

Operating Manual DELTA SW4 - DPF Single Seat and Change - Over Valve with Steam Barrier





Read and understand this manual prior to operating or servicing this product.





Declaration of Conformity for Valves and Valve Manifolds

APV Rosista GmbH, Zechenstr. 49, D-59425 Unna-Königsborn as manufacturer with sole responsibility declares that the

double seat valves of the series D2, SD4, SDT4, SDM4, SWcip4, DSV, DA3, DE3, DEU3, DET3, DKR2, DKRT2, DKRH2 in the nominal diameters DN 25 - 150, 1" - 6" and 1 Sh5 - 6 Sh5

butterfly values of the series SV1 and SVS 1 F in the nominal diameters DN 25 - 100, DN 125 - 250 and $1^{\circ} - 4^{\circ}$

ball cocks of the series KH, KHV in the nominal diameters DN 15 - 100

single seat, diaphragm and spring loaded valves of the series S2, SW4, SWmini4, SWT4, M3, MF3, M4, MF4, MP4, MS4, AP1, APT1, CPV, RG4, RGM4, RGE4, RGEM4, PR2, PR3, PR4, SI2, UF3, VRA,VRAH in the nominal diameters DN 10 - 150, 1/2" – 4" and 1 Sh5 - 6 Sh5

and the valve manifolds installed thereof

meet the requirements of the Directives 89/392/EEC (amendment 93/44/EEC), replaced by 98/37/EC and GSG - 9.GSGV.

For official inspections, APV Rosista GmbH presents a technical documentation according to appendix V of the Machinery Directive, this documentation consisting of documents of the development and construction, description of measures taken to meet the conformity and to correspond with the basic requirements on safety and health, incl. an analysis of the remaining risks as well as an operating manual with safety instructions.

The conformity of the valves and valve manifolds is guaranteed.

D-59425 Unna-Königsborn, June 04, 2008 APV Rosista GmbH

aum

Manager Research and Development

APV



	Table of Content				Page
1.	General Terms		2		
2.	Safety Instructions				2
3.	Mode of Operation				3
4.	Auxiliary Equipment				4
5.	Installation				5
5.1	Welding Instructions				5
6.	Dimensions / Weights				6
7.	Technical Data				7 - 8
8.	Maintenance				9
9.	Service Instructions for Single Seat Valves				10 -12
10.	Service Instructions for Change-Over Valves				13 - 15
11.	Maintenance of Actuator				16
12.	Reconstruction of Actuator 17				17
13.	Assembly Tool for Seat Seal 18				18
14.	Trouble Shooting				19
15.	Spare Parts Lists				
	Single seat valves SW 41, SW 42, SWE 41, SV DN - RN 01.054.811		•	E 43, SWE 4 01.054.812	
	Change - Over valves SW 43, SW 44 DN - RN 01.054.813	Inch	- RN	01.054.814	
	Actuator	RN	01.05	54.86	





1. General Terms

This operating 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 operating manual.

Descriptions and data given herein are subject to technical changes.

2. Safety Instructions

DANGER!



- The technical safety symbol draws your attention to important directions for operating safety. You will find it wherever the activities described are bearing risks of personal injury.
- Before any maintenance work, the line system must be depressurized and fluid residues must be discharged.
- Disconnect electric and pneumatic lines.
- During sterilisation, the valve is operated with crawl steam. Attention: Risk of injury by burning.

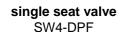


- Separate steam connections.
- Do not reach into the open valve.
- Risk of injury by suddenly operating valve. In dismantled state there is the risk of bruising at movable parts of the valve.
- Observe service instructions to ensure safe maintenance of the valve.
- Attention! Valve design NC (normally closed): Before releasing the housing clamp connection, the valve insert must be relieved via the controlled actuator.
- The welded actuator is under spring load, do not open it.

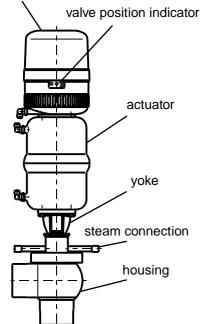


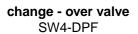


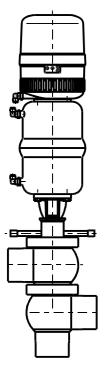
3. Mode of Operation











Single seat and change-over valves DELTA SW4 have been developed for applications in the brewing and beverage, dairy and food industries as well as for chemical and pharmaceutical use.

The valves are designed for universal applications and stand out for their increased mechanical reliability and absolute ease of handling.

The function of the DELTA SW4 - DPF valve is to shut off and to change over line sections in sterile processes.

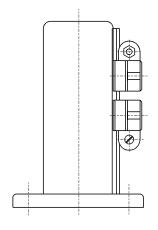
- Operation by pneumatic actuator with air connection, reset by spring force.
- By different assembly of the actuator, the following designs are possible:
 - NC = normally closed / air-to-raise, spring-to-lower ("fail-down")
 - NO = normally open / air-to-lower, spring-to-raise ("fail-up")
- The inner parts of the actuator need not be serviced.
- The steam chamber is supplied with crawl steam during the process. A transfer of germs into the product-wetted area is prevented.
- The cleaning of the inner valve is undertaken during CIP cleaning of the line system.
- For the pneumatic control of the valve, the standard design is equipped with a Control Unit DELTA CU 31 on top of the actuator.
- The yellow luminous diodes in the Control Unit indicate the position of the valve shaft.





4. Auxiliary Equipment

PSH valve position indicator



The actuator can be equipped with a proximity switch holder (PSH) to indicate the valve position. Proximity switches to signal the limit position of the valve seat can be mounted to the support if required.

We recommend our APV standard types: operating distance: 5 mm / diameter: 11 mm. If the user decides to apply a valve feedback other than APV type, we cannot take over any guarantee for any malfunctions.

- Control Unit

The SW4 valve can be equipped with a Control Unit.

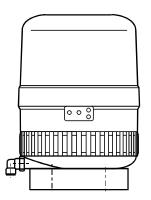
The following different variants are possible:

	1 solenoid valve
Direct Connect	CU31 Direct Connect
refNo.:	322 000 804 629
Profibus	CU21V
refNo.:	322 000 804 437
Device Net	CU31 Device Net
refNo.:	322 000 804 611
AS - Interface	CU31 AS - Interface
refNo.:	322 000 804 701

- An adapter is required to install the Control Unit on the SW4 valve.

	adapter
designation:	CU 2 Adapter - SW4 / SD4 / M4
refNo.:	322 000 801 192

control unit with adapter







5. Installation

- The installation of the valve must be undertaken in such a manner that liquids can drain off the valve housing and should be provided preferably in vertical position.



- The valve housings of single seat valves can be welded direct into the pipeline (valve insert completely dismantable).
- Through a flange or clamp connection, the upper housing of change-over valves is detachable from the pipeline.
- Attention: Observe welding instructions.

5.1 Welding Instructions

Shut-off valve

- Before welding of the valve, the valve insert must be dismantled from the housing. Careful handling to avoid damage to the parts is necessary.

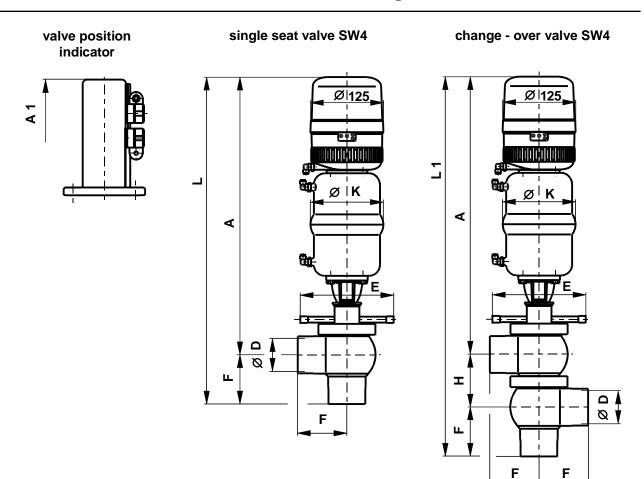
Change-over valve

- Before welding of the valve, the valve insert must be dismantled from the housing. Moreover, remove the lower housing seal. For this purpose, dismantable connections (flanges, clamps, etc.) must be installed in the pipelines to provide for the disassembly of the two housings and, thus, to have access to the lower seal. Careful handling to avoid damage to the parts is necessary.
- Welding should only be carried out by certified welders (EN 287-1). (Seam quality EN 25817 "B").
- The welding of the valve housings must be undertaken in such a way that the valve body is not deformed.
- The preparation of the weld seam up to 3 mm thickness must be carried out as a square butt joint without air. (Consider shrinkage!)
- TIG orbital welding is best.
- After welding of the valve housings or 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.
- Any damage resulting from the non-observance of these welding instructions is not subject to our guarantee.





