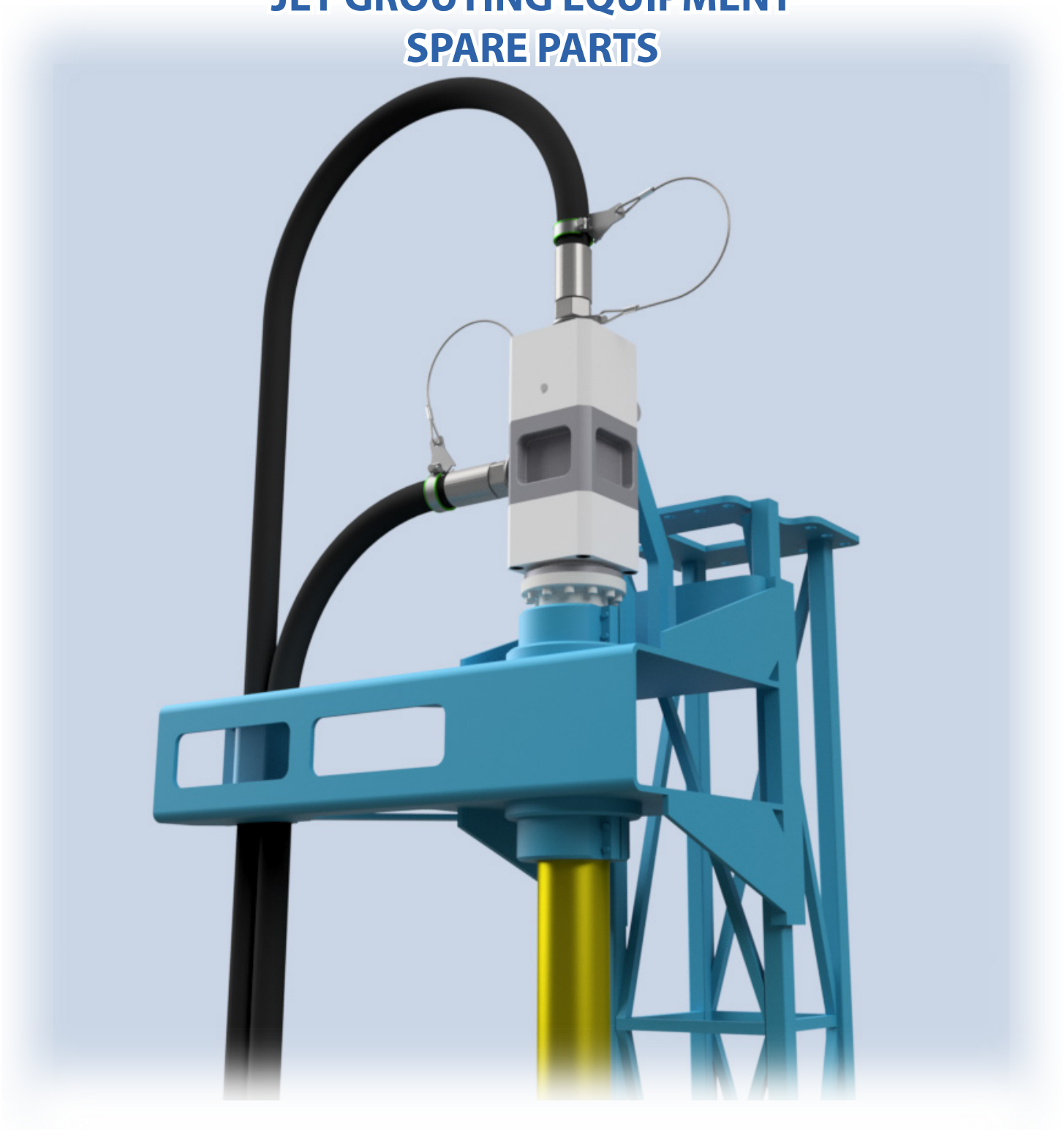
ELENCO RICAMBI
ATTREZZATURE JET GROUTING

