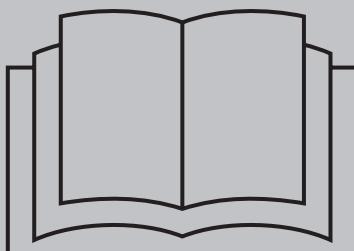




REPAIR MANUAL

H-100/2 UAP

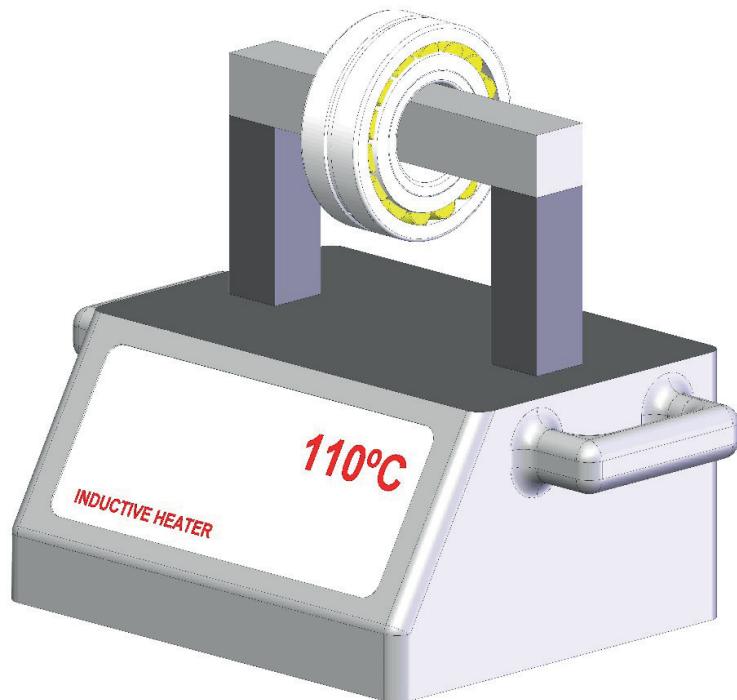
IV GENERATION



INDEX

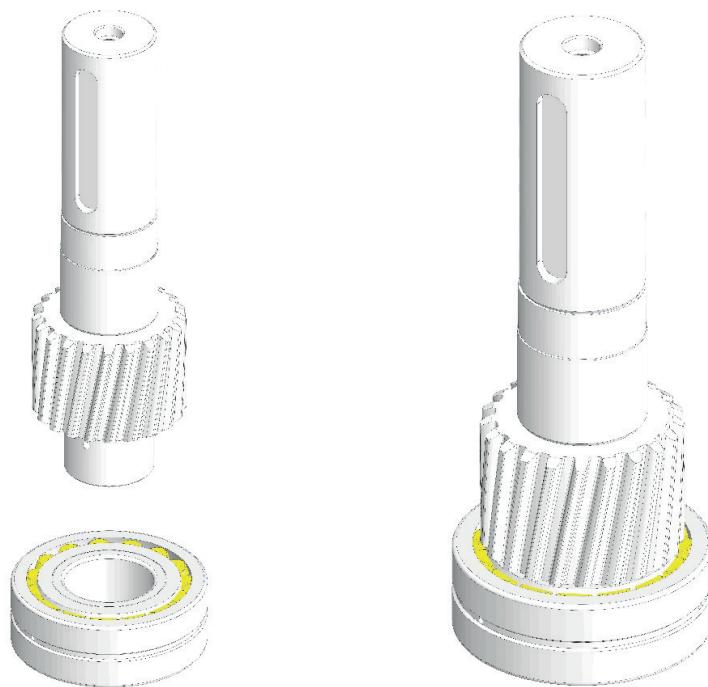
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ASSEMBLING THE H-100 PUMP POWER END



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

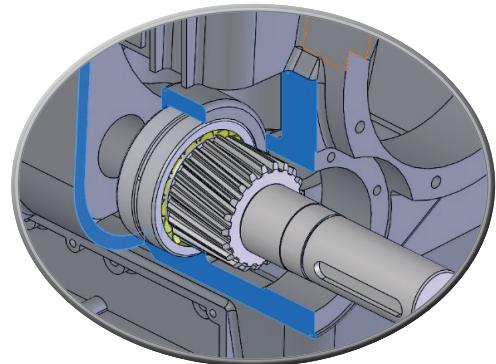
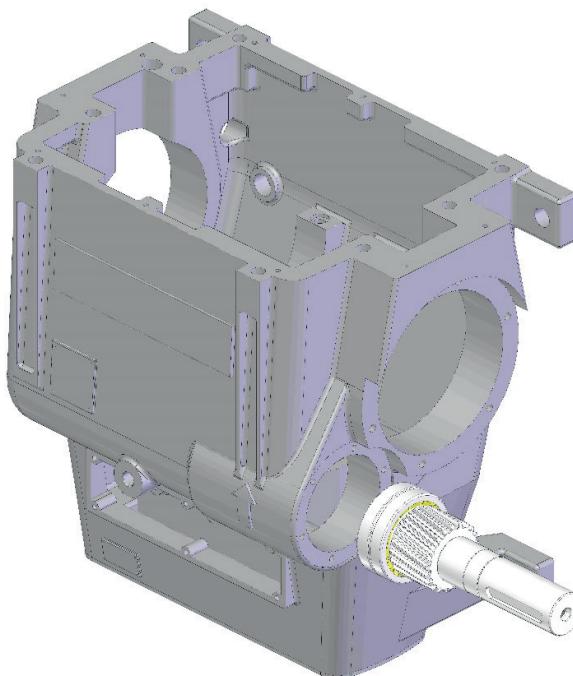
Fig. 01



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

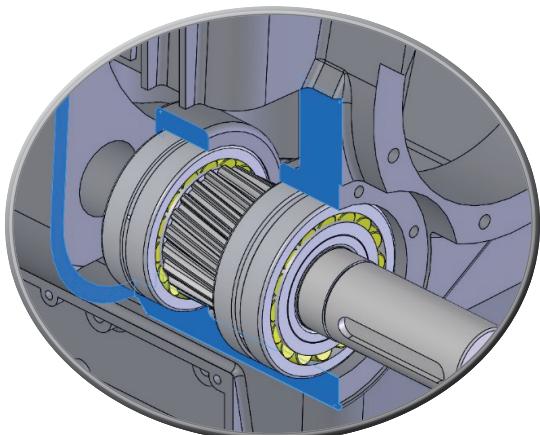
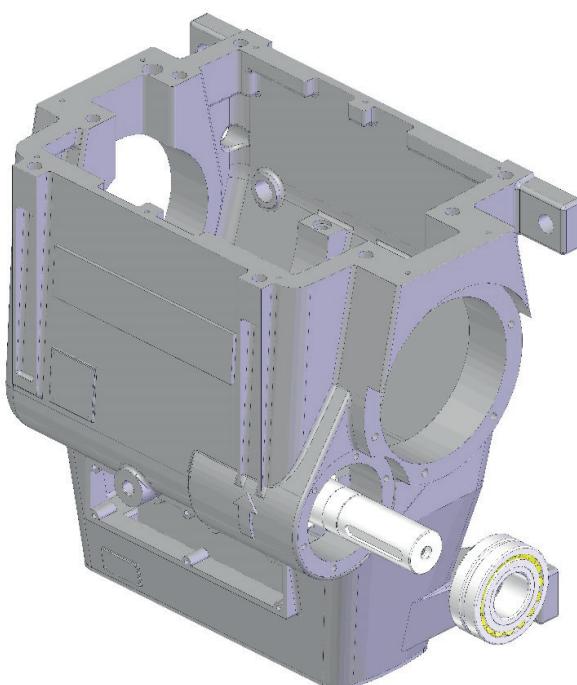
Fig. 02

ASSEMBLING THE H-100 PUMP POWER END



INSERT THE GEAR SHAFT INTO THE HOUSING.

Fig. 03

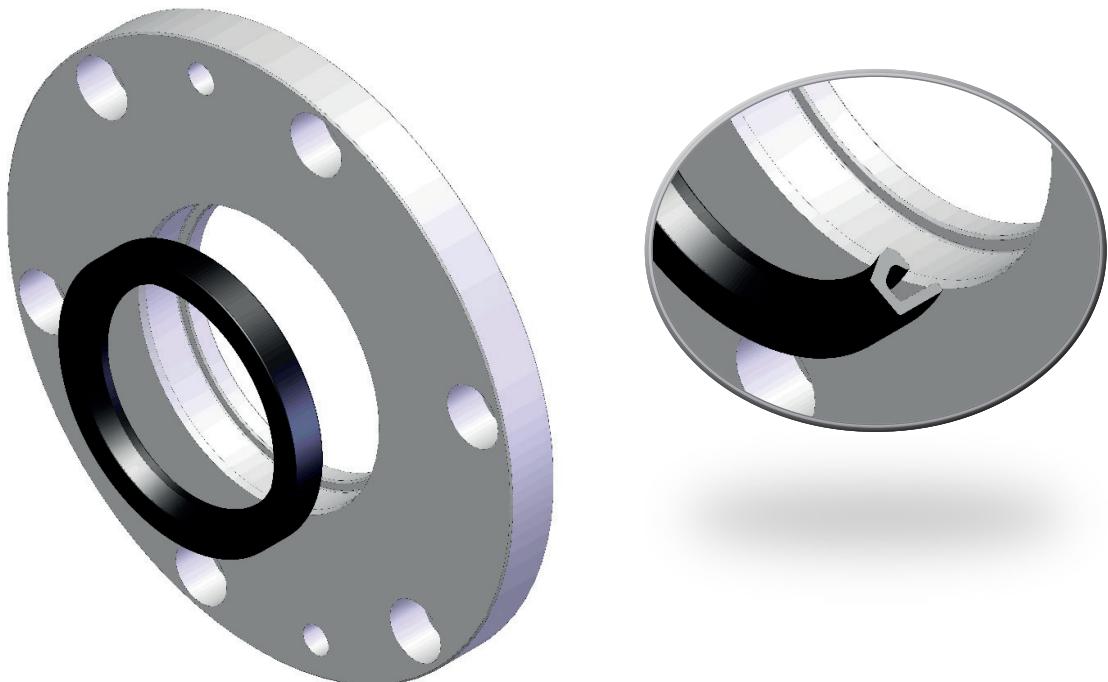


MOUNT THE SECOND BEARING.

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

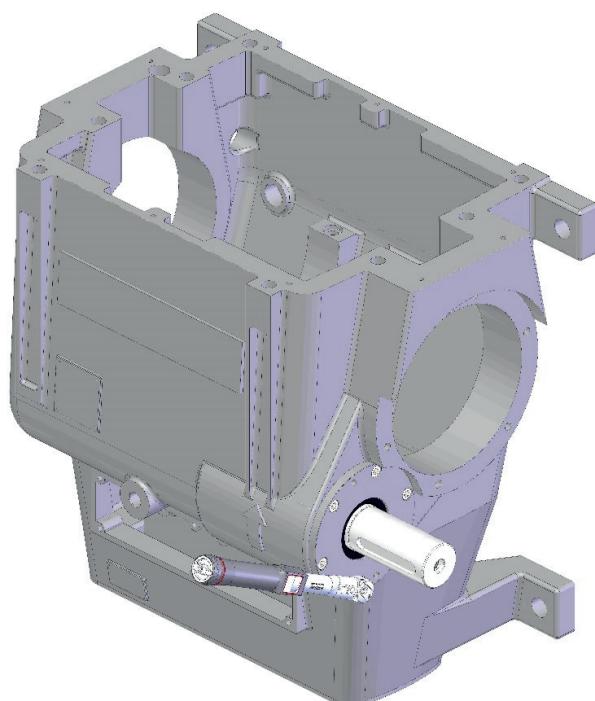
Fig. 04

ASSEMBLING THE H-100 PUMP POWER END



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

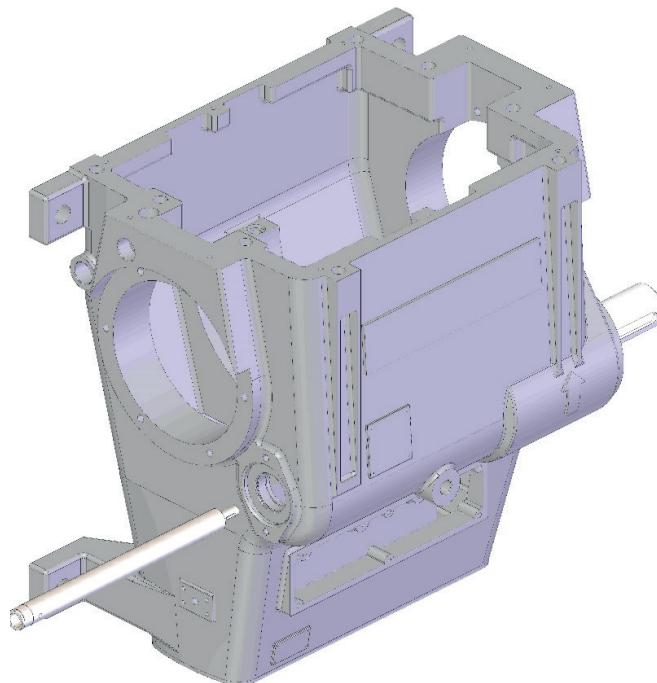
Fig. 05



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

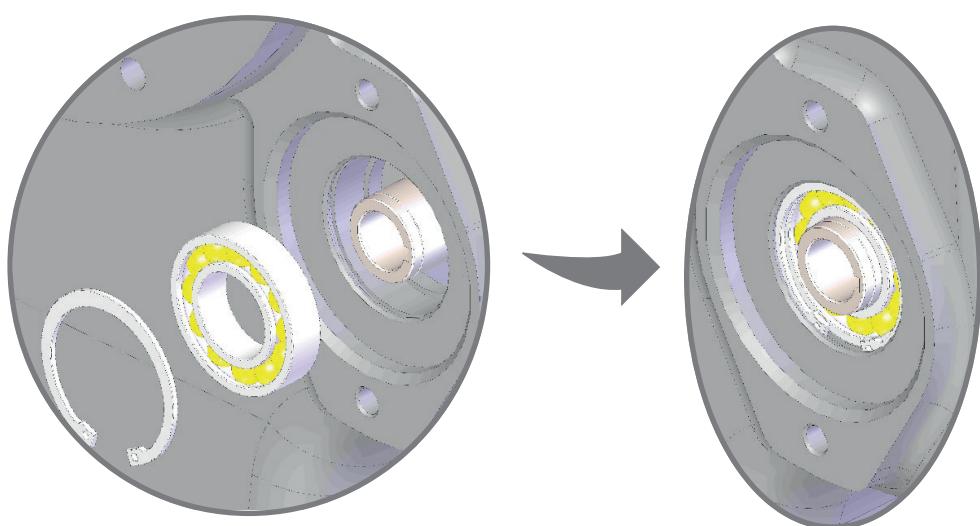
Fig. 06

ASSEMBLING THE H-100 PUMP POWER END



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

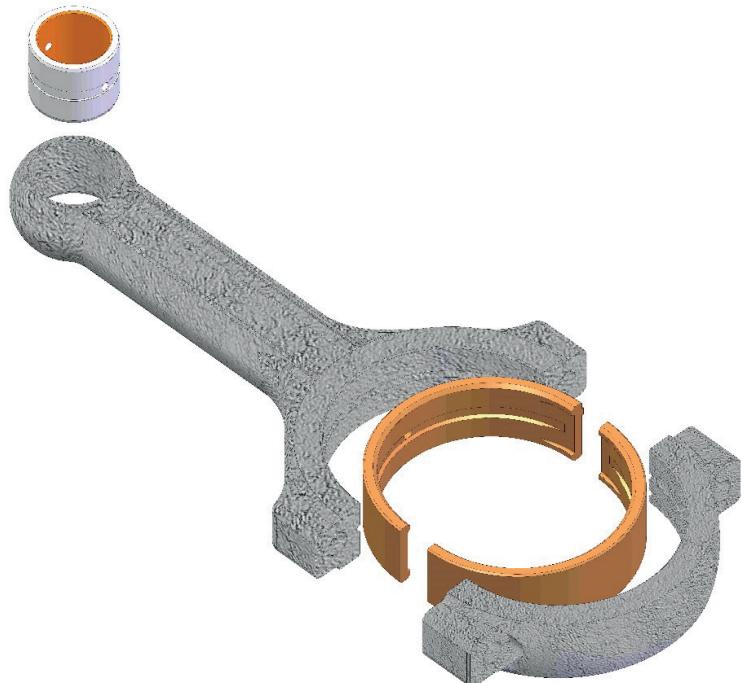
Fig. 07



INSERT THE BEARING AND THE SEEGER RING.

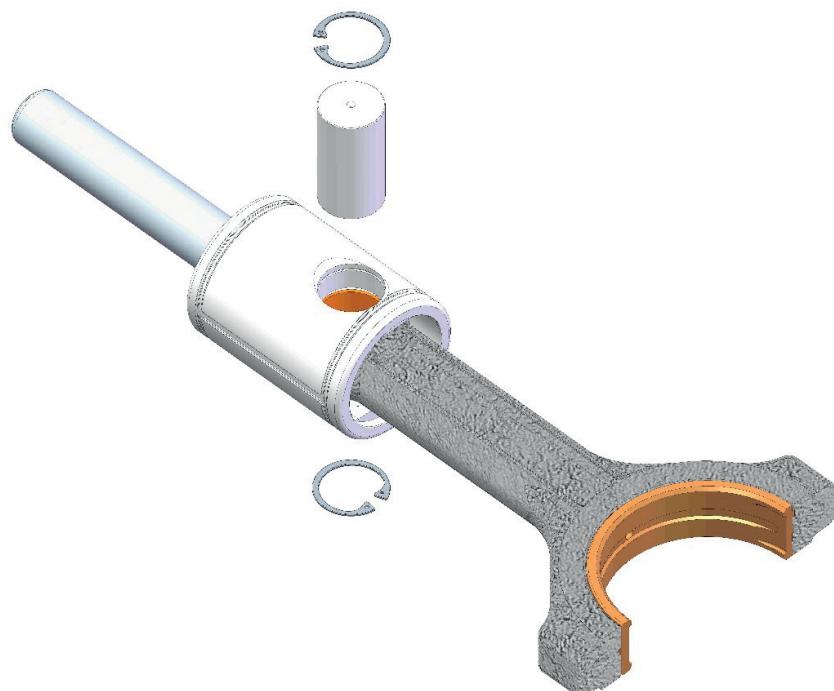
Fig. 08

ASSEMBLING THE H-100 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.

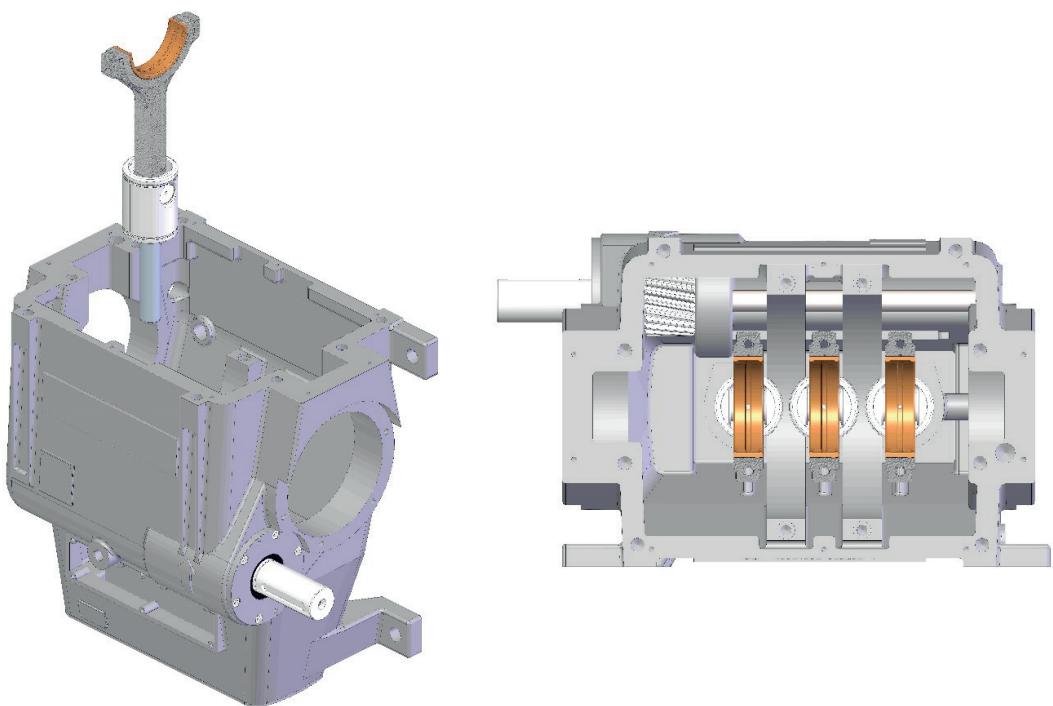
Fig. 09



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.

