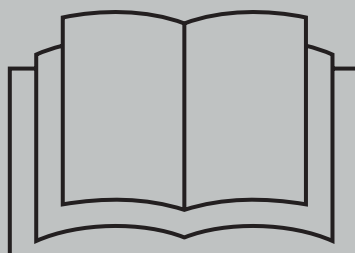


REPAIR MANUAL

H-150/3 UAP



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HEAD ASSEMBLY	5
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HEAD ASSEMBLY



Sort the following items:

- Cap ■ Dual Seat ■ Suction spring guide
- Suction Valve ■ Pressure Valve
- UHP Head Repair kit

Fig. 01



Mount the smaller
O-Ring on the cap.

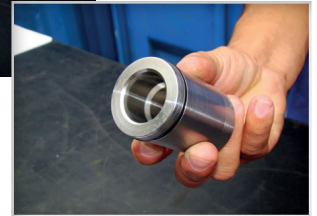


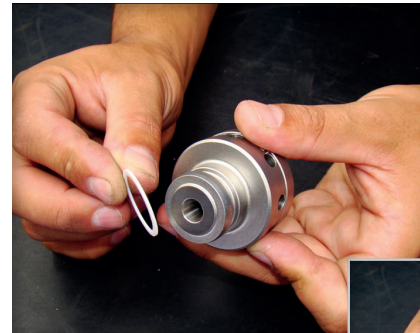
Fig. 02



Assemble the O-Ring
on the cap.



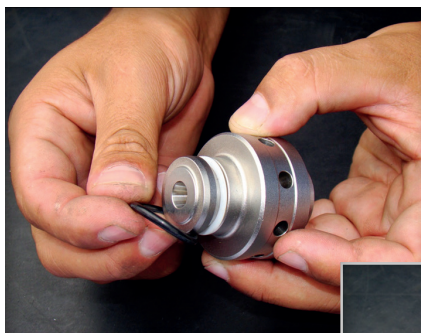
Fig. 03



Assemble the Backup
Ring on the Dual Seat.



Fig. 04



Assemble the O-Ring
on the Dual Seat.



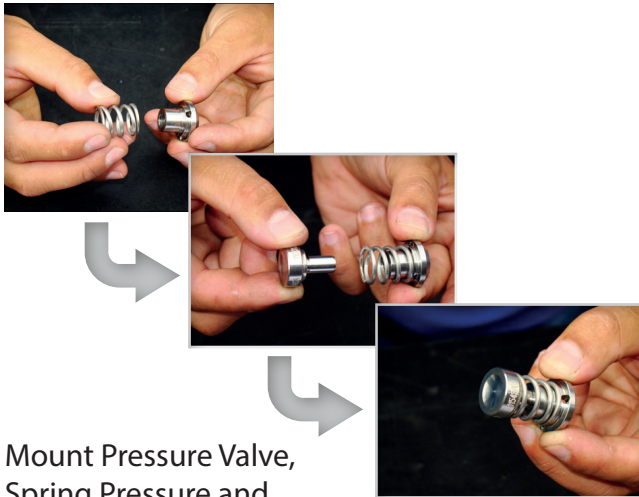
Fig. 05



Mount Seal on
Dual Seat.

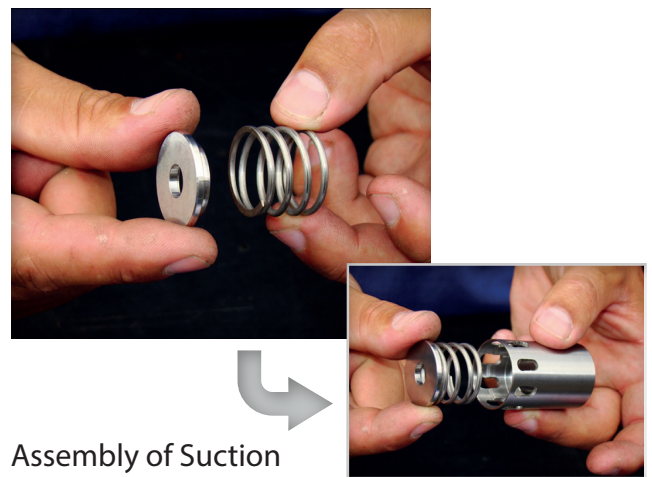


Fig. 06



Mount Pressure Valve,
Spring Pressure and
Spring Pressure Guide.

Fig. 07



Assembly of Suction
Valve, Suction Spring
and Suction Spring Guide.

Fig. 08

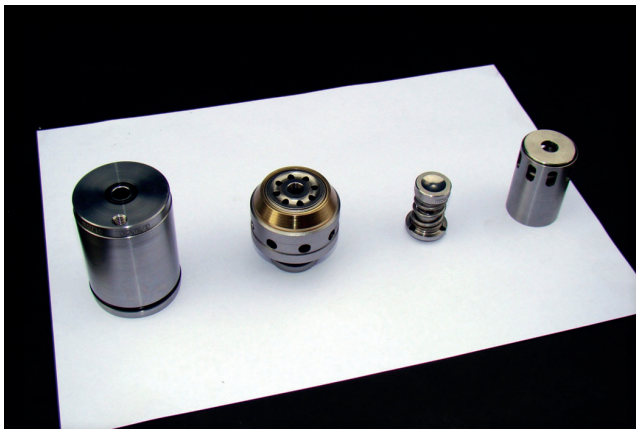
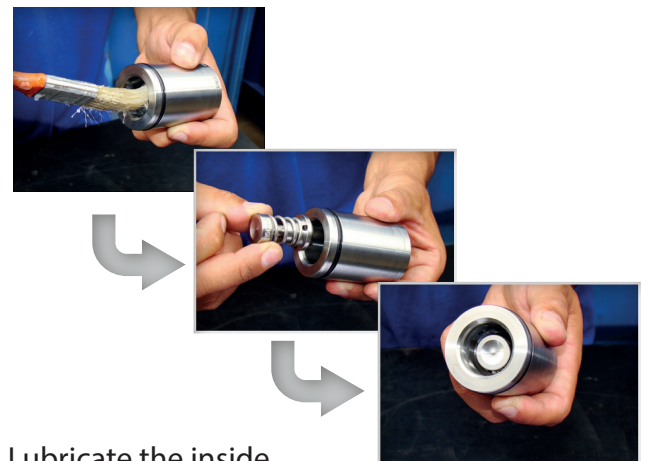
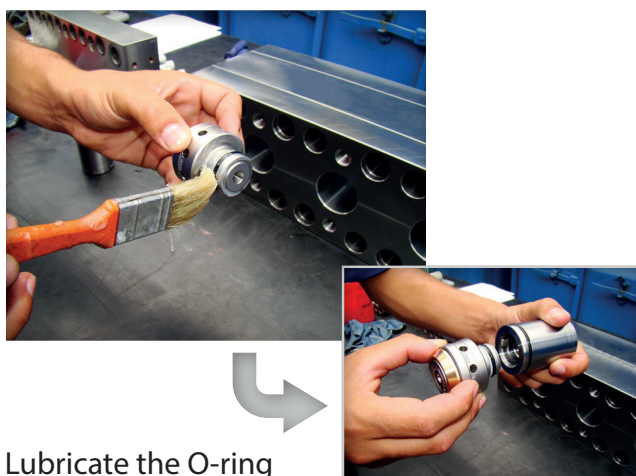


Fig. 09



Lubricate the inside
with grease.
Install Pressure Valve on cap.

