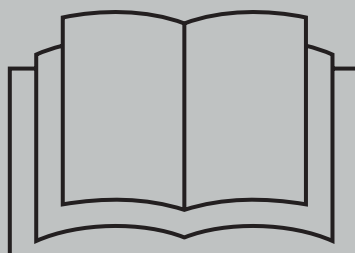


REPAIR MANUAL

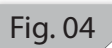
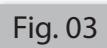
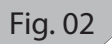
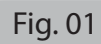
H-150/3 SAP

IV GENERATION

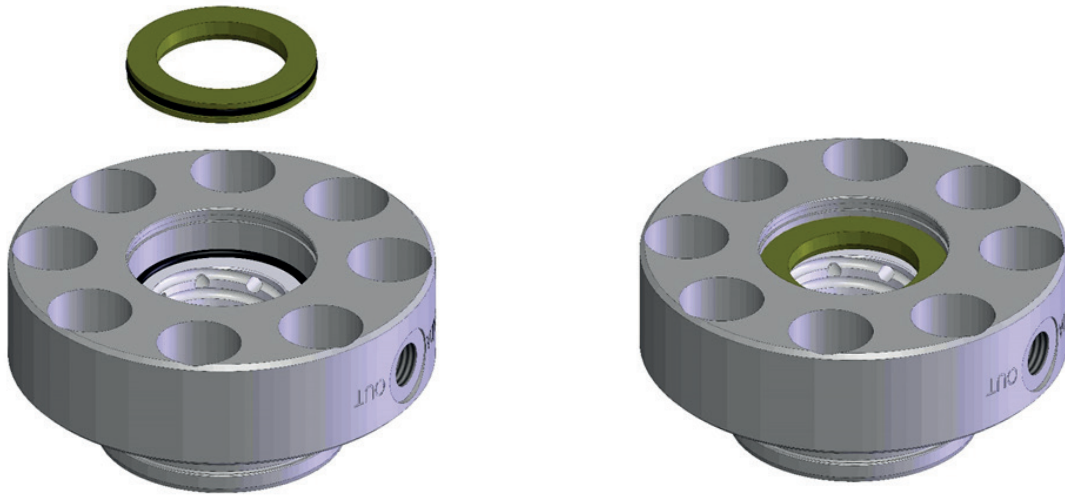


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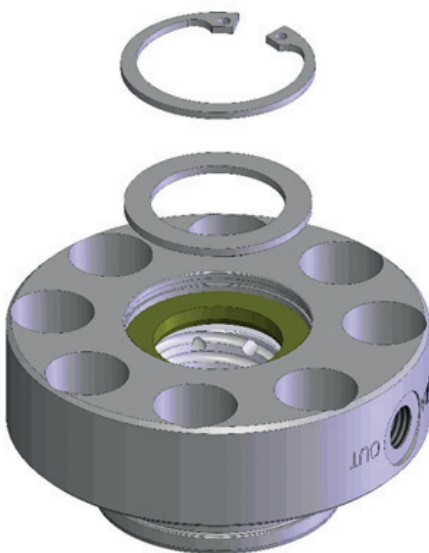


PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



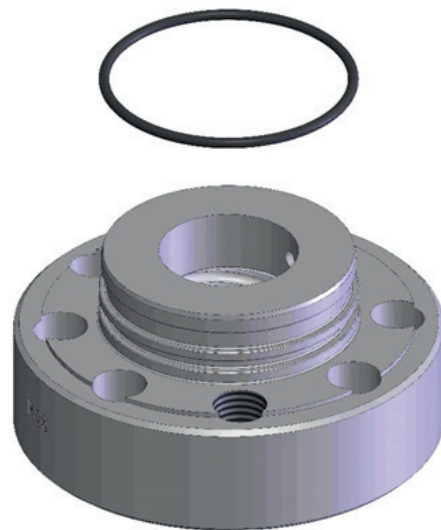
INSERT THE LOW PRESSURE SEAL WITH THE OPENED SIDE TUNED TO THE SUPPORT FLANGE (USE GREASE TYPE "ROCOL" TO IMPROVE THE SEALING).

Fig. 05



USE THE SPACER AND SEEGER TO FIX THE ASSEMBLED PARTS.

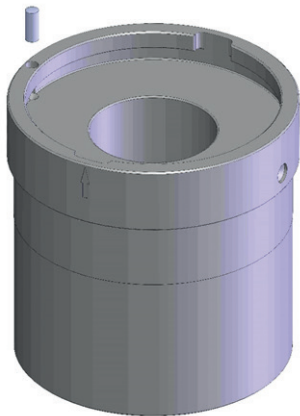
Fig. 06



INSERT THE O-RING INTO THE SUPPORT FLANGE (USE GREASE TYPE "ROCOL" TO IMPROVE THE SEALING).

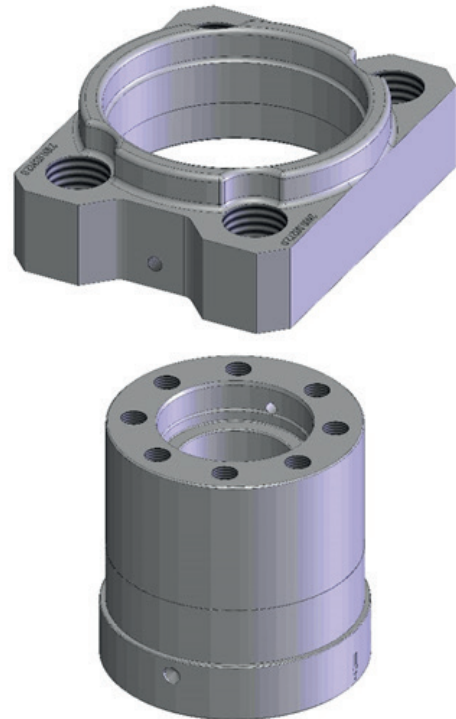
Fig. 07

PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



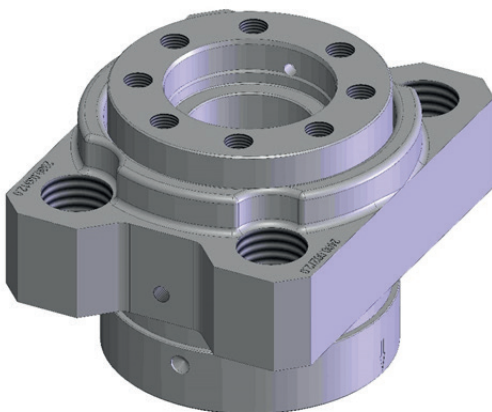
INSERT THE GUIDE PIN INTO THE SLEEVE.

Fig. 08



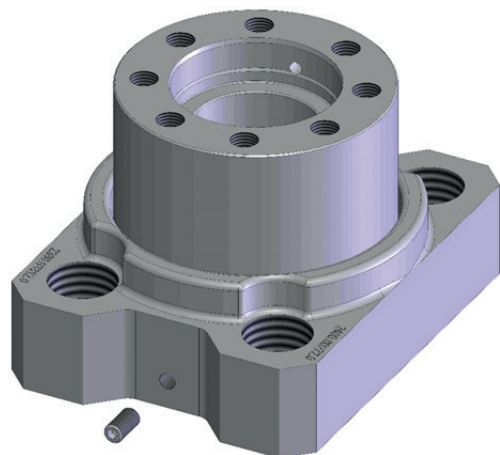
ASSEMBLY THE SAP FLANGE WITH THE SLEEVE

Fig. 09



CHECK HOSES ALIGNMENT.

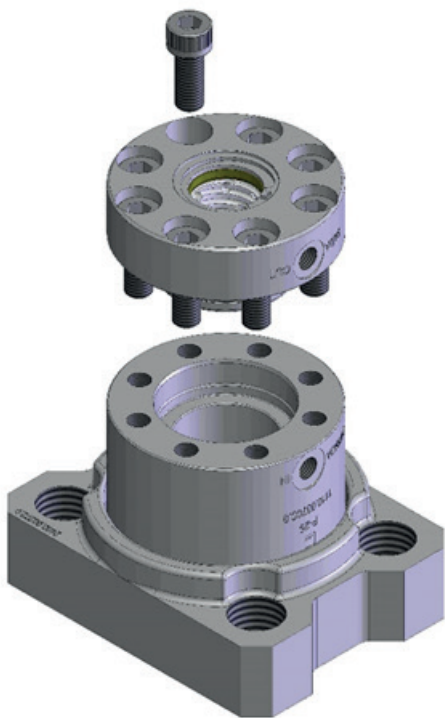
Fig. 10



INSERT THE ALLEN SCREW WITHOUT HEAD AND FIX.

Fig. 11

PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



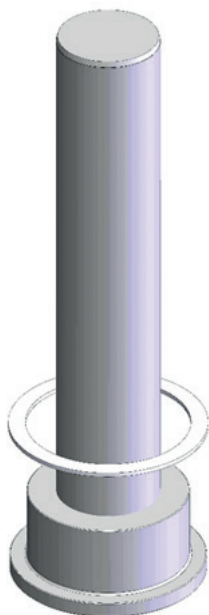
USE GREASE TYPE "ROCOL" ON THE SCREW THREADS M10 THE SUPPORT FLANGE WITH THE SLEEVE PERFORM THE TIGHTENING "X" WITH TORQUE TO 60Nm.

Fig. 12



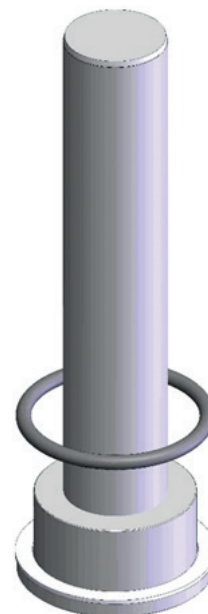
THE PISTON, BACK RING, O-RING AND SELF-CENTERING ADAPTER G-IV.

Fig. 13



INSERT THE FIRST BACK RING.

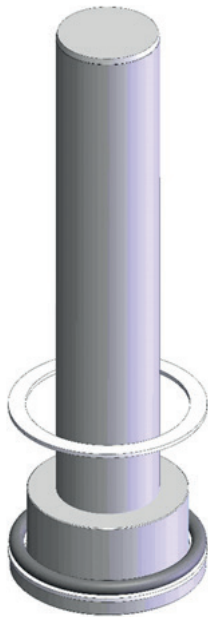
Fig. 14



INSERT THE O-RING.

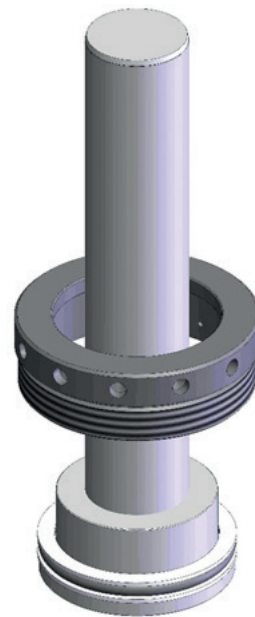
Fig. 15

PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



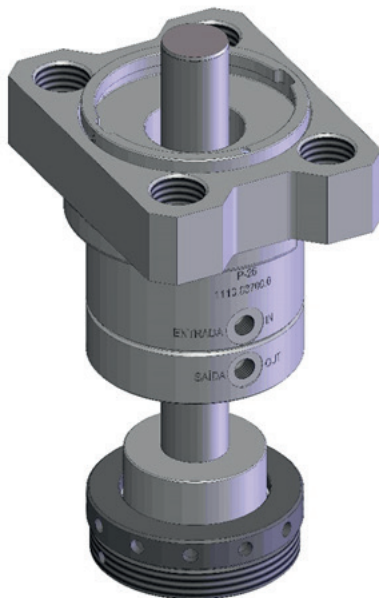
INSERT THE SECOND BACK RING.

Fig. 16



INSERT THE SELF-CENTERING ADAPTER G-IV.

Fig. 17



INSERT THE SLEEVE ASSEMBLED WITH FLANGE INTO THE PISTON UNTIL FIND THE PISTON HEAD.

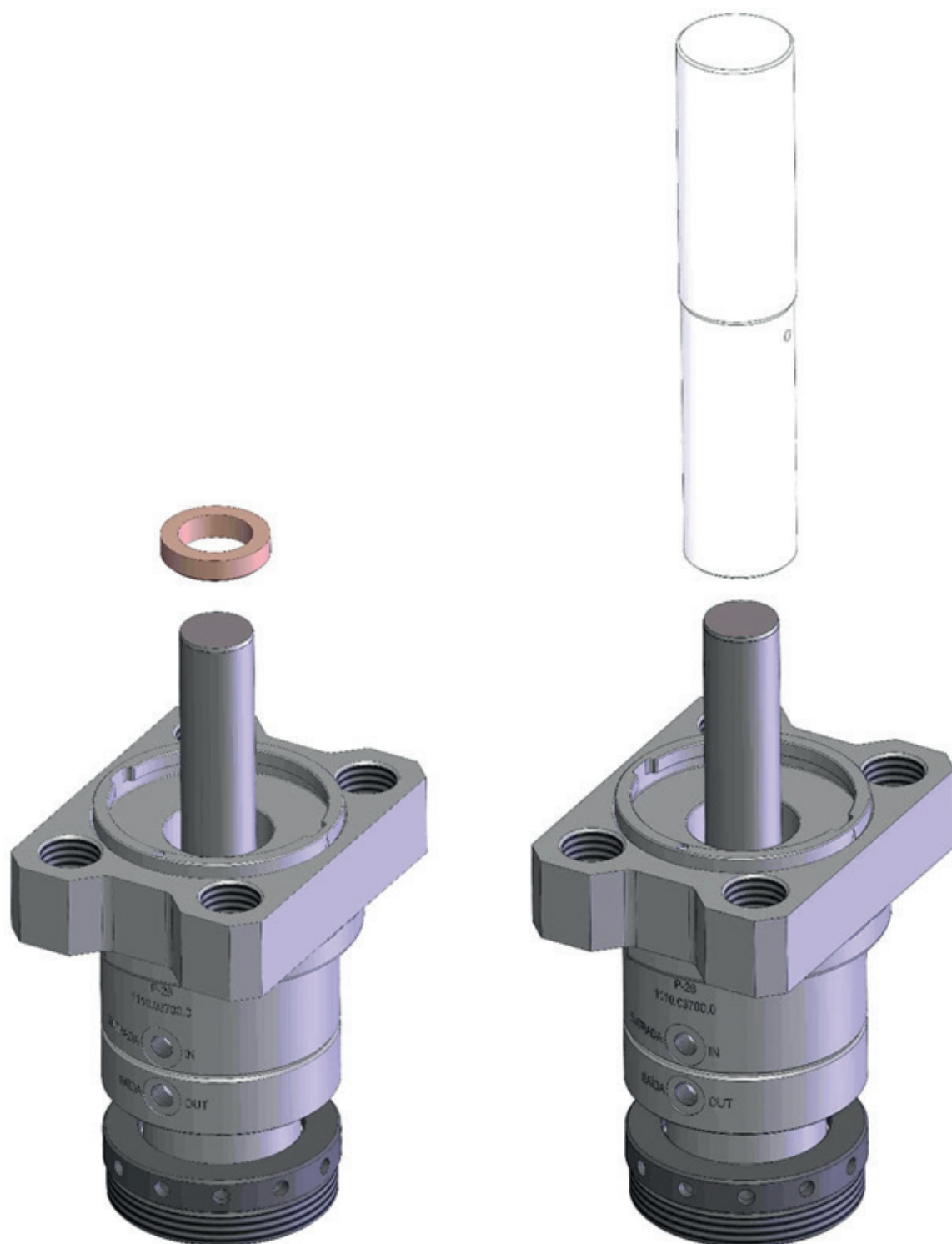
Fig. 18



DIVIDE THE SEALING KIT.

Fig. 19

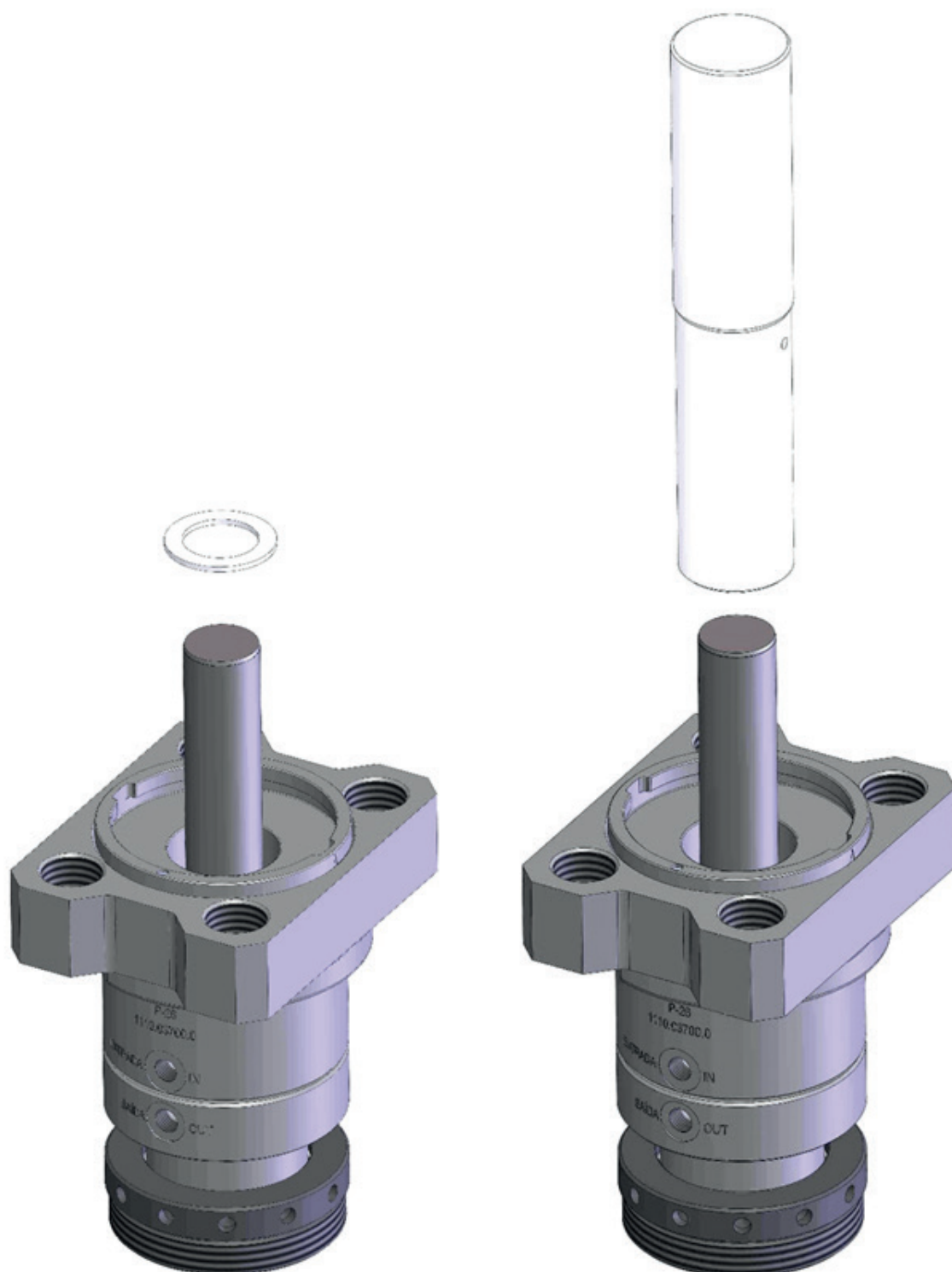
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



