluids on request)	
Fluid temperature range	-20 bis 80 °C	
Ambient temperature range	-20 bis 40 °C (up to -40 °C on request)	
Viscosity range	5 to 220 mm ² /s	
Max. operating pressure	700 bar continuous pressure (S1)	
Operation pressure at suction port	-0,2 bar to 0,5 bar (relative)	
Filtration (recommendation)	According to NAS 1638 class 6 resp. ISO/DIN 4406 17/15/12	
Weight	See product information	
Axial force onto driving shaft	Not allowed	
Radial force onto driving shaft	On request	
Max. speed range	1800 rev	
Direction of rotation	Any	
Suction height	Max. 500 mm	
Material	Pressure flange:	steel forged
	Driving shaft:	steel
	Cover:	aluminium

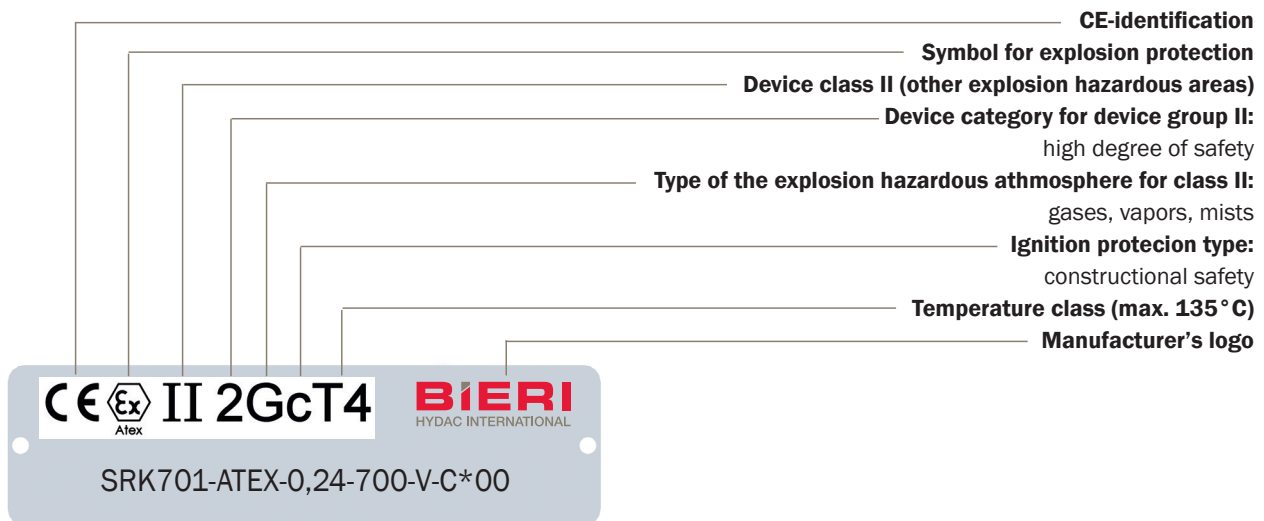
Type SRK-ATEX

700 bar

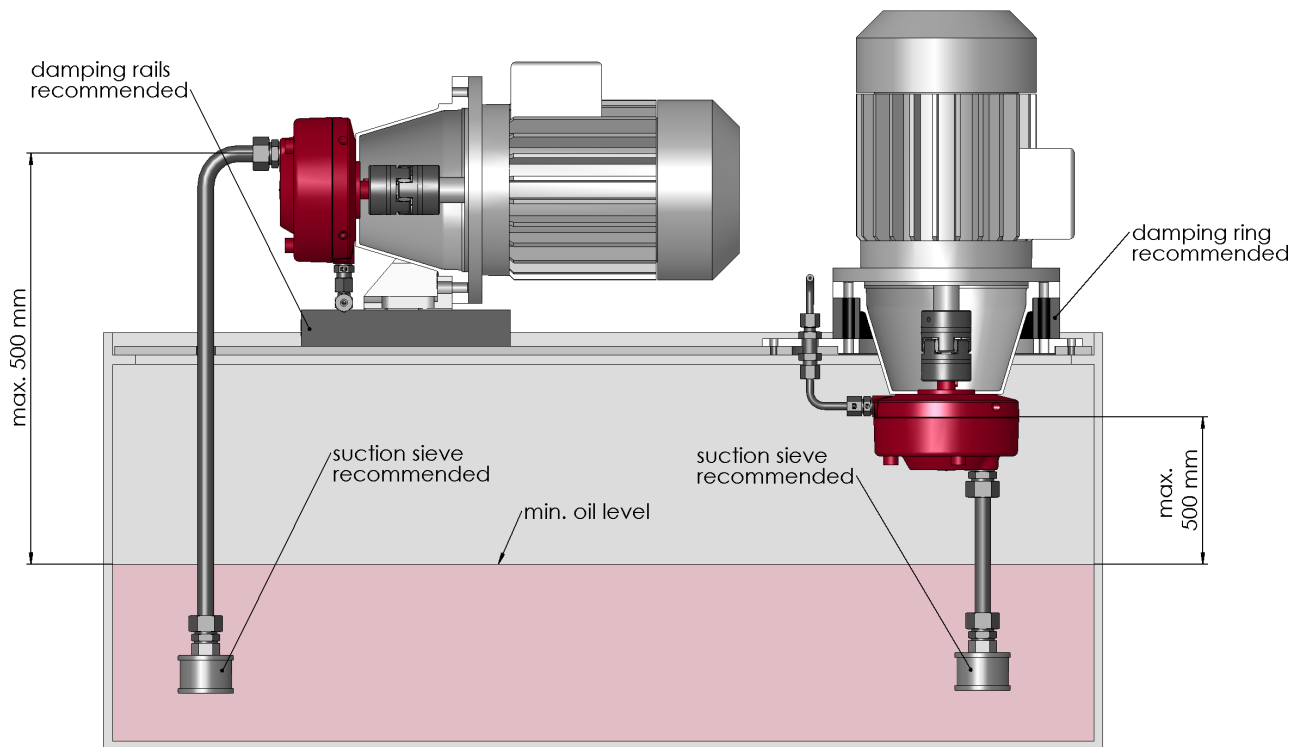
0,24 up to 8,14 cm³/rev

Ordering code

Example	SRK	701	-	ATEX	-	0,47	-	700	-	V	-		00
Special Radial piston pump													Special design 01 ... 99 (00 for standard)
Size		701 702											
Version				ATEX									
Displacement [cm³/rev]						see product information							
Max. operating pressure [bar]						see product information							
Seal material										V [FPM]			



Mounting



Type SRK-ATEX
700 bar 0,24 up to 8,14 cm ³ /rev

Product information