Fig. 10



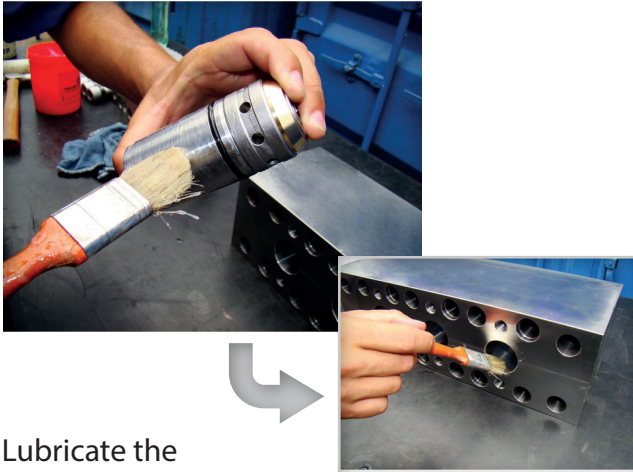
Lubricate the O-ring
of the Dual Seat with Grease.
Insert the Dual Seat within the cap.

Fig. 11



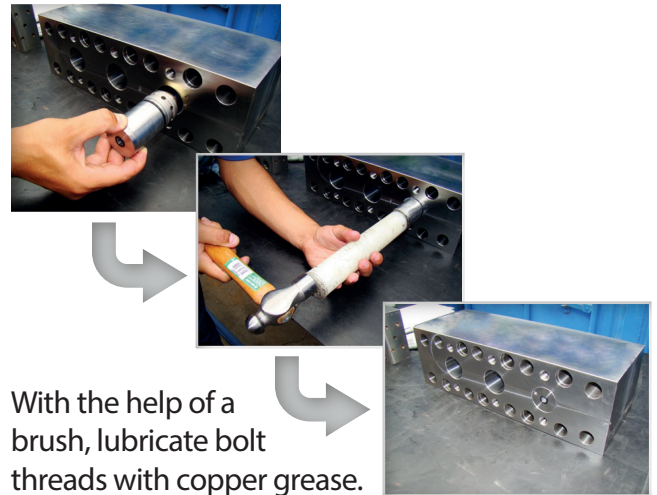
With the help of a
Nylon Punch tool, secure
the Dual Seat in the cap.

Fig. 12



Lubricate the assembly with grease and the head.

Fig. 13



With the help of a brush, lubricate bolt threads with copper grease. Insert the screws into the recessed holes.

Fig. 14

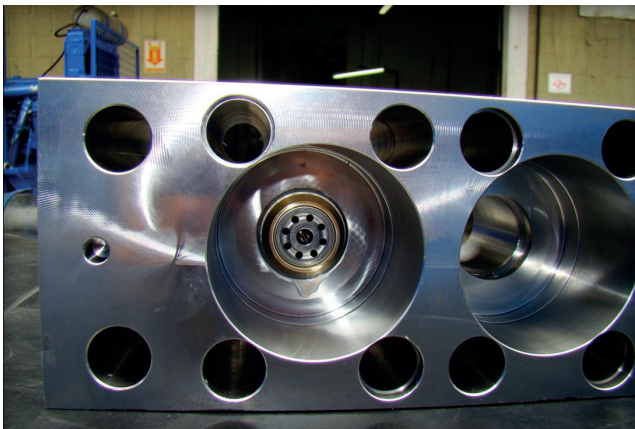
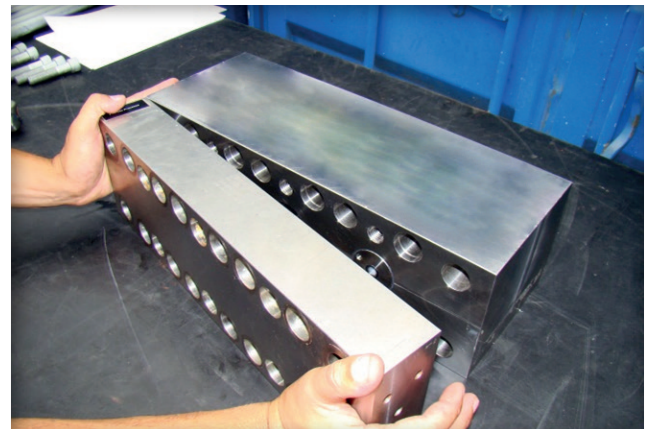
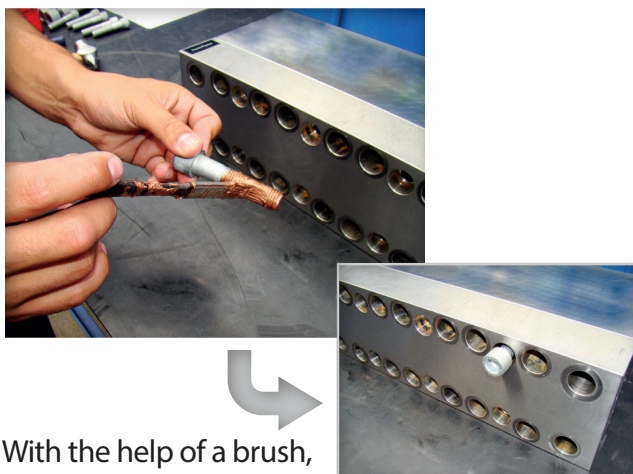


Fig. 15



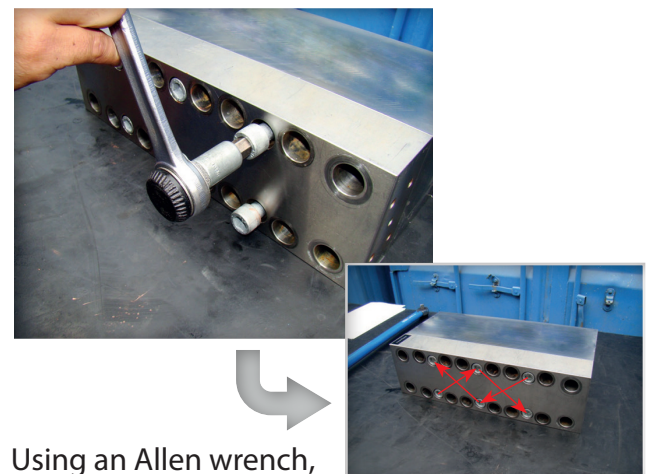
While the Head is Mounted, separate the Manifold and the fixing screws.

Fig. 16



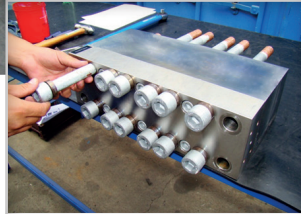
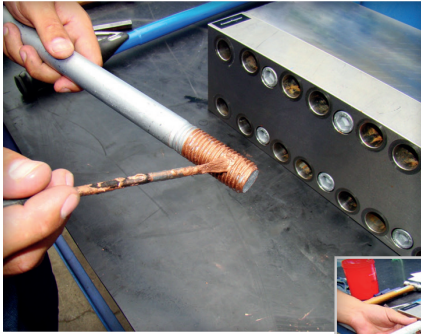
With the help of a brush, lubricate bolt threads with copper grease. Insert the screw into the recessed holes.

Fig. 17



Using an Allen wrench, first tighten the screws without forcing them. With the aid of a torque wrench, tighten the screws with a force of 140 Nm, always in "X".

Fig. 18



With the help of a brush, lubricate the threads of "studs" in the shell with copper grease. Introduce the studs into the holes of the Manifold.

Fig. 19

SHELL ASSEMBLY

In order to mount the UHP Shell, separate the following items.



1°

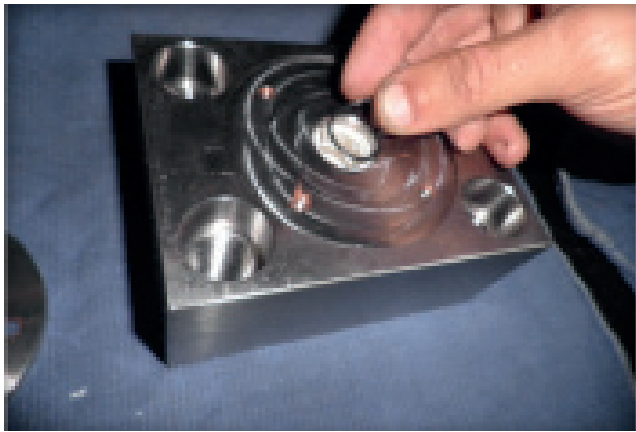
Fig. 20



2° - Introduce the Sliding Bushing into the UAP Flange.

