APV®

INSTRUCTION MANUAL

APV DELTA DKRT2

DOUBLE SEAT BALL VALVE
WITH CLEANING CONNECTION
TANK OUTLET VALVE

MODELS:	**APV DELTA DKRT2**
FORM NO.:	H170758
REVISION:	03/2024 GB REV. 5

SPXFLOW®

READ AND UNDERSTAND THIS MANUAL PRIOR TO OPERATING OR SERVICING THIS PRODUCT.

SPXFLOW®

CE Declaration of Conformity
UKCA Declaration of Conformity

We,

DESIGN CENTER/MANUFACTURER: **SPX Flow Technology Germany GmbH**
Gottlieb-Daimler-Str. 13, D-59439 Holzwickede

MANUFACTURING FACILITY: **SPX Flow Technology Poland sp. z o.o.**
Rolbieskiego 2, 85-862 Bydgoszcz, Poland

AUTHORIZED REPRESENTATIVE: (for UKCA) **SPX Flow Europe Ltd.**
Building A, Compass House, Manor Royal
Crawley, RH10 9PY

declare under our sole responsibility that the

APV double seal and double seat valves of the series
SD4, SDT4, SDU4, SDMS4, SDMSU4, SDTMS4, SWcip4, DSV, DA4, DA4 DPF, D4 SL, DU4 SL, DT4 SL, DP4 SL, D4, DA3, DA3SLD, DE3, DEU3, DET3, DKR2, DKRT2, DKRH2

APV butterfly valves of the series SV1, SVS1F, SV2, SVS2F, SVL, SVSL, SVE, SVSE

APV ball valves of the series BLV1

APV single seat, diaphragm and spring loaded valves of the series
S2, SW4, SWhp4, SW4DPF, SWmini4, SWT4, SWS4, MF4, MS4, MSP4, AP/T1, CPV, RG4, RG4DPF, RGMS4, RGE4, RGE4DPF, RGEMS4, PR2, PRD2, SI2, UF/R3, UF/R4, VRA/H

and the valve manifolds installed thereof

meet the requirements of the Machinery Directive 2006/42/EC
& EN ISO 12100-2010, DIN EN ISO 14159-2008-07, DIN EN 1672-2-2009-07.

Holzwickede, November 2022

ppa. B. Ariatabar

Dr.-Ing. Behdad Ariatabar, Design Center Lead - Valves

meet the requirements of the Supply of Machinery (Safety) Regulations 2008 No. 1597
& BS harmonized standards.

Crawley, November 2022

Ewout Roozendaal, Director Global Pricing

	Content	Page

DKRT - DN 50,80,100 **RN 01.078**

1. General terms

This instruction manual should be read carefully by the competent operating and maintenance personnel.

We point out that we will not accept any liability for damage or malfunctions resulting from the non-compliance with this instruction manual.

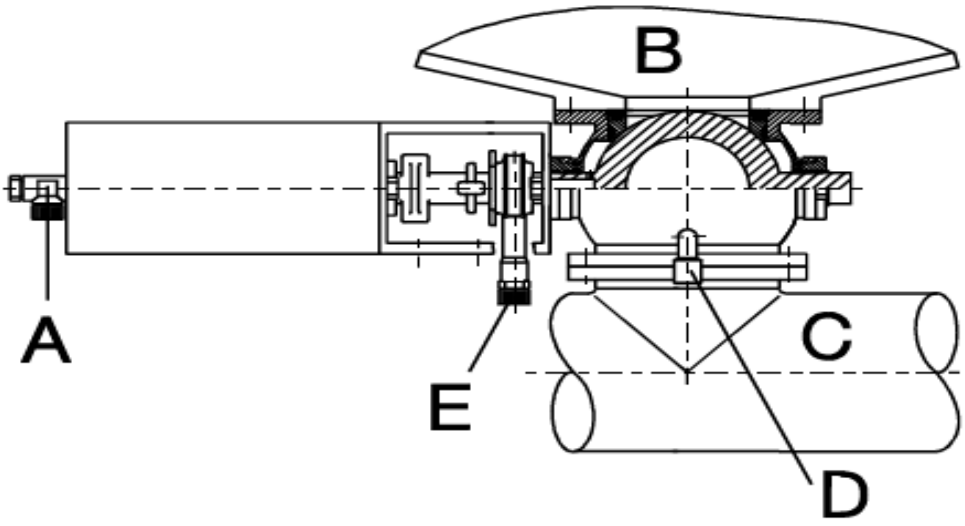
Descriptions and data given herein are subject to technical changes.

2. Safety instructions

Danger!

- The line and cleaning system must be depressurized before any maintenance of the valve.
- Electric and pneumatic connections must be separated.
- **Do not reach into the open valve ball or yoke.**
  Risk of injury by sudden valve operation!
- Observe service instructions to ensure a safe maintenance of the valve.
- Dismantle the actuator before the exchange of seals.
- During valve operation, operating leakages spirt out the drain pipe to the bottom.
- If the cleaning connection is not used, it must be sealed by a plug or operating leakages must be discharged.

3. Mode of operation



The DKRT 2 double-seat ball valve was particularly developed for the use in applications in which product safety against intermixing is of highest priority.