6. Dimensions / Weights



	Α	A1	ØD	Е	F	н	ØК	L	L 1	weigh	nts in Kg
DN										single seat valve	change - over valve
25	431	371	26	158	50	54	86	481	535	5,2	6,2
40	435	375	38	158	67	66	86	502	568	5,2	6,2
50	472	412	50	158	72	78	126	544	622	7,2	8,2
65	480	420	66	158	85	94	126	565	659	7,2	8,2
80	533	473	81	158	98	109	189	631	740	13,2	15,2
100	543	483	100	158	111	128	189	654	782	15,2	17,2
inch											
1"	429	369	22,2	158	50	50,6	86	479	530	5,2	6,2
1,5"	433	373	34,9	158	67	62,9	86	500	563	5,2	6,2
2"	471	411	47,6	158	72	75,6	126	543	619	7,2	8,2
2,5"	477	417	60,3	158	85	88,3	126	562	650	7,2	8,2
3"	528	468	72,9	158	98	100,9	189	618	719	13,2	15,2
4"	541	481	97,6	158	111	125,6	189	652	778	15,2	17,2

dimensions in mm

Single Seat and Change- Over Valve with Steam Barrier DELTA SW 4 - DPF Operating Manual Rev. 0





7. Technical Data

product-v	vetted parts	:	316L, 1.4404		
other par	ts	:	1.4301		
seals :	standard options		EPDM VMQ, FPM, HNBR		
max. ope	rating temperature	:	135 °C EPDM, HNBR *VMQ, *FPM		
sterilizati (short-ter	on temperature m)	:	140 °C EPDM, HNBR *VMQ, *FPM		
			* (no steam)		
actuators		:	1.4301		
air conne	ction (for hose)	:	6x1 mm		
	trol air pressure rol air pressure	:	8 bar 6 bar		
(Use dry and clean control air, only!)					
steam cha connectio max. tem	on		G1/8 130 °C		

closing times for SW4 single seat and change-over valves

The opening and closing times of those valves equipped with a control unit can be adjusted by the operator.

stroke in mm

		single seat valve	change - over valve
DN	zoll		
25	1"	12	9
40	1,5"	25	22
50	2"	28	25
65	2,5"	28	25
80	3"	28	25
100	4"	28	25

closing times in sec. control pressure 6 bar hose length 1m and 10m

		1m	10m
DN	zoll		
25	1"	1	2
40	1,5"	1	2
50	2"	3	4
65	2,5"	3	4
80	3"	5	6
100	4"	5	6

Single Seat and Change- Over Valve with Steam Barrier DELTA SW 4 - DPF Operating Manual Rev. 0





7. Technical Data

DELTA SW4 Kvs - values in m ³ / h						
		single seat val	/e	change -	over valve	
DN						
25	20	21	28	14	13	
40	45	53	60	33	31	
50	92	85	120	58	51	
65	159	159	215	100	89	
80	201	209	350	160	137	
100	302	325	540	245	212	
zoll						
1"	16	18	27	10	10	
1,5"	38	45	52	30	28	
2"	83	77	118	54	49	
2,5"	133	133	200	137	114	
3"	176	176	310	137	114	
4"	292	310	520	225	210	

DELTA SW4 product pressures in (bar) at 6 bar control air pressure

DN	zoll	Ø 74mm actuator		Ø 110mm	actuator	Ø 165mm actuator	
		lower seat	upper seat	lower seat	upper seat	lower seat	upper seat
25	1"	14,1	15,8	-	-	-	-
40	1,5"	6,6	7,4	16,8	15,7	-	-
50	2"	2,9	4,3	7,9	9,0	21,1	20,4
65	-	1,9	2,8	5,1	5,9	13,7	13,3
	2,5"	2,8	1,9	5,9	5,1	13,3	13,7
	3"	2,3	1,6	4,9	4,3	11,0	11,4
80	-	1,3	1,9	3,6	4,1	9,6	9,3
100	4"	0,8	1,1	2,1	2,3	5,5	5,3





8. Maintenance

- The maintenance intervals depend on the application of the valve and should be determined by the user carrying out regular checks.
- Tools required:
- 1 x spanner SW13
- 1 x spanner SW17
- 1 x spanner SW19.
- Assembly of the valve and change of the valve design **NC or NO** according to service instructions.
- Change of seals according to service instructions. Complete seal kits are available.
- All seals must lightly be greased before their installation!!!

Recommendation:	
APV-food-grade greas	se for EPDM, FPM, HNBR and NBR
(0,75 kg /can	- ref. No. 000 70-01-019/93)
(60 g /tube	- ref. No. 000 70-01-018/93)

or

APV-food-grade grease for VMQ (Silicone)

(0,6 kg /can	- ref. No. 000 70-01-017/93)
(60 g /tube	- ref. No. 000 70-01-016/93)

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



valve position

indicator

single seat valve

19

14



9. Service Instructions

Single seat valves DELTA SWDPF 41, 42, SWEDPF 41, 42, 43, 44. The item numbers refer to spare parts list RN 01.054.811 DN / 01.054.812 Inch

I.

- Disassembly from the line system
 - **a.** Shut off steam and connecting lines, discharge line pressures and empty lines if possible.
- **b.** Separate steam connections.
- c. Separate electric and pneumatic connections.
- d. Valve design NC: control actuator with air.

Do not touch movable valve parts! Risk of injury by sudden valve operation.

- e. Detach clamp (6) and lift valve insert off the housing.
- f. Valve design NC: shut off compressed air.
- **g. CU version:** Detach the control unit by turning the locking ring.

Valve position indicator:

Remove proximity switches. Detach indicator housing (proximity switch holder) from actuator.

. Dismantling of wear parts (product-wetted parts)

a. Remove housing seal (5).

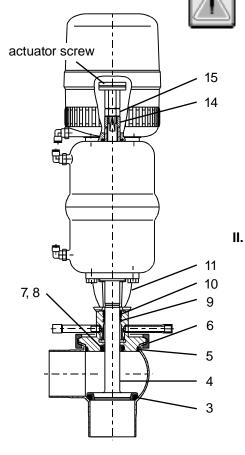
b. CU version:

Unscrew actuator screw, at first. Screw off hexagon nut (15) by holding up the centering washer (14). Remove centering washer.

Valve position indicator:

Unscrew metallic actuator screw (19) by holding up the centering washer (14). Remove centering washer.

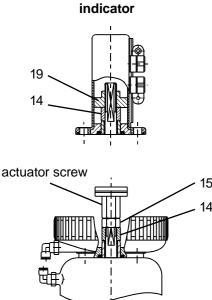
- c. Pull valve shaft (4) out of the actuator (16). Remove seat seal (3).
- d. Unscrew yoke (11) from actuator.
- e. Detach seat seal (7), shaft seal (8), guide bush (10) and O-ring (9).

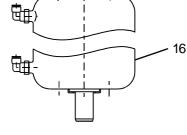


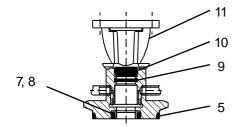


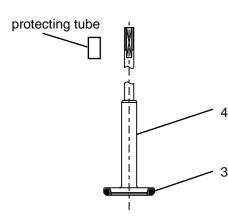
valve position











9. Service Instructions

III. Installation of seals and assembly of valve The item numbers refer to spare parts list RN 01.054.811 DN / 01.054.812 Inch.

Attention: Provide all seals with a thin layer of grease.

- a. At first, put the O-ring (9) and then the guide bush (10) into the yoke (11). Insert the shaft seal (8) and press in the seat seal (7). See to the right position of installation.
- b. Mount the yoke (11) at the actuator (16).
- c. Insert seat seal (3) into the shaft (4). Use the APV assembly tool to install the seat seal, see chapt. 13. Grease seat seal only slightly before its installation.
 If installed manually, vent the seal groove by means of a thin object between the seal and the groove wall.
- d. Slide the protecting tube over the thread of the guide rod until the tube stops at the first edge.Slide the shaft (4) through the yoke (11) and the actuator (16).
- e. Remove the protecting tube.

f. CU version:

Attach the centering washer (14). Screw on the hexagon nut (15) and fix it with a tightening torque of Md = 40 Nm. Hold up the centering washer during this process. CU: Tighten plastic actuator screw.

Valve position indicator:

Attach centering washer. Fix metallic actuator screw **(19)** as hexagon nut. Hold up the centering washer. Tightening torque **Md = 40 Nm**.

g. Slightly grease the housing seal **(5)** and install it in the groove of the yoke flange.





9. Service Instructions

IV. Installation of valve

a. CU version:

Place the control unit **(18)** on the adapter and secure it with the ring.

Valve position indicator:

Fix the indicator housing (20).

b. To install the valve insert in the design NC, observe the following steps:

Control the actuator with air. Place the valve insert carefully in the housing (1) and tighten the clamp (6). Do not damage the housing seal (5) during the installation.

-

5

Do not touch movable valve parts! Risk of injury by sudden valve operation.

Valve design NC: Shut off air.

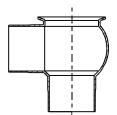
c. Valve position indicator: Plug in proximity switches and fix them.

Readjust proximity switches if necessary.