INSERT LOWER SUPPORT RING (WITH ANGLE SIDE TURNED DOWN) AND USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

Fig. 20

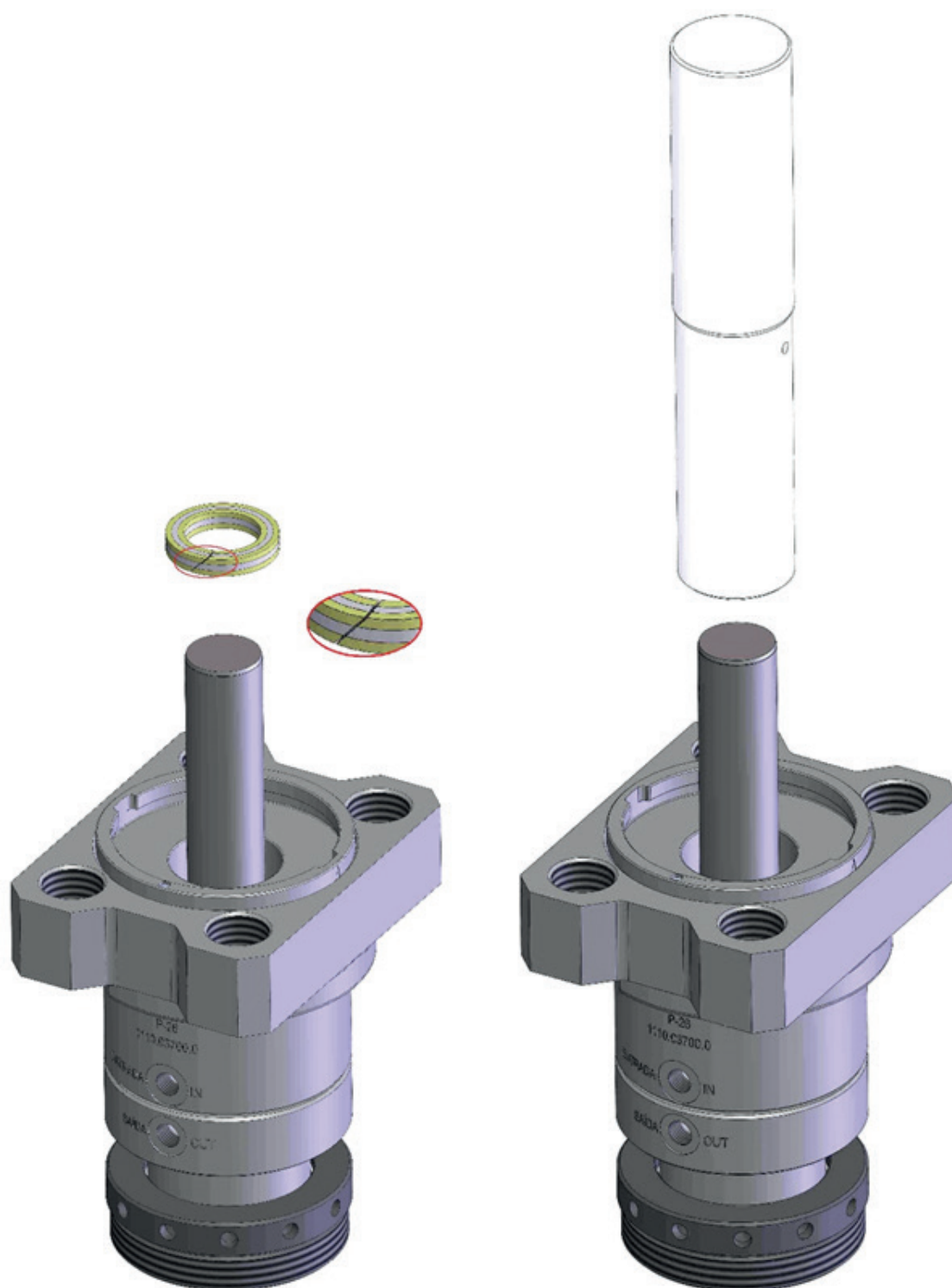
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



INSERT FIRST SCRAPER RING AND USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

Fig. 21

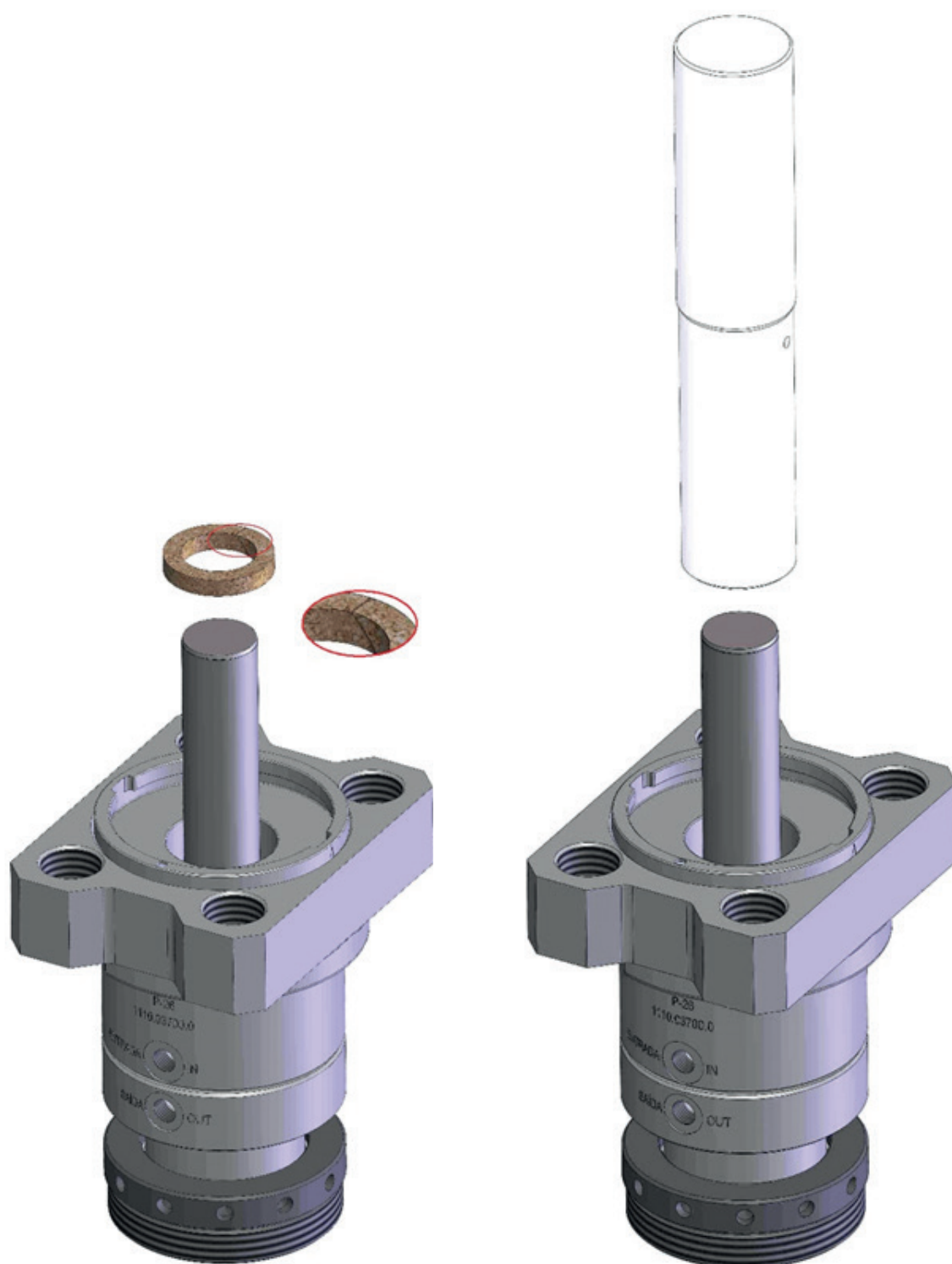
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



INSERT THE "TEFLON-KEVLAR SEALING" AND USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

Fig. 22

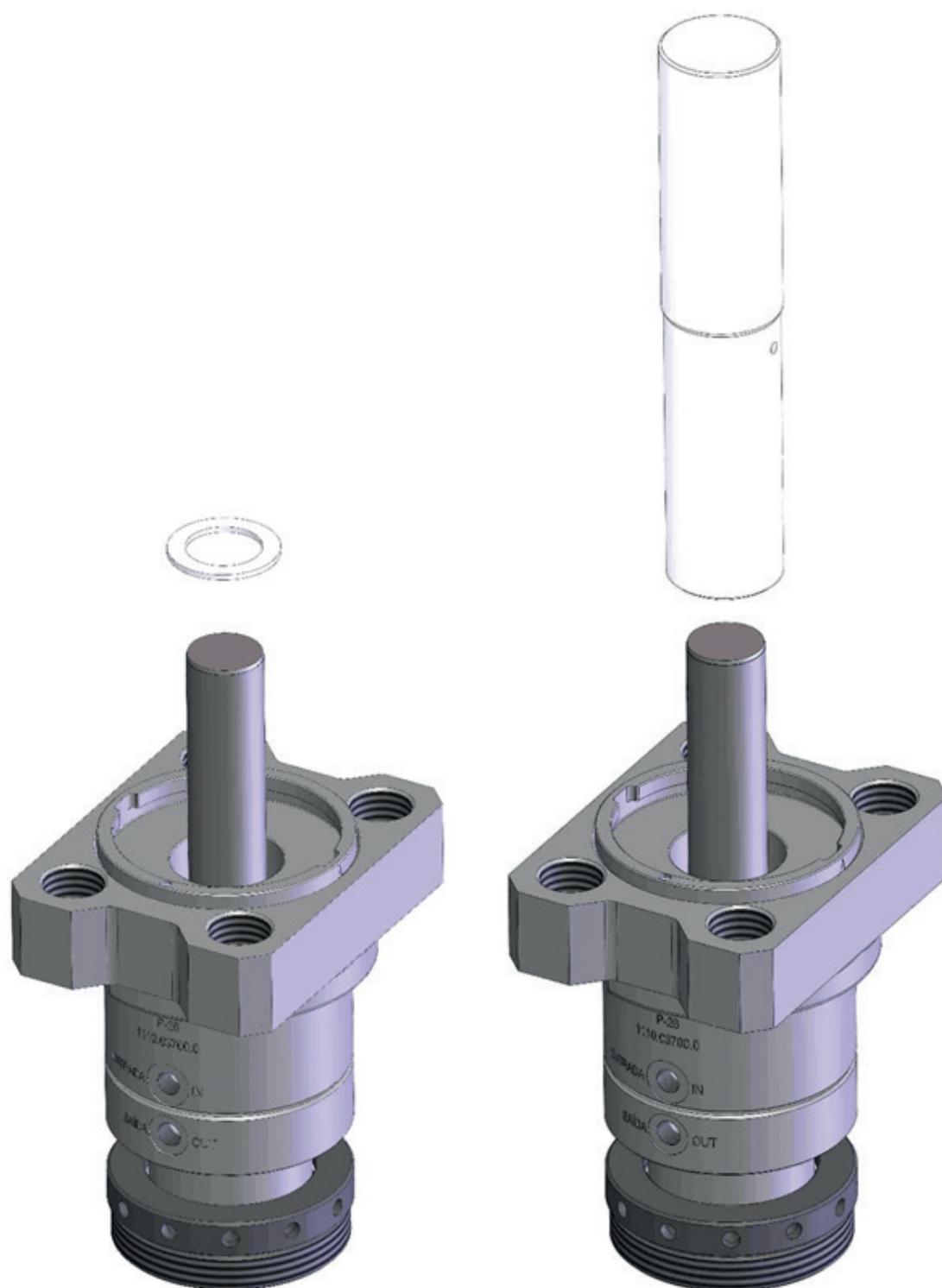
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



INSERT THE "BRAIDED PACKING", PAY ATTENTION TO LET THE CUTTING SIDE ROTATED OF 180° RESPECT THE "TEFLON-KEVLAR SEALING" CUTTING SIDE. USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

Fig. 23

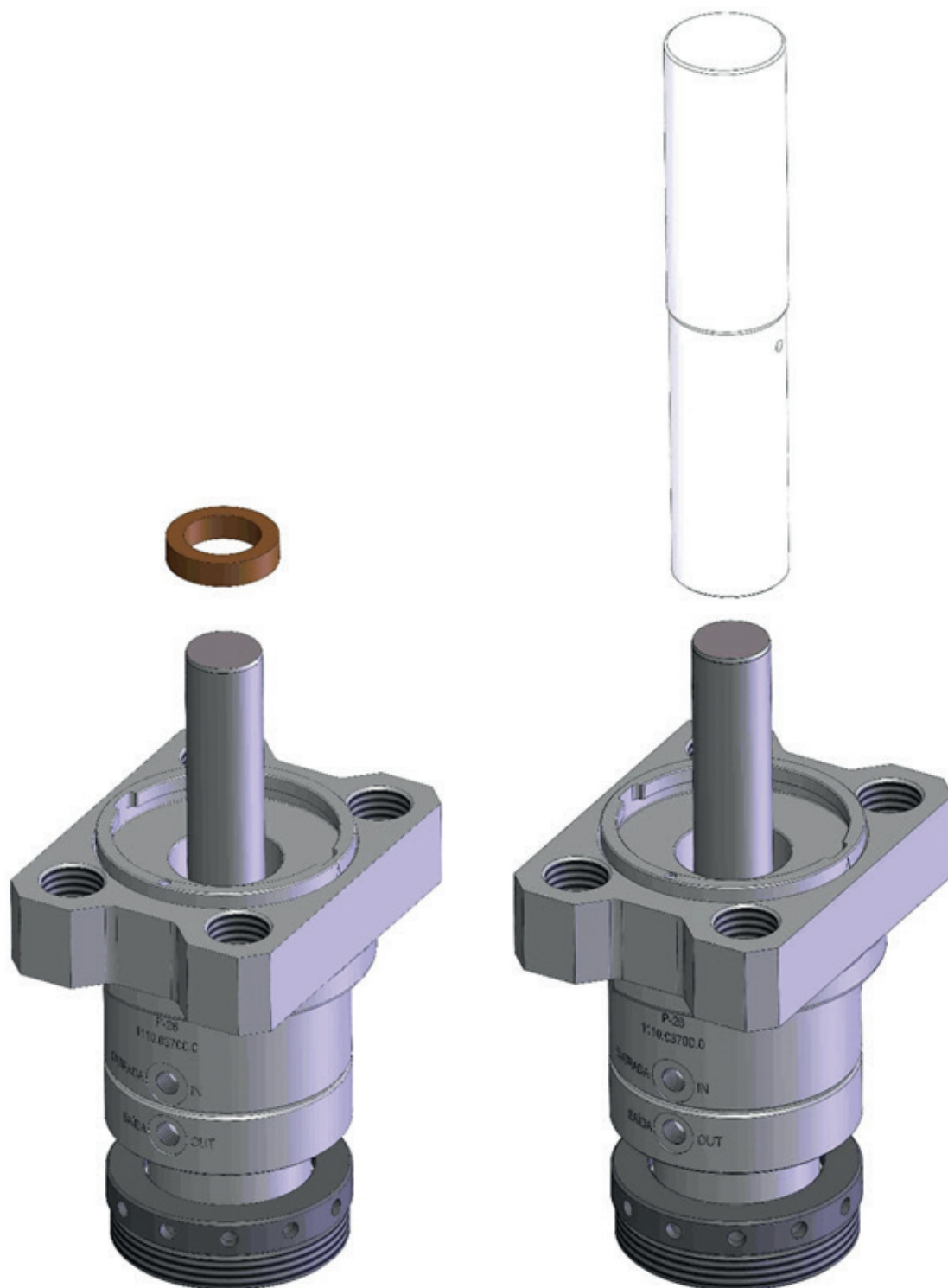
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



INSERT SECOND SCRAPER RING AND USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

Fig. 24

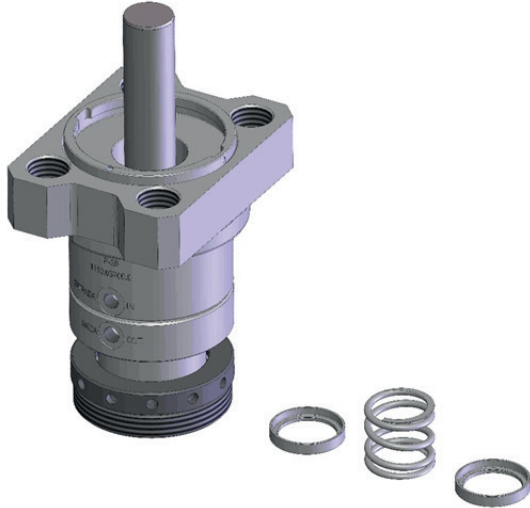
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



INSERT THE UPPER SUPPORT RING AND USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

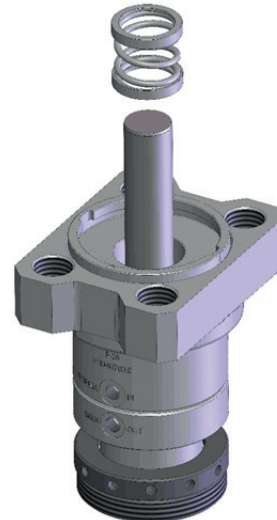
Fig. 25

PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



DEVICE THE COMPONENTS FOR PACKING
SPRING ASSEMBLY.

Fig. 26



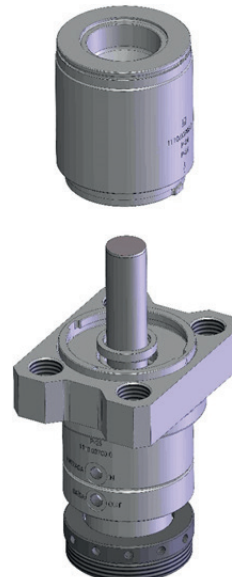
INSERT THE PACKING SPRING ALREADY
ASSEMBLED.

Fig. 27



INSERT LOWER METAL SEAL.

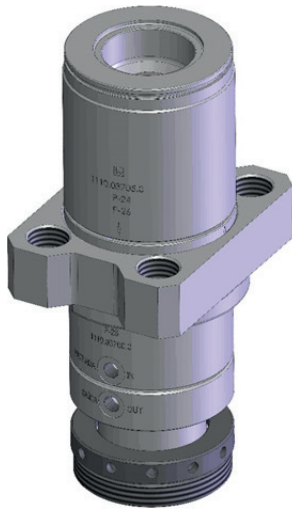
Fig. 28



ASSEMBLY THE FRONTAL JACKET WITH THE
PISTON USING LIKE GUIDE THE ARROWS
FOR THE ASSEMBLY ALIGNMENT.

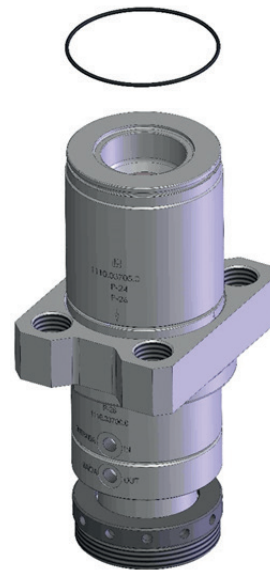
Fig. 29

PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-20 TO P-30)



PRESS AND ROTATE 90° TO LOCK THE FRONTAL JACKET ON THE RIGHT POSITION.

Fig. 30



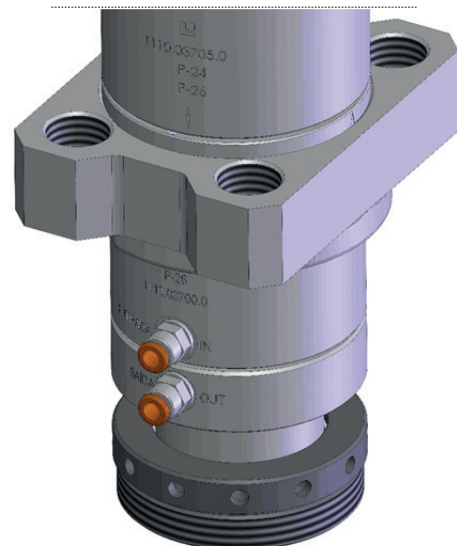
ASSEMBLY THE O-RING ON THE FRONTAL JACKET.

Fig. 31



INSERT UPPER METAL RING INTO THE FRONTAL JACKET.

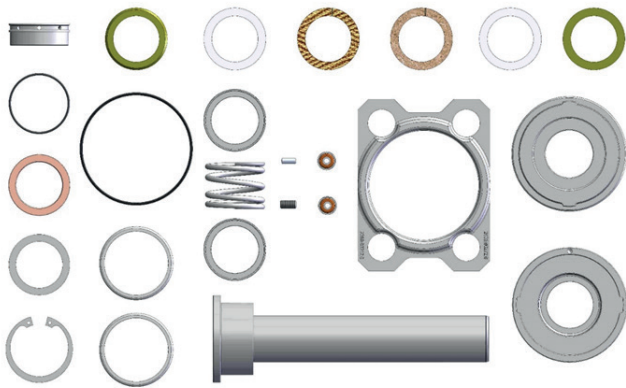
Fig. 32



FIX THE CONNECTION PARTS.

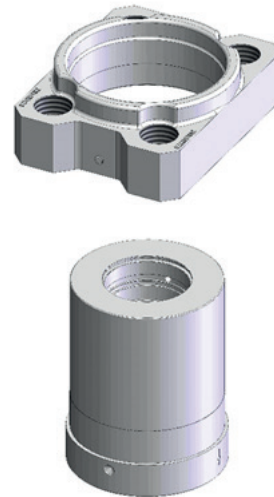
Fig. 33

PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



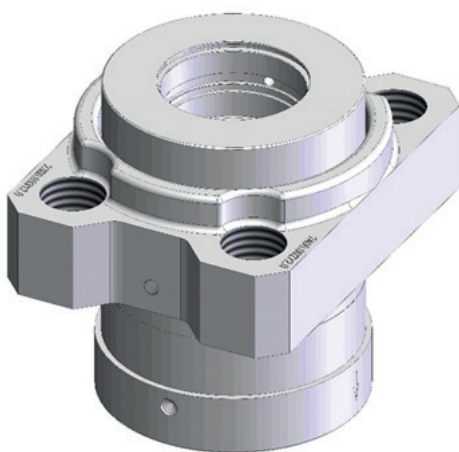
DIVIDE ALL THE PISTON KIT COMPONENTS.

