

Operating Manual

DELTA DET3

Double Seat - Tank Outlet Valve



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 valves of the series SV1 and SVS 1 F
in the nominal diameters DN 25 - 100, DN 125 - 250 and 1" - 4"

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



Manager Research and Development

Contents :	Page :
1. General Terms	2
2. Safety Instructions	2
3. Mode of Operation	3 - 4
4. Auxiliary Equipment	4
5. Cleaning	5 - 6
6. Installation	7
6.1 Welding Instructions	7
7. Dimensions / Weights	8
8. Technical Data	9
9. Materials	10
10. Maintenance	10
11. Service Instructions	11 - 13
12. Service Instructions for the Installation of Seat Seals	14
13. Detection of Seal Damage	15
14. Spare Parts Lists	
DET 3 - DN - RN - 01.053.74.1	
DET 3 - inch - RN - 01.053.74.2	

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.

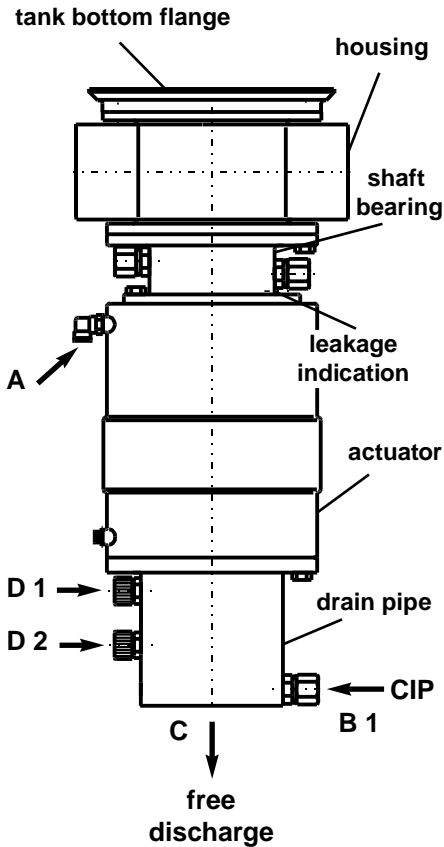
2. Safety Instructions



DANGER!

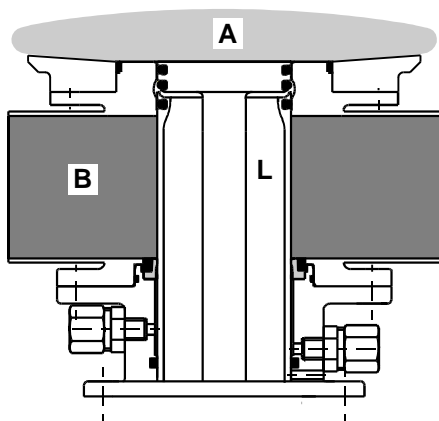
- The tank as well as the line and cleaning system must be depressurized and discharged before any maintenance of the valve.
- Observe service instructions to ensure safe maintenance of the valve.
- Connections which are not used are to be sealed by a plug.
- A safe discharge of the cleaning liquids must be ensured.
- The spring actuator is under spring load, do not open it.

3. Mode of Operation



Due to its construction and mode of operation as well as to the use of high quality stainless steel and adequate seal materials, the double seat tank outlet valve DELTA DET3 is suited for applications in the food and beverage industries as well as in the chemical and pharmaceutical industries.

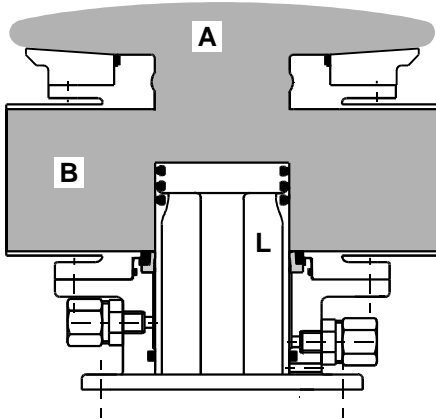
- The valve opens from the top to the bottom in low leakage operation (unpressurized drain of fluid residues via the annular gaps in the seat area).
- Separation of tank and pipeline by two independent valve slides with intervening cleanable leakage chamber.
- Cleaning of the leakage chamber via cleaning connection **B1**.
- Any leakages at the seat seals are discharged at **C** in depressurized state.
- As valve position indicator, proximity switches can be installed.
D1 = valve position "closed"
D2 = valve position "open"
- Operation by pneumatic actuator with air connection at **A**. Reset by spring force into the safety limit position "closed".
- Maintenance-free actuator.



Valve in "closed" position

The lower and upper valve shafts are closed by spring force and safely separate the different fluids **A** and **B**. The leakage chamber **L** which is situated between the two valve seats, provides for a free and absolutely depressurized discharge to the bottom. The lower valve shaft is balanced and, thus, safe against pressure hammers.

3. Mode of Operation



Valve in "open" position.

During the opening process the leakage chamber L is closed against the product chamber and pipeline B and tank A are connected. In open state the valve shafts are also balanced and, thus, safe against pressure hammers.

4. Auxiliary Equipment

- Valve position indication

Switches to signal the limit position of the valve shafts can be installed at the drain pipe.

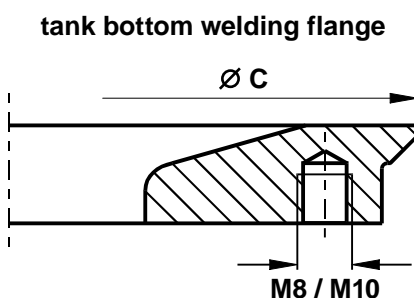
We recommend our APV standard types:
operating distance: 5 mm / diameter: 11 mm.

If the user decides to apply valve position indicators other than APV type, we cannot take over the liability for any malfunctions resulting therefrom.

The tank bottom flange for the DET3 valve does not form part of the scope of supply.