- d. Check basic adjustment of valve position indicator.
- The shift points can be adjusted by turning the positioning screw in the control unit.
- e. Connect steam lines.

valve housing

Ð



APV

10. Service Instructions

Change-over valves DELTA SW 43, SW 44. The item numbers refer to spare parts list RN 01.054.813 DN / 01.054.814 Inch.

- I. Disassembly from the line system
 - **a.** Shut off steam and connecting lines, discharge line pressures and empty lines if possible.
 - b. Separate steam connections.
 - c. Separate electric and pneumatic connections.
 - **d.** Detach connection between the upper housing globe and the connected line.

Attention:

e. Valve design NC: control actuator with air.

Do not touch movable valve parts! Risk of injury by sudden valve operation.

- f. Detach lower clamp (6).
- g. Lift valve insert together with upper housing (2, 2.1) off the lower housing (1).

Attention:

- h. Valve design NC: shut off compressed air.
- i. CU version: Detach the control unit by turning the locking ring.

Valve position indicator:

Remove proximity switches. Detach indicator housing (proximity switch holder) from actuator.

Dismantling of wear parts (product-wetted parts)

a. Attention:

Valve design NC:

b. CU version:

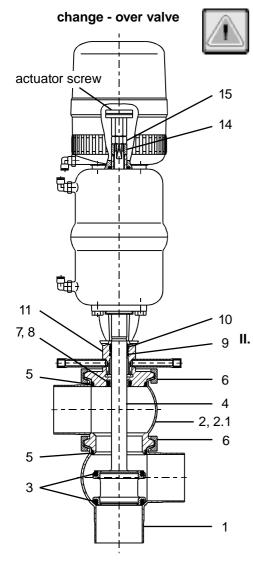
Unscrew actuator screw, at first. Screw off hexagon nut (15) by holding up the centering washer (14). Remove centering washer.

Control the actuator with air.

Valve position indicator:

Unscrew metallic actuator screw (19) by holding up the centering washer (14). Remove centering washer.

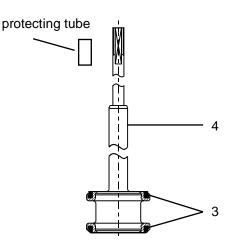
- c. Pull valve shaft (4) out of the actuator. Remove seat seal (3).
- **d.** Detach upper clamp **(6)** and upper housing **(2, 2.1)**. Remove the two housing seals **(5)**.
- e. Unscrew yoke (11) from actuator.
- f. Detach seat seal (7), shaft seal (8), O-ring (9) and guide bush (10).







valve position indicator 19 14 actuator screw 15 14 16 10 q 7, 8 6 5



10. Service Instructions

Change-over valves DELTA SW 43, SW 44. The item numbers refer to spare parts list RN 01.054.813 DN / 01.054.814 Inch.

Attention: Provide all seals with a thin layer of grease.

- a. At first, put the O-ring (9) and then the guide bush (10) into the yoke (11). Insert the shaft seal (8) and press in the seat seal (7). See to the right position of installation.
- b. Mount the yoke (11) at the actuator (16).
- c. Insert seat seal (3) into the shaft (4). Use the APV assembly tool to install the seat seal, see chapt. 13. Grease seat seal only slightly before its installation.
 If installed manually, vent the seal groove by means of a thin object between the seal and the groove wall.
- **d.** Slightly grease the housing seals **(5)** and install them in the grooves of the yoke flange and the upper housing **(2, 2.1)**.
- e. Slide the upper housing (2, 2.1) on the yoke (11). Fix the upper clamp (6).

Attention:

Valve design NC: control the valve with air.

- f. Slide the protecting tube over the thread of the guide rod until the tube stops at the first edge.Slide the shaft (4) through the yoke (11) and the actuator (16).
- g. Remove the protecting tube.

h. CU version:

5

Attach the centering washer (14). Screw on the hexagon nut (15) and fix it with a tightening torque of Md = 40 Nm. Hold up the centering washer during this process. CU:Tighten plastic actuator screw.

Valve position indicator:

Attach centering washer. Fix metallic actuator screw **(19)** as hexagon nut. Hold up the centering washer. Tightening torque **Md = 40 Nm**.

i. Attention: Valve design NO:

Shut off control air.



valve position indicator



10. Service Instructions

IV. Installation of valve

a. CU version:

Place the control unit **(18)** on the adapter and secure it with the ring.

Valve position indicator: Fix the indicator housing (20).

b. Valve design NC: control actuator with air.

Do not touch movable valve parts! Risk of injury by sudden valve operation.

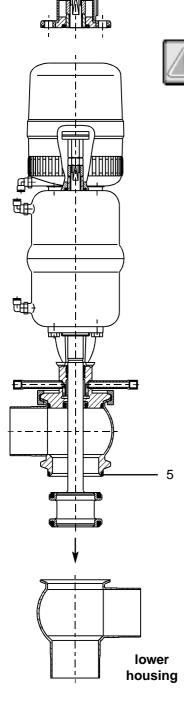
c. Place the valve insert carefully in the lower housing and tighten the lower clamp (6). Do not damage the housing seal (5) during the installation.

Valve design NC: Shut off compressed air.

d. Valve position indicator:

Plug in proximity switches and fix them.

- Readjust proximity switches if necessary.
- e. Check basic adjustment of valve position indicator.
- The shift points can be adjusted by turning the positioning screw in the control unit.
- f. Connect steam lines.







11. Maintenance of Actuator

- **a.** Remove the air hose from the actuator.
- **b.** Remove the inner hexagon screw from the adapter of the control unit.
- c. Unscrew the two seal screws (1) by holding up the actuator with a strap wrench. Remove O-rings (3) and V-seals (2).

Installation of seals and assembly of actuator

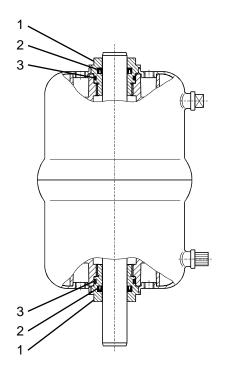
a. Install the greased O-rings (3) and the V-seal (2) in the seal screw (1).

See to the right installing direction of the V-seal.

- **b.** Slide the seal screws at both sides of the actuator over the piston rod and tighten them.
- c. Fasten the adapter for the control unit and the yoke on the actuator.
 - Attention:Observe the position of the adapter.Attention:Observe the required valve design NC
or NO during the assembly of the adapter

and of the yoke.

d. Attach the air hoses.







12. Reconstruction of Actuator

With SW4 valves the sizes of the actuator and the effective direction can be modified.

To increase and reduce the actuator sizes (\emptyset 74mm, \emptyset 110mm, \emptyset 165mm), observe the corresponding line pressures, see table page 7.

I. Change of actuator sizes

Disassembly

- **a.** The disassembly of single seat change-over valves is undertaken as described in the service instructions.
- b. To modify the actuator size, replace the guide rod (13) as follows:

Clamp the valve seat in a vice.

- Attention: Prevent damage to the seat (use protective covers or cleaning rags). The slightest damage at the shaft rod can produce leakages.
- c. Remove the guide rod from the shaft by means of the centering washer (14) and a wrench SW 17.

Assembly

- a. Install the corresponding guide rod at the actuator in the shaft. Tightening torque: 40 Nm.
- **b.** Further assembly as described.

II. Modification of effective direction

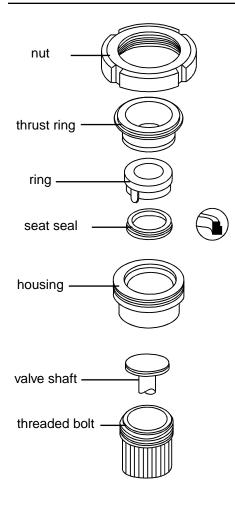
By turning the actuator by 180°, the design **NC or NO** can be modified.

- NC = normally closed / air-to-raise, spring-to-lower ("fail-down")
- NO = normally open / air-to-lower, spring-to-raise ("fail-up")





13. Assembly Tool



The assembly tool consists of:

- nut
- thrust ring
- ring with venting plug
- housing
- threaded bolt

Installation of seat seal in the valve shaft

- 1. Insert valve shaft in the housing in such a manner that the seal groove is in the valve housing.
- **2.** Fix the shaft in the housing by means of the threaded bolt. Clamp the housing into a vise.
- **3.** Lightly grease the seat seal with APV food-grade grease. Slide seal onto the ring with venting plug until it stops.
- **4.** Insert the ring with the seat seal into the housing and press it down until it stops.
- **5.** Insert the thrust ring into the housing. Screw on nut and tighten it by a hook spanner until it stops.
- 6. Release nut. Take ring and thrust ring out of the housing.
- **7.** Take housing out of the vice, release threaded bolts. Take the valve shaft out of the housing.

Check the right fit of the seat seal.

Assembly tool for seat seal SW4

DN	Tube	refNo.:
25	1"	000 51 - 13 - 110/17
40	1,5"	000 51 - 13 - 111/17
50	2"	000 51 - 13 - 112/17
65		000 51 - 13 - 113/17
	2,5"	000 51 - 13 - 120/17
	3"	000 51 - 13 - 121/17
80		000 51 - 13 - 114/17
100	4"	000 51 - 13 - 115/17





14. Trouble shooting

The item numbers refer to the spare parts drawings.