Fig. 01



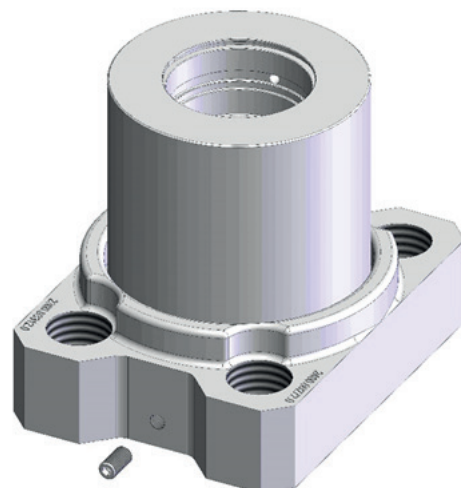
ASSEMBLY THE SUPPORT FLANGE WITH THE SLEEVE.

Fig. 02



CHECK HOSES ALIGNMENT.

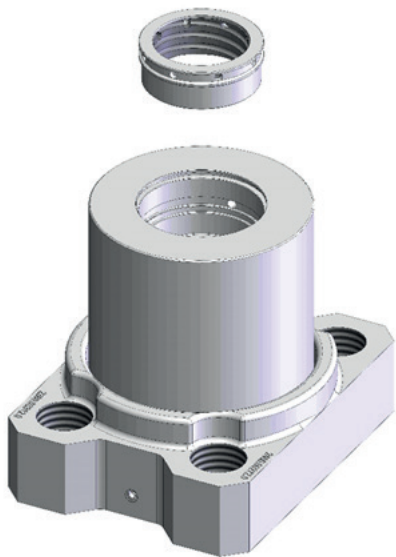
Fig. 03



INSERT THE ALLEN SCREW WITHOUT HEAD AND FIX.

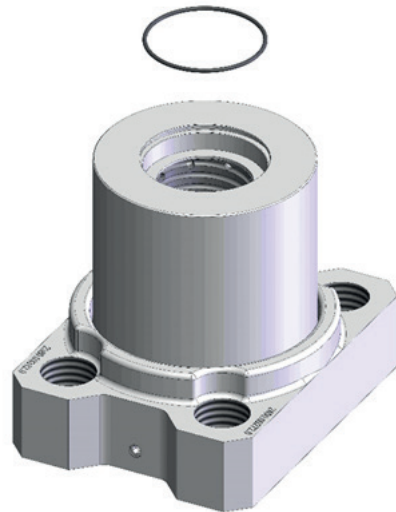
Fig. 04

PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



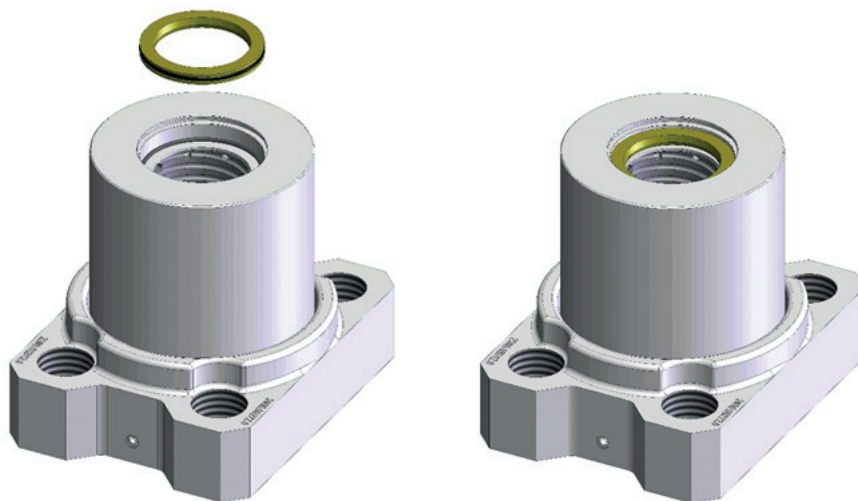
INSERT THE SLIDING BUSH INTO THE SLEEVE.

Fig. 05



OVERLAP THE O-RING.

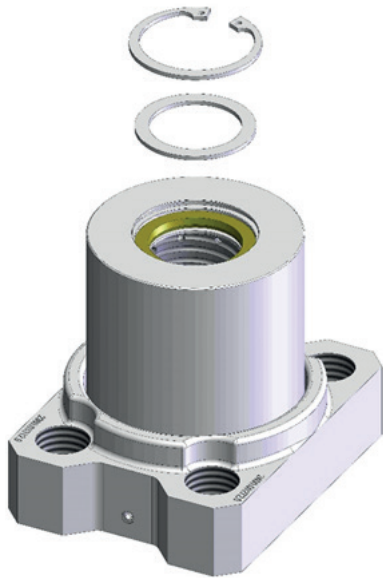
Fig. 06



INSERT THE LOW PRESSURE SEAL WITH THE OPENED SIDE TUNED TO THE SUPPORT FLANGE (USE GREASE TYPE "ROCOL" TO IMPROVE THE SEALING).

Fig. 07

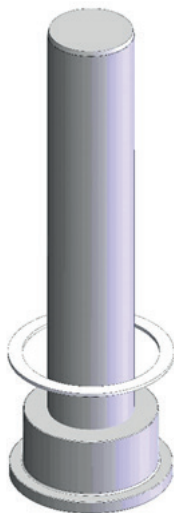
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



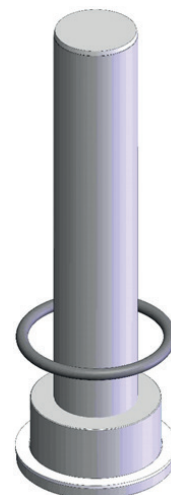
USE THE SPACER AND THE SEEGER TO FIX THE ASSEMBLED PARTS.



THE PISTON, BACK RINGS, O-RING AND
SELF-CENTERING ADAPTER G-IV.

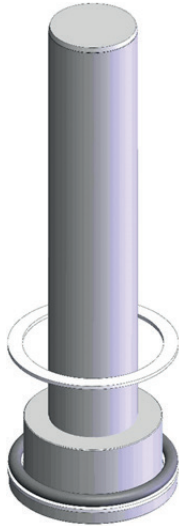


INSERT FIRST BACK RING.



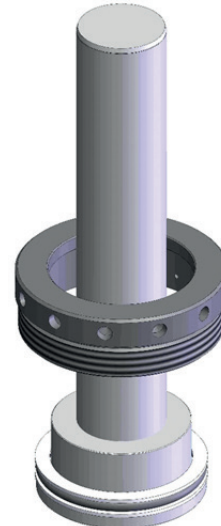
INSERT THE O-RING.

PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



INSERT SECOND BACK RING.

Fig. 12



INSERT SELF-CENTERING ADAPTER G-IV.

Fig. 13



INSERT THE SLEEVE ASSEMBLED WITH FLANGE INTO THE PISTON UNTIL FIND THE SELF CENTERING.

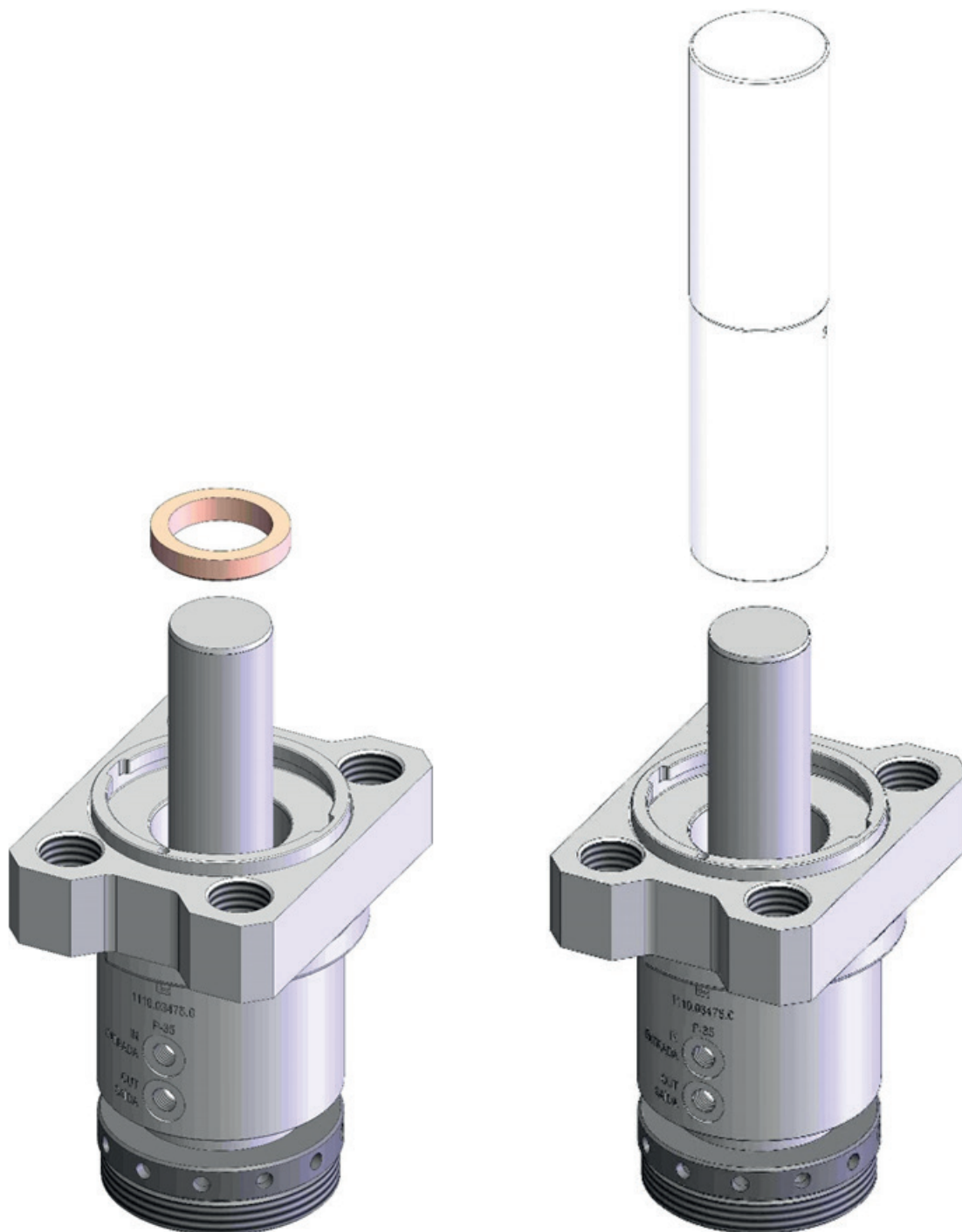
Fig. 14



DIVIDE THE SEALING KIT.

Fig. 15

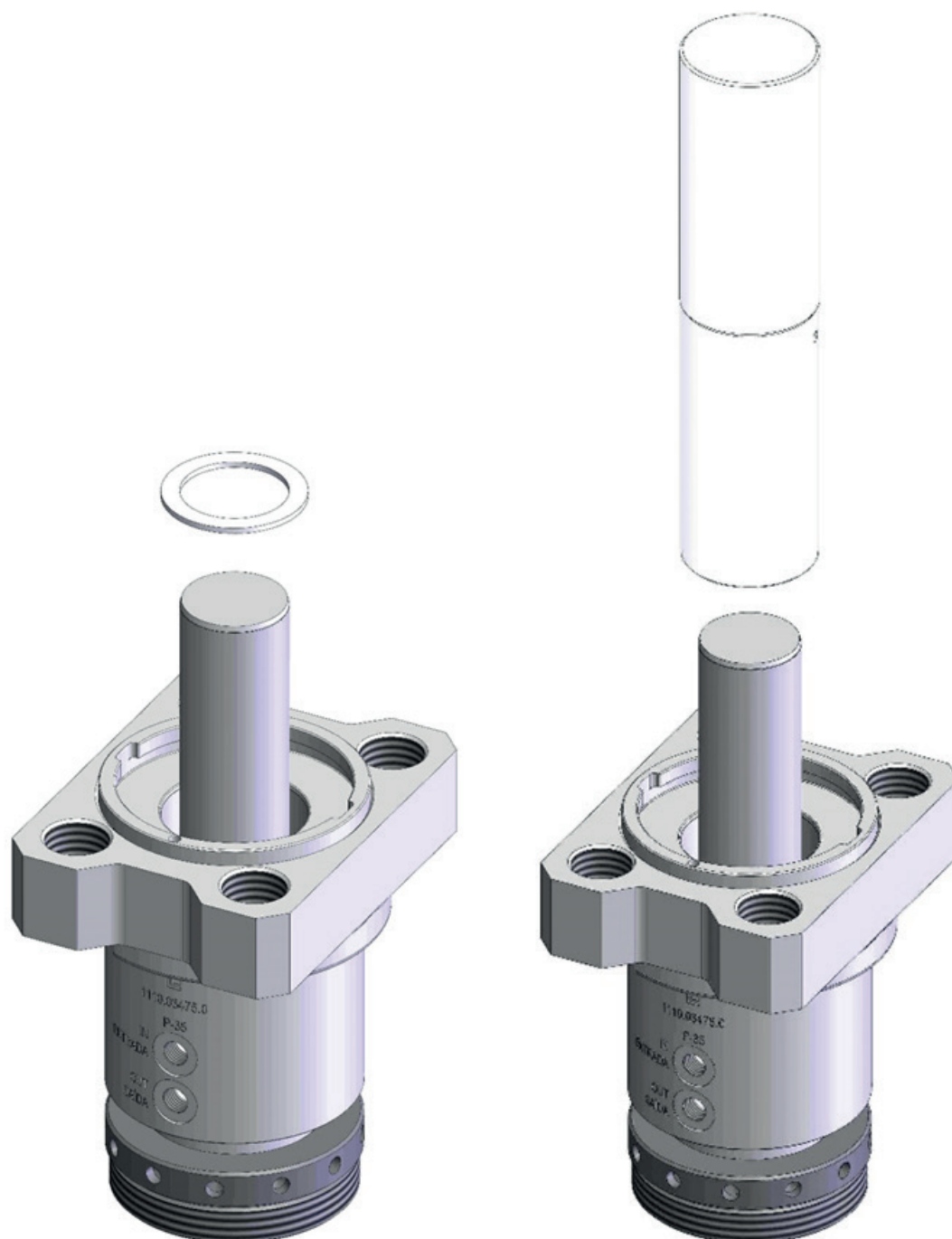
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



INSERT LOWER SUPPORT RING (WITH ANGLE SIDE TURNED DOWN) AND USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

Fig. 16

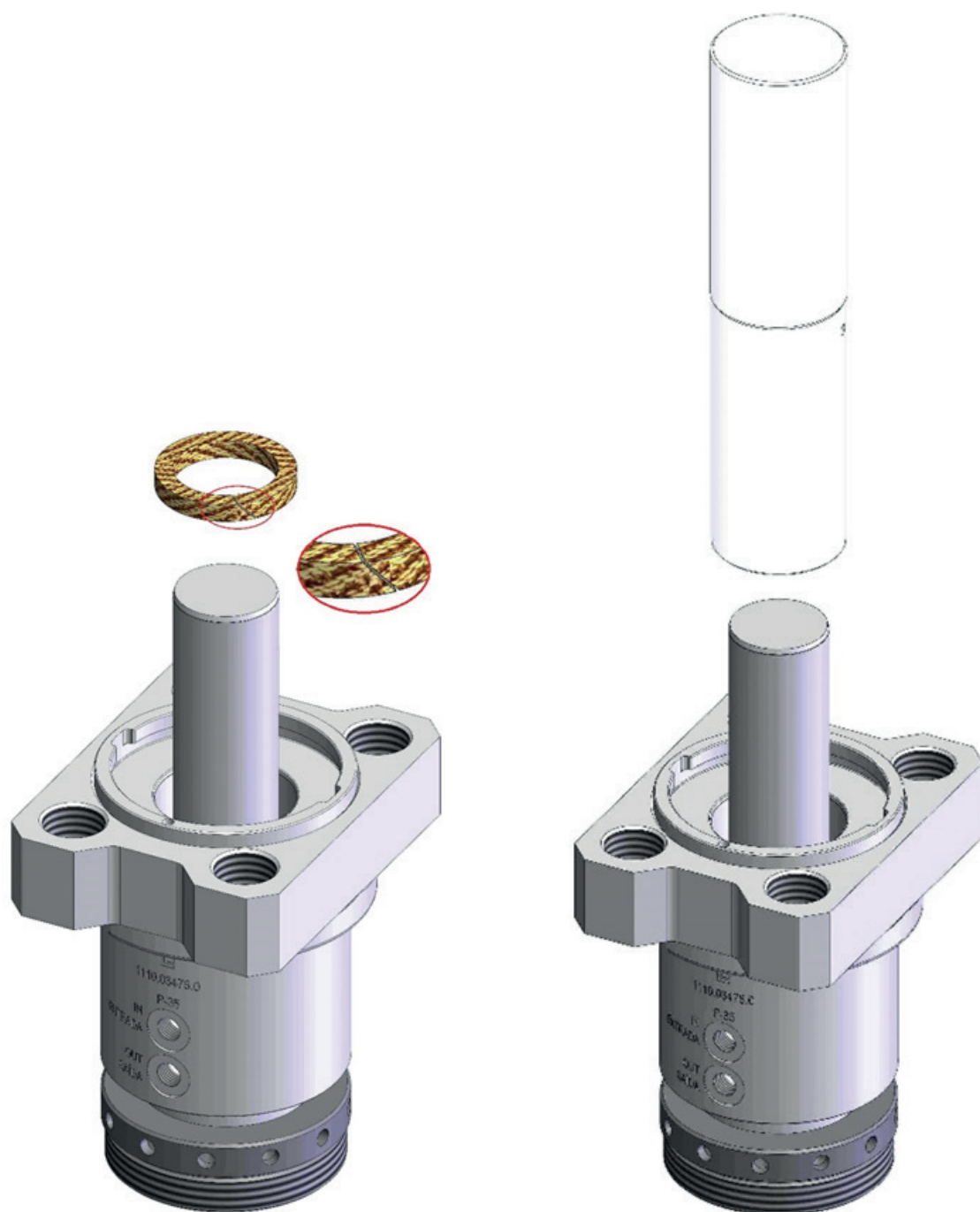
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



INSERT FIRST SCRAPER RING AND USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

Fig. 17

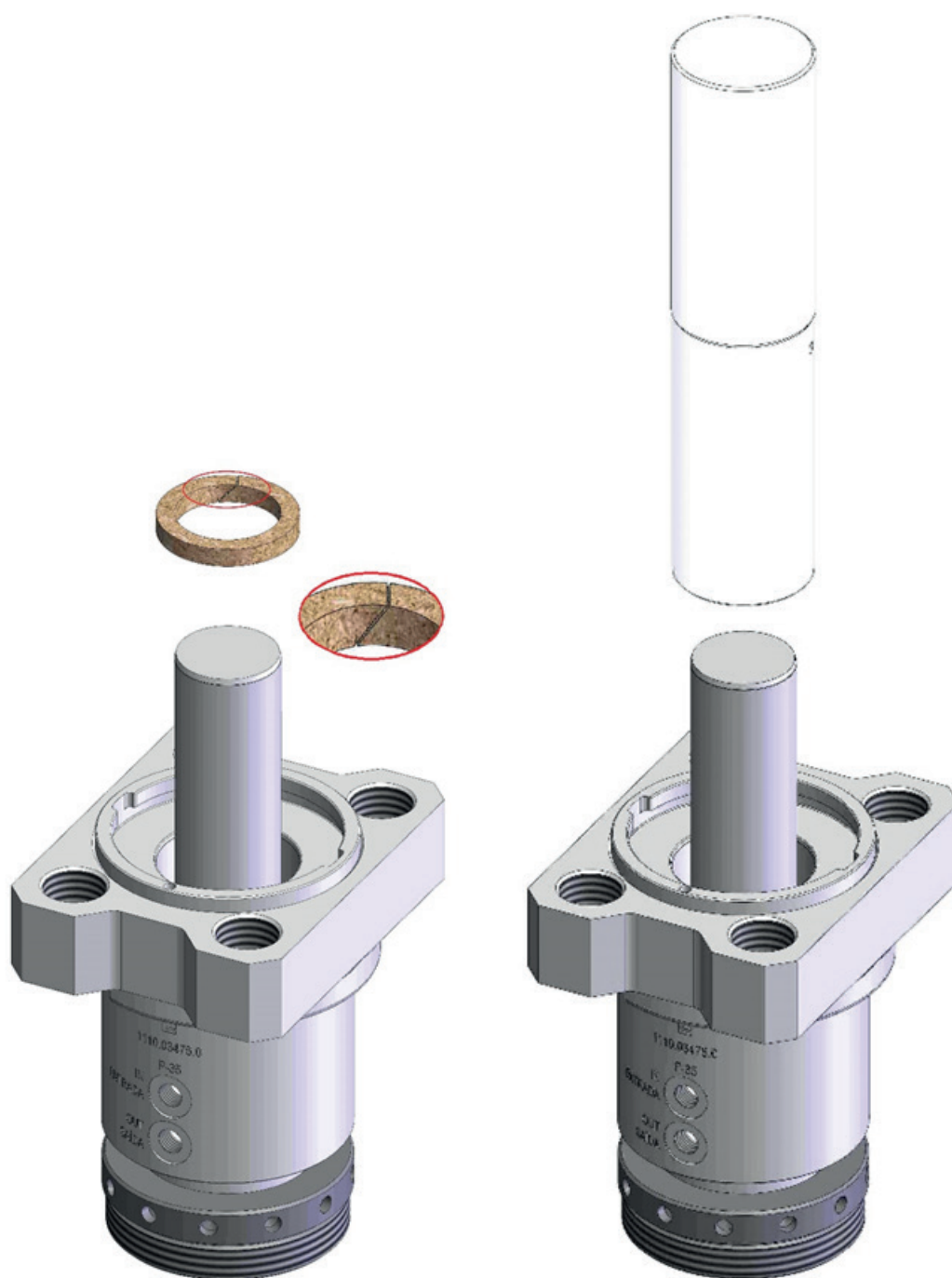
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