JET GROUTING EQUIPMENT
SPARE PARTS

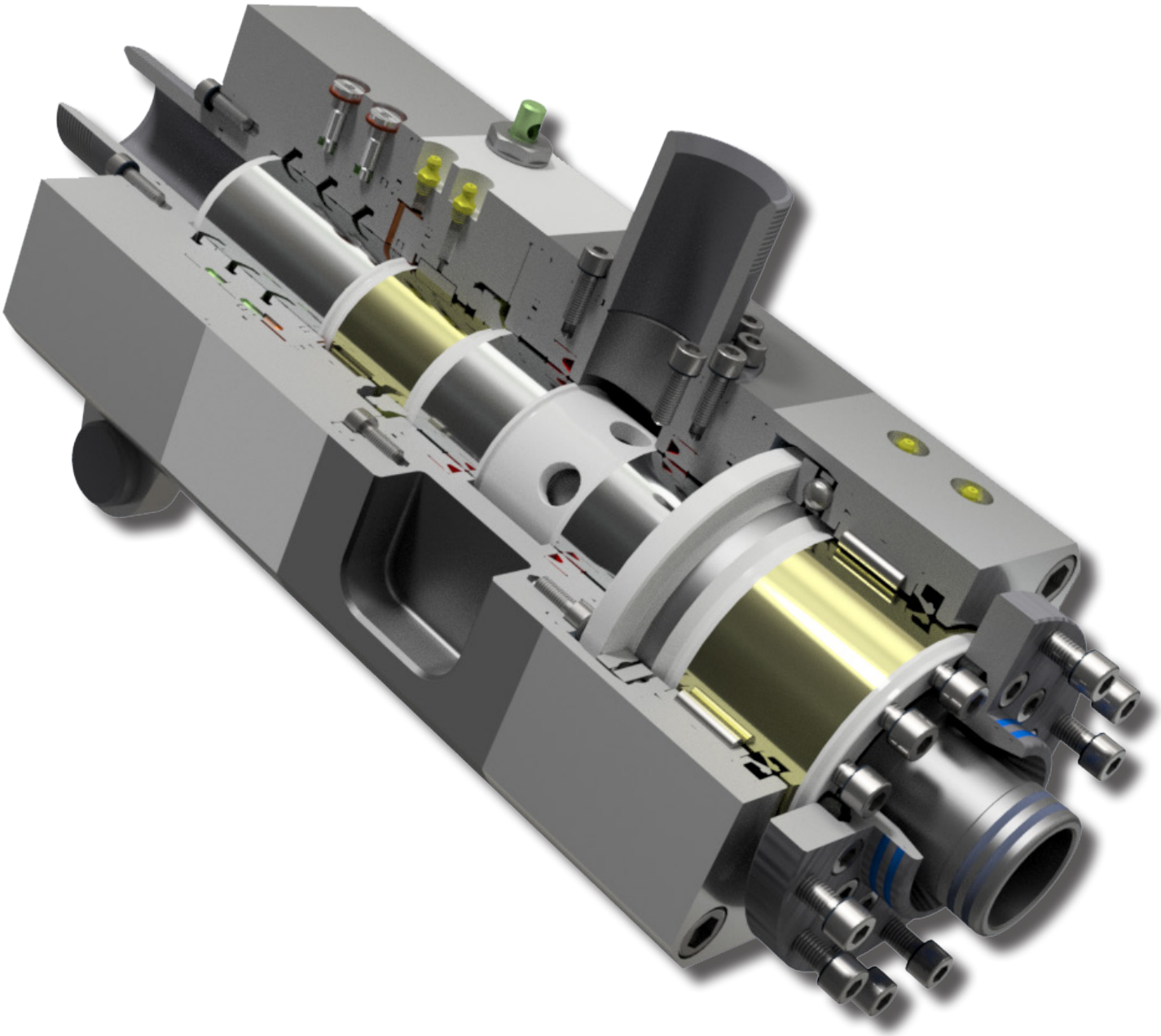


INDEX

1 REVISIONI DOCUMENTO - DOCUMENT REVISIONS

REV. No.	DATE	DESCRIPTION
1	22-06-2004	Revisione generale.
2	19-03-2005	Aggiunto § 9.2.
3	28-06-2007	Variato § 1.1 e § 7.3 per nuove guarnizioni.
4	02-12-2007	Variato § 3 per aggiunta Modular swivel. Aggiunto § 11 Strajet e § 12 C2H D.114.
5	12-05-2008	Variato § 6.1 e 6.2 per sostituzione testa K3 D.90 con K3 D.114 vers. 90. Variato § 7.2 per aggiunta porta guarnizione pos. 44. Variati § 8-9.1-10 per aggiunta codici aste heavy-duty. Aggiunti § 10.1 per Wassara una via e § 10.3 per esploso monitor DTH Wassara.
6	25-09-2008	Variati titoli tipologie di perforazione per corrispondenza con definizioni commerciali. Variato monitor K3 d.114.
7	05-02-2009	Pag. 14/108: rif. Item 13, codice MR-B181141 sostituito da 889K3011. Pag. 23/108: rif. Item 4, 8C2TS656(**) sostituito da 8C2TS656(*). Pag. 26/108: rif. Item 2, D-699-3-4-1 sostituito da 8C214553. Pag. 73/108: rif. Item 4, 8C2T706(**) sostituito da 8C2TS706 (*).
8	05-07-2013	Revisione generale
9	20-01-2015	Revisione impaginazione per raccoglitore ad anelli. Modificato §3.9: asta D.114 K3 (era con nipplo).
10	15-03-2016	Aggiunti swivels D.114 T3 e D2; aste D.114 T3 C3 D2; monitor D.114 T3/C3. Aggiunti pesi componenti. Aggiornati codici minuteria.
11	12-02-2018	Modificati codici swivel HP Modular, D2, T3. Aggiunto ugello Strajet IV.
12	24-09-2018	Revisione § 2. aggiunto § 6. Modificati monitor J-8C214483 e J-1C214483. Aggiunto J-1C214483-P.
13	21-06-2022	Revisione generale
14	01-02-2023	Sezione 4: aggiunti §4.20 e 4.21 per monitor C2H HEX80
15	03-05-2023	Sezione 4: aggiunti §4.22 e 4.23
16	02-02-2024	Sezione 4: modificati §4.2 e §4.5 per aggiornamento adattatori monitor a nuova versione senza vite.

2 TESTE ALTA PRESSIONE - HIGH PRESSURE SWIVELS



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INDEX OF PART 2

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2.1 D.76 H.P. JET SWIVEL (140 L/MIN.-500 BAR): J-J00TAL76