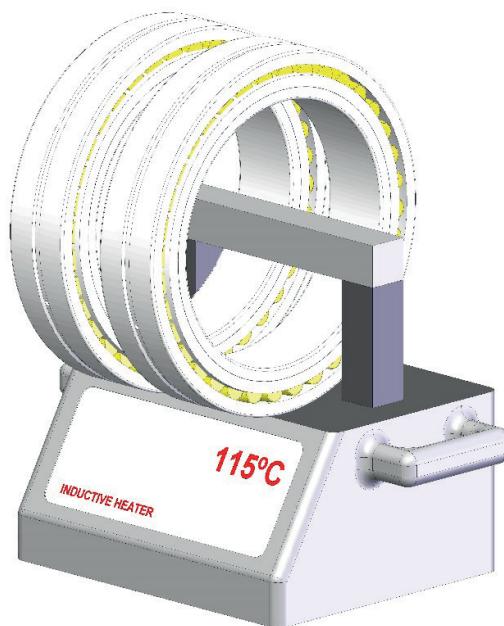
Fig. 10

ASSEMBLING THE H-100 PUMP POWER END



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

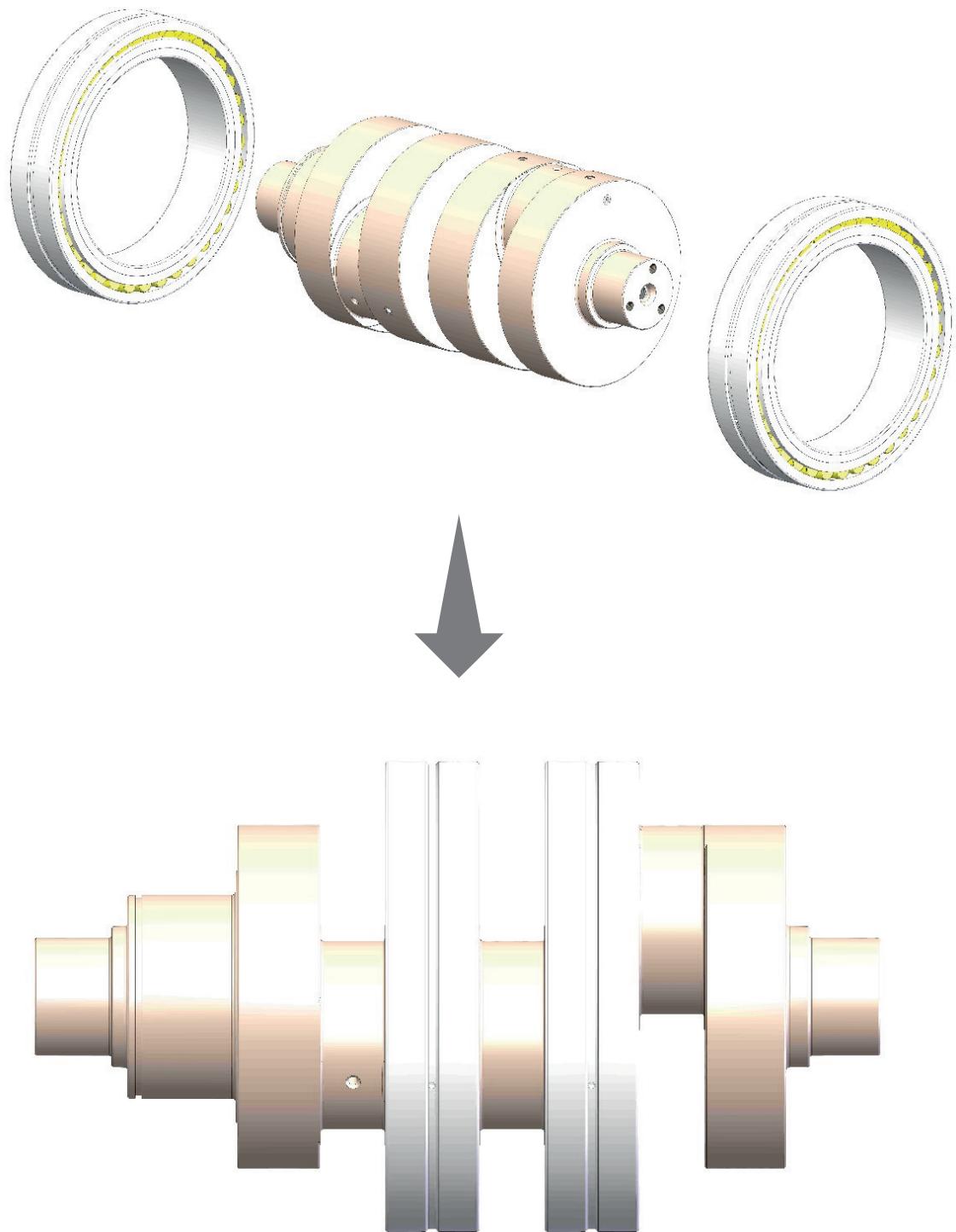
Fig. 11



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

Fig. 12

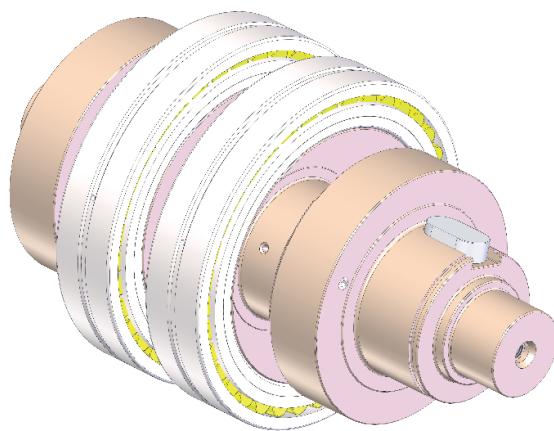
ASSEMBLING THE H-100 PUMP POWER END



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

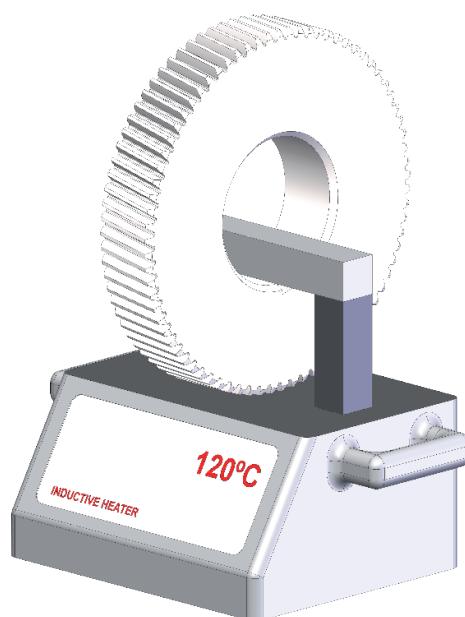
Fig. 13

ASSEMBLING THE H-100 PUMP POWER END



MOUNT THE CRANKSHAFT KEY.

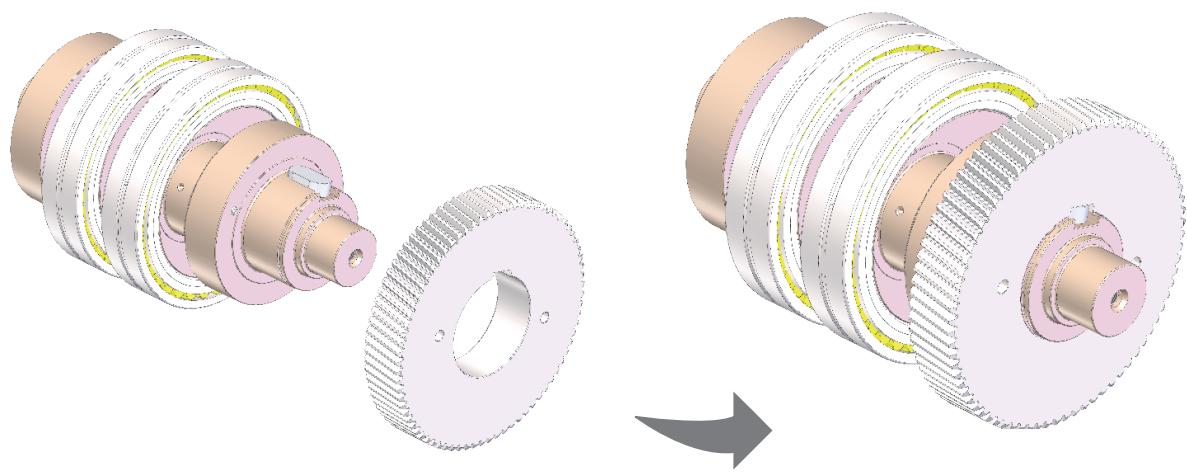
Fig. 14



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

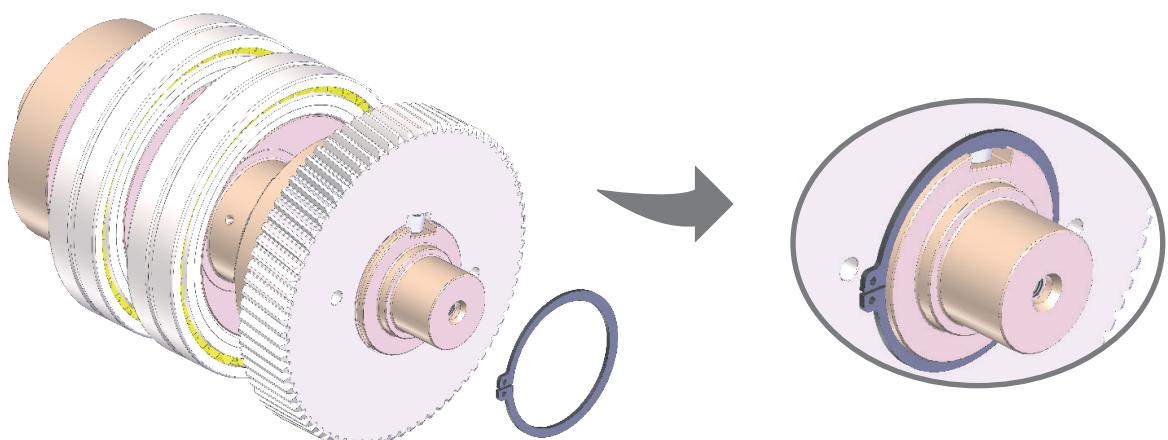
Fig. 15

ASSEMBLING THE H-100 PUMP POWER END



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

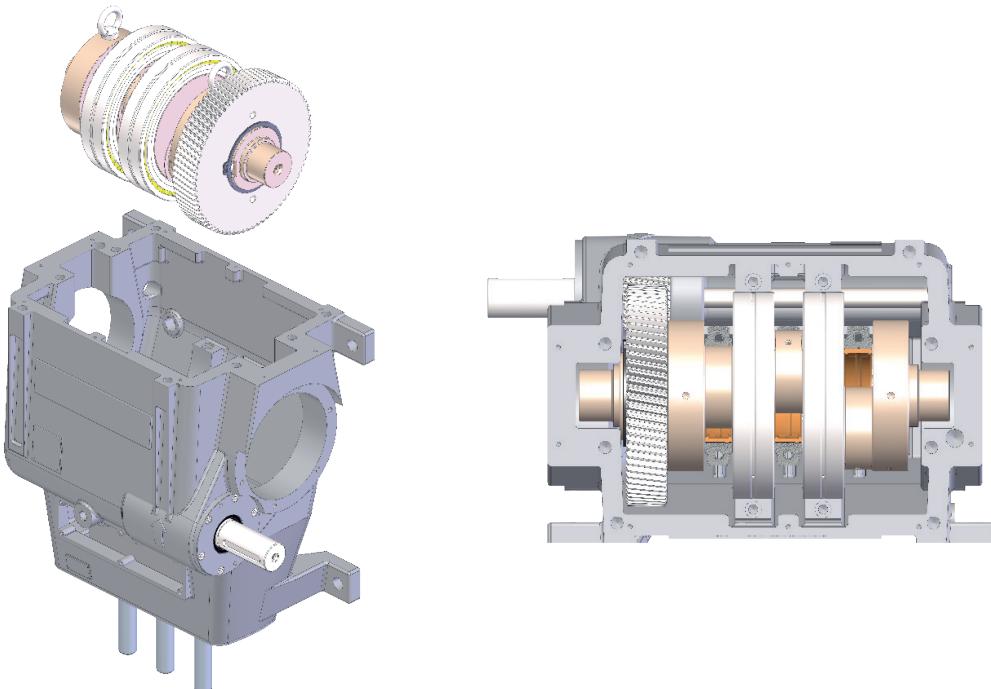
Fig. 16



MOUNT THE SEEGER RING.

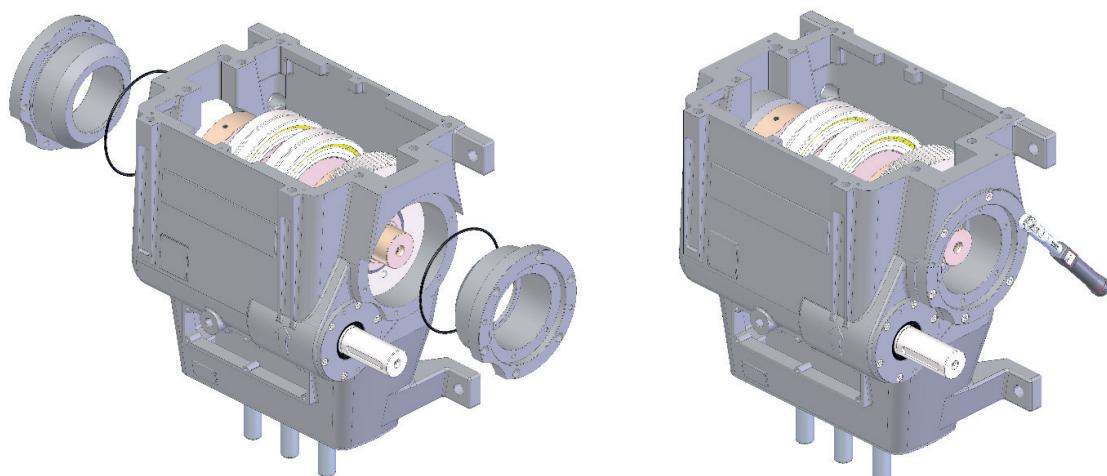
Fig. 17

ASSEMBLING THE H-100 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.

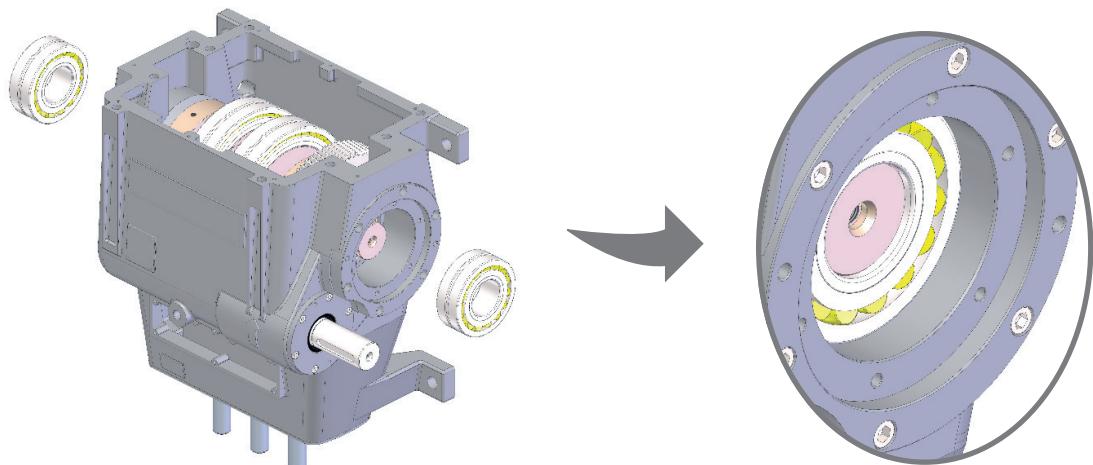
Fig. 18



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.

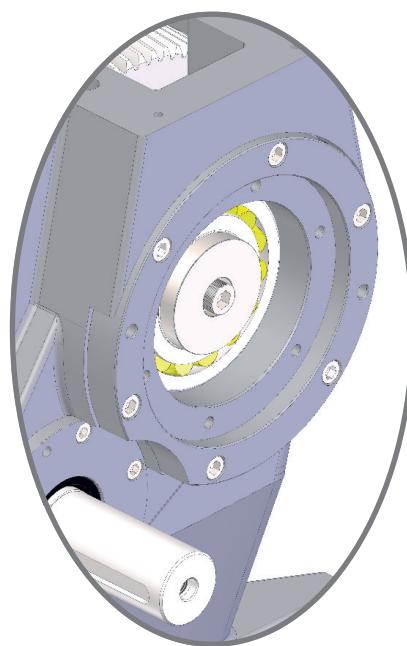
Fig. 19

ASSEMBLING THE H-100 PUMP POWER END



MOUNT BEARINGS ON BOTH CRANKSHAFT SIDES.

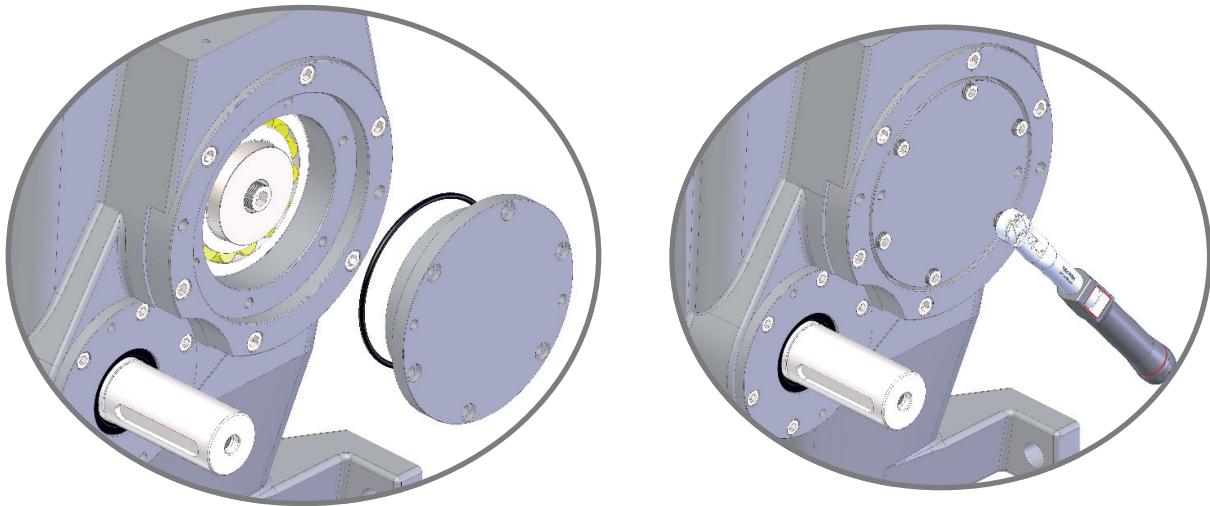
Fig. 20



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

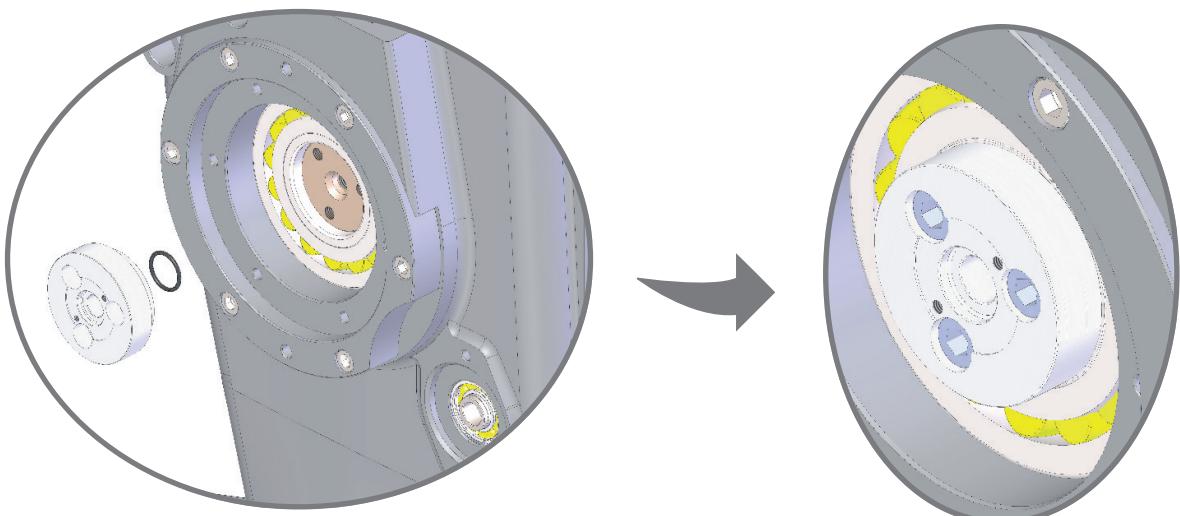
Fig. 21

ASSEMBLING THE H-100 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.