-	Valve leaks	:	Replace seat seal (3) . Check line pressure: safe line pressure, see chapt. 7.
-	Housing leaks around the clamp	:	Replace housing seal (5) .
-	Shaft passage in the yoke is untight	:	Replace shaft seal (7, 8) , O-ring (9) and guide bush (10) .
-	Product leakage at the steam outlet	:	Replace shaft seal (7, 8).
-	Air escapes from the actuator (see spare parts list RN: 01.054.86)	:	Dismantle actuator (16) from valve, replace V-seal (2) and O-ring (3) in the seal screw (1).
-	Actuator does not work, air escapes permanently from the venting plug		Replace actuator.
-	Valve feedback is missing or unprecise	:	Undertake fine adjustment according to service instructions of control unit.



15. Spare Parts Lists

(see annex)

BA SW4DPF 0002 ID-No.: H 2 0 6 8 1 7



Translation of original manual

rev. 0





Your local contact:

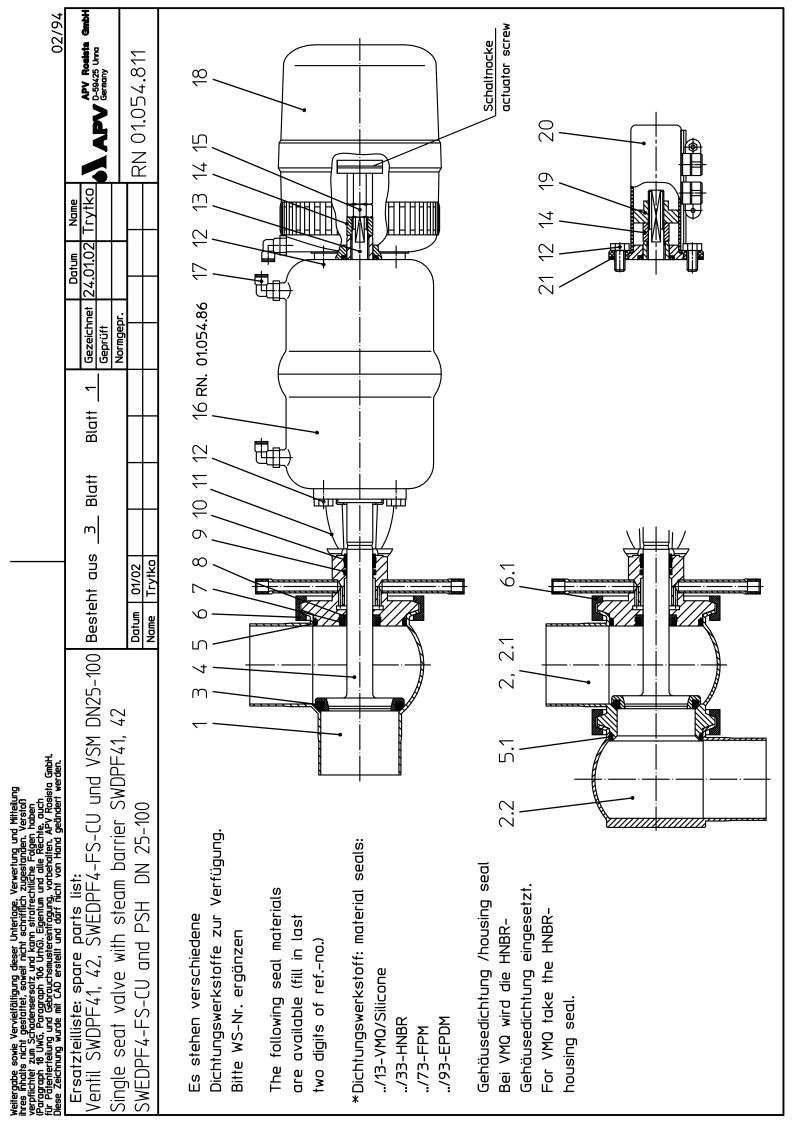


Phone: +49(0) 23 03/ 108-0 Fax: +49(0) 23 03 / 108-210

For more information about our worldwide locations, approvals, certifications, and local representatives, please visit www.apv.com.

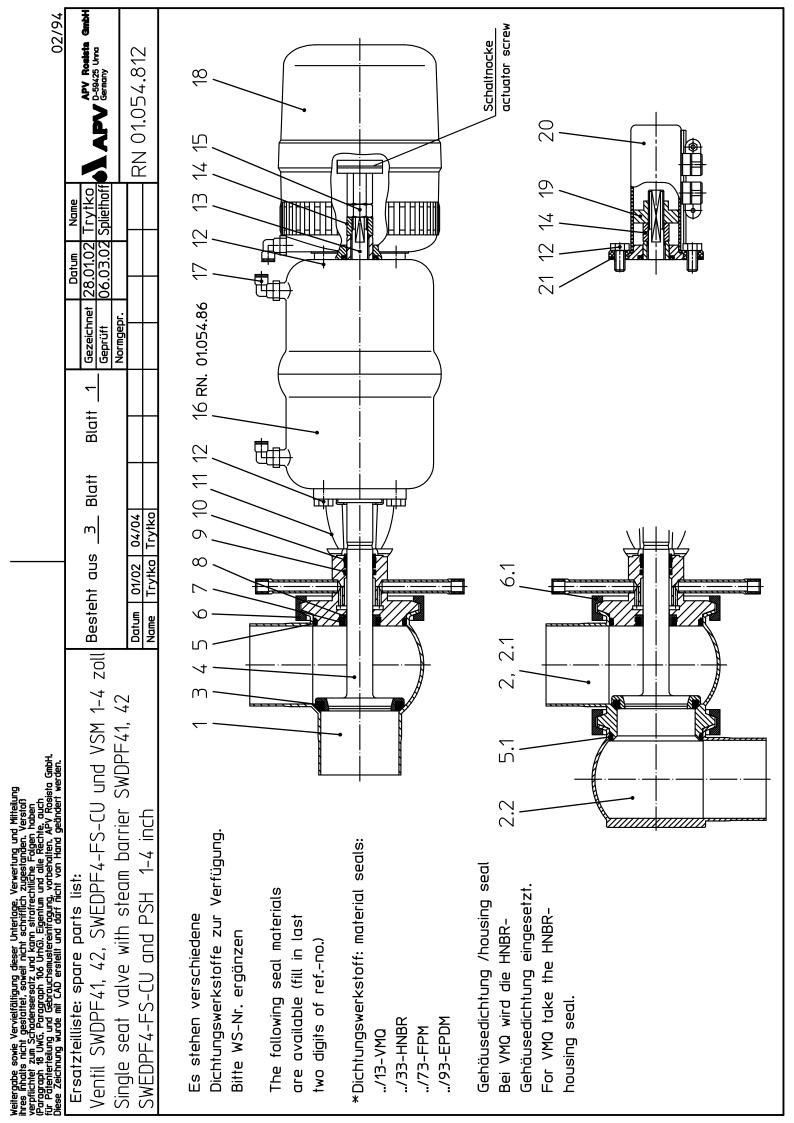
Copyright © 2008 SPX Corporation

The information contained in this document, including any specifications and other product details, are subject to change without notice. While we have taken care to ensure the information is accurate at the time of going to press, we assume no responsibility for errors or omissions nor for any damages resulting from the use of the information contained herein.