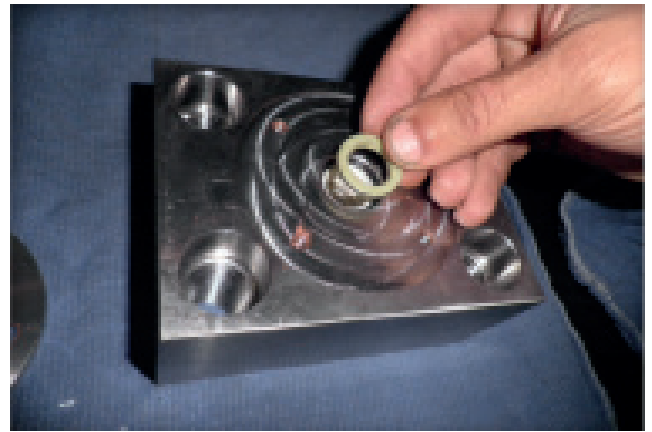
Fig. 21

(continues on the next page)



3° - Overlap with an O-Ring.

Fig. 22



4° - Introduce the Vedaseal use "Rocol" grease for improved sealing performance.

Fig. 23



5° - Cover the set using the Support Disk.

Fig. 24



6° - Screw the Support Disk in "X".

Fig. 25



7° - Introduce the O-Ring into shell's recess.

Fig. 26



8° - Introduce the O-Ring into shell's groove.

Fig. 27



9° - Install the shell on the UAP Flange.

Fig. 28



10° - Introduce the Piston in the set.

Fig. 29



11° - Turn the installed set and introduce the Lower Support Ring with bevel facing down.

Fig. 30



12° - Introduce the UAP Seal and the Backup Ring.

Fig. 31



13° - Place the first Braided Packing.

Fig. 32



14° - Introduce the second Braided Packing (each Braided Packing must be mounted with cut at 120° of one another).

Fig. 33



15° - If a Nylon punch is required to seat the components.

Fig. 34



16° - Introduce the Scraper Ring.

Fig. 35



17° - Introduce the Upper Support Ring.

Fig. 36



18° - Introduce Spring.

Fig. 37



19° - Introduce Spring Guide.

Fig. 38



20° - Introduce the O-Ring into shell's groove.

Fig. 39



21° - Overlap the whole set with the UAP Suction Seal.

Fig. 40



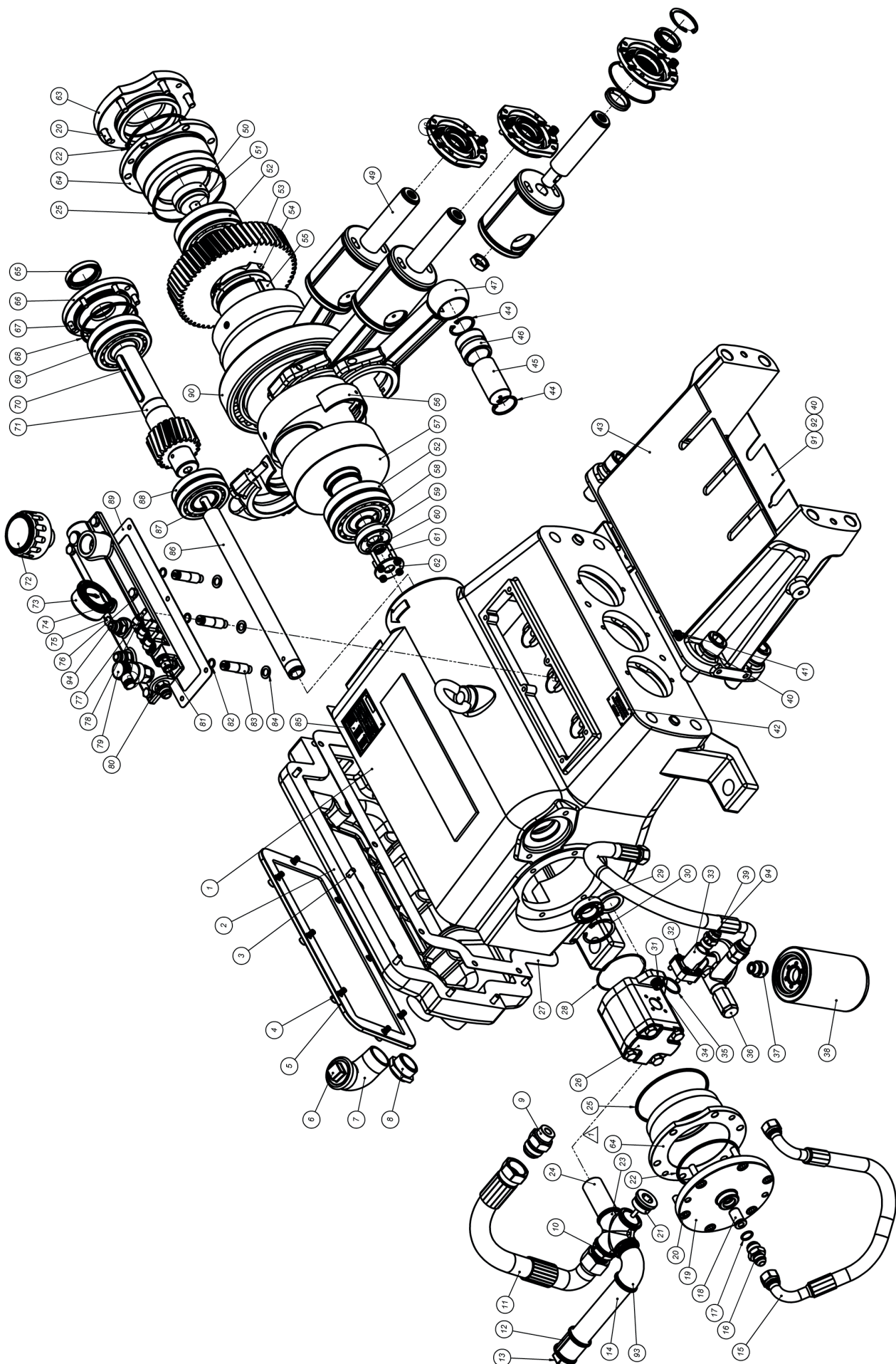
22° Check that it is correctly positioned upward.