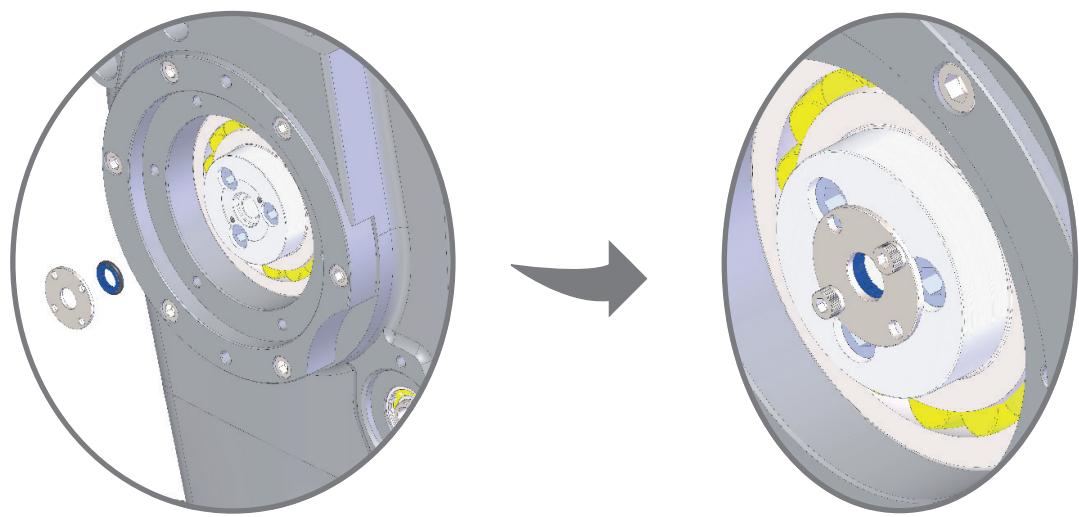
Fig. 22



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).

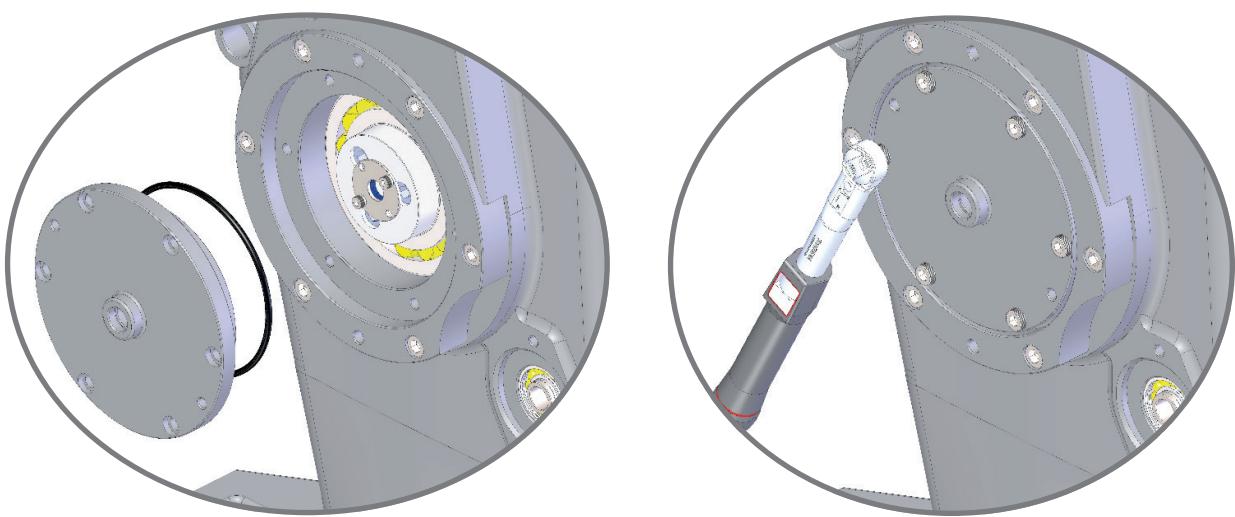
Fig. 23

ASSEMBLING THE H-100 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).

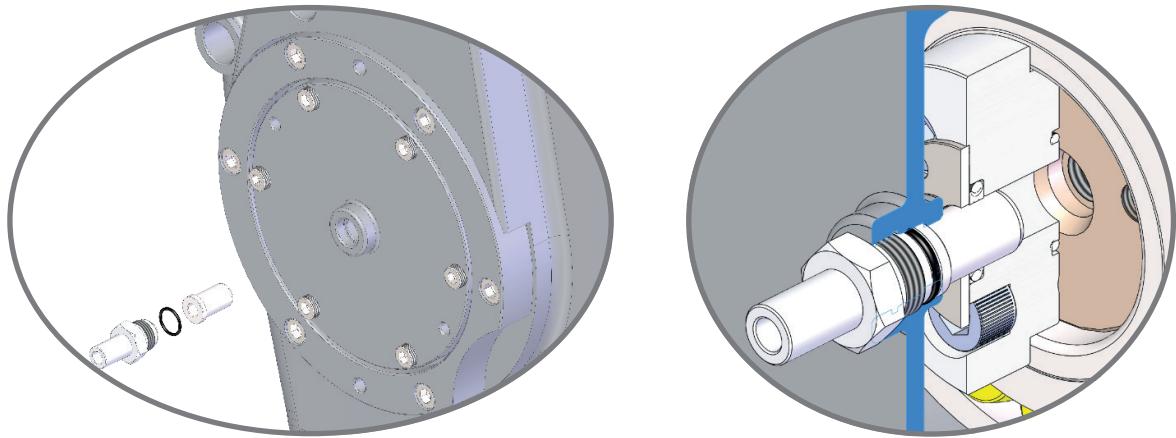
Fig. 24



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.

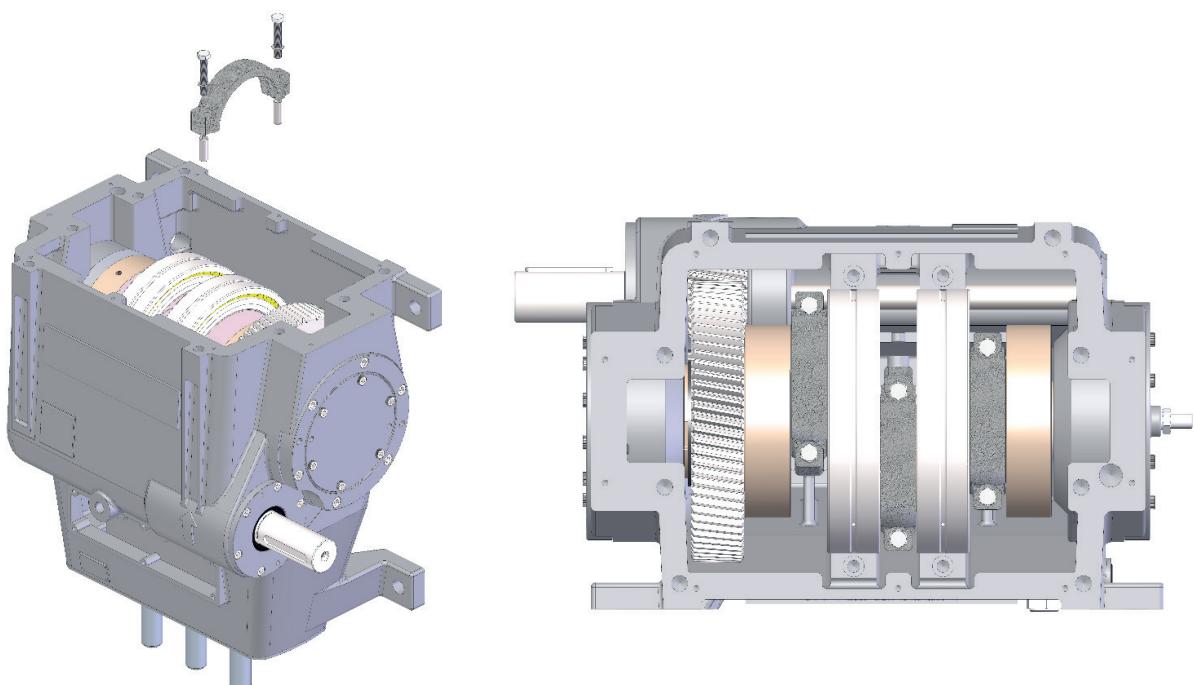
Fig. 25

ASSEMBLING THE H-100 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).

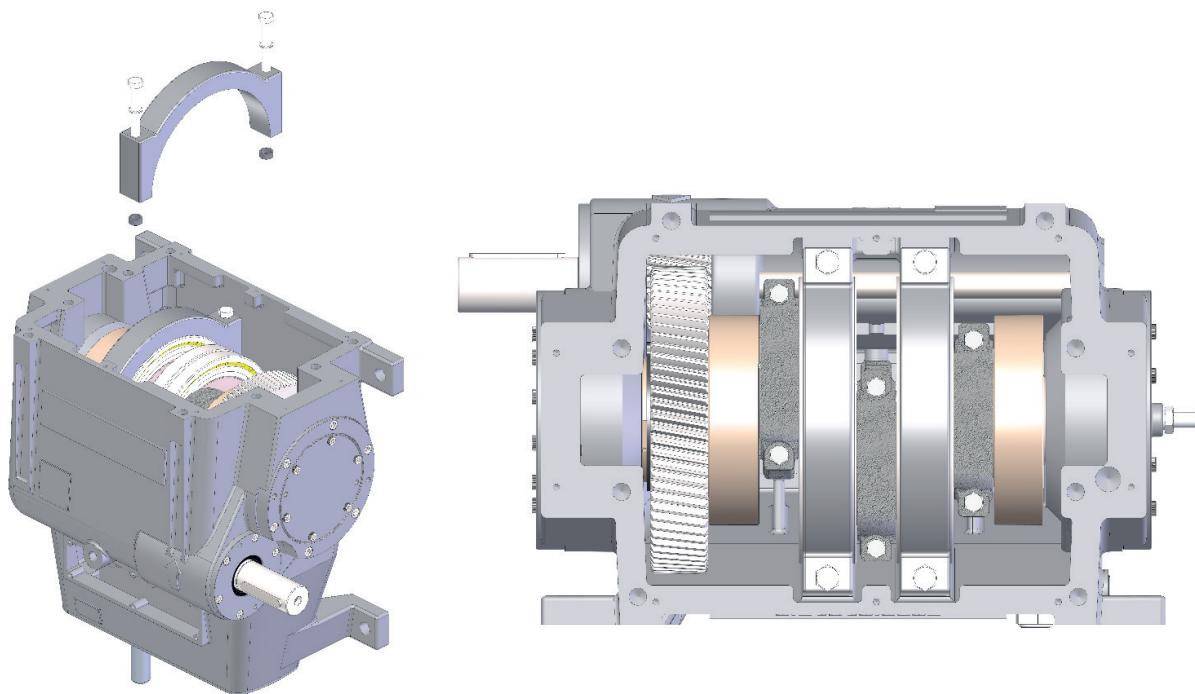
Fig. 26



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.

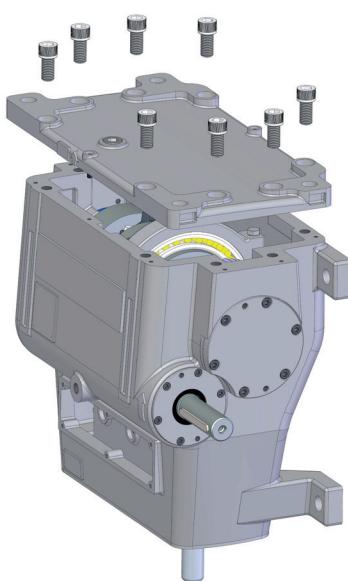
Fig. 27

ASSEMBLING THE H-100 PUMP POWER END



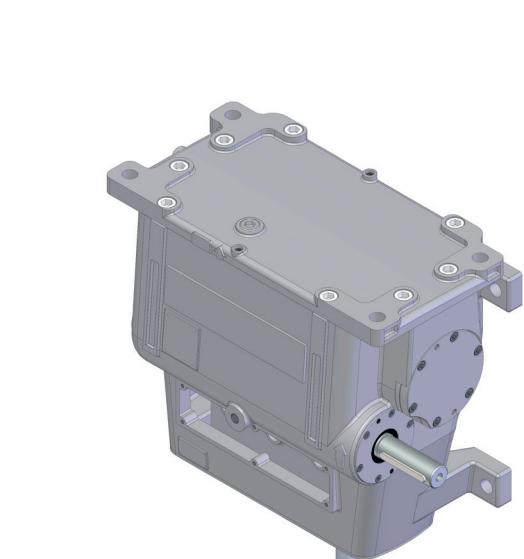
MOUNT THE FIRST BEARING CAP (PINION SIDE). TIGHT THE M16 SCREWS TO A TORQUE OF 232 Nm. (PAY ATTENTION: DO NOT USE GREASE OR ANYTHING SIMILAR). TURN THE SHAFT TO ENSURE A PERFECT FIX BETWEEN COMPONENTS. REPEAT THE PROCESS FOR THE OTHER 2 BEARINGS, ALWAYS TURNING THE SHAFT AND CHECKING THE ASSEMBLY.

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

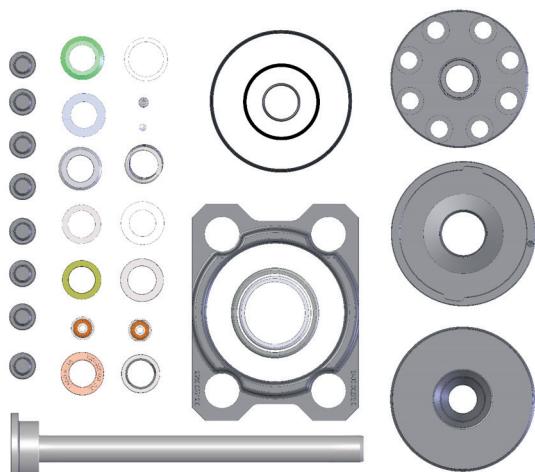


MOUNT THE M20 ALLEN SCREWS UNTIL THEY TOUCH THE SURFACE. TIGHT THE SCREWS IN "X" TO A TORQUE OF 350 NM.

Fig. 30

ASSEMBLING THE UAP G-IV PLUNGER KIT

PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



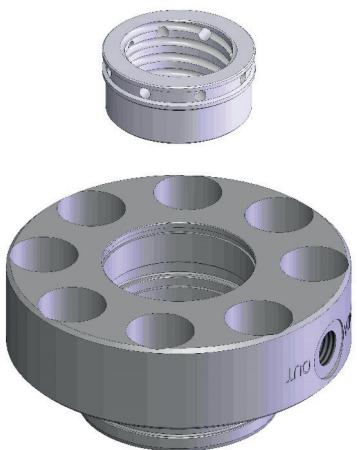
ARRANGE ALL PLUNGER KIT COMPONENTS ON THE WORK BENCH.

Fig. 01



SEPARATE ALL SUPPORT FLANGE COMPONENTS ON THE WORK BENCH.

Fig. 02



INSERT THE SLIDING BUSH INTO THE SUPPORT FLANGE.

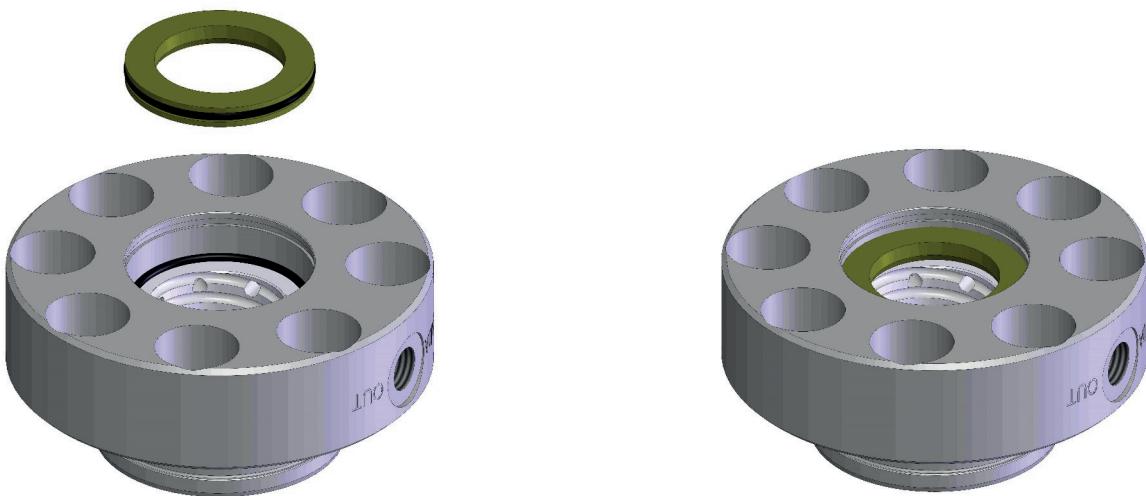
Fig. 03



OVERLAP THE O-RING.

Fig. 04

PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



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.

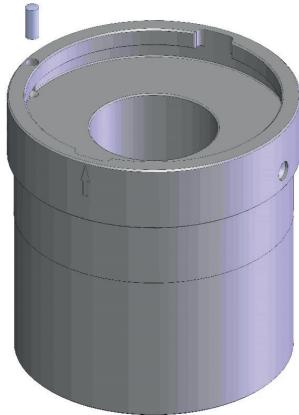
Fig. 06



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

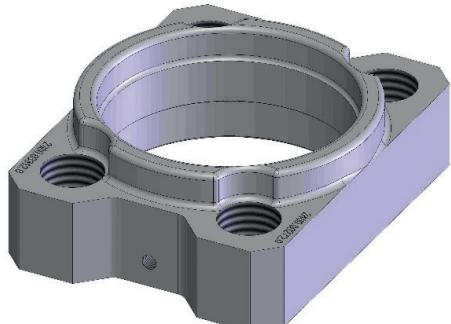
Fig. 07

PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



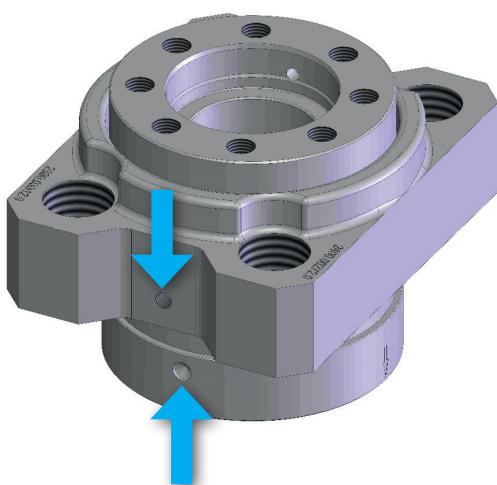
INSERT THE GUIDE PIN INTO THE SLEEVE
(SOME MODELS COULD BE SUPPLIED WITH PIN
ALREADY MOUNTED).

Fig. 08



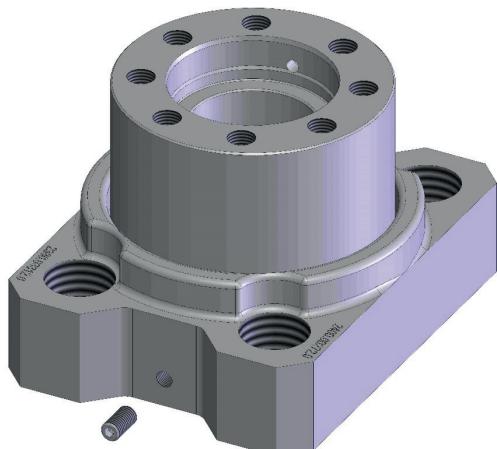
MOUNT THE SUPPORT FLANGE ON THE SLEEVE.

Fig. 09



CHECK HOLE ALIGNMENT.