The tank bottom flange can be ordered under the following reference number:

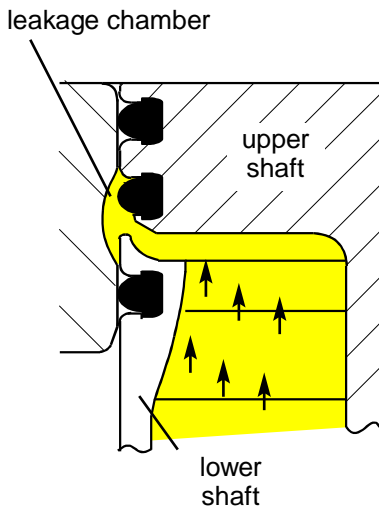
DN / inch	ref.-No.
40 - 65 / 1,5" - 3"	31B 15 - 01 - 566/42
80, 100 / 4"	31B 15 - 01 - 641/42



DN / inch	Ø C
40 - 65 / 1,5" - 3"	182
80, 100 / 4"	223

5. Cleaning

view X



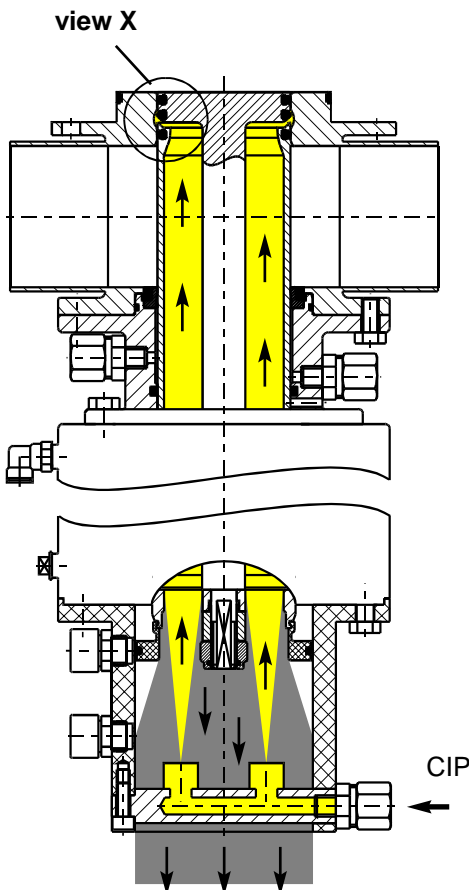
With the cleaning of the DELTA DET3 valve, it is necessary to distinguish between three areas:

- **The flow area**
The lower valve passage is cleaned by the flowing cleaning liquid during the cleaning of the connected pipelines.
- **The leakage chamber**
The cleaning of the leakage chamber is done by CIP spraying. The restraint flow of the cleaning liquid provides for perfect cleaning of the whole leakage chamber.

Under normal conditions **15 valves DN 40/1,5" - 100/4"** can be cleaned via one **spray distribution line DN 25**.

Recommendation of cleaning intervals under normal operating conditions and with common CIP liquids.

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

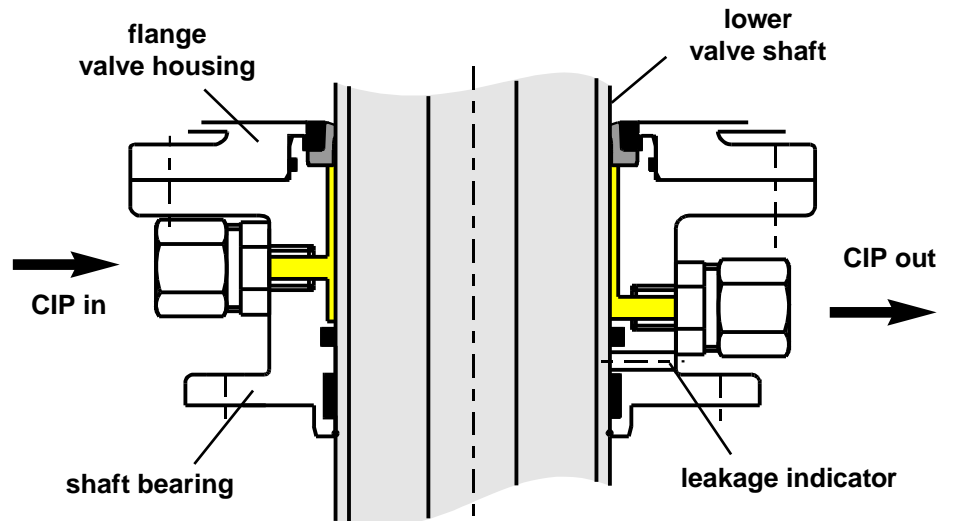


- Depending on the pressure ratio, cleaning temperatures and degree of soiling, times must be adjusted to suit.
- Flushing quantities per CIP spraying cycle : **about 2 ltr. / 10s**
- Cleaning pressure at CIP cleaning connection : **min. 2 bar max. 5 bar.**

5. Cleaning

- **The shaft surfaces outside the flow passages**
The DET3 valve provides for the areas of the lower shaft stem to be flushed.

Shaft flushing is recommended with sensitive products to improve product safety and service life of seals.