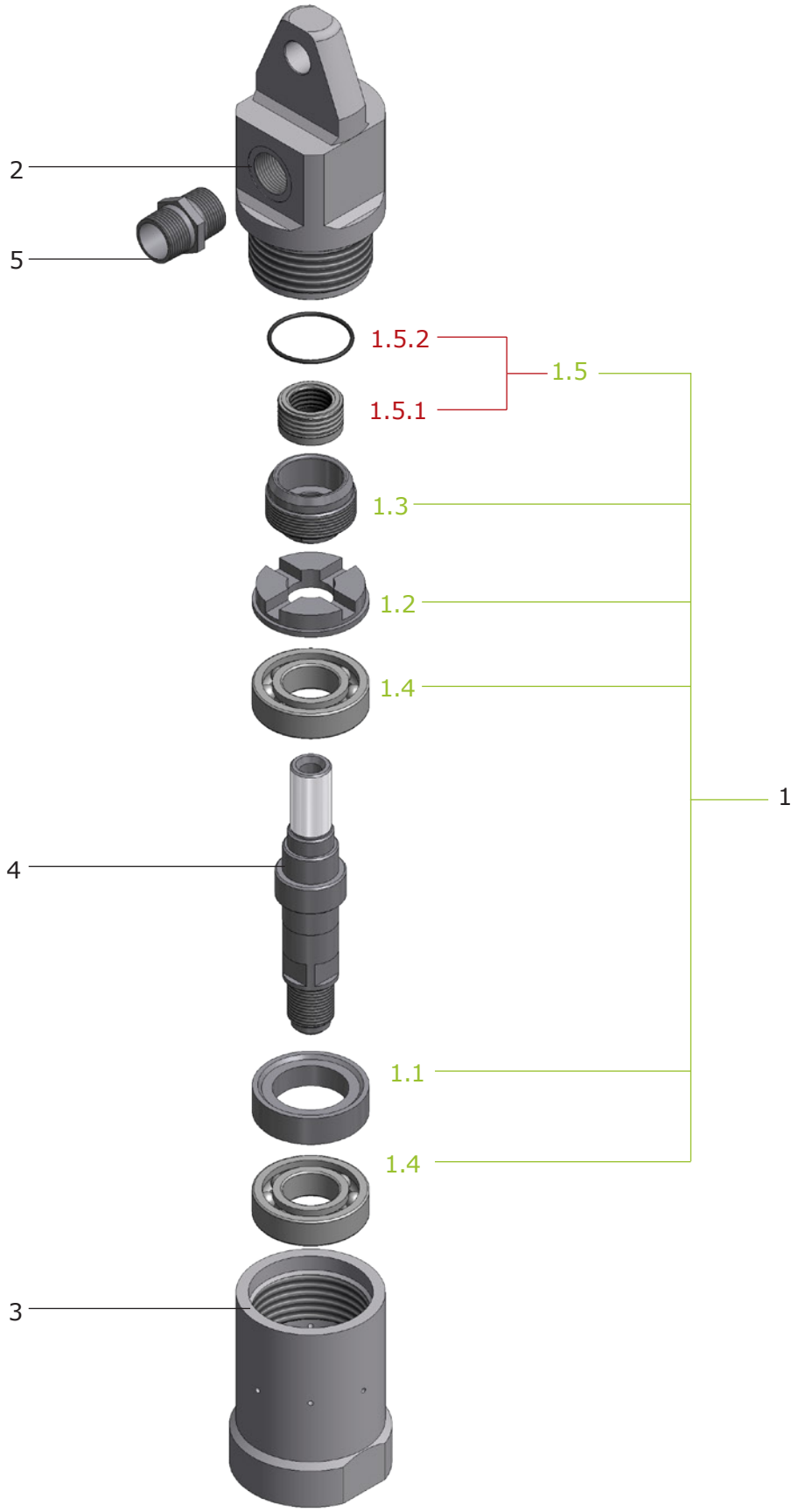
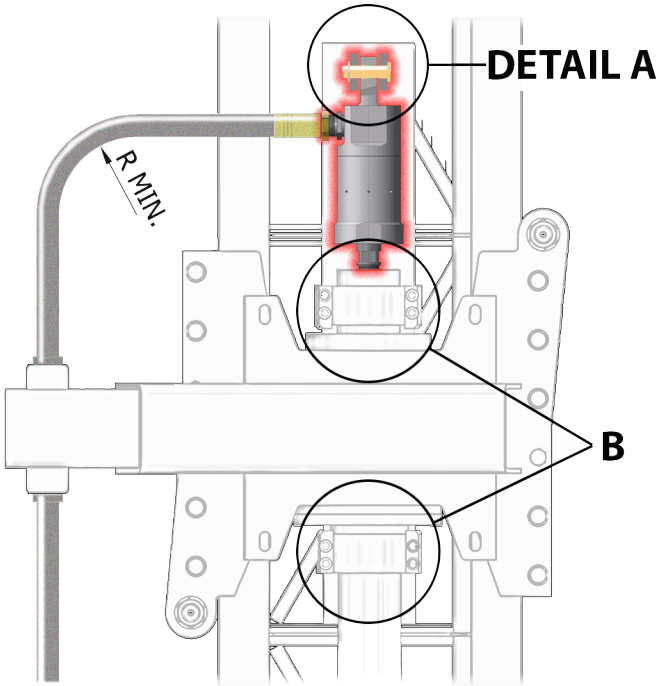
