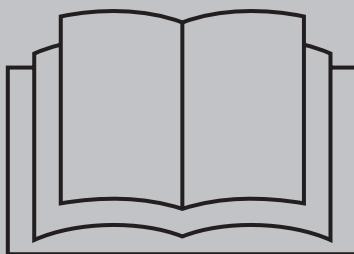




# **REPAIR MANUAL**

## **H-200/4 SAP**

### **IV GENERATION**

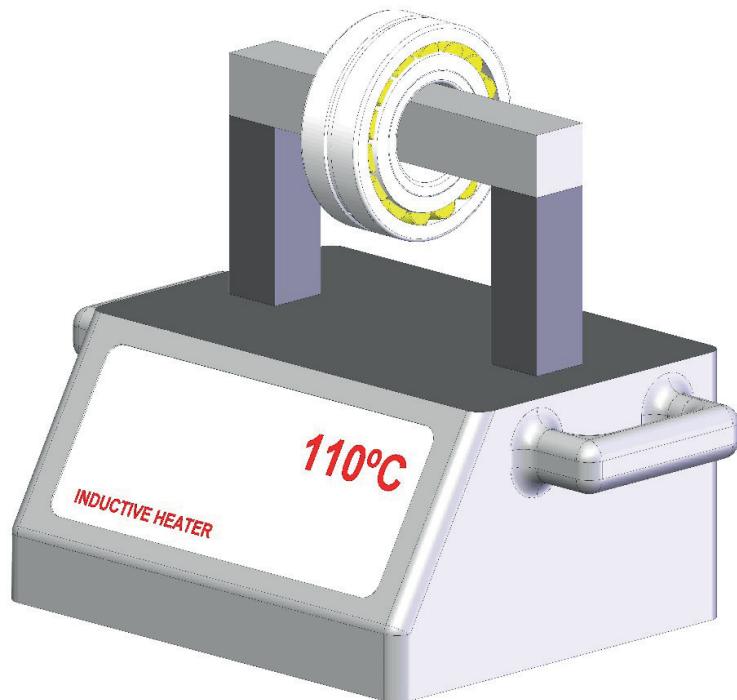




# INDEX

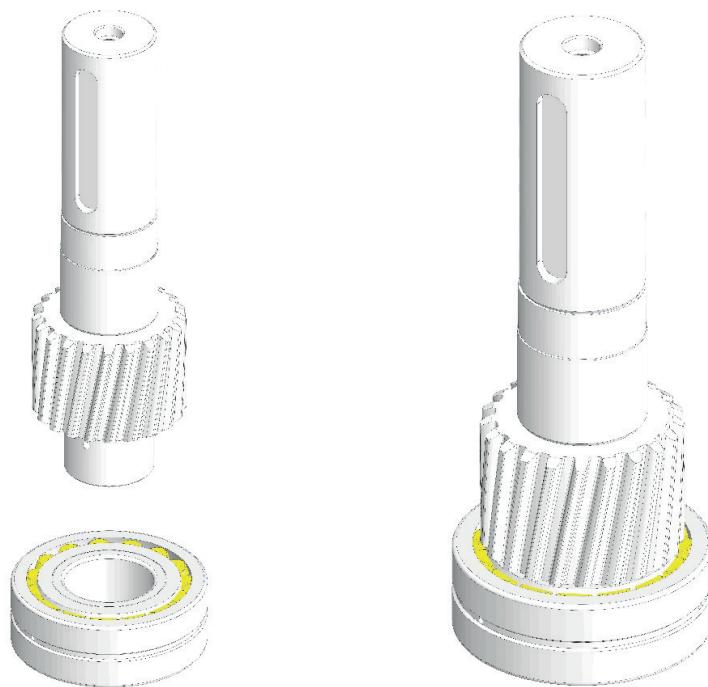
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## ASSEMBLING THE H-200 PUMP POWER END



HEAT THE FIRST BEARING OF THE GEAR SHAFT FOR 10 MINUTES AT 110°C.

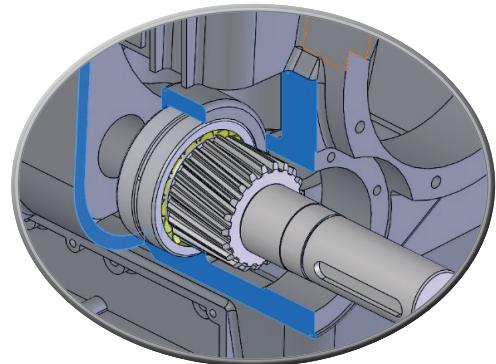
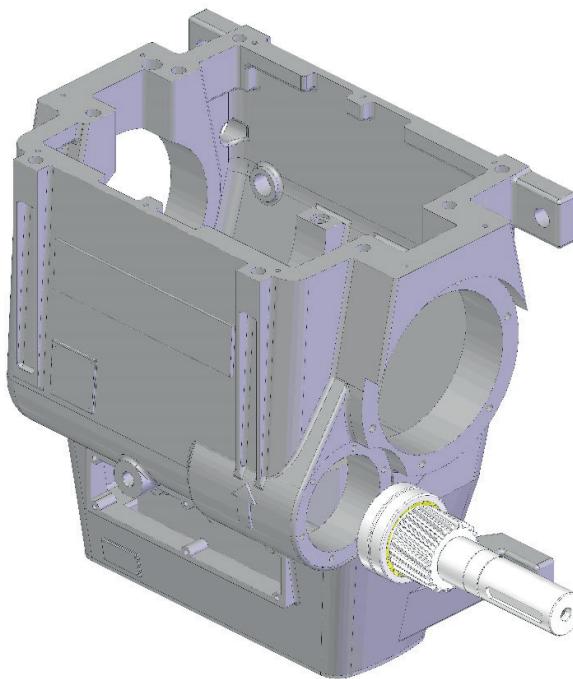
Fig. 01



MOUNT THE FIRST BEARING IN THE GEAR SHAFT WHILE IT IS WARM.

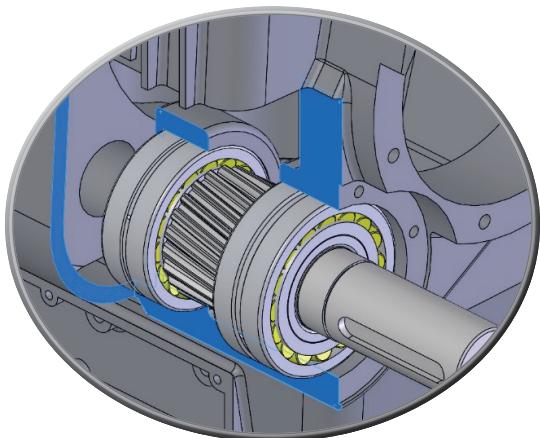
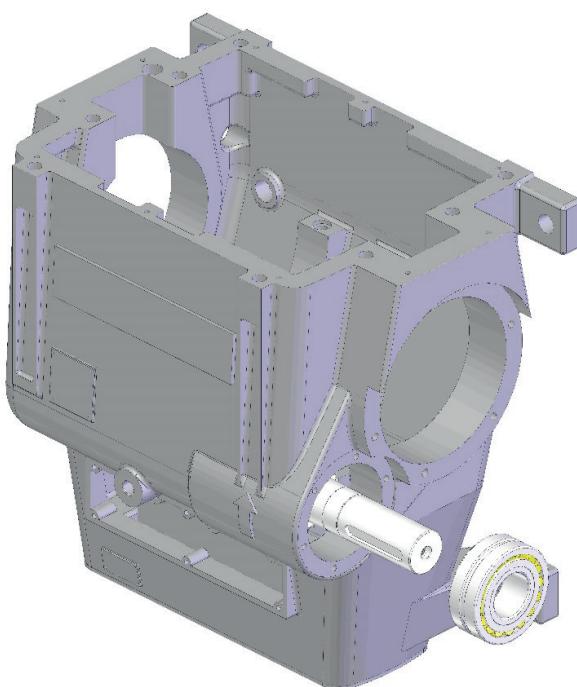
Fig. 02

## ASSEMBLING THE H-200 PUMP POWER END



INSERT THE GEAR SHAFT INTO THE HOUSING.

Fig. 03

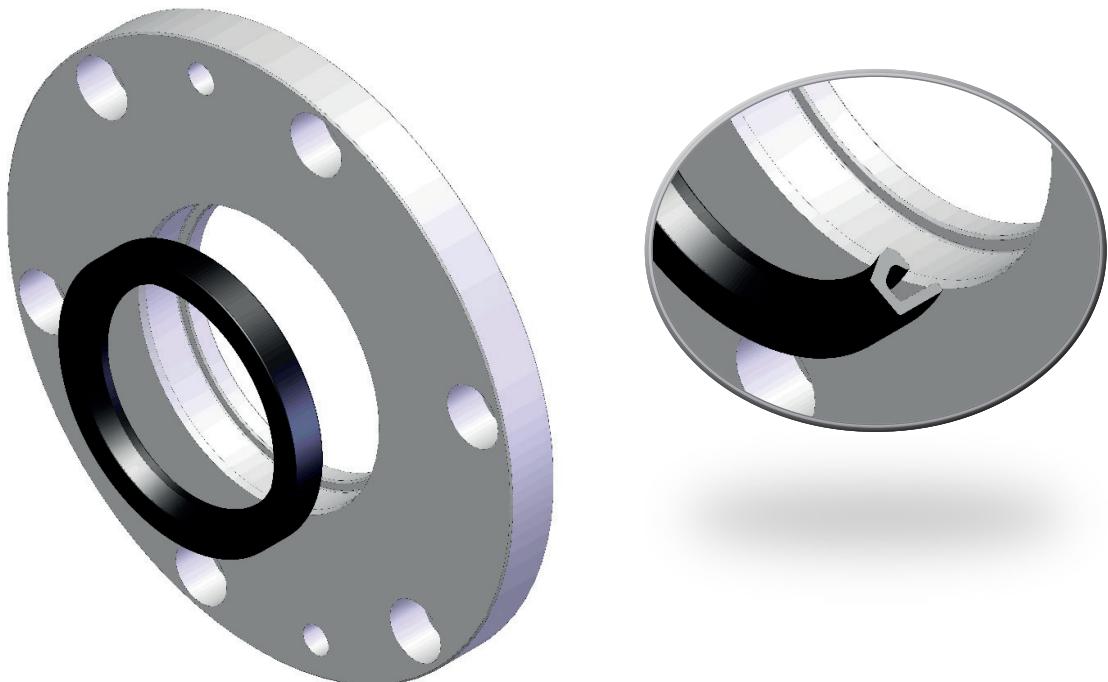


MOUNT THE SECOND BEARING.

IT WILL BE NECESSARY TO HEAT THE BEARING FOR 10 MINUTES AT 110°C  
BEFORE MOUNTING (SEE FIG. 01).

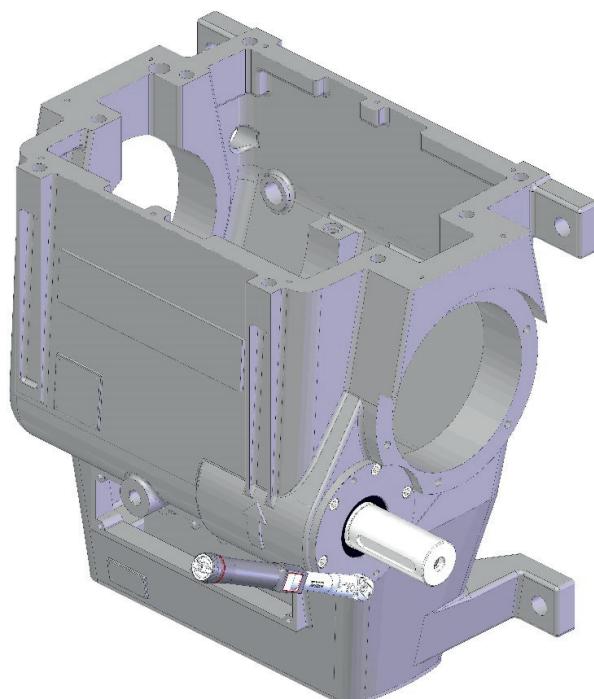
Fig. 04

## ASSEMBLING THE H-200 PUMP POWER END



MOUNT THE OIL SEAL ON THE GEAR SHAFT FLANGE  
AND ENSURE THAT THE SEAL APERTURE IS INWARDS.

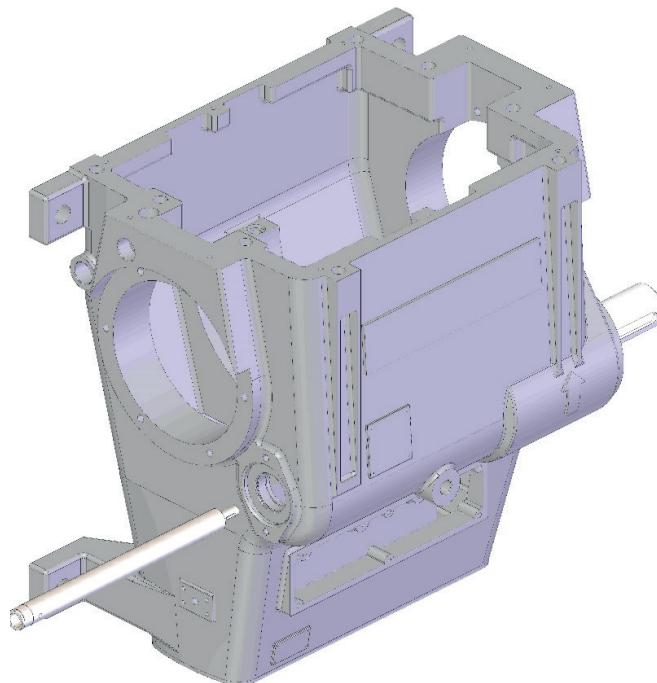
Fig. 05



USE COPPER GREASE TO COVER THE THREAD OF THE M10 SCREWS FIXING  
THE ALIGNMENT CRANKCASE FLANGE. TIGHT TO "X" TO TORQUE OF 64 Nm.

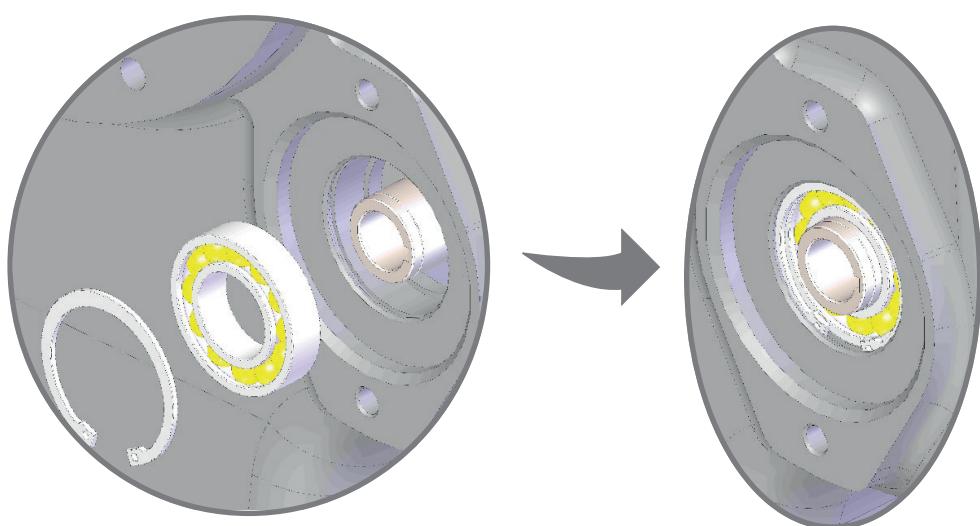
Fig. 06

## ASSEMBLING THE H-200 PUMP POWER END



INSERT THE SHAFT EXTENSION WITH ITS KEY AND FIX IT ON THE SHAFT.

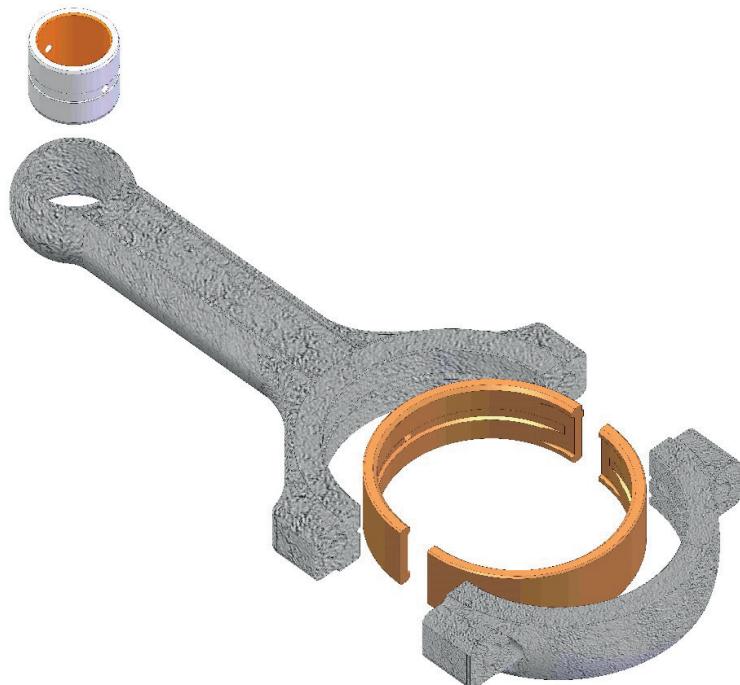
Fig. 07



INSERT THE BEARING AND THE SEEGER RING.

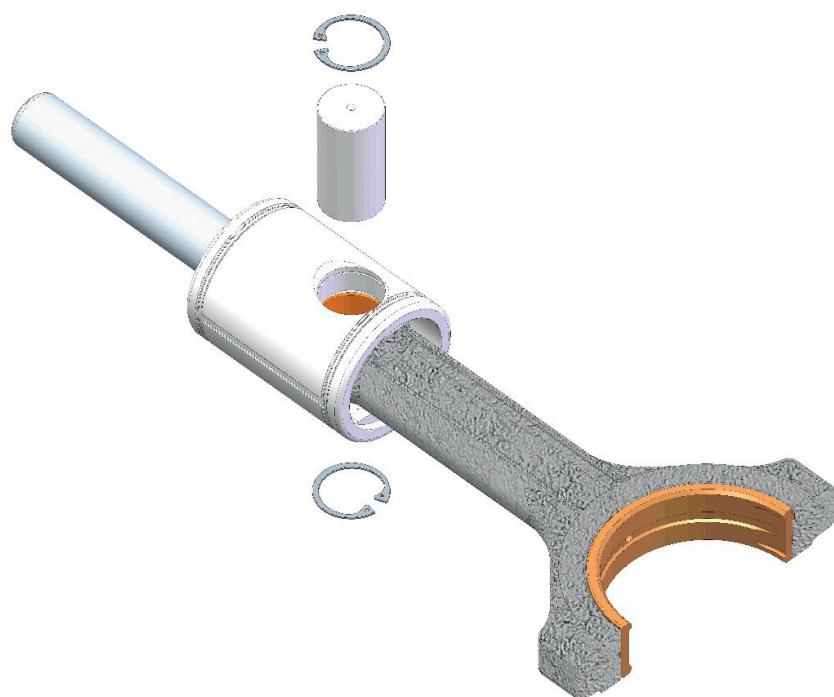
Fig. 08

## ASSEMBLING THE H-200 PUMP POWER END



MOUNT THE BUSHING AND THE BEARING SHELLS INTO THE CONNECTING ROD.  
ATTENTION: MOUNT THE PAIR OF BEARING SHELLS CONTAINED IN THE BOX.

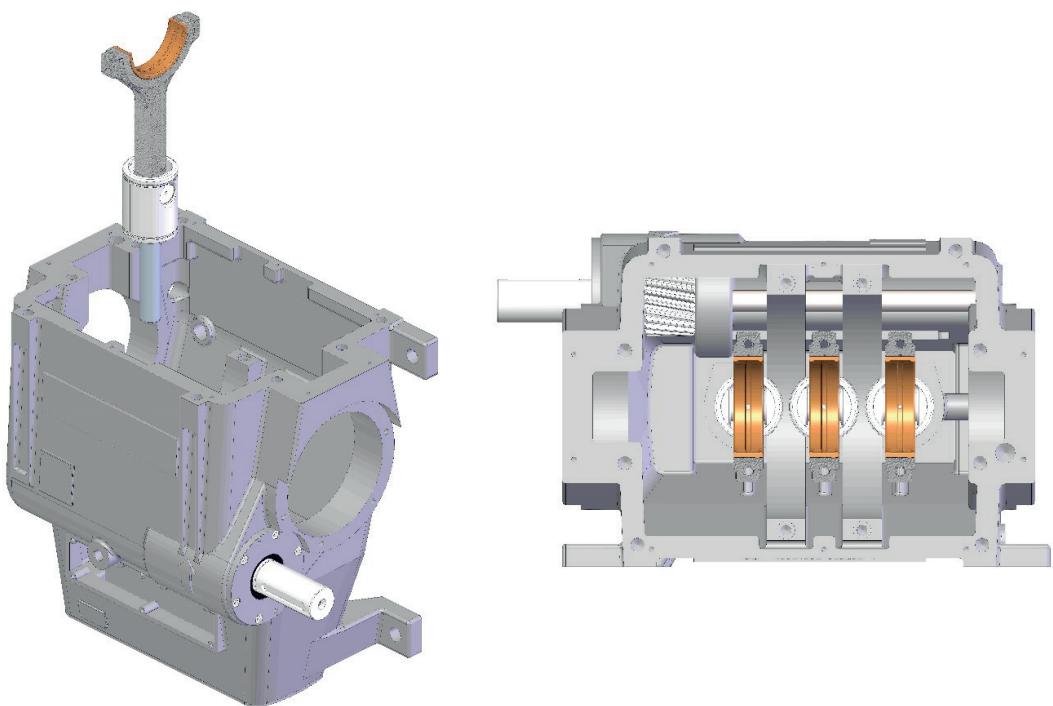
Fig. 09



ASSEMBLE THE GUIDE PISTON WITH THE CONNECTING ROD USING THE PIN AND SEEGER RINGS. REPEAT THE PROCESS FOR THE OTHER PAIR OF CONNECTING RODS AND GUIDE PISTON.

Fig. 10

## ASSEMBLING THE H-200 PUMP POWER END



INSERT THE KIT INTO THE HOUSING. REPEAT THE PROCESS FOR THE OTHER 2 KITS.

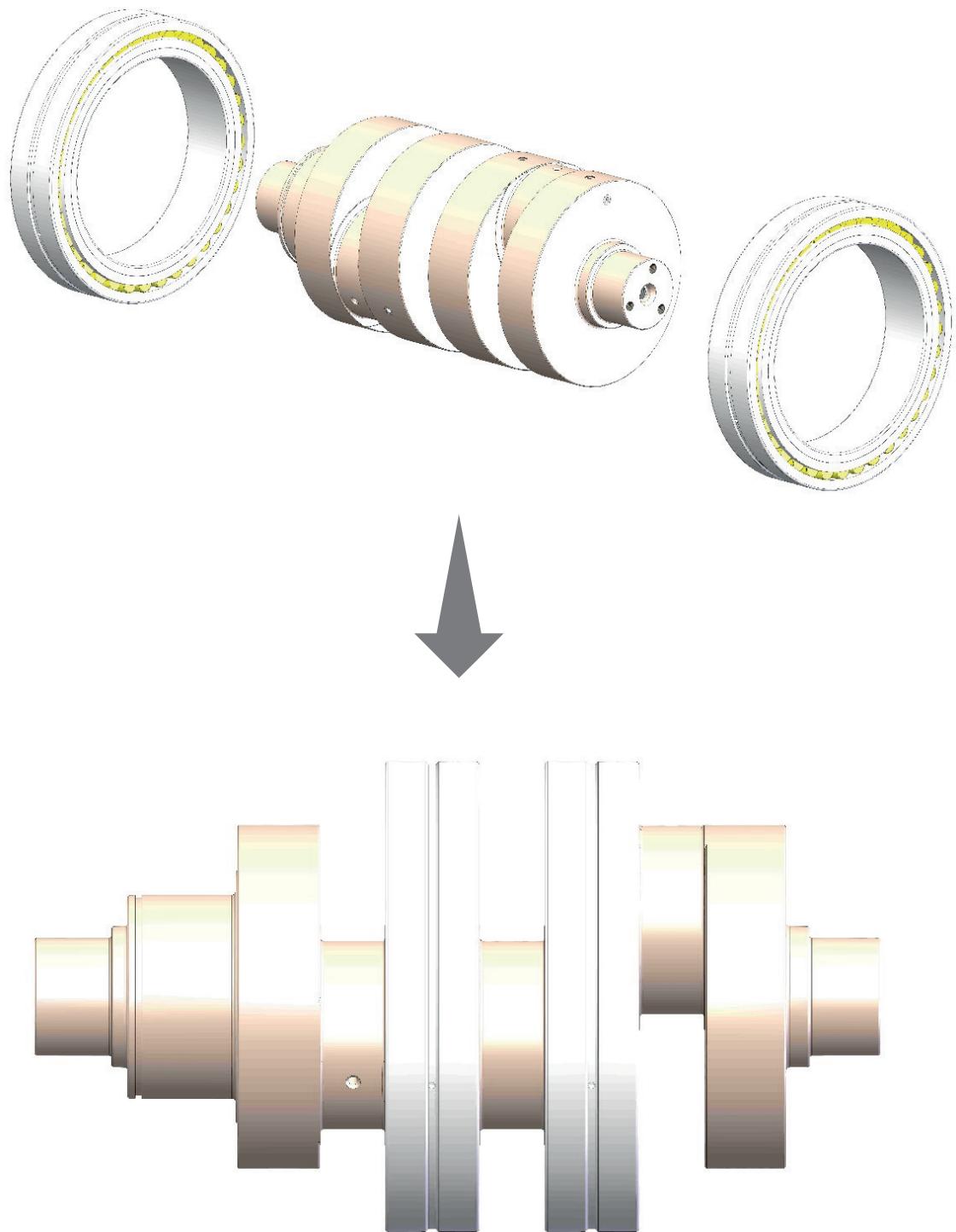
Fig. 11



HEAT THE PAIR OF CRANKSHAFT BEARINGS AT 115°C FOR 10 MINUTES.

Fig. 12

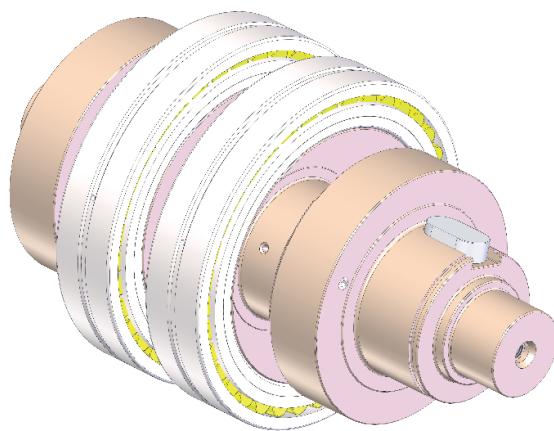
## ASSEMBLING THE H-200 PUMP POWER END



MOUNT THE BEARINGS ON THE CRANKSHAFT WHILE THEY ARE STILL WARM.