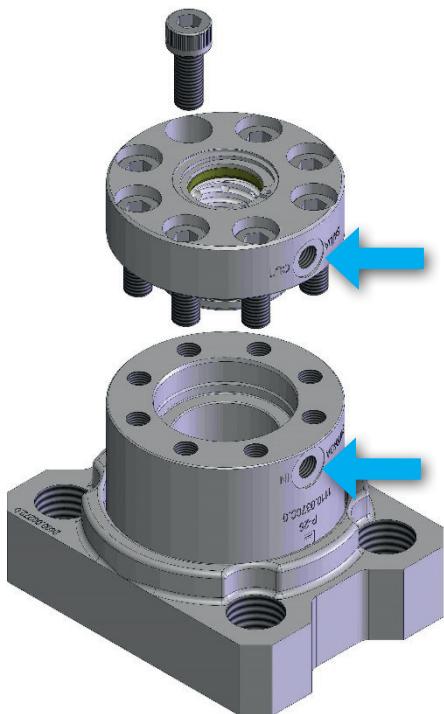
Fig. 10



INSERT THE ALLEN SCREW WITHOUT HEAD
AND FIX IT.

Fig. 11

PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



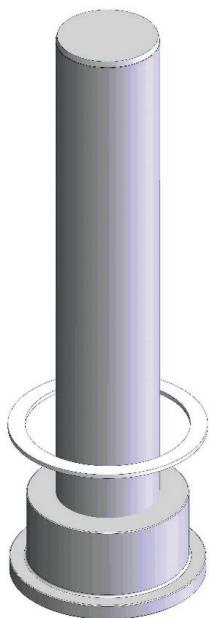
APPLY "ROCOL" TYPE GREASE ON THE THREAD OF THE M10 SCREWS THAT FIX THE SUPPORT FLANGE WITH THE SLEEVE, TIGHT "X" TO A TORQUE OF 60Nm.

Fig. 12



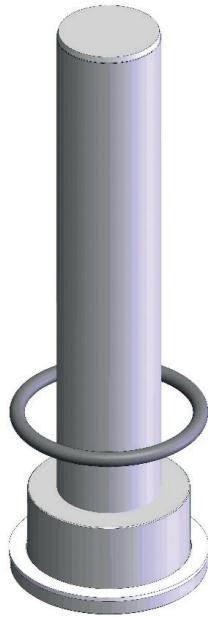
ARRANGE THE PLUNGER, THE BACK RING, THE O-RING AND THE G-IV SELF-CENTERING ADAPTER.

Fig. 13



INSERT THE FIRST BACK RING ON THE PLUNGER.

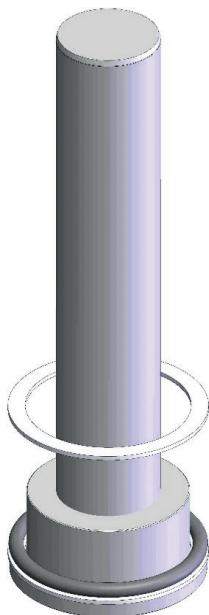
Fig. 14



INSERT THE O-RING ON THE PLUNGER.

Fig. 15

PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



INSERT THE SECOND BACK RING ON THE PLUNGER.

Fig. 16



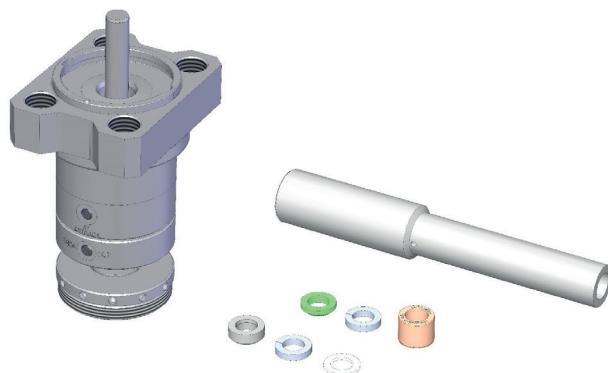
INSERT THE G-IV SELF-CENTERING ADAPTER ON THE SET.

Fig. 17



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

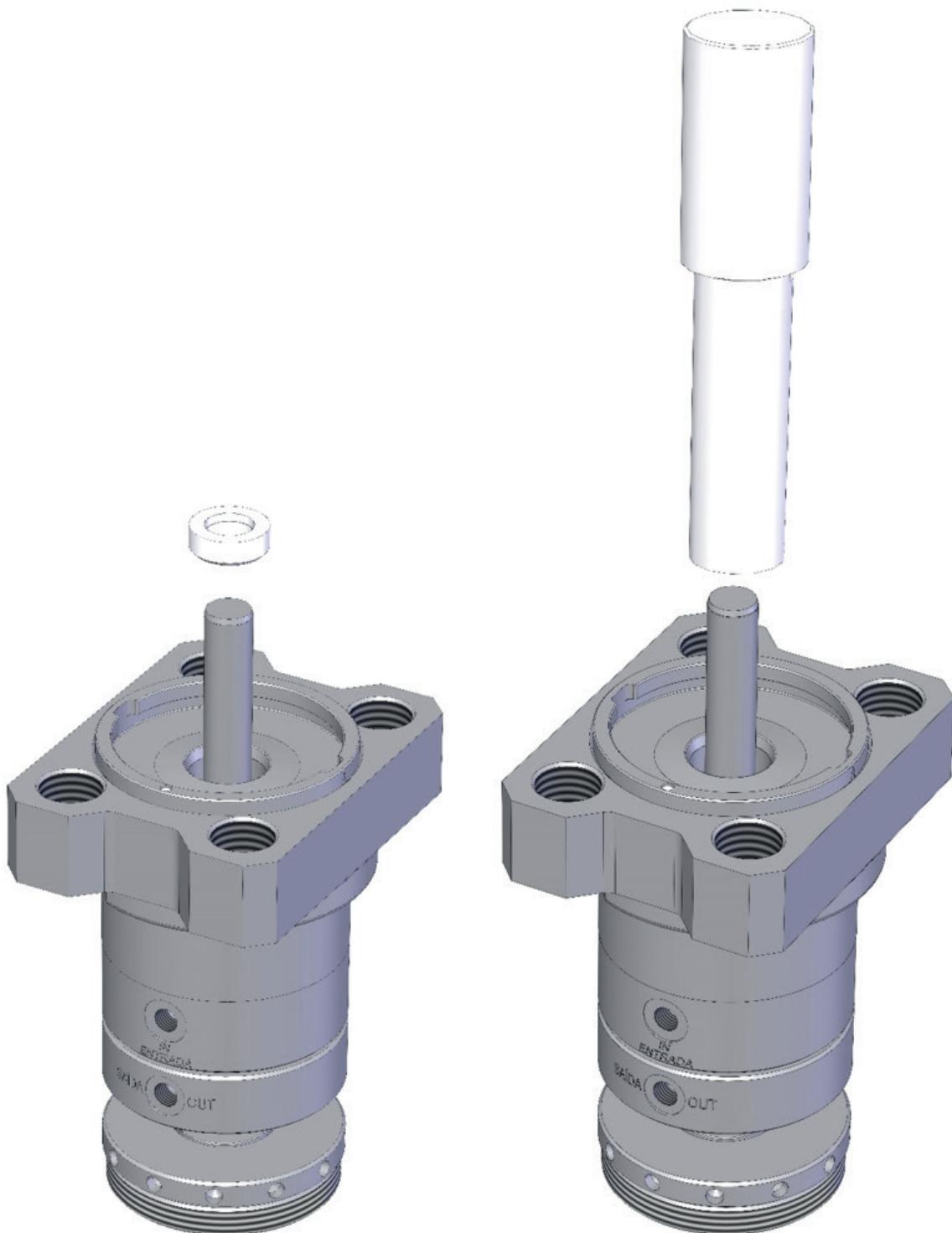
Fig. 18



ARRANGE THE SEALING KIT ON THE WORK BENCH.

Fig. 19

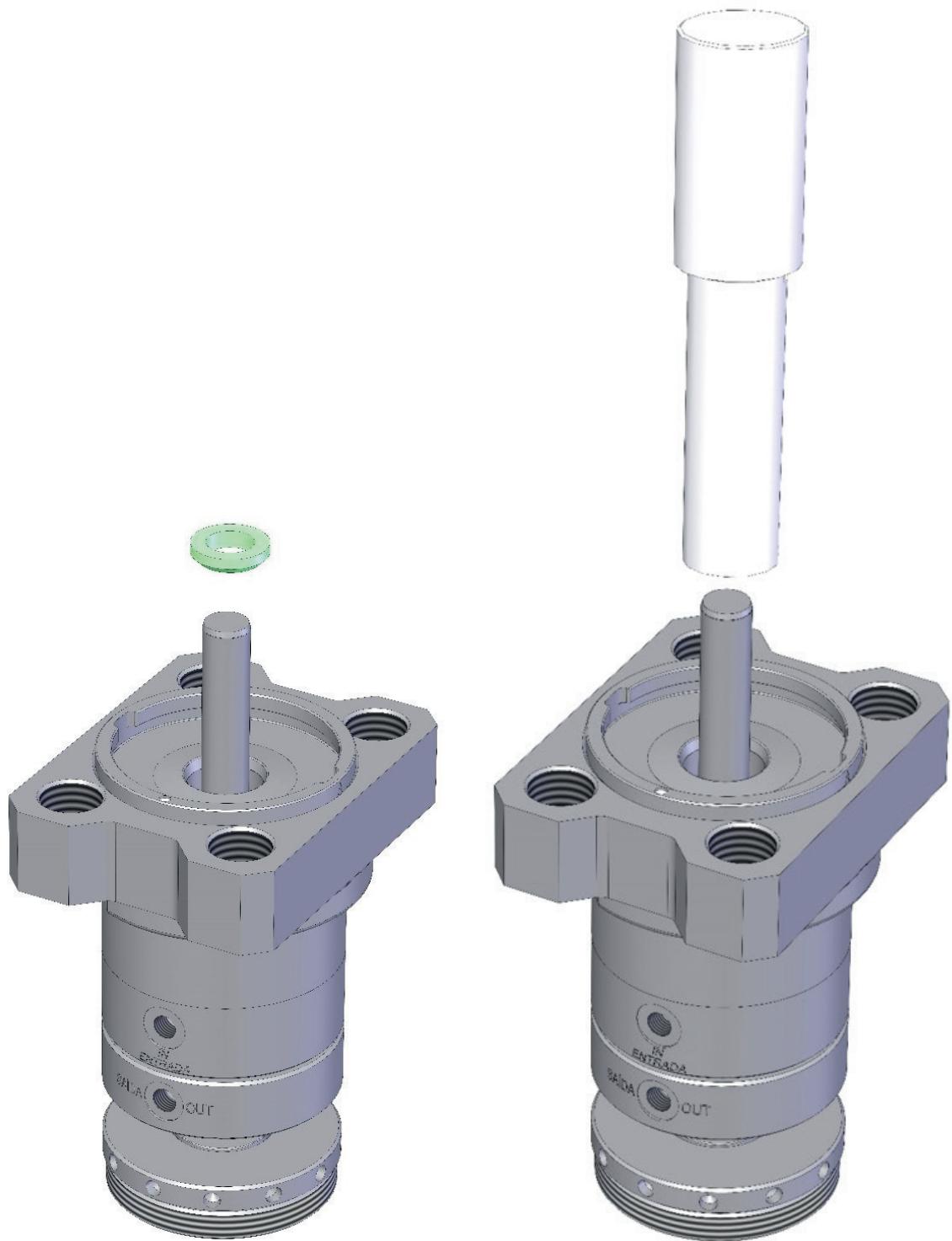
PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



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

Fig. 20

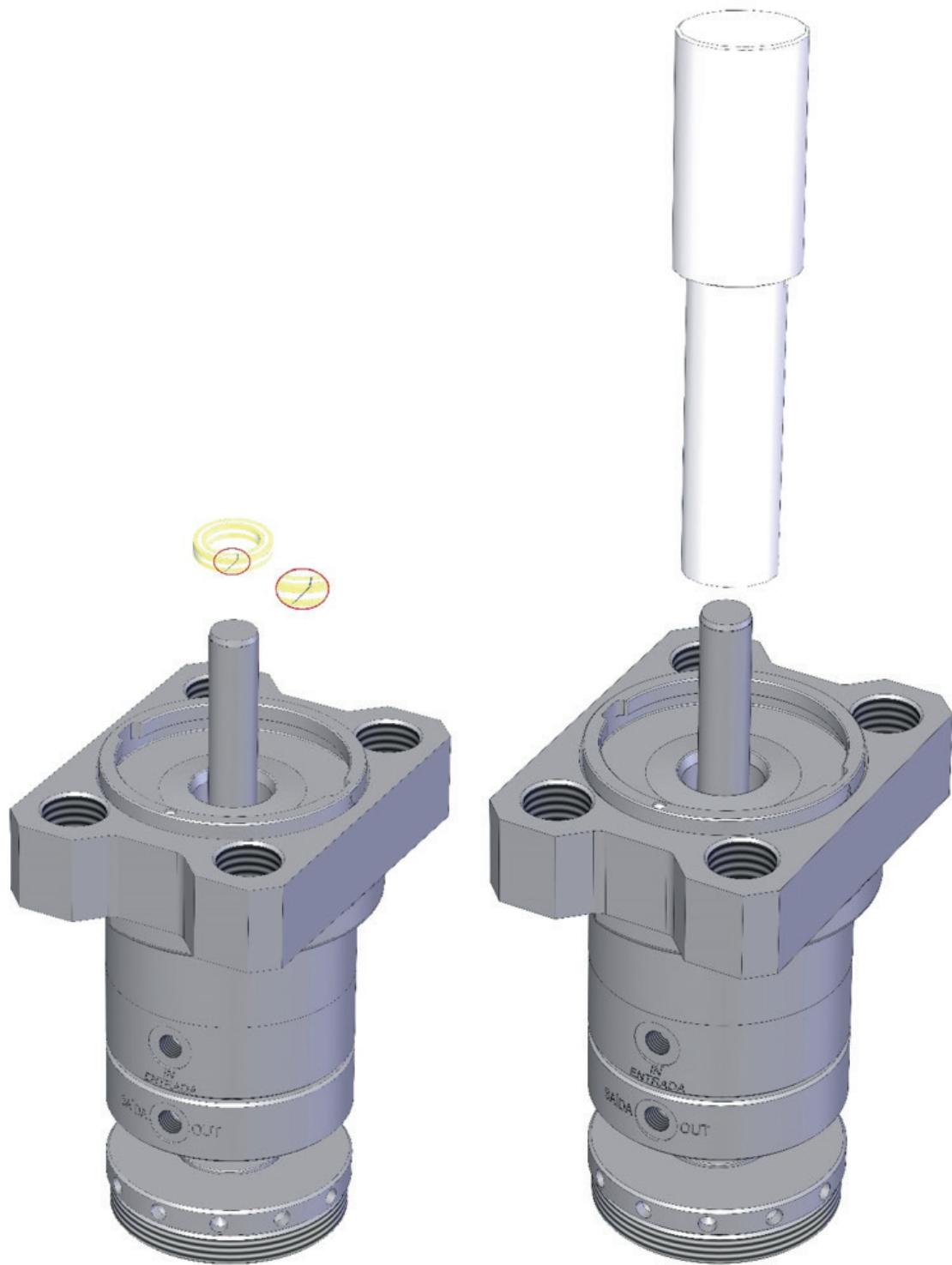
PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



INSERT THE V SEALING RING AND USE THE NYLON TOOL AND A HAMMER TO PUSH IT TO THE BOTTOM.

Fig. 21

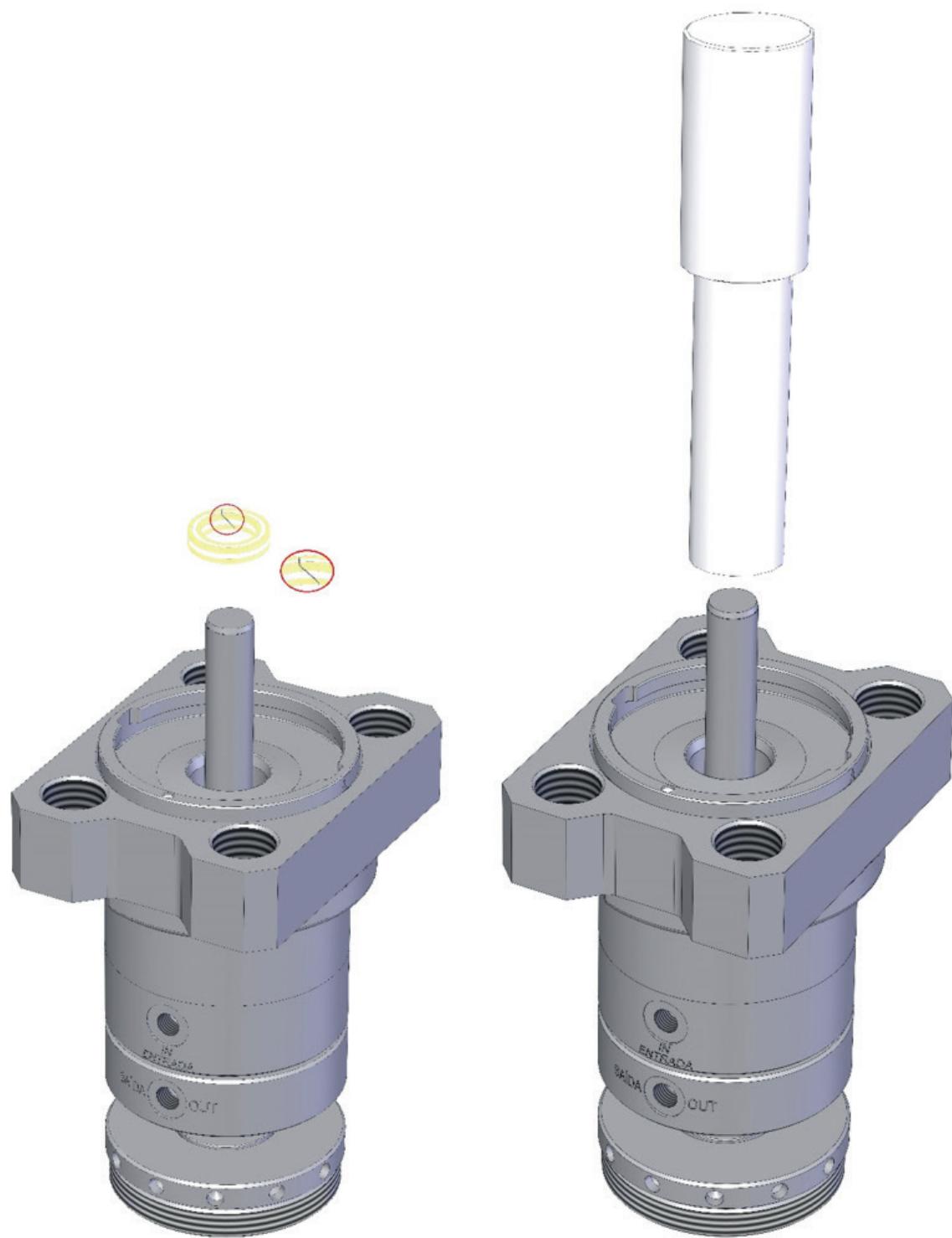
PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



INSER THE BRAIDED PACKING AND USE THE NYLON TOOL AND A HAMMER TO PUSH IT TO THE BOTTOM.