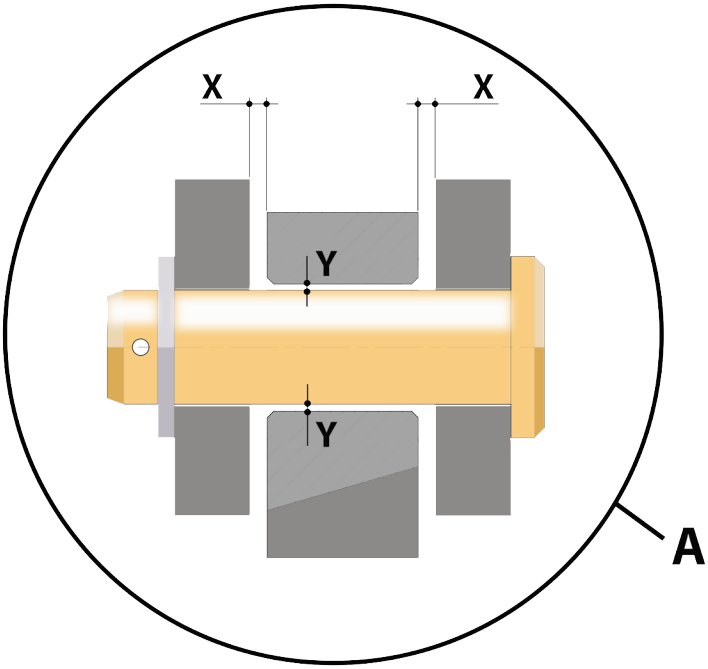