Fig. 13

## ASSEMBLING THE H-200 PUMP POWER END



MOUNT THE CRANKSHAFT KEY.

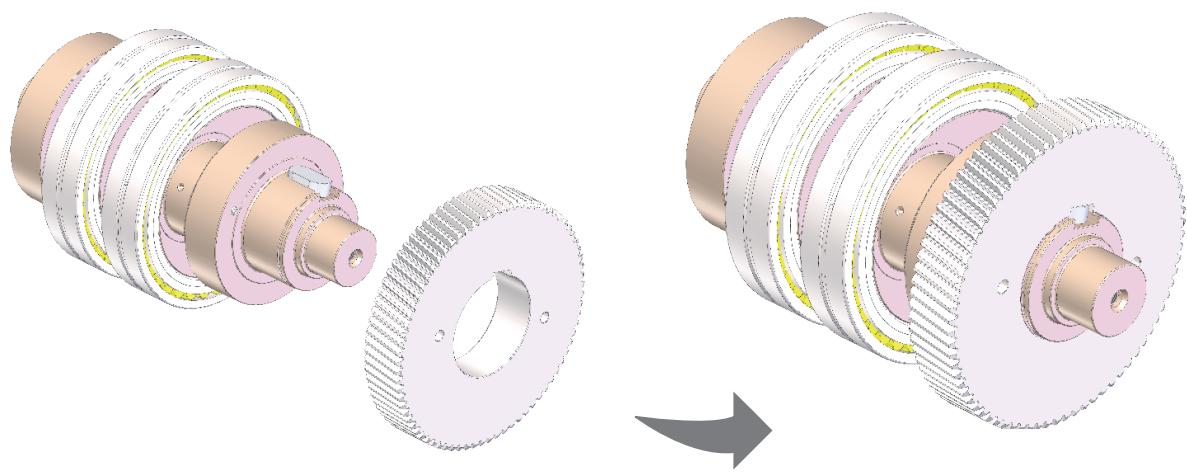
Fig. 14



HEAT THE CROWN GEAR AT 120°C FOR 10 MINUTES.

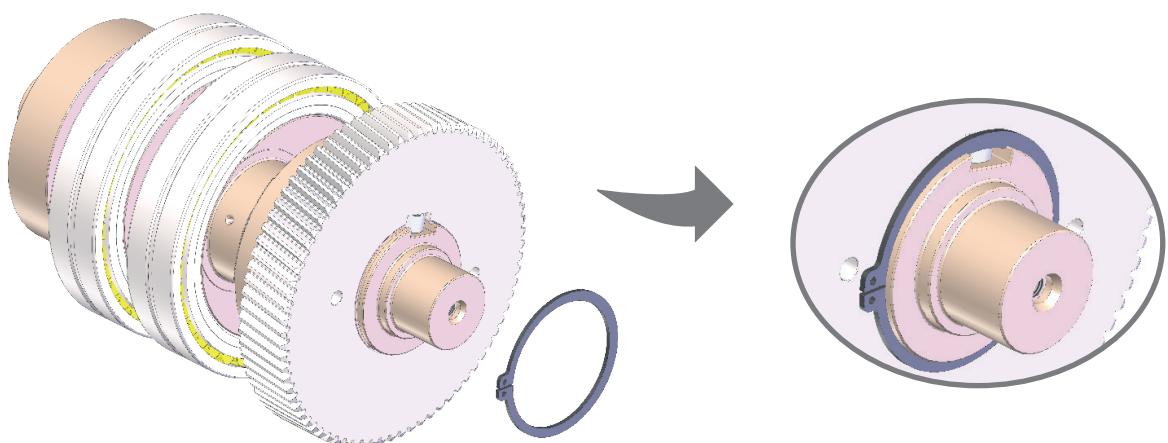
Fig. 15

## ASSEMBLING THE H-200 PUMP POWER END



MOUNT THE CROWN GEAR IN THE CRANKSHAFT WHILE IT IS WARM WITH THE THREADS FACING OUT.

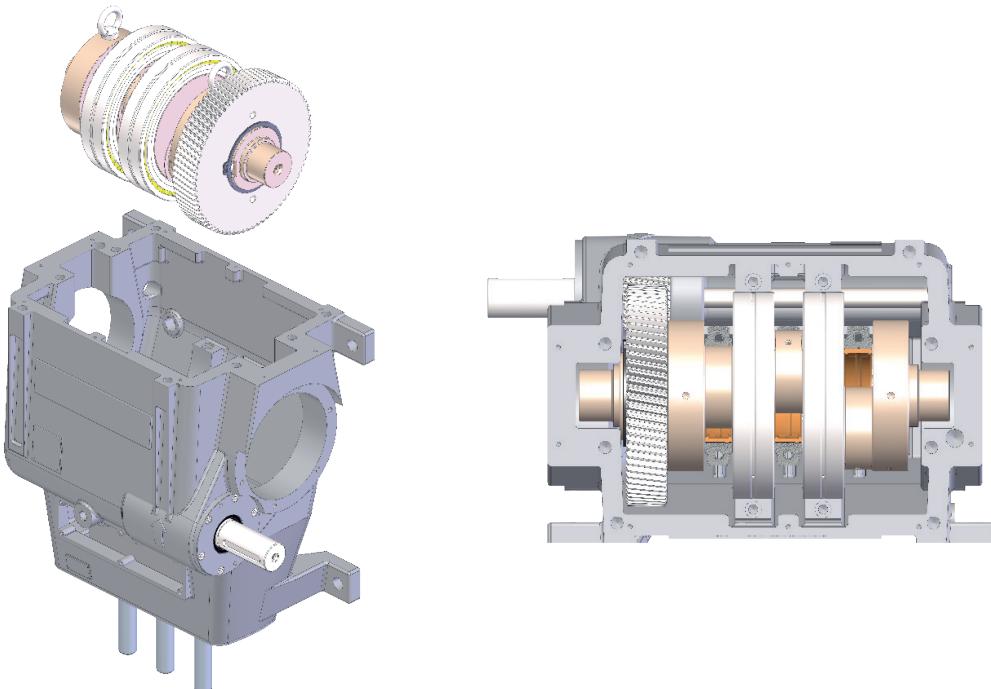
Fig. 16



MOUNT THE SEEGER RING.

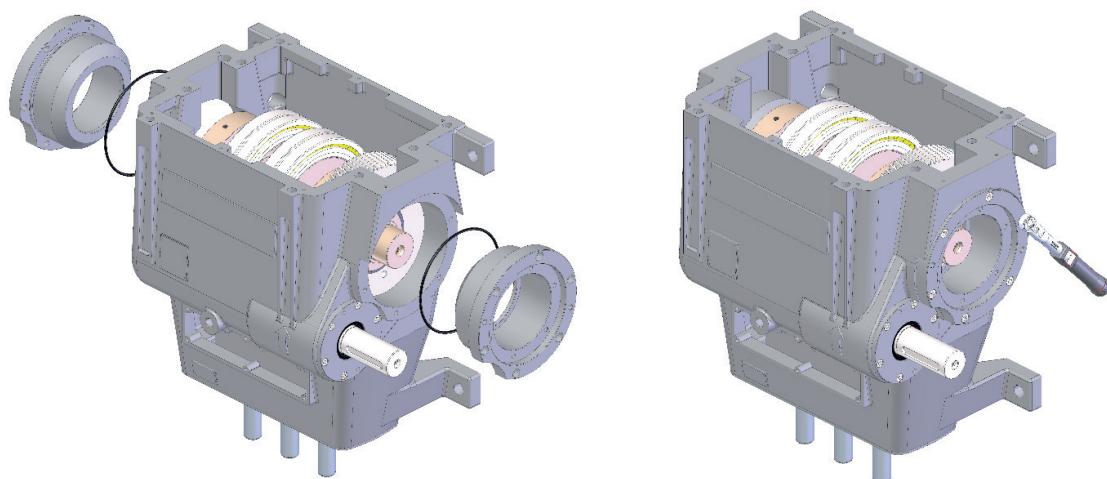
Fig. 17

## ASSEMBLING THE H-200 PUMP POWER END



LIFT THE CRANKSHAFT USING LIFTING EYES APPLIED ON THE APPROPRIATE THREADS.  
THE GEAR CROWN MUST BE POSITIONED FACING THE SHAFT GEAR SIDE.

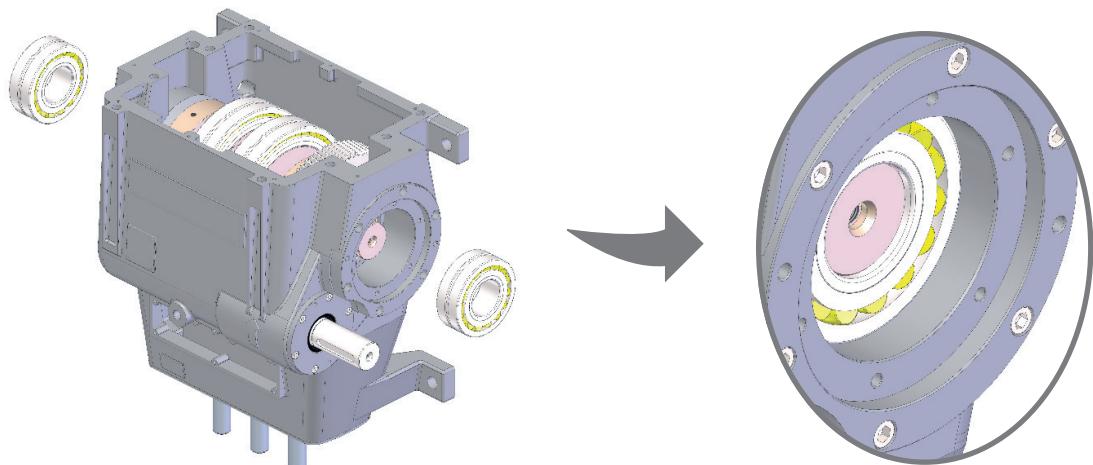
Fig. 18



MOUNT O-RINGS (APPLY "ROCOL" TYPE GREASE TO SEAL) AND THE BEARING  
FLANGES WITH THE "HALF-MOON" RAY IN THE POSITION SHOWN (SYMMETRICALLY).  
APPLY COPPER GREASE ON THE THREAD OF THE M12 SCREWS THAT FIX THE ALIGNMENT  
CRANKCASE FLANGES. TIGHT "X" TO A TORQUE OF 112 Nm.

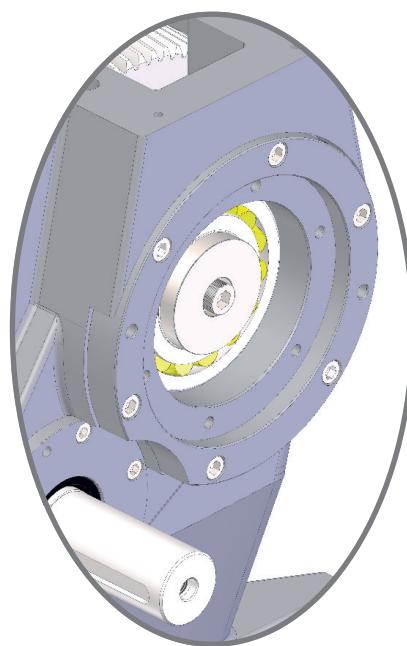
Fig. 19

## ASSEMBLING THE H-200 PUMP POWER END



MOUNT BEARINGS ON BOTH CRANKSHAFT SIDES.

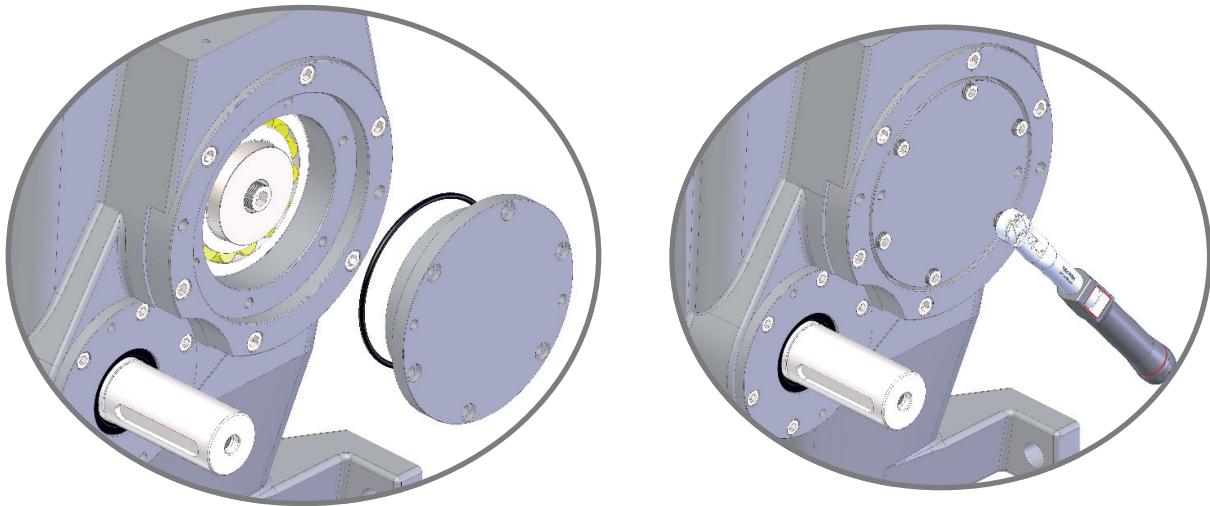
Fig. 20



MOUNT THE SLEEVE ON THE CRANKSHAFT (PINION SIDE). APPLY LOCTITE 577 ON THE THREAD OF THE M16 SCREWS TO A TORQUE OF 232 Nm.

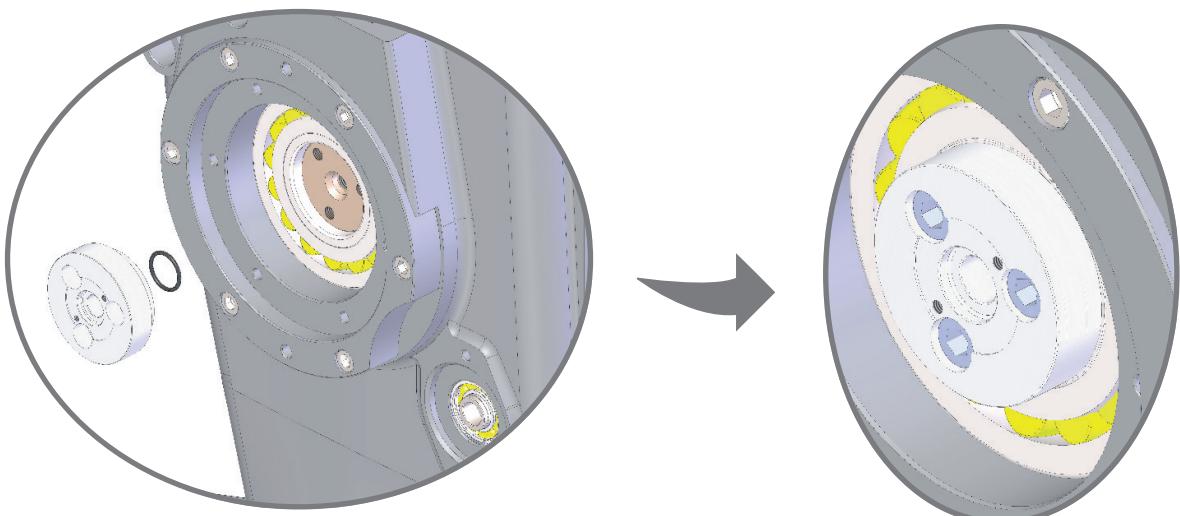
Fig. 21

## ASSEMBLING THE H-200 PUMP POWER END



MOUNT THE O-RING (USE "ROCOL" TYPE GREASE TO SEAL) AND FIX THE CRANKSHAFT COVER (PINION SIDE). APPLY GREASE ON THE THREAD OF THE M10 SCREWS. TIGHT "X" TO A TORQUE OF 64 Nm.

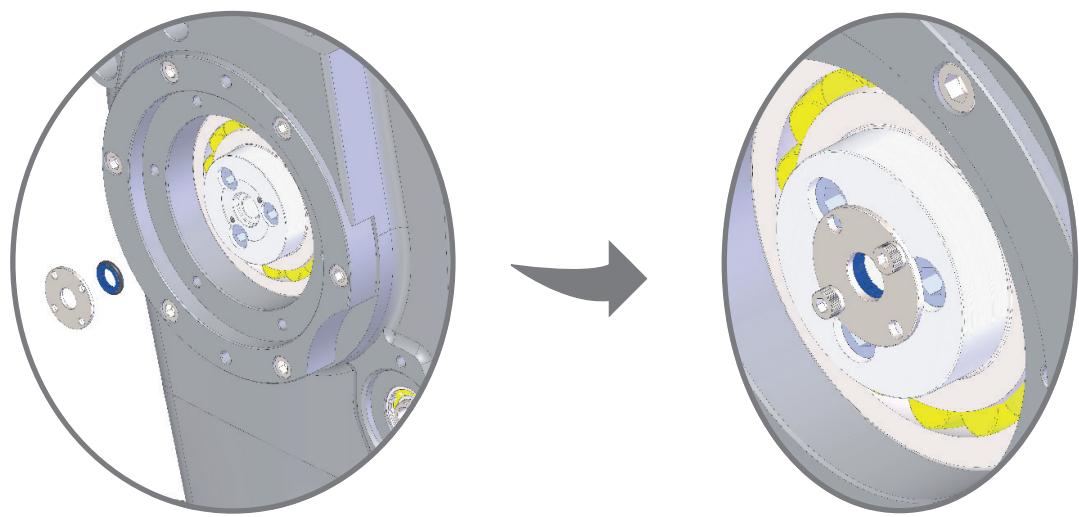
Fig. 22



MOUNT THE O-RING AND THE BEARING SEAT ON THE CRANKSHAFT. TIGHT THE M12 SCREWS TO A TORQUE OF 100 Nm. (PAY ATTENTION: DO NOT USE GREASE OR ANYTHING SIMILAR).

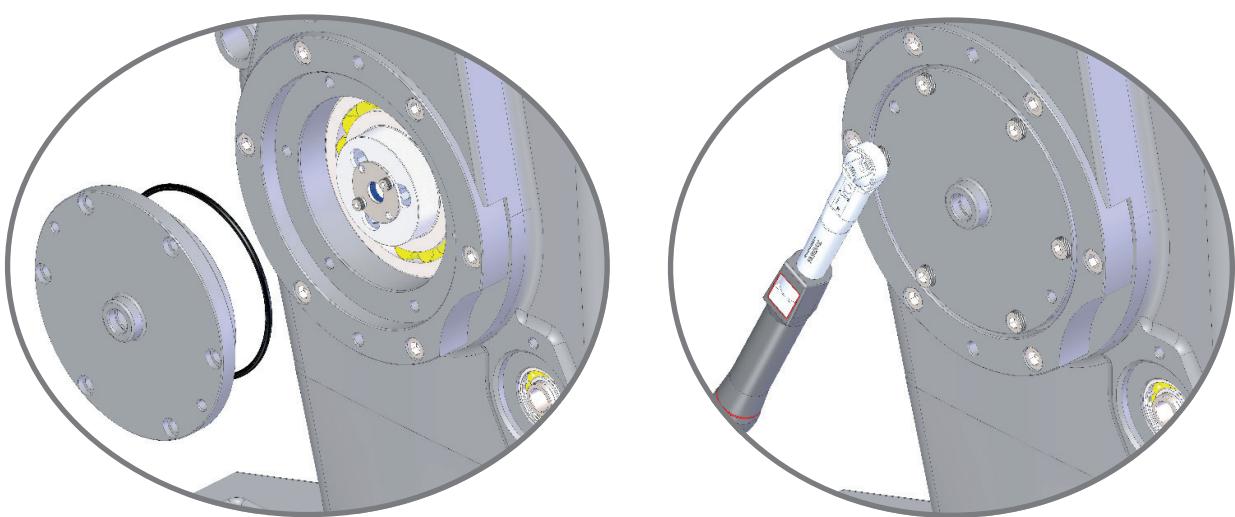
Fig. 23

## ASSEMBLING THE H-200 PUMP POWER END



MOUNT THE ROTO GLYD AND ITS COVER ON THE BEARING SEAT. TIGHT THE M6 SCREWS TO A TORQUE OF 13 Nm. (PAY ATTENTION: DO NOT USE GREASE OR ANYTHING SIMILAR).

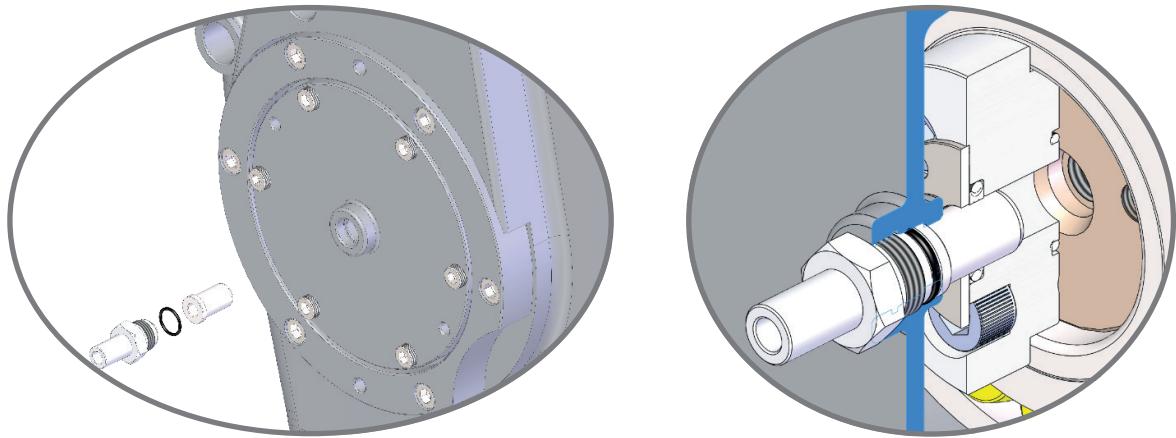
Fig. 24



MOUNT THE O-RING (APPLY "ROCOL" TYPE GREASE TO SEAL) AND FIX THE CRANKSHAFT COVER (SHAFT SIDE). USE GREASE ON THE THREAD OF THE M10 SCREWS.  
TIGHT "X" TO A TORQUE OF 64 Nm.

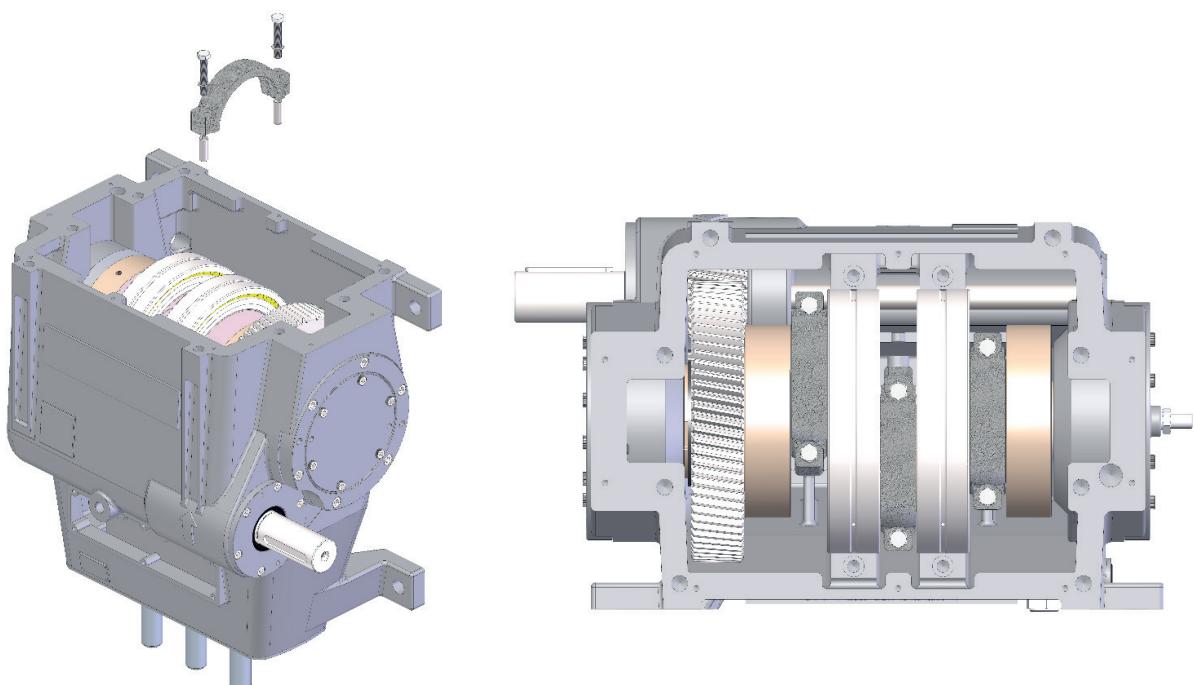
Fig. 25

## ASSEMBLING THE H-200 PUMP POWER END



MOUNT THE ADAPTOR, THE O-RING AND THE ROTO GLYD ALIGNMENT IN THE CRANKSHAFT COVER. TIGHT THE ADAPTOR TO A TORQUE OF 60 Nm.  
(PAY ATTENTION: DO NOT USE GREASE OR ANYTHING SIMILAR).