To flush and sterilize the shaft surfaces, the following cleaning liquids are suitable:

- hot water
(slightly sour to avoid lime residues): **max. 85 °C**
- common CIP liquids: **max. 80 °C**
- supply pressure at CIP cleaning connection: **min. 2 bar**
max. 5 bar
- cleaning quantity per CIP cycle: **about 1,2 ltr. / 10 s**
- cleaning period: **30 s**
- interval: **1 x /day**
(e.g. with milk)
- depending on product and operating frequency: **1 x / week**
(e.g. with beer)
- saturated steam in common sterilization times: **max. 130 °C**

! **Free discharge of the cleaning liquids and of steam must be ensured. Shaft flushing may only be carried out if product is not present in that part of the housing.**

6. Installation

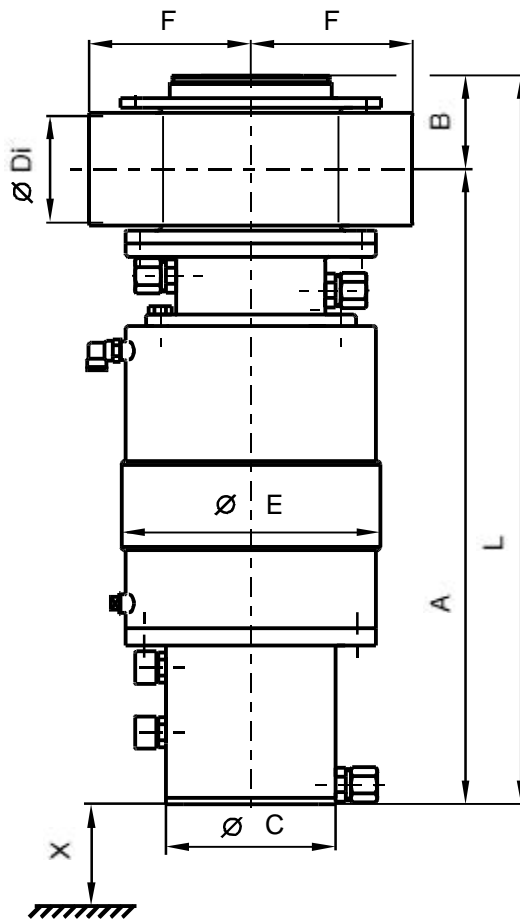
- The valve must be installed in vertical position. Fluids are, therefore, freely drainable from the valve housing and the leakage chamber.
- Valve housings cannot be welded direct into the pipeline. At the side ports of the valve housing separate connections (flanges or unions) must be provided.
- **Attention:** Observe welding instructions.

6.1 Welding Instructions

DET3

- **Tank bottom flange:**
Separate the tank bottom flange from the valve housing. Observe the hole position (position of housing ports) during welding.
- **Valve housing:**
Remove the housing seal from the valve housing. Before welding of the valve housing in the pipeline, the complete valve insert must be dismantled from the housing. Careful handling to avoid damage to the parts is necessary. Separate connections (flanges, etc.) must be considered for the continuing pipe system.
- 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 in butt manner as a square butt joint without air. (Consider shrinkage!)
- TIG orbital welding is best.
- After welding of the valve housing or of the mating flanges and after work at the pipelines and before valve operation, the corresponding parts of the installation or pipelines must be cleaned from welding residues and soiling to avoid damage to the valves and seals. 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 nonobservance of these welding instructions is not subject to our guarantee.

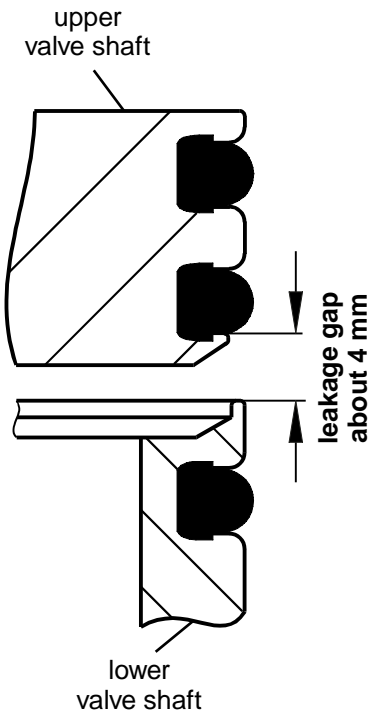
7. Dimensions / Weights



dimensions in mm

DN	A	B	$\varnothing C$	$\varnothing Di$	$\varnothing E$	F	L	inst. dimensions in mm	weights in kg
40	379	44	105	38	160	100	423	X	17
50	385	50	105	50	160	100	435	100	18
65	393	58	105	66	160	100	451	100	19
80	439,5	67,5	124	81	230	120	507	150	38
100	449	77	124	100	230	120	526	150	39
inch									
1,5"	377,5	45,5	105	34,9	160	100	423	100	17
2"	383,9	51,1	105	47,6	160	100	435	100	18
2,5"	390,0	55,0	105	60,3	160	100	445	100	19
3"	395,9	61,1	105	72,9	160	100	457	100	20
4"	447,8	78,2	124	97,6	230	120	526	150	39

8. Technical Data



max. tank pressure :	5 bar
max. line pressure :	10 bar
max. operating temperature :	135 °C EPDM, HNBR *FPM
short-term load :	140 °C EPDM, HNBR, *FPM
	*no steam
tightening torque of safety nut at upper valve shaft :	40 Nm
leakage gap between the upper and lower valve shaft : (check after safety nut is screwed in)	about 4 mm
cleaning connection (for hose) :	8 x 1 mm
air connection (for hose) :	6 x 1 mm
max. pneumatic air pressure :	10 bar
min. pneumatic air pressure :	6 bar

(Use dry and clean air only.)

DN	kvs - values in m ³ / h			stroke in mm		air consumption actuator in NL / stroke	closing times in sec. hose length	
	filling	emptying		lower shaft	upper shaft		1m	10m
40			46	36	40	3	4	5
50			95	41	45	3,4	4	5
65			148	41	45	3,4	4	5
80								
100								
inch								
1,5"			40	36	40	3	4	5
2"			73	41	45	3,4	4	5
2,5"			122	41	45	3,4	4	5
3"			160	41	45	3,4	4	5
4"								

9. Materials

product-wetted parts	:	1.4571, 1.4404
actuator	:	1.4301
seals		
standard	:	EPDM/PTFE
option	:	HNBR/PTFE FPM/PTFE
cleaning connection	:	PP