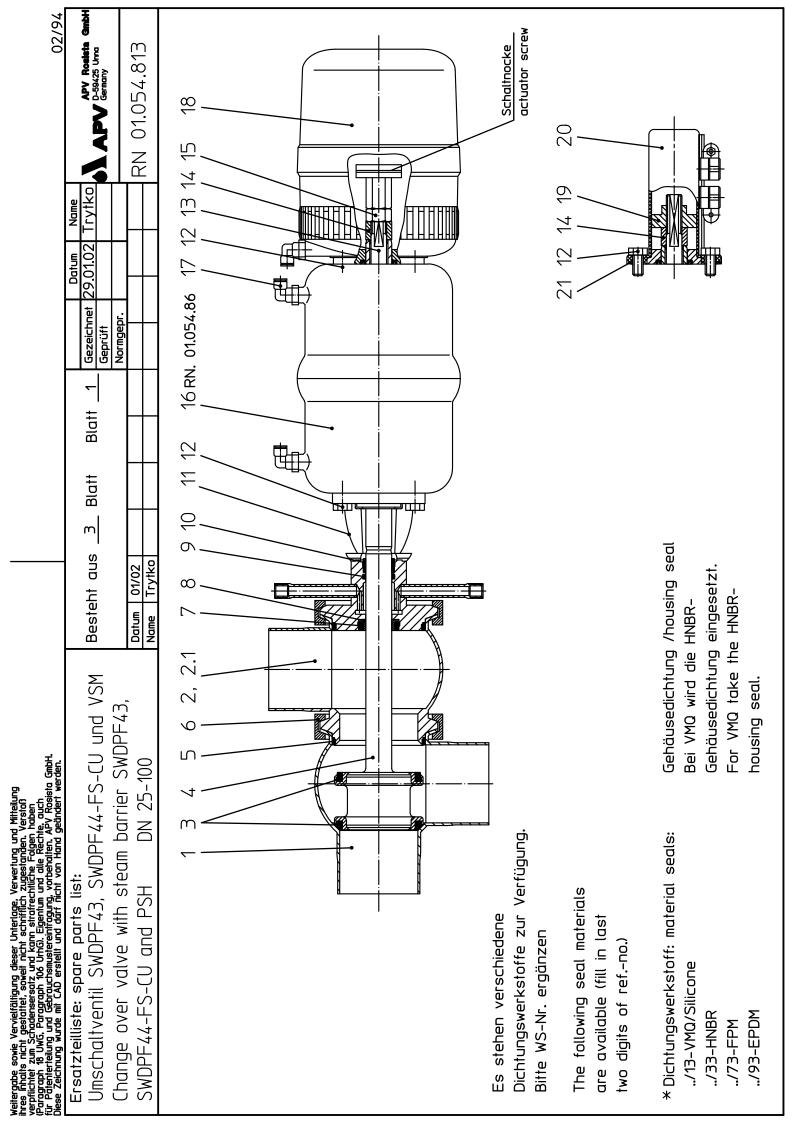
Weitergo ihres Inf verpflict für Pate Diese Za	Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mittellung Ihres finhalts nicht gestattet, soweit nicht schriftlich zugestanden. Verstoß verpflichtet zum Schadensets und kann straffrechtliche Folgen haben Paragraph 18 UWG, Paragraph 106 UrhG). Eigentum und alle Rechte, auch für Patientertellung und Gebrauchsmustereintirgapung, vorbehalten. APV Rosista GabH. Diese Zeichnung wirde mit CAD erstellt und därf nicht von Hand der Werden.	riage. Verwertung und Mitteilung riffilch zugestanden. Verstoß Inaffrechtliche Folgen haben entum und alle Rechte, auch soung, vorbehalten. APV Rosist	g a GmbH. Verden.							76/20
Ersat: Ventil Sinalo	Ersatzteilliste: spare part /entil SWDPF41, 42, SWI Sinalo coat valvo with s	parts list: SWEDPF4-FS-CU ur ith ctaam barriar SW	und VSM DN25-100 swide/1 /2		Blatt 2		Gezeichnet Geprüft Normaar	Datum Name 24.01.02 Trytko 06.03.02 Spliethoff		APV Rosista GmbH D-59425 Urna Germany
SWE	PPF4-FS-CU and F			Datum 01 Name Tr	01/02 11/02 04 Trytko Trytko Tr	04/04 08/06 08 Trytka Trytka Tr	08/07 08/07 Trytko		TRN 01.0	01.054.811
Pos	€ Aiitn	Benenninn	25	40	20	65 D	N 80	100	125	150
	Mer	iption	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.
٦	1 Gehäuse Housing	SW41	15-60-290/47	15-60-390/47	15-60-440/47	15-60-490/47	15-60-540/47	15-60-640/47		
	1 Gehäuse Housing	SW42	15-61-290/47	15-61-390/47	15-61-440/47	15-61-490/47	15-61-540/47	15-61-640/47		
	1 Gehäuse Housing	SWE43	15-66-280/47	15-66-380/47	15-66-430/47	15-66-480/47	15-66-530/47	15-66-630/47		
	1 Gehäuse Housing	SWE44	15-67-280/47	15-67-380/47	15-67-430/47	15-67-480/47	15-67-530/47	15-67-630/47		
2	1 Gehäuse Oberteil Housing upper part	irt SWE41	15-62-001/47	15-62-002/47	15-62-003/47	15-62-004/47	15-62-005/47	15-62-006/47		
2.1	1 Gehäuse Öberteil Housing upper part	irt SWE42	15-63-001/47	15-63-002/47	15-63-003/47	15-63-004/47	15-63-005/47	15-63-006/47		
2.2	1 1 Gehäuse Ünterteil Housing lower part	rt SWE41,42	15-60-100/47	15-60-101/47	15-60-102/47	15-60-103/47	15-60-104/47	15-60-105/47		
m	:htung al	*	58-33-293/	58-33-393/	58-33-443/	58-33-493/	58-33-543/	58-33-643/		
4	1 Ven. Schaft Valve shaft		15-25-281/42	15-25-381/42	15-25-431/42	15-25-481/42	15-25-531/42	15-25-631/42		
ம	1 Gehäusedichtung 1 Housing seal	SW41,42 SWE43,44	58-33-267/	58-33-292/	58-33-124/	58-33-442/	58-33-492/	58-33-127/		
5.1	2 Gehäusedichtung Pousing seal	SWE41,42 *	58-33-267/	58-33-292/	58-33-124/	58-33-442/	58-33-492/	58-33-127/		
9	1 Gelenkklemme Clamp	SW41,42 SWE43,44	42-40-287/17	42-40-387/17	42-40-437/17	42-40-487/17	42-40-537/17	42-40-637/17		
6.1	2 Gelenkklemme Clamp	SWE41,42	42-40-287/17	42-40-387/17	42-40-437/17	42-40-487/17	42-40-537/17	42-40-637/17		
7	1 Tellerdichtung Seat seal	*	58-33-293/	II	II	11	11	11		
8	1 Schaftdichtung Shaft seal		58-33-150/26	I	II	II	11	II		
6	1 0-Ring 0-ring	OR 20,2×3	58-06-078/64	II	II	II	11	II		
6	1 Führungsbuchse Bushing		08-01-178/23	II	II	11	11	11		
1			15-40-973/47	15-40-974/47	15-40-975/47	15-40-976/47	15-40-979/47	15-40-956/47		
12	8 Skt. Schraube 8 Hex. screw		DIN EN 24017-	24017-M8×16-A2-70			DIN EN 24017-	EN 24017-M8x20-A2-70		
ΰ	ω <u>υ</u>		15-23-850/12	11	15-23-851/12	II	15-23-852/12	11		

Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mittellung Ihres fihalts nicht gestattet, soweit nicht schrifflich zugestanden. Verstoß verpflichtet zum Schodensensatz und kann strafrechtliche Folgen haben (Paragraph 18 UWG, Paragraph 106 UrhG). Eigentum und alle Rechte, auch Dison Zichernen und Gebrauchsmussterlitengung, vorbendent. APV Rosista GmbH.	ung und Mitteilung anden. Verstol) Folgen haben e Rechte, auch alten, APV Rosist	a GmbH.							10/00
Ersatzteilliste: spare parts list:				_			Datum Name		02/24
SWDPF41, 42,	FS-CU ur	INDE/1 /3	-100	Blatt			24.01.02 Trytko 06.03.02 Spliethoff	APV	APV Roeista GmbH D-59425 Urna Germany
SWEDPF4-FS-CU and PSH DN2	DN25-100		Datum 0 Name 1	01/02 11/02 04 Trytko Trytko Tr	04/04 Trytko			RN 01.0	01.054.811
Atitr		25		50	65 65	N 80	100	125	150
Mer		WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.
14 1 Zentrierscheibe Centerina washer		15-28-940/12	11	II	II	11	11		
15 1 Skt. Mutfer Hex. nut		65-50-101/15	11	"	"	"	11		
16 1 Steuerkopf Actuator		15-32-050/17	11	15-32-051/17	11	15-32-052/17	11		
		08-60-750/93	II	"	11	II	11		
18 1 Control-Unit CU31 18 1 Control-Unit CU31	t Connect	16-31-232/93	11	II	11	11	11		
19 1 Schaltnocke Operating cam		08-52-290/97	08-52-291/97	=	11	11	11		
tellungsmeldung by switch holder	(VSM) SW4 (PSH) SW4	15-33-932/93	II	=	II	II	"		
21 1 0-Ring 0-ring		OR 66×2 NBR	70 Shore A						
- 3, 5, 5.1, 7, 8, 3 5 5.1 7 8	nur im k	<u> </u>		erhältlich alv					
01, % % / ,1.c ,c ,c ,liem 1	available	es complete	seal kits onl	ſ					
SWDPF41, SWDPF42, SWE	SWEDPF43, S	SWEDPF44							
1 Dichtungssatz Seal kit	FРМ	58-34-810/00	58-34-811/00	58-34-812/00	58-34-813/00	58-34-814/00	58-34-815/00		
1 Dichtungssatz	EPDM	58-34-810/01	58-34-811/01	58-34-812/01	58-34-813/01	58-34-814/01	58-34-815/01		
1 Dichtungssatz Seal kit	VMQ	58-34-810/02	58-34-811/02	58-34-812/02	58-34-813/02	58-34-814/02	58-34-815/02		
1 Dichtungssatz Seal kit	HNBR	58-34-810/06	58-34-811/06	58-34-812/06	58-34-813/06	58-34-814/06	58-34-815/06		
SWEDPF41, SWEDPF42									
1 Dichtungssatz Seal kit	FРМ	58-34-816/00	58-34-817/00	58-34-818/00	58-34-819/00	58-34-820/00 58-34-821/00	58-34-821/00		
1 Dichtungssatz Seal kit	EPDM	58-34-816/01	58-34-817/01	58-34-818/01	58-34-819/01	58-34-820/01 58-34-821/01	58-34-821/01		
1 Dichtungssatz Seal kit	VMQ	58-34-816/02	58-34-817/02	58-34-818/02 58-34-819/02	58-34-819/02	58-34-820/02 58-34-821/02	58-34-821/02		
1 Dichtungssatz Seal kit	HNBR	58-34-816/06	58-34-817/06	58-34-818/06	58-34-819/06	58-34-820/06 58-34-821/06	58-34-821/06		