Fig. 22

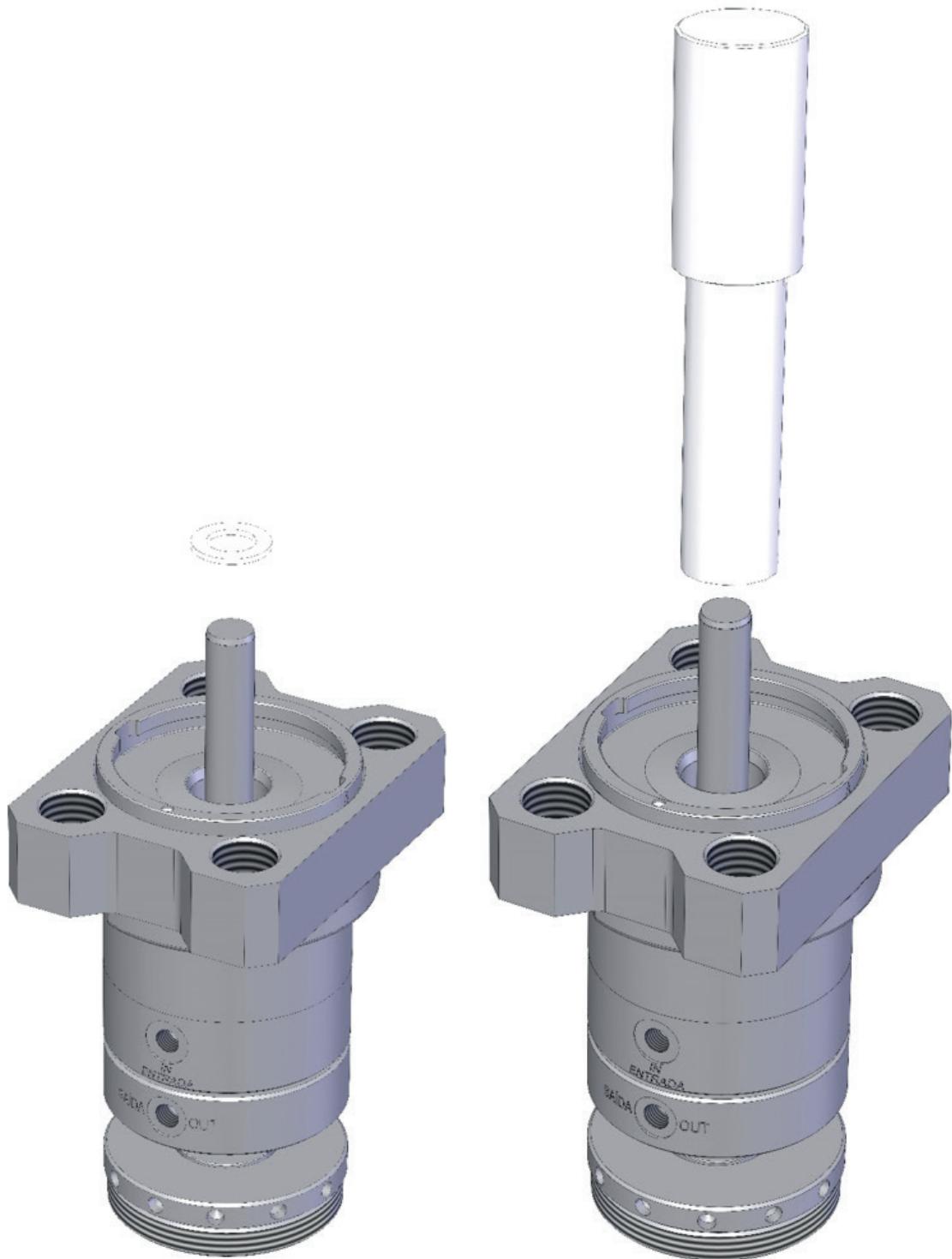
PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



INSERT THE BRAIDED PACKING 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

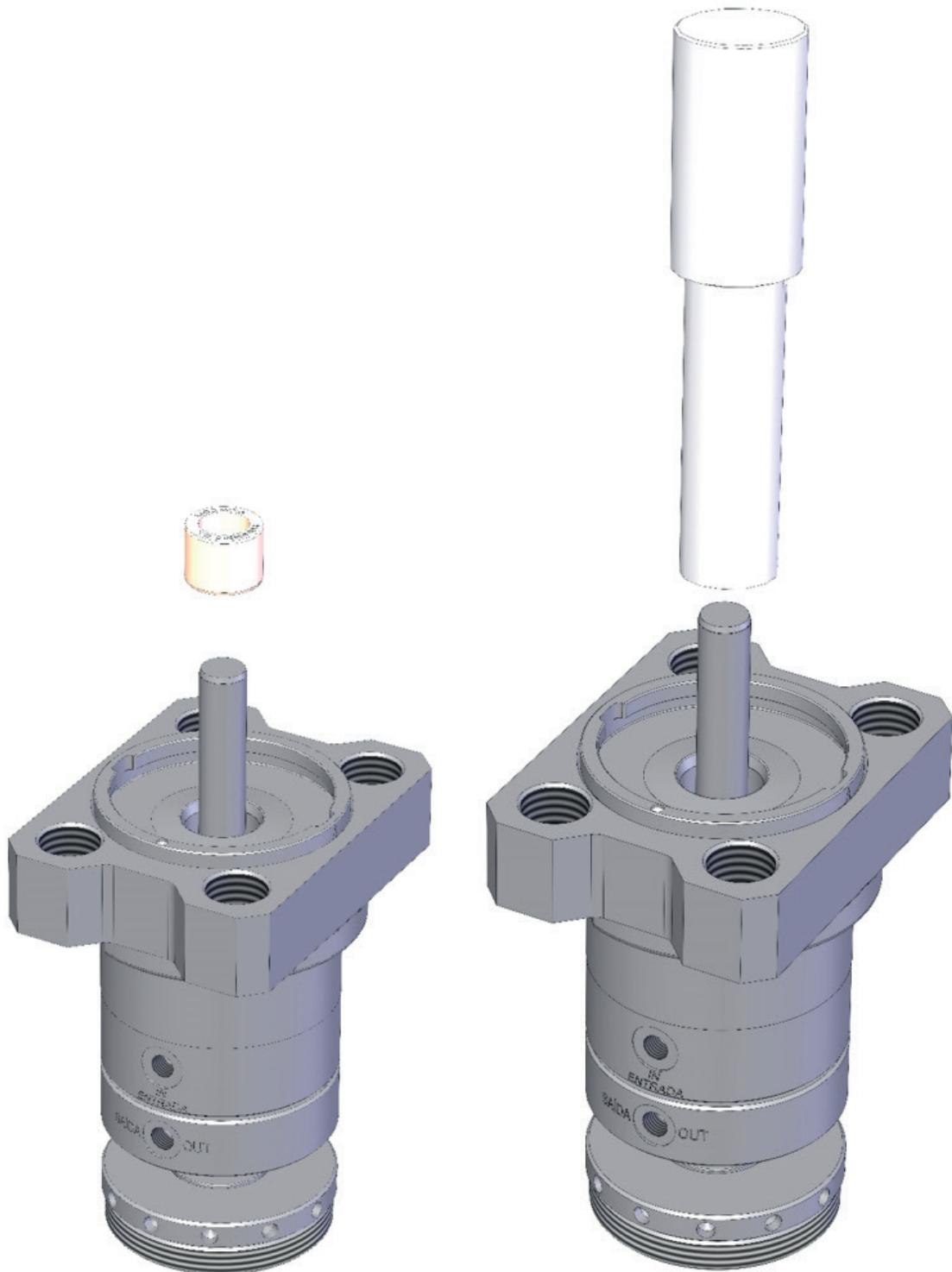
PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



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

Fig. 24

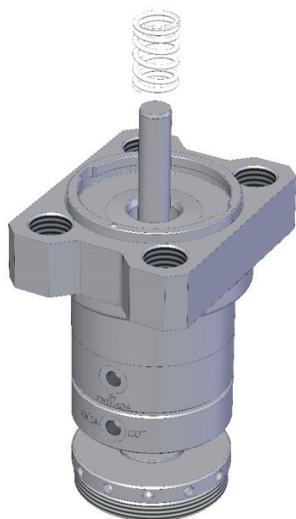
PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



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

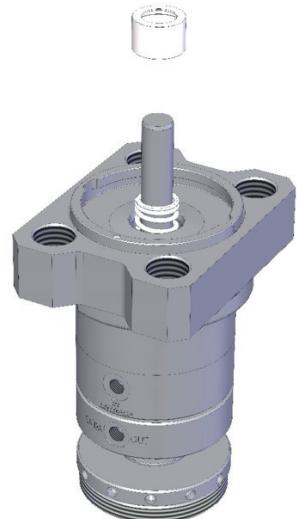
Fig. 25

PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



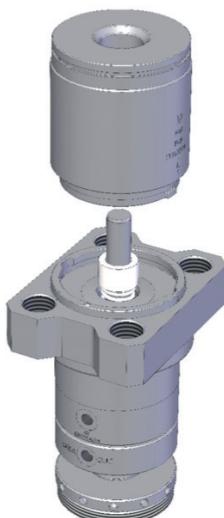
INSERT THE SPRING

Fig. 26



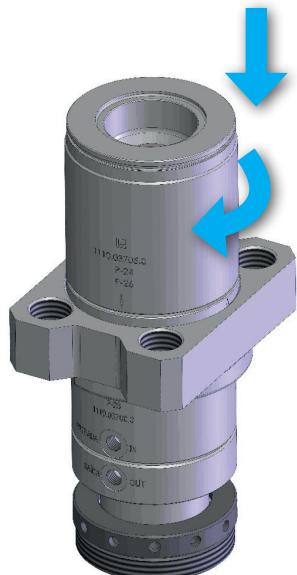
INSERT THE SPRING GUIDE

Fig. 27



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

Fig. 28



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

Fig. 29

PLUNGER KIT – ASSEMBLY STEPS – UAP IV (FROM P-12 TO P-20)



INSERT THE O-RING ON THE FRONTAL SLEEVE.

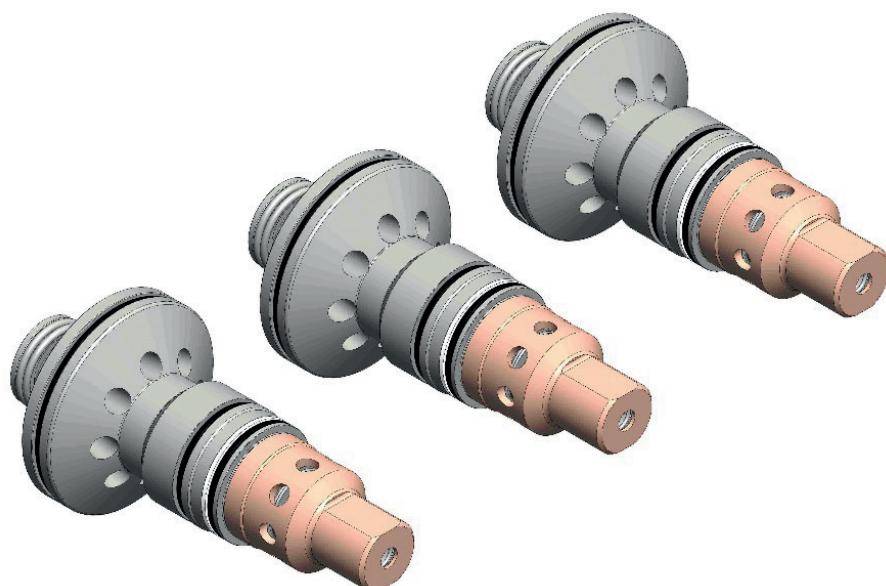
Fig. 30



TIGHT COOLING SYSTEM CONNECTIONS.

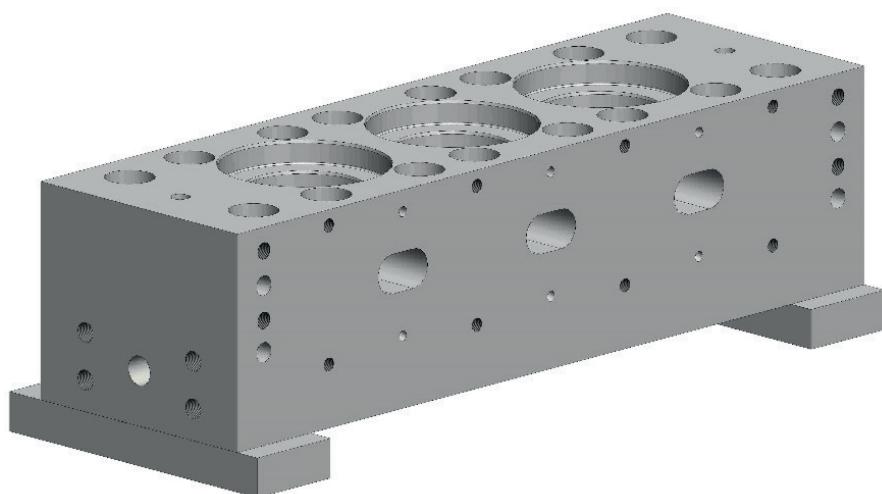
Fig. 31

ASSEMBLING THE UAP G-IV PUMP HEAD



ARRANGE THE INTELLIVALVES.

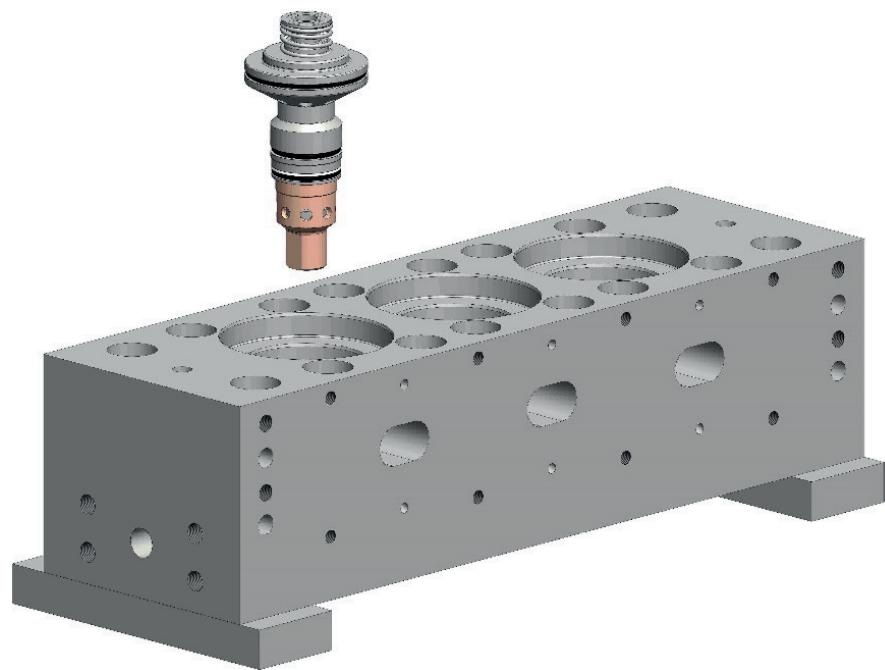
Fig. 01



PUT THE MANIFOLD ON SUPPORTING SHIMS.

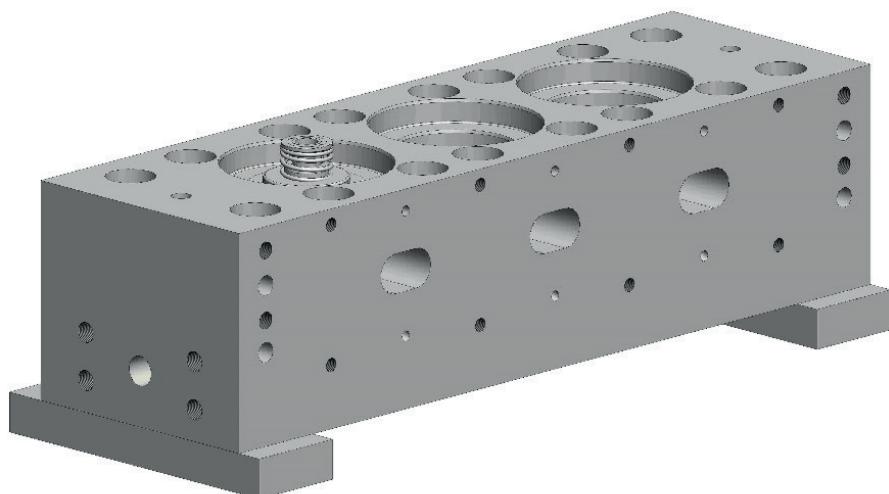
Fig. 02

ASSEMBLING THE UAP G-IV PUMP HEAD



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

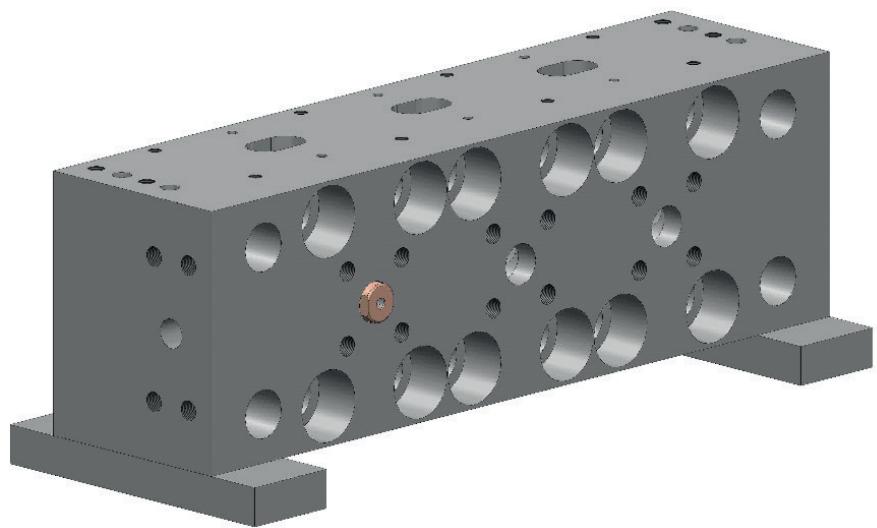
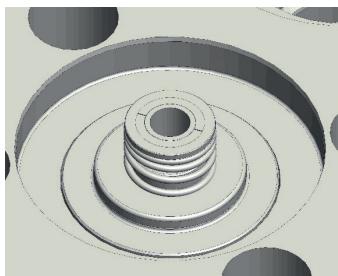
Fig. 03



FIX THE INTELLIVALVE MANUALLY IN THE HOLE.

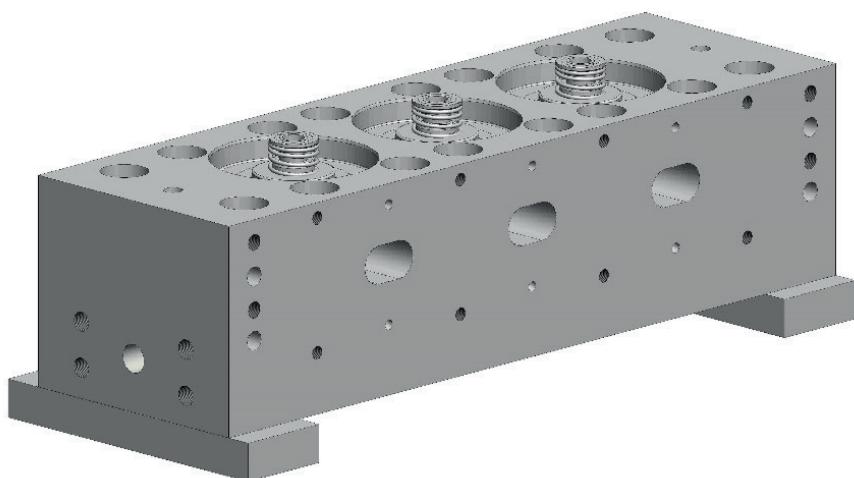
Fig. 04

ASSEMBLING THE UAP 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.

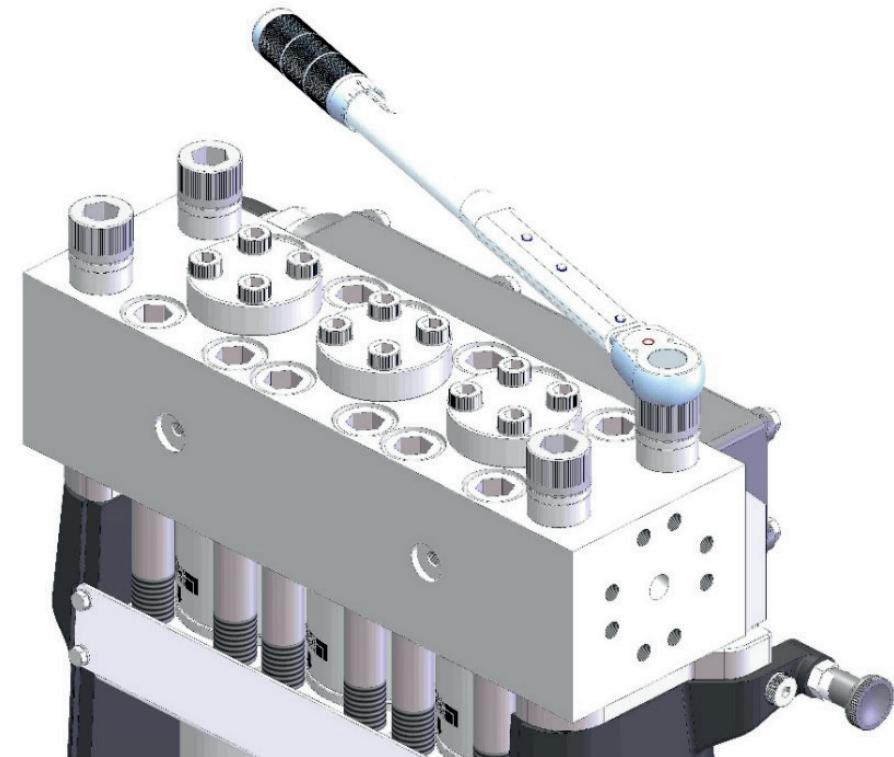
Fig. 05



REPEAT THE PROCESS FOR THE OTHER TWO INTELLIVALVES.