10. Maintenance

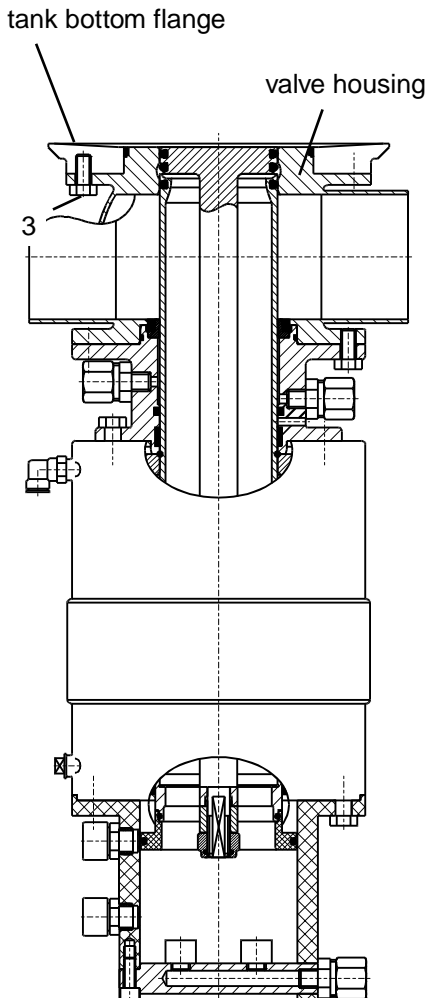
- The maintenance intervals are different depending on the application and should be determined by the user carrying out temporary checks.
- For the dismantling of the valve, compressed air is not required.
- Required tools:
 - 1 x wrench SW13
 - 1 x wrench SW14
 - 1 x wrench SW17
 - 1 x wrench SW19
- Change of seals according to service instructions.
Use seal kits according to spare parts list.
- Assembly of the valve according to service instructions.
- **Provide all seals with a thin layer of grease before their installation.**

Recommendation:

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

Use only those greases being suited for the respective seal material.

11. Service Instructions



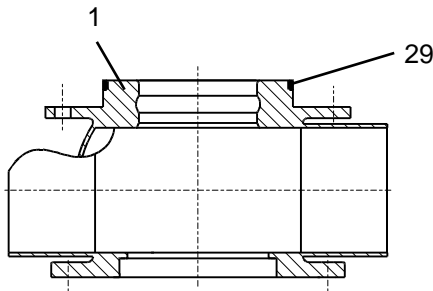
The item numbers refer to the spare parts drawings
DN: RN 01.053.74.1 / Inch: 01.053.74.2

11.1 Dismantling from the line system

- a. Shut off tank and line pressure in the product and cleaning line and discharge lines.
- b. Remove pneumatic air line and flushing connections.
- c. Release nut of proximity switch holders and pull off proximity switch.
- d. Release separate connections at the side ports of the valve housing. Remove flange screws **(3)** at the tank bottom flange.
- e. Screw one flange screw in the threaded bore of the housing flange, thus lightly lifting the complete valve from the tank bottom flange.
- f. Pull the complete valve carefully out of the tank bottom flange.

11. Service Instructions

11.2 Dismantling of the product-wetted seals (service)



a. Release the hex. screws from the housing flange. Screw one flange screw into the threaded bore of the shaft bearing, thus lightly lifting the valve housing. Lift the valve housing carefully over the valve shafts.

b. Remove the housing seal (29) from the groove of the valve housing (1).

c. Dismantle drain pipe (13) from actuator (11).

d. Remove signal ring (14).

e. Release safety nut (20) by holding up the centering washer (22) with a wrench SW 17. Remove safety nut and centering washer.

f. Lift off upper shaft (2) to the top.

g. Remove the two seat seals (28) from the groove of the upper valve shaft (2).

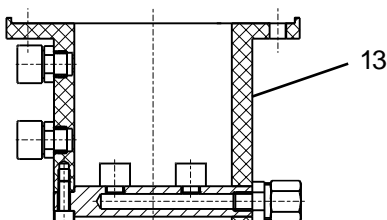
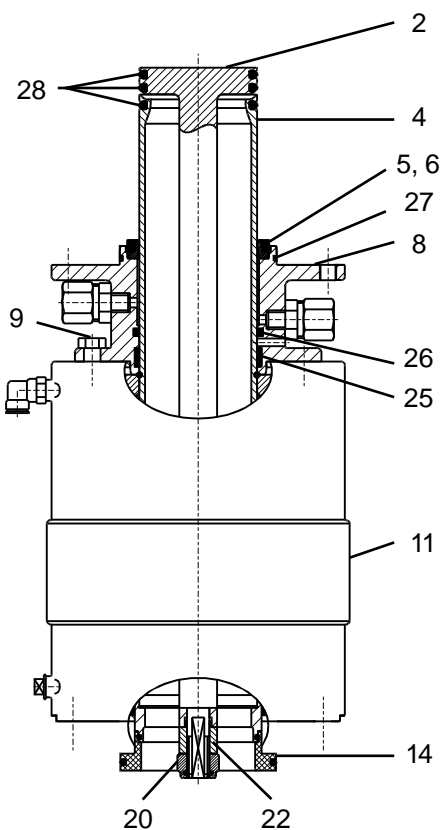
h. Remove hex. screws (9) crosswise from the shaft bearing (8). Releasing the hex. screws, the welded central spring in the actuator is relieved.

i. Pull the lower valve shaft (4) with shaft bearing (8) out of the actuator (11).

j. Remove seat seal (28) from the groove of the lower valve shaft (4).

k. Slide the shaft bearing (8) with shaft seal (5, 6) over the lower valve shaft.

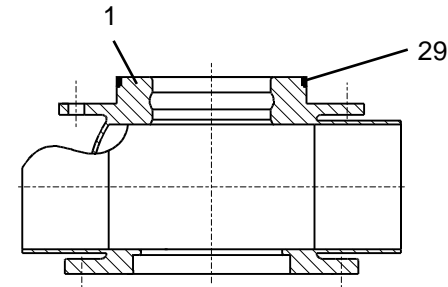
l. Remove quadding (26), guide bush (25) and O-ring (27) from shaft bearing.