Size	Displacement [cm ³ /rev]	max. Operating pressure [bar]	Number of pumping elements	Weight ca. [kg]	max. Torque [Nm]	max. Power [kW]	Part No.
701	0,47	700	3	6,2	6,89	1,08	3867847
701	0,68	700	3	6,2	9,92	1,56	3888832
701	0,79	700	5	6,5	11,16	1,75	3888834
701	1,10	700	7	6,8	15,47	2,43	3888865
701	1,21	700	3	6,2	17,64	2,77	3888867
701	1,53	700	3	6,2	22,33	3,51	3888868
701	2,01	700	5	6,5	28,56	4,49	3888758
701	2,81	700	7	6,8	39,59	6,22	3873960
701	3,14	700	5	6,5	44,63	7,01	3888485
701	3,56	650	7	6,8	46,53	7,31	3888486
701	4,40	500	7	6,8	44,19	6,94	3888869
701	6,33	350	7	6,8	44,54	7,00	3888871*
702	2,81	700	7	15,4	39,59	6,22	3888872
702	3,56	700	7	15,4	50,11	7,87	3888874
702	4,40	700	7	15,4	61,86	9,72	3888885
702	4,58	700	9	15,7	64,43	10,12	3888886
702	5,65	700	9	15,7	79,54	12,49	3888887
702	6,33	650	7	15,4	82,72	12,99	3888888*
702	8,14	500	9	15,7	81,81	12,85	3888889*

*Please contact us if a mineral oil with a viscosity less than 15 mm²/s is required!

Calculation of driving motor power

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

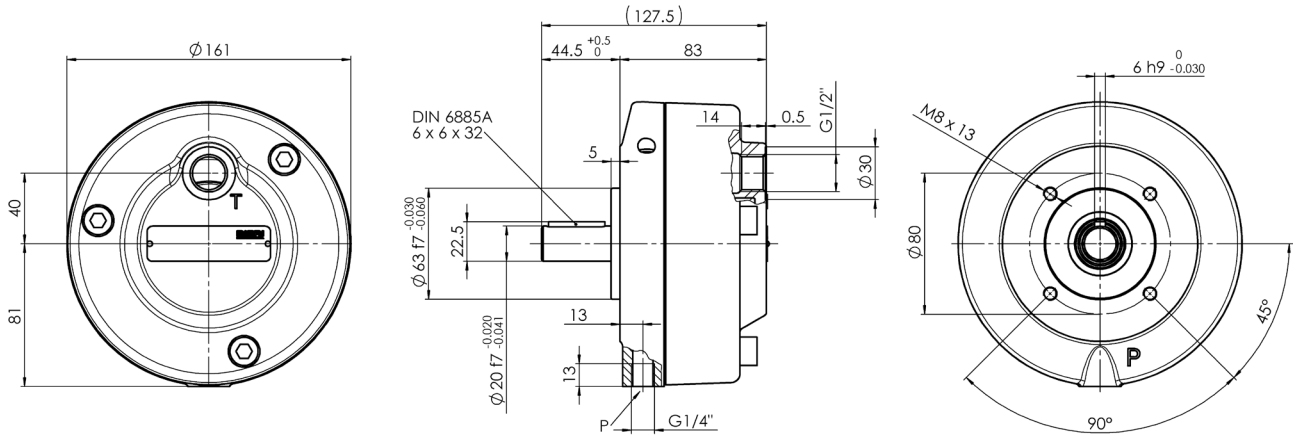
P = Driving power [kW]
 p = Operating pressure [bar]
 V_g = Displacement [cm³/rev]
 n = Speed [rpm]
 η_t = Overall efficiency approx. 0,8