INSERT THE "TEFLON-KEVLAR SEALING" AND USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

Fig. 18

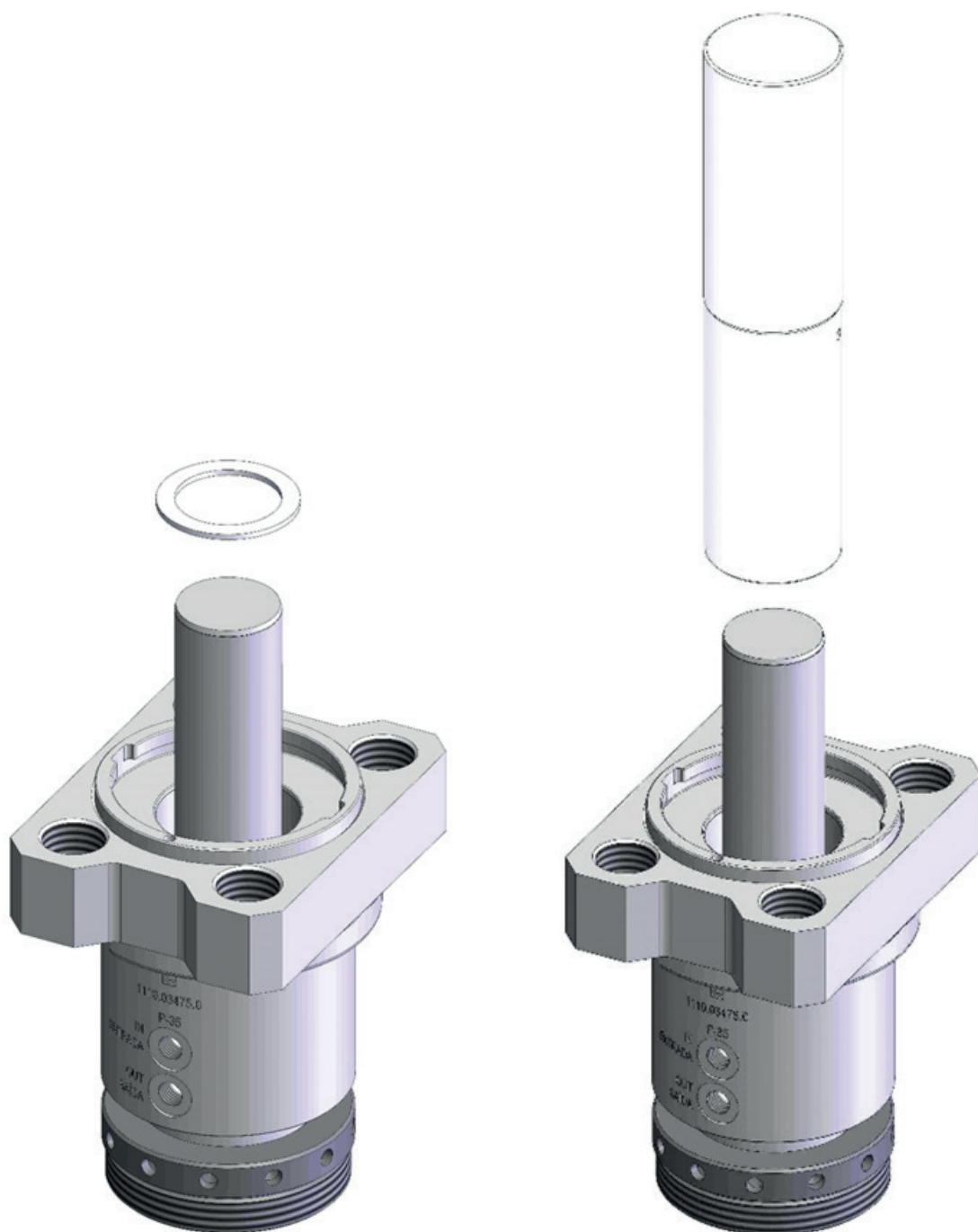
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



INSERT THE "BRAIDED PACKING", PAY ATTENTION TO LET THE CUTTING SIDE ROTATED OF 180° RESPECT THE "TEFLON-KEVLAR SEALING" CUTTING SIDE. USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

Fig. 19

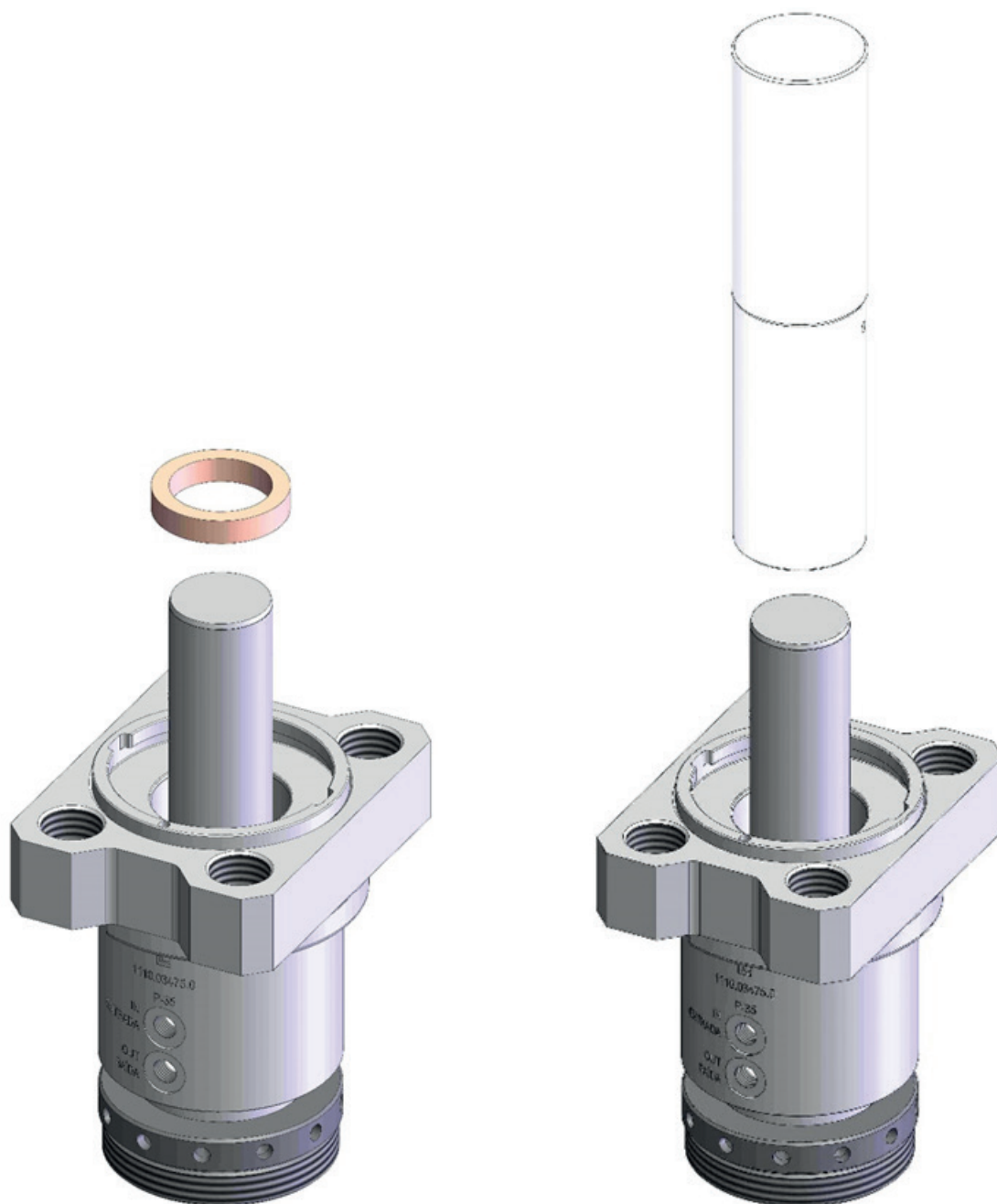
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



INSERT SECOND SCRAPER RING AND USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

Fig. 20

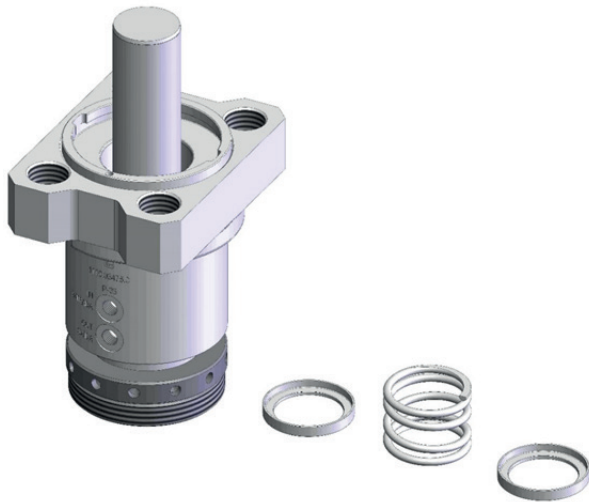
PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



THE UPPER SUPPORT RING AND USE THE NYLON TOOL TO PUSH THE COMPONENT UNTIL THE BOTTOM.

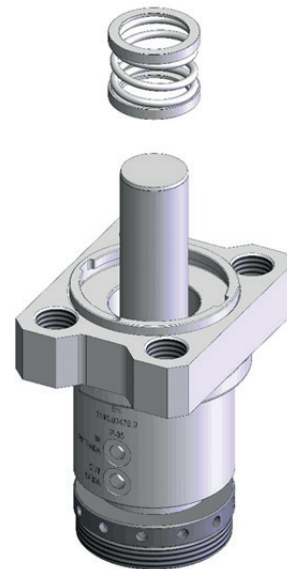
Fig. 21

PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



DEVICE THE COMPONENTS FOR PACKING
SPRING ASSEMBLY.

Fig. 22



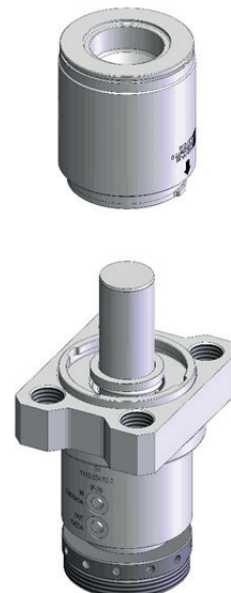
INSERT THE PACKING SPRING ALREADY
ASSEMBLED.

Fig. 23



INSERT LOWER METAL SEAL.

Fig. 24



ASSEMBLY THE FRONTAL JACKET ON THE
PISTON USING THE ARROWS LIKE REFERENCE
FOR THE ALIGNMENT.

Fig. 25

PISTON KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



PRESS AND ROTATE 90° TO LOCK THE FRONTAL JACKET ON THE RIGHT POSITION.

Fig. 26



ASSEMBLY THE O-RING ON THE FRONTAL JACKET.

Fig. 27



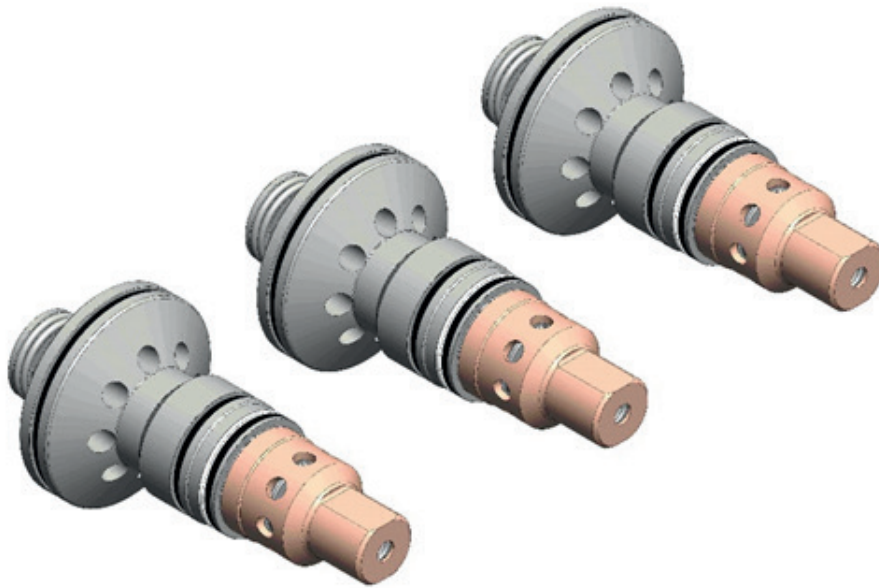
INSERT THE UPPER METAL RING.

Fig. 28



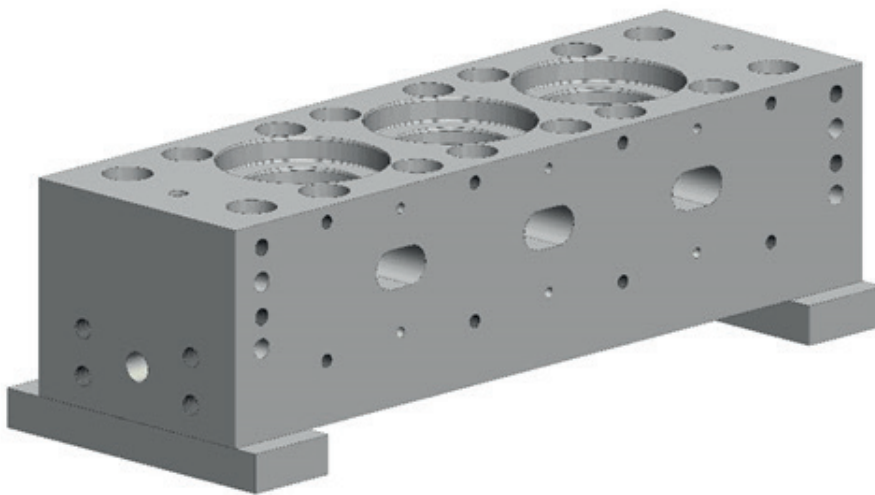
FIX THE CONNECTION PARTS.

Fig. 29



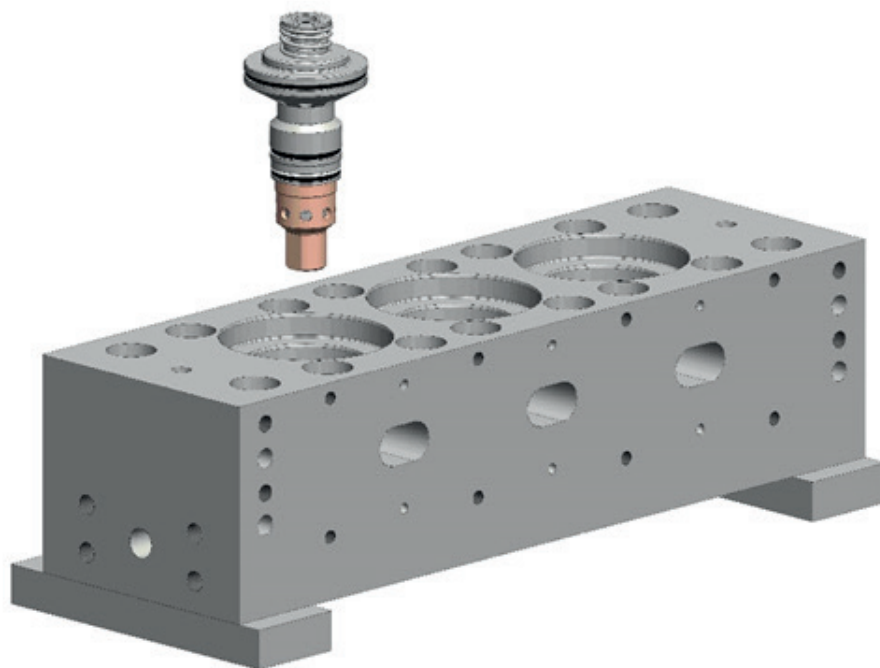
DIVIDE THE VALVES.

Fig. 01



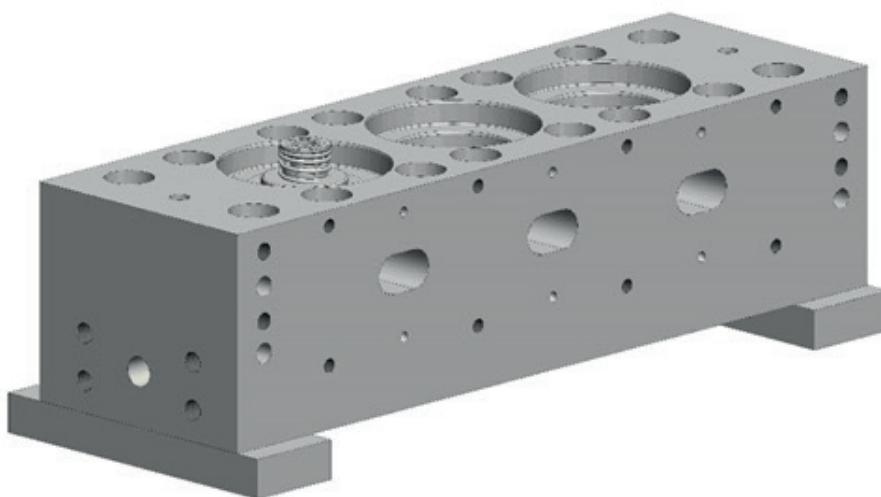
PUT THE HEAD ON SUPPORT SHIMS.

Fig. 02



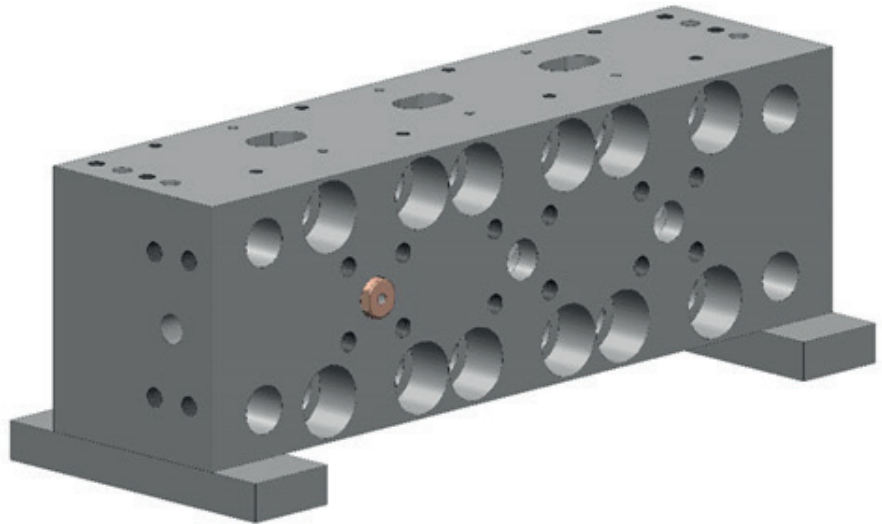
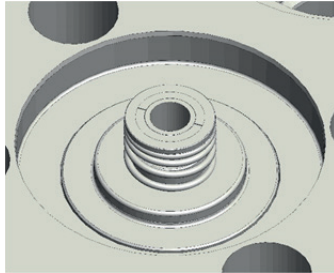
INSERT THE VALVE INTO HOLE HEAD, USE GREASE TYPE "ROCOL" ON THE ALL SEAL RINGS TO AVOID DEMAGED DURING THE ASSEMBLING.

Fig. 03



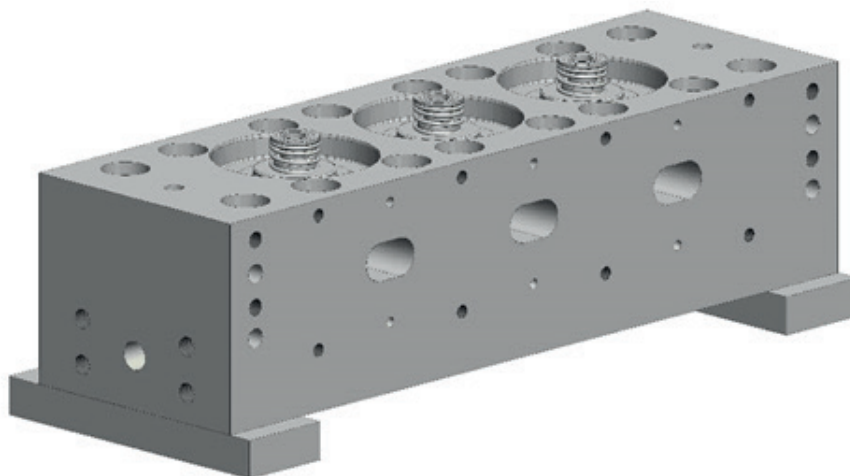
USE YOUR HANDS TO FIX THE VALVE INTO THE HEAD.