FIG. 2.1

J-J00TAL76 (REF. FIG. 2.1)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-J01TAL76	KIT RICAMBI TESTA A.P.	SWIVEL SPARE PARTS KIT	1	
1.1	*J-J06TAL76*	*DISTANZIALE TESTA J00TAL76 (CUSCINETTI)*	*SWIVEL ROLLER BEARINGS SPACER*	*1*	*(1)*
1.2	*J-J07TAL76*	*DISTANZIALE TESTA A.P. J00TAL76*	*SWIVEL SPACER*	*1*	*(1)*
1.3	*J-J08TAL76*	*DISTANZ. TESTA J00TAL76 (PORTA GUARN.)*	*SWIVEL SEALS HOUSING*	*1*	*(1)*
1.4	*MR-62062RS*	*CUSCINETTO 6206 2RS*	*6206 2RS ROLLER BEARING*	*2*	*(1)*
1.5	*J-J02TAL76*	*KIT GUARNIZ. TESTA A.P.*	*SWIVEL SEALS KIT*	*1*	
1.5.1	*MR-SM137086-1AX*	*SM 137086-1AX RIF. POLYPAC*	*MAIN SEAL SM 137086-1AX REF.*	*1*	*(1)*
1.5.2	*MR-OR223*	*GUARNIZIONE O-RING*	*O-RING SEAL*	*1*	*(1)*
2	J-J03TAL76	CORPO SUP. MASCHIO TESTA J00TAL76	UPPER SWIVEL HEAD MALE	1	
3	J-J04TAL76	CORPO INF. FEMMINA TESTA J00TAL76	LOWER SWIVEL HEAD FEMALE	1	
4	J-J05TAL76	ALBERO TESTA A.P.	SWIVEL SHAFT	1	
5	J-J32NC034	NIPPLO 3/4”	3/4” NIPPLE	1	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY





Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

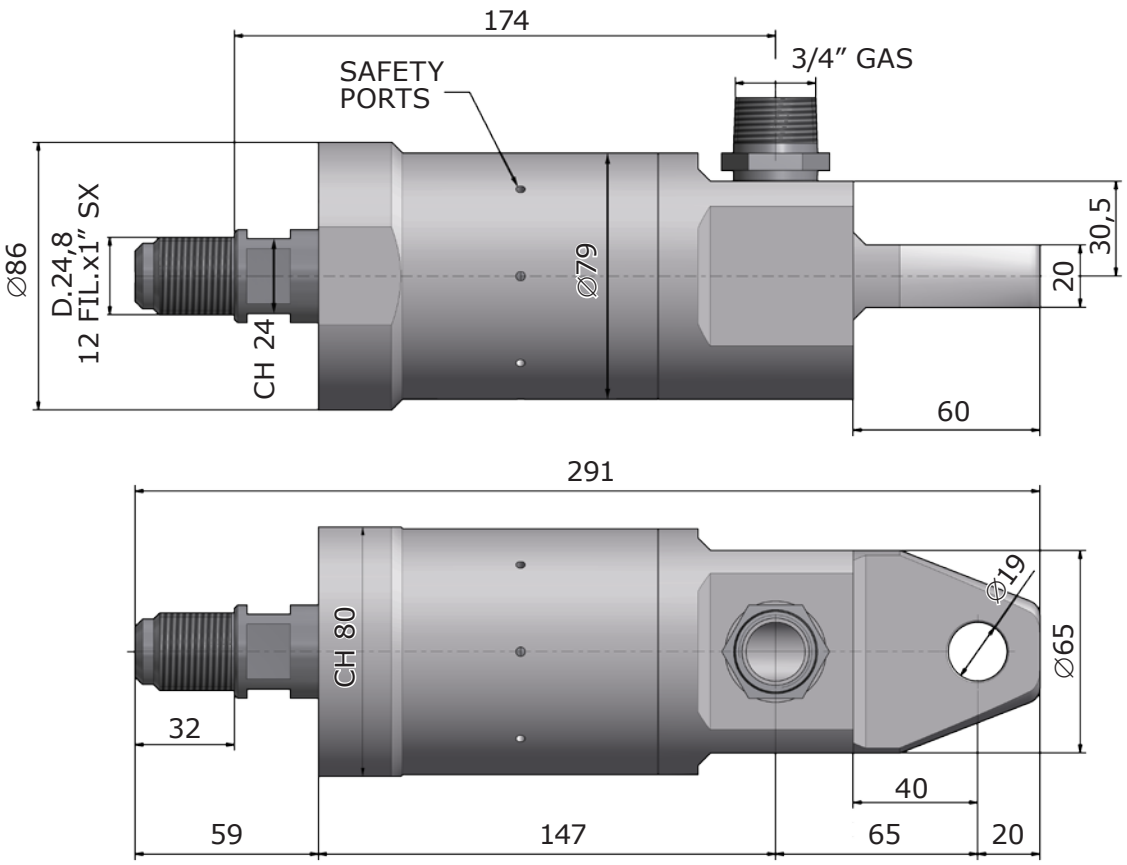
Manutenzione:
Ingrassare i cuscinetti almeno ogni 3h con grasso a base di litio. Cambiare il pacco guarnizioni quando dalla spia posta sotto l'ingresso del cemento (Safety port) si nota una perdita di cemento/acqua.