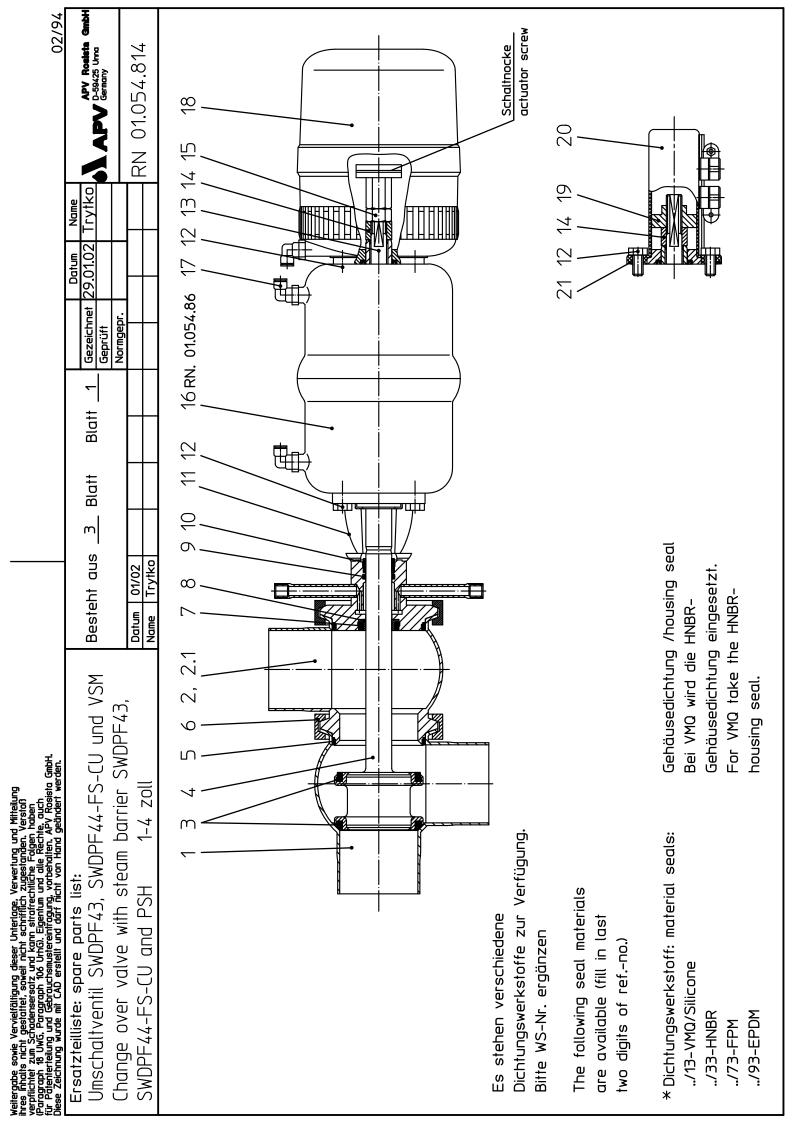
Weitergat Ihres Inhr verpflicht Paragrap für Paten Diese Zeir	Weitergabe sowie Vervielfättigung dieser Unterlage. Verwertung und Mitteilung Ihres Inhalts nicht gestattet, soweit nicht schriftlich zugestanden. Verstoß verpfüchtet zum Schadenserstz und kann stratfechtliche Folgen haben Paragraph 18 UWG, Paragraph 106 UrhG). Eigentum und alle Rechte, auch Diese Zeichnung und Gebrauchsmustereinfragung, vorbehletten. APV Rosista GmbH.	riage. Verwertung und Mitteilung nriffich zugestanden. Verstaß stratrechtliche Folgen hoben gentum und alle Rechte, auch riggung, vorbehalten. APV Rosist darit fircht von Hand, neinchert, sost	a GmbH. Aerden							76720
Ersatz Ventil Cinalo	Ersatzteilliste: spare parts list: Ventil SWDPF41, 42, SWEDPF	teilliste: spare parts list: SWDPF41, 42, SWEDPF4-FS-CU und VSM	VSM Z	zoll	Blatt 2		Gezeichnet Geprüft Normaan	Datum Name 28.01.02 Trytko 06.03.02 Spliethoff	A APV	APV Rosista GmbH P D-59425 Uma Germany
SWEDF	seul vulve will PF4-FS-CU and	PSH 1-4 inch	JWUFF41, 42,	Datum Name	01/02 11/02 0. Trytko Trytko Tr	04/04 08/06 08 Trytko Trytko Tr	08/07 08/07 Trytko		RN 01.05	54.812
		Benenninn	1	1,5"	2"	2,5"	"M	4 "		
	מחס	description	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.
٢	1 Gehäuse Housing	SW41	15-60-315/47	15-60-415/47	15-60-465/47	15-60-515/47	15-60-565/47	15-60-665/47		
	1 Gehäuse Housing	SW42	15-61-315/47	15-61-415/47	15-61-465/47	15-61-515/47	15-61-565/47	15-61-665/47		
	1 Gehäuse Housina	SWE43	15-66-305/47	15-66-405/47	15-66-455/47	15-66-505/47	15-66-555/47	15-66-655/47		
	a i	SWE44	15-67-305/47	15-67-405/47	15-67-455/47	15-67-505/47	15-67-555/47	15-67-655/47		
2	1 Gehäuse Oberteil Housing upper part	art SWE41	15-62-010/47	15-62-011/47	15-62-012/47	15-62-013/47	15-62-014/47	15-62-015/47		
2.1	1 Gehäuse Öberteil Housing upper part	art SWE42	15-63-010/47	15-63-011/47	15-63-012/47	15-63-013/47	15-63-014/47	15-63-015/47		
2.2	1 Gehäuse Unterfeil Housing lower part	l SWE41,42 rt	15-60-110/47	15-60-111/47	15-60-112/47	15-60-113/47	15-60-114/47	15-60-115/47		
m	1 Tellerdichtung Seat seal	*	58-33-293/	58-33-393/	58-33-443/	58-33-109/	58-33-568/	58-33-643/		
4	1 Ven. Schaft Valve shaft		15-25-311/42	15-25-406/42	15-25-456/42	15-25-506/42	15-25-556/42	15-25-656/42		
ம	1 Gehäusedichtung 1 Housing seal	SW41,42 SWE43,44	58-33-267/	58-33-292/	58-33-124/	58-33-125/	58-33-126/	58-33-127/		
5.1	2 Gehäusedichtung 2 Housing seal	SWE41,42 *	58-33-267/	58-33-292/	58-33-124/	58-33-125/	58-33-126/	58-33-127/		
9	1 Gelenkklemme 1 Clamp	SW41,42 SWE43,44	42-40-287/17	42-40-387/17	42-40-437/17	42-40-487/17	42-40-537/17	42-40-637/17		
6.1	2 Gelenkklemme Clamp	SWE41,42	42-40-287/17	42-40-387/17	42-40-437/17	42-40-487/17	42-40-537/17	42-40-637/17		
7	1 Tellerdichtung 2 Seat seal	*	58-33-293/	11	11	=	=	II		
8	1 Schaftdichtung 1 Shaft seal		58-33-150/26	11	II	11	11	II		
6	1 0-Ring 0-ring	OR 20,2×3	58-06-078/64	11	11	=	=	II		
6	1 Führungsbuchse Bushing		08-01-178/23	11	II	II	11	11		
1	1 Laternē Yoke		15-40-973/47	15-40-974/47	15-40-975/47	15-40-977/47	15-40-978/47	15-40-956/47		
12	8 Skt. Schraube Hex. screw		DIN EN 24017-	24017-M8x16-A2-70			DIN EN 24017-	24017-M8x20-A2-70		
ΰ	1 Zugstange Guide rod		15-23-850/12	II	15-23-851/12	II	15-23-852/12	II		