Fig. 04



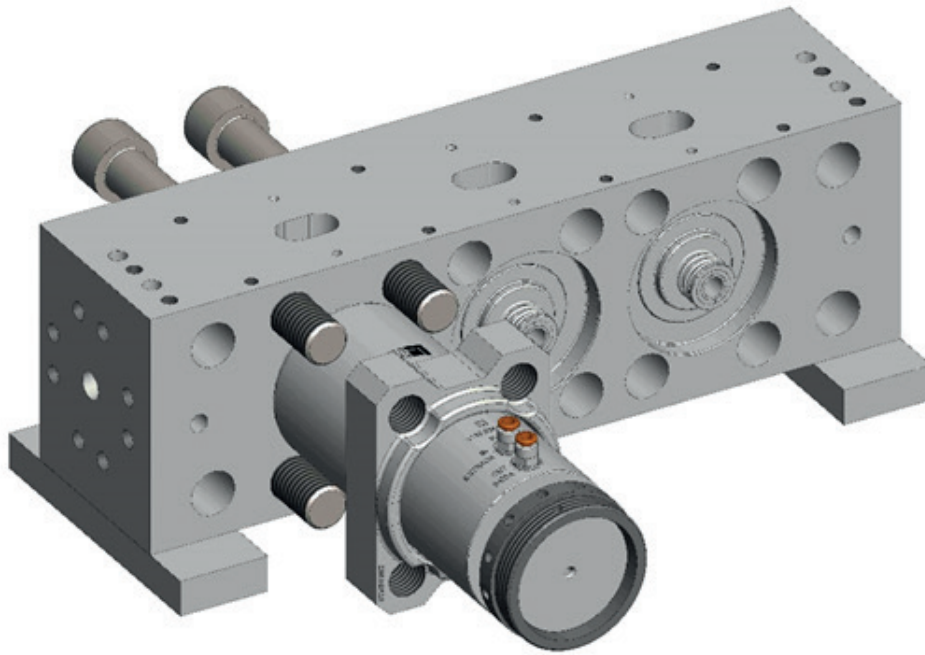
CHECK VALVE FIT, THE VALVE MUST BE FREE RESPECT THE HEAD SURFACE. CHECK IF THE VALVE IS COMPLETELY LOCKED.

Fig. 05



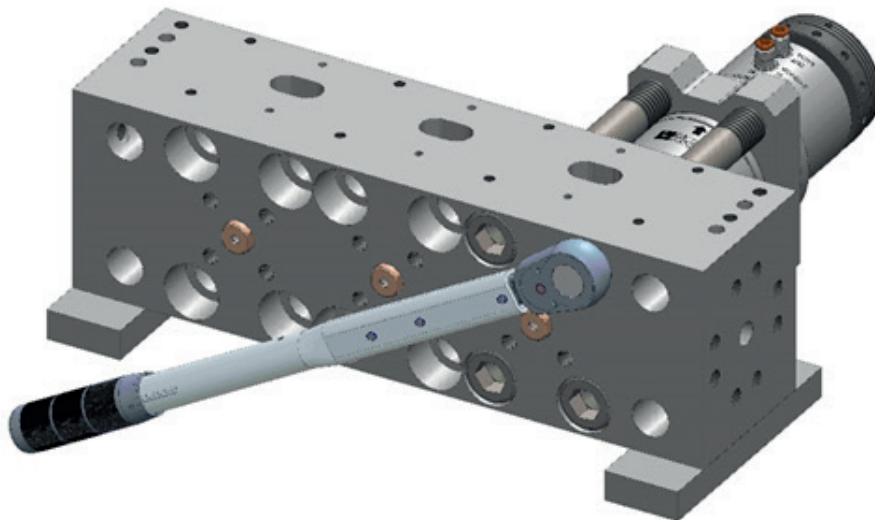
REPEAT THE PROCESS WITH THE OTHERS VALVES.

Fig. 06



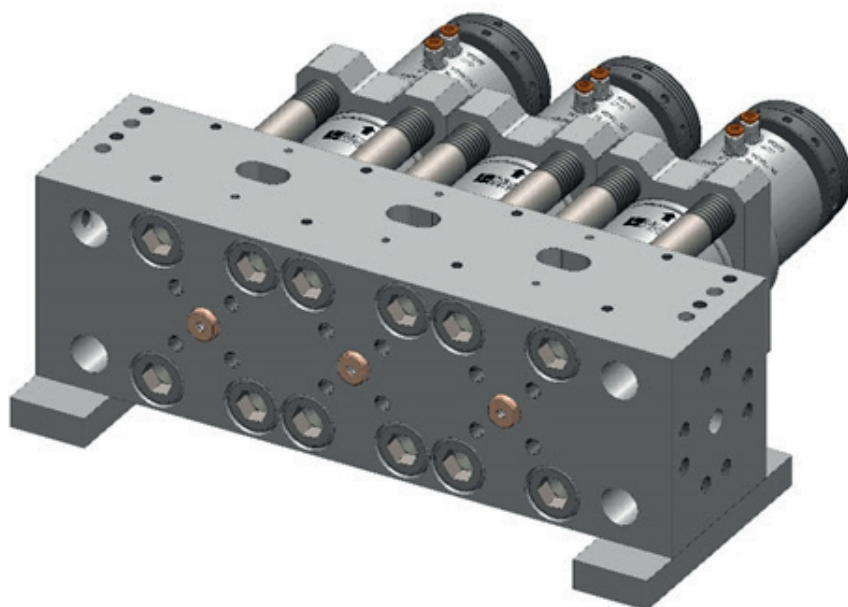
WITH THE PISTON KIT ALREADY ASSEMBLED, USE GREASE TYPE "ROCOL" TO AVOID DAMAGE ON THE SEALS DURING THE ASSEMBLING. INSERT THE PISTON KIT INTO THE HEAD (CHECK THE CONNECTIONS PARTS POSITION) AND INSERT THE SCREW (USE GREASE TYPE "ROCOL" ON THE SCREW THREADS).

Fig. 07



THE TIGHTENING "X" WITH STEPS TORQUE OF 70Nm, 150Nm AND 350Nm

Fig. 08



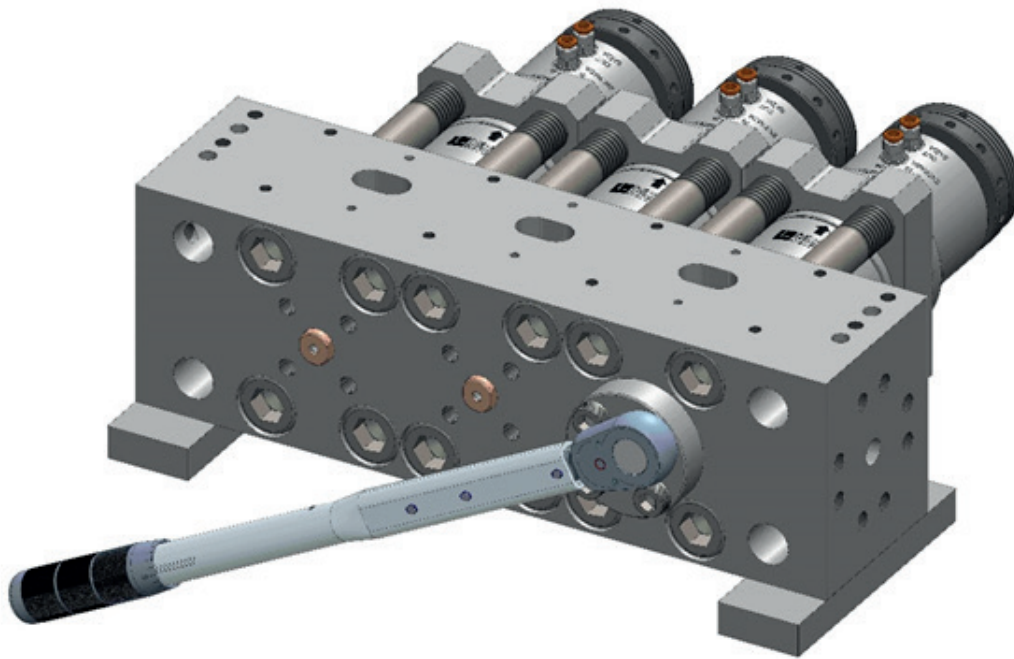
REPEAT THE PROCESS FOR OTHERS PISTONS.

Fig. 09



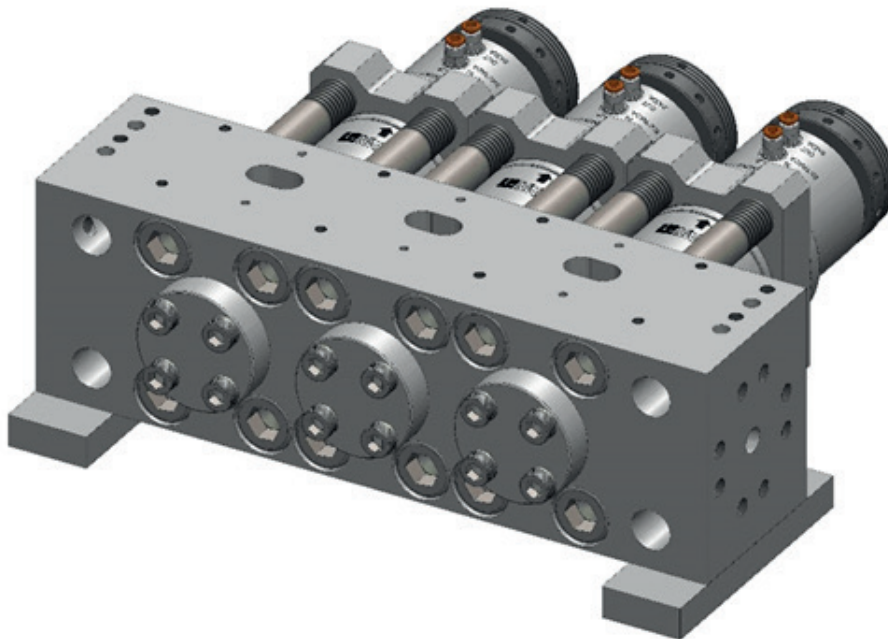
ASSEMBLY O-RING ON THE FRONTAL FLANGE (USE GREASE "ROCOL" ON THE SEAL).

Fig. 10



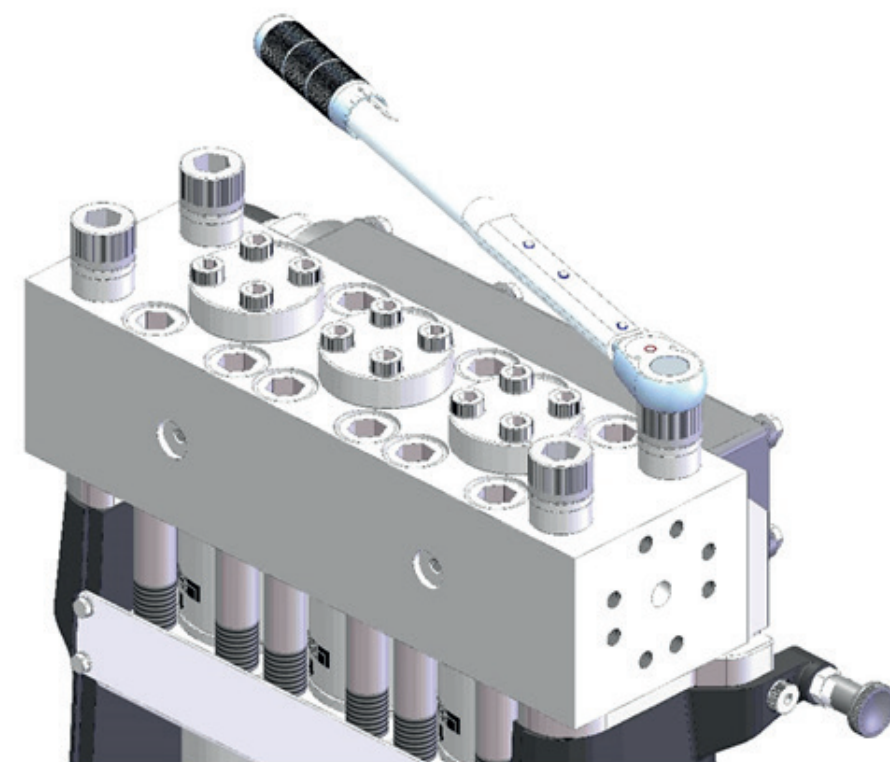
USE GREASE TYPE "ROCOL" ON SCREW THREADS M12 TO FIX THE FRONTAL FLANGE WITH THE HEAD. PERFORM THE TIGHTENING "X" WITH TORQUE OF 100Nm.

Fig. 11



REPEAT THE PROCESS FOR OTHERS FLANGES.

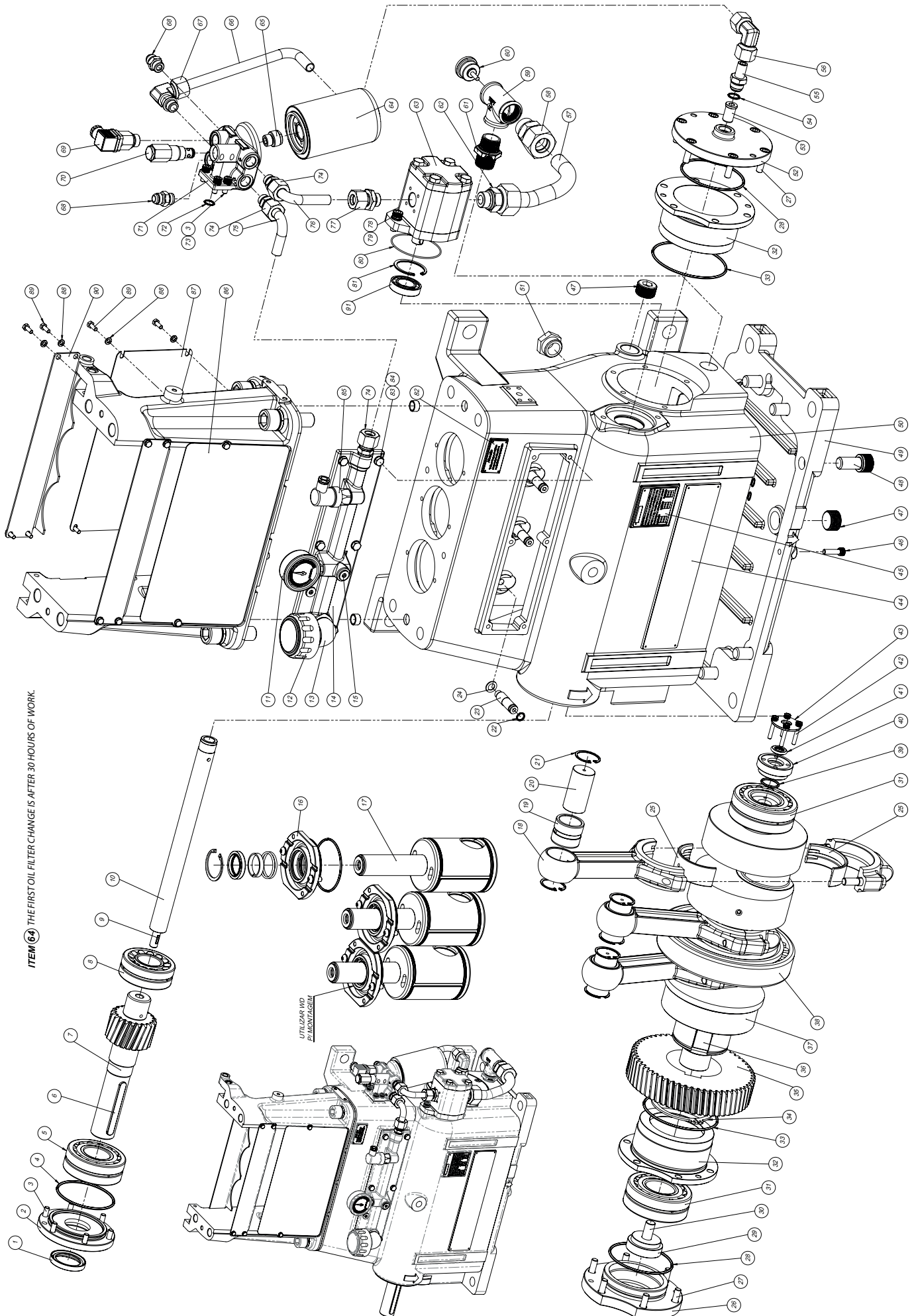
Fig. 12



USE GREASE TYPE "ROCOL" ON SCREW THREADS M24 TO FIX THE ASSEMBLED HEAD WITH THE FORK. PERFORM THE TIGHTENING "X" WITH STEPS TORQUE OF 100Nm, 250Nm AND 400Nm.

Fig. 13

POWER END PARTS - CODE Q231010011088

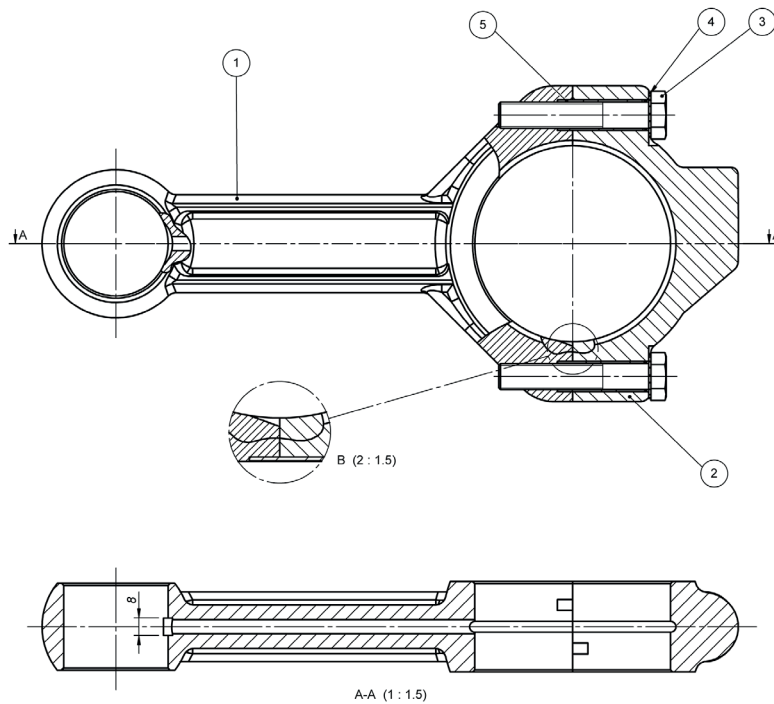


POWER END PARTS - CODE Q231010011088			
ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005350	RETAINER	1
2	Q231110010990	AXIS TRASMISSION FLANGE	1
3	Q231200005500	ALLEN SCREW M8X20mm	10
4	Q231300001110	O-RING	1
5	Q231700001160	BEARING	1
6	Q231200001820	KEY	1
7	Q231110010770	SHAFT H150-3	1
8	Q231700001510	BEARING	1
9	Q231200003000	WOODRUFF KEY	1
10	Q231110026210	SHAFT EXTENSION	1
11	Q233000003210	PRESSURE GAUGE	1
12	Q233000001190	CAP 1" BSP	1
13	Q232320002290	ELBOW 90° MALE-FEMALE 1" BSP	1
14	Q231110036740	LUBRICATE DUCT G-IV	1
15	Q232320005640	PLUG 1/4" BSP	2
16	Q231010010970	RETAINER CAGE	3
17	Q231010011110	PISTON GUIDE H150-3	3
18	Q231010011120	CONNECTING ROD H150-3	3
19	Q231700001350	PISTON ROD SLEEVE	3
20	Q231100001960	PISTON ROD PIN	3
21	Q231200002780	SEEGER I-39	6
22	Q231300002130	O-RING	3
23	Q231110026200	DUCT UNION HOSE	3
24	Q231300001760	CUPPER RING	3
25	Q231700001250	BEARING CONNECTING ROD	3
26	Q231110010940	CRANKSHAFT COVER H150-3	1
27	Q231200001390	ALLEN SCREW M10x30mm	12
28	Q231300009550	O-RING	2
29	Q231110011000	BUSHING	1
30	Q231200001860	ALLEN SCREW M16x40mm	1
31	Q231700001380	BEARING	2
32	Q231110010980	BEARING HOUSING	2
33	Q231300003810	O-RING	2
34	Q231200003620	SEEGER	1
35	Q231110010760	CROWN H150-3	1
36	Q231200001780	KEY	1
37	Q231010007710	CRANKSHAFT H150-3	1
38	Q231700001500	BEARING	1
39	Q231300005360	O-RING	1
40	Q231110011010	BUSHING	1
41	Q231300005020	ROTO GLYD	1
42	Q231200002670	ALLEN SCREW M8x35mm	4