Fig. 41

3 SETS PER PUMP



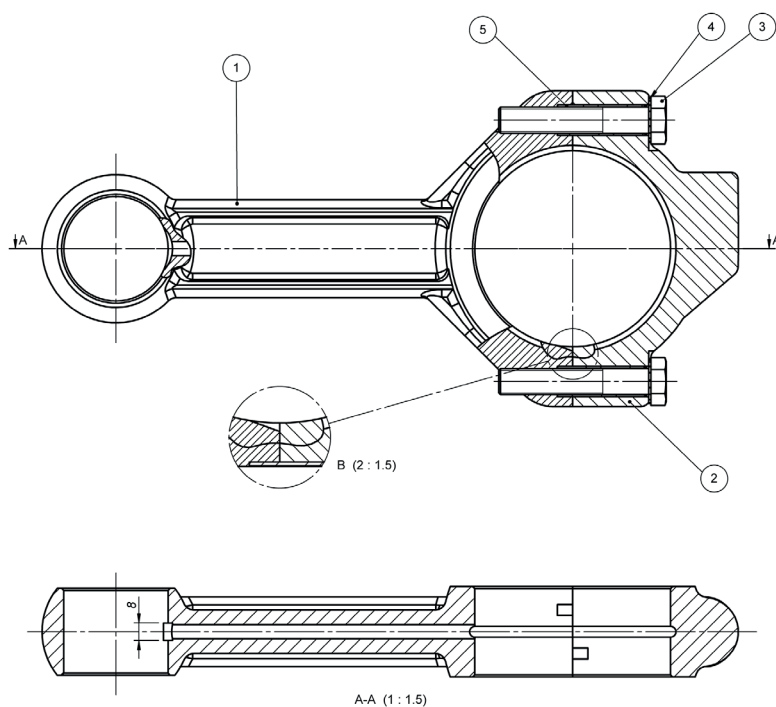


TRANSMISSION PARTS LIST H 150-3 - CODE 1010.01108.5			
ITEM	CODE	DESCRIPTION	QTY.
1	1010.01109.0	HOUSING WITH YOKE H120-3	1
2	1110.02227.0	CUT OUT COVER H120-3	1
3	1200.00268.0	ALLEN SCREW M8x30mm	10
4	1200.00550.0	ALLEN SCREW M8x20mm	8
5	1110.00717.0	INSPECTION HOLE COVER	1
6	2320.01611.0	1.1/4" BSP PLUG	1
7	2320.01610.0	1.1/4" BSP ELBOW	1
8	3000.00208.0	OIL LEVEL SIGHT GLASS	1
9	2320.00992.0	NETWORK NIPPLE 1.5/16" UNF JIC x 1/16" VNF PL	1
10	2320.00667.0	1" BSP x 1.5/16" UNF NIPPLE	1
11	1010.00792.0	PUMP-OIL PUMP CONNECTION HOSE	1
12	2320.00924.0	1" BSP SLEEVE	1
13	2320.00214.0	1" BSP PLUG	1
14	2370.00501.0	SCH 40 150mm PIPE	1
15	1010.00731.0	DUCT-CRANKSHAFT CONNECTION HOSE	1
16	2320.00778.0	M22 x 1.5 PL x 3/4" UNF JIC REDUCING NIPPLE	1
17	1300.00848.0	O-RING	1
18	1110.02304.0	GLYD ROTOR SHAFT	1
19	1110.02266.0	SIDE CRANKSHAFT COVER RG H120-3	1
20	1200.00139.0	ALLEN BOLT M10x30mm	12
21	2320.01677.0	BMA 1" BSP MAGNETIC PLUG	1
22	1300.00600.0	O-RING	2
23	2320.00237.0	1" BSP YOKE	1
24	2370.00501.0	SCH 40 150mm PIPE	1
25	1300.00381.0	O-RING	2
26	3000.01773.0	LUBRICATION PUMP	1
27	1300.00825.0	CUT OUT GASKET COVER H120-3	1
28	1300.00582.0	O-RING	1
29	1700.00195.0	RIGID BALL BEARING	1
30	1200.00826.0	ELASTIC RING	1
31	1200.00103.0	PRESSURE WASHER M10	2
32	1200.00222.0	ALLEN SCREW M6x25mm	4
33	1110.03036.0	LUBRICATION MANIFOLD	1
34	1200.00140.0	ALLEN BOLT M10x25mm	2
35	1300.00256.0	O-RING	1
36	3000.01020.0	RELIEF VALVE	1
37	2320.01708.0	3/4" BSP x 3/4" UNF REDUCING NIPPLE	1
38	3000.02147.0	OIL FILTER	1
39	1010.01489.0	MANIFOLD-DUCT CONNECTION HOSE	1
40	1200.00191.0	FLAT WASHER M6	4
41	1200.00265.0	ALLEN SCREW M6x15mm	1
42	3000.01794.0	TORQUE NAMEPLATE	1

TRANSMISSION PARTS LIST H 150-3 - CODE 1010.01108.5			
ITEM	CODE	DESCRIPTION	QTY.
43	1110.01128.0	PISTON COVER	1
44	1200.00278.0	ELASTIC RING 1-39	6
45	1100.00196.0	ROD PIN	3
46	1700.00135.0	ROD BUSHING	3
47	1010.01112.0	ROD H120-3	3
48	1010.01097.0	SEAL CAGE	3
49	1010.01111.0	GUIDE PISTON H120-3	3
50	1110.01100.0	STOP BUSHING	1
51	1200.00186.0	ALLEN SCREW M16x40mm	1
52	1700.00138.0	BEARING	2
53	1110.01076.0	CROWN H120-3 - 60Hz	1
54	1200.00362.0	ELASTIC RING E-95	1
55	1200.00178.0	LINCHPIN	1
56	1700.00125.0	BEARING SHELL	3
57	1010.00771.0	CRANKSHAFT H120-3	1
58	1300.00536.0	O-RING	1
59	1110.01101.0	ROTO GLYD STOP BUSHING	1
60	1300.00502.0	ROTO GLYD	1
61	1200.00267.0	ALLEN SCREW M6x35mm	4
62	1110.03064.0	ROTO GLYD COVER H120-H 200-H 300	1
63	1110.01094.0	CRANKSHAFT COVER H120-3	1
64	1110.01098.0	BEARING HOUSING	2
65	1300.00535.0	SEAL	1
66	1110.01099.0	DRIVE SHAFT FLANGE	1
67	1200.00134.0	ALLEN SCREW M8x20mm	6
68	1300.00111.0	O-RING	1
69	1700.00116.0	BEARING	1
70	1200.00182.0	LINCHPIN	1
71	1110.01077.0	PINION H120-3 - 60Hz	1
72	3000.00119.0	BREATHER 1" BSP	1
73	3000.00321.0	PRESSURE GAUGE	1
74	1110.03092.0	LUBRICATION DUCT	1
75	1200.00828.0	HEX SCREW M8x20mm	6
76	1200.00402.0	FLAT WASHER M8	6
77	2320.00309.0	ADJUSTABLE L CONNECTION 1/4"x6mm	3
78	2370.00605.0	HOSE PU 06mtn	1
79	1010.01074.0	PRESSURE SWITCH	1
80	2320.00283.0	NIPPLE 3/4" UNF PI x 3/4" UNF JIC	3
81	2320.00563.0	STRAIGHT CONNECTION 1/4"x10mm	1
82	1300.00213.0	O-RING	3
83	1110.02620.0	DUCT CONNECTING PIPE	3

TRANSMISSION PARTS LIST H 150-3 - CODE 1010.01108.5			
ITEM	CODE	DESCRIPTION	QTY.
84	1300.00176.0	COPPER RING	3
85	3000.00120.0	NAMEPLATE	1
86	1110.02621.0	EXPANDER	1
87	1200.00300.0	WOODRUFF KEY	1
88	1700.00151.0	BEARING	1
89	1300.00224.0	OIL DUCT GASKET	1
90	1700.00150.0	ROLLER BEARING	1
91	1110.03223.0	PISTON COVER	1
92	1200.00161.0	ALLEN SCREW M6x12mm	3
93	2320.00229.0	MF 1" BSP ELBOW	1
94	2320.01753.0	NIPPLE 3/4" UNF JIC x 1/2" BSP PL	2

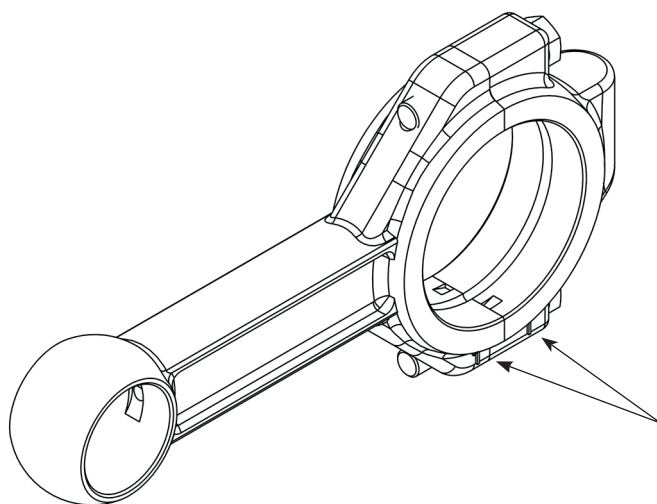
CONNECTING RODS - CODE 1010.01112.0



BOLT TORQUE: 110 N

3 SETS PER PUMP

ITEM	CODE	DESCRIPTION	QTY.
1	1110.02225.0	ARM OF CONNECTING ROD	1
2	1110.02226.0	BEARING OF CONNECTING ROD	1
3	1200.00187.0	HEX BOLT M12x70	2
4	1200.00190.0	TOOTHED WASHER M12	2
5	1200.00881.0	ELASTIC GUIDE BUSHING	2