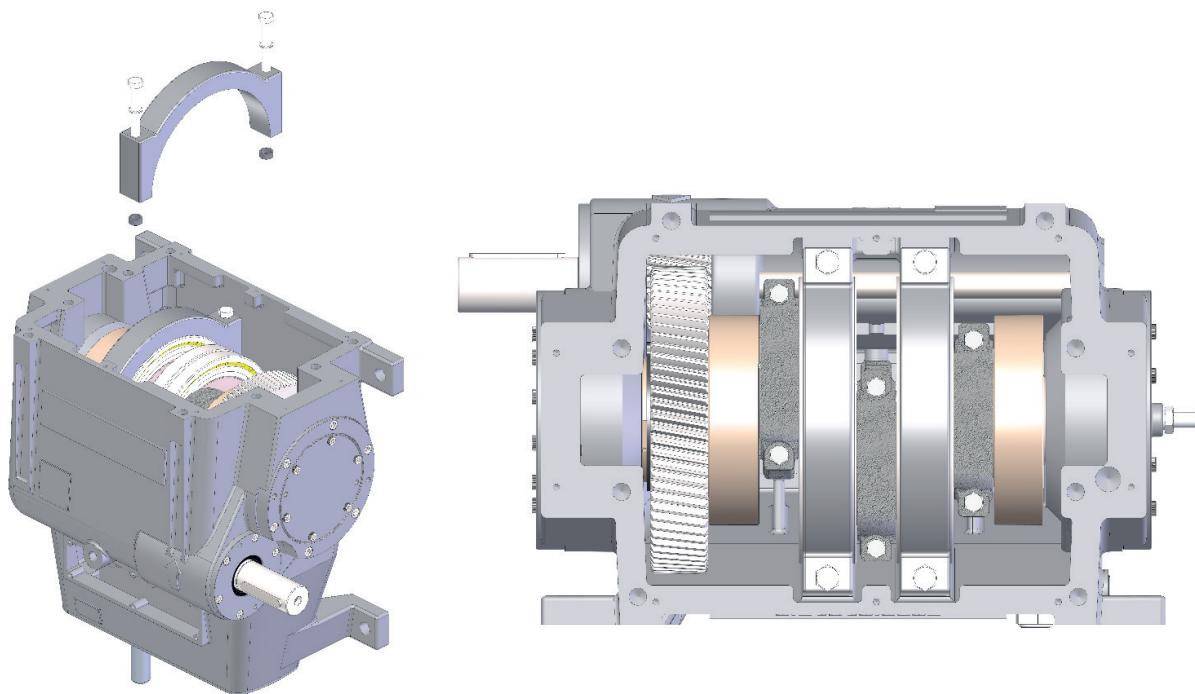
Fig. 26



MOUNT THE FIRST ROD CAP (PINION SIDE). TIGHT THE M12 SCREWS TO A TORQUE OF 100 Nm. (PAY ATTENTION: DO NOT USE GREASE OR ANYTHING SIMILAR). TURN THE SHAFT TO ENSURE A PERFECT FIX BETWEEN COMPONENTS. REPEAT THE PROCESS FOR THE OTHER 2 RODS, IN SEQUENCE ALWAYS TURNING THE SHAFT AND CHECKING THE ASSEMBLY.

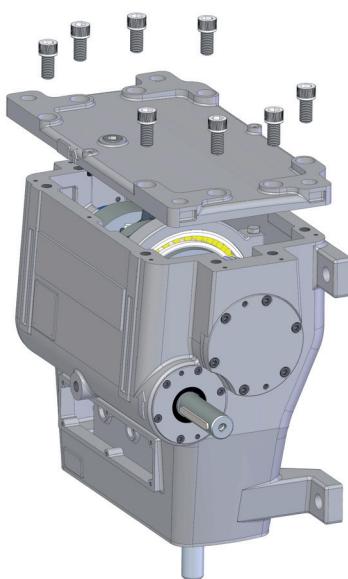
Fig. 27

## ASSEMBLING THE H-200 PUMP POWER END



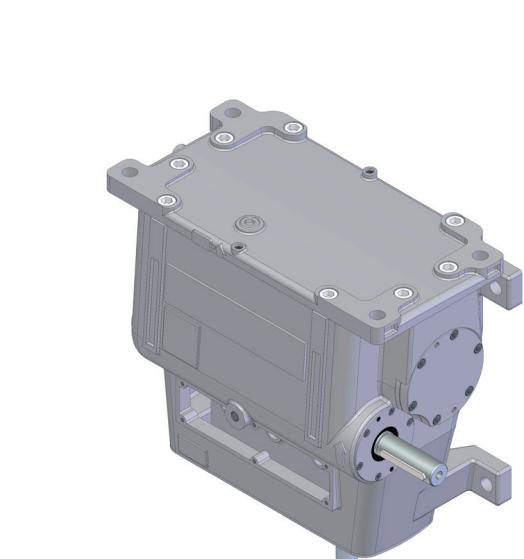
MOUNT THE FIRST BEARING CAP (PINION SIDE). TIGHT THE M16 SCREWS TO A TORQUE OF 232 Nm. (PAY ATTENTION: DO NOT USE GREASE OR ANYTHING SIMILAR). TURN THE SHAFT TO ENSURE A PERFECT FIX BETWEEN COMPONENTS. REPEAT THE PROCESS FOR THE OTHER 2 BEARINGS, ALWAYS TURNING THE SHAFT AND CHECKING THE ASSEMBLY.

Fig. 28



APPLY LOCTITE 598 BLACK SILICONE ON ALL THE CRANKCASE SURFACE (AREA WHERE THE COVER WILL BE PRESSED AGAINST). PLACE THE COVER ON THE CRANKCASE, ALIGN IT AND INSERT THE GUIDING SCREWS (M8 X 30MM ALLEN)

Fig. 29

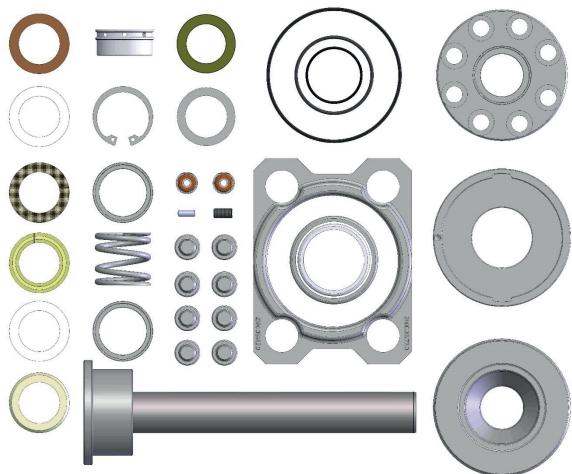


MOUNT THE M20 ALLEN SCREWS UNTIL THEY TOUCH THE SURFACE. TIGHT THE SCREWS IN "X" TO A TORQUE OF 350 NM.

Fig. 30

# ASSEMBLING THE SAP G-IV PLUNGER KIT

## PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)



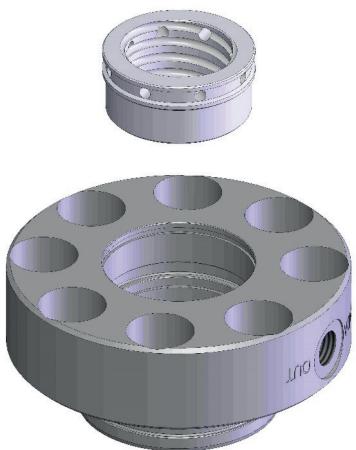
ARRANGE ALL PLUNGER KIT COMPONENTS ON THE WORK BENCH.

Fig. 01



SEPARATE ALL SUPPORT FLANGE COMPONENTS ON THE WORK BENCH.

Fig. 02



INSERT THE SLIDING BUSH INTO THE SUPPORT FLANGE.

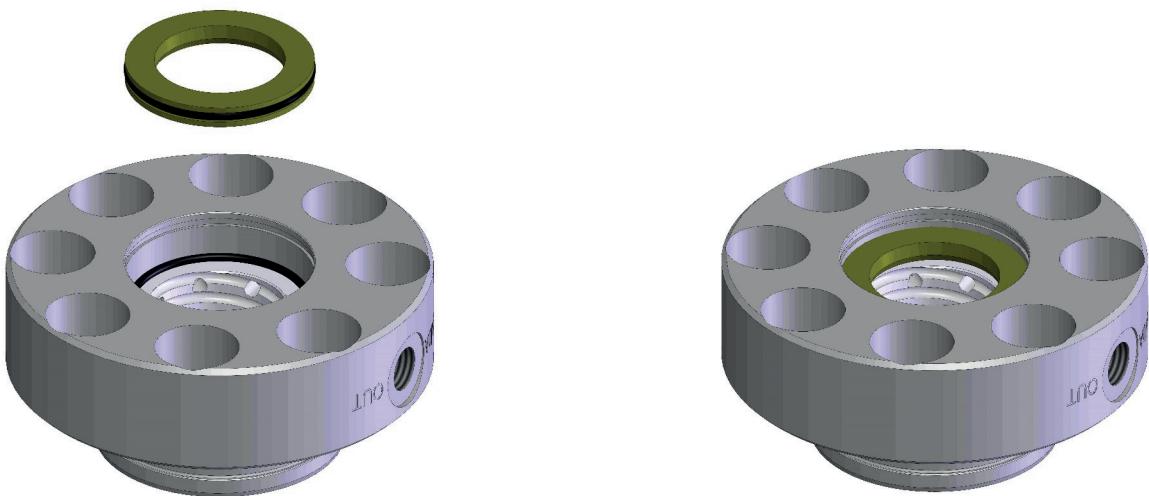
Fig. 03



OVERLAP THE O-RING.

Fig. 04

**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)**



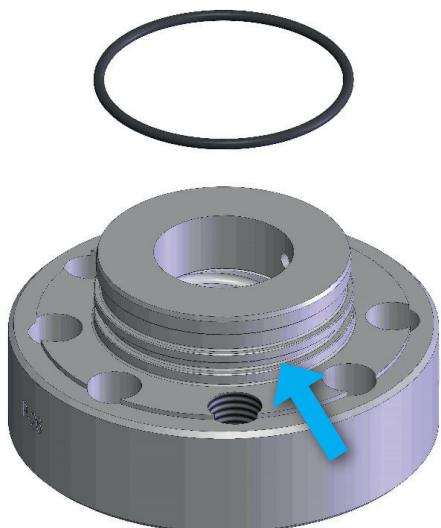
INSERT THE LOW PRESSURE SEAL WITH THE OPENED SIDE TURNED TO THE SUPPORT FLANGE (APPLY "ROCOL" TYPE GREASE TO SEAL).

Fig. 05



INSERT THE SPACER AND THE SEEGER RING TO FIX THE ASSEMBLED PARTS.

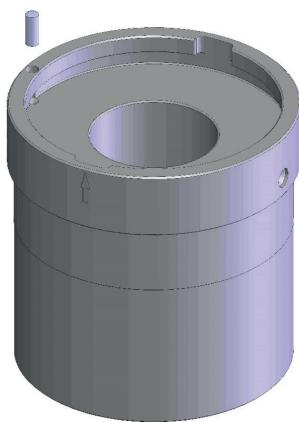
Fig. 06



INSERT THE O-RING INTO THE SUPPORT FLANGE SEAT (SEE THE PICTURE).  
APPLY "ROCOL" TYPE GREASE TO SEAL.

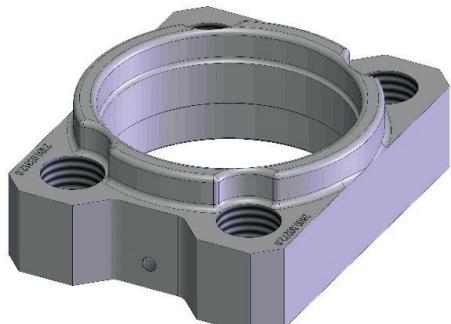
Fig. 07

## PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)



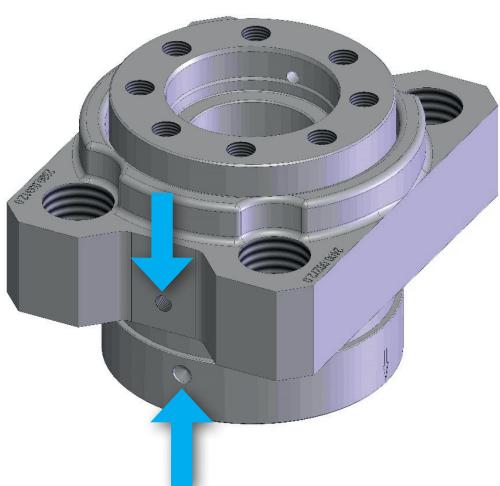
INSERT THE GUIDE PIN INTO THE SLEEVE  
(SOME MODELS COULD BE SUPPLIED WITH PIN  
ALREADY MOUNTED).

Fig. 08



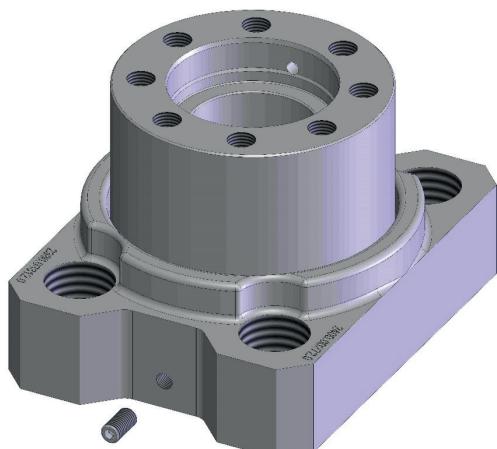
MOUNT THE SUPPORT FLANGE ON THE SLEEVE.

Fig. 09



CHECK HOLE ALIGNMENT.

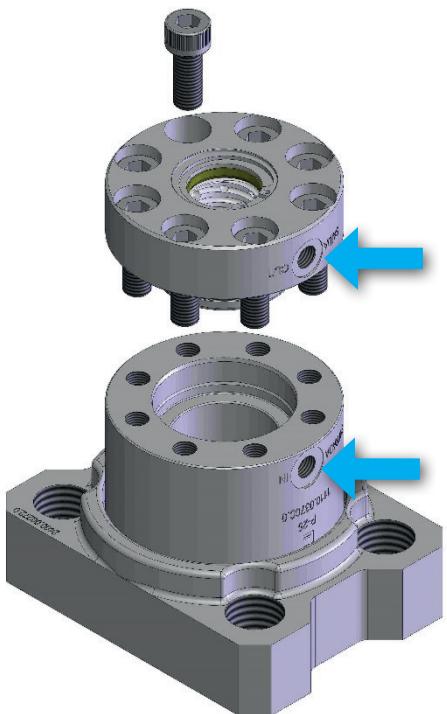
Fig. 10



INSERT THE ALLEN SCREW WITHOUT HEAD  
AND FIX IT.

Fig. 11

## PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)



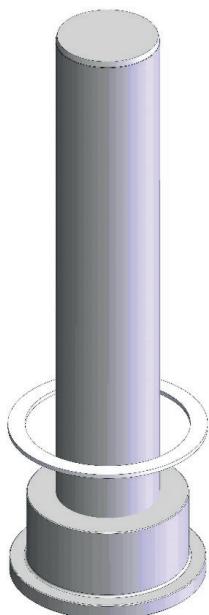
APPLY "ROCOL" TYPE GREASE ON THE THREAD OF THE M10 SCREWS THAT FIX THE SUPPORT FLANGE WITH THE SLEEVE, TIGHT "X" TO A TORQUE OF 60Nm.

Fig. 12



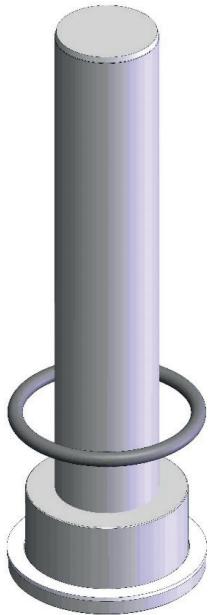
ARRANGE THE PLUNGER, THE BACK RING, THE O-RING AND THE G-IV SELF-CENTERING ADAPTER.

Fig. 13



INSERT THE FIRST BACK RING ON THE PLUNGER.

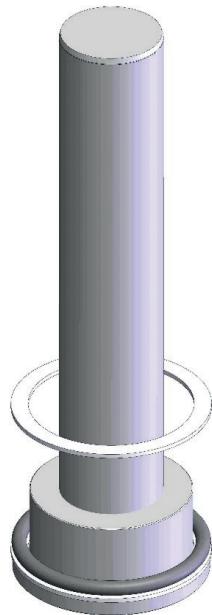
Fig. 14



INSERT THE O-RING ON THE PLUNGER.

Fig. 15

## PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)



INSERT THE SECOND BACK RING ON THE PLUNGER.

Fig. 16



INSERT THE G-IV SELF-CENTERING ADAPTER ON THE SET.

Fig. 17



INSERT THE SLEEVE ASSEMBLED WITH THE FLANGE INTO THE PLUNGER UNTIL IT REACHES THE PLUNGER HEAD.

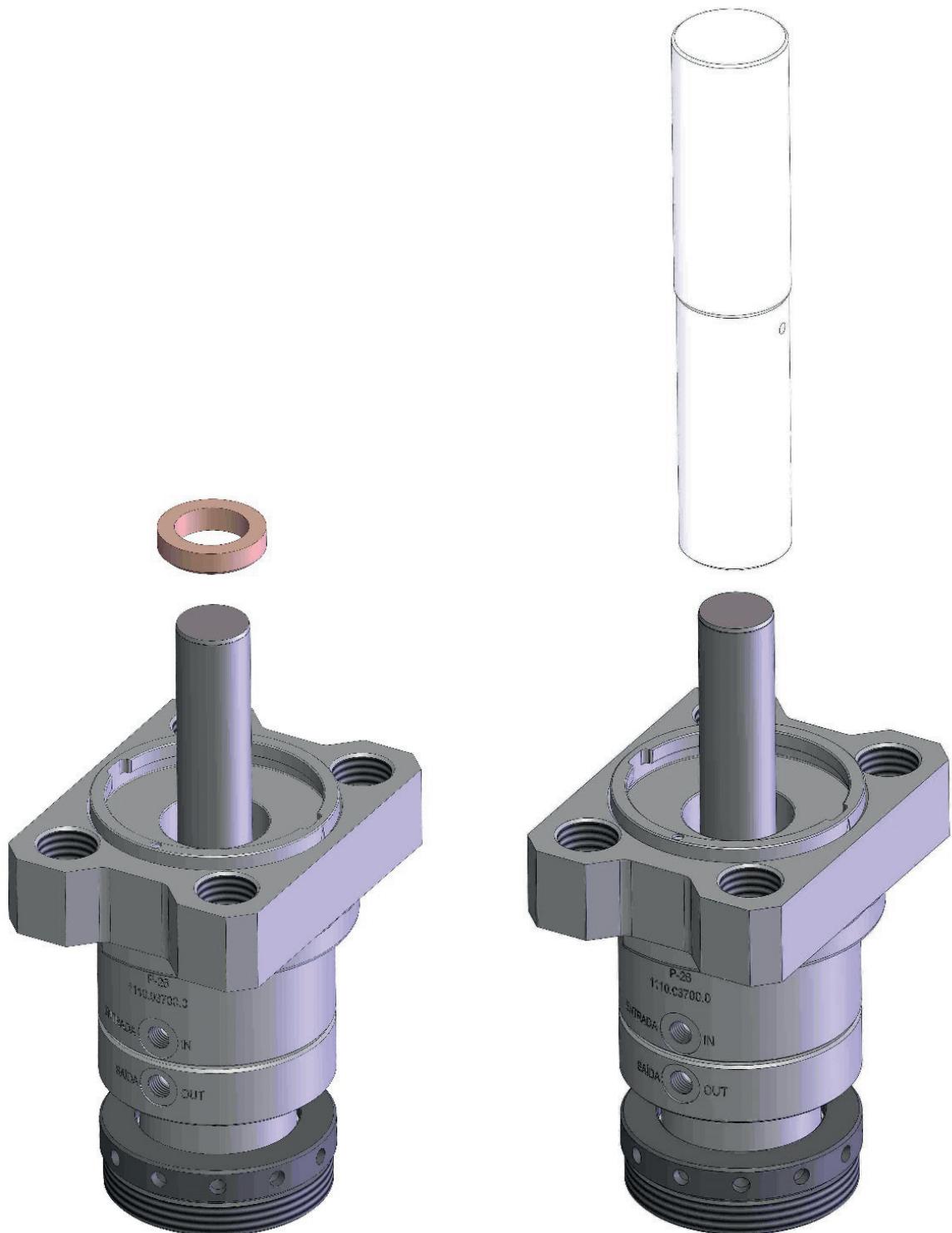
Fig. 18



ARRANGE THE SEALING KIT ON THE WORK BENCH.

Fig. 19

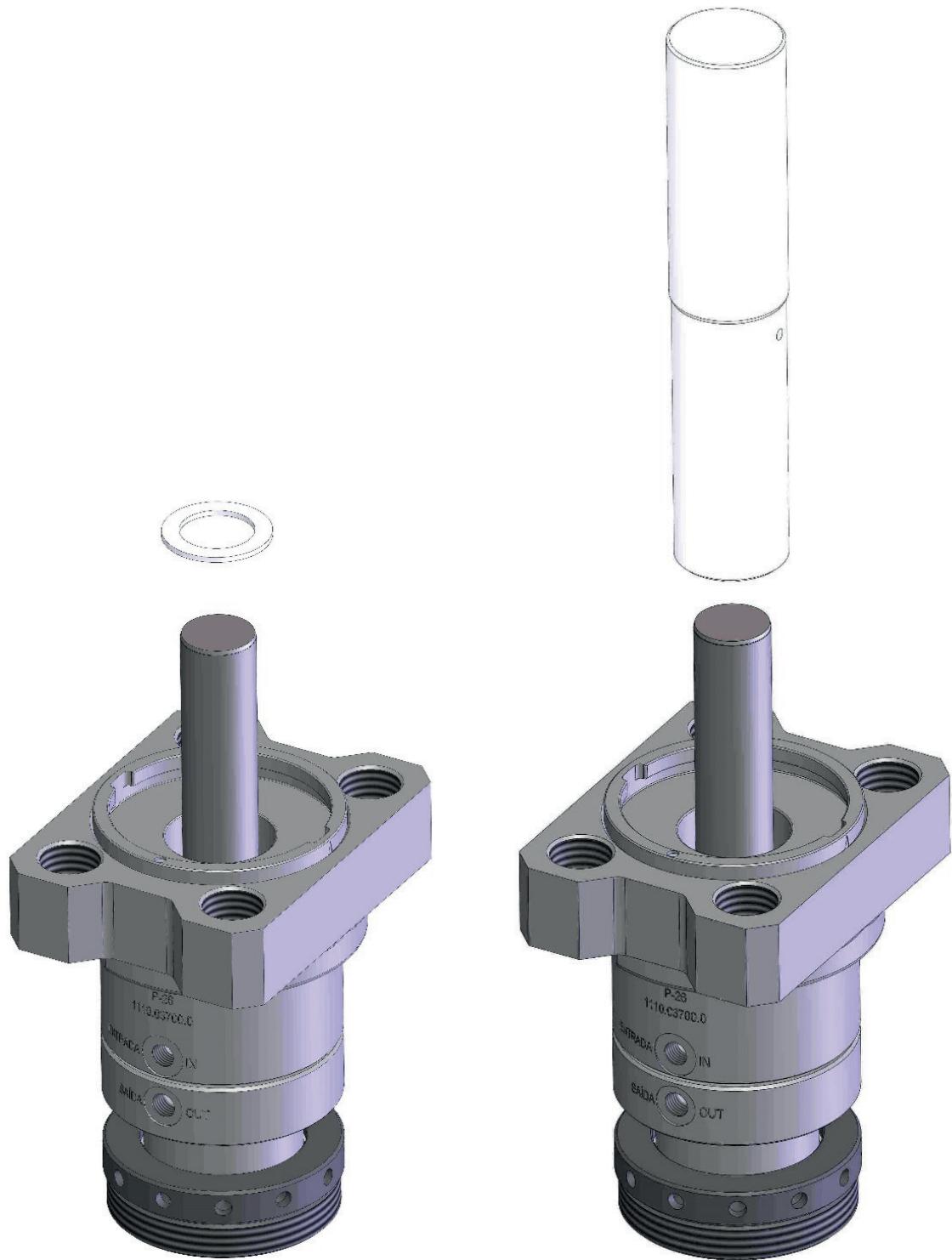
**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)**



INSERT THE LOWER SUPPORTING RING (WITH THE CHANFER FACING DOWN) AND USE A NYLON TOOL AND A HAMMER TO PUSH IT UNTIL IT REACHES THE BOTTOM.

Fig. 20

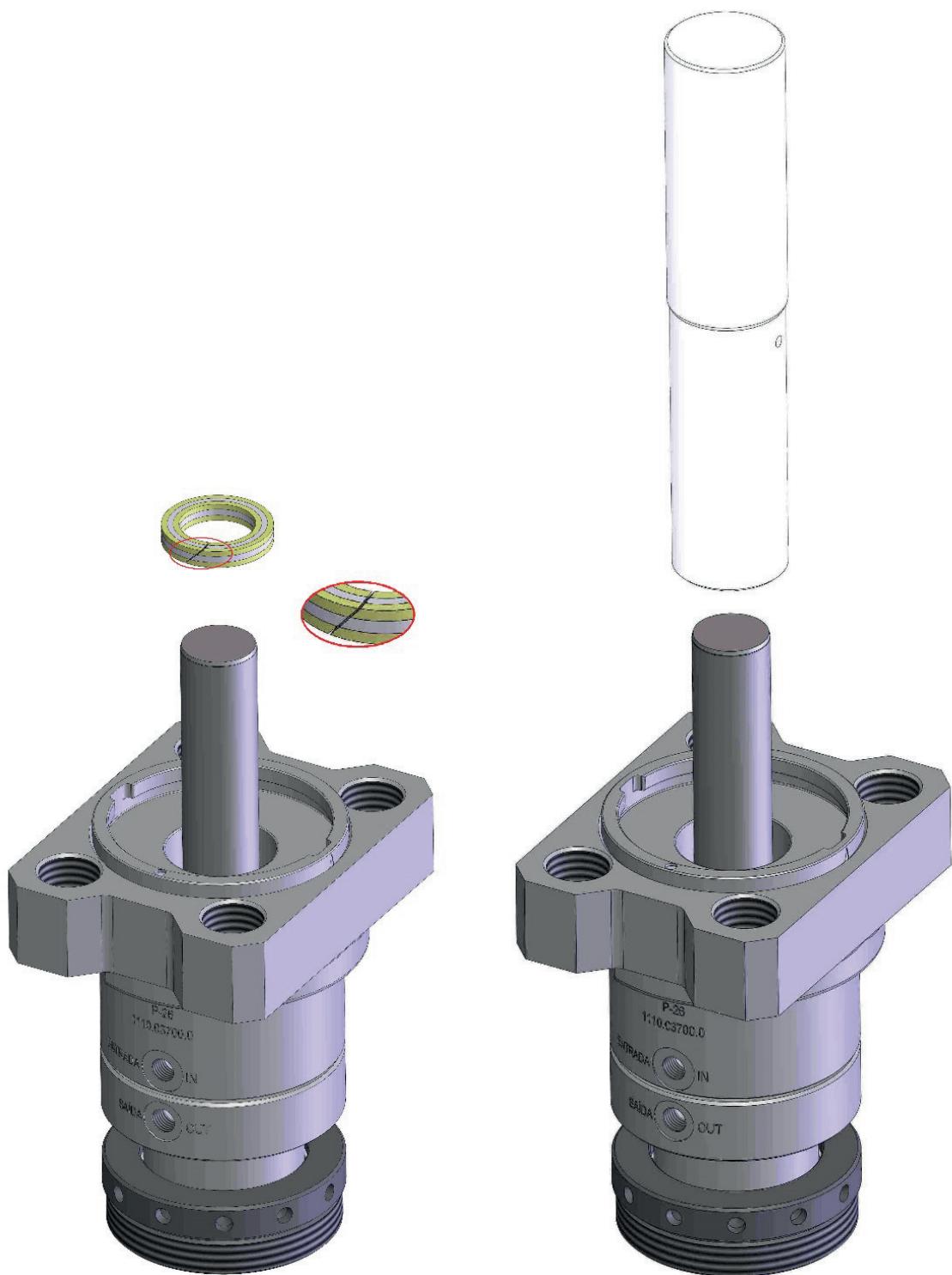
**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)**



INSERT THE FIRST SCRAPER RING AND USE THE NYLON TOOL AND A HAMMER TO PUSH IT TO THE BOTTOM.