POWER END PARTS - CODE Q231010011088			
ITEM	CODE	DESCRIPTION	QTY.
43	Q231110030640	GLYD COVER H120-H200-H300	1
44	Q233000024900	BRAND PLATE	2
45	Q233000001200	TECHNICAL DATA PLATE	1
46	Q231200002680	ALLEN SCREW M8x30mm	2
47	Q232320018050	HEXAGONAL CAP 1"BSP	2
48	Q231200010120	ALLEN SCREW M20X40MM DIN 912	8
49	Q231110035700	H150/3 VERTICAL COVER	1
50	Q231010019600	CASE H150-3 (VERTICAL / HORIZONTAL)	1
51	Q233000010080	VISUAL OIL CAP 1"BSP	1
52	Q231110022660	CRANKSHAFT COVER H150-3	1
53	Q231110023040	AXIS ROTO GLYD	1
54	Q231300008480	O-RING	1
55	Q231110035790	ADAPT. M22x1,5 Ø16mm	1
56	Q232320018070	COUPLING 90° AC16 X M24X1.5	1
57	Q232380033430	HOSE	1
58	Q232320018100	COUPLING AC25 X 1" BSP	1
59	Q232320002280	T ADAPTOR 1" BSP	1
60	Q232320016770	MAGNETIC CAP BMA 1"BSP	1
61	Q232320007140	NIPLE 1" BSP	1
62	Q232320018140	COUPLING AC25 X 1.1/16" UNF	1
63	Q231110036650	LUBRICATE PUMP	1
64	Q233000021470	OIL FILTER	1
65	Q232320017080	REDUCTION 3/4" BSP x 3/4" UNF	1
66	Q232380033450	HOSE	1
67	Q232320018130	COUPLING 90° AC16 X 3/4" UNF	1
68	Q232320002830	NIPLE 3/4" UNF PL x 3/4" UNF JIC 2	2
69	Q233000027750	THERMAL PROTECTION 85°C	1
70	Q233000010200	RELIEF VALVE	1
71	Q231110036750	LUBRICATE MANIFOLD G-IV	1
72	Q231300001060	O-RING	1
73	Q231200001070	LOCK WASHER M8	4
74	Q232320018110	COUPLING AC16 X 3/4" UNF	3
75	Q232380033460	HOSE	1
76	Q232380033440	HOSE	1
77	Q232320018680	COUPLING AC16 X 7/8" UNF	1
78	Q231200001400	ALLEN SCREW M10x25mm	2
79	Q231200001030	LOCK WASHER M10	2
80	Q231300005820	O-RING	1
81	Q231200008260	SEEGER I-52	1
83	Q233000017940	METAL PLATE TORQUE IDENTIFICATION	1
84	Q231200008280	SCREW HEXAGONAL HEAD M8x20mm	6

POWER END PARTS - CODE Q231010011088			
ITEM	CODE	DESCRIPTION	QTY.
85	Q231200004020	WASHER M8	6
86	Q231010010740	PRESSURE SWITCH	1
87	Q232380029560	PISTON FRONT COVER	1
88	Q232380029570	PISTON REAR COVER	1
89	Q231200001910	WASHER M6	14
90	Q231200001890	HEXAGONAL SCREW M6x16mm	14
91	Q232380029580	JACKET COVER	2
92	Q231700001950	BEARING	1

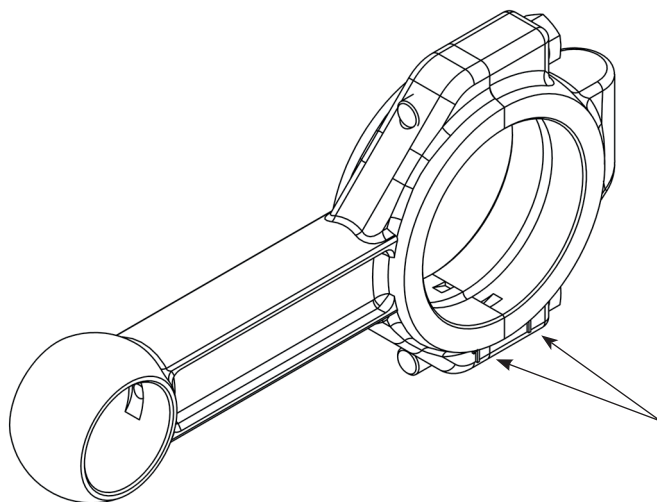
CONNECTING RODS - CODE Q231010011120



BOLT TORQUE: 110 N

3 SETS PER PUMP

ITEM	CODE	DESCRIPTION	QTY.
1	Q231110022250	ARM OF CONNECTING ROD	1
2	Q231110022260	BEARING OF CONNECTING ROD	1
3	Q231200001870	HEX BOLT M12x70	2
4	Q231200001900	TOOTHED WASHER M12	2
5	Q231200008810	ELASTIC GUIDE BUSHING	2

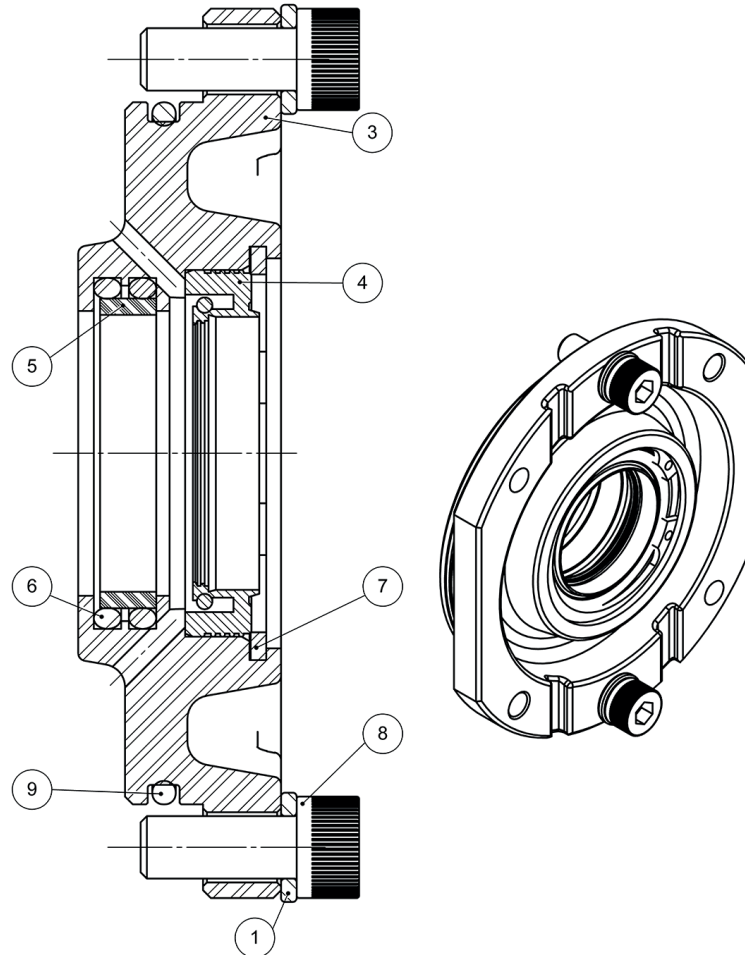


ATTENTION!
ASSEMBLE WITH NUMBERS
FACING THE SAME SIDE

⚠ Attention!

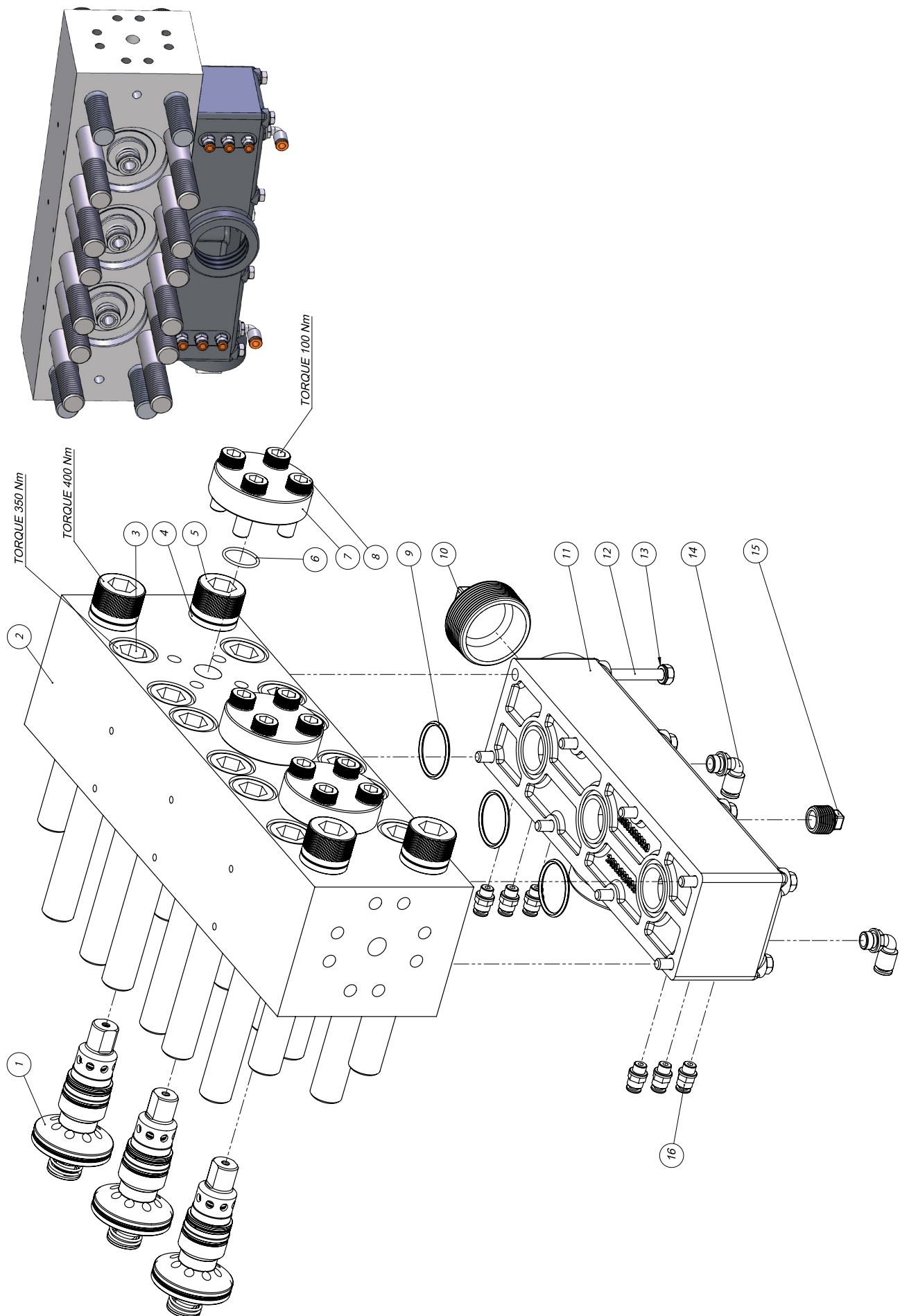
- ▶ All connecting rods are numbered.
- ▶ Always assemble arm and bearing of the connecting rod so that the unsequenced number is shown.
- ▶ Never replace arms and bearing by a connecting rod from a different set.

RETAINER CAGE - CODE Q231010010970



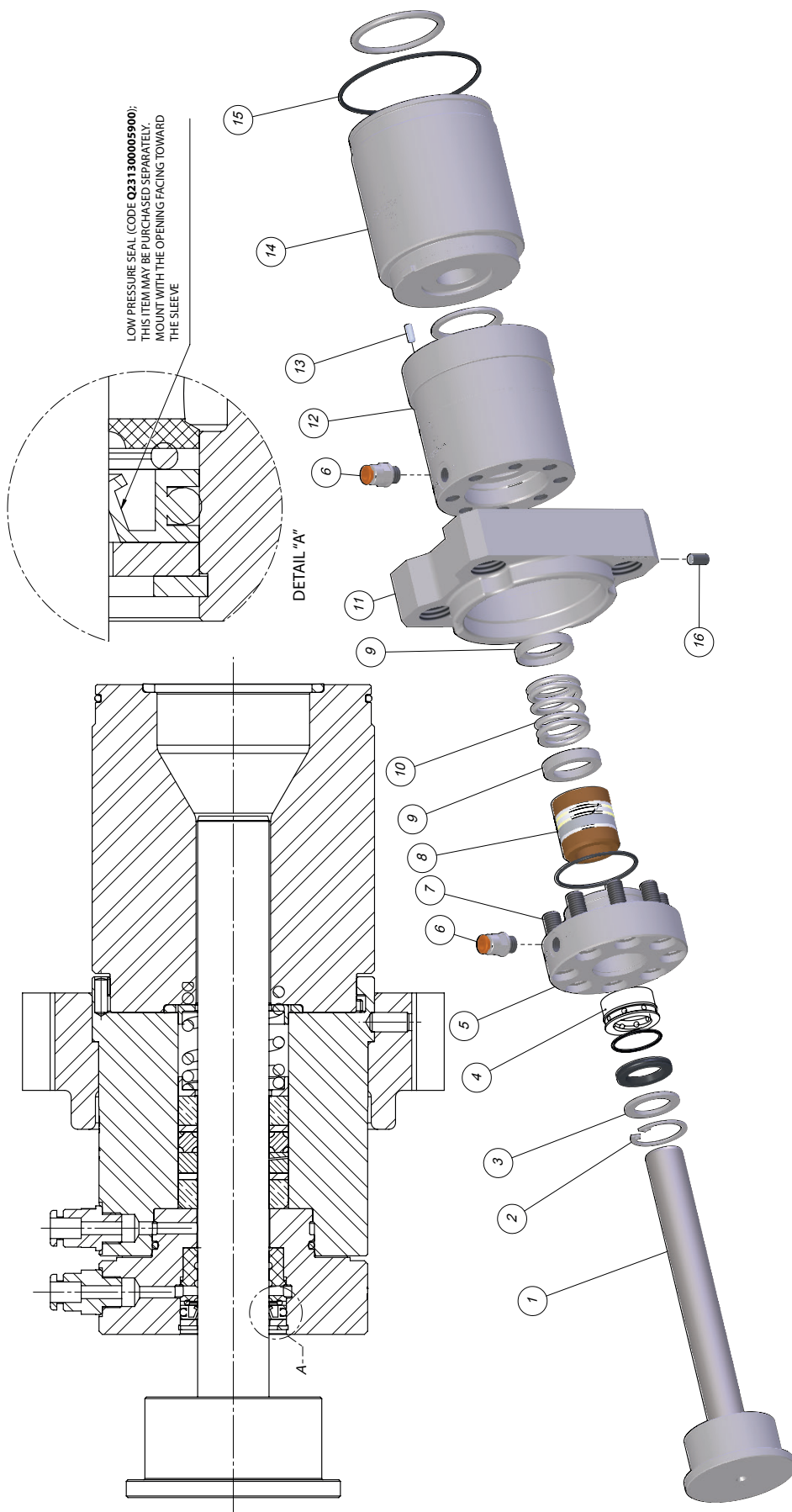
*	ITEM	CODE	DESCRIPTION	QTY.
	1	Q231200001070	WASHER	2
* Note: Common wear parts or disposable				
	3	Q231110026180	RETAINER CAGE	1
	4	Q231300007500	RETAINER	1
	5	Q231300007510	SLIDING RING	1
	6	Q231300001910	O-RING	2
	7	Q231200001540	SEEGER RING	1
	8	Q231200005500	ALLEN SCREW M8X20mm	2
	9	Q231300001170	O-RING	1

PUMP HEAD - CODE Q231010 018140

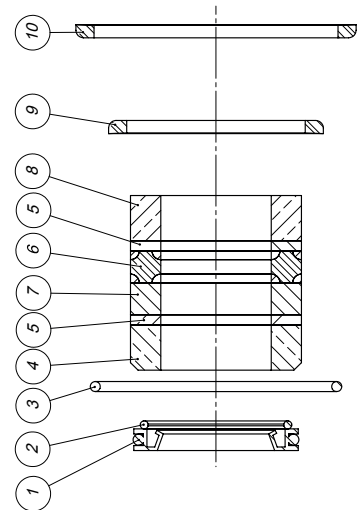


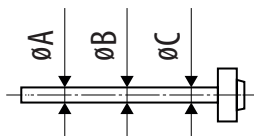
PUMP HEAD - CODE Q231010 0181400			
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010018150	INTELLIVALVE SAP IV	3
2	Q231110034610	SAP IV HEAD ASSEMBLY	1
3	Q231200009410	ALLEN SCREW M24x200mm	12
4	Q231200003630	LOCK WASHER M24	4
5	Q231200009980	ALLEN SCREW M24x180mm	4
6	Q231300001790	O-RING 24 x 2 (90 SHORE)	3
7	Q231110036020	FLANGE FRONTAL SAP IV	3
8	Q231200002930	ALLEN SCREW M12x35mm	12
9	Q231300001930	O-RING	3
10	Q232320007200	PVC CAP 2"BSP	1
11	Q231110016770	SUCTION DUCT	1
12	Q231200007260	SCREW HEXAGONAL HEAD M8x90mm	8
13	Q231200001070	LOCK WASHER M8	8
14	Q232320003770	COUPLING 1/4"x8mm	2
15	Q232320018520	CPVC CAP 1/2" BSP HI	1
16	Q232320003030	COUPLING 1/8"x6mm	6

PISTON KIT (P-22) - CODE Q231010020530



SEAL KIT (P-22) CODE Q231020002221





Ø Nominal	Appropriate	Critical	Change
22 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.

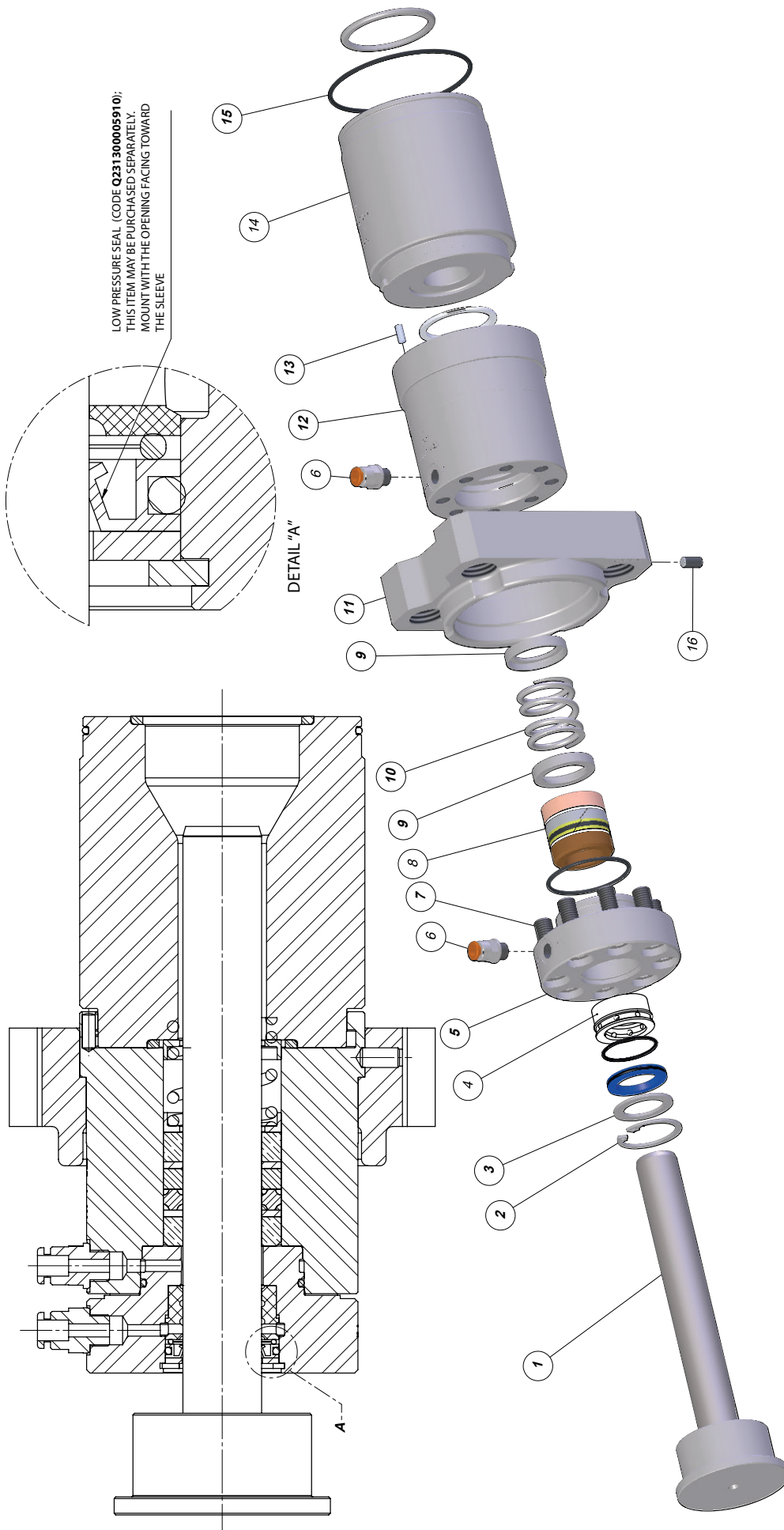
PISTON KIT (P-22) - CODE Q231010020530

ITEM	CODE	DESCRIPTION	QTY.
1	Q231010020200	HARD METAL PISTON P-22	3
2	Q231200010580	SEEGER I-32	1
3	Q231110037700	RING P-22	3
4	Q231110015280	SLIDING BUSH P-22	3
5	Q231110037780	SUPPORT FLANGE P-22 SAP IV	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231200001400	ALLEN SCREW M10x25mm	24
8	Q231020002221	SEAL KIT P-22 SAP IV	(*)
9	Q231110037800	SEALING SPRING GUIDE P-22	6
10	Q231500001070	PACKING SPRING	3
11	Q231110036010	FLANGE G IV	3
12	Q231110034780	P-22 SAP IV JACKET	3
13	Q231200007530	GUIDE PIN Ø4x10mm	3
14	Q231110037040	P-20 P-22 SAP IV FRONTAL JACKET	3
15	Q231300002420	O-RING	3
16	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3

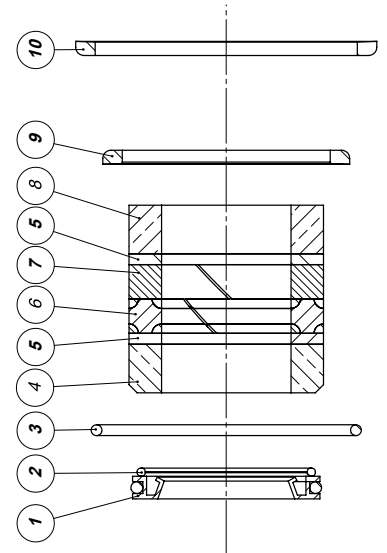
(*) SEAL KIT (P-26) - CODE Q231020002221

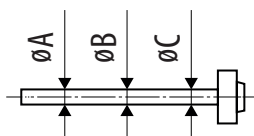
ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005900	LOW PRESSURE SEAL P-22	3
2	Q231300006410	O-RING	3
3	Q231300001360	O-RING	3
4	Q231300003030	LOWER SUPPORT RING P-22	3
5	Q231300003130	RING	6
6	Q231300001210	TEFLON-KEVLAR SEALING P-22	3
7	Q231300003220	BRAIDED PACKING P-22	3
8	Q231300002930	UPPER SUPPORT RING P-22	3
9	Q231300006460	METAL SEAL P-20 P-22	3
10	Q231300006430	SEALING P-35	3

PISTON KIT (P-24) - CODE Q231010020540



SEAL KIT (P-24) CODE Q231020002241





Ø Nominal	Appropriate	Critical	Change
24 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.