Fig. 06

ASSEMBLING THE UAP G-IV PUMP HEAD



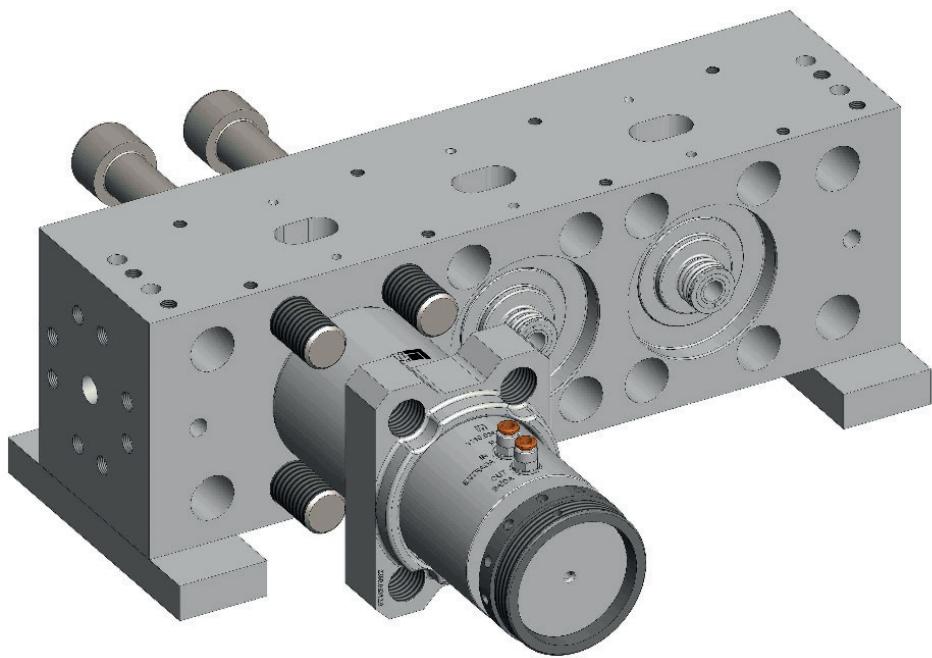
APPLY COPPER GREASE ON THE THREAD OF THE M24 SCREWS THAT FIX THE ASSEMBLED HEAD WITH THE FORK. TIGHT "X" WITH 100Nm, 250Nm AND 400Nm TORQUE STEPS.

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.

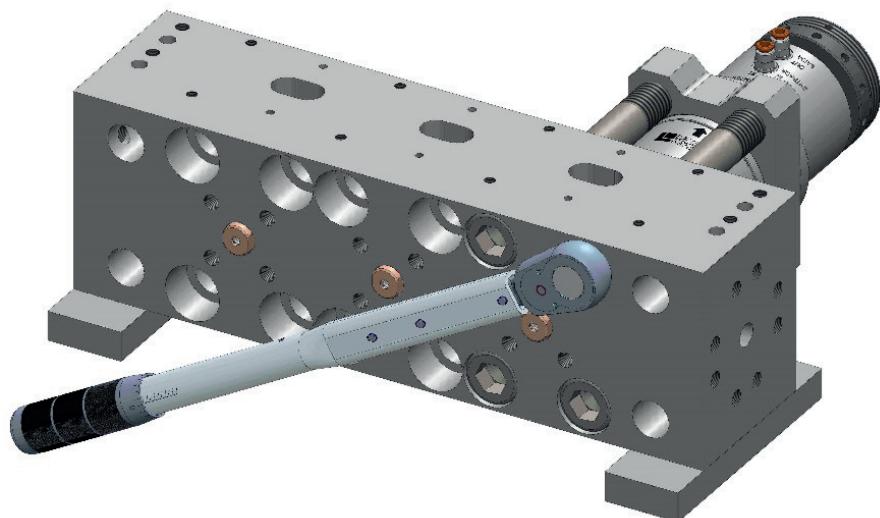
Fig. 07

ASSEMBLING THE UAP 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 COPPER GREASE ON THREADS).

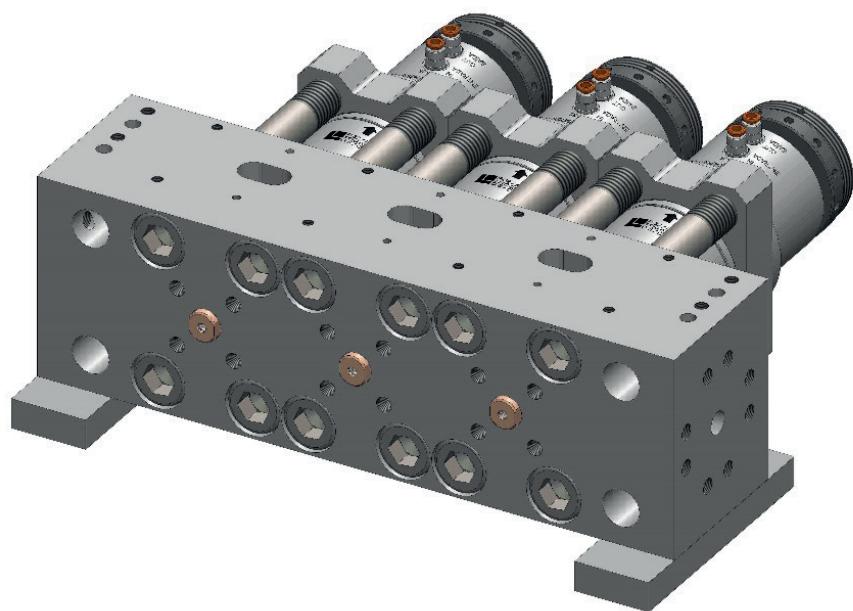
Fig. 08



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

Fig. 09

ASSEMBLING THE UAP G-IV PUMP HEAD



REPEAT THE PROCESS FOR THE OTHER TWO PLUNGERS.

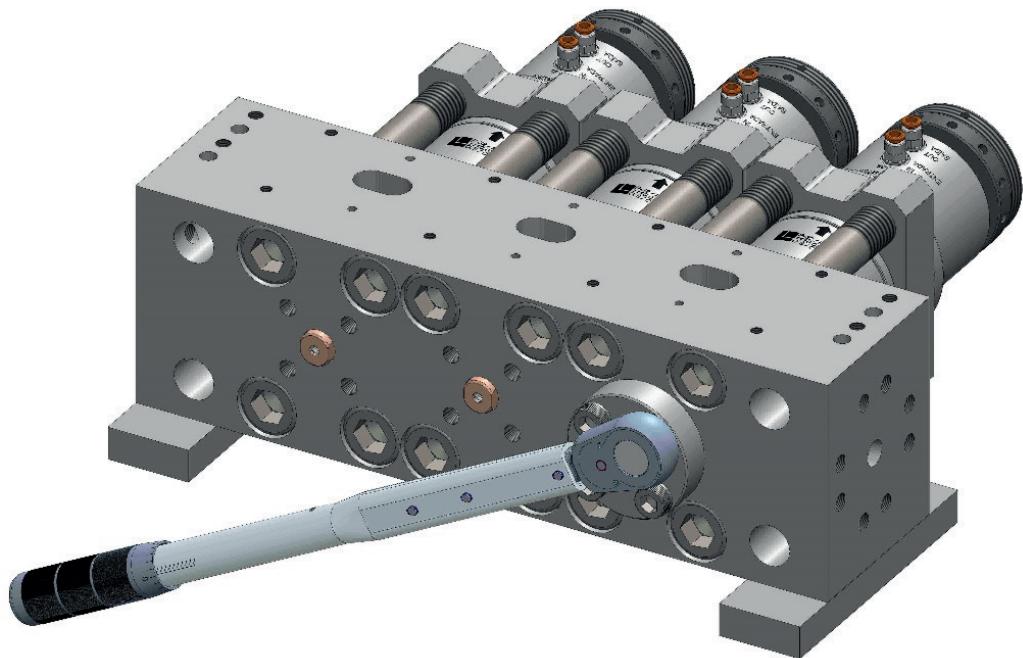
Fig. 10



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

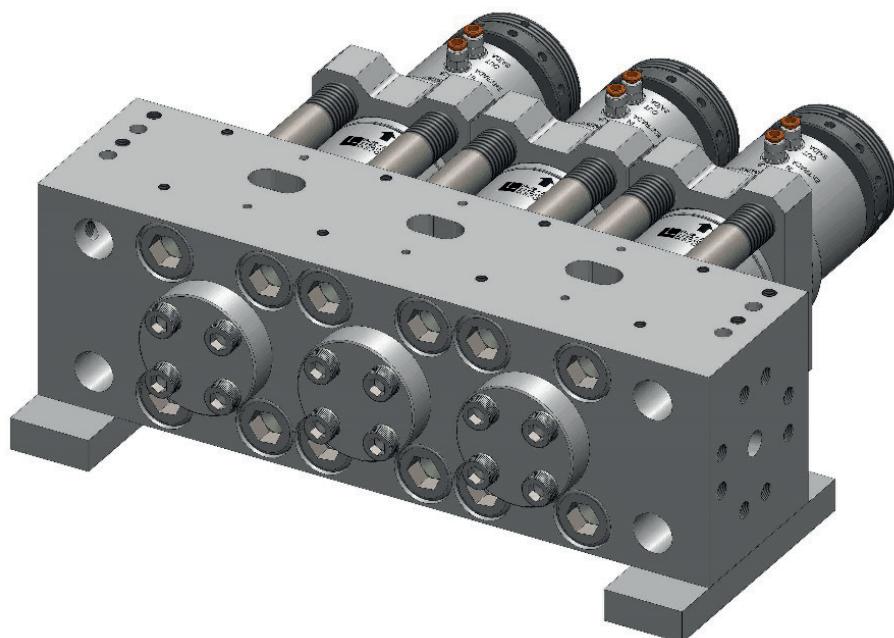
Fig. 11

ASSEMBLING THE UAP G-IV PUMP HEAD



APPLY COPPER 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

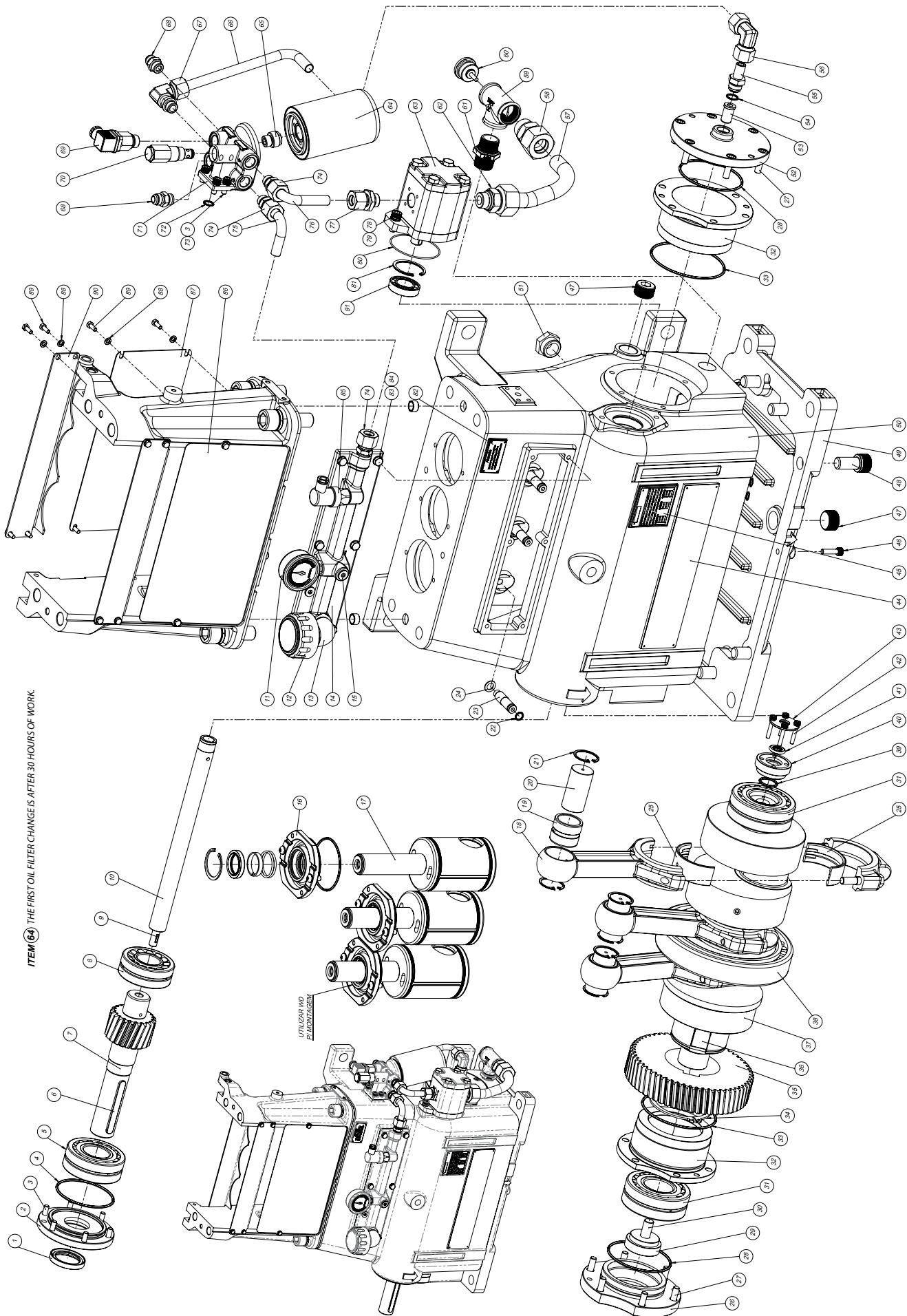


REPEAT THE PROCESS FOR THE OTHER TWO FLANGES.

Fig. 13

POWER END PARTS

(see codes on the next page)



ITEM 6* THE FIRST OIL FILTER CHANGE IS AFTER 30 HOURS OF WORK.

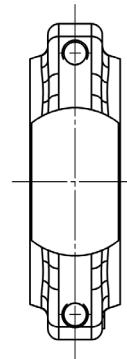
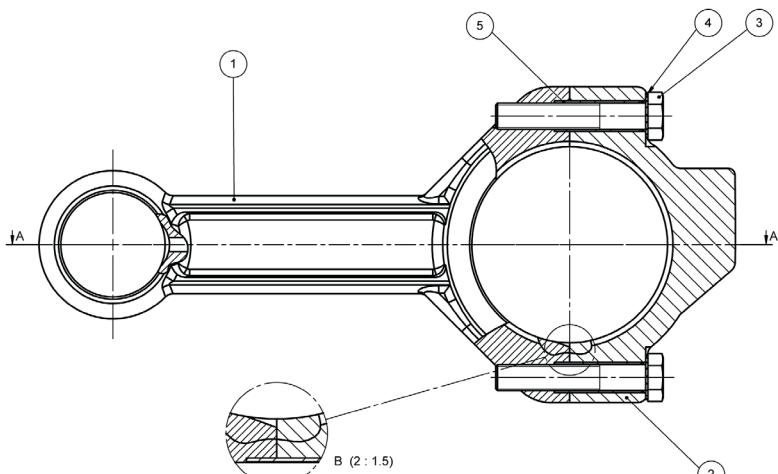
POWER ENDS - H100/2	
CODE	DESCRIPTION
Q2310100110812	H100/2 HORIZONTAL POWER END 1800 RPM (60 Hz)
Q2310100110811	H100/2 HORIZONTAL POWER END 1500 RPM (50 Hz)

POWER END PARTS			
ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005350	OIL SEAL	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	1800 RPM (60 Hz) SHAFT H100/2 – H150/3	1
	Q231110016640	1500 RPM (50 Hz) SHAFT H100/2 – H150/3	1
8	Q231700001510	BEARING	1
9	Q231200003000	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	Q231010011110	PISTON GUIDE H100/2 – H150/3	3
18	Q231010011120	CONNECTING ROD H100/2 – 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 H100/2 – 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

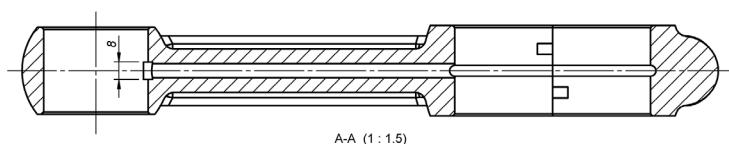
POWER END PARTS			
ITEM	CODE	DESCRIPTION	QTY.
33	Q231300003810	O-RING	2
34	Q231200003620	SEEGER	1
35	Q231110010760	1800 RPM (60 Hz) CROWN H100/2 – H150/3	1
	Q231110016630	1500 RPM (50 Hz) CROWN H100/2 – H150/3	1
36	Q231200001780	KEY	1
37	Q231010007710	CRANKSHAFT H100/2 – H150/3	1
38	Q231700001500	BEARING	1
39	Q231300005360	O-RING	1
40	Q231110011010	BUSHING	1
41	Q231300005020	ROTO GLYD	1
42	Q231200002670	ALLEN SCREW M8x35mm	4
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	Q231110022270	H100/2 – H150/3 COVER (HORIZONTAL PUMPS)	1
	Q231110007170	H100/2 – H150/3 INSPECTION COVER (HORIZONTAL PUMPS)	1
50	Q231010019600	CASE H100/2 – H150/3 (VERTICAL / HORIZONTAL)	1
51	Q233000010080	VISUAL OIL CAP 1"BSP	1
52	Q231110022660	CRANKSHAFT COVER H100/2 – 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	ON REQUEST	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	NIPPLE 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	ON REQUEST	HOSE	1
67	ON REQUEST	COUPLING 90° AC16 X 3/4"UNF	1
68	Q232320002830	NIPPLE 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

POWER END PARTS			
ITEM	CODE	DESCRIPTION	QTY.
72	Q231300001060	O-RING	1
73	Q231200001070	LOCK WASHER M8	4
74	Q232320018110	COUPLING AC16 X 3/4" UNF	3
75	ON REQUEST	HOSE	1
76	ON REQUEST	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
82	Q233000017940	METAL PLATE TORQUE IDENTIFICATION	1
83	Q231200008280	SCREW HEXAGONAL HEAD M8x20mm	6
84	Q231200004020	WASHER M8	6
85	Q231010010740	PRESSURE SWITCH	1
86	Q231110044970	PISTON FRONT COVER	1
87	Q232380029570	PISTON REAR COVER	1
88	Q231200001910	WASHER M6	14
89	Q231200001890	HEXAGONAL SCREW M6x16mm	14
90	Q232380029580	JACKET COVER	2
91	Q231700001950	BEARING	1

CONNECTING RODS - CODE Q231010011120

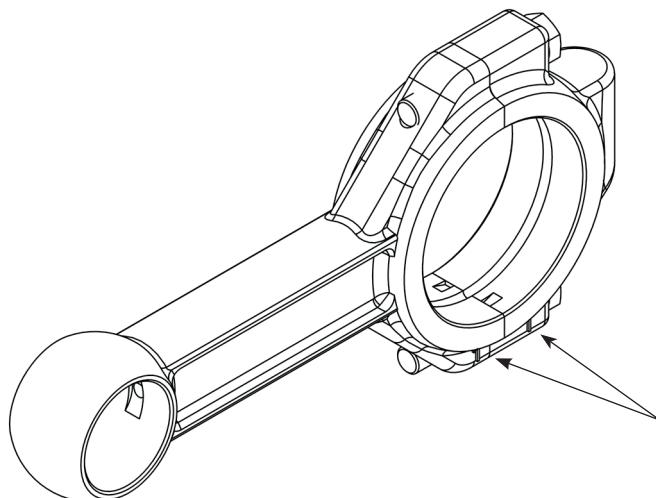


BOLT TORQUE: 110 N



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

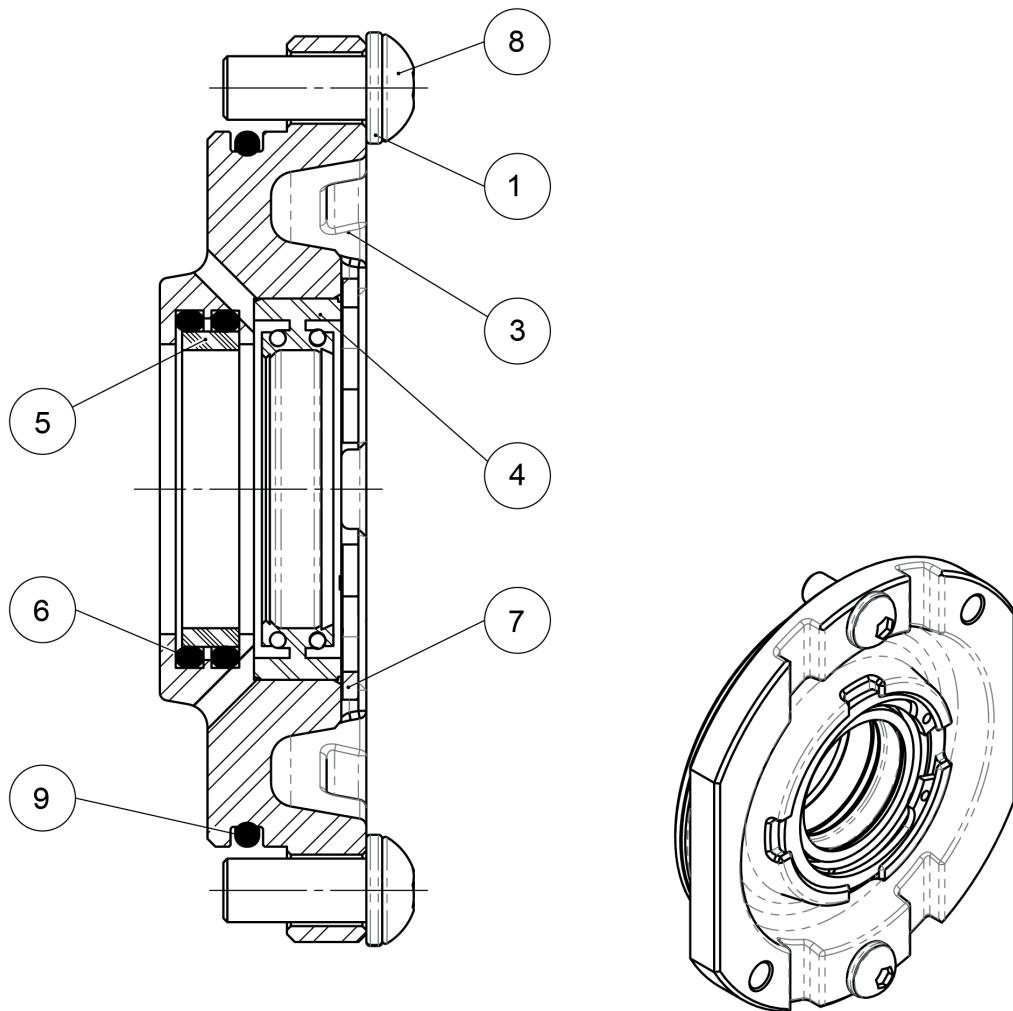


ATTENTION!
ASSEMBLE WITH NUMBERS
FACING THE SAME SIDE

⚠ Attention!