Low tank outlet heights through compact constructions, unreduced flow capacities through pipe diameter - sized balls and double-seal technology guarantee a safe and product-gentle function.

- Actuation of the pneumatic turning actuator with air connection at (A) drives the valve into the position „open“. Reset into the limit position „closed“ by spring force

- In closed position two line sections with different liquids (B and C) are separated by two independently acting seals. The intervening leakage chamber is open to the atmosphere through the free drain (D).

- In open position the liquid flows through the free opening cross section of the smooth valve passage. No inversion of the liquid flow in the valve area.

- In closed and open operating position cleaning liquid can be injected at the CIP connection at (E) to clean the leakage chamber.

- During the operating process, operating leakages bleed from the leakage drain (D) downwards. If a cleaning line is not connected, the cleaning connection (E) must be sealed by a plug or operating leakages must be discharged.

- The cleaning connection (E) can be used to vent the leakage chamber for a faster emptying or to sterilize the leakage chamber with steam.

4. Auxiliary Equipment

Valve position indication
Switches to signal the limit position of the valve ball can be installed in the yoke area if requested.

We recommend using APV standard proximity switches.
Type: three-wire proximity switch (ref.-No. 08-60-011/93; H16223)
Operating distance: 4 mm / diameter : 11 mm / length: 30 mm

Feedback complete with support and proximity switch
(ref.-No. 15-33-023/33; H32725) for a limit position.

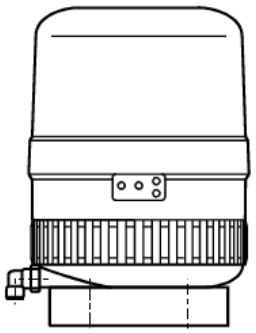
If the customer decides to use valve position indicators other than those listed above, SPX FLOW cannot assume any liability for the functionality of the valve.

Control unit
Units with feedback switches and solenoid valves for the pneumatic control of the valve to be assembled on the actuator are also available in fieldbus technology.
The Control Unit CU3 can be installed on the turning actuator.

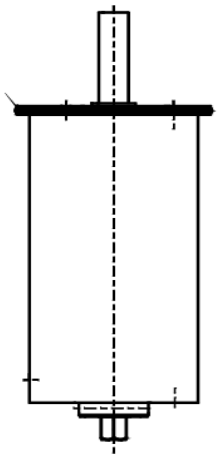
The following different designs are available:

Designation	ref.No.
CU 31 Direct Connect	322 000 804 629
CU 21 Profibus	322 000 804 437
CU 31 Device Net	322 000 804 611
CU 31 AS - Interface	322 000 804 701

control unit with adapter



turning actuator for- Control - Unit



- For the installation of a control unit on the DKRT2 valve a special turning actuator and an adapter are required. The standard actuator must be replaced.

turning actuators and corresponding adapters for control units	
turning actuator K 080 DN 50 adapter **CU 2 adapter SV1 / SVS1F / DKR2**	**ref.-No.: 000 – 15 - 37 – 070/17** **322 000 801 194**
turning actuator K 125 DN 80 - 100 adapter **CU 2 adapter SV1 / SVS1F / DKR2**	**ref.-No.: 000 – 15 - 37 – 106/17** **322 000 801 195**

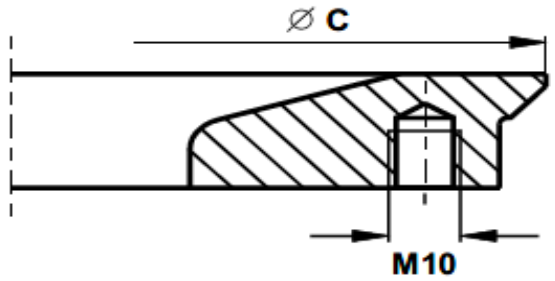
4. Auxiliary Equipment

The tank bottom welding flange for the DKRT2 valve does not form part of the scope of supply.

Order reference numbers for the tank bottom welding flange:

DN	ref.-No.	øC
50	31B 31 - 08 - 030/47	150
80	31B 31 - 08 - 032/47	179
100	31B 31 - 08 - 034/47	199

tank bottom welding flange



5. Cleaning

Cleaning recommendation for the DKR valve in the beverage industry
The valve passage is cleaned by the cleaning liquid during cleaning of the connected pipelines.

cleaning step	CIP spraying
pre-flushing	2 x 10 sec.
caustic flushing 80 °C	3 x 10 sec.
intermediate flushing	2 x 10 sec.
acid flushing	3 x 10 sec.
final flushing	2 x 10 sec.

- The flushing times refer to a cleaning pressure of p = 3 - 5 bar.
- The flushing times indicated for the individual cleaning steps are reference values, only. In specific applications these times must be adjusted depending on the product, the pressure ratio and the degree of soiling.
- The flushing quantity per CIP spraying cycle amounts to about 1 litre at a cleaning pressure of 3 - 5 bar.

6. Installation

- The valve must be installed in horizontal position at the tank bottom. Fluids and operating leakages are, therefore, freely drainable to the bottom and the leakage chamber drains off.
- With several valves being parallely connected with one pipeline, a passage of the operating leakage to the cleaning connection of adjacent valves must be avoided. Installation of a shut-off device or a check valve in front of the cleaning connection is required.
- Cleaning connection with hose 8 x 1.