11. Service Instructions

11.3 Installation of product-wetted seals and assembly of the valve DELTA DET3

Attention: See to all seals and bearing surfaces in the product area being slightly greased before their installation.



a. Install housing seal (29) in the groove.

b. Insert quadring (26), guide bush (25) and O-ring (27) in the appropriate groove of the shaft bearing.

c. Slide the shaft bearing over the lower valve shaft until it stops at the retainer ring.

d. Installation of shaft seal (5, 6).

At first, place the PTFE ring (6) in the open groove of the shaft bearing (8). Then press in the elastomer ring (5) with the wide side to the front into the groove.

e. Then install the seat seals (28) in the upper and lower valve shaft. Observe service instructions (see 12) for this process.

f. Insert the shaft bearing (8) with the lower valve shaft (4) in the actuator and fix them. Tighten the 4 hex. screws crosswise.

g. Introduce the upper valve shaft through the lower valve shaft.

Attention: Place centering washer (22).
Screw on safety nut (20) and fix it with a **tightening torque $M_d = 40 \text{ Nm}$** .
Hold up the centering washer during this process.
Check leakage gap of **about 4 mm** !

h. Place signal ring (14).

i. Fix drain pipe (13).

j. Slide the valve housing (1) over the valve shaft on the shaft bearing.

k. Insert screws (3) and tighten them crosswise.

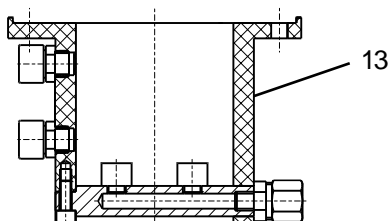
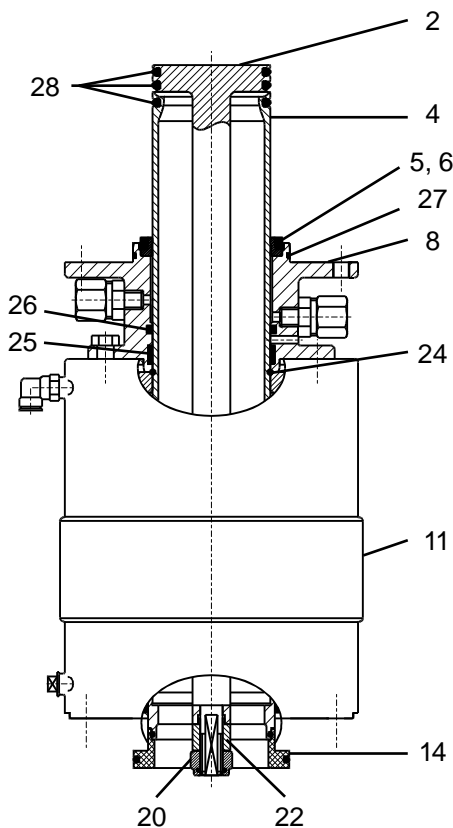
l. Insert the valve in the tank bottom flange and tighten it.

m. Fasten the lateral separate connections.

n. Installation of valve position indicators.

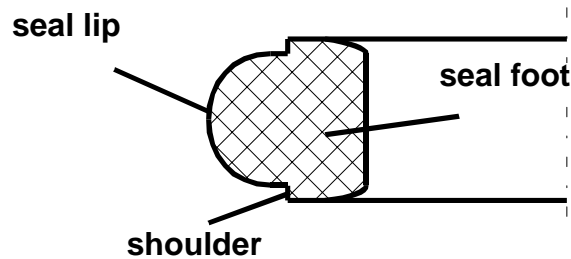
Release nut and push proximity switch in the sleeve until it stops and tighten it with the nut.

o. Install pneumatic air and cleaning lines.

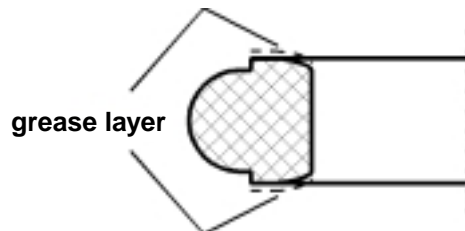


12. Service Instructions for the Installation of Seat Seals

seal profile



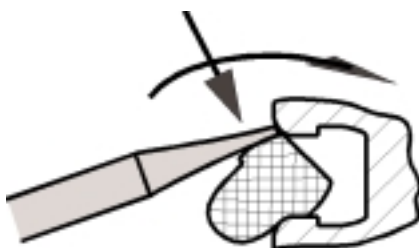
1. Provide the seal shoulder with a thin layer of grease.



2. Insert the seal into the valve shaft; see to an even inclined position of the seal.



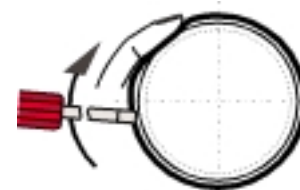
3. Press the seal circumferentially into the groove by means of an assembly tool (use screw driver with round edges). Place the assembly tool at the upper seal shoulder. To get an even fit of the seal, proceed step by step:



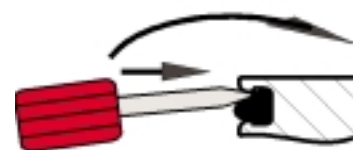
- 3.1 Press a short piece of the seal into the groove.



- 3.2 Fix the seal - already pressed in - by your finger (to prevent loops). Use the assembly tool to press a short part of the seal into finger direction. Install the seal in the whole groove circumferences.



4. Press the assembly tool between the seal shoulder and the groove edge (both sides). Proceed around the whole circumferences. Then proceed around the whole circumferences of the lower seal shoulder. This is to vent the seal groove and to lock the seal shoulder.



13. Detection of Seal Damage

Seals are replaced according to the instructions given in 11.

Valve closed

* ***pressure in tank***

- ***leakage at the housing flange***
⇒ housing seal **(29)** is damaged.
- ***leakage from the leakage chamber of the lower shaft***
⇒ upper seat seal **(28)** is damaged.