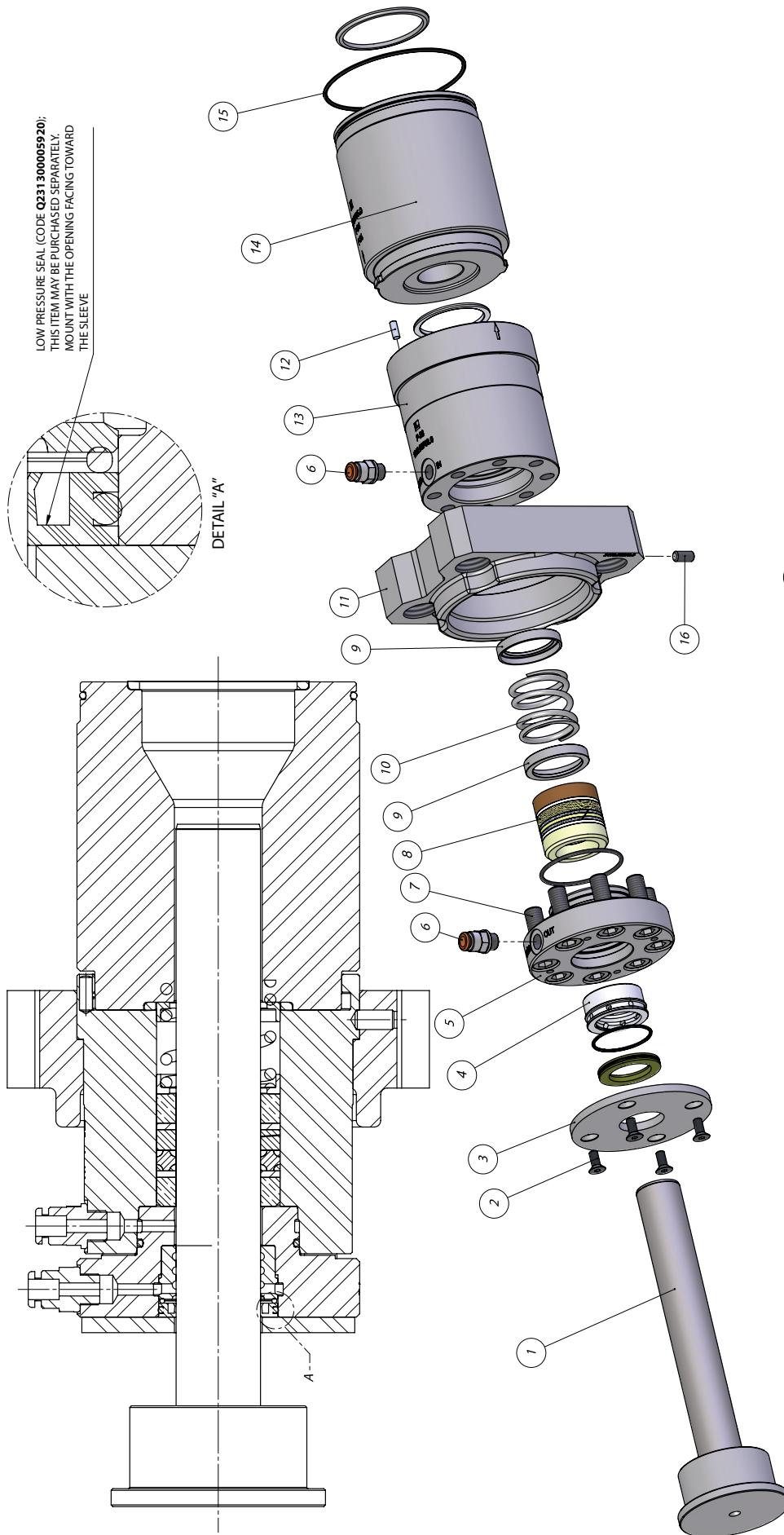
PISTON KIT (P-24) - CODE Q231010020540

ITEM	CODE	DESCRIPTION	QTY.
1	Q231010020210	PISTON P-24 G IV	1
2	Q231200010600	SEGER I-36	1
3	Q231110037710	RING P-24	1
4	Q231110022080	SLIDING BUSH P-24	3
5	Q231110037420	SUPPORT FLANGE P-24 SAP IV	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231200001400	ALLEN SCREW M10x25mm	24
8	Q231020002241	SEAL KIT P-24 SAP IV	(*)
9	Q231110037440	SEALING SPRING GUIDE P-24	6
10	Q231500001080	PACKING SPRING	3
11	Q231110036010	FLANGE G IV	3
12	Q231110037430	P-24 SAP IV JACKET	3
13	Q231200007530	GUIDE PIN Ø4x10mm	3
14	Q231110037050	P-24 P-26 SAP IV FRONTAL JACKET	3
15	Q231300002420	O-RING	3
16	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3

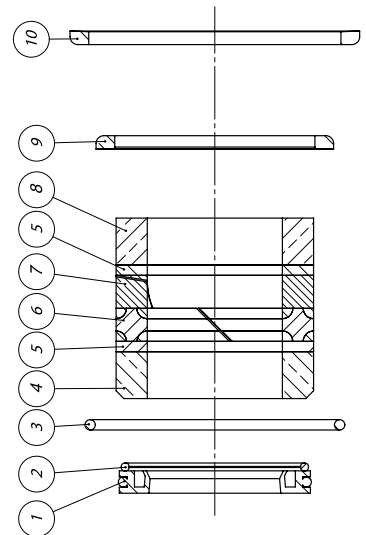
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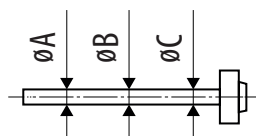
ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005910	LOW PRESSURE SEAL P-24	3
2	Q231300008620	O-RING	3
3	Q231300001360	O-RING	3
4	Q231300003040	LOWER SUPPORT RING P-24	3
5	Q231300003140	RING P-24	6
6	Q231300001220	TEFLON-KEVLAR SEALING P-24	3
7	Q231300003230	BRAIDED PACKING P-24	3
8	Q231300002940	UPPER SUPPORT RING P-24	3
9	Q231300006550	METAL SEAL P-24 P-26	3
10	Q231300006430	SEALING P-35	3

PISTON KIT (P-26) - CODE Q231010019980



SEAL KIT (P-26) CODE Q231020002261





Ø Nominal	Appropriate	Critical	Change
26 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.

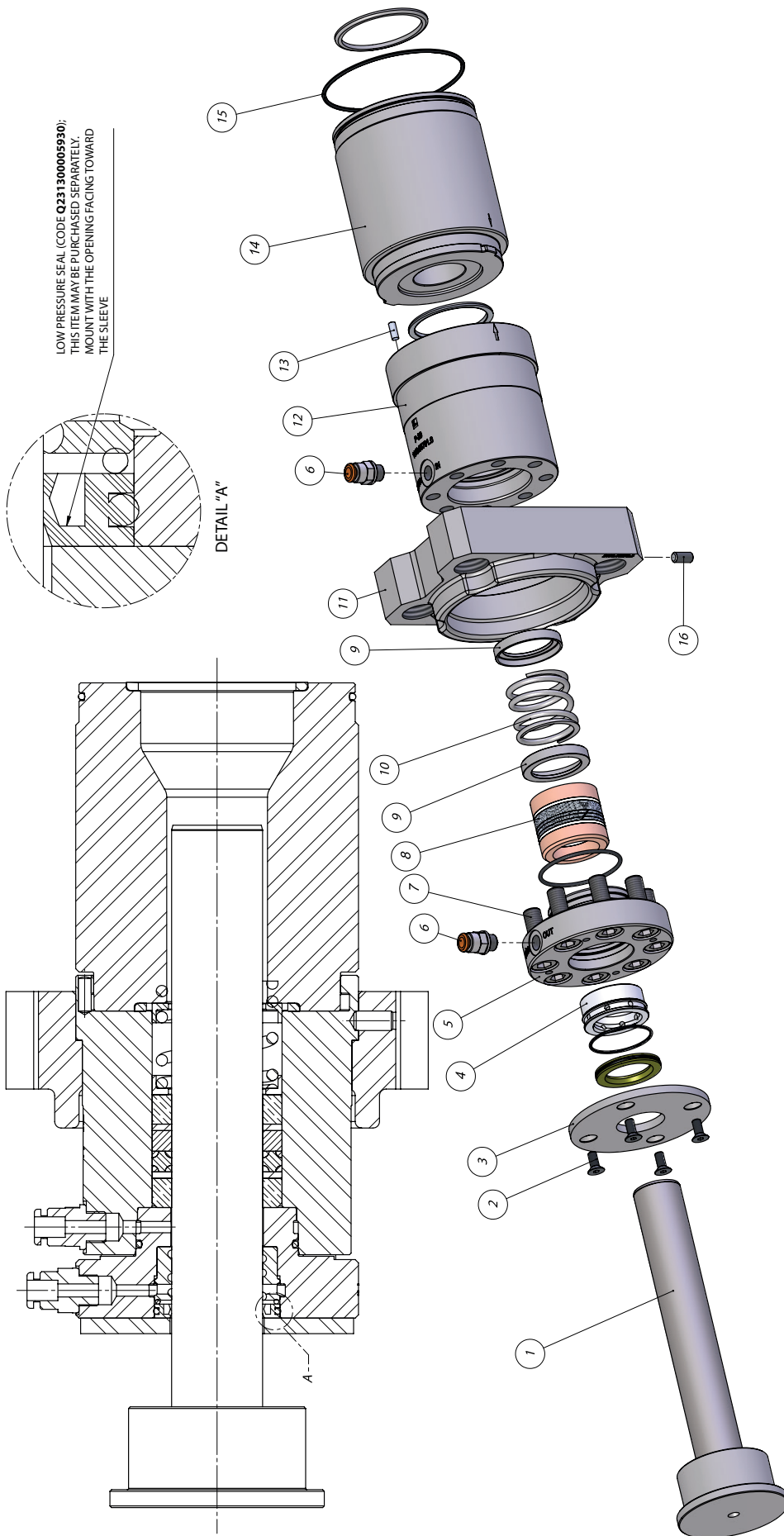
PISTON KIT (P-26) - CODE Q231010019980

ITEM	CODE	DESCRIPTION	QTY.
1	Q231010020220	PISTON P-26 G IV	3
2	Q231200003270	ALLEN SCREW PLAN HEAD	12
3	Q231110008580	SUPPORT DISC P-26	3
4	Q231110013900	SLIDING BUSH P-26	3
5	Q231110036970	SUPPORT FLANGE P-26 SAP IV	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231200001400	ALLEN SCREW M10x25mm	24
8	Q231020002261	SEAL KIT P-26 SAP IV	(*)
9	Q231110037080	SEALING SPRING GUIDE P-26	6
10	Q231500001090	PACKING SPRING	3
11	Q231110036010	FLANGE G IV	3
12	Q231200007530	GUIDE PIN Ø4x10mm	3
13	Q231110037000	P-26 SAP IV SLEEVE	3
14	Q231110037050	P-24 P-26 SAP IV FRONTAL JACKET	3
15	Q231300002420	O-RING	3
16	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3

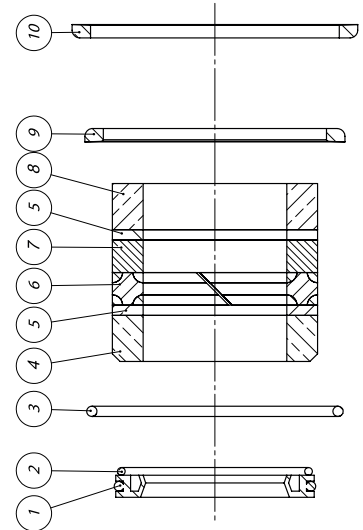
(*) SEAL KIT (P-26) - CODE Q231020002261

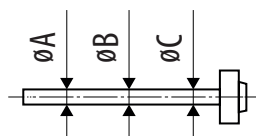
ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005920	LOW PRESSURE SEAL P-26	3
2	Q231300006340	O-RING	3
3	Q231300001360	O-RING	3
4	Q231300003050	LOWER SUPPORT RING P-26	3
5	Q231300003150	RING P-26	6
6	Q231300001230	TEFLON-KEVLAR SEALING P-26	3
7	Q231300003240	BRAIDED PACKING P-26	3
8	Q231300002950	UPPER SUPPORT RING P-26	3
9	Q231300006550	METAL SEAL P-24 P-26	3
10	Q231300006430	SEALING	3

PISTON KIT (P-28) - CODE Q231010019990



SEAL KIT (P-28) CODE Q231020002281





Ø Nominal	Appropriate	Critical	Change
28 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.

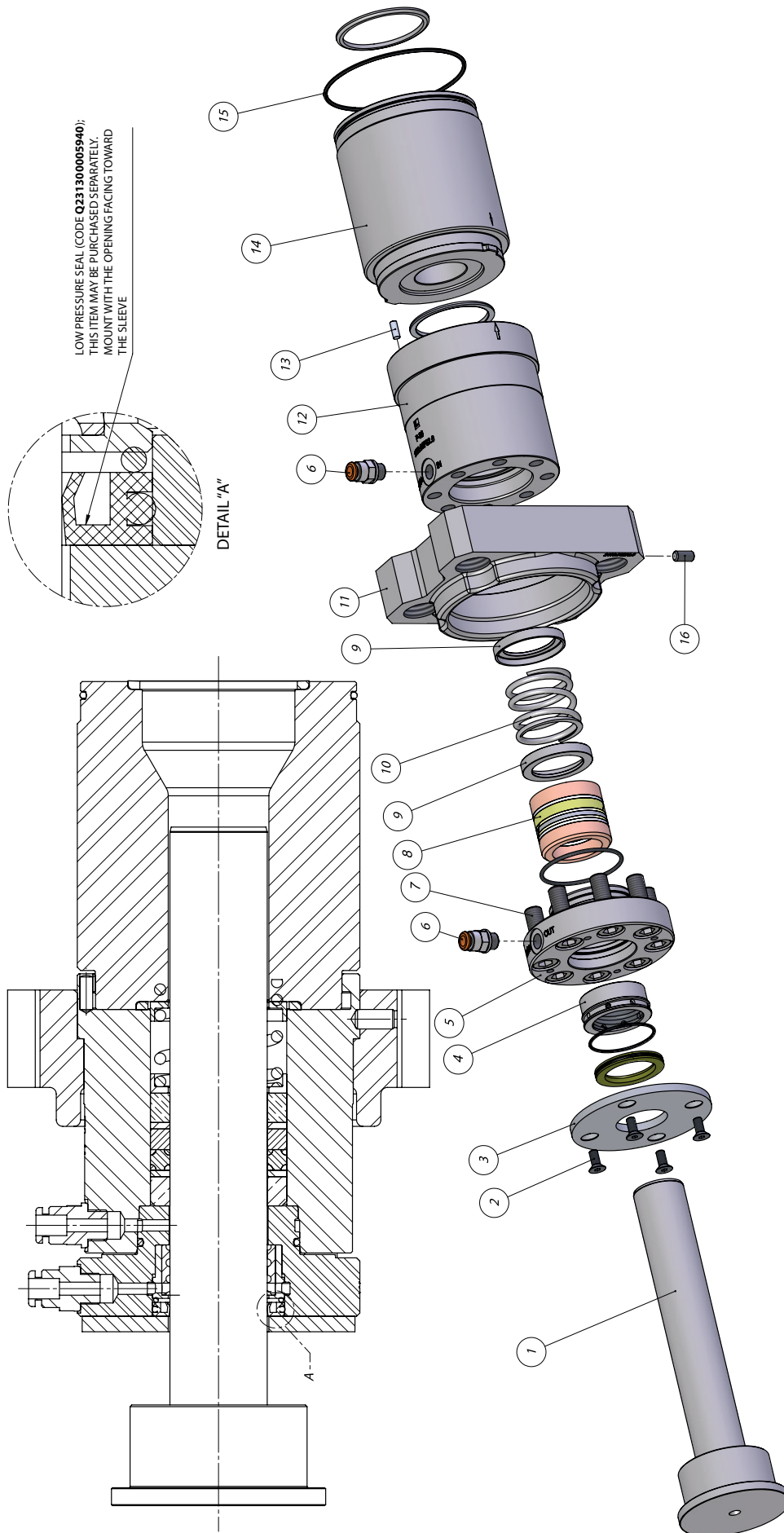
PISTON KIT (P-28) - CODE Q231010019990

ITEM	CODE	DESCRIPTION	QTY.
1	Q231010020230	PISTON P-28 G IV	3
2	Q231200003270	ALLEN SCREW PLAN HEAD	12
3	Q231110008590	SUPPORT DISC P-30	3
4	Q231110013890	SLIDING BUSH P-28	3
5	Q231110036980	SUPPORT FLANGE P-28 SAP IV	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231200001400	ALLEN SCREW M10x25mm	24
8	Q231020002281	SEAL KIT P-28 SAP IV	(*)
9	Q231110037090	SEALING SPRING GUIDE P-28	6
10	Q231500001100	PACKING SPRING	3
11	Q231110036010	FLANGE G IV	3
12	Q231110037010	P-28 SAP IV SLEEVE	3
13	Q231200007530	GUIDE PIN Ø4x10mm	3
14	Q231110037060	P-28 P-30 SAP IV FRONTAL JACKET	3
15	Q231300002420	O-RING	3
16	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3

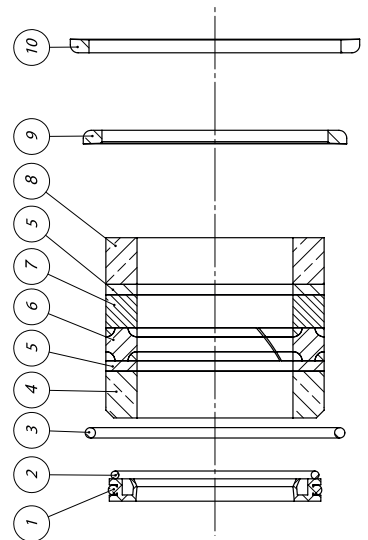
(*) SEAL KIT (P-28) - CODE Q231020002281

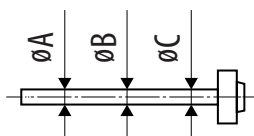
ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005930	LOW PRESSURE SEAL P-28	3
2	Q231300006330	O-RING	3
3	Q231300001360	O-RING	3
4	Q231300003060	LOWER SUPPORT RING P-28	3
5	Q231300003160	RING P-28	6
6	Q231300001240	TEFLON-KEVLAR SEALING P-28	3
7	Q231300003250	BRAIDED PACKING P-28	3
8	Q231300002960	UPPER SUPPORT RING P-28	3
9	Q231300006570	METAL SEAL P-30	3
10	Q231300006430	SEALING	3

PISTON KIT (P-30) - CODE Q231010020000



SEAL KIT (P-30) CODE Q231020002301





Ø Nominal	Appropriate	Critical	Change
30 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.