Fig. 21

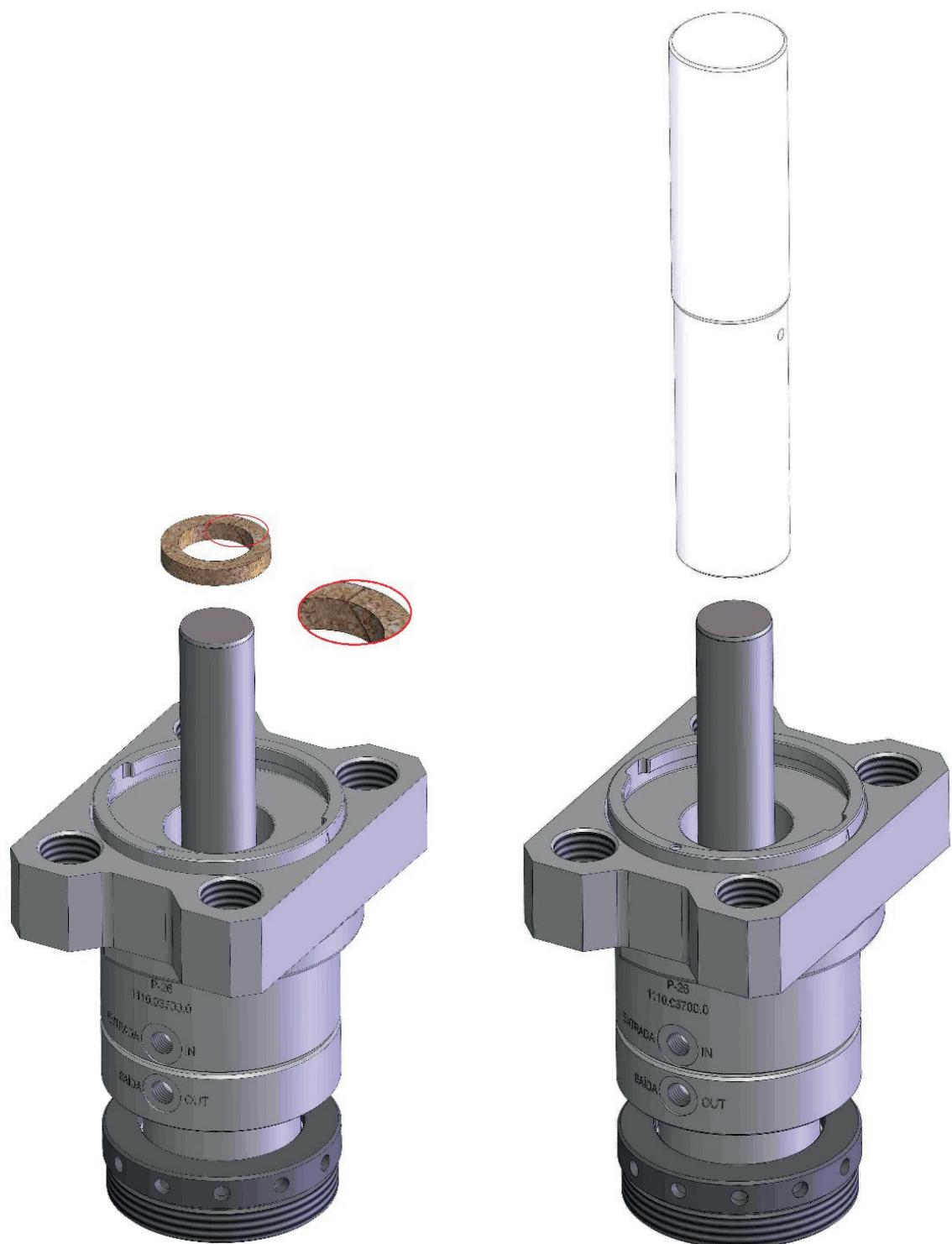
**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)**



INSER THE KEVLAR SEALING AND USE THE NYLON TOOL AND A HAMMER TO PUSH IT TO THE BOTTOM.

Fig. 22

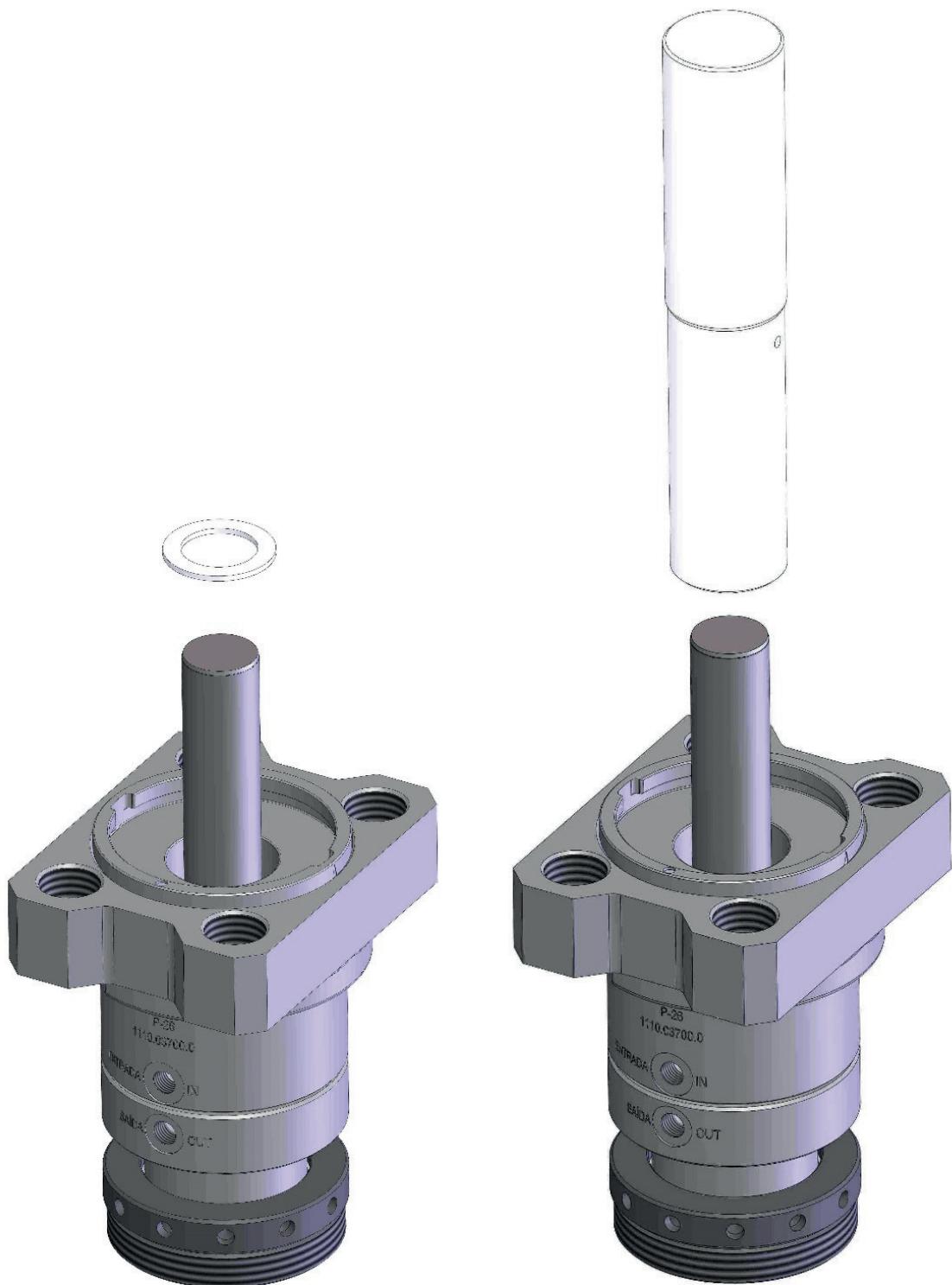
## PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)



INSERT THE BRAIDED SEALING PAYING ATTENTION TO KEEP ITS CHANFER AT A 180° WITH RESPECT TO THE KEVLAR SEALING. USE THE NYLON TOOL AND A HAMMER TO PUSH IT TO THE BOTTOM.

Fig. 23

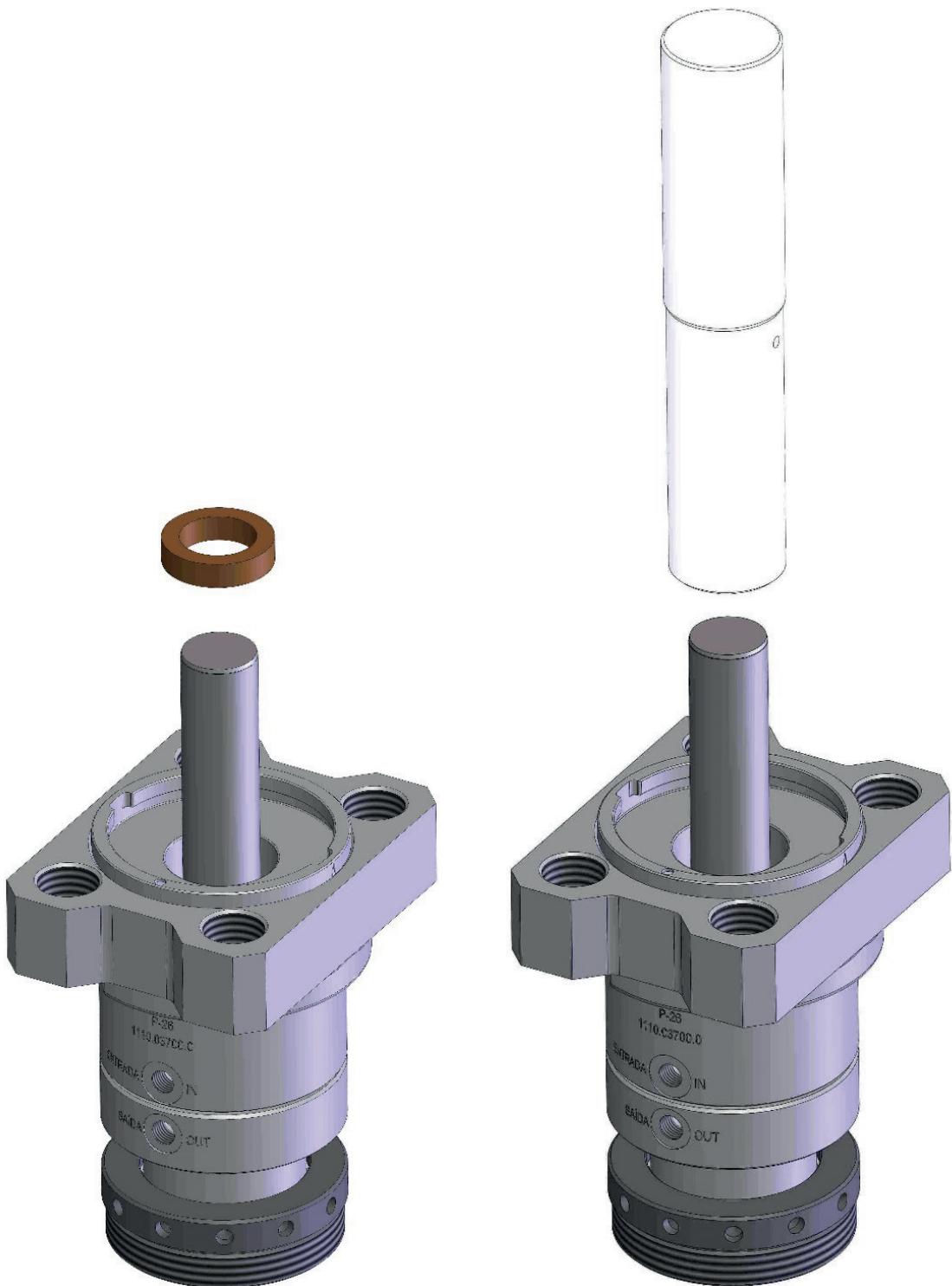
**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)**



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

Fig. 24

**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)**



INSERT THE UPPER SUPPORTING RING AND USE THE NYLON TOOL TO PUSH IT TO THE BOTTOM.

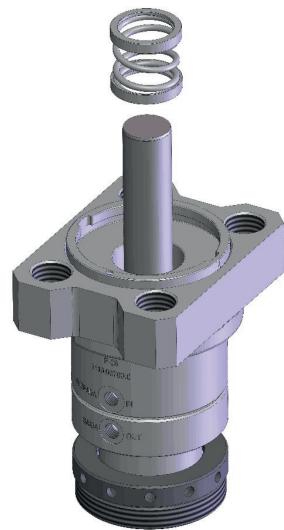
Fig. 25

**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)**



ARRANGE THE COMPONENTS FOR PACKING SPRING ASSEMBLY.

Fig. 26



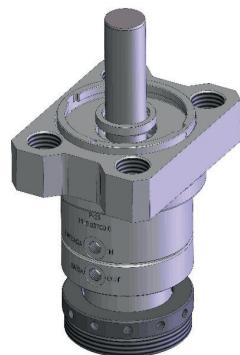
INSERT THE PACKING SPRING ALREADY ASSEMBLED.

Fig. 27



INSERT THE LOWER METAL RING WITH THE RADIUS FACING DOWNWARDS.

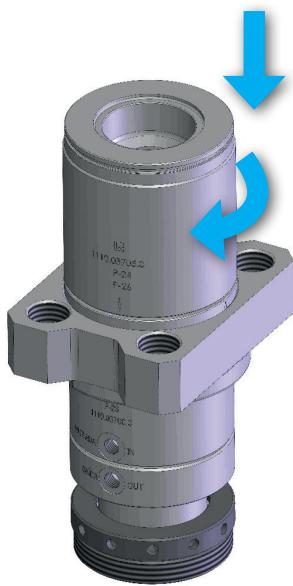
Fig. 28



ASSEMBLE THE FRONTAL SLEEVE ON THE PLUNGER USING THE ARROWS AS REFERENCE FOR ASSEMBLY ALIGNMENT.

Fig. 29

## PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-22 TO P-30)



PRESS IT UNTIL IT REACHES THE BOTTOM AND ROTATE 90° TO LOCK THE FRONTAL SLEEVE IN THE RIGHT POSITION.

Fig. 30



INSERT THE O-RING ON THE FRONTAL SLEEVE.

Fig. 31



INSERT THE UPPER METAL RING WITH THE RADIUS FACING DOWNWARDS.

Fig. 32

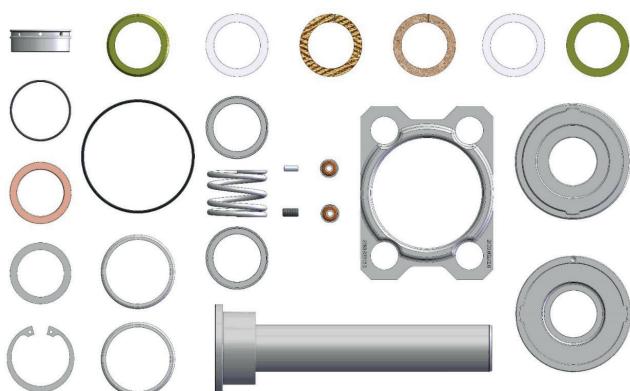


TIGHT COOLING SYSTEM CONNECTIONS.

Fig. 33

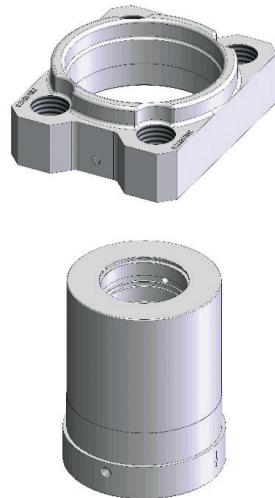
# ASSEMBLING THE SAP G-IV PLUNGER KIT

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



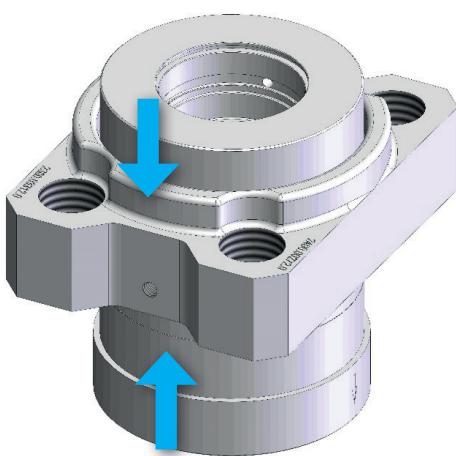
ARRANGE ALL THE PLUNGER KIT COMPONENTS ON THE WORK BENCH.

Fig. 01



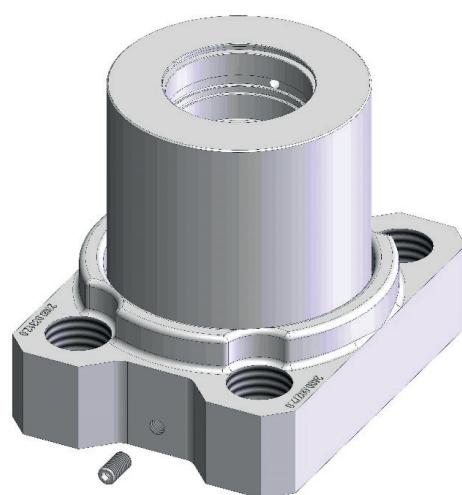
MOUNT THE SUPPORT FLANGE WITH THE SLEEVE.

Fig. 02



CHECK HOLE ALIGNMENT.

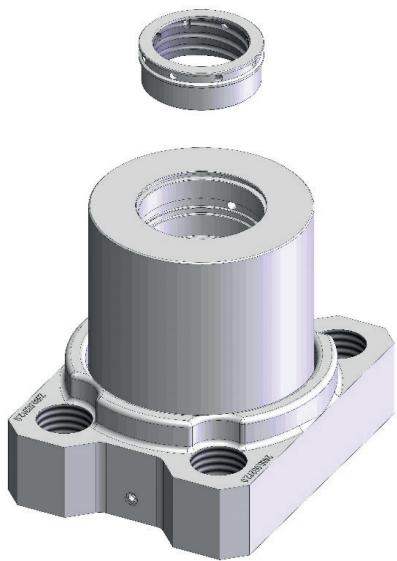
Fig. 03



INSERT THE ALLEN SCREW WITHOUT HEAD AND FIX IT.

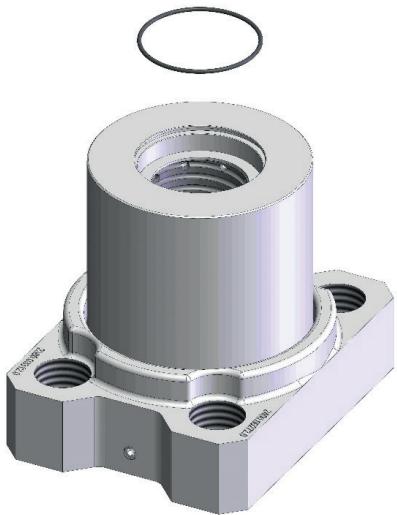
Fig. 04

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



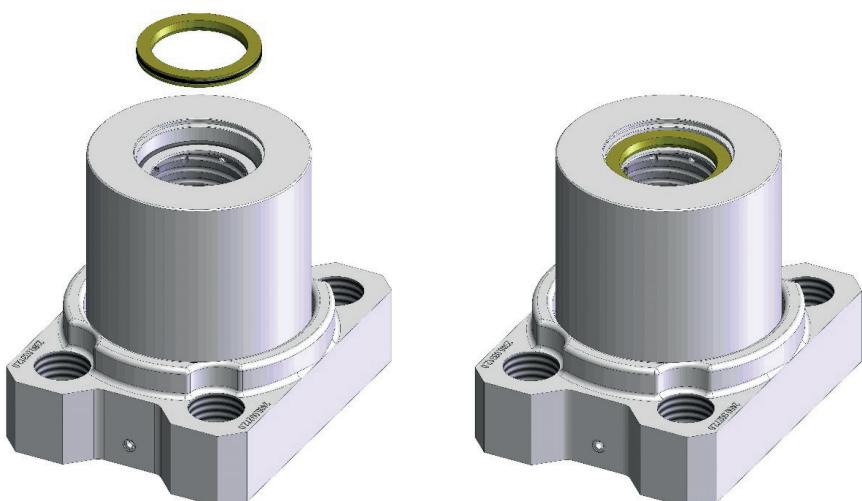
INSERT THE SLIDING BUSH INTO THE SLEEVE.

Fig. 05



OVERLAP THE O-RING.

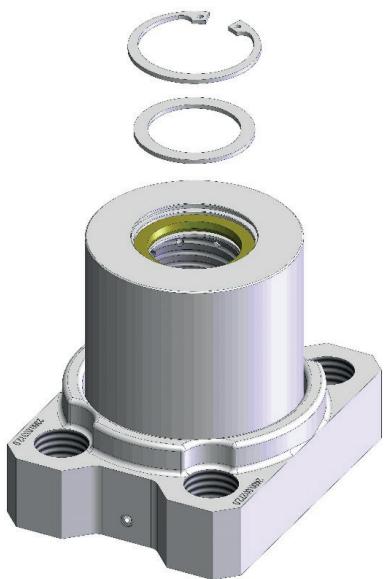
Fig. 06



INSERT THE LOW PRESSURE SEAL WITH THE OPENED SIDE TURNED TO THE SUPPORT FLANGE (APPLY "ROCOL" TYPE GREASE TO SEAL).

Fig. 07

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



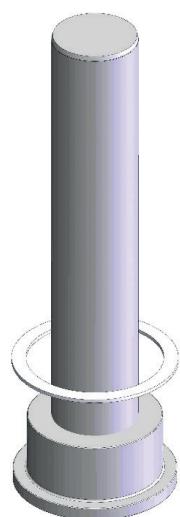
USE THE SPACER AND THE SEEGER RING TO FIX THE ASSEMBLED PARTS.

Fig. 08



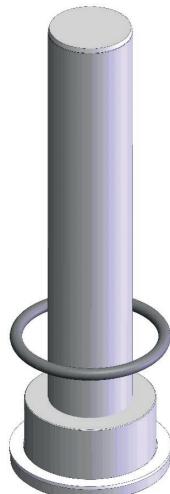
ARRANGE THE PLUNGER, THE BACK RINGS, THE O-RING AND THE G-IV SELF-CENTERING ADAPTER.

Fig. 09



INSERT FIRST BACK RING ON THE PLUNGER.

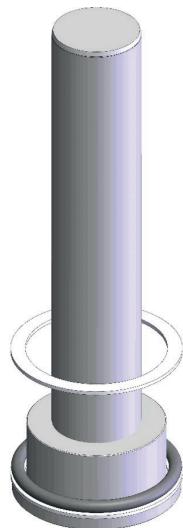
Fig. 10



INSERT THE O-RING ON THE PLUNGER.

Fig. 11

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



INSERT SECOND BACK RING ON THE PLUNGER.

Fig. 12



INSERT THE G-IV SELF-CENTERING ADAPTER ON THE PLUNGER.

Fig. 13



INSERT THE SLEEVE ASSEMBLED WITH FLANGE INTO THE PLUNGER UNTIL IT REACHES THE SELF CENTERING.

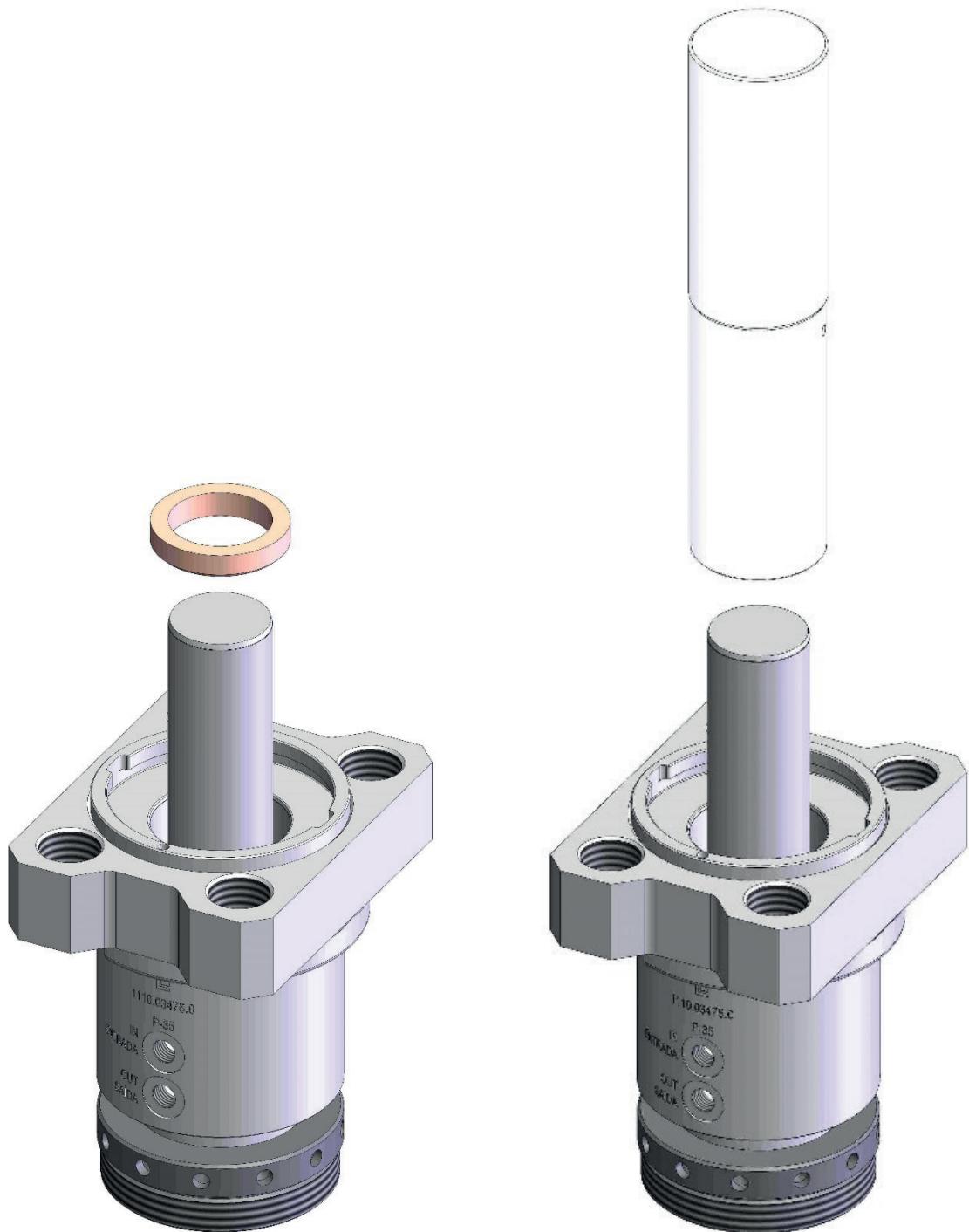
Fig. 14



ARRANGE THE SEALING KIT ON THE WORK BENCH.