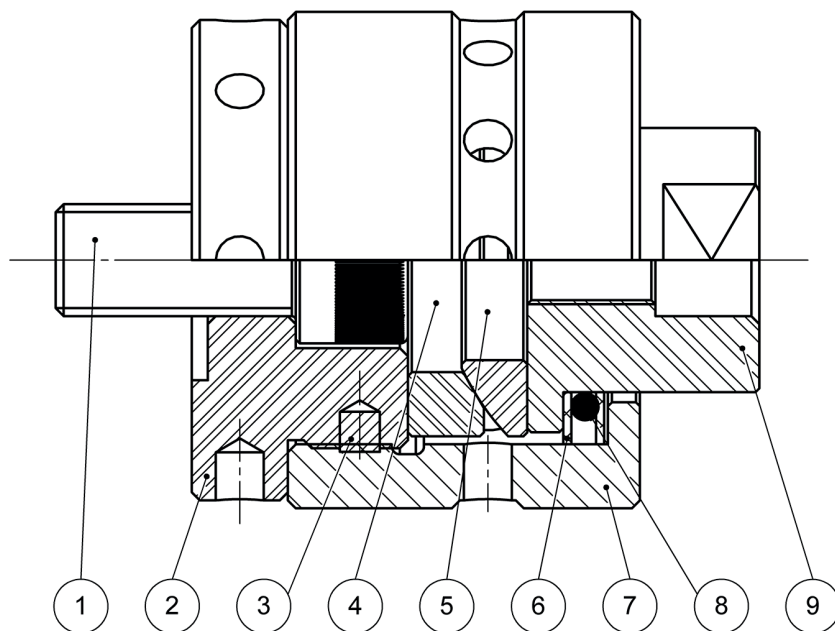


ATTENTION!
ASSEMBLE WITH NUMBERS
FACING THE SAME SIDE

! Attention!

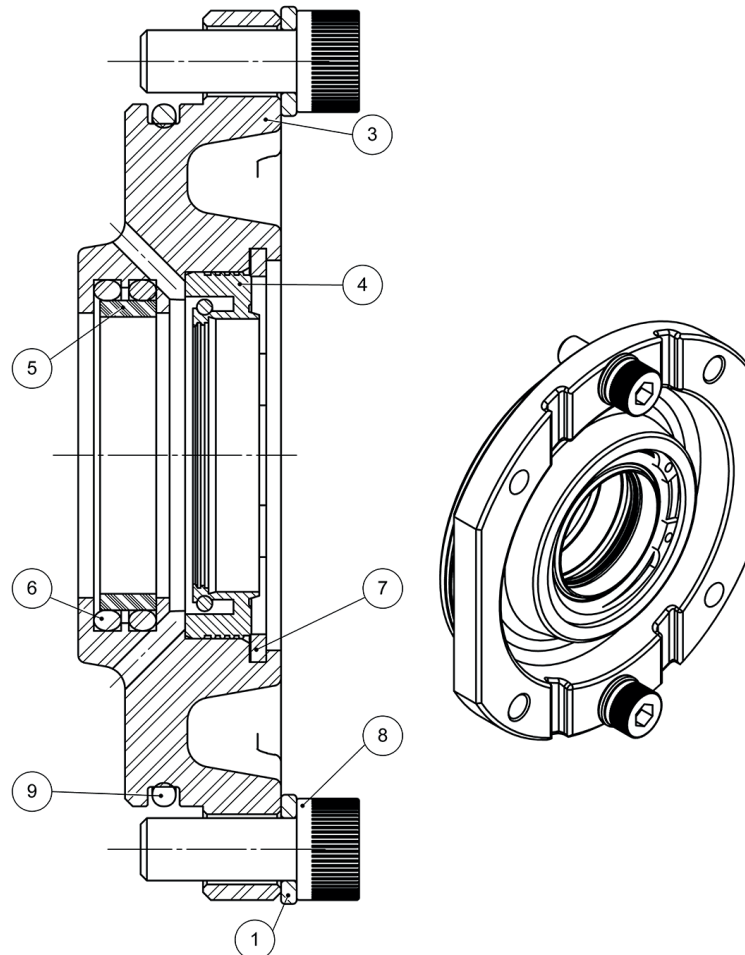
- All connecting rods are numbered.
- Always assemble arm and bearing of the connecting rod so that the unsequenced number is shown.
- Never replace arms and bearing by a connecting rod from a different set.

SELF CENTERING - CODE 1010.00268.0

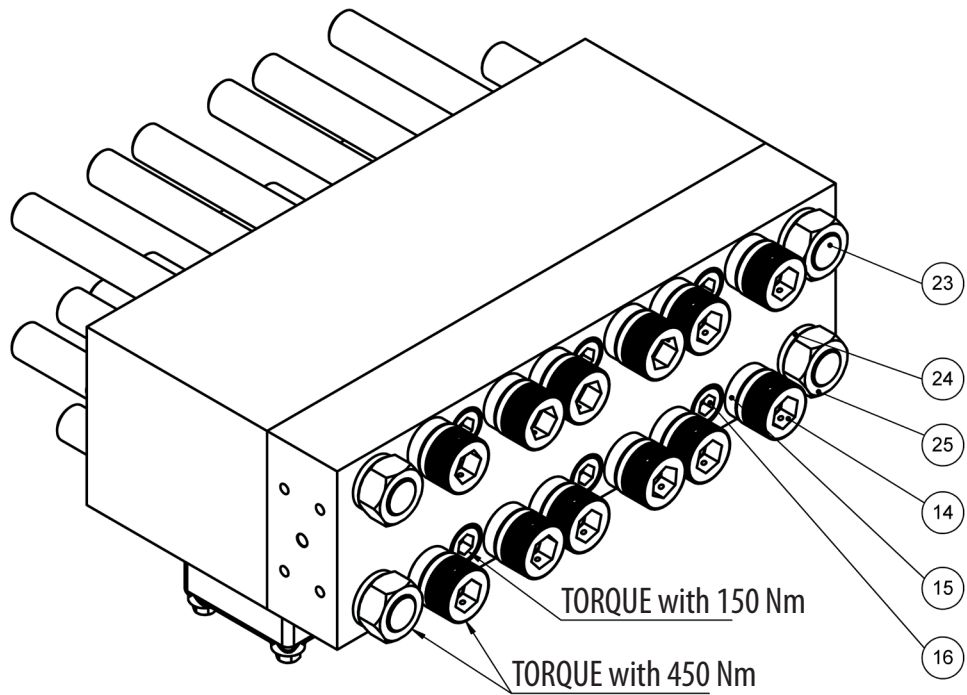
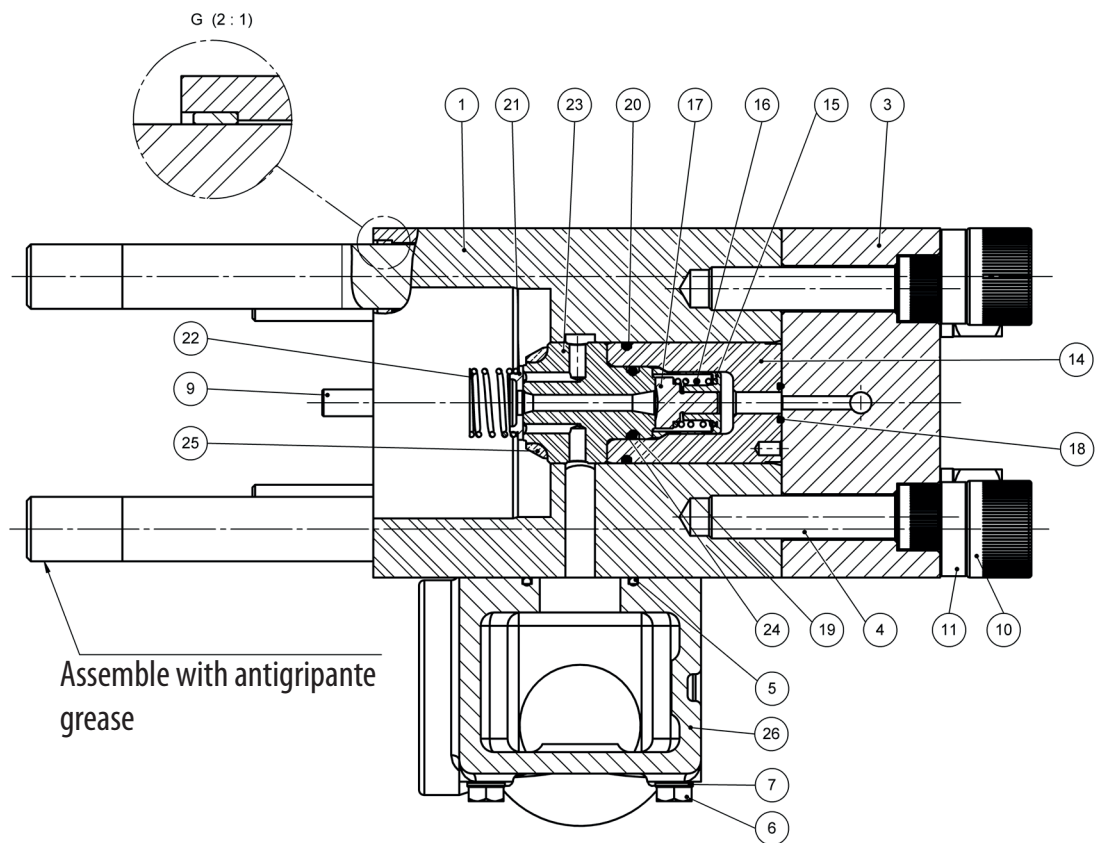