Maintenance:
Lubricate the roller bearings at least every 3h using lithium based grease. Replace the seals pack when a leackage from the safety port below the grout inlet occurs.

Ancoraggio:
La staffa antigiro e il carrello su cui fissare la testa, devono consentire un'escursione trasversale X di almeno 5 mm e radiale Y di 2 mm (vedi figura).
Nelle applicazioni con mandrino passante si raccomanda l'utilizzo di un carello simile a quello della figura. Il carello prevede due guide (dett. B in figura) fissate all'asta. Eventuali carichi in trazione e spinta sono assorbiti dalle guide. Inoltre le guide hanno una funzione di centratore e minimizzano carichi radiali dovuti alla eventuale eccentricità delle aste di perforazione.

Anchoring:
The anti-rotation bracket and the trolley where the swivel is locked must allow a transversal X gap of 5 mm at least and a Y radial gap of 2 mm (see the figure).
In the hollow clamp application it is reccommended the use of a trolley similar to the one shown in the figure. The trolley has two guides (detail B in the figure) fixed on the rod. Any thrust and pull loads are supported by these guides. Furthermore these guides have a centering function and reduce the radial loads caused by the eventual eccentricity of the drilling rods.

CODICE CODE	J-J00TAL76
PRESSIONE MASSIMA MAX PRESSURE	56 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	40 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	110-130 RPM
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM
TRAZIONE-SPINTA MASSIMA APPLICABILE MAX THRUST-PULL	2 KN
MEDIA MEDIUM	ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATRE AND GROUT-WATER MIX (RATIO G:W MAX 1,4)
PESO WEIGHT	3 KG