Fig. 15

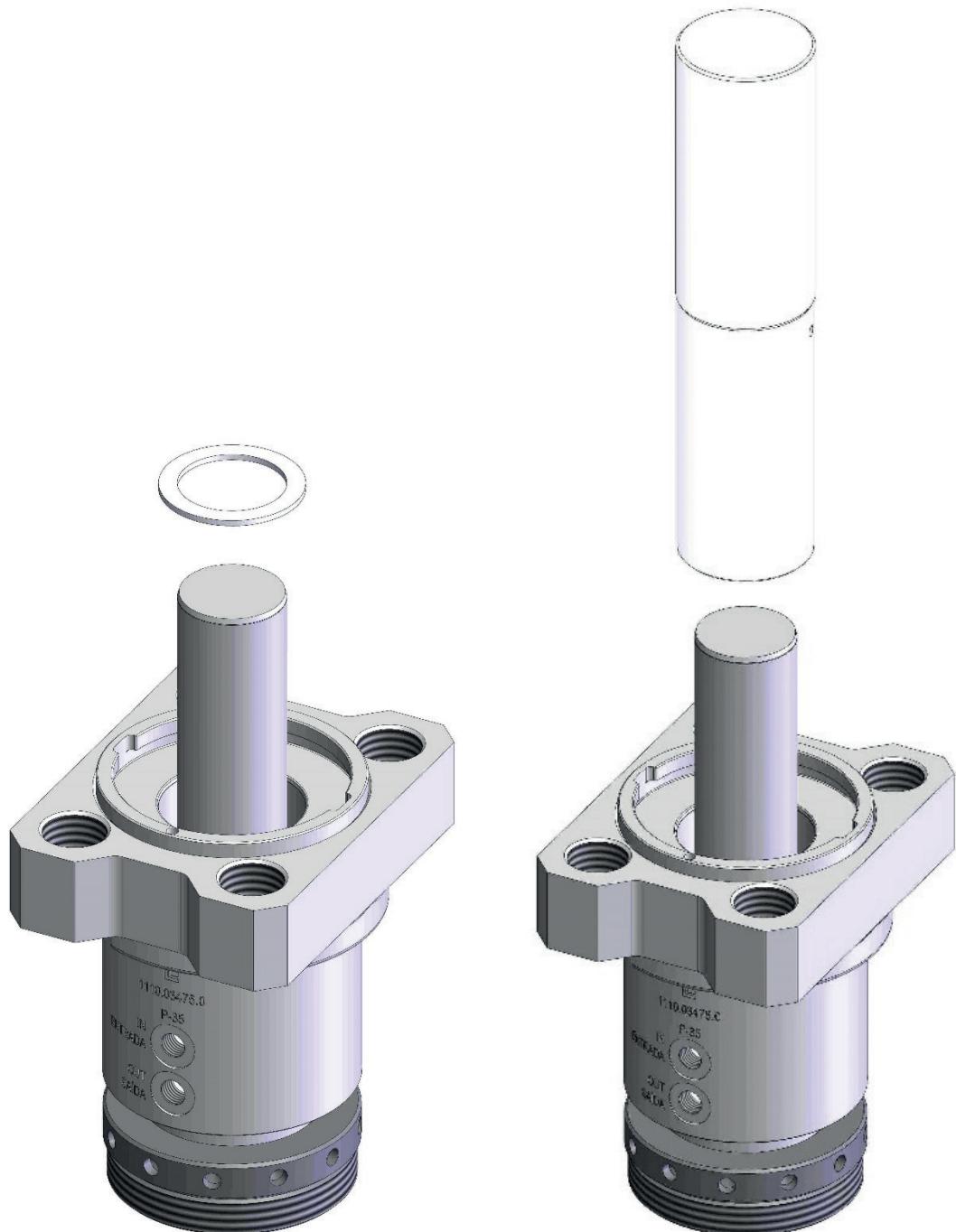
**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)**



INSERT THE LOWER SUPPORTING RING (WITH THE CHANFER FACING DOWN) AND USE A NYLON TOOL AND A HAMMER TO PUSH IT UNTIL IT REACHES THE BOTTOM.

Fig. 16

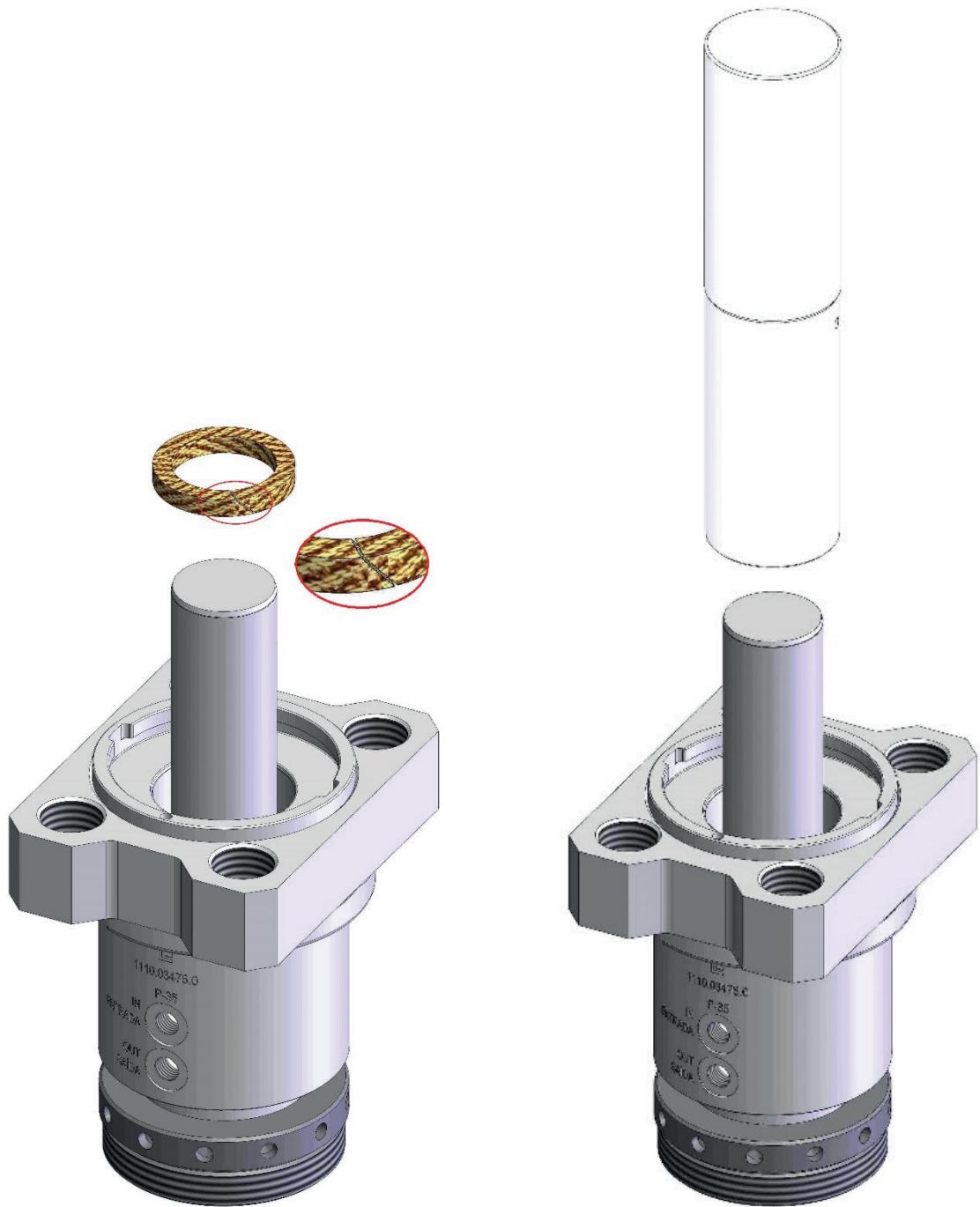
**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)**



INSERT THE FIRST SCRAPER RING AND USE THE NYLON TOOL AND A HAMMER TO PUSH IT TO THE BOTTOM.

Fig. 17

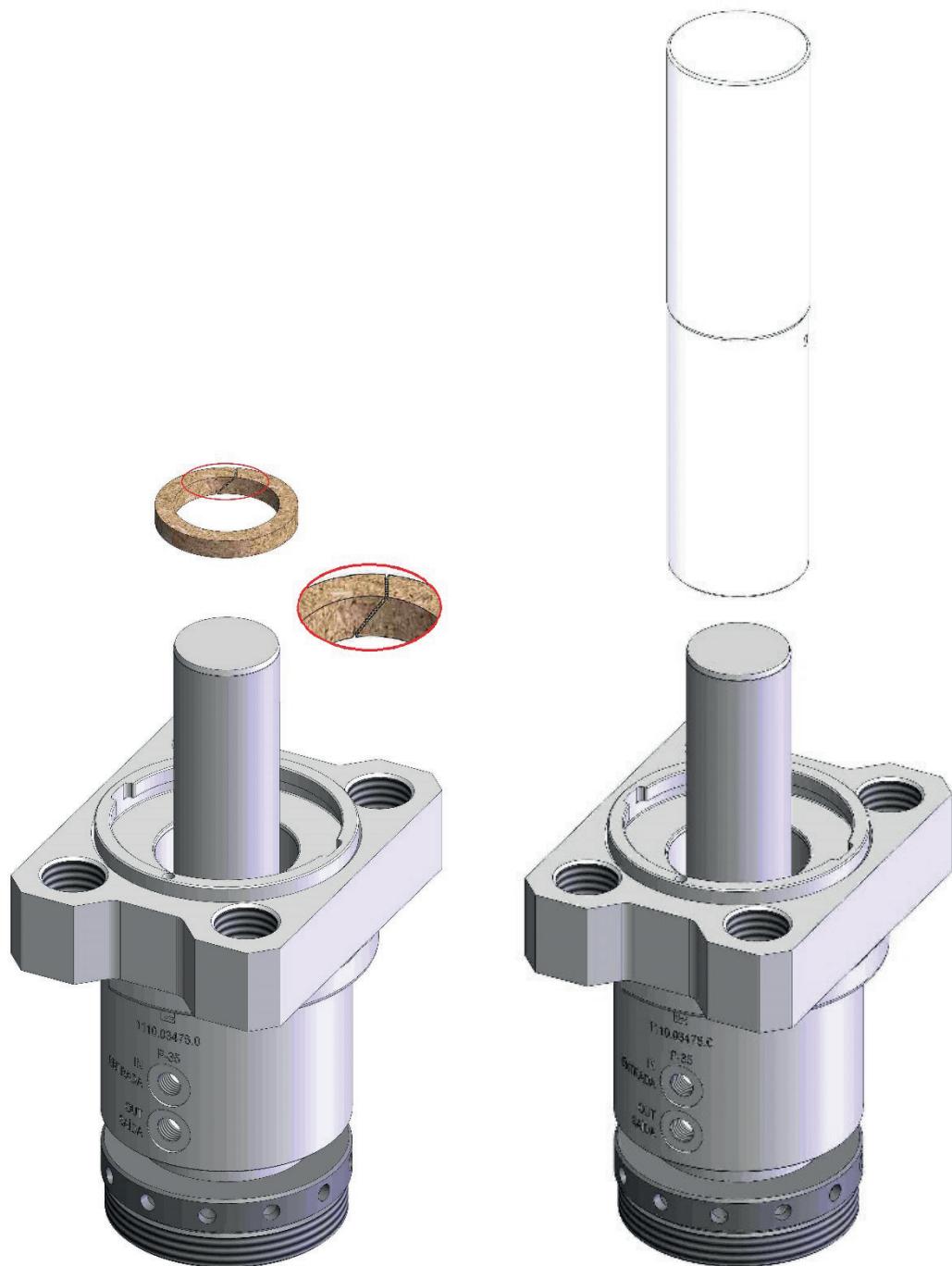
**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)**



INSER THE KEVLAR SEALING AND USE THE NYLON TOOL AND A HAMMER TO PUSH IT TO THE BOTTOM.

Fig. 18

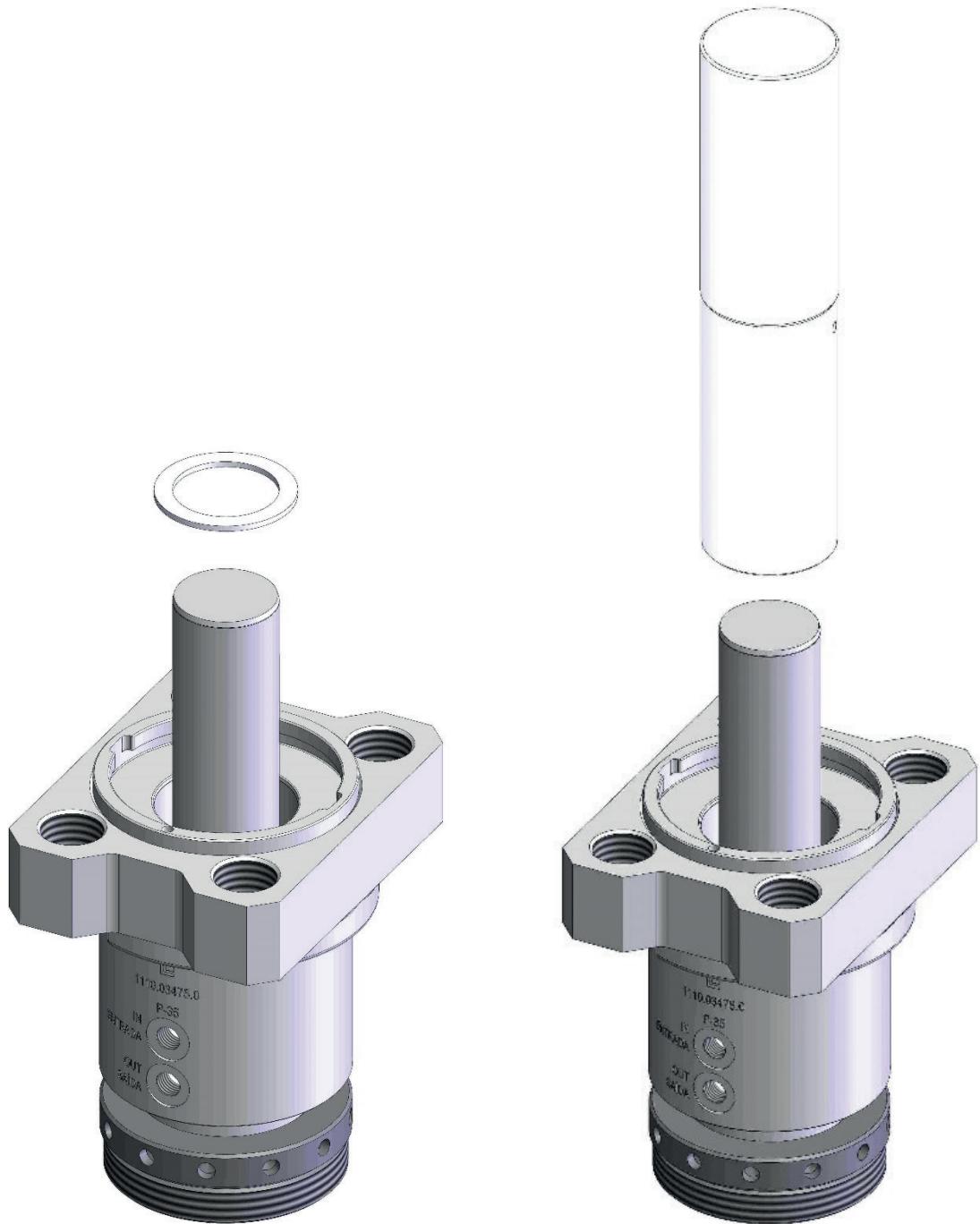
## PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)



INSERT THE BRAIDED SEALING PAYING ATTENTION TO KEEP ITS CHANFER AT A 180° WITH RESPECT TO THE KEVLAR SEALING. USE THE NYLON TOOL AND A HAMMER TO PUSH IT TO THE BOTTOM.

Fig. 19

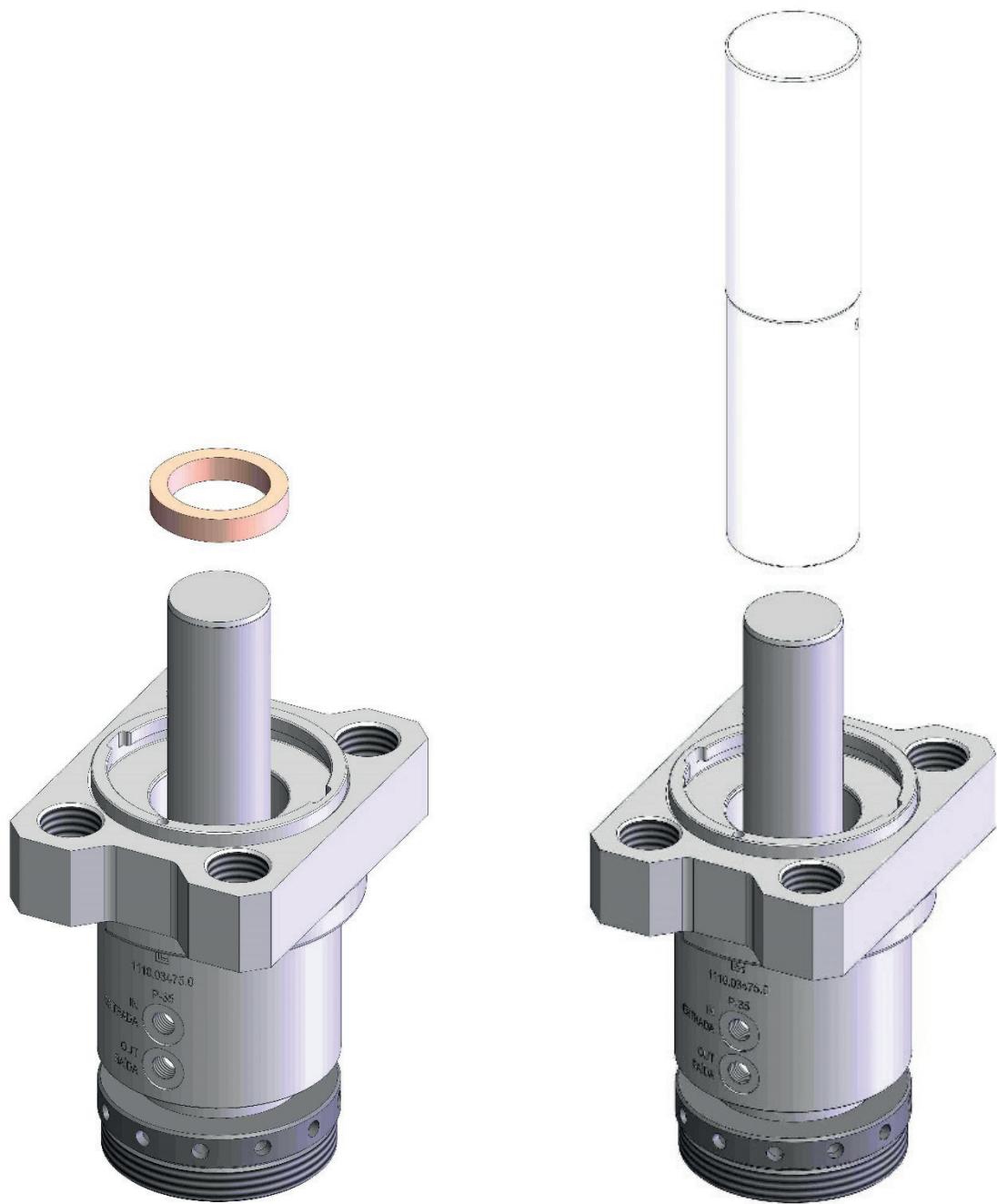
**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)**



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

Fig. 20

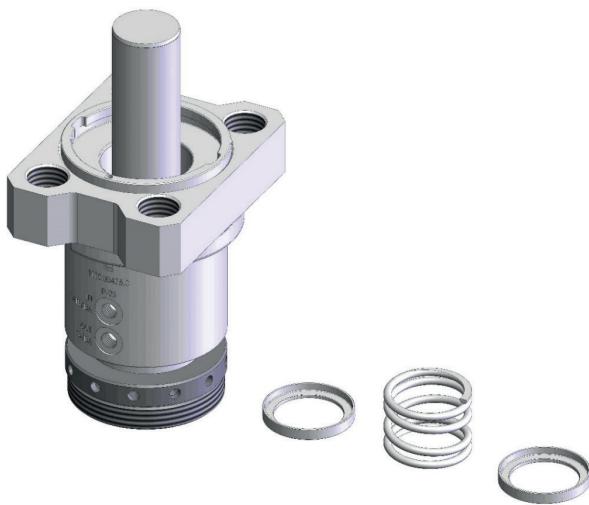
**PLUNGER KIT – ASSEMBLY STEPS – SAP IV (FROM P-32 TO P-40)**



INSERT THE UPPER SUPPORTING RING AND USE THE NYLON TOOL TO PUSH IT TO THE BOTTOM.

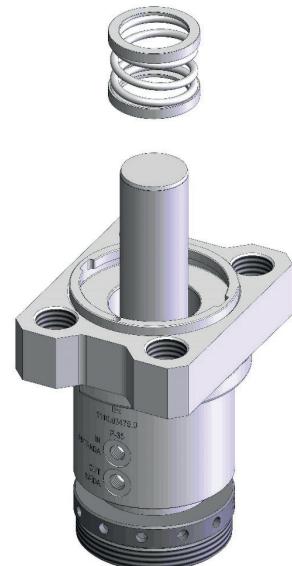
Fig. 21

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



ARRANGE THE COMPONENTS FOR PACKING SPRING ASSEMBLY.

Fig. 22



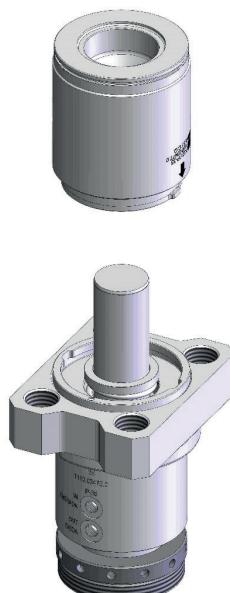
INSERT THE PACKING SPRING ALREADY ASSEMBLED.

Fig. 23



INSERT THE LOWER METAL RING WITH THE RADIUS FACING DOWNWARDS.

Fig. 24



ASSEMBLE THE FRONTAL SLEEVE ON THE PLUNGER USING THE ARROWS AS REFERENCE FOR THE ALIGNMENT.

Fig. 25

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



PRESS AND ROTATE 90° TO LOCK THE FRONTAL SLEEVE IN THE RIGHT POSITION.

Fig. 26



MOUNT THE O-RING ON THE FRONTAL SLEEVE.

Fig. 27



INSERT THE UPPER METAL RING WITH THE RADIUS FACING DOWNWARDS.

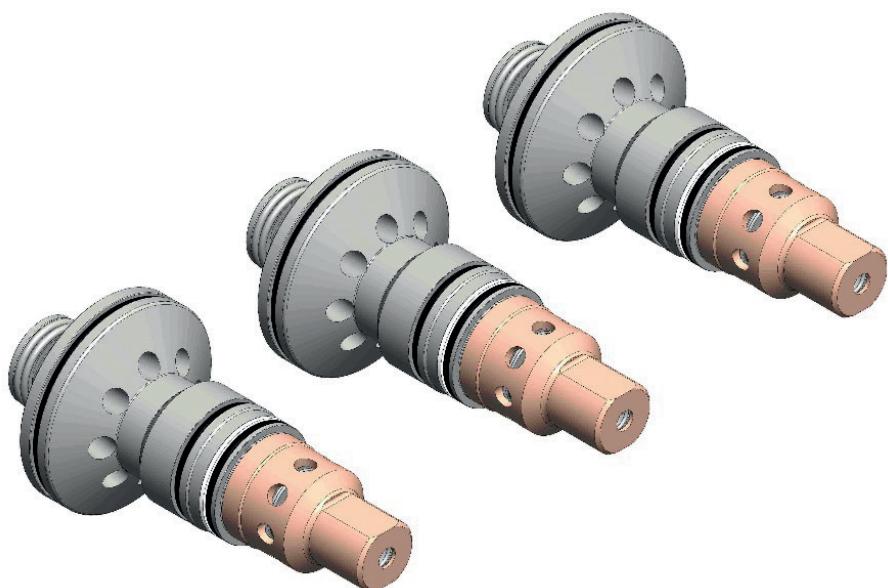
Fig. 28



TIGHT COOLING SYSTEM CONNECTIONS.

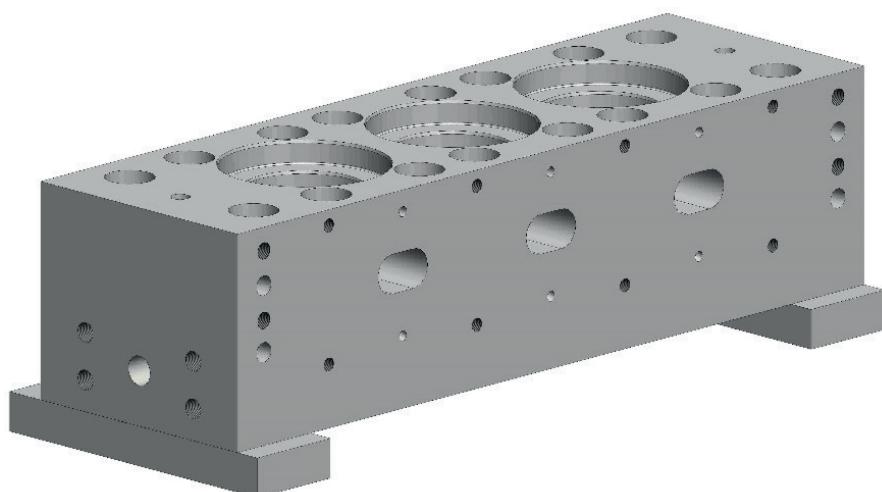
Fig. 29

## ASSEMBLING THE SAP G-IV PUMP HEAD



ARRANGE THE INTELLIVALVES.