Attention! Observe welding instructions

6.1. Welding Instructions DKRT

- Before welding of the valve, the welding flanges must be dismantled from the housing. Tacking or adjustment of the valves should only be undertaken with screwed down welding flanges.

- The welding of the mating flanges must be undertaken in such a way that deformation does not occur.

- Welding should only be carried out by certified welders (EN 287-1). (Seam quality EN 25817 „B“).

- TIG orbital welding is best!

- The preparation of the weld seam up to 3 mm thickness must be carried out as a square butt joint without air. Consider shrinkage!

- After welding of the mating flanges and after work at the pipelines,the corresponding parts of the installation or pipelines must be cleaned from welding residues and soiling. If these cleaning instructions are not observed, welding residues and dirt particles can settle in the valve and cause damage or can be transfered to other parts of the installation.

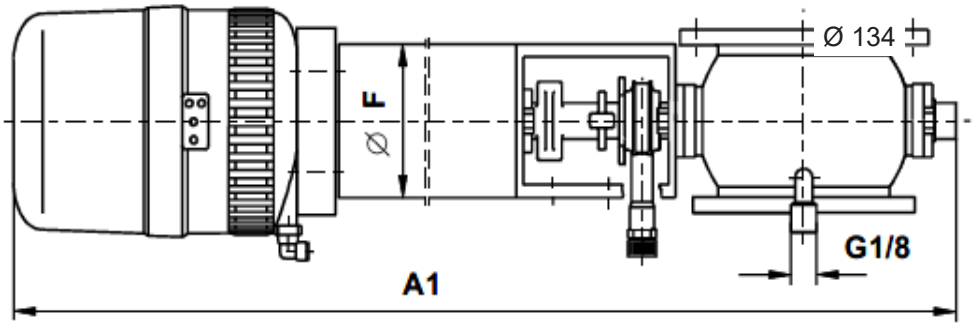
- Any damage resulting from the non-observance of these welding instructions is not subject to our guarantee.

7. Materials

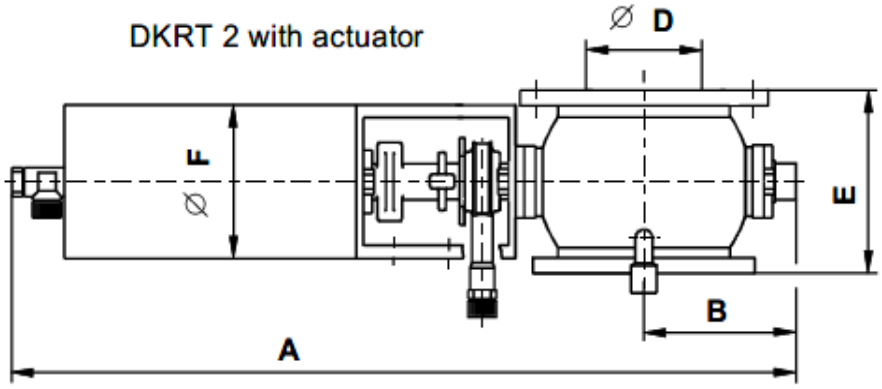
- housing, valve ball, shafts	**1.4404**
- yoke, actuator	**1.4301**
- coupling	**1.4057**
- ball seal	**PTFE**
- Flange seal	**EPDM, FPM**
- housing seal	**EPDM, FPM**
- O-rings	**EPDM**
- indicator	**PE-solid**
plastic parts in actuator	
- spindle bearing	Vestamid L 1901
- air connection	PA 6.6
- piston	Hostaform C 9021

8. Dimensions / Weights

DKRT 2 with Control Unit CU3



DKRT 2 with actuator



dimensions in mm							weights in kg
DN	**A**	**A1**	**B**	**Ø D**	**E**	**Ø F**	
50	427	563	75	50	79	85	6,0
80	543	678	102,5	81	123	130	16,0
100	574	707	117	100	150	130	19,0

9. Technical Data

- max. line pressure**:** **10 bar**
- max. operating temperature: **135 °C EPDM, HNBR *VMQ, *FPM**
- short-term load: **140 °C EPDM, HNBR *VMQ, *FPM, *No steam**
- throughput cleaning at 3bar
- admission pressure: **about 5 - 10 l/min.**
- actuator
  min. control pressure**:** **6 bar**
  max. control pressure**:** **10 bar**
  turning angle: **90°**
- air connection (for hose) **6 x 1mm**
  (Use dry and clean air, only.)
- Leakage connection**:** **G1/8“**
- cleaning connection for hose: **8 x 1 mm**

	DN Inch	**50**	**80**	**100**
max. tightening torque in Nm	(M)	22	40	65
operating leakage at about 5 bar in NL (opening and closing process)	(Qs)	1,4	4,0	4,2
pneumatic air consumption at 6 bar NL	(V)	1,8	5,5	5,5

10. Maintenance

- Dismantling and installation of seals according to Service Instructions.

- Assembly and adjustment of turning actuator according to Service Instructions.