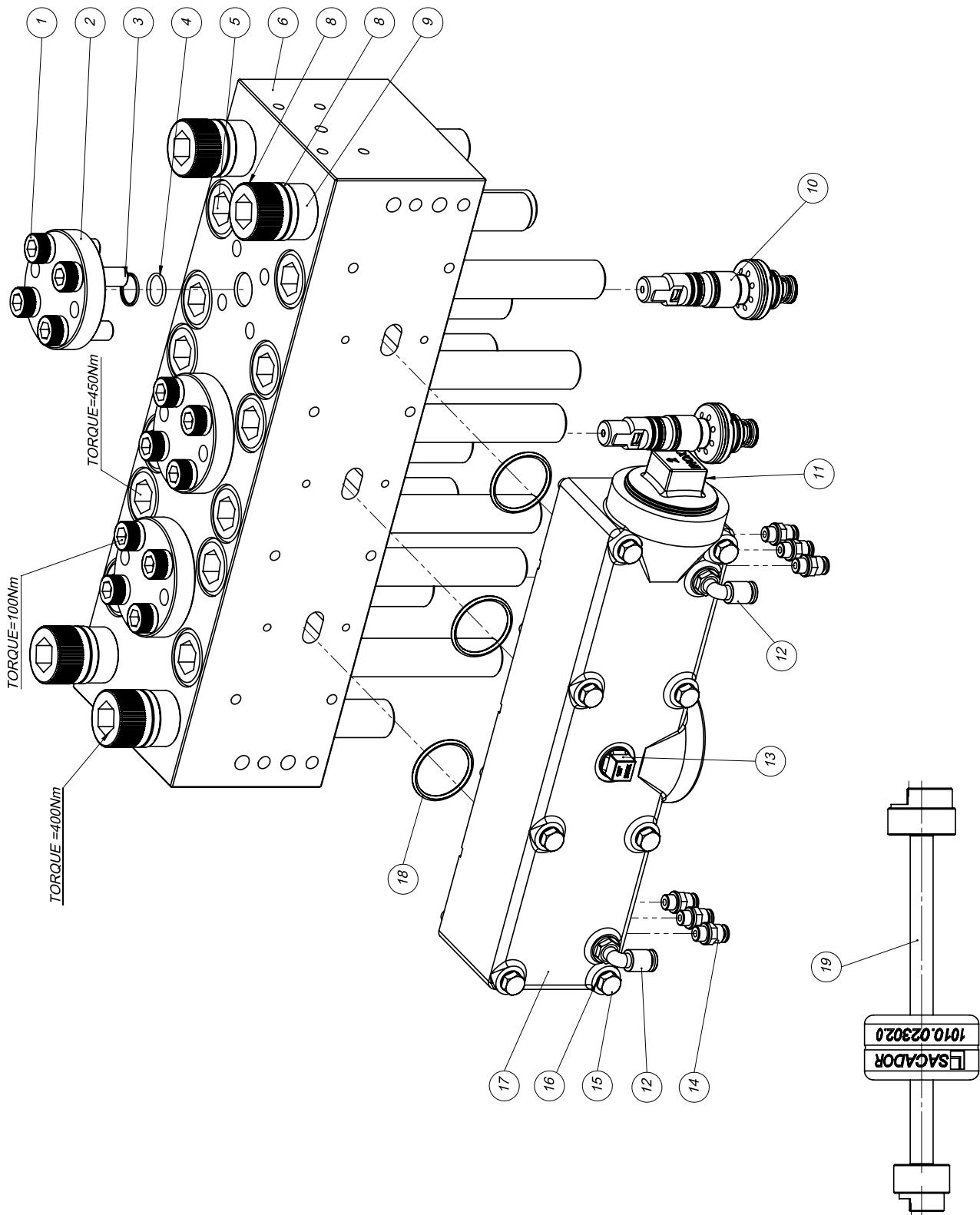
- All connecting rods are numbered.
- Always assemble arm and bearing of the connecting rod so that the unsequenced number is shown.
- Never replace arms and bearing by a connecting rod from a different set.

OIL SEAL CAGE - CODE Q231010010971



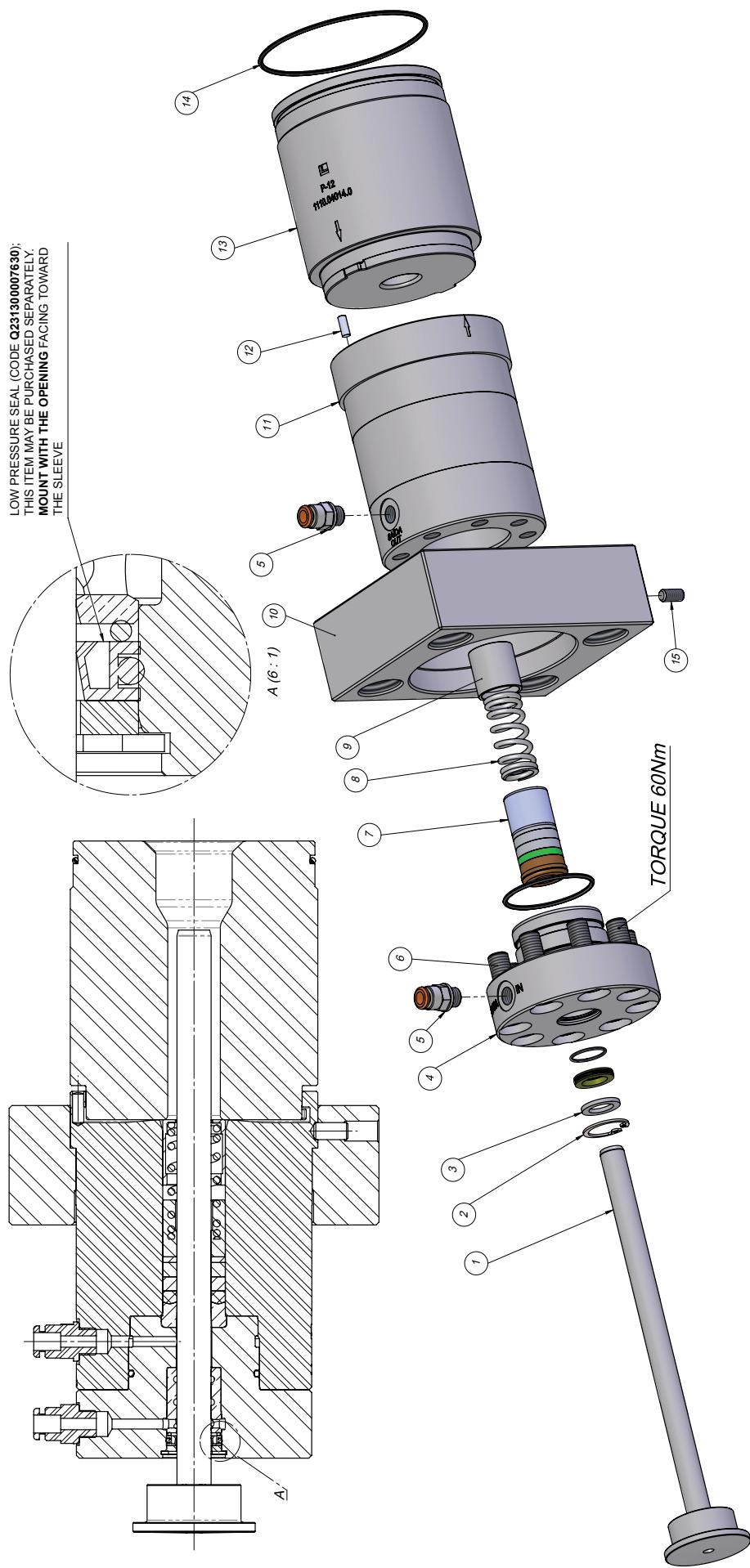
*	ITEM	CODE	DESCRIPTION	QTY.
	1	Q231200001070	WASHER	2
* Note: Common wear parts or disposable				
	3	Q231110044260	OIL SEAL CAGE	1
	4	Q231300011340	OIL SEAL	1
	5	Q231300011210	SLIDING RING	1
	6	Q231300001910	O-RING	2
	7	Q231200001540	SEEGER RING	1
	8	Q231200007960	SCREW M8X20mm	2
	9	Q231300001170	O-RING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

PUMP HEAD - CODE Q231010017210

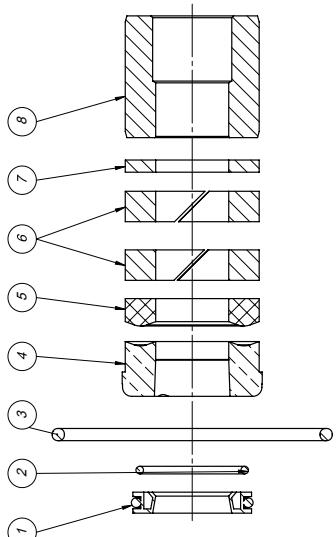


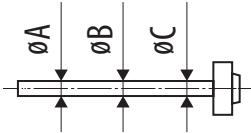
PUMP HEAD - CODE Q231010017210			
ITEM	CODE	DESCRIPTION	QTY.
1	Q231200002930	ALLEN SCREW M12x35mm	12
2	Q231110036680	FRONTAL FLANGE UAP IV	3
3	Q231300010630	BACK RING	3
4	Q231300008790	O-RING	3
5	Q231200009410	ALLEN SCREW M24x200mm	12
6	Q231110034230	MANIFOLD UAP IV	1
8	Q231200009980	ALLEN SCREW M24x180mm	4
8	Q231200003630	SPRING WASHER M24	4
9	Q231110036920	SPACING BUSHING G-IV	4
10	Q231010017100	INTELLIVALVE UAP IV	3
11	Q232320018770	INOX CAP 2" BSP	1
12	Q232320003770	COUPLING 1/4"x8mm	2
13	Q232320009440	INOX CAP 1/2" BSP	1
14	Q232320003030	COUPLING 1/8"x6mm	6
15	Q231200007260	HEXAGONAL HEAD SCREW M8x90mm	8
16	Q231200001070	SPRING WASHER M8	8
17	Q231110016770	SUCTION DUCT	1
18	Q231300001930	O-RING	3
19	Q231010023020	DISASSEMBLING TOOL	1

PLUNGER KIT (P-12) - CODE Q231010022150



SEALING KIT (P-12)
CODE Q231020002124





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

ANALYSE PLUNGER DIMENSIONS WHEN CHANGING THE SEALS OR EVERY 200 HOURS RESPECT THE WEAR LIMIT.

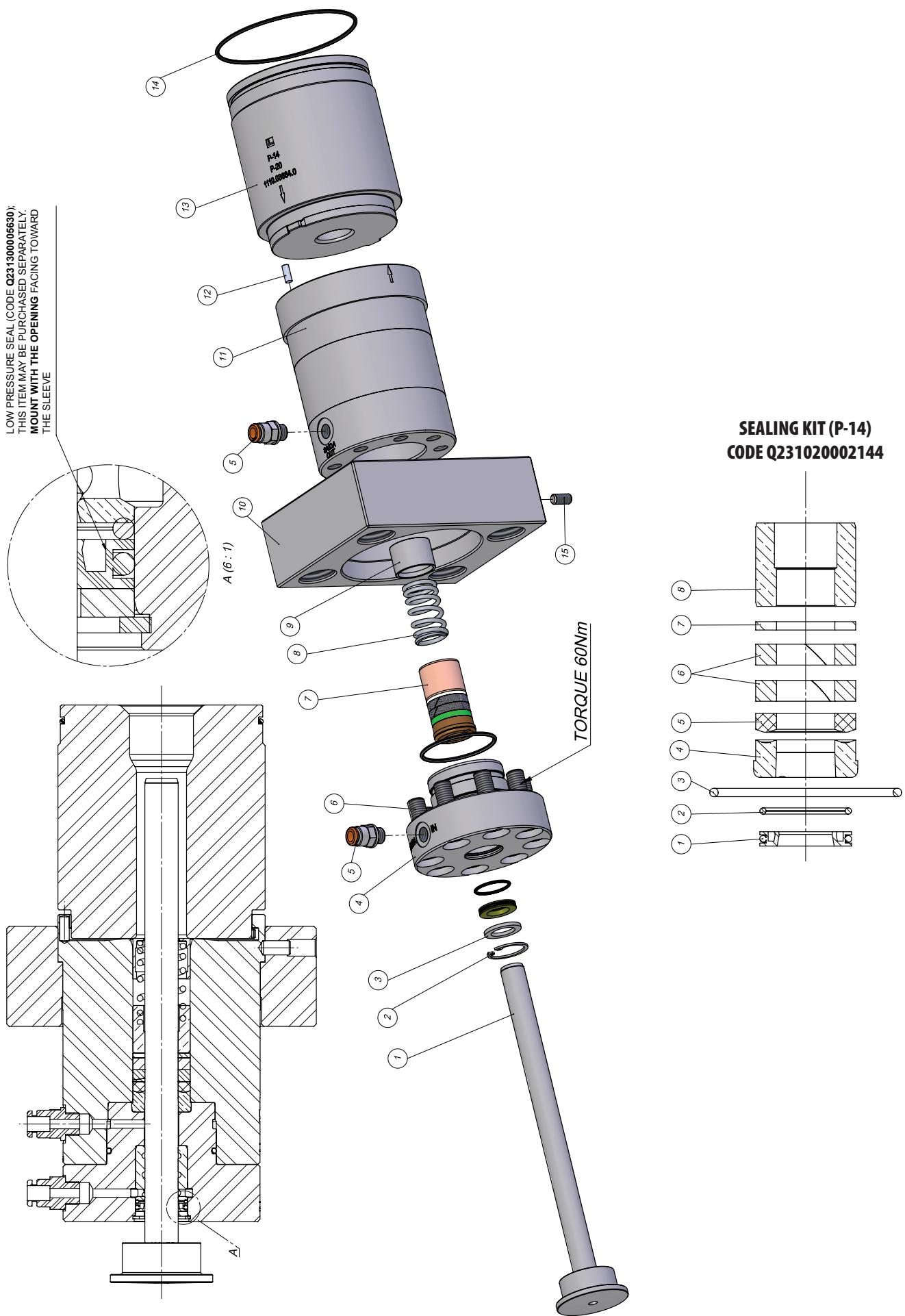
PLUNGER KIT (P-12) - CODE Q231010022150

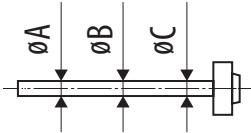
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010022161	PLUNGER D.12 UAP IV	3
2	Q231200011260	ELASTIC RING	3
3	Q231110037650	BACK RING P-12	3
4	Q231010022170	SUP. FLANGE W/ SLIDE SLEEVE P-12	3
5	Q232320003030	COUPLING 1/8"x6mm	6
6	Q231200001400	ALLEN SCREW M10x25mm	24
7	Q231020002124	SEALING KIT P-12 UAP IV	1(*)
8	Q231500002160	SPRING P-12 UAP IV	3
9	Q231110036300	SEALING SPRING GUIDE P-12	3
10	Q231110041100	FLANGE G-IV	1
11	Q231110040130	SLEEVE P-12 UAP IV	3
12	Q231200007530	GUIDE PIN Ø4x10mm	3
13	Q231110040140	P-12 UAP IV FRONTAL SLEEVE	3
14	Q231300002420	O-RING	3
15	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3

(*) SEALING KIT (P-12) - CODE Q231020002124

ITEM	CODE	DESCRIPTION	QTY.
1	Q231300007630	LOW PRESSURE SEAL P-12	3
2	Q231300005990	O-RING	3
3	Q231300001370	O-RING	3
4	Q231300010901	LOWER SUPPORT RING P-12	3
5	Q231300010890	V SEALING P-12	3
6	Q231300007580	BRAIDED PACKING P-12	6
7	Q231300007670	RING P-12	3
8	Q231300008580	UPPER SUPPORT RING P-12	3

PLUNGER KIT (P-14) - CODE Q231010020740





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

ANALYSE PLUNGER DIMENSIONS WHEN CHANGING THE SEALS OR EVERY 200 HOURS RESPECT THE WEAR LIMIT.