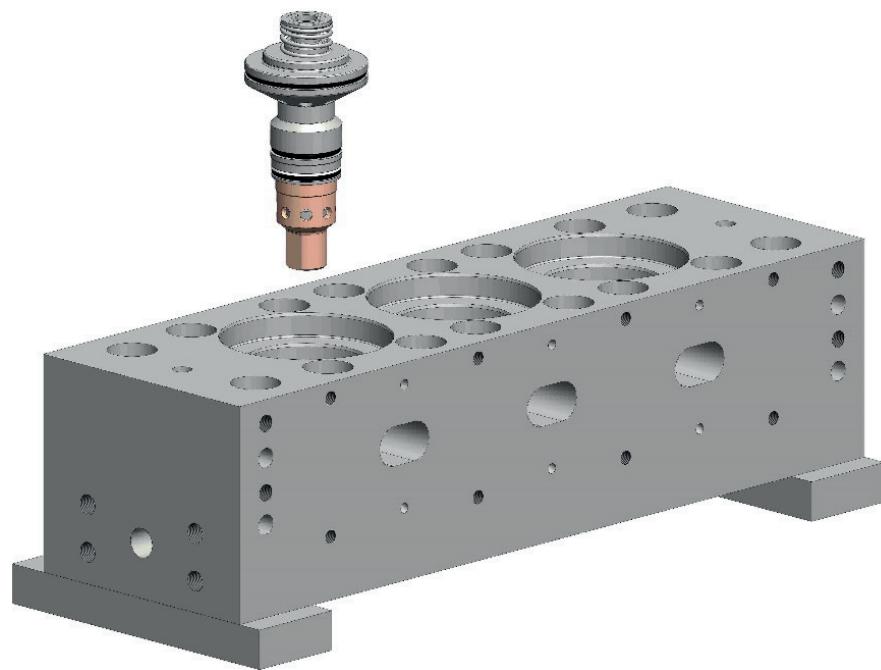
Fig. 01



PUT THE MANIFOLD ON SUPPORTING SHIMS.

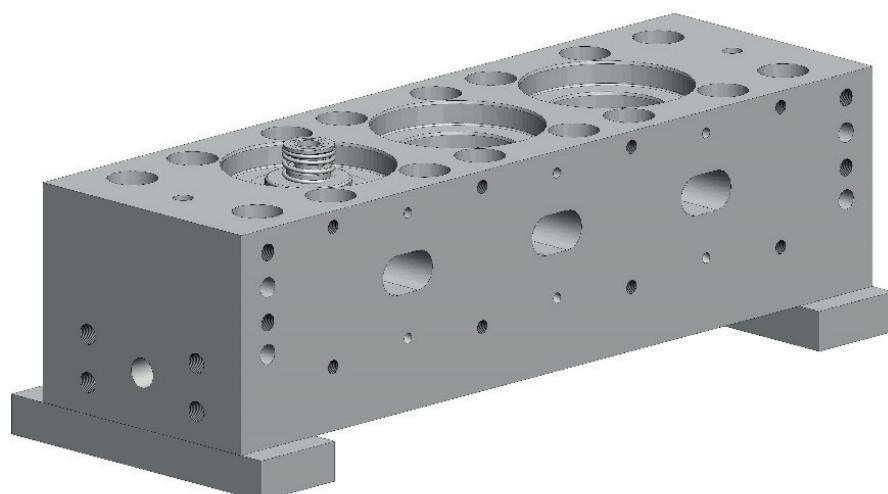
Fig. 02

## ASSEMBLING THE SAP G-IV PUMP HEAD



BEFORE INSERTING THE INTELLIVALVE IN THE HOLE, APPLY "ROCOL" TYPE GREASE ON ALL SEAL RINGS TO AVOID DAMAGE DURING ASSEMBLY.

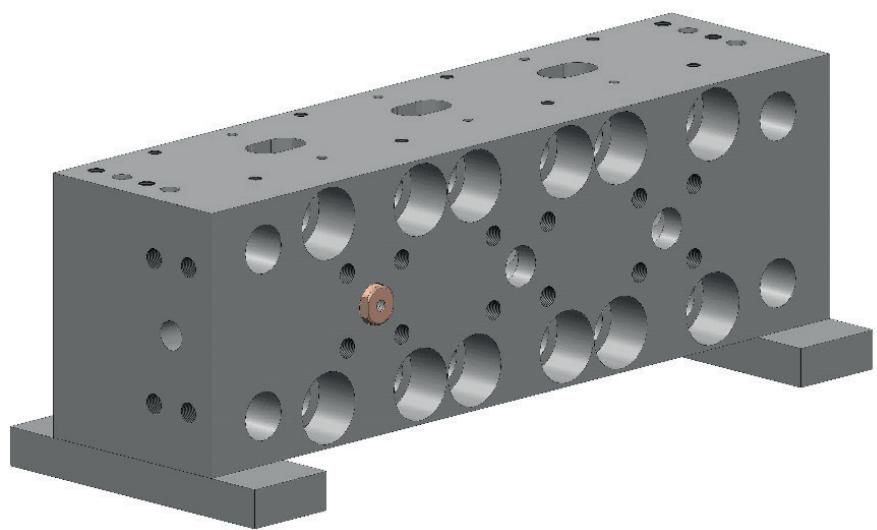
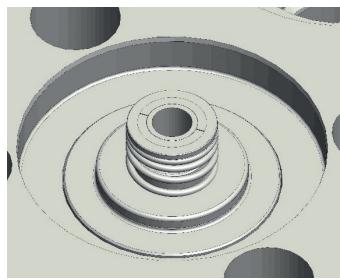
Fig. 03



FIX THE INTELLIVALVE MANUALLY IN THE HOLE.

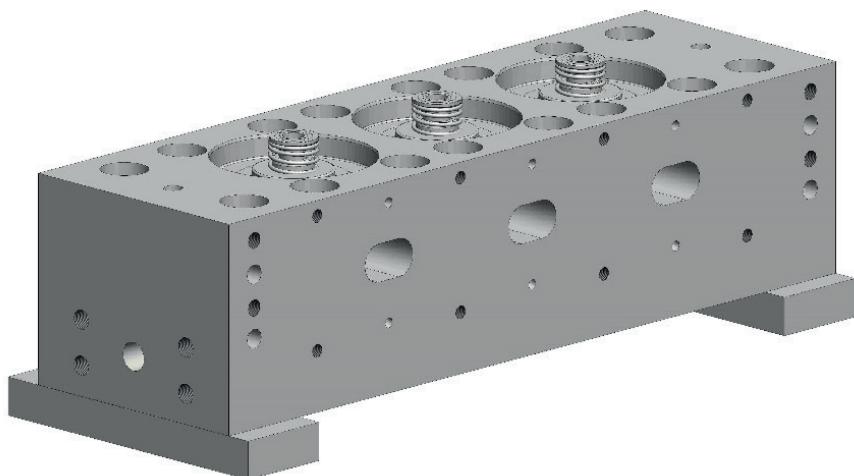
Fig. 04

## ASSEMBLING THE SAP G-IV PUMP HEAD



CHECK THE INTELLIVALVE ASSEMBLY: ITS OUTSIDE SURFACE MUST BE A LITTLE BIT FURTHER IN COMPARISON WITH THE PUMP HEAD SURFACE. CHECK IF THE VALVE IS COMPLETELY MOUNTED.

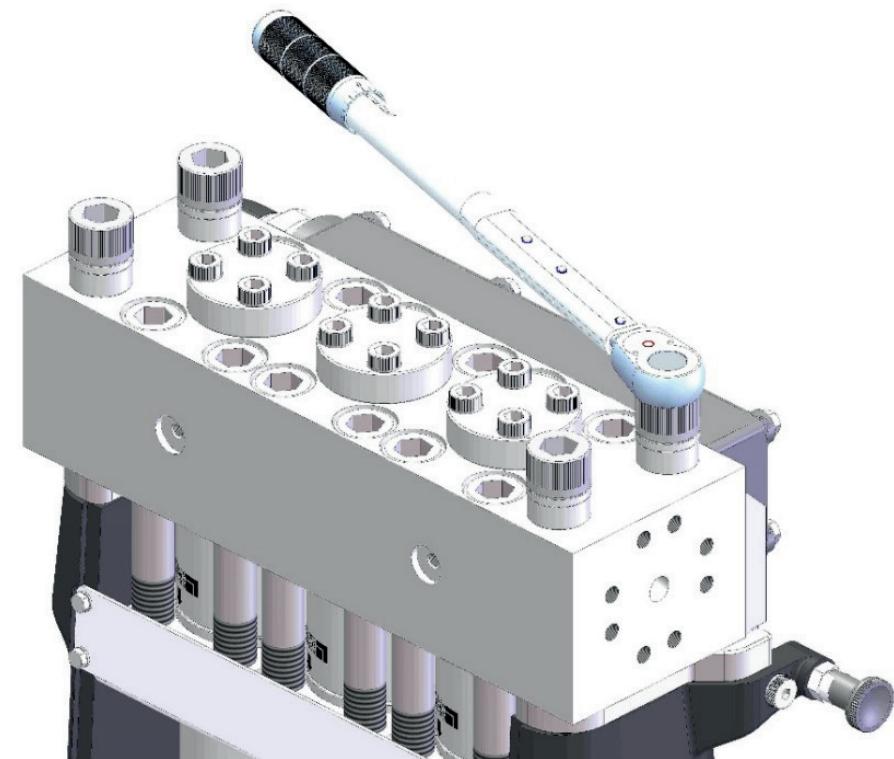
Fig. 05



REPEAT THE PROCESS FOR THE OTHER TWO INTELLIVALVES.

Fig. 06

## ASSEMBLING THE SAP G-IV PUMP HEAD



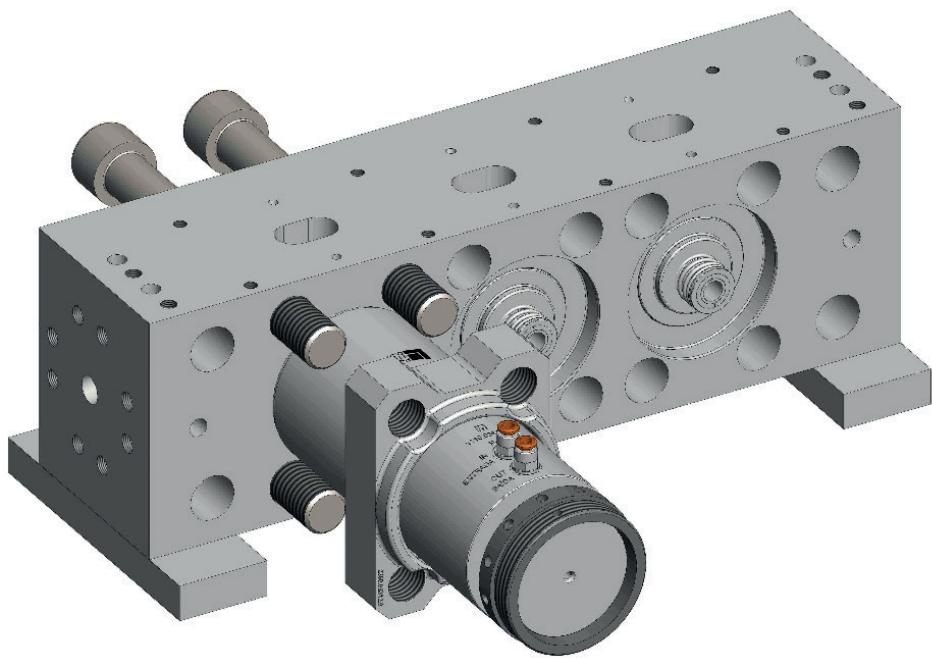
APPLY COPPER GREASE ON THE THREAD OF THE M24 SCREWS THAT FIX THE ASSEMBLED HEAD WITH THE FORK. TIGHT "X" WITH 100Nm, 250Nm AND 400Nm TORQUE STEPS.

### PAY ATTENTION!

IN ORDER TO SIMPLIFY THE DRAWING, ON FIG. 8, 9, 10, 11, 12 AND 13 THE FORK AND THE PUMP CRANKCASE ARE NOT SHOWN. HOWEVER, THESE STEPS MUST BE DONE WITH THE HEAD ALREADY FIXED TO THE FORK.

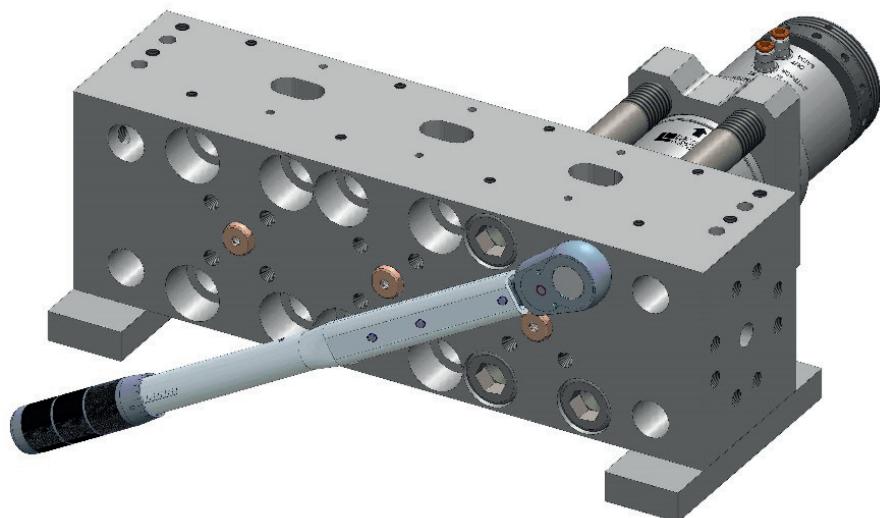
Fig. 07

## ASSEMBLING THE SAP G-IV PUMP HEAD



WITH THE PLUNGER KIT ALREADY ASSEMBLED, APPLY "ROCOL" TYPE GREASE TO AVOID SEALS BEING DAMAGED DURING ASSEMBLY. INSERT THE PLUNGER KIT INTO THE MANIFOLD (CHECK CONNECTION PARTS SIDE) AND INSERT SCREWS (APPLY GREASE ON THREADS).

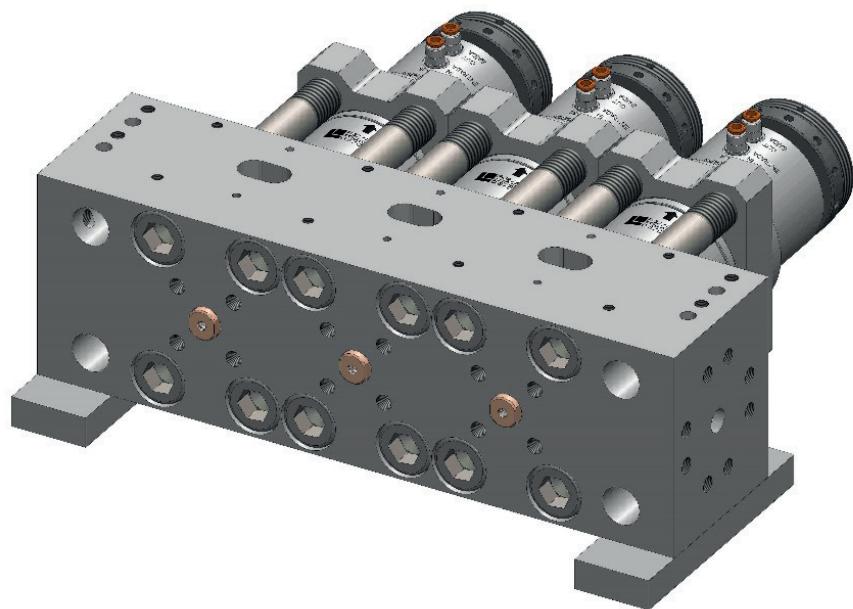
Fig. 08



TIGHT "X" WITH 70Nm, 150Nm AND 350Nm TORQUE STEPS.

Fig. 09

## ASSEMBLING THE SAP G-IV PUMP HEAD



REPEAT THE PROCESS FOR THE OTHER TWO PLUNGERS.

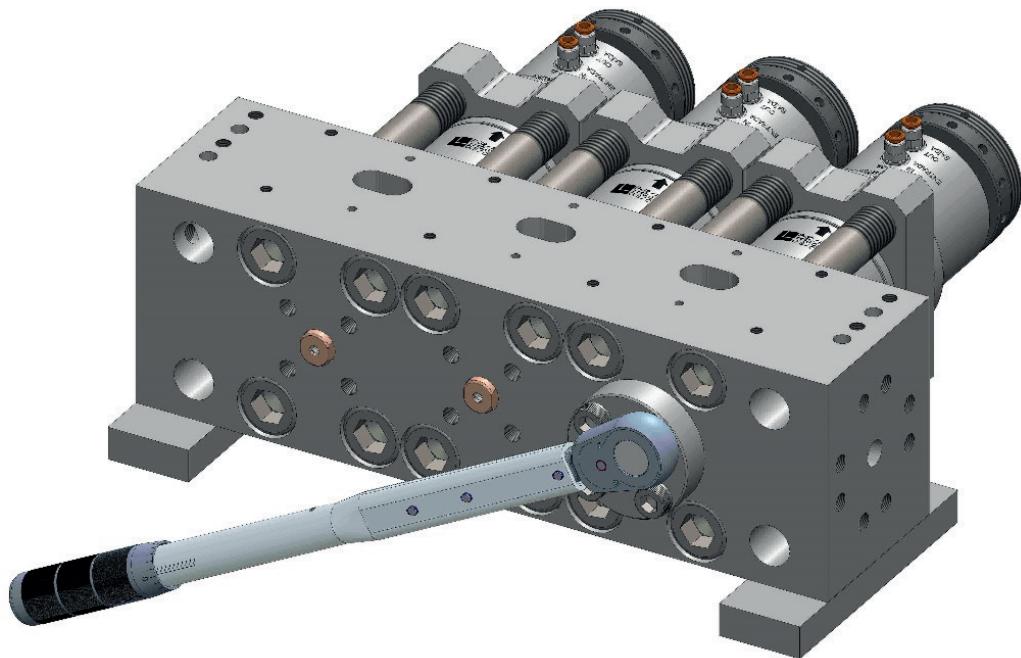
Fig. 10



ASSEMBLE THE O-RING ON THE FRONT FLANGE (APPLY "ROCOL" TYPE GREASE ON THE SEAL).

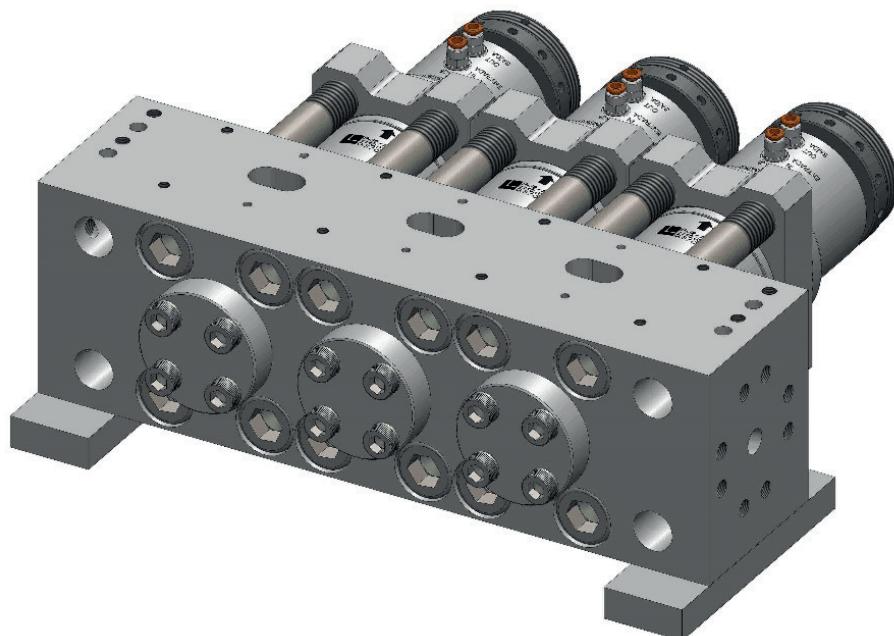
Fig. 11

## ASSEMBLING THE SAP G-IV PUMP HEAD



APPLY "ROCOL" TYPE GREASE ON THE THREAD OF THE M12 SCREWS THAT FIX THE FRONT FLANGE WITH THE MANIFOLD. TIGHT "X" TO A TORQUE OF 100Nm.

Fig. 12



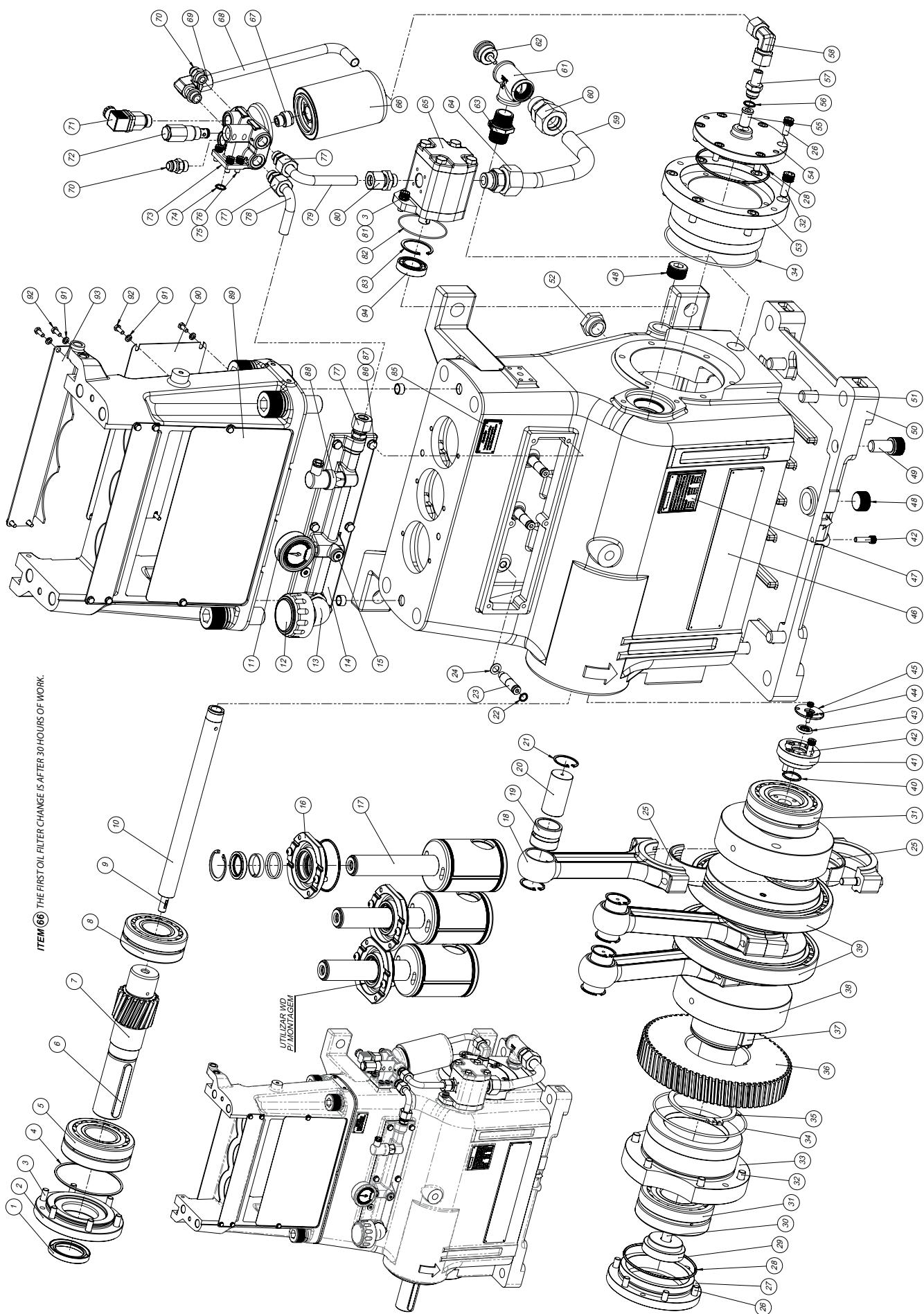
REPEAT THE PROCESS FOR THE OTHER TWO FLANGES.