2.2 D.90 H.P. JET SWIVEL (410 L/MIN.-560 BAR): J-8C2TS650

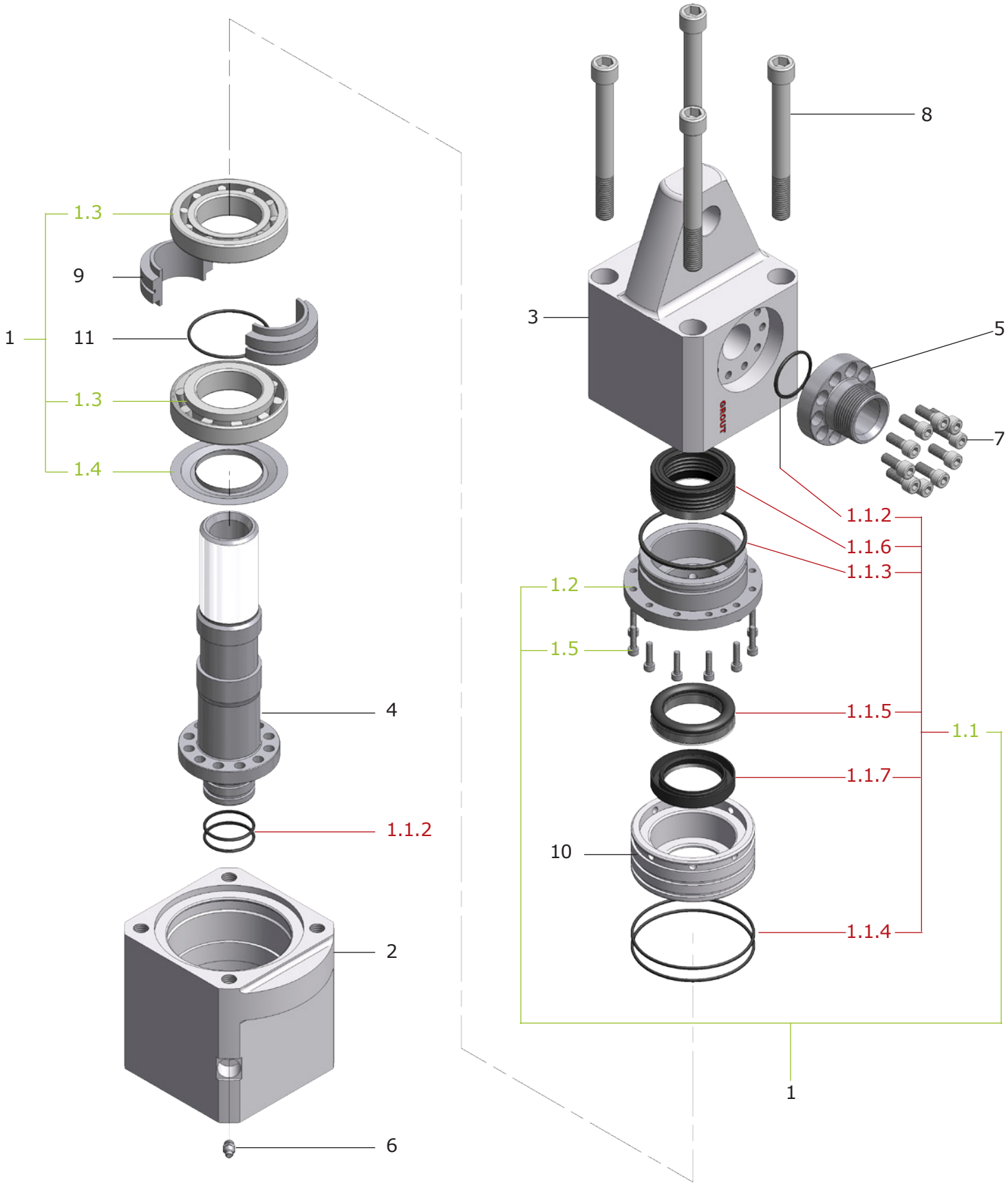


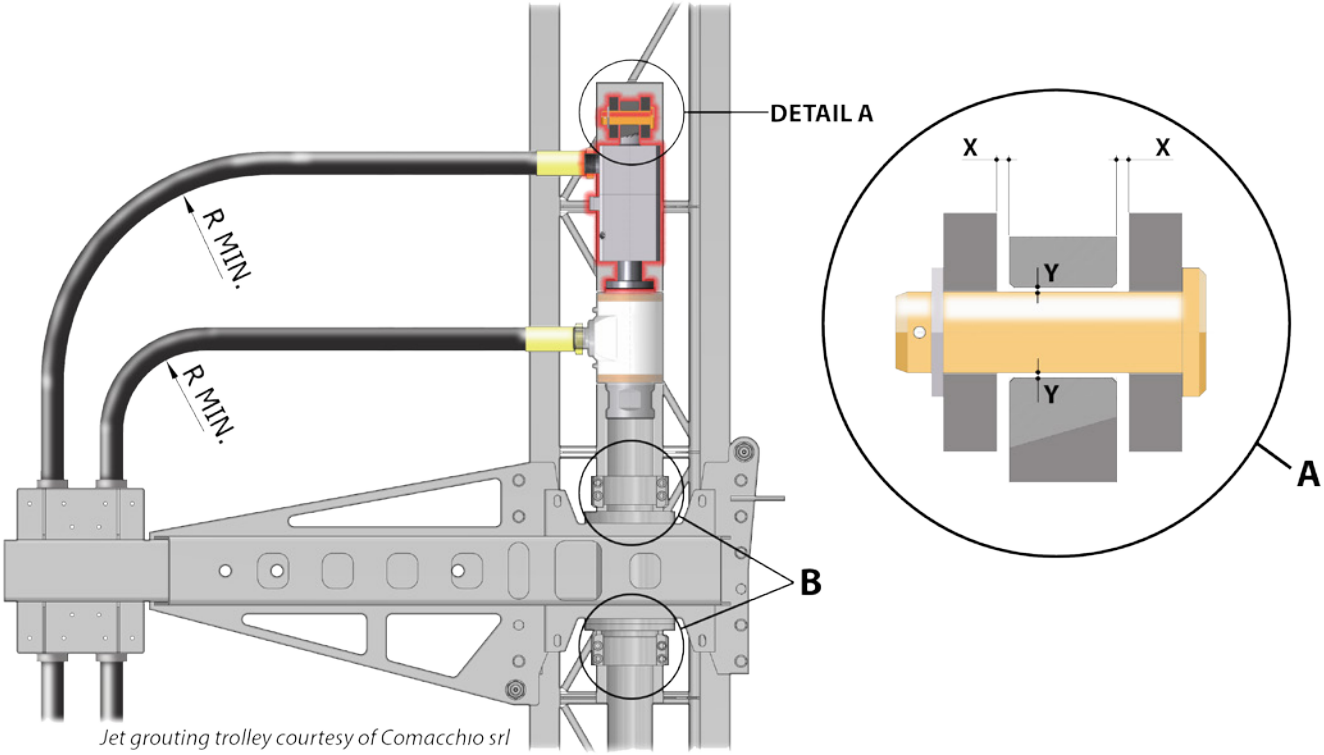
FIG. 2.2

J-8C2TS650 (REF. FIG. 2.2)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-8C2TS651	KIT RICAMBI TESTA A.P.	H.P. SWIVEL SPARE PARTS KIT	1	
1.1	J-8C2TS652	KIT GUARNIZ. TESTA A.P.	H.P. SWIVEL SEALS KIT	1	
1.1.2	MR-OR126	O-RING 126 RIF POLYPAC	O-RING SEAL 126 RIF POLYPAC	3	(1)
1.1.3	MR-OR234	O-RING RIF.POLIPAC 234	O-RING SEAL RIF.POLIPAC 234	1	(1)(2)
1.1.4	MR-OR153	O-RING RIF.POLIPAC 153	O-RING SEAL RIF.POLIPAC 153	2	(1)
1.1.5	MR-DS255177	GUARN. DS255177 RIF POLYPAC	DS255177 REF POLYPAC SEAL	1	(1)(2)
1.1.6	MR-SM255177/1AX	GUARN. 255177/1AX POLYPAC	255177/1AX POLYPAC SEAL	1	(1)(2)(3)
1.1.7	MR-AS45X65X10	PARAOLIO AS 45X65X10 ISO6194	AS 45X65X10 ISO6194 LIP SEAL	1	(1)(2)
1.2	J-8C2TS656	GUIDA PORTA GUARNIZIONI TESTA A.P.	H.P. SWIVEL SEALS HOUSING	1	(1)