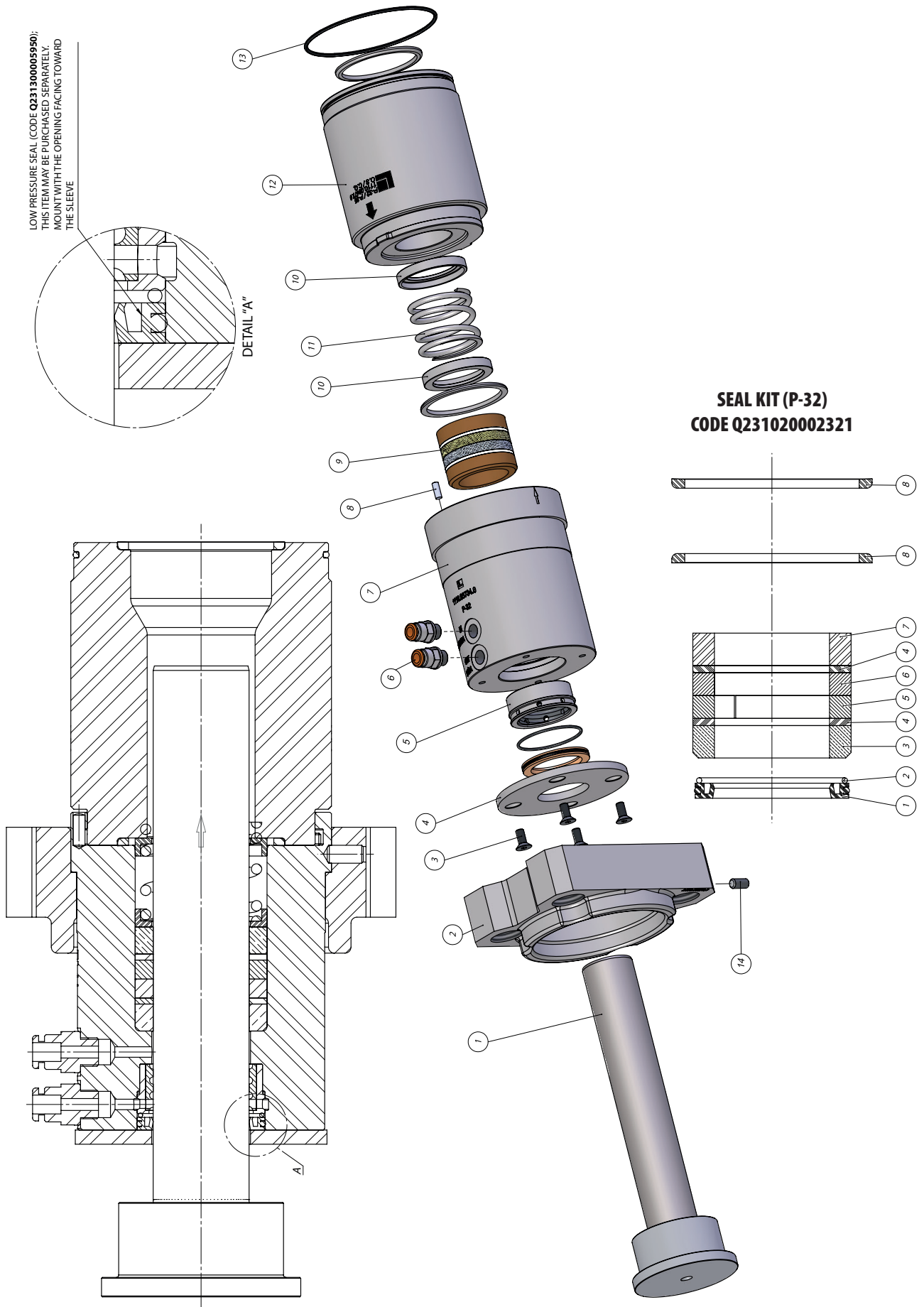
PISTON KIT (P-30) - CODE Q231010020000

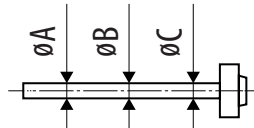
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010020240	PISTON P-30 G IV	3
2	Q231200003270	ALLEN SCREW PLAN HEAD	12
3	Q231110008600	SUPPORT DISC P-30	3
4	Q231010010550	SLIDING BUSH P-30	3
5	Q231110036990	SUPPORT FLANGE P-30 SAP IV	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231200001400	ALLEN SCREW M10x25mm	24
8	Q231020002301	SEAL KIT P-30 SAP IV	(*)
9	Q231110037100	SEALING SPRING GUIDE P-30	6
10	Q231500001460	PACKING SPRING	3
11	Q231110036010	FLANGE G IV	3
12	Q231110037020	P-30 SAP IV SLEEVE	3
13	Q231200007530	GUIDE PIN Ø4x10mm	3
14	Q231110037060	P-28 P-30 SAP IV FRONTAL JACKET	3
15	Q231300002420	O-RING	3
16	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3

(*) SEAL KIT (P-30) - CODE Q231020002301

ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005940	LOW PRESSURE SEAL P-30	3
2	Q231300006320	O-RING	3
3	Q231300001360	O-RING	3
4	Q231300004170	LOWER SUPPORT RING P-30	3
5	Q231300004300	RING -30	6
6	Q231300001980	TEFLON-KEVLAR SEALING P-30	3
7	Q231300003260	BRAIDED PACKING P-30	3
8	Q231300004230	UPPER SUPPORT RING P-30	3
9	Q231300006570	METAL SEAL P-30	3
10	Q231300006430	SEALING	3

PISTON KIT (P-32) - CODE Q231010020490





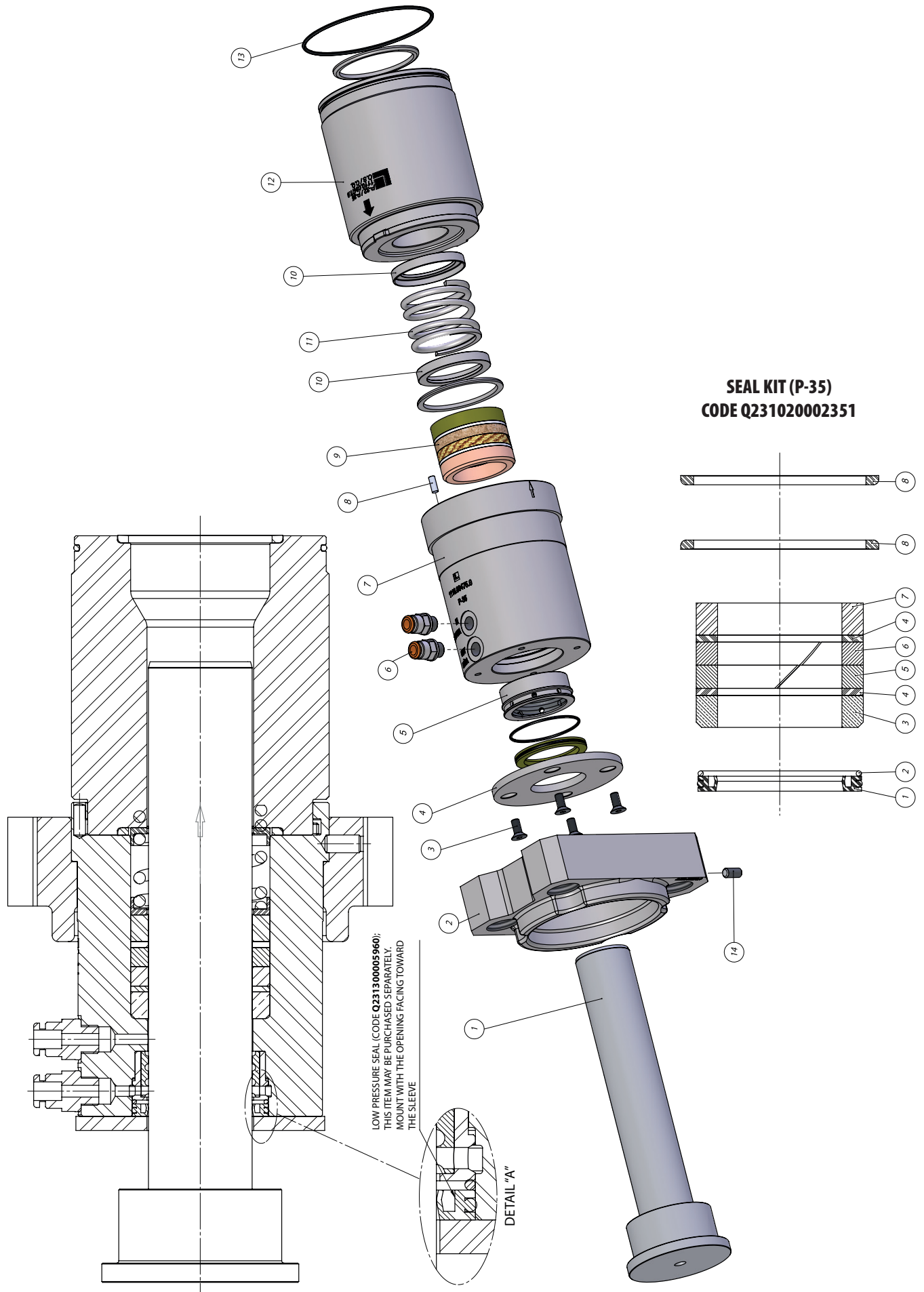
Ø Nominal	Appropriate	Critical	Change
32 mm	-0,01	-0,07	-0,1
	-0,06	-0,09	

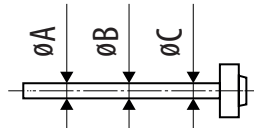
ANALYSE PISTON DIMENSIONS WHEN CHANGING THE SEALS OR EVERY 500 HOURS RESPECT THE WEAR LIMIT.

PISTON KIT (P-32) - CODE Q231010020490			
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010004340	HARD METAL PISTON P-32	3
2	Q231110036010	FLANGE G IV	3
3	Q231200003270	ALLEN SCREW PLAN HEAD	12
4	Q231110009310	SUPPORT DISC P-32	3
5	Q231010010420	SLIDING BUSH P-32	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231110037340	P-32 SAP IV SLEEVE	3
8	Q231200007530	GUIDE PIN Ø4x10mm	3
9	Q231020002321	SEAL KIT P-32 SAP IV	(*)
10	Q231110037350	SEAL SPRING GUIDE P-32	2
11	Q231500001110	PACKING SPRING	3
12	Q231110034770	P-32 P-35 SAP IV FRONTAL JACKET	3
13	Q231300002420	O-RING	3
14	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3

(*) SEAL KIT (P-32) - CODE Q231020002321			
ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005950	LOW PRESSURE SEAL P-32	3
2	Q231300006310	O-RING	3
3	Q231300004650	LOWER SUPPORT RING P-32	3
4	Q231300004640	RING P-32	6
5	Q231300004680	TEFLON-KEVLAR SEALING P-32	3
6	Q231300004690	BRAIDED PACKING P-32	3
7	Q231300004630	UPPER SUPPORT RING P-32	3
8	Q231300006430	SEALING	6

PISTON KIT (P-35) - CODE Q231010018200





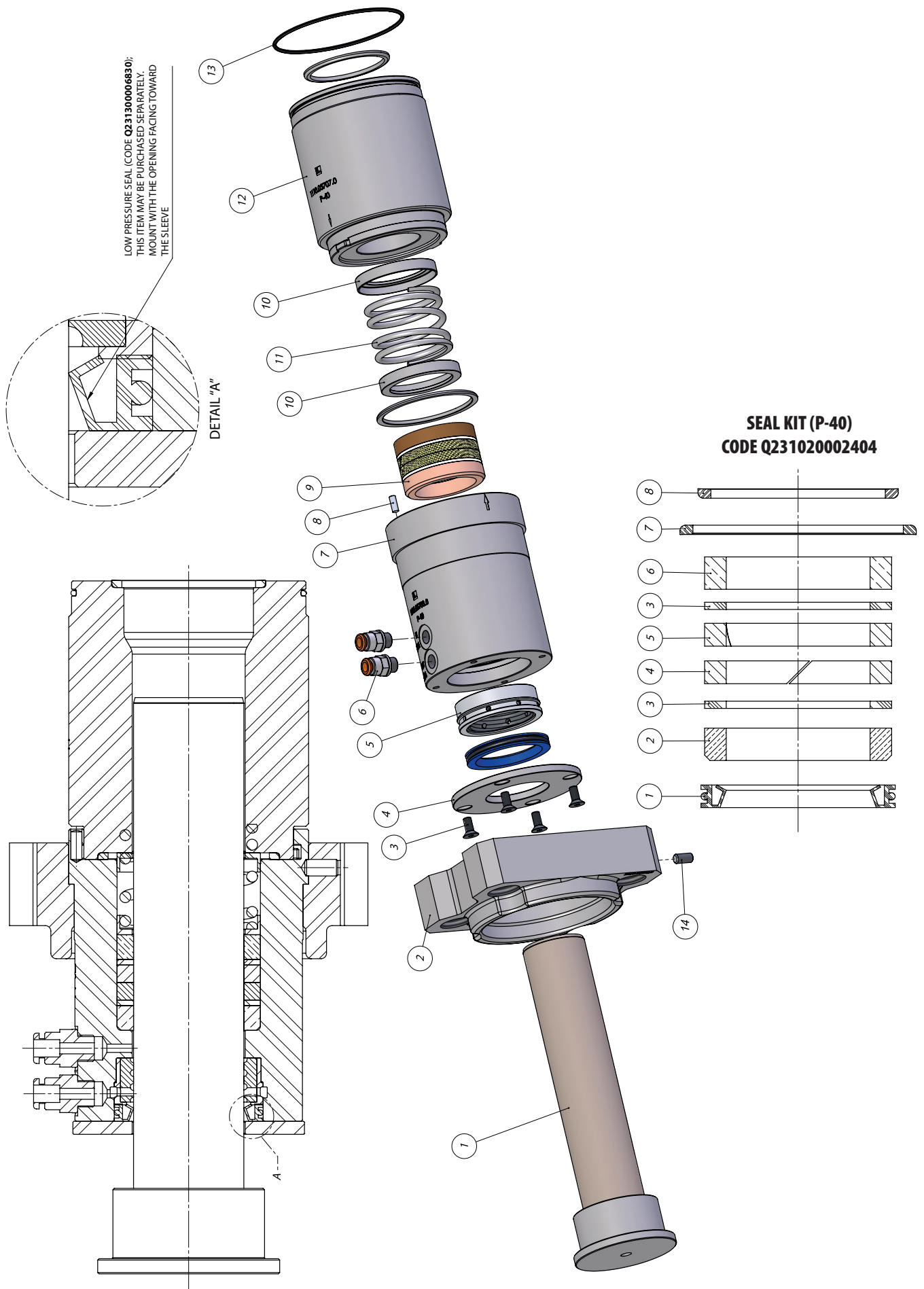
Ø Nominal	Appropriate	Critical	Change
35 mm	-0,01	-0,07	-0,1
	-0,06	-0,09	

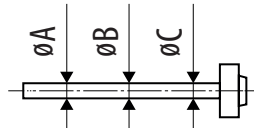
ANALYSE PISTON DIMENSIONS WHEN CHANGING THE SEALS OR EVERY 500 HOURS RESPECT THE WEAR LIMIT.

PISTON KIT (P-35) - CODE Q231010020490			
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010004060	HARD METAL PISTON P-35	3
2	Q231110036010	FLANGE G IV	3
3	Q231200003270	ALLEN SCREW PLAN HEAD	12
4	Q231110009690	SUPPORT DISC P-35	3
5	Q231010010430	SLIDING BUSH P-35	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231110034750	P-35 SAP IV SLEEVE	3
8	Q231200007530	GUIDE PIN Ø4x10mm	3
9	Q231020002351	SEAL KIT P-35 SAP IV	(*)
10	Q231110036160	SEALING SPRING GUIDE P-35	6
11	Q231500002270	PACKING SPRING	3
12	Q231110034770	P-32 P-35 SAP IV FRONTAL JACKET	3
13	Q231300002420	O-RING	3
14	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3

(*) SEAL KIT (P-35) - CODE Q231020002351			
ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005960	LOW PRESSURE SEAL P-35	3
2	Q231300006300	O-RING	3
3	Q231300003080	LOWER SUPPORT RING P-35	3
4	Q231300003180	RING P-35	6
5	Q231300004830	TEFLON-KEVLAR SEALING P-35	3
6	Q231300004840	BRAIDED PACKING P-35	3
7	Q231300002980	UPPER SUPPORT RING P-35	3
8	Q231300006430	SEALING	6

PISTON KIT (P-40) - CODE Q231010020010





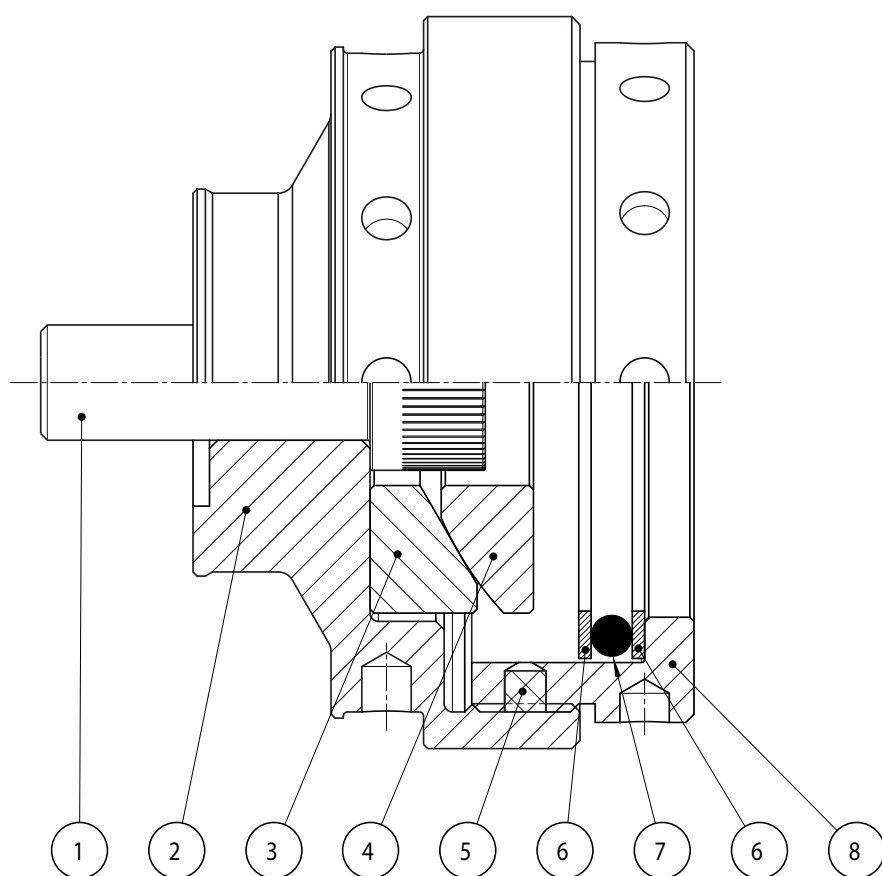
Ø Nominal	Appropriate	Critical	Change
40 mm	-0,01	-0,07	-0,1
	-0,06	-0,09	

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

PISTON KIT (P-40) - CODE Q231010020010			
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010006260	PISTON P-40 GIII	3
2	Q231110036010	FLANGE G IV	3
3	Q231200003270	ALLEN SCREW PLAN HEAD	12
4	Q231110015870	SUPPORT DISC P-40	3
5	Q231010005960	SLIDING BUSH P-40	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231110037030	P-40 SAP IV SLEEVE	3
8	Q231200007530	GUIDE PIN Ø4x10mm	3
9	Q231020002404	SEAL KIT P-40 SAP IV	(*)
10	Q231110037110	SEALING SPRING GUIDE P-40	6
11	Q231500002330	PACKING SPRING	3
12	Q231110037070	P-40 SAP IV FRONTAL JACKET	3
13	Q231300002420	O-RING	3
14	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3

(*) SEAL KIT (P-40) - CODE Q231020002404			
ITEM	CODE	DESCRIPTION	QTY.
1	Q231300006830	LOW PRESSURE SEAL P-40	3
2	Q231300006500	LOWER SUPPORT RING P-40	3
3	Q231300006510	RING P-40	6
4	Q231300006480	TEFLON-KEVLAR SEALING P-40	3
5	Q231300006470	BRAIDED PACKING P-40	3
6	Q231300006490	UPPER SUPPORT RING P-40	3
7	Q231300006960	METAL SEAL P-40 P-45	3
8	Q231300006430	SEALING	3

SELF CENTERING G-IV (P20 / P45) - CODE Q231010020080



ITEM	CODE	DESCRIPTION	QTY.
1	Q231200004230	ALLEN SCREW M14x40	1
2	Q231110036110	CONNECTION BUSHING (G-IV)	1
3	Q231110036090	SPHERICAL RING (G-IV)	1
4	Q231110036080	SPHERICAL RING (G-IV)	1
5	Q231110010280	SPIGOT	1
6	Q231110036130	BACK UP RING (G-IV)	2
7	Q231300010240	O-RING	1
8	Q231110036100	SELF CENTERING RING (G-IV)	1



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