- Slightly grease all seals before their installation

  Recommendation:
  APV assembly grease for **EPDM, FPM**
  (0,75 kg/ tin - ref.-No. 000 70-01-019/93; H147382)
  (60 g/ tube - ref.-No. 000 70-01-018/93; H147381)
  or
  APV assembly grease for **VMQ** and **Perbunan**
  (0,6 kg/ tin - ref.-No. 000 70-01-017/93; H147380)
  (60 g/ tube - ref.-No. 000 70-01-016/93; H147379)

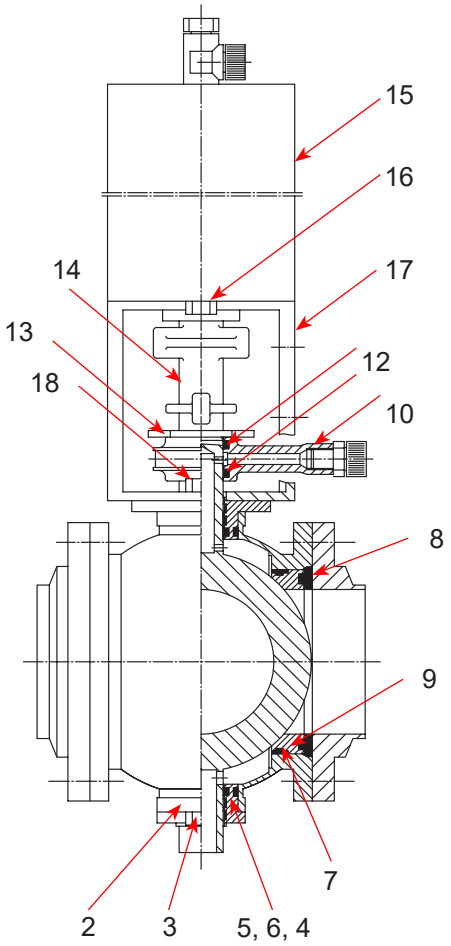
  ! Do not use grease containing mineral oil with EPDM seals !
  ! Do not use Silicone-based grease with VMQ seals !

11. Service Instructions

The item numbers refer to the spare parts drawing.
(DIN design: RN 01.078)

11.1. Dismantling from the line system

1. Shut off connecting lines, let off line pressure and discharge if possible.
2. Disconnect pneumatic and electric connections.
3. Dismantle cleaning line.
4. Screw off valve position indication.
5. Remove flange screws (20).
6. Detach ball valve from the flanges.



11. Service Instructions

11.2. Dismantling of seals and guide bands

1. Detach flange seals (8).
2. Take off turning actuator (15) after removal of screws (16).
3. Release screws (18) and yoke (17), coupling (14), indicator (13) and spray connection (10).

Danger! Do not replace seals before removal of turning actuator from the valve.

4. Pull out PTFE ball seals (9) with appertaining housing seals (7).

   To pull the ball seals out, half open the ball by hand and grasp alternately behind the seal.

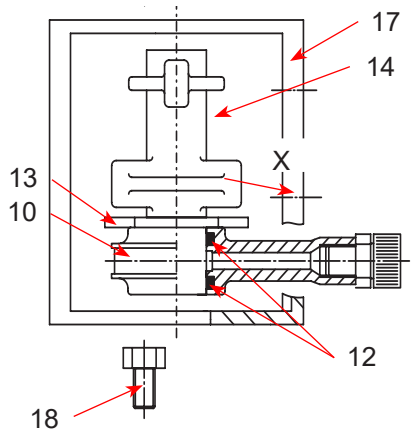
Attention ! Ball and ball seal are sensitive to mechanical damage, the surfaces must not be touched by tools.

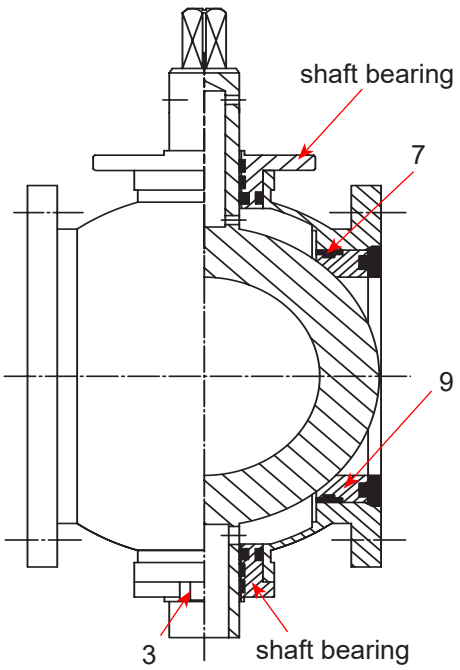
5. Having released the screws (3), slide both shaft bearings (2) out of the housing and replace O-rings (5, 6) and guide bands (4).

Attention ! With dismantled shaft bearings and seals, the housing with ball must not be subject to vibrations.

11.3. Installation of seals and guide bands

1. Slightly grease O-rings (5, 6) and guide bands (4) before their installation in the shaft bearings (2).
2. Push upper and lower shaft bearing (2) with a little grease in the housing, insert screws (3), but do not fasten them.
3. Slightly grease housing seals (7) before their installation on the PTFE ball seals (9).
4. Turn valve ball into open position by hand and install ball seals with some grease at both sides.
5. Slightly grease O-rings (12) and insert them in the spray connection (10).