Weitergabe sowie Vervieifältigung dieser Unterlage, Verwertung und Mitteilung ihres finalits nicht gestattet, soweit nicht schnifflich zugestanden. Verstoß verpflichtet zum Schadensensatz und kann straffechtliche Falgen haben (Paragraph 18 UWG, Paragraph 106 UrhG). Eigentum und alle Rechte, auch Diese Zeichtenna wirchemistereitingung, vorbendher, APV Rossing GmbH.	g ta GmbH. Vertion							70700
Ersatzteilliste: spare parts list: Ventil SWDPF41, 42, SWEDPF4-FS-CU und VSM	VSM	zoll	Blatt 3			Datum Name 24.01.02 Trytko 06.03.02 Spliethoff	VAN Vo	APV Rosista GmbH D-59425 Urna Germany
SWEDPF4-FS-CU and PSH 1-4 inch	WUMM41, 42,	Datum 0 Name 1	01/02 11/02 04 Trvtko Trvtko Tr	04/04 Trytko	Normgepr.		RN 01.0	01.054.812
	~	1	2"	2,5*	, – –	- **		
guai	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.
14 1 Zentrierscheibe Centering washer	15-28-940/12	11	11	11	II	11		
15 1 Skt. Mutfer Hex. nut	65-50-101/15	II	11	II	II	"		
16 1 Steuerkopf Actuator	15-32-050/17	11	15-32-051/17	II	15-32-052/17	"		
17 2 W-Verschraubung Angular union	08-60-750/93	11	"	11	"	11		
18 1 Control-Unit CU31 18 1 Control-Unit CU31	16-31-232/93	11	11	11	II	11		
	08-52-290/97	08-52-291/97	11	11	II	11		
telli tv	15-33-932/93	II	11	II	"	"		
21 1 0-Ring 0-ring	OR 66x2 NBR	70 Shore A						
. 3, 5, 5.1, 7, 8, 9, 10 nur 3 E E 1 7 8 0 10 2021	Jdwc	(erhältlich div					
סומסווסאס טו' ,ע ,א ,ו.כ ,כ ,כ שסוו	es complete	seal kirs only	ſ					
NDPF42, SWEDPF43,	SWEDPF44							
1 Dichtungssatz FPM Seal kit	58-34-810/00	58-34-811/00	58-34-812/00	58-34-832/00	58-34-833/00	58-34-815/00		
1 Dichtungssatz EPDM EPDM	58-34-810/01	58-34-811/01	58-34-812/01	58-34-832/01	58-34-833/01	58-34-815/01		
1 Dichtungssatz vMQ	58-34-810/02	58-34-811/02	58-34-812/02	58-34-832/02	58-34-833/02	58-34-815/02		
1 Dichtungssatz HNBR Seal kit	58-34-810/06	58-34-811/06	58-34-812/06	58-34-832/06	58-34-832/06 58-34-833/06 58-34-815/06	58-34-815/06		
SWEDPF41, SWEDPF42								
1 Dichtungssatz FPM Seal kit	58-34-816/00	58-34-817/00	58-34-818/00	58-34-834/00	58-34-835/0058-34-821/00	58-34-821/00		
1 Dichtungssatz EPDM Seal kit	58-34-816/01	58-34-817/01	58-34-818/01	58-34-834/01	58-34-834/01 58-34-835/01 58-34-821/01	58-34-821/01		
1 Dichtungssatz vMO Seal kit	58-34-816/02	58-34-817/02	58-34-818/02	58-34-834/02	58-34-834/02 58-34-835/02 58-34-821/02	58-34-821/02		
1 Dichtungssatz HNBR Seal kit	58-34-816/06	58-34-817/06	58-34-818/06	58-34-834/06	58-34-834/06 58-34-835/06 58-34-821/06	58-34-821/06		



Weitergabe ihres Inhal verpflichtei (Paragraph für Patente	Weitergabe sowie Vervielfältigung dieser Unterlage. Verwertung und Mitteilung Ihres Ihnalis nicht gestaftet, soweit nicht schriftlich zugestanden. Versioß Prespflichtet zum Schadensatz und Kann straffechtliche Folgen haben (Paragraph 18 UWG, Paragraph 106 Urhla). Eigentum und alle Rechte, auch für Patenteilung und Gebrauchsmustereinfragung, vorbehalten. APV, Rosista GmbH.	ertung und Mitteilung estanden. Verstoß he Folgen haben alle Rechte, auch behalten. APV Rosisti	a GmbH.							
Ersa	Ersatzteilliste: spare parts list:									ABV Banda Guide
Ums	DPF43. e with	SWDPF44-F team harris	, SWDPF44-FS-CU und ' steam harrier SWDPF43	VSM	Blatt		Gezeichnet Geprüft Normaeor.	29.01.02 Irytko 06.03.02 Spliethoff	VAR	ALV NOURTE CIICA D-59425 Unva Germany
SWD	4-FS-CU and PS	DN25-100	-100	Datum Name	01/02 11/02 0. Trytko Trytko Tr	04/04 08/06 08 Trytko Trytko Try	08/07 08/07 Trytko		RN 01.0	01.054.813
ЭБс Ю С	Tity Benenning		25	40	50	65 D	N 80	100	125	150
item <u>R</u>	onb		WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.
~	1 Gehäuse Unterteil 1 Housing lower part	SW41	15-60-290/47	15-60-390/47	15-60-440/47	15-60-490/47	15-60-540/47	15-60-640/47		
5	1 Gehäuse Oberteil Housing upper part	SW43	15-62-001/47	15-62-002/47	15-62-003/47	15-62-004/47	15-62-005/47	15-62-006/47		
2.1	1 Gehäuse Öberteil Housing upper part	SW44	15-63-001/47	15-63-002/47	15-63-003/47	15-63-004/47	15-63-005/47	15-63-006/47		
m	•díchíúng seal	*	58-33-293/	58-33-393/	58-33-443/	58-33-493/	58-33-543/	58-33-643/		
7	1 Ven. Schaft Valve shaft		15-25-282/42	15-25-382/42	15-25-432/42	15-25-482/42	15-25-532/42	15-25-632/42		
ப	2 Gehäusedichtung 2 Housing seal	*	58-33-267/	58-33-292/	58-33-124/	58-33-442/	58-33-492/	58-33-127/		
9	2 Gelenkklemme Clamp		42-40-287/17	42-40-387/17	42-40-437/17	42-40-487/17	42-40-537/17	42-40-637/17		
·	1 Tellerdichtung 1 Seat seal	*	58-33-293/	I	II	II	II	II		
80	1 Schaftdichtung 1 Shaft seal		58-33-150/26	II	II	=	=	II		
6	1 0-Ring 0-ring	20,2x3	58-06-078/64	I	II	=	II	"		
6	1 Führungsbuchse Bushing		08-01-178/23	II	II	II	11	11		
11	1 Laternē Yoke		15-40-973/47	15-40-974/47	15-40-975/47	15-40-976/47	15-40-979/47	15-40-956/47		
12 8	8 Skt. Schraube Hex. screw		DIN EN 24017-	24017-M8x16-A2-70			DIN EN 24017-	24017-M8x20-A2-70		
Ű	1 Zugstange 1 Guide rod		15-23-850/12	II	15-23-851/12	II	15-23-852/12	II		
14	1 Zentrierscheibe Centering washer		15-28-940/12	"	11	=	=	=		
Ű	1 Skt. Mutfer 1 Hex. nut		65-50-101/15	II	II	II	II	11		
16	1 Steuerkopf Actuator		15-32-050/17	I	15-32-051/17	=	15-32-052/17	II		
17	ט בו		08-60-750/93	I	11	=	П	"		
18	CU31 CU31	Direct Connect	16-31-232/93	II	II	II	II	II		
6	1 Schaltnocke Operating cam		08-52-290/97 08-52-291/97	08-52-291/97	11	"	-	11		

Weitergabe sowie Vervieifältigung dieser Unterlage, Verwertung und Mitteiung ihres finhalts nicht gestattet, soweit nicht schnifflich zugestanden. Verstoß verpflichtet zum Schadensersatz und kann strafrechtliche Falgen haben für Palenterteilung und Gebrauchsmustereinfrogung, vorbehalten. APV Rosis GmbH. Diese Zeichnung wurde mit CAD erstellt und darf fiicht von Hand geändert werden.	g ta GmbH. werden.							02/94
illiste: spare parts list: Itventil SWDPF43, SWDP over valve with stoom	F44-FS-CU und V		Blatt <u>3</u>		Gezeichnet Geprüft Normaar	Datum Name 29.01.02 Trytko 36.03.02 Spliethoff	N,	APV Rosista GmbH D-59425 Urna Germany
	-100 -100	Datum Name	01/02 11/02 04 Trytko Trytko Tr	04/04 Trytko			RN 01.054.813	54.813
Posici Posici Benennund	25	40	50	65 D	N 80	100	125	150
Main description	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.
	15-33-932/93	I	=	11	II	=		
21 1 0-Ring 66-2 66-2	OR 66x2 NBR	70 Shore A						
Pos. 3, 5, 7, 8, 9, 10 nur im kompl Item 3, 5, 7, 8, 9, 10 available es	etten Dict complete	erhäl Inly	.tlich					
1 Dichtungssatz FPM Seal kit	58-34-822/00	58-34-823/00	58-34-824/00	58-34-825/00	58-34-826/00 58-34-827/00	58-34-827/00		
1 Dichtungssatz EPDM Seal kit	58-34-822/01	58-34-823/01	58-34-824/01	58-34-825/01	58-34-825/01 58-34-826/01 58-34-827/01	58-34-827/01		
1 Dichtungssatz VMQ	58-34-822/02	58-34-823/02	58-34-824/02	58-34-825/02	58-34-826/02	58-34-827/02		
1 Dichtungssatz HNBR	58-34-822/06	58-34-823/06	58-34-824/06	58-34-825/06	58-34-825/06 58-34-826/06 58-34-827/06	58-34-827/06		