ITEM	CODE	DESCRIPTION	QTY.
1	1200.00297.0	ALLEN SCREW M14x30 DIN 919	1
2	1110.00719.0	SELF CENTERING P-14 / P-30	1
3	2380.01467.0	SPIGOT	1
4	1110.00631.0	SPHERICAL RING	1
5	1110.00630.0	SPHERICAL RING	1
6	1110.00724.0	BACK UP RING	2
7	1110.00721.0	SELF CENTERING SCREW	1
8	1300.00361.0	O-RING	1
9	1110.00820.0	CONECT BUSHING	1

SEAL CAGE - CODE 1010.01097.0



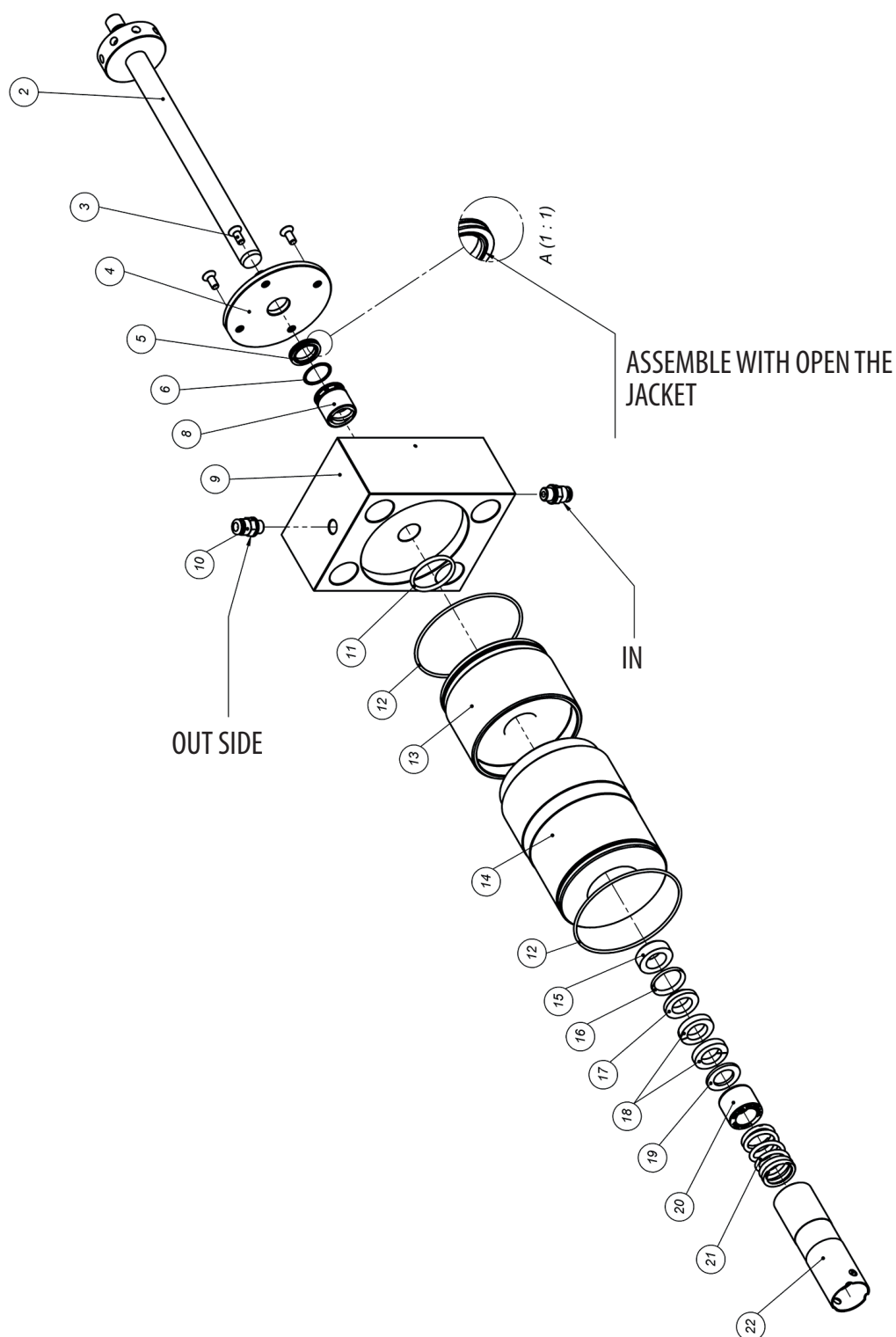
*	ITEM	CODE	DESCRIPTION	QTY.
	1	1200.00107.0	PRESSURE WASHER	2
* Note: Common wear parts or disposable				
	3	1110.02618.0	SEAL CAGE	1
	4	1300.00750.0	SEAL	1
	5	1300.00751.0	SLIDING RING	1
	6	1300.00191.0	O-RING	2
	7	1200.00154.0	ELASTIC RING	1
	8	1200.00550.0	ALLEN SCREW M8X20mm	2
	9	1300.00117.0	O-RING	1



HEAD UAP PARTS LIST - CODE 1010.014850				
NOTE	ITEM	CODE	DESCRIPTION	QTY.
	1	1110.01186.0	MANIFOLD	1
	2	1110.02826.0	GUIDE SPRING UAP	3
*	3	1500.00145.0	SPRING	3
*	4	1100.00179.0	PRESSURE VALVE UAP	3
	5	1300.00601.0	O-RING	3
*	6	1100.00224.0	DOUBLE SEAT UAP	3
*	7	1100.00180.0	SUCTION VALVE UAP	3
	8	1010.01120.0	HEAD UAP III	1
*	9	1500.00144.0	SPRING	3
	10	1200.00369.0	GUIDE PIN	2
*	11	1300.00576.0	SUCTION SEAL UAP-III 40K	3
*	12	1110.01279.0	COVER	3
	13	1300.00146.0	O-RING	3
	14	1200.00384.0	ALLEN SCREW M24x350mm	12
	15	1110.01309.0	DISTANCE BUSHING	12
	16	1200.00186.0	ALLEN SCREW M16X40mm	6
	17	1300.00443.0	O-RING	3
	18	1300.00406.0	BACK RING	3
	19	1300.00193.0	O-RING	3
	20	1110.01677.0	SUCTION DUTE	1
	21	1200.00107.0	PRESSURE WASHER	8
	22	1200.00726.0	SCREW M8x90mm	8
	23	1200.00375.0	PRISIONER M24x280mm	4
	24	1200.00363.0	PRESSURE WASHER	4
	25	1200.00149.0	NUT	4
		1020.00133.1	REPAIR KIT	1

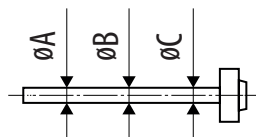
Note: * Common wear parts.