11. Service Instructions

11.4. Assembly of valve

1. To ensure a safe handling of the valve, clamp the lower bearing flange into a vice with protective cheeks. Turn the ball into „open position“.

   Place yoke (17), spray connection (10), indicator (13) and coupling (14) on the ball housing. The lower coupling cam must point to the lower yoke bore (x) and the indicator must point into flow direction.

2. Screw in screws (18), but do not fasten them.

11.5. Adjustment of operating position

Attention ! For a safe, perfect and fast adjustment of the operating position, we recommend to use two separate FG flanges.

11.5.1. Adjustment of operating position with FG flanges (flanges see RN 268.22-1)

Install the ball seals as described in 11.3.
Assemble the valve as described in 11.4.
Turn the ball into its exact open position.

1. Control actuator (15) with pneumatic air (min. 6 bar) and place it on the yoke(17).
2. Screw in screws (16), but do not fasten them.

Danger ! Do not reach into the open valve after installation of the actuator!
Risk of injury by sudden operation of the valve.

3. Screw down FG flanges at the housing. The ball must be in its exact open position.
4. Release both screws (3) of the shaft bearing (ball centers between the seals) and retighten them.
5. Slightly turn the actuator in anticlockwise direction to adjust the play in the connecting parts.

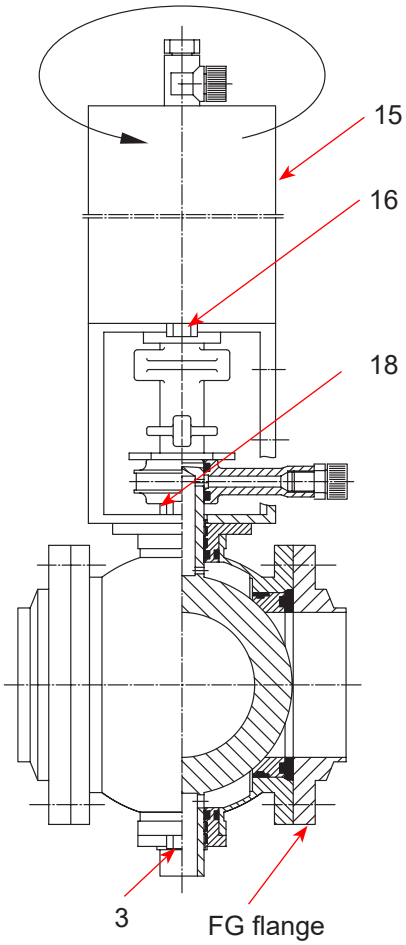
! **The ball must keep its exact open position during this procedure !**

Danger ! Do not reach into the open valve.
Risk of injury by sudden operation of the valve.

6. At first, tighten the screws (18) and then tighten the screws (16). Operate the turning actuator several times to check the operating accuracy of the ball.
7. Shut off the air supply to the turning actuator and dismantle the FG flanges.
8. Insert the valve in closed position between the flanges into the pipeline and fasten it with the screws.

   Tightening torque: M8 Md = 16 Nm
   M10 Md = 40 Nm

9. Connect pneumatic air line with the turning actuator
10. Connect the cleaning line.
11. Attach valve position indicators.



12.5.2. Adjustment of operating position without FG flanges

If FG flanges are not available, the ball can, in exceptional cases, be adjusted as follows.
Caution! Failure of adjustement is possible:
Install the ball seals as described in 11.3. Assemble the valve as described in 11.4.
Turn the ball into its exact open position.

1. Control actuator (15) with pneumatic air (min. 6 bar) and place it on the yoke(17).
2. Screw in screws (16), but do not tigthen them.

Danger ! Do not reach into the open valve after installation of the actuator!
Risk of injury by sudden operation of the valve.

! **The ball must be in its exact open position!**

3. Slightly turn the actuator in anticlockwise direction to adjust the play in the connecting parts.

! **The ball must not move during this process!**
(exact open position)
At first, tighten the screws (18) and then tighten the screws (16). Operate the turning actuator several times to check the operating accuracy of the ball.

4. Shut off the air supply to the turning actuator and insert the valve in closed position into the line system. Fasten it with the screws (20).

5. Centering of ball (absolutely necessary)
To center the ball between the seal rings, proceed as follows:
1) Release screws (3) by about ¼ turn.
2) Release one screw (18) by about ¼ turn.
3) Release second screw (18) by about ¼ turn and retighten it immediately.

Attention ! Hold the turning actuator fast during this process. Bring up holding moment in clockwise direction (top view of actuator).

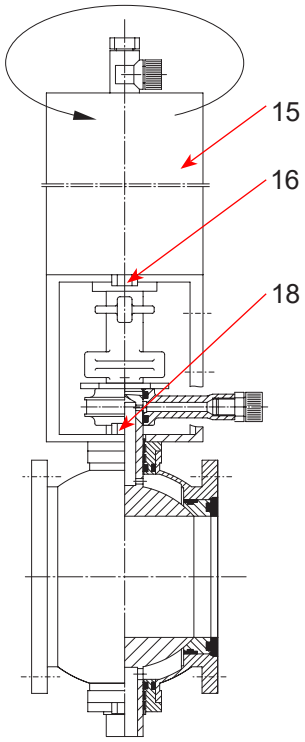
6. Tighten screw (18) and, then, screw (3).