Weitergab Ihres Inha verpflichte (Paragrap für Paten Diese Zeir	Weitergabe sowie Vervielfähtigung dieser Unterlage. Verwertung und Mitteilung ihres Inhalts nicht gestaftet, soweit nicht schriftlich zugestanden. Verstoß verpfilchtigt zum Schadenserstiz und kann straffechtliche Falgen haben Paragraph 18 UWG, Paragraph 106 UrhG). Eigentum und alle Rechte, auch These Zeichnung und Gebrauchsmeistreinfagung, vorbehalten. APV Rosista GabH.	Ververtung und Mitteilung Tugestanden. Verstoß chtliche Folgen haben i und alle Rechte, auch i, von Hand neindert st icht von Hand neindert st) a GmbH. Jerden							70/20
Ers(Ums	Ersatzteilliste: spare parts list: Umschaltventil SWDPF43, SWDPF44-FS-CU und VSM Channe over valve with steam harrier SWDPF/3	spare parts list: SWDPF43, SWDPF44-FS-CU und 1 valve with steam barrier SWDF73	FS-CU und	VSM	Blatt 2		Gezeichnet Geprüft Normaan	Datum Name 29.01.02 Trytko 06.03.02 Spliethoff	APV	APV Rosista CmbH P D-58425 Urna Gernany
SWE	4-FS-	PSH 1-4 Z	zoll	Datum Name	01/02 11/02 0. Trytko Trytko Ti	04/04 08/06 08 Trytko Trytko Tr	08/07 Democratication Trytko		RN 01.05,	154.814
				1,5"	2"	2,5"	'n	4"		
item <u>R</u>	و ما کر کر ک	no Lo	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.
~	1 Gehäuse Unterteil Housing lower part	SW41	15-60-315/47	15-60-415/47	15-60-465/47	15-60-515/47	15-60-565/47	15-60-665/47		
2	1 Gehäuse Oberteil Housing upper part	SW43	15-62-010/47	15-62-011/47	15-62-012/47	15-62-013/47	15-62-014/47	15-62-015/47		
2.1	1 Gehäuse Öberteil Housing upper part	SW44	15-63-010/47	15-63-011/47	15-63-012/47	15-63-013/47	15-63-014/47	15-63-015/47		
m	ק	*	58-33-293/	58-33-393/	/E77-EE-85	58-33-109/	58-33-568/	58-33-643/		
4	1 Ven. Schaft Valve shaft		15-25-307/42	15-25-407/42	15-25-457/42	15-25-507/42	15-25-557/42	15-25-657/42		
ம	2 Gehäusedichtung 2 Housing seal	*	58-33-267/	58-33-292/	58-33-124/	58-33-125/	58-33-126/	58-33-127/		
9	2 Gelenkklemme Clamp		42-40-287/17	42-40-387/17	42-40-437/17	42-40-487/17	42-40-537/17	42-40-637/17		
2	1 Tellerdichtung Seat seal	*	58-33-293/	II	=	=	=	"		
Ø	1 Schaftdichtung 1 Shaft seal		58-33-150/26	=	II	II	II	11		
6	1 0-Ring 0-ring	OR 20,2×3	58-06-078/64	=	=	=	=	"		
10	1 Führungsbuchse Bushing		08-01-178/23	II	=	=	=	"		
11	1 Laternē Yoke		15-40-973/47	15-40-974/47	15-40-975/47	15-40-977/47	15-40-978/47	15-40-956/47		
12	8 Skt. Schraube 1 Hex. screw		DIN EN 24017-	24017-M8x16-A2-70			DIN EN 24017-	24017-M8x20-A2-70		
Ű			15-23-850/12	II	15-23-851/12	=	15-23-852/12	II		
14	1 Zentrierscheibe Centering washer		15-28-940/12	II	II	II	II			
15	1 Skt. Mutter Hex. nut		65-50-101/15	I	=	=	=	"		
16	1 Steuerkopf Actuator		15-32-050/17	=	15-32-051/17	I	15-32-052/17	II		
17			08-60-750/93	=	=	II	I	"		
18	CU31 CU31	Direct Connect	16-31-232/93	II	II	11	11	11		
19	1 Schaltnocke Operating cam		08-52-290/97 08-52-291/97	08-52-291/97	11	11	11	11		

Weitergabe sowie Vervielfättigung dieser Unterlage, Verwertung und Mittellung Ihres Inhalts nicht gestattet, soweit nicht schrifflich zugestanden. Verstoß verpflichtet zum Schadensersatz und kann strafrechtliche Falgen haben für Patienterteilung und Gebrauchsmustereinfragung, vorbehalten. APV Rosista GmbH. Diese Zeichnung wurde mit CAD erstellt und daf nicht von Hand geändert werden.	g ta GmbH. werden.							02/94
Ersatzteilliste: spare parts list: Umschaltventil SWDPF43, SWDPF44-FS-CU und VSM Channe over valve with steam barrier SWDF/3	FS-CU und		Blatt 3		Gezeichnet Geprüft Normaan	Datum Name 29.01.02 Trytko 06.03.02Spliethoff		APV Rosista GmbH D=5825 Urna Gernany Gernany
100 14-FS	zoll	Datum Name	01/02 11/02 0/ Trytko Trytko T	04/04 Trytka			RN 01.0	01.054.814
Postity Driinnenea Driinnenea	-	1,5"	2"	2,5"	'n	4 "		
ق م ک ط description	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.
20 1 Ventilstellungsmeldung (VSM) SW4 Proximity switch holder (PSH) SW4	15-33-932/93	II	II	II	II	"		
21 1 0-Ring 66-2 66-2	OR 66x2 NBR	70 Shore A						
Pos. 3, 5, 7, 8, 9, 10 nur im kompl Item 3, 5, 7, 8, 9, 10 available es	nur im kompletten Dichtungssatz available es complete seal kits c	erhäl Inly	tlich					
1 Dichtungssatz FPM Seal kit	58-34-822/00 58-34-823/00		58-34-824/00	58-34-830/00	58-34-831/00	58-34-827/00		
1 Dichtungssatz EPDM Seal kit	58-34-822/01 58-34-823/01		58-34-824/01	58-34-830/01	58-34-831/01	58-34-827/01		
1 Dichtungssatz VMQ	58-34-822/02	28-34-823/02	58-34-824/02	58-34-830/02	58-34-831/02	58-34-827/02		
1 Dichtungssatz Seal kit	58-34-822/06	58-34-823/06	58-34-824/06	58-34-830/06	58-34-831/06	58-34-827/06		

Weiterga ihres Inh verpflich (Paragra für Pater Diece 7e	Weitergabe sowie Vervielfältigung dieser Unterlage. Verwertung und Mittellung ihres Ihnalts nicht gestattet, soweit nicht schriffilch zugestanden. Verstoß verpfülchtet zum Schadenserstz und kann strafrechtliche Fölgen haben (Paragraph 18 UWG, Paragraph 106 UrhG). Eigentum und alle Rechte, auch Diese Schchnuch auf Gebrauchsmustereihtiggung, vorbeholten. APV Rosista GmbH. Diese Scichnuch auf der An estatju und diet kicht von Hand nachden.					767.00
	Ersatzteilliste: spare parts list: Steuerkopf SW4	Bester	ht aus Blatt	Blatt	Datum 15.1.98 15.1.98	APV Rost D-59425 Ur Germany
	Actuator SW4	Datum Name	<u>1/98 12/03 01/06</u> Trytka Trytka	06/08 Trytka	Normgepr. 19.1.98 Plümper	Der RN 01.054.86
	S		3 3 7			
			4		‡	
			1.1			
					¢	
			√ m cv			
	<u>K111</u>	074	ø110	ø165		
ros. item 2	Menennung description	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.		
	Steuerkopf kpl Feder/Luft Actuator complete spring/air	15-32-050/17	15-32-051/17	15-32-052/17		
. <u> </u>	ete	15-32-085/17	15-32-086/17	15-32-087/17		
7 7	Feder/Luft Ausf. 3A-blank spring/air design 3A-bright fin.	3A0 15-32-059/13	3A0 15-32-060/13	3A0 15-32-061/13		
-	Ausf. 3A-blank design 3A-bright fin.	3A0 15-32-057/13	3A0 15-32-065/13	3A0 15-32-066/13		
2	2 Dichtungsschraube Seal screw	15-28-840/93	Π	II		
m	2 V-Dichtung 20x28x4 20x28x4	58-32-010/83	II	II		
4	2 0-Ring 29-2,5	58-06-124/83	11	11		