REPAIR KIT – CODE 1020.00133.1				
NOTE	ITEM	CODE	DESCRIPTION	QTY.
*	5	1300.00601.0	O-RING	3
*	12	1110.01279.0	COVER	3
*	18	1300.00406.0	BACK RING	3
*	19	1300.00193.0	O-RING	3



REPLACE SEAL KIT EVERY 500 HOURS TO ENSURE SMOOTH EQUIPMENT OPERATION

NOTE: THE WATER QUALITY DIRECTLY INFLUENCES SEAL LIFECYCLE AND CHANGING TIME MUST BE REDUCED.



Ø Nominal	Appropriate	Critical	Change
16 mm	-0,01	-0,07	-0,1
	-0,06	-0,09	

ANALYSE PISTON DIMENSIONS WHEN CHANGING THE SEALS OR EVERY 500 HOURS RESPECT THE WEAR LIMIT.

PISTON KIT P-16 UAP PARTS LIST - CODE 1010.01286.1

NOTE	ITEM	CODE	DESCRIPTION	QTY.
	1	1010.00274.0	PISTON P-16	3
	2	1200.00327.0	ALLEN SCREW	12
	3	1110.00823.0	SUPPORT DISC	3
***	6	1010.00444.0	BUSHING	3
	7	1110.01360.0	FLANGE P-16	3
	8	2320.003030.	STRAIGHT CONNECTION	6
	10	1300.00242.0	O-RING	6
	11	1110.03266.0	FLANGE	3
	12	1110.03160.0	JACKET UAP	3
**	19	1500.00193.0	PISTON KIT SPRING	3
	20	1010.01285.0	SUCTION SPRING GUIDE	3
		1020.00216.2	SEAL KIT P-16 UAP	1

Note: * Common wear parts.

Note: ** Replace with 1000h.

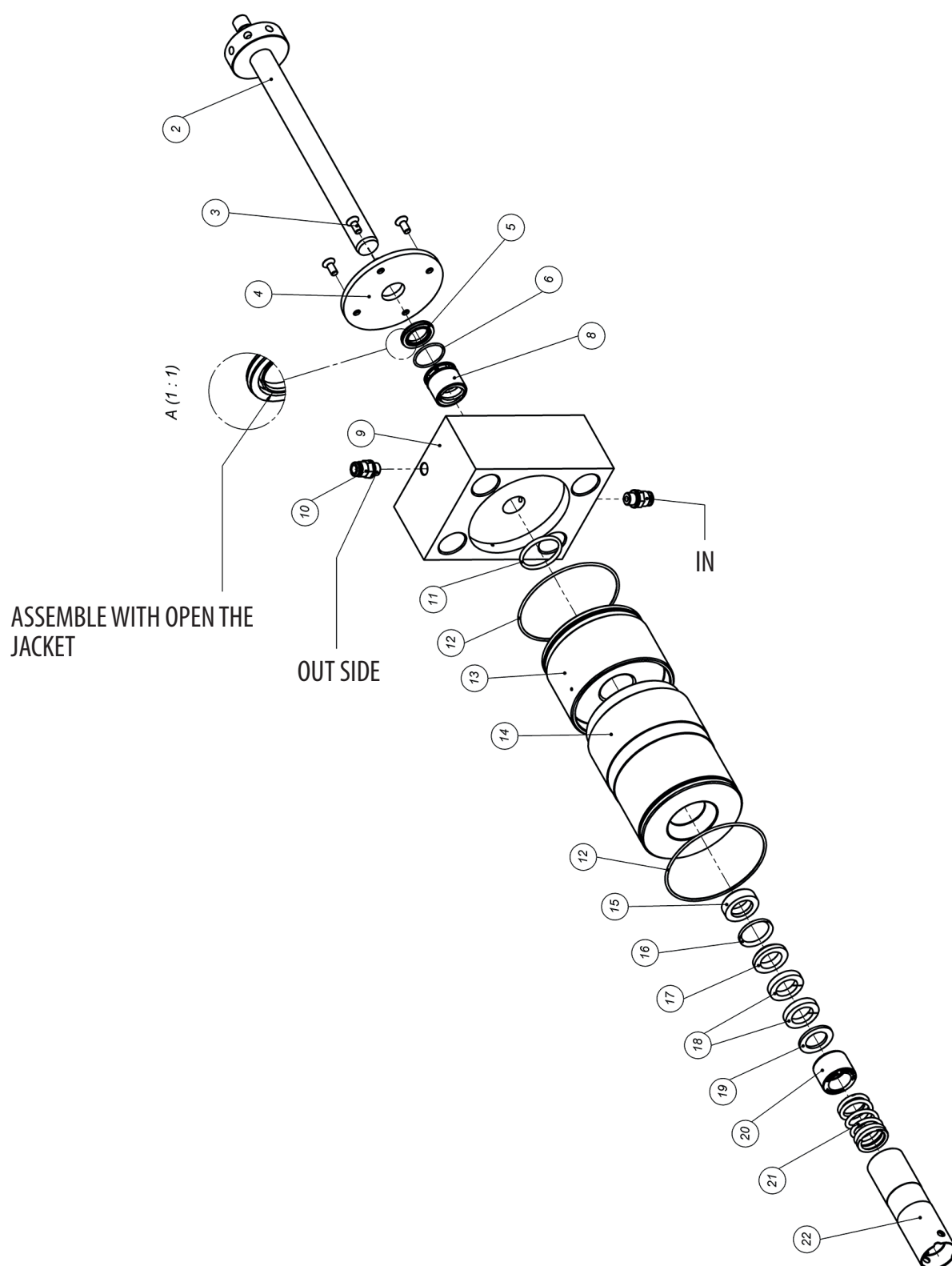
Note: *** Replace with 500h, or with wear parts.

SEAL KIT P-16 UAP PARTS LIST - CODE 1020.00216.2

NOTE	ITEM	DESCRIPTION	QTY.
*	4	VEDASEAL P-16	3
*	5	O-RING	3
*	9	O-RING	3
*	13	LOWER SUPPORT RING P-16	3
*	14	BACKUP RING	3
*	15	UAP SEAL P-16	3
*	16	BLACK LAMELA	6
*	17	SCRAPER RING P-16	3
*	18	UPPER SUPPORT RING P-16	3

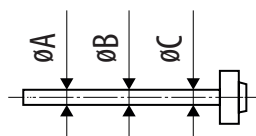
CAUTION!

ALL SEAL KITS INCLUDE VEDASEAL HOWEVER; MAY BE PURCHASED SEPARATELY.



REPLACE SEAL KIT EVERY 500 HOURS TO ENSURE SMOOTH EQUIPMENT OPERATION

NOTE: THE WATER QUALITY DIRECTLY INFLUENCES SEAL LIFECYCLE AND CHANGING TIME MUST BE REDUCED.



Ø Nominal	Appropriate	Critical	Change
18 mm	-0,01	-0,07	-0,1
	-0,06	-0,09	

ANALYSE PISTON DIMENSIONS WHEN CHANGING THE SEALS OR EVERY 500 HOURS RESPECT THE WEAR LIMIT.