Fig. 13



# POWER END PARTS

(see codes on the next page)



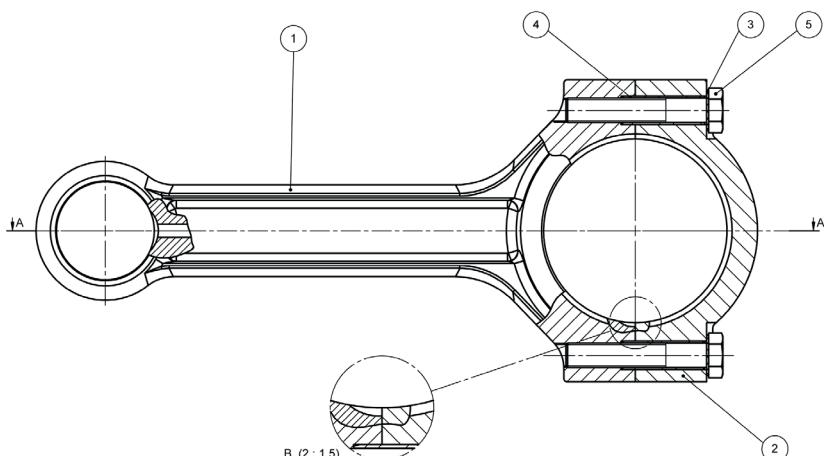
POWER ENDS - H200/4	
CODE	DESCRIPTION
Q231010010254	H200/4 VERTICAL POWER END 1800 RPM (60 Hz)
Q231010010255	H200/4 HORIZONTAL POWER END 1800 RPM (60 Hz)
Q2310100102510	H200/4 VERTICAL POWER END 1500 RPM (50 Hz)
Q2310100102511	H200/4 HORIZONTAL POWER END 1500 RPM (50 Hz)

POWER END PARTS			
ITEM	CODE	DESCRIPTION	QTY.
1	Q231300003360	OIL SEAL	1
2	Q231110026300	AXIS TRASMISSION FLANGE	1
3	Q231200001400	ALLEN SCREW M10x25mm	8
4	Q231300008200	O-RING	1
5	Q231700001310	BEARING	1
6	Q231200008530	KEY	1
7	Q231110024330	1800 RPM (60 Hz) SHAFT H200-4	1
	Q231110029070	1500 RPM (50 Hz) SHAFT H200-4	
8	Q231700001380	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	Q231010010971	OIL SEAL CAGE	3
17	Q231010008850	PISTON GUIDE	3
18	Q231010010980	CONNECTING ROD H200-4	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	Q231200002290	ALLEN SCREW M10x20mm	12
27	Q231110006970	CRANKSHAFT COVER H200-4	1
28	Q231300003810	O-RING	2
29	Q231110003680	RING	1
30	Q231200001860	ALLEN SCREW M16x40mm	1
31	Q231700001150	BEARING	2
32	Q231200001840	ALLEN SCREW M12x30mm	12

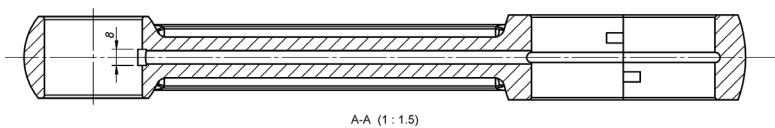
POWER END PARTS			
ITEM	CODE	DESCRIPTION	QTY.
33	Q231110009170	BEARING HOUSING	1
34	Q231300003820	O-RING	2
35	Q231200001810	SEEGER	1
36	Q231110022140	1800 RPM (60 Hz) CROWN H200-4	1
	Q231110029080	1500 RPM (50 Hz) CROWN H200-4	
37	Q231200001780	KEY	1
38	Q231010007720	CRANKSHAFT H200-4	1
39	Q231700001280	BEARING	2
40	Q231300002540	O-RING	1
41	Q231110022700	BEARING SLEEVE	1
42	Q231200002680	ALLEN SCREW M8x30mm	6
43	Q231300005020	ROTO GLYD	1
44	Q231200001610	ALLEN SCREW M6x12mm	2
45	Q231110030640	GLYD COVER H120-H200-H300	1
46	Q233000024900	BRAND PLATE	2
47	Q233000001200	TECHNICAL DATA PLATE	1
48	Q232320018050	HEXAGONAL CAP 1"BSP	2
49	Q231200010120	ALLEN SCREW M20X40MM DIN 912	8
50	Q231110035810	H200/4 COVER (VERTICAL PUMPS)	1
	Q231110026160	H200/4 COVER (HORIZONTAL PUMPS)	1
	Q231110007170	H200/4 INSPECTION COVER (HORIZONTAL PUMPS)	1
51	Q231010019040	CASE H200-4 (VERTICAL / HORIZONTAL)	1
52	Q233000010080	VISUAL OIL CAP 1"BSP	1
53	Q231110007220	BEARING HOUSING	1
54	Q231110022630	CRANKSHAFT COVER	1
55	Q231110023040	AXIS ROTO GLYD	1
56	Q231300008480	O-RING	1
57	Q231110035790	ADAPT. M22x1,5 Ø16mm	1
58	Q232320018070	COUPLING 90° AC16 X M24X1.5	1
59	ON REQUEST	HOSE Ø25mm - SUCTION PUMP (H200/4 VERT.)	1
60	Q232320018100	COUPLING AC25 X 1"BSP	1
61	Q232320002280	T ADAPTOR 1" BSP	1
62	Q232320016770	MAGNETIC CAP BMA 1"BSP	1
63	Q232320007140	NIPPLE 1" BSP	1
64	Q232320018140	COUPLING AC25 X 1.1/16"UNF	1
65	Q231110036650	LUBRICATE PUMP	1
66	Q233000021470	OIL FILTER	1
67	Q232320017080	REDUCTION 3/4" BSP x 3/4" UNF	1
68	ON REQUEST	HOSE Ø16mm - CRANKSHAFT PUMP (H200/4 VERT.)	1
69	ON REQUEST	COUPLING 90° AC16 X 3/4"UNF	1
70	Q232320002830	NIPPLE 3/4" UNF PL x 3/4"UNF JIC 2	2
71	Q233000027750	THERMAL PROTECTION 85°C	1

POWER END PARTS			
ITEM	CODE	DESCRIPTION	QTY.
72	Q233000010200	RELIEF VALVE	1
73	Q23110036750	LUBRICATE MANIFOLD G-IV	1
74	Q231300001060	O-RING	1
75	Q231200001070	LOCK WASHER M8	4
76	Q231200005500	ALLEN SCREW M8X20mm	4
77	Q232320018110	COUPLING AC16 X 3/4" UNF	3
78	ON REQUEST	HOSE Ø16mm - INLET PUMP (H200/4 VERT.)	1
79	ON REQUEST	HOSE Ø16mm - OUTLET PUMP (H200/4 VERT.)	1
80	Q232320018680	COUPLING AC16 X 7/8" UNF	1
81	Q231200001030	LOCK WASHER M10	2
82	Q231300005820	O-RING	1
83	Q231200008260	SEEGER I-52	1
84	Q231700001950	BEARING	1
85	Q233000017940	METAL PLATE TORQUE IDENTIFICATION	1
86	Q231200008280	SCREW HEXAGONAL HEAD M8x20mm	6
87	Q231200004020	WASHER M8	6
88	Q231010010740	PRESSURE SWITCH	1
89	Q23110044970	PISTON FRONT COVER	1
90	Q232380029570	PISTON REAR COVER	1
91	Q231200001910	WASHER M6	14
92	Q231200001890	HEXAGONAL SCREW M6x16mm	14
93	Q232380029580	JACKET COVER	2

# CONNECTING RODS - CODE Q231010010980

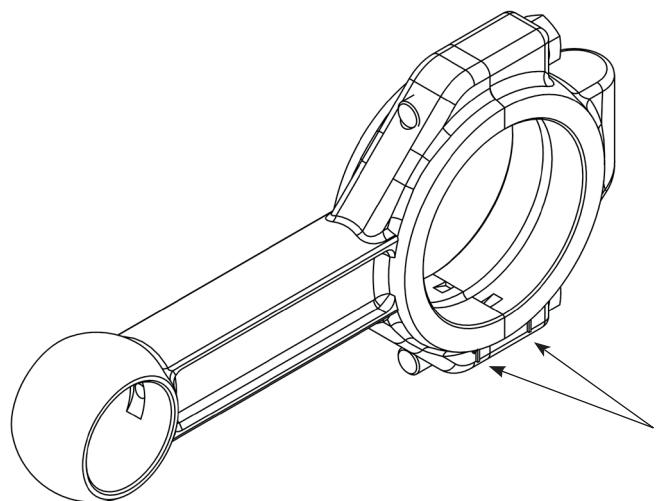


HEX TORQUE: 110 N



3 SETS PER PUMP

ITEM	CODE	DESCRIPTION	QTY.
1	Q231110022120	ARM OF CONNECTING ROD + ROD CAP	1
2	Q231200001900	TOOTHED WASHER M12	2
4	Q231200008810	ELASTIC GUIDE BUSHING	2
5	Q231200001870	HEX BOLT M12X70	2

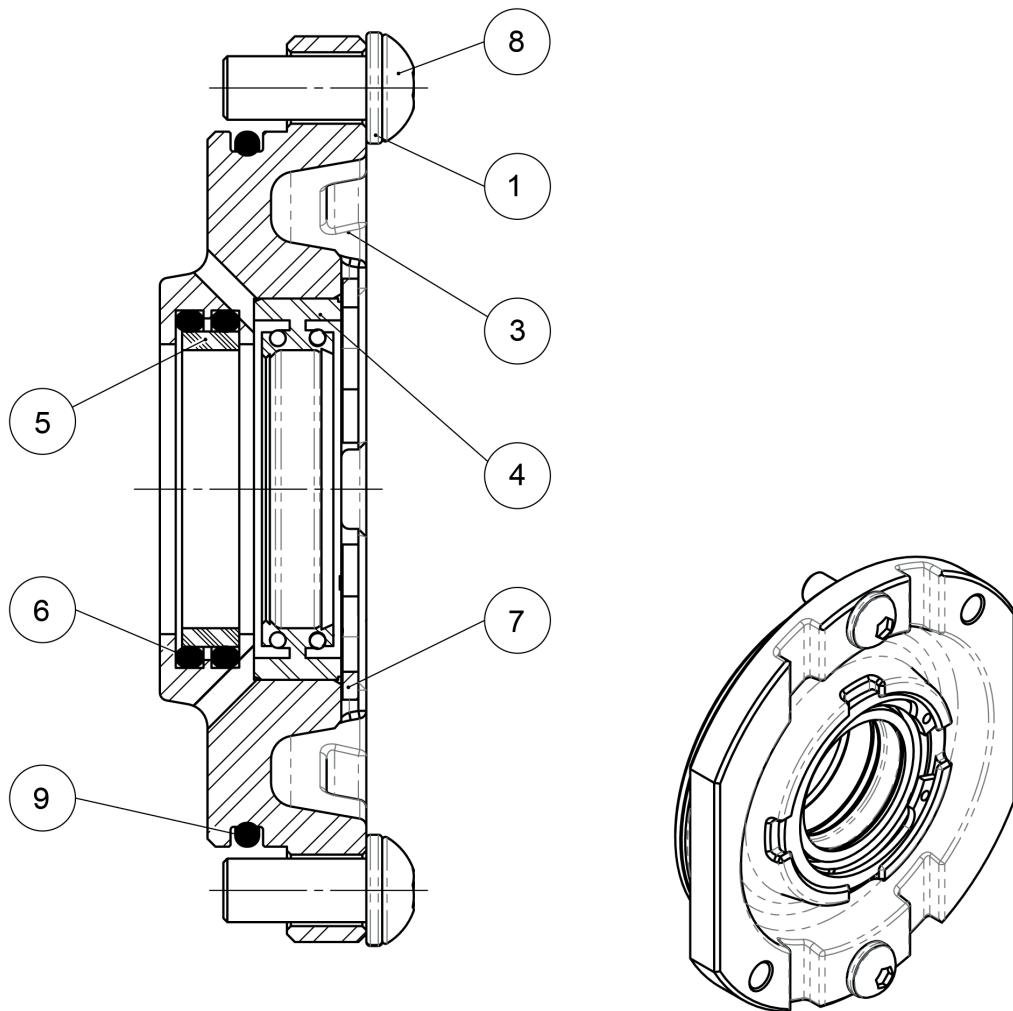


**ATTENTION!**  
ASSEMBLE WITH NUMBERS  
FACING THE SAME SIDE

**⚠ Attention!**

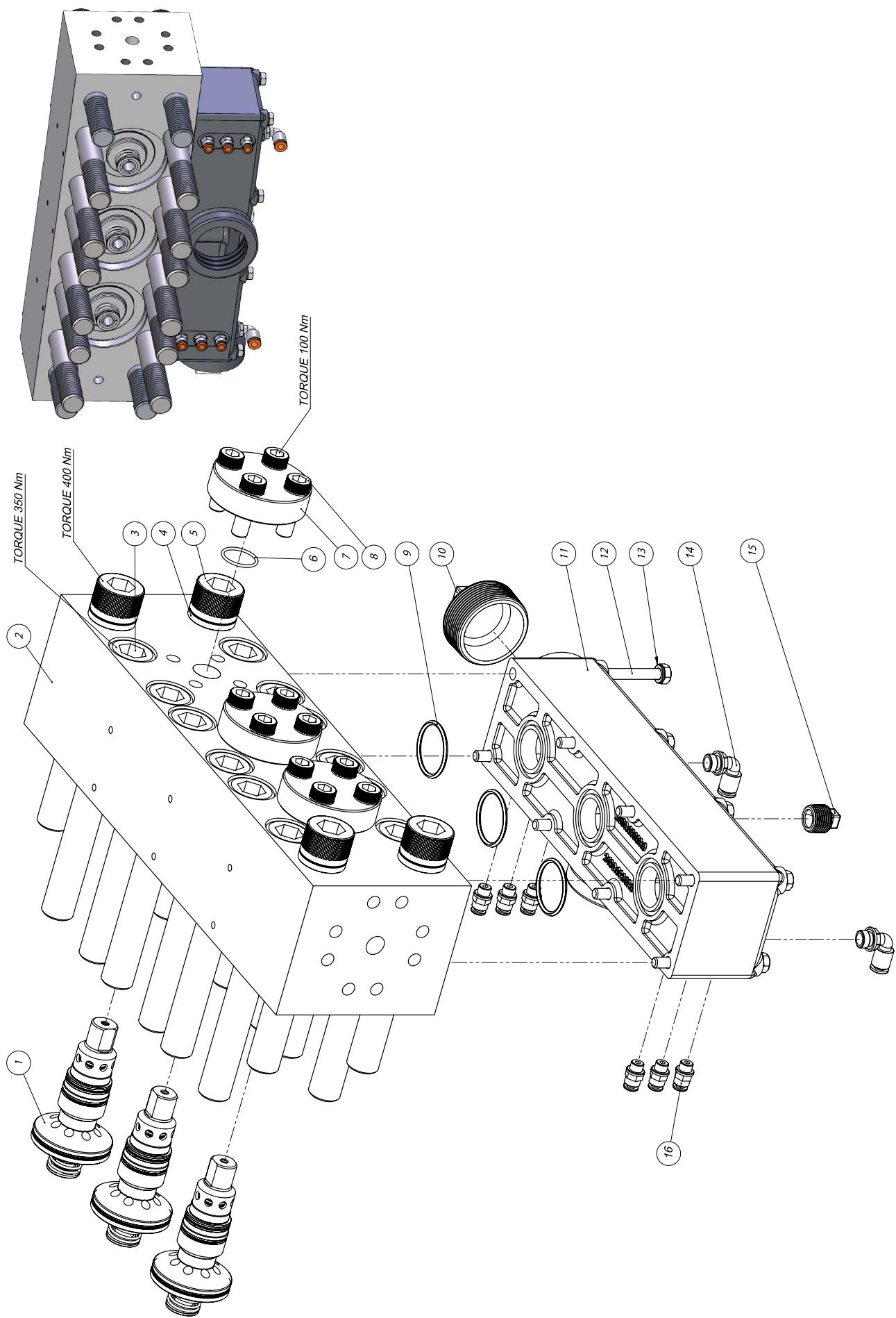
- All connecting rods are numbered.
- Always assemble arm and bearing of the connecting rod so that the unsequenced number is shown.
- Never replace arms and bearing by a connecting rod from a different set.

# OIL SEAL CAGE - CODE Q231010010971



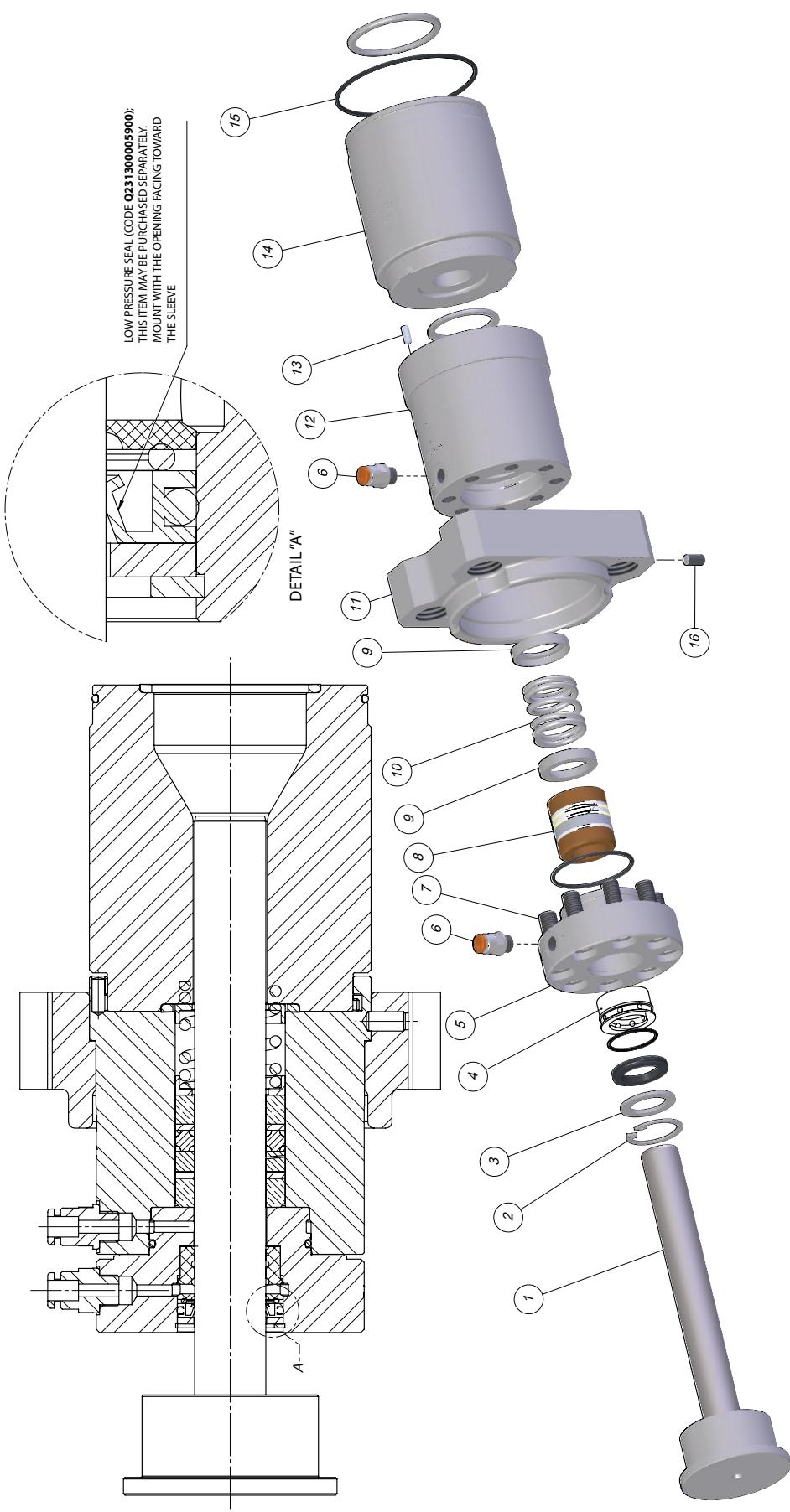
*	ITEM	CODE	DESCRIPTION	QTY.
	1	Q231200001070	WASHER	2
* Note: Common wear parts or disposable				
	3	Q231110044260	OIL SEAL CAGE	1
	4	Q231300011340	OIL SEAL	1
	5	Q231300011210	SLIDING RING	1
	6	Q231300001910	O-RING	2
	7	Q231200001540	SEEGER RING	1
	8	Q231200007960	SCREW M8X20mm	2
	9	Q231300001170	O-RING	1

# PUMP HEAD - CODE Q231010 018140

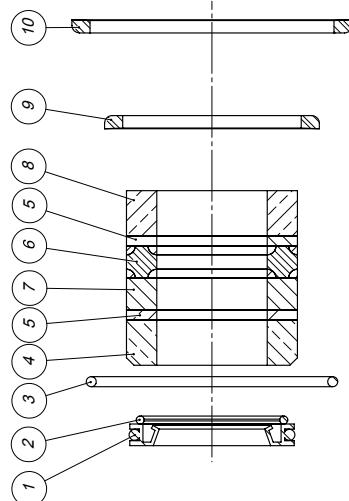


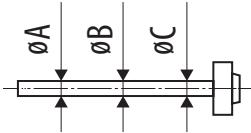
<b>PUMP HEAD - CODE Q231010 0181400</b>			
<b>ITEM</b>	<b>CODE</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
1	Q231010018150	INTELLIVALVE SAP IV	3
2	Q231110034610	SAP IV HEAD ASSEMBLY	1
3	Q231200009410	ALLEN SCREW M24x200mm	12
4	Q231200003630	LOCK WASHER M24	4
5	Q231200009980	ALLEN SCREW M24x180mm	4
6	Q231300001790	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

# PLUNGER KIT (P-22) - CODE Q231010020530



**SEAL KIT (P-22)**  
**CODE Q231020002221**





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

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

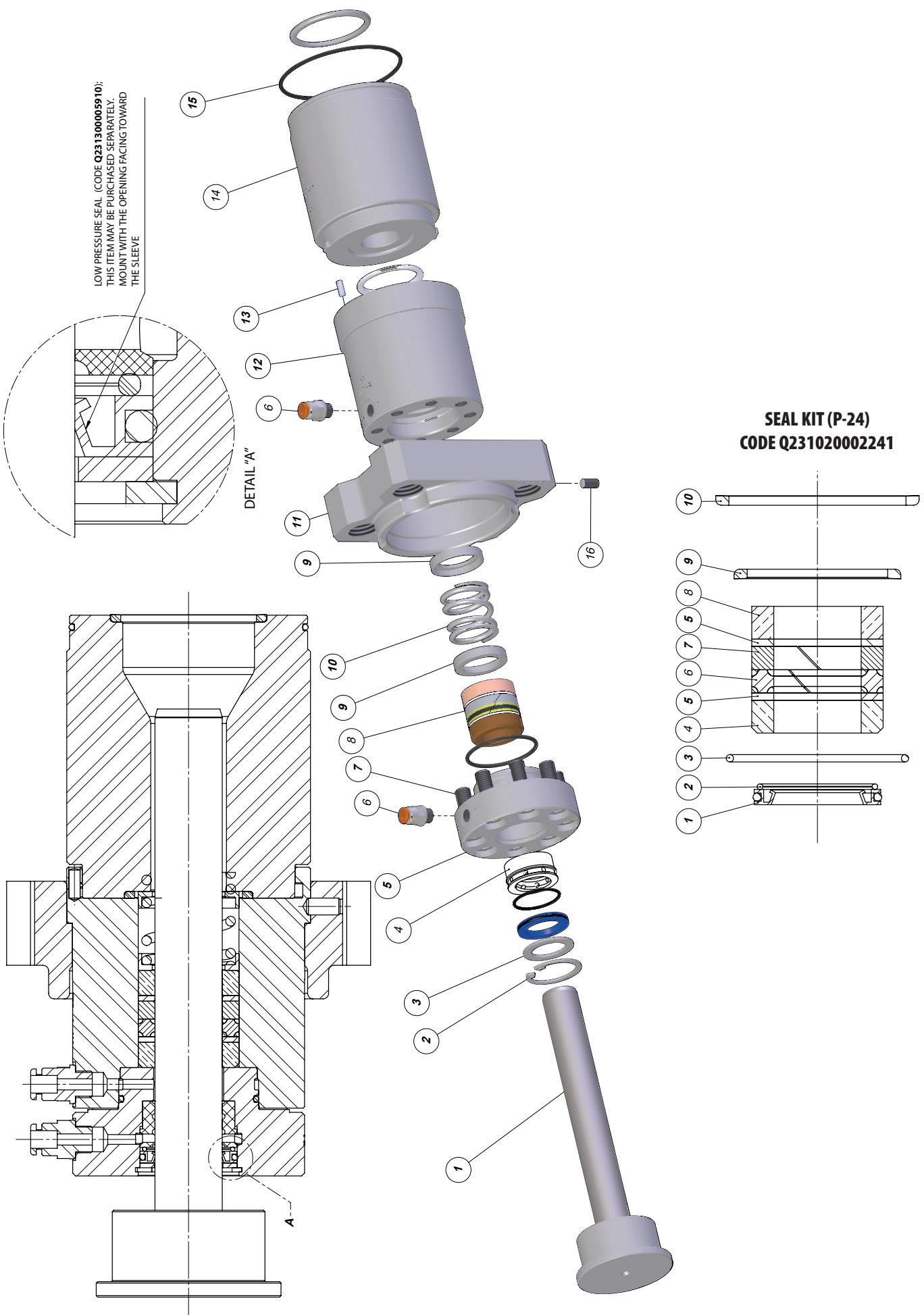
#### PLUNGER KIT (P-22) - CODE Q231010020530

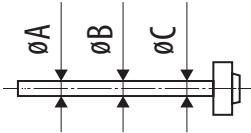
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010020200	HARD METAL PLUNGER P-22	3
2	Q231200010580	SEEGER I-32	1
3	Q231110037700	RING P-22	3
4	Q231110015280	SLIDING BUSH P-22	3
5	Q231110037780	SUPPORT FLANGE P-22 SAP IV	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231200001400	ALLEN SCREW M10x25mm	24
<b>8</b>	<b>Q231020002221</b>	<b>SEAL KIT P-22 SAP IV</b>	(*)
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	GIUDE 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-KEVLER 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	METAL SEAL	3

# PLUNGER KIT (P-24) - CODE Q231010020540





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

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

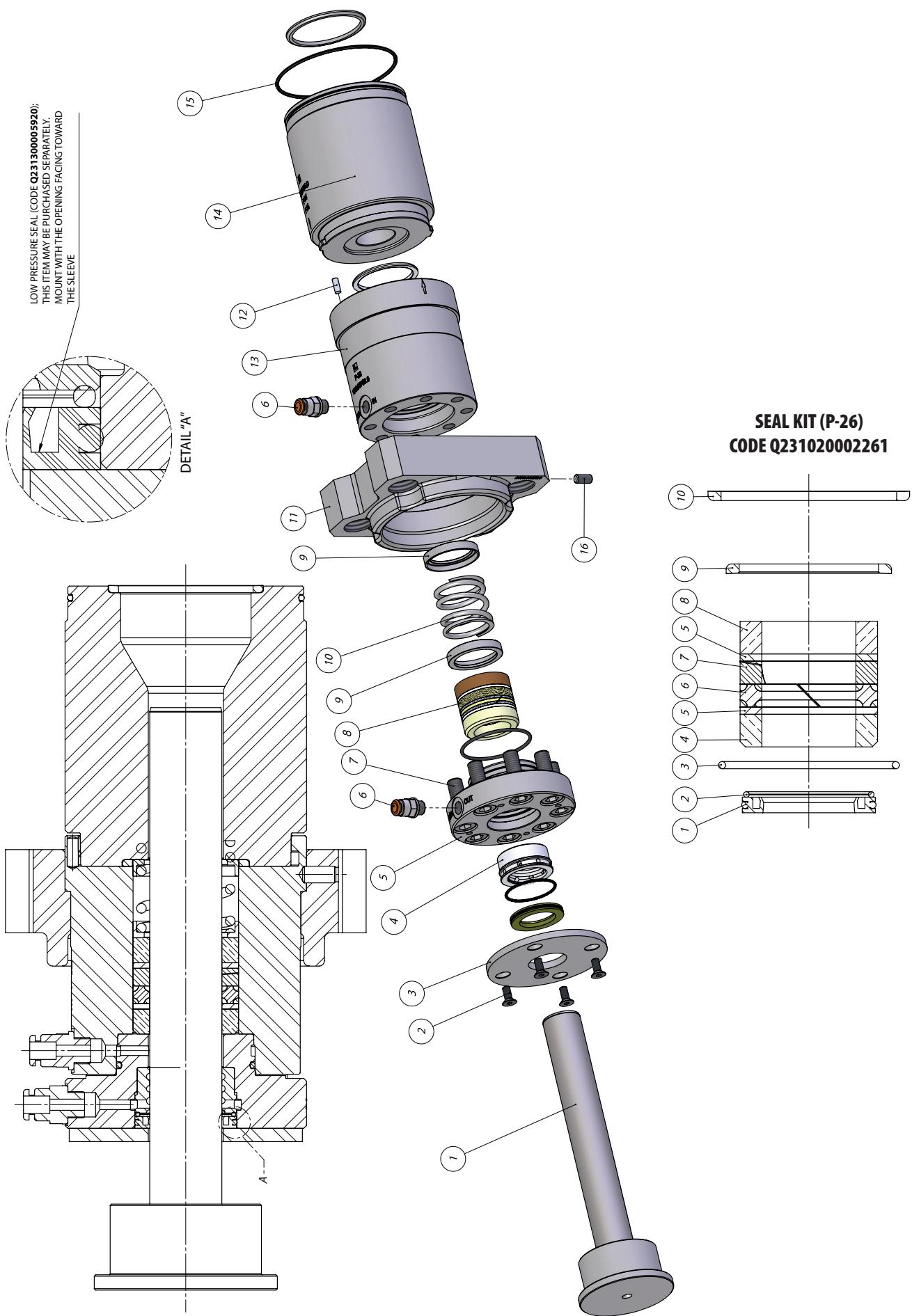
#### PLUNGER KIT (P-24) - CODE Q231010020540