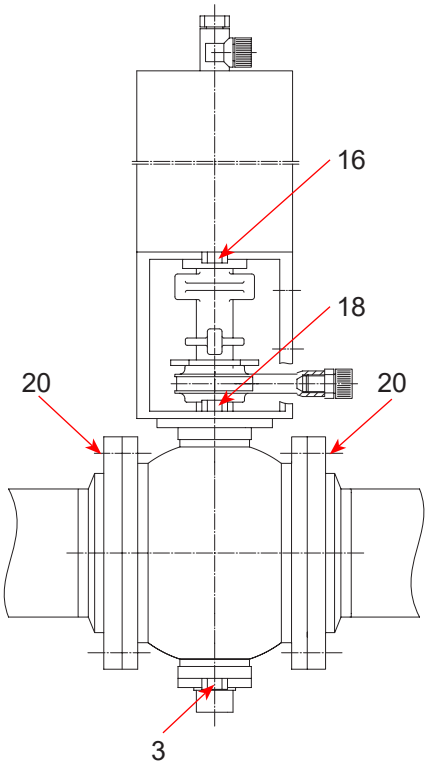
7. Tightening torque: Md = 16 Nm M8 , Md = 40 Nm M10

8. Connect pneumatic air line with turning actuator.

9. Connect cleaning line.

10. Attach valve position indication.





12. Detection of Seal Wear

The replacement of seals is undertaken as described in the Service Instructions 11.

Failure	Remedy
Valve is closed and pressurized from the valve ball	
Leakage at upper and lower housing flange	**Replace seal (8).**
Leakage from the leakage bore	**Replace seals (8, 9, 7).**
Valve is open	
Leakage from the leakage bore	**Replace seals (8, 9, 7).**
Valve is closed and leakage during cleaning via the spray connection	
Leakage at spray connection	**Replace o-rings (12).**
Leakage at shaft bearing	**Replace seals (4,5,6)**

If damaged seals are exchanged, generally replace all seals.
Set of seals for the valve service are available. The corresponding part numbers can be drawn from the spare parts lists.

13. Spare Parts Lists

(see annex)

The reference numbers of the spare parts for the different valve sizes are included in the attached spare part drawings with corresponding lists.

Please indicate the following data to place an order for spare parts:

- number of required parts
- reference number / ID number
- designation

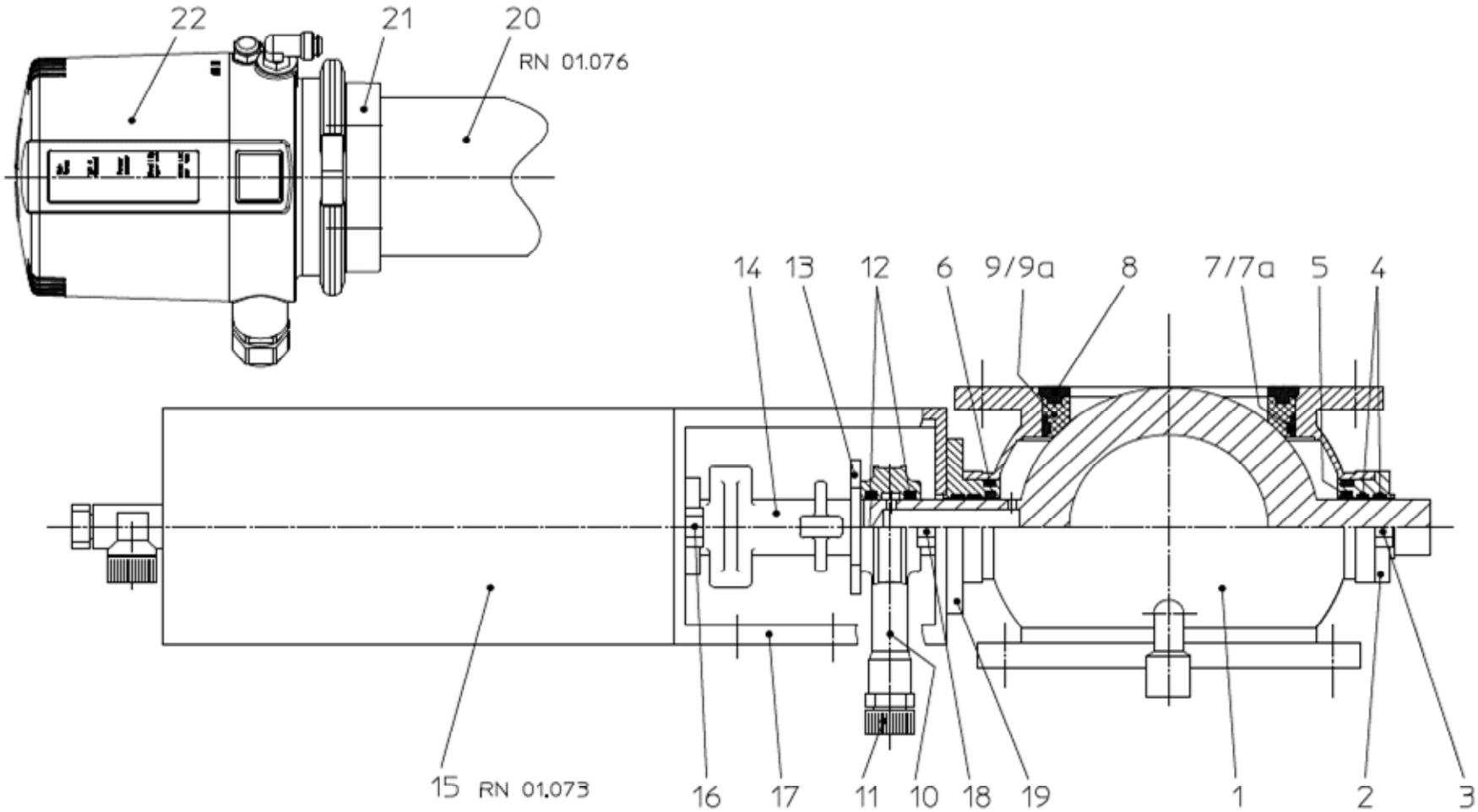
Data are subject to change

Information contained in this document is subject to change without notice and does not represent a commitment on the part of SPX FLOW, Inc.. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, for any

Spare parts list:

DKRT tank outlet valve -FZ-CU 1+2S
DN50, 80, 100

Date:	19.02.14	31.10.14	29.02.24		**SPX FLOW**
Name:	Trytko	Trytko	N.Shresht		
Approved by:					
Date:					Page 1 of 4
Name:					**RN 01.078**
Approved by:					



Information contained in this document is subject to change without notice and does not represent a commitment on the part of SPX FLOW, Inc.. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, for any

Spare parts list:

DKRT tank outlet valve -FZ-CU 1+2S
DN50, 80, 100
DN 50

Date:	19.02.14	31.10.14	29.02.24	
Name:	Trytko	Trytko	N.Shresht	
Approved by:				

SPX FLOW

Date:				
Name:				
Approved by:				

RN 01.078

Item	Quantity	Description	Material	Part no.
1	1	Valve body + Tran. Lock	1.4404	H347865
2	2	Bearing	1.4404	H31774
3	2	Hex. Screw M8x12 DIN EN 24017-A2-70	1.4301	H78770
4	4	Guide	Turcite	H14879
5	2	O-ring OR 20,2x3	NBR 70-75 Shore A	H76943
			FPM 70-75 Shore A	H125656
6	2	O-ring OR 28x3	NBR 70-75 Shore A	H76961
			FPM 70-75 Shore A	H122837
7	2	Housing seal	EPDM	H77464
			HNBR	H170018
			FPM	H77463
7a	2	Housing seal	VMQ	
8	2	Seal flange	EPDM	H77303
			HNBR	H172132
			FPM	H77302
			VMQ	H77301
9	2	Ball seal	PTFE	H77304
9a	2	Ball seal	PTFE	
10	1	CIP connection	PA12	H162806
11	1	Union G1/8" 8x1	PVDF-Black	H16388
12	2	O-ring OR 20,2x3	NBR	H76943
13	1	Position indicator	PE-HART	H14634
14	1	Coupling	1.4308	H15865
15	1	Actuator spring/air	1.4301	H315054
16	2	Hex. Screw M8x12 DIN EN 24017-A2-70	1.4301	H78770
17	1	Yoke	1.4301	H33848
18	2	Hex. Screw M8x14 DIN EN 24017-A2-70	1.4301	H78768

Item	Quantity	Description	Material	Part no.
19	1	Bearing	1.4404	H31774
20	1	Actuator s/a for control-unit	1.4301	H315055
21	1	CU-T-adapter	PA6.6 GF30 BLACK	H320475
		CU-Tmax-adapter	PA6.6 GF30 BLACK	
22	1	Control-Unit	PA6.6 GF30 BLACK	see manual CU
		Item 4, 5, 6, 7, 7a, 8, 9, 9a, 12 available as complete seal kits only		
	1	Seal kit	EPDM	H115600
			HNBR	H315848
			FPM	H143070
			VMQ	H115606

Information contained in this document is subject to change without notice and does not represent a commitment on the part of SPX FLOW, Inc.. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, for any

Spare parts list:

DKRT tank outlet valve -FZ-CU 1+2S
DN50, 80, 100
DN 80

Date:	19.02.14	31.10.14	29.02.24	
Name:	Trytko	Trytko	N.Shresht	
Approved by:				
Date:				
Name:				
Approved by:				

SPX FLOW

RN 01.078

Item	Quantity	Description	Material	Part no.
1	1	Valve body + Tran. Lock	1.4404	H347869
2	2	Bearing	1.4404	H31775
3	2	Hex. Screw M10x14 DIN EN 24017-A2-70	1.4301	H78805
4	6	Guide	Turcite	H14879
5	2	O-ring OR 20,2x3	NBR 70-75 Shore A	to be used for valves with seal material EPDM, HNBR, VMQ
			FPM 70-75 Shore A	to be used only for valves with seal material FPM.
6	2	O-ring OR 28x3	NBR 70-75 Shore A	to be used for valves with seal material EPDM, HNBR, VMQ
			FPM 70-75 Shore A	to be used only for valves with seal material FPM.
7	2	Housing seal	EPDM	H171283
			HNBR	H170075
			FPM	H77542
7a	2	Housing seal	VMQ	H177054
8	2	Seal flange	EPDM	H176414
			HNBR	H172134
			FPM	H77324
			VMQ	H177052
9	2	Ball seal	PTFE	H77326
9a	2	Ball seal	PTFE	H176929
10	1	CIP connection	PA12	H162806