PISTON KIT P-18 UAP PARTS LIST - CODE 1010.01412.1

NOTE	ITEM	CODE	DESCRIPTION	QTY.
	1	1010.00275.0	PISTON P-18	3
	2	1200.000327.0	ALLEN SCREW	12
	3	1110.00824.0	SUPPORT DISC	3
***	6	1010.00471.0	BUSHING	3
	7	1110.01399.0	FLANGE P-18	3
	8	2320.00303.0	STRAIGHT CONNECT	6
	10	1300.00242.0	O-RING	6
	11	1110.03159.0	SEAL FLANGE	3
	12	1110.03160.0	JACKET UAP	3
**	19	1500.00193.0	PISTON KIT SPRING	3
	20	1010.01285.0	SUCTION SPRING GUIDE	3
		1020.00218.5	SEAL KIT P-18 UAP	1

Note: * Common wear parts.

Note: ** Replace with 1000h.

Note: *** Replace with 500h, or with wear parts.

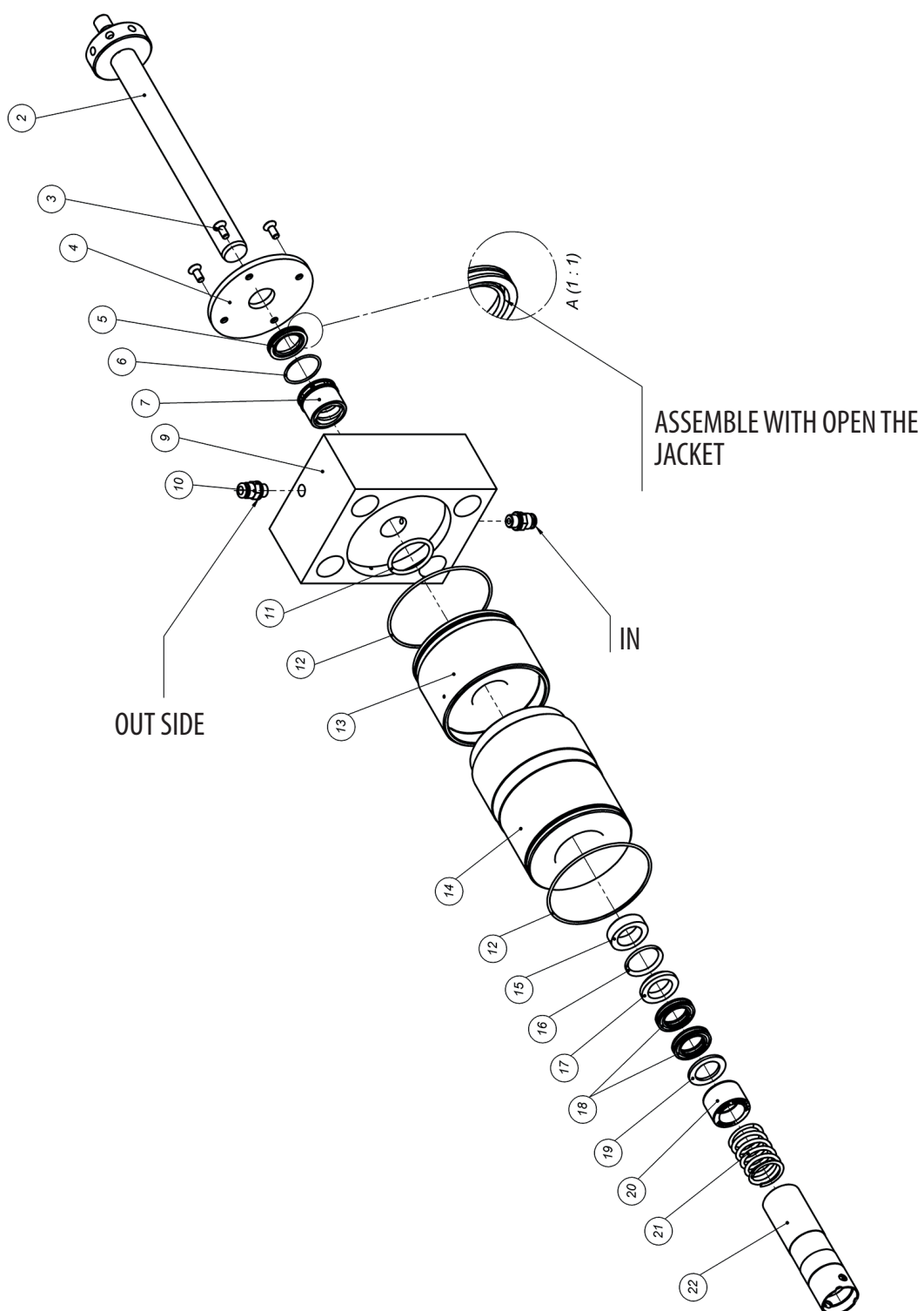
SEAL KIT P-18 UAP PARTS LIST - CODE 1020.00218.5

NOTE	ITEM	DESCRIPTION	QTY.
*	4	VEDASEAL P-18	3
*	5	O-RING	3
*	9	O-RING	3
*	13	LOWER SUPPORT RING P-18	3
*	14	BACKUP RING	3
*	15	UAP SEAL P-18	3
*	16	BLACK LAMELA	6
*	17	SCRAPER RING P-18	3
*	18	UPPER SUPPORT RING P-18	3

CAUTION!

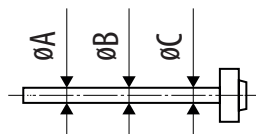
ALL SEAL KITS INCLUDE VEDASEAL HOWEVER; MAY BE PURCHASED SEPARATELY.

PISTON KIT (P-20) - CODE 1010.01115.1



REPLACE SEAL KIT EVERY 500 HOURS TO ENSURE SMOOTH EQUIPMENT OPERATION

NOTE: THE WATER QUALITY DIRECTLY INFLUENCES SEAL LIFECYCLE AND CHANGING TIME MUST BE REDUCED.



Ø Nominal	Appropriate	Critical	Change
20 mm	-0,01	-0,07	-0,1
	-0,06	-0,09	

ANALYSE PISTON DIMENSIONS WHEN CHANGING THE SEALS OR EVERY 500 HOURS RESPECT THE WEAR LIMIT.

PISTON KIT P-20 UAP PARTS LIST - CODE 1010.01115.1

NOTE	ITEM	CODE	DESCRIPTION	QTY.
	1	1010.01038.0	PISTON P-20	3
	2	1200.000327.0	ALLEN SCREW	12
	3	1110.00855.0	SUPPORT DISC P-20	3
***	6	1010.01036.0	BUSHING	3
	7	1110.02546.0	FLANGE P-20	3
	8	2320.00303.0	STRAIGHT CONNECT	6
	10	1300.00242.0	O-RING	6
	11	1110.03253.0	SEAL FLANGE	3
	12	1110.03160.0	JACKET UAP	3
**	19	1500.00206.0	PISTON KIT SPRING	3
	20	1110.03037.0	SUCTION SPRING GUIDE	3
		1020.00220.1	SEAL KIT P-20 UAP	1

Note: * Common wear parts.

Note: ** Replace with 1000h.

Note: *** Replace with 500h, or with wear parts.

SEAL KIT P-20 UAP PARTS LIST - CODE 1020.00220.1

NOTE	ITEM	DESCRIPTION	QTY.
*	4	VEDASEAL P-20	3
*	5	O-RING	3
*	9	O-RING	3
*	13	LOWER SUPPORT RING P-20	3
*	14	BACKUP RING	3
*	15	UAP SEAL P-20	3
*	16	BLACK LAMELA	6
*	17	SCRAPER RING P-20	3
*	18	UPPER SUPPORT RING P-20	3

CAUTION!

ALL SEAL KITS INCLUDE VEDASEAL HOWEVER; MAY BE PURCHASED SEPARATELY.



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