* ***pressure in the housing***

- ***leakage from the leakage chamber of the lower shaft***
⇒ lower seat seal **(28)** is damaged.
- ***leakage at the leakage indicator***
⇒ shaft seal **(5, 6)** is damaged.

Valve open

- ***leakage from the leakage chamber of the lower shaft***
⇒ middle seat seal **(28)** is damaged.

14. Spare Parts Lists

(see annex)

BA DET3 000002
ID-No.: H 2 0 6 9 6 2
Translation of original manual



rev. 0



Your local contact:



APV
Zeichenstraße 49
D-59425 Unna

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.



Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts ist gestattet, soweit nicht schriftlich zugestanden, Verstoß verpflichtet zum Schadensersatz und kann strafrechtliche Folgen haben (Paragraf 18 UWG, Paragraf 106 UWG). Eigentum und alle Rechte, auch für Patenterteilung und Gebrauchsmustererteilung, vorbehalten. APV Rosista GmbH. Diese Zeichnung wurde mit CAD erstellt und darf nicht von Hand geändert werden.

Ersatzteilliste: spare parts list:

Doppelsitzventil DET3 Tankauslauf DN40-100

Double seat valve DET3 tank outlet DN40-100

Blatt 2

Gezeichnet	18.01.02	Trytko	Name	
Geprüft	23.05.02	Splithoff	Datum	
Normgepr.				

RN 01.053.74.1

APV Rosista GmbH
D-58425 Urra
Germany

Pos. item	Benennung description	DN				WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
		25	40	50	65					
1	Gehäuse Housing DET32 1+2S		16-67-390/47	16-67-440/47	16-67-490/47	16-67-540/47	16-67-640/47			
2	Schaft oben Upper valve shaft		16-21-363/44	16-21-433/44	16-21-483/44	16-21-533/44	16-21-633/44			
3	Skt. Schraube Hex. screw		DIN EN 24017-8xM8x16-A2-70							
4	Schaft unten Lower valve shaft		16-21-384/42	16-21-434/42	16-21-484/42	16-21-534/42	16-21-634/42			
5	Tellerdichtung Seat seal	*	58-33-493/	=	=	58-33-643/	=			
6	Schaftdichtung Shaft seal		58-33-016/23	=	=	58-33-017/23	=			
7	G.Verschraubung Straight union	G1/8 8x1		=	=	=	=			
8	Schaftlager Shaft bearing		16-24-260/42	=	=	16-24-261/42	=			
9	Skt. Schraube Hex. screw		DIN EN 24017-8xM8x14-A2-70							
10	Winkelverschraubung Angular union	G1/8 6x1	08-60-750/93	=	=	=	=			
11	Antrieb Actuator		16-30-830/17	16-30-831/17	=	16-30-832/17	=			
12	Entlüftungsstopfen Venting plug	G1/8	08-60-005/93	=	=	=	=			
13	Ablaufrohr Drain pipe		16-38-065/93	=	=	16-38-066/93	=			
14	Signalring DET Signal ring DET		16-02-045/93	=	=	16-02-046/93	=			
15	Verschlußkappe Cap	ø11,1-5	08-05-066/93	=	=	=	=			
16	Initiatorhalterung Proximity switch holder		15-33-918/93	=	=	=	=			
17	Spritzrohr Cip connection tube		16-03-007/12	=	=	16-03-008/12	=			
18	Zyl. Schraube Cyl. screw		DIN EN ISO 4762-M6x16-A2-70							
19	Volstrahldüse Full jet nozzle		09-40-055/15	=	=	=	=			
20	Skt. Mutter Selbstsichernd Hex. nut self-securing	M12	65-50-105/15	=	=	=	=			

Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht schriftlich zugestanden. Verstöß verpflichtet zum Schadensersatz und kann strafrechtliche Folgen haben (Paragraf 18 UWG, Paragraf 106 Urtg.). Eigentum und alle Rechte, auch für Patenterteilung und Gebrauchsmustereintragung, vorbehalten. APV Rosista GmbH. Diese Zeichnung wurde mit CAD erstellt und darf nicht von Hand geändert werden.

Ersatzteilliste: spare parts list:

Doppelsitzventil DET3 Tankauslauf DN40-100

Double seat valve DET3 tank outlet DN40-100

Blatt 3

Gezeichnet	18.01.02	Trytko
Geprüft	23.05.02	Spliethoff
Normgepr.		
Datum	01/02	03/03
Name	Trytko	Trytko

RN 01.053.74.1



APV Rosista GmbH
D-58425 Urra
Germany

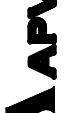
Pos. / Item	Benennung / description	25	40	50	65	80	100	125	150
		WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
21	Signalring Signal ring		16-02-020/17	=	=	16-02-022/17	=		
22	Zentrierscheibe Centering washer		15-28-940/12	=	=	=	=		
23	O-Ring O-ring		OR 51x2,5 EPDM 70 Shore A			OR 82,2x2,62 EPDM 70 Shore A			
24	Sprengring Retainer ring		08-39-213/13	=	=	08-39-214/13	=		
25	Führungsband Guide ring		08-39-290/93	=	=	08-39-291/93	=		
26	Quadrang Quadrang		58-01-329/64	=	=	58-01-238/64	=		
27	O-Ring O-ring		74x2 58-06-332/73	=	=	105x2 58-06-503/73	=		
28	Sitzdichtung Seat seal	*	58-33-132/	=	=	58-33-133/	=		
29	Gehäusedichtung Housing seal	*	58-33-492/	=	=	58-33-642/	=		
30	Skt. Schraube Hex. screw					DIN EN 24017-M8x14-A2-70			
31	Skt. Schraube Hex. screw					DIN EN 24017-M10x16-A2-70			

Pos. 5, 6, 25, 26, 27, 28, 29 nur im kompletten Dichtungssatz erhältlich
Pos. 5, 6, 25, 26, 27, 28, 29 available es complete seal kits only

1	Dichtungssatz Seal kit		58-34-675/00	=	=	58-34-676/00	=		
1	Dichtungssatz Seal kit		58-34-675/01	=	=	58-34-676/01	=		
1	Dichtungssatz Seal kit		58-34-675/06	=	=	58-34-676/06	=		

Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts ist gestattet, soweit nicht schriftlich zugestanden, Verstoß verpflichtet zum Schadensersatz und kann strafrechtliche Folgen haben (Paragraf 18 UWG, Paragraf 106 UWG). Eigentum und alle Rechte, auch für Patenterteilung und Gebrauchsmustererteilung, vorbehalten. APV Rosista GmbH. Diese Zeichnung wurde mit CAD erstellt und darf nicht von Hand geändert werden.