Item	Quantity	Description	Material	Part no.
11	1	Union G1/8" 8x1	PVDF-Black	H16388
12	2	O-ring OR 20,2x3	NBR	H76943
13	1	Position indicator	PE-HART	H14635
14	1	Coupling	1.4308	H16020
15	1	Actuator spring/air	1.4301	H105502
16	2	Hex. Screw M10x14 DIN EN 24017-A2-70	1.4301	H78805
17	1	Yoke	1.4301	H33850
18	2	Hex. Screw M10x18 DIN EN 24017-A2-70	1.4301	H78807
19	1	Bearing	1.4404	H207856
20	1	Actuator s/a for control-unit	1.4301	H128942
21	1	CU-T-adapter	PA6.6 GF30 BLACK	
		CU-Tmax-adapter	PA6.6 GF30 BLACK	H321987
22	1	Control-Unit	PA6.6 GF30 BLACK	see manual CU
		Item 4, 5, 6, 7, 7a, 8, 9, 9a, 12 available as complete seal kits only		
	1	Seal kit	EPDM	H115602
			HNBR	H204106
			FPM	H144805
			VMQ	H115608

Information contained in this document is subject to change without notice and does not represent a commitment on the part of SPX FLOW, Inc.. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, for any

Spare parts list:

DKRT tank outlet valve -FZ-CU 1+2S
DN50, 80, 100
DN 100

Date:	19.02.14	31.10.14	29.02.24	
Name:	Trytko	Trytko	N.Shresht	
Approved by:				
Date:				
Name:				
Approved by:				

SPX FLOW

RN 01.078

Item	Quantity	Description	Material	Part no.
1	1	Valve body + Tran. Lock	1.4404	H347872
2	2	Bearing	1.4404	H31775
3	2	Hex. Screw M10x14 DIN EN 24017-A2-70	1.4301	H78805
4	6	Guide	Turcite	H14879
5	2	O-ring OR 20,2x3	NBR 70-75 Shore A	to be used for valves with seal material EPDM, HNBR, VMQ
			FPM 70-75 Shore A	to be used only for valves with seal material FPM.
6	2	O-ring OR 28x3	NBR 70-75 Shore A	to be used for valves with seal material EPDM, HNBR, VMQ
			FPM 70-75 Shore A	to be used only for valves with seal material FPM.
7	2	Housing seal	EPDM	H77583
			HNBR	H170074
			FPM	H77582
7a	2	Housing seal	VMQ	Housing seal VMQ only to be used for DN80
8	2	Seal flange	EPDM	H77339
			HNBR	H172135
			FPM	H77338
			VMQ	H77337
9	2	Ball seal	PTFE	H77340

Item	Quantity	Description	Material	Part no.
9a	2	Ball seal	PTFE	Ball seal only to be used for DN80 in EPDM and VMQ valve design
10	1	CIP connection	PA12	H162806
11	1	Union G1/8" 8x1	PVDF-Black	H16388
12	2	O-ring OR 20,2x3	NBR	H76943
13	1	Position indicator	PE-HART	H14635
14	1	Coupling	1.4308	H16020
15	1	Actuator spring/air	1.4301	H105502
16	2	Hex. Screw M10x14 DIN EN 24017-A2-70	1.4301	H78805
17	1	Yoke	1.4301	H33850
18	2	Hex. Screw M10x18 DIN EN 24017-A2-70	1.4301	H78807
19	1	Bearing	1.4404	H207856
20	1	Actuator s/a for control-unit	1.4301	H128942
21	1	CU-T-adapter	PA6.6 GF30 BLACK	
		CU-Tmax-adapter	PA6.6 GF30 BLACK	H321987
22	1	Control-Unit	PA6.6 GF30 BLACK	see manual CU
		Item 4, 5, 6, 7, 7a, 8, 9, 9a, 12 available as complete seal kits only		
	1	Seal kit	EPDM	H115603
			HNBR	H314158
			FPM	H142041
			VMQ	H115609

APV®

APV DELTA DKRT2

DOUBLE SEAT BALL VALVE WITH CLEANING
CONNECTIONTANK OUTLET VALVE

SPXFLOW®

Design Center
Gottlieb-Daimler-Straße 13
D-59439 Holzwickede, Germany

P: (+49) (0) 2301-9186-0
F: (+49) (0) 2301-9186-300

www.spxflow.com/APV

Improvements and research are
continuous at SPX FLOW, Inc.
Specifications may change
without notice.

ISSUED 04 2013 - Original manual
Form No.: H170758
Revision: 5

Copyright ©2011 SPX FLOW, Inc.

Design features, materials of construction and dimensional data, as described in this manual, are provided for your information only and should not be relied upon unless confirmed in writing. Please contact your local sales representative for product availability in your region. For more information visit www.spxflow.com