k = Pulsation factor
 - with 3 pumping elements: k approx. 1,05
 - with 5 pumping elements: k approx. 1,0
 - with 7 pumping elements: k approx. 1,0
 - with 9 pumping elements: k approx. 1,0

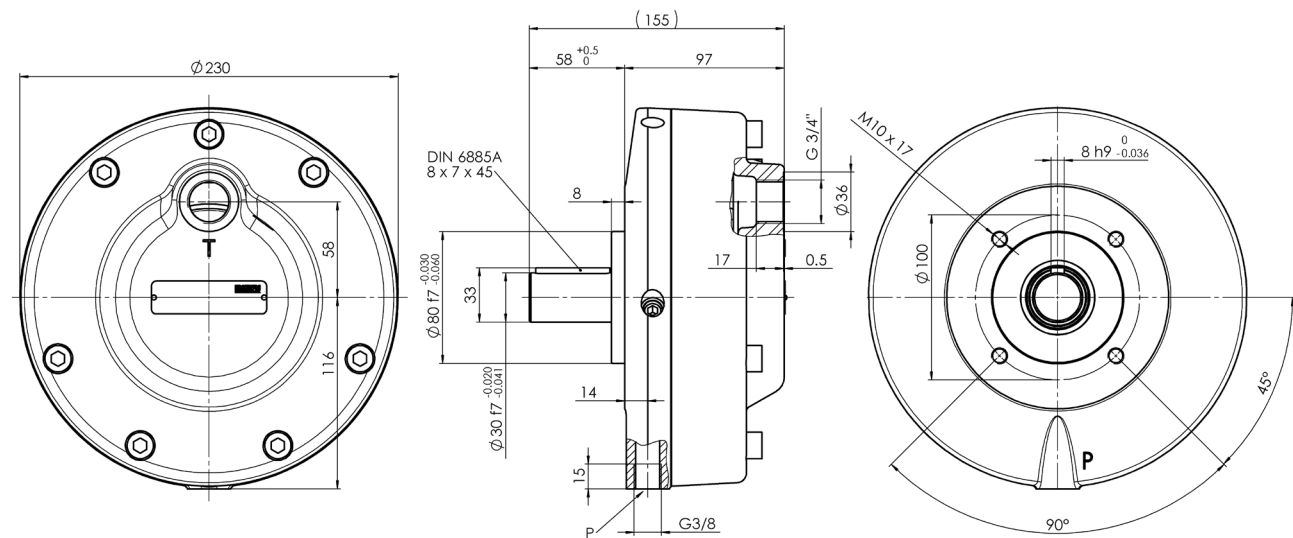
Sealkit for BRK701	4006555
Sealkit for BRK702	4006559

Dimensional drawings

Size SRK701-ATEX / Design revision C



Size SRK702-ATEX / Design revision C



EC – declaration of conformity

Translation based on German declaration

Concerning the directive ATEX 95 94/9/EEC and EC Declaration of incorporation of the EC - machinery directive 2006/42/EEC annex IIA

Based on the design, conception and the manufactured version, we hereby declare that the system/device is in compliance with the essential and relevant safety and health requirements of the EC-guideline. The required technical documentations are available and have been placed if necessary at the notified body QS Zürich AG (1254).



Any changes made to this device/system without our consent will render our declaration invalid. The radial piston pump is only allowed to be put in operation, if the surrounding system is conform with relevant regulations.

Product: Radial piston pump
Series SRK-ATEX / MRK-ATEX

Type: SRK701... SRK702...
MRK701... MRK702...

Ex-identification:  II 2G c T4
-20 < T_{amb.} < +40 °C

Ex-identification low temp. types:  II 2G c T4 X
-40 < T_{amb.} < +40 °C

Relevant regulations:
EC – Machinery directive: **2006/42/EEC**
ATEX 95 **94/9/EG**

The required documents have been placed at: QS Zürich AG, Notified Body No 1254

Applied harmonized standards:

EN ISO 12100
EN 4413
EN 1127-1
EN 13463-1
EN 13463-5

CH-3097 Liebefeld, 6.8.2013

Bieri Hydraulik AG
Könizstrasse 274
CH-3097 Liebefeld

(ppa. E. Grossenbacher, Leiter Entwicklung)
(authorized for the technical documents)