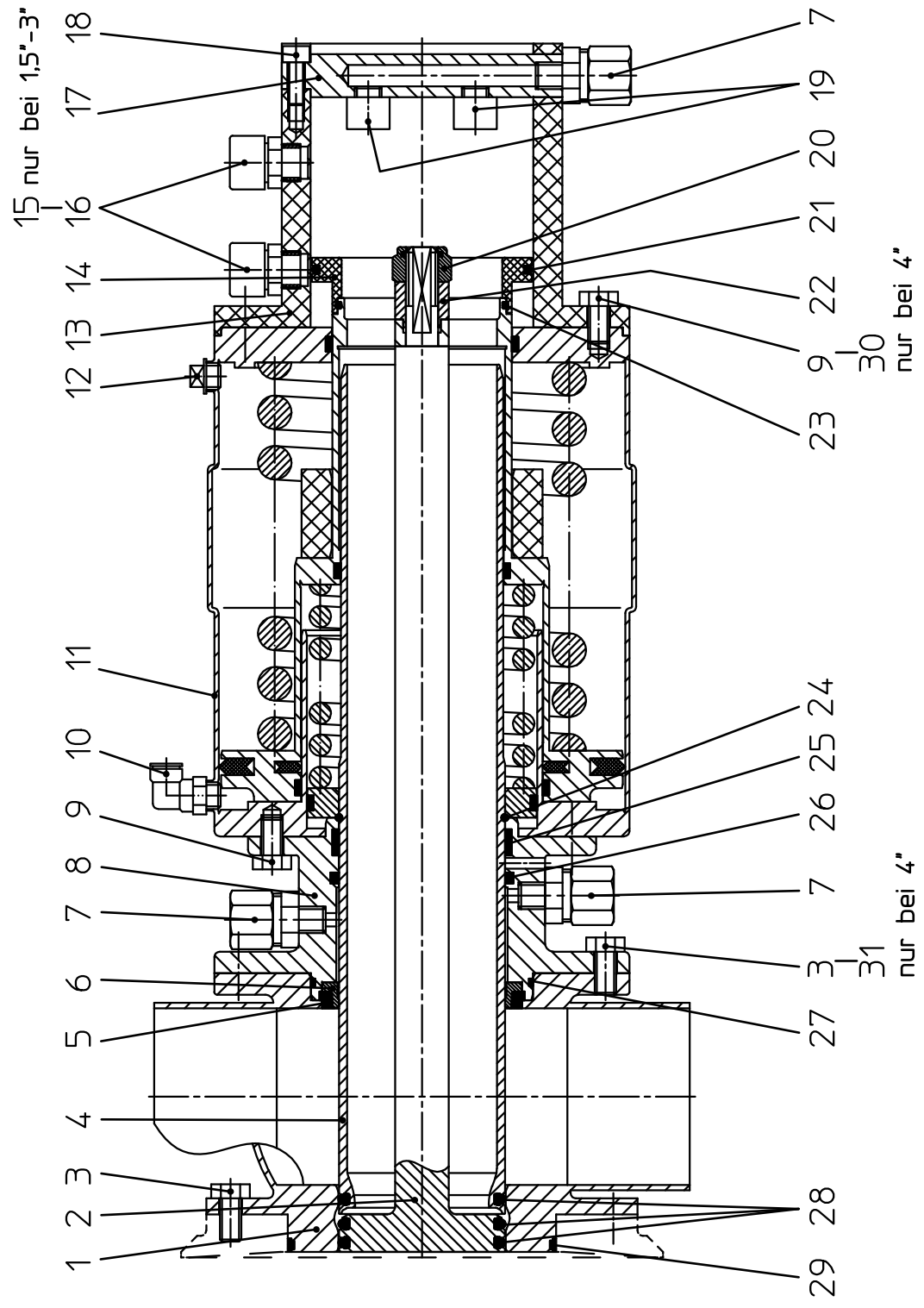
02/94

Ersatzteilliste: spare parts list:		Besteht aus <u>3</u> Blatt Blatt <u>1</u>		 APV Rosista GmbH D-59425 Urra Germany	
Doppelsitzventil DET3 Tankauslauf 1-4 Zoll		Gezeichnet	18.01.02	Name	Tryiko
Double seat valve DET3 tank outlet 1-4 Zoll		Geprüft	23.05.02	Normgepr.	
Datum	01/02	03/03			
Name	Tryiko	Tryiko			
RN 01.053.74.2					

Es stehen verschiedene Dichtungswerkstoffe zur Verfügung. Bitte WS-Nr. ergänzen

The following seal materials are available (fill in last two digits of ref.-no.)

- *Dichtungswerkstoff: material seals:
- ../33-HNBR
 - ../73-FPM
 - ../93-EPDM



30 nur bei 4"

31 nur bei 4"

Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts ist gestattet, soweit nicht schriftlich zugestanden, Verstoß verpflichtet zum Schadensersatz und kann strafrechtliche Folgen haben (Paragraf 18 UWG, Paragraf 106 UrhG, Eigentum und alle Rechte, auch für Patenterteilung und Gebrauchsmustererteilung, vorbehalten). APV Rosista GmbH. Diese Zeichnung wurde mit CAD erstellt und darf nicht von Hand geändert werden.