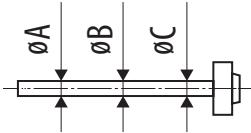
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010020210	PLUNGER P-24 G IV	1
2	Q231200010600	SEEGER I-36	1
3	Q231110037710	RING P-24	1
4	Q231110022080	SLIDING BUSH P-24	3
5	Q231110037420	SUPPORT FLANGE P-24 SAP IV	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231200001400	ALLEN SCREW M10x25mm	24
<b>8</b>	<b>Q231020002241</b>	<b>SEAL KIT P-24 SAP IV</b>	(*)
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	GIUDE 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

#### (\*) SEAL KIT (P-24) - CODE Q231020002241

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-KEVLER 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	METAL SEAL	3

# PLUNGER KIT (P-26) - CODE Q231010019980





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

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

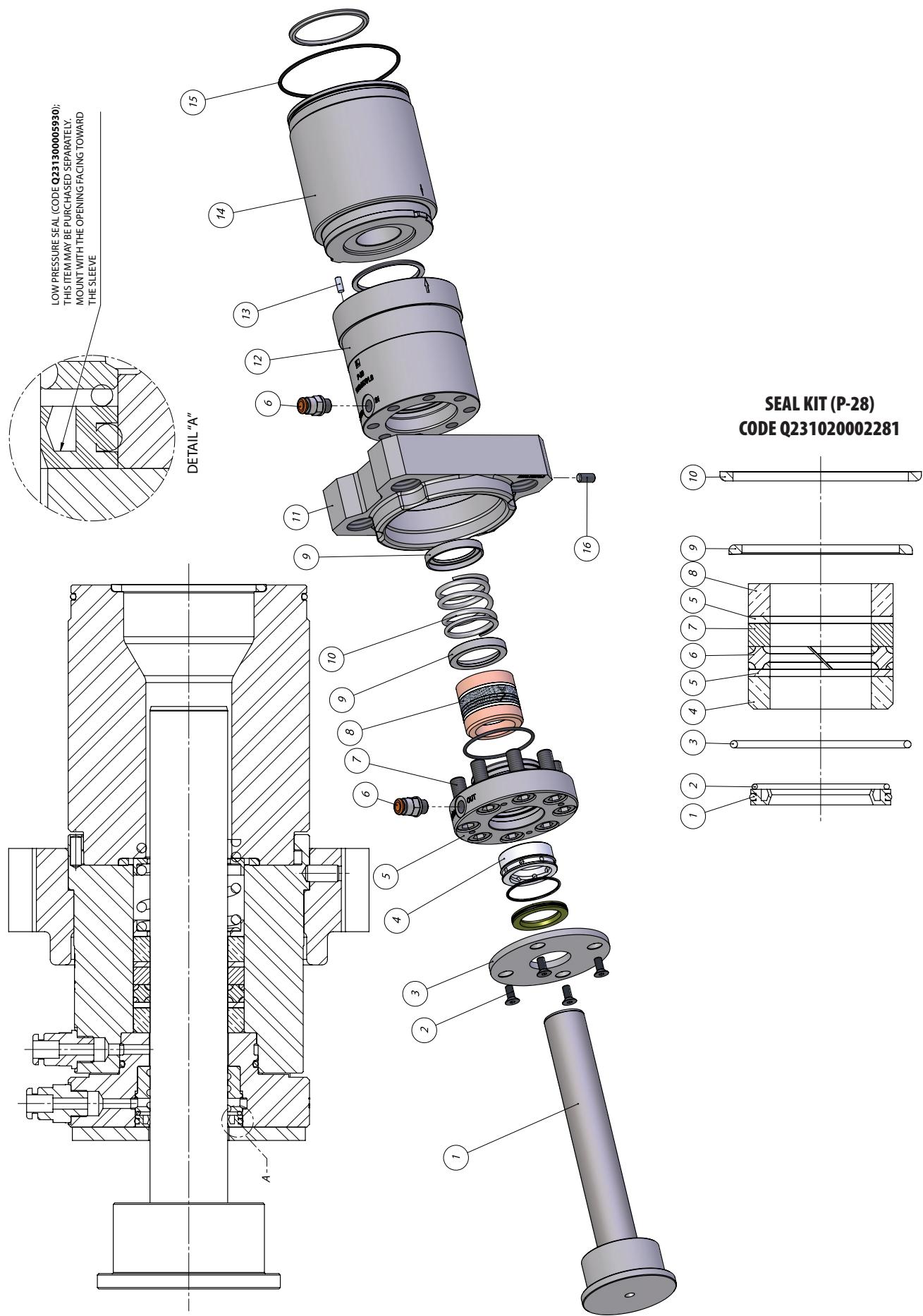
#### PLUNGER KIT (P-26) - CODE Q231010019980

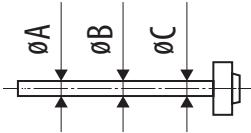
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010020220	PLUNGER P-26 G IV	3
2	Q231200003270	ALLEN SCREW PLAN HEAD	12
3	Q231110008580	SUPPORT DISC P-26	3
4	Q231110013900	SLIDING BUSH P-26	3
5	Q231110036970	SUPPORT FLANGE P-26 SAP IV	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231200001400	ALLEN SCREW M10x25mm	24
<b>8</b>	<b>Q231020002261</b>	<b>SEAL KIT P-26 SAP IV</b>	(*)
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-KEVLER 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	METAL SEAL	3

# PLUNGER KIT (P-28) - CODE Q231010019990





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

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

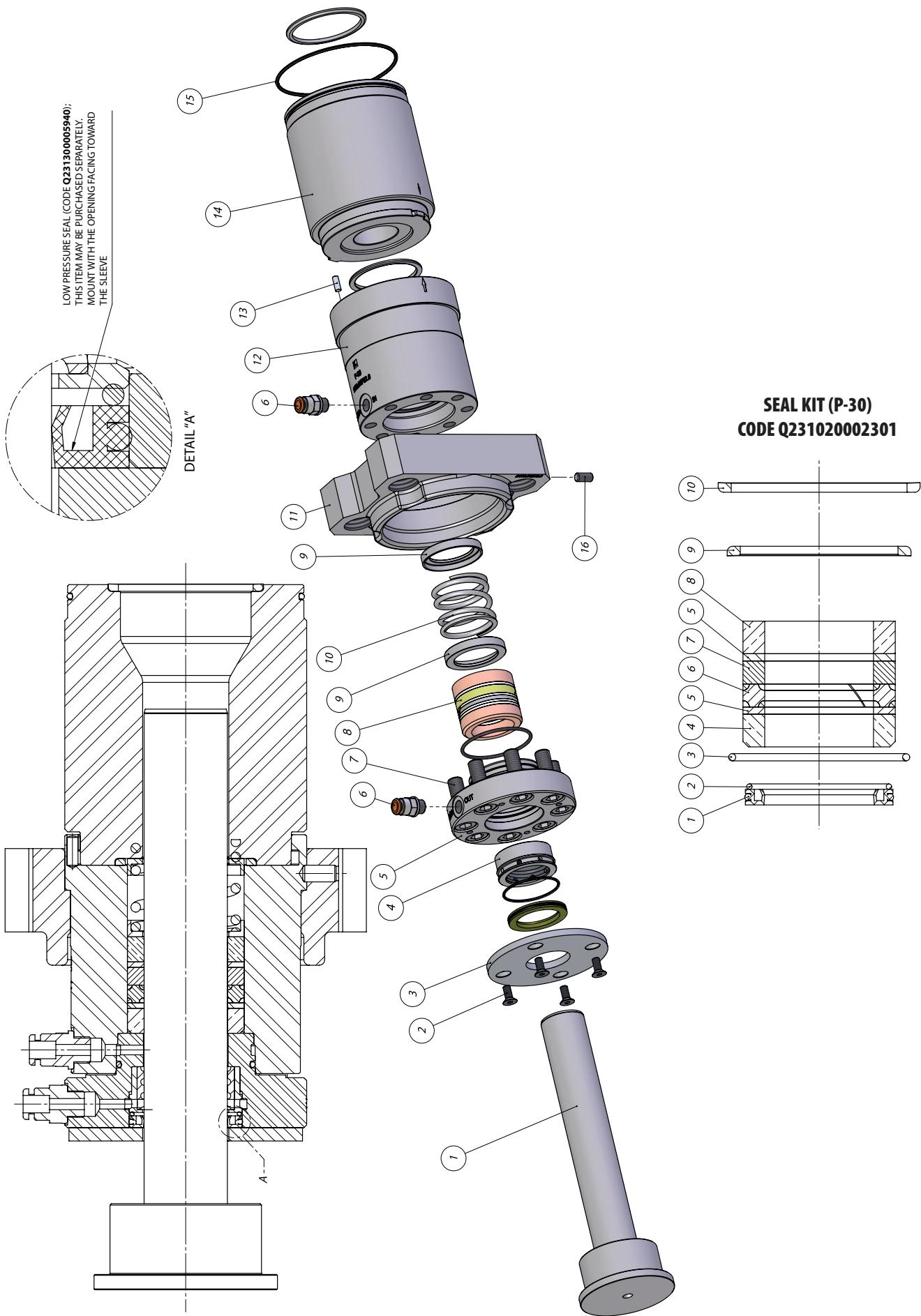
#### PLUNGER KIT (P-28) - CODE Q231010019990

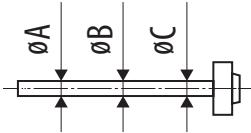
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010020230	PLUNGER P-28 G IV	3
2	Q231200003270	ALLEN SCREW PLAN HEAD	12
3	Q231110008590	SUPPORT DISC P-30	3
4	Q231110013890	SLIDING BUSH P-28	3
5	Q231110036980	SUPPORT FLANGE P-28 SAP IV	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231200001400	ALLEN SCREW M10x25mm	24
<b>8</b>	<b>Q231020002281</b>	<b>SEAL KIT P-28 SAP IV</b>	(*)
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-KEVLER 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	METAL SEAL	3

# PLUNGER KIT (P-30) - CODE Q231010020000





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

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

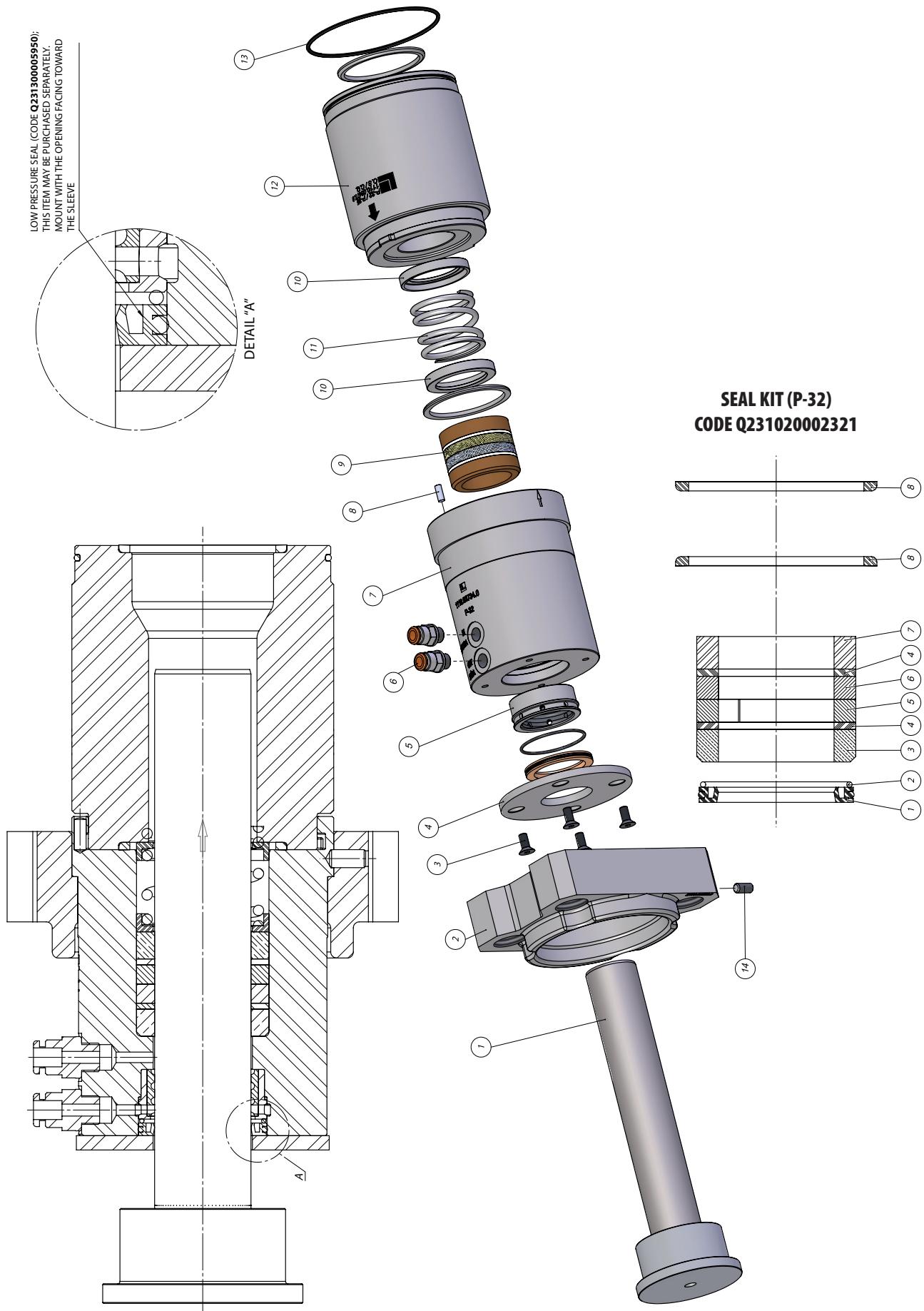
#### PLUNGER KIT (P-30) - CODE Q231010020000

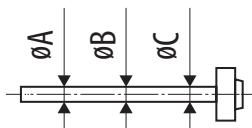
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010020240	PLUNGER P-30 G IV	3
2	Q231200003270	ALLEN SCREW PLAN HEAD	12
3	Q231110008600	SUPPORT DISC P-30	3
4	Q231110013880	SLIDING BUSH P-30	3
5	Q231110036990	SUPPORT FLANGE P-30 SAP IV	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231200001400	ALLEN SCREW M10x25mm	24
<b>8</b>	<b>Q231020002301</b>	<b>SEAL KIT P-30 SAP IV</b>	(*)
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-KEVLER 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	METAL SEAL	3

# PLUNGER KIT (P-32) - CODE Q231010020490





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

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

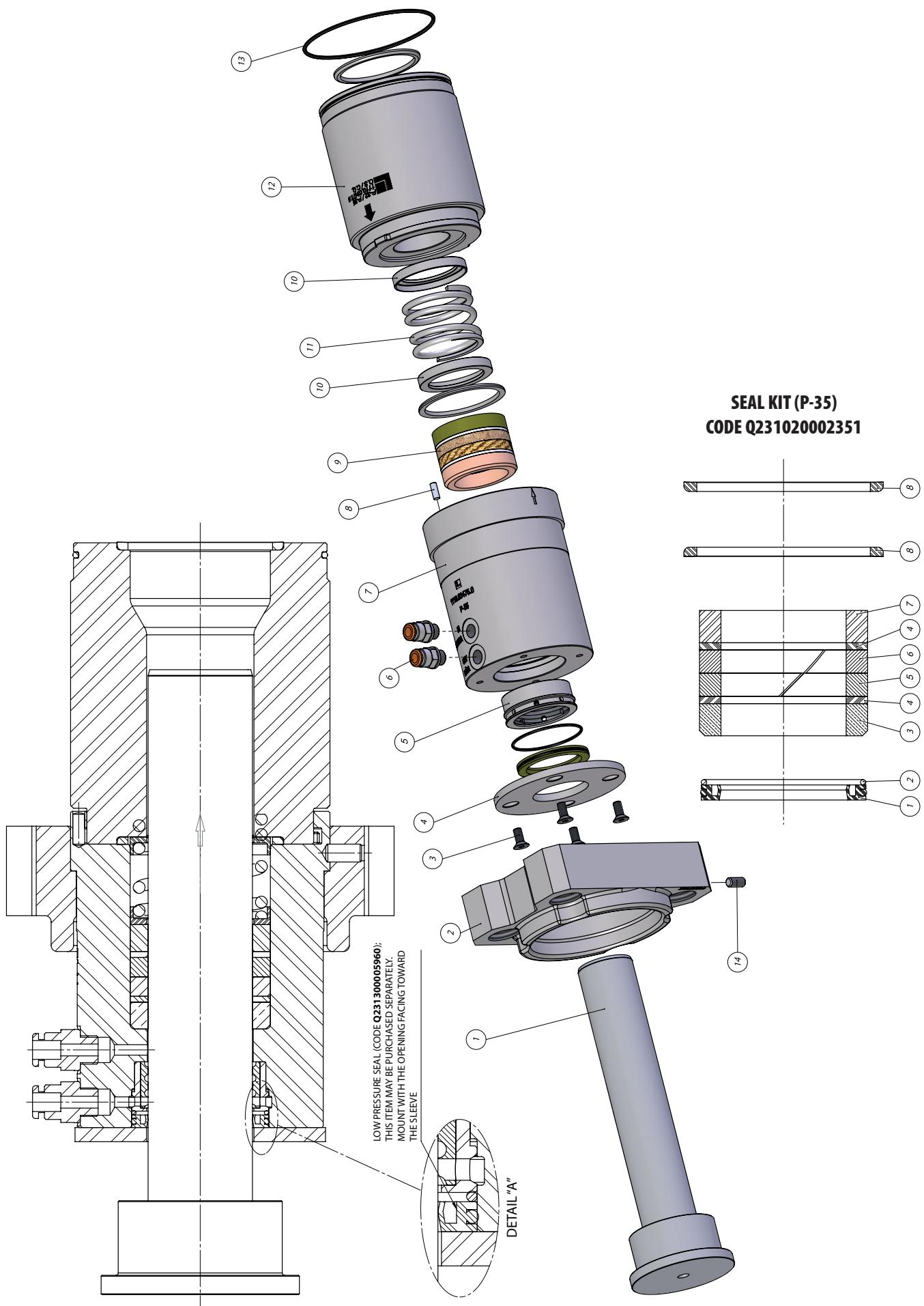
#### PLUNGER KIT (P-32) - CODE Q231010020490

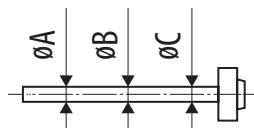
ITEM	CODE	DESCRIPTION	QTY.
1	Q23101004340	HARD METAL PLUNGER P-32	3
2	Q231110036010	FLANGE G IV	3
3	Q231200003270	ALLEN SCREW PLAN HEAD	12
4	Q231110009310	SUPPORT DISC P-32	3
5	Q231110013870	SLIDING BUSH P-32	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231110037340	P-32 SAP IV SLEEVE	3
8	Q231200007530	GUIDE PIN Ø4x10mm	3
<b>9</b>	<b>Q231020002321</b>	<b>SEAL KIT P-32 SAP IV</b>	(*)
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-KEVLER SEALING P-32	3
6	Q231300004690	BRAIDED PACKING P-32	3
7	Q231300004630	UPPER SUPPORT RING P-32	3
8	Q231300006430	METAL SEAL	6

# PLUNGER KIT (P-35) - CODE Q231010018200





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

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

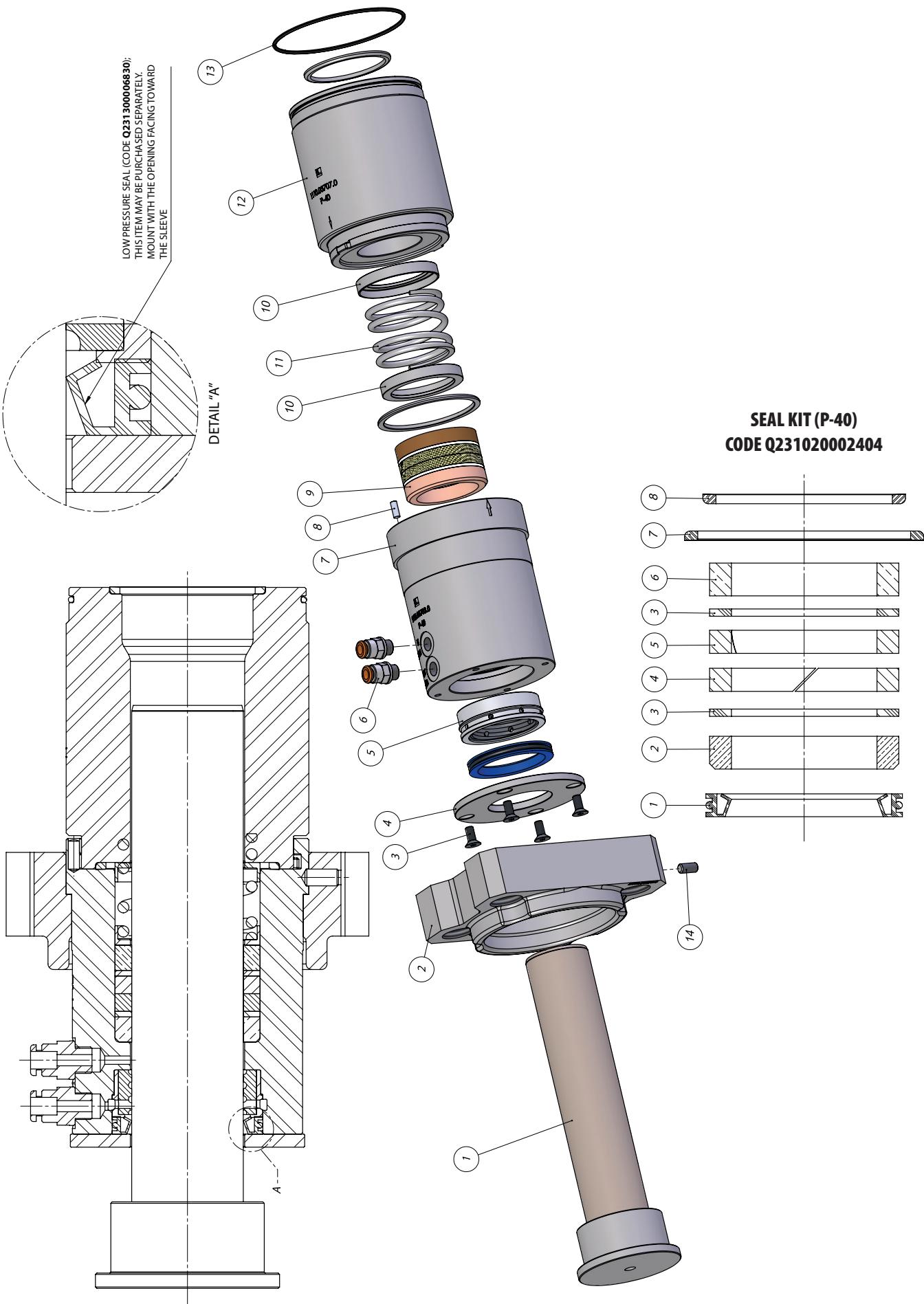
#### PLUNGER KIT (P-35) - CODE Q231010020490

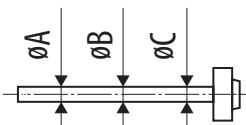
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010004060	HARD METAL PLUNGER P-35	3
2	Q231110036010	FLANGE G IV	3
3	Q231200003270	ALLEN SCREW PLAN HEAD	12
4	Q231110009690	SUPPORT DISC P-35	3
5	Q231110013860	SLIDING BUSH P-35	3
6	Q232320003030	COUPLING 1/8"x6mm	6
7	Q231110034750	P-35 SAP IV SLEEVE	3
8	Q231200007530	GUIDE PIN Ø4x10mm	3
<b>9</b>	<b>Q231020002351</b>	<b>SEAL KIT P-35 SAP IV</b>	(*)
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-KEVLER SEALING P-35	3
6	Q231300004840	BRAIDED PACKING P-35	3
7	Q231300002980	UPPER SUPPORT RING P-35	3
8	Q231300006430	METAL SEAL	6

# PLUNGER KIT (P-40) - CODE Q231010020010





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

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

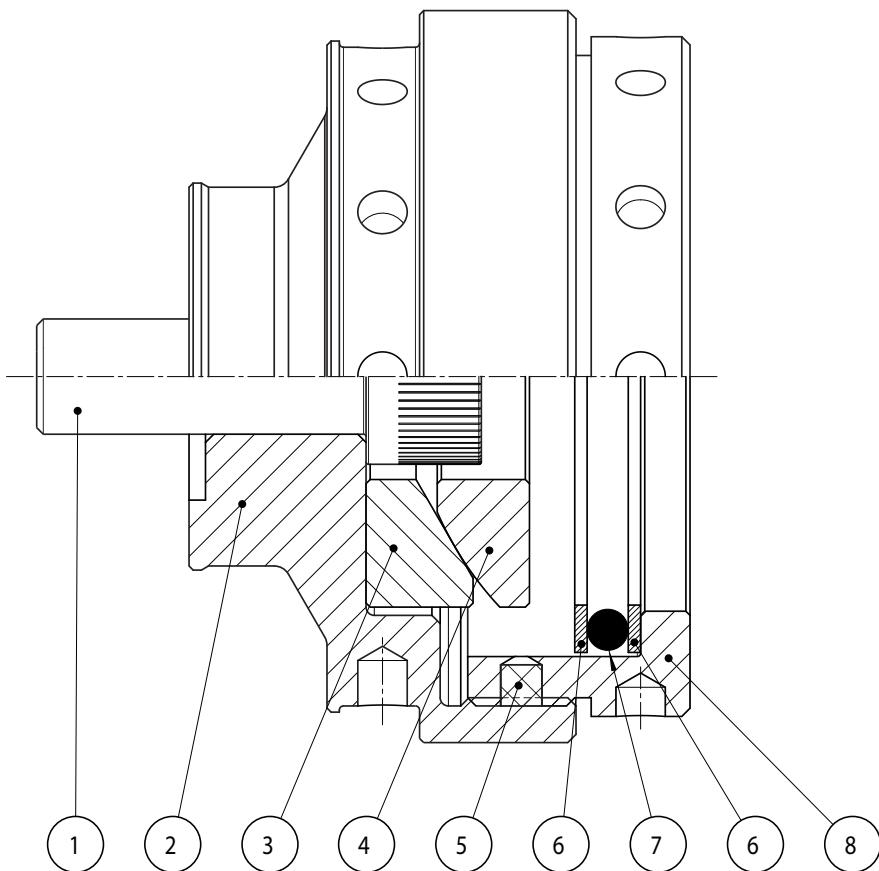
#### PLUNGER KIT (P-40) - CODE Q231010020010

ITEM	CODE	DESCRIPTION	QTY.
1	Q231010006260	PLUNGER 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	Q231110044510	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	<b>Q231020002404</b>	<b>SEAL KIT P-40 SAP IV</b>	(*)
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-KEVLER 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	METAL SEAL	3

# SELF CENTERING G-IV (FROM P-18 TO P-45) - 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	NYLON CYLINDER	1
6	Q231110036130	BACK UP RING (G-IV)	2
7	Q231300010240	O-RING	1
8	Q231110036100	SELF CENTERING RING (G-IV)	1

## NOTES:

## NOTES:





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