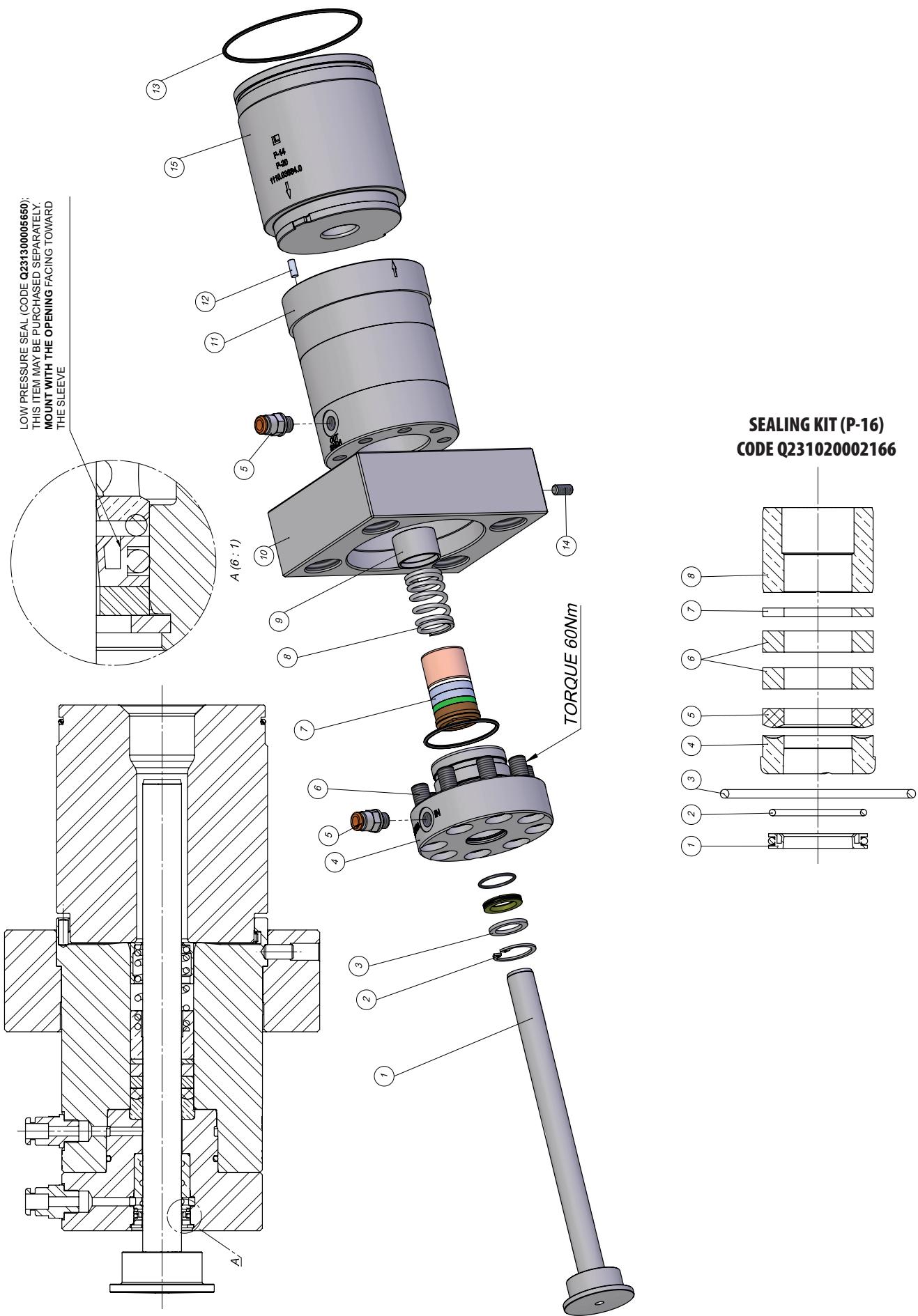
PLUNGER KIT (P-14) - CODE Q231010020740

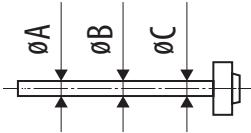
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010020751	PLUNGER D.14 UAP IV	3
2	Q231200010570	ELASTIC RING	3
3	Q231110037660	BACK RING P-14	3
4	Q231010022090	SUP. FLANGE W/ SLIDE SLEEVE P-14	3
5	Q232320003030	COUPLING 1/8"x6mm	6
6	Q231200001400	ALLEN SCREW M10x25mm	24
7	Q231020002144	SEALING KIT P-14 UAP IV	1(*)
8	Q231500002290	SPRING P-14 UAP IV	3
9	Q231110036210	SEALING SPRING GUIDE P-14	3
10	Q231110041100	FLANGE G-IV	1
11	Q231110037870	SLEEVE P-14 UAP IV	3
12	Q231200007530	GUIDE PIN Ø4x10mm	3
13	Q231110036840	P-14 TO P-20 UAP IV FRONTAL SLEEVE	3
14	Q231300002420	O-RING	3
15	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3

(*) SEALING KIT (P-14) - CODE Q231020002144

ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005630	LOW PRESSURE SEAL P-14	3
2	Q231300003700	O-RING	3
3	Q231300001370	O-RING	3
4	Q231300010851	LOWER SUPPORT RING P-14	3
5	Q231300010810	V SEALING P-14	3
6	Q231300003940	BRAIDED PACKING P-14	6
7	Q231300003830	RING P-14	3
8	Q231300008490	UPPER SUPPORT RING P-14	3

PLUNGER KIT (P-16) - CODE Q231010018460





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

ANALYSE PLUNGER DIMENSIONS WHEN CHANGING THE SEALS OR EVERY 200 HOURS RESPECT THE WEAR LIMIT.

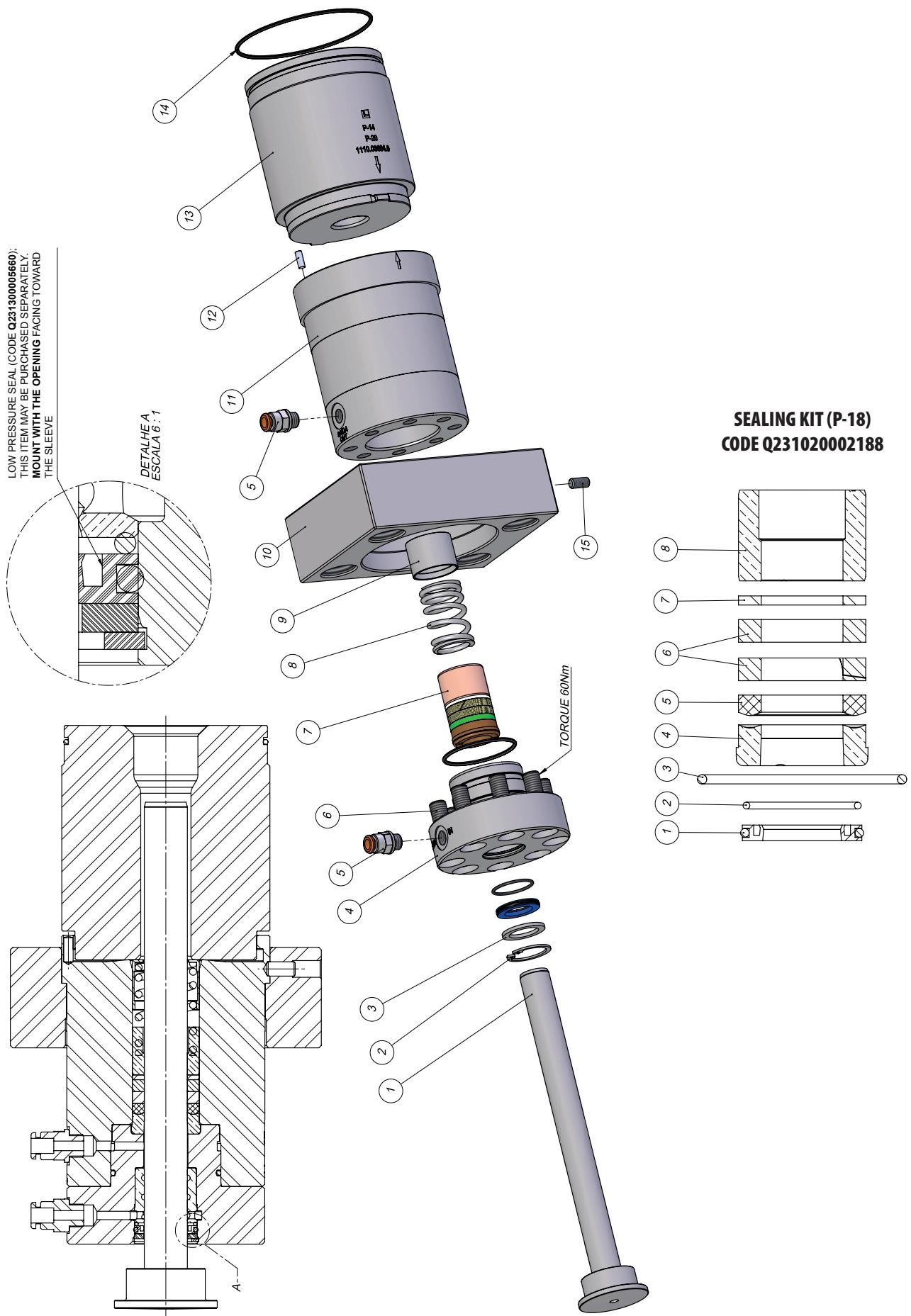
PLUNGER KIT (P-16) - CODE Q231010018460

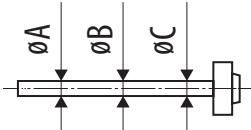
ITEM	CODE	DESCRIPTION	QTY.
1	Q231010018471	PLUNGER D.16 UAP IV	3
2	Q231200010840	ELASTIC RING	3
3	Q231110037670	BACK RING P-16	3
4	Q231010022100	SUP. FLANGE W/ SLIDE SLEEVE P-16	3
5	Q232320003030	COUPLING 1/8"x6mm	6
6	Q231200001400	ALLEN SCREW M10x25mm	24
7	Q231020002166	SEALING KIT P-16 UAP IV	1(*)
8	Q231500002240	SPRING P-16 UAP IV	3
9	Q231110035620	SEALING SPRING GUIDE P-16	3
10	Q231110041100	FLANGE G-IV	1
11	Q231110035060	SLEEVE P-16 UAP IV	3
12	Q231200007530	GUIDE PIN Ø4x10mm	3
13	Q231300002420	O-RING	3
14	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3
15	Q231110036840	P-14 TO P-20 UAP IV FRONTAL SLEEVE	3

(*) SEALING KIT (P-16) - CODE Q231020002166

ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005650	LOW PRESSURE SEAL P-16	3
2	Q231300006050	O-RING	3
3	Q231300001370	O-RING	3
4	Q231300010861	LOWER SUPPORT RING P-16	3
5	Q231300010820	V SEALING P-16	3
6	Q23130003950	BRAIDED PACKING P-16	6
7	Q231300003840	RING P-16	3
8	Q231300008500	UPPER SUPPORT RING P-16	3

PLUNGER KIT (P-18) - CODE Q231010019940





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

ANALYSE PLUNGER DIMENSIONS WHEN CHANGING THE SEALS OR EVERY 200 HOURS RESPECT THE WEAR LIMIT.

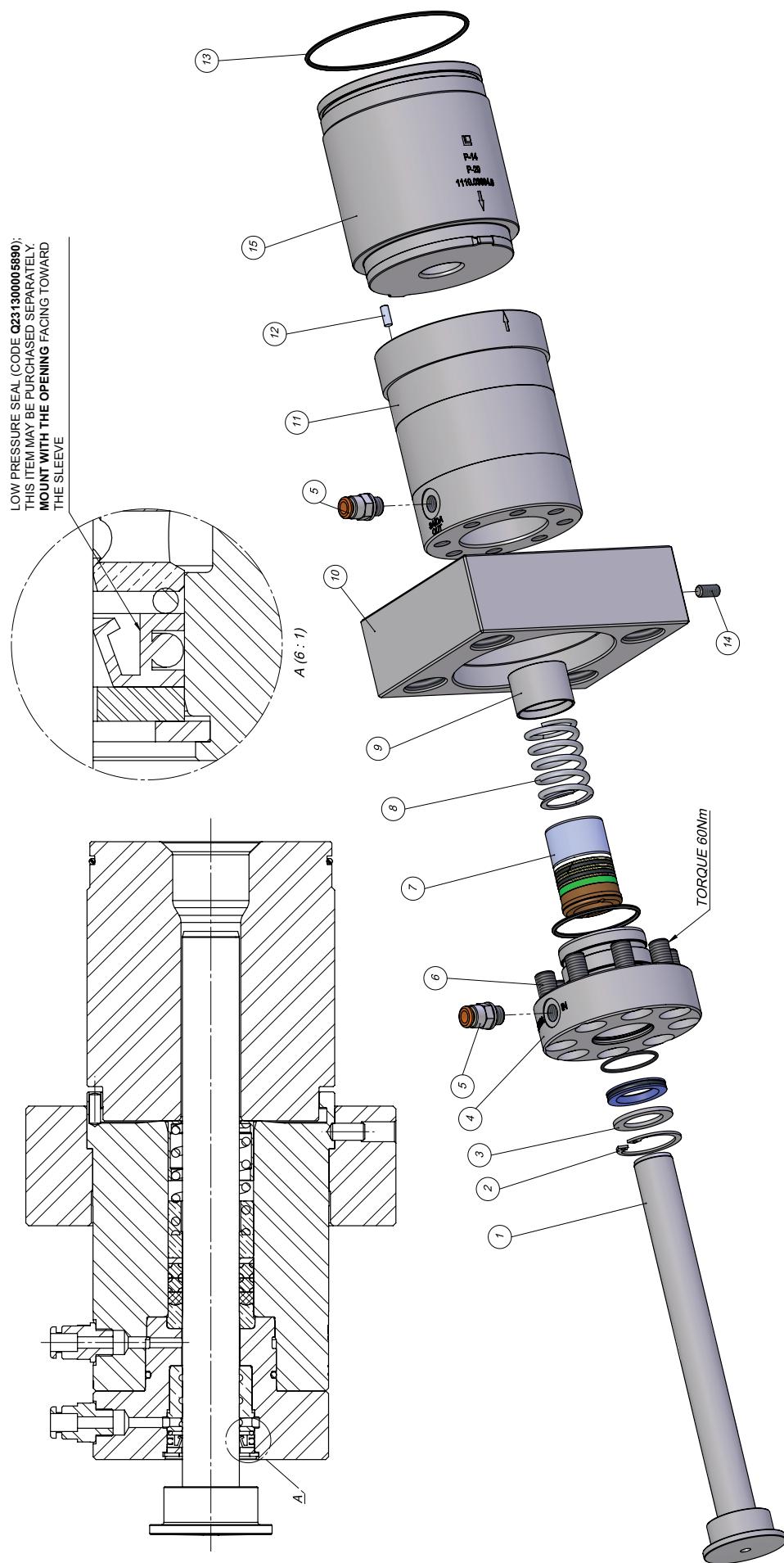
PLUNGER KIT (P-18) - CODE Q231010019940

ITEM	CODE	DESCRIPTION	QTY.
1	Q231010019951	PLUNGER D.18 UAP IV	3
2	Q231200010620	ELASTIC RING	3
3	Q231110037680	BACK RING P-18	3
4	Q231010022110	SUP. FLANGE W/ SLIDE SLEEVE P-18	3
5	Q232320003030	COUPLING 1/8"x6mm	6
6	Q231200001400	ALLEN SCREW M10x25mm	24
7	Q231020002188	SEALING KIT P-18 UAP IV	1(*)
8	Q231500001930	SPRING P-18 UAP IV	3
9	Q231110036820	SEALING SPRING GUIDE P-16	3
10	Q231110041100	FLANGE G-IV	1
11	Q231110036830	SLEEVE P-18 UAP IV	3
12	Q231200007530	GUIDE PIN Ø4x10mm	3
13	Q231110036840	P-14 TO P-20 UAP IV FRONTAL SLEEVE	3
14	Q231300002420	O-RING	3
15	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3

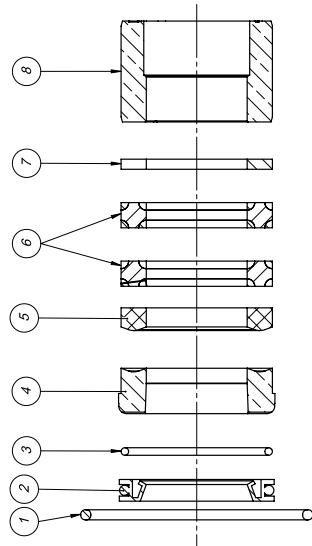
(*) SEALING KIT (P-18) - CODE Q231020002188

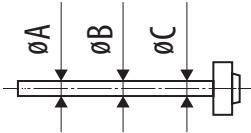
ITEM	CODE	DESCRIPTION	QTY.
1	Q231300005660	LOW PRESSURE SEAL P-18	3
2	Q231300006060	O-RING	3
3	Q231300001370	O-RING	3
4	Q231300010871	LOWER SUPPORT RING P-18	3
5	Q231300010830	V SEALING P-18	3
6	Q23130003960	BRAIDED PACKING P-18	6
7	Q231300003850	RING P-18	3
8	Q231300008750	UPPER SUPPORT RING P-18 UAP	3

PLUNGER KIT (P-20) - CODE Q231010017200



**SEALING KIT (P-20)
CODE Q231020002204**





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

ANALYSE PLUNGER DIMENSIONS WHEN CHANGING THE SEALS OR EVERY 200 HOURS RESPECT THE WEAR LIMIT.

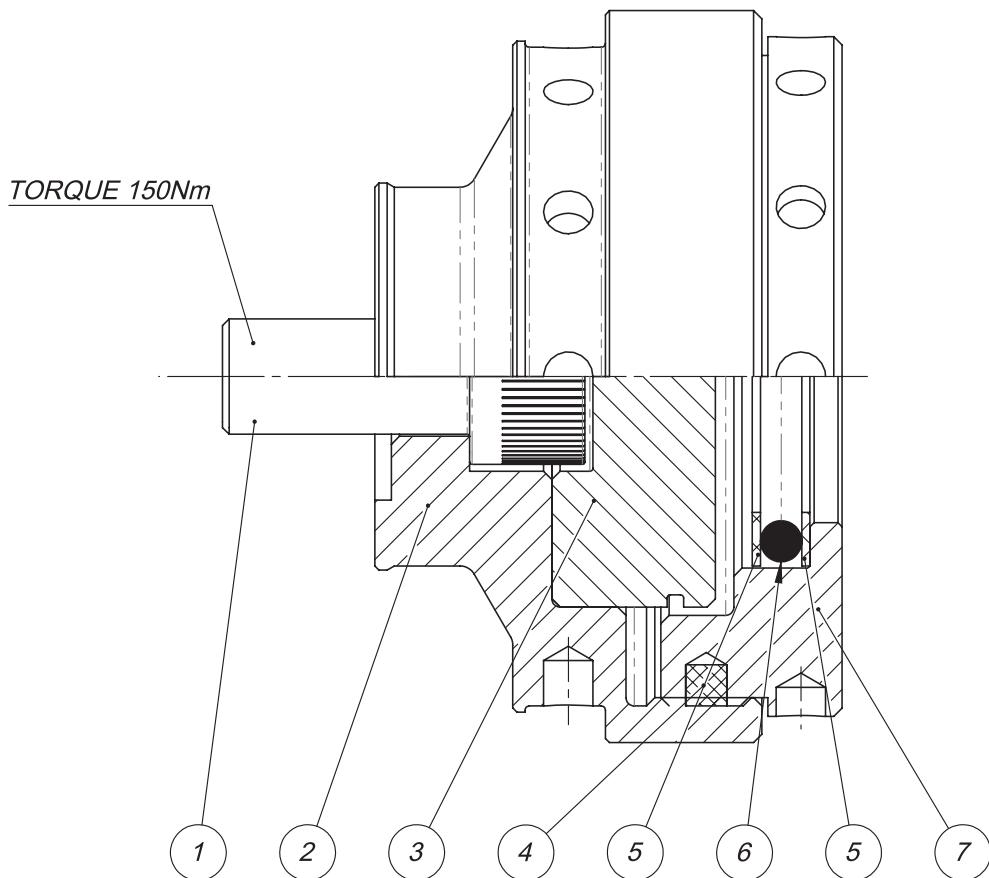
PLUNGER KIT (P-20) - CODE Q231010017200

ITEM	CODE	DESCRIPTION	QTY.
1	Q231010017221	PLUNGER D.20 UAP IV	3
2	Q231200010580	ELASTIC RING	4
3	Q231110037690	BACK RING P-20	3
4	Q231010022120	SUP. FLANGE W/ SLIDE SLEEVE P-20	3
5	Q232320003030	COUPLING 1/8"x6mm	6
6	Q231200001400	ALLEN SCREW M10x25mm	24
7	Q231020002204	SEALING KIT P-20 UAP IV	1(*)
8	Q231500002060	SPRING P-20 UAP IV	3
9	Q231110034300	SEALING SPRING GUIDE P-20	3
10	Q231110041100	FLANGE G-IV	1
11	Q231110034290	SLEEVE P-20 UAP IV	3
12	Q231200007530	GUIDE PIN Ø4x10mm	3
13	Q231300002420	O-RING	3
14	Q231200002640	ALLEN SCREW WITHOUT HEAD M6x12mm	3
15	Q231110036840	P-14 TO P-20 UAP IV FRONTAL SLEEVE	3

(*) SEALING KIT (P-20) - CODE Q231020002204

ITEM	CODE	DESCRIPTION	QTY.
1	Q231300001370	O-RING	3
2	Q231300005890	LOW PRESSURE SEAL P-20	3
3	Q231300006660	O-RING	3
4	Q231300010881	LOWER SUPPORT RING P-20	3
5	Q231300010840	V SEALING P-20	3
6	Q231300008360	BRAIDED PACKING P-20	6
7	Q231300008370	RING P-20	3
8	Q231300009190	UPPER SUPPORT RING P-20	3

SELF CENTERING G-IV (FROM P-12 TO P-20) - CODE Q231010016940



ITEM	CODE	DESCRIPTION	QTY.
1	Q231200002970	ALLEN SCREW M14x30mm	1
2	Q231110036110	CONNECTION BUSHING (G-IV)	1
3	Q231110040020	SELF CENTERING SUPPORT (G-IV)	1
4	Q231110010280	NYLON CYLINDER	1
5	Q231110007240	BACK UP RING (G-IV)	2
6	Q231300003610	O-RING	1
7	Q231110038030	SELF CENTERING UPPER SUPPORT (G-IV)	1



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