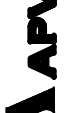
Ersatzteilliste: spare parts list:

Doppelsitzventil DET3 Tankauslauf 1-4 Zoll

Double seat valve DET3 tank outlet 1-4 Zoll

Blatt 2

Gezeichnet	18.01.02	Trytko	
Geprüft	23.05.02	Spiliethoff	
Normgepr.			
Datum	01/02	03/03	04/04
Name	Trytko	Trytko	Trytko


APV Rosista GmbH
 D-58425 Urra
 Germany
 RN 01.053.74.2

Pos. item	Benennung description	1"				1.5"				2"				2.5"				3"				4"											
		WS-Nr. ref.-no.				WS-Nr. ref.-no.				WS-Nr. ref.-no.				WS-Nr. ref.-no.				WS-Nr. ref.-no.				WS-Nr. ref.-no.				WS-Nr. ref.-no.							
1	Gehäuse Housing DET32 1+2S					16-67-415/47				16-67-465/47				16-67-515/47				16-67-565/47				16-67-640/47											
2	Schaft oben Upper valve shaft					16-21-363/44				16-21-433/44				16-21-508/44				16-21-558/44				16-21-633/44											
3	Skt. Schraube Hex. screw					DIN EN 24017-8xM8x16-A2-70																											
4	Schaft unten Lower valve shaft					16-21-384/42				16-21-434/42				16-21-509/42				16-21-559/42				16-21-634/42											
5	Tellerdichtung Seat seal				*	58-33-493/				=				=				=				58-33-643/											
6	Schaftdichtung Shaft seal					58-33-016/23				=				=				=				58-33-017/23											
7	G.Verschraubung Straight union				G1/8 8x1	08-63-003/13				=				=				=				=											
8	Schaftlager Shaft bearing					16-24-260/42				=				=				=				16-24-261/42											
9	Skt. Schraube Hex. screw					DIN EN 24017-8xM8x14-A2-70																											
10	Winkelverschraubung Angular union				G1/8 6x1	08-60-750/93				=				=				=				=											
11	Antrieb Actuator					16-30-830/17				16-30-831/17				=				=				16-30-832/17											
12	Entlüftungsstopfen Venting plug				G1/8	08-60-005/93				=				=				=				=											
13	Ablaufrohr Drain pipe					16-38-065/93				=				=				=				16-38-066/93											
14	Signalring DET Signal ring DET					16-02-045/93				=				=				=				16-02-046/93											
15	Verschlußkappe Cap				ø11,1-5	08-05-066/93				=				=				=				=											
16	Initiatorhalterung Proximity switch holder					15-33-918/93				=				=				=				=											
17	Spritzrohr Cip connection tube					16-03-007/12				=				=				=				=											
18	Zyl. Schraube Cyl. screw					DIN EN ISO 4762-M6x16-A2-70																											
19	Volstrahldüse Full jet nozzle					09-40-055/15				=				=				=				=											
20	Skt. Mutter Selbstsichernd Hex. nut self-securing				M12	65-50-105/15				=				=				=				=											

Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht schriftlich zugestanden. Verstöß verpflichtet zum Schadensersatz und kann strafrechtliche Folgen haben (Paragraf 18 UWG, Paragraf 106 Urtg.). Eigentum und alle Rechte, auch für Patenterteilung und Gebrauchsmustererteilung, vorbehalten. APV Rosista GmbH. Diese Zeichnung wurde mit CAD erstellt und darf nicht von Hand geändert werden.

Ersatzteilliste: spare parts list:

Doppelsitzventil DET3 Tankauslauf 1-4 Zoll

Double seat valve DET3 tank outlet 1-4 Zoll

Blatt 3

Gezeichnet	18.01.02	Trytko
Geprüft	23.05.02	Spliethoff
Normgepr.		
Datum	01/02	03/03
Name	Trytko	Trytko

APV Rosista GmbH
D-58425 Urra
Germany

RN 01.053.74.2

Pos. item	Benennung description	1"		1.5"		2"		2.5"		3"		4"	
		WS-Nr. ref.-no.		WS-Nr. ref.-no.		WS-Nr. ref.-no.		WS-Nr. ref.-no.		WS-Nr. ref.-no.		WS-Nr. ref.-no.	
21	Signalring Signal ring			16-02-020/17		=		=		=		16-02-022/17	
22	Zentrierscheibe Centering washer			15-28-940/12		=		=		=		=	
23	O-Ring O-ring			OR 51x2.5	EPDM 70 Shore A							OR 82,22x2,62 EPDM 70 Shore A	
24	Sprengring Retainer ring			08-39-213/13		=		=		=		08-39-214/13	
25	Führungsband Guide ring			08-39-290/93		=		=		=		08-39-291/93	
26	Quadrang Quadrang			58-01-329/64		=		=		=		58-01-238/64	
27	O-Ring O-ring			74x2 58-06-332/73		=		=		=		105x2 58-06-503/73	
28	Sitzdichtung Seat seal		*	58-33-132/		=		=		=		58-33-133/	
29	Gehäusedichtung Housing seal		*	58-33-492/		=		=		=		58-33-642/	
30	Skt. Schraube Hex. screw											DIN EN 24017- M8x14-A2-70	
31	Skt. Schraube Hex. screw											DIN EN 24017- M10x16-A2-70	

Pos. 5, 6, 25, 26, 27, 28, 29 nur im kompletten Dichtungssatz erhältlich

Pos. 5, 6, 25, 26, 27, 28, 29 available es complete seal kits only

1	Dichtungssatz Seal kit			58-34-675/00		=		=		=		58-34-676/00	
1	Dichtungssatz Seal kit			58-34-675/01		=		=		=		58-34-676/01	
1	Dichtungssatz Seal kit			58-34-675/06		=		=		=		58-34-676/06	