1.3	MR-30210	CUSCINETTO 3DB 50X90X21.75	3DB 50X90X21.75 BEARING	2	(1)
1.4	MR-30210JV	ANELLO NILOS JV 30210	NILOS RING JV 30210	1	(1)
1.6	5931M5X20P08129GR	VITE TCEI M5X20 12.9 UNI5931	SOCKET SCREW M5X20 12.9	12	(1)
2	J-8C2TS653	CORPO EST. INF. TESTA A.P.	SWIVEL LOWER BODY	1	
3	J-8C2TS654	CORPO SUP TESTA A.P.	SWIVEL UPPER BODY	1	
4	J-8C2TS655	ALBERO TESTA A.P.	SWIVEL SHAFT	1	
5	J-8C2TS659	ATTACCO 1"1/4	1"1/4 INLET	1	
6	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	1	
7	5931M8X20P125129GR	VITE TCEI M8X20 12.9 UNI 5931	SOCKET SCREW M8X20 12.9	10	
8	5931M14X130P2129GR	VITE TCEI M14X130 12.9 UNI 5931	SOCKET SCREW M14X130 12.9	4	
9	J-8C2TS657	MEZZALUNA ALBERO TESTA A.P.	SHAFT HALF RING	1	(1)
10	J-8C2TS658	DISTANZIALE PORTA GUARNIZIONI	SEALS HOUSING SPACER	1	(1)
11	MR-OR136	O-RING 136 RIF POLYPAC	O-RING SEAL RIF POLYPAC 136	1	(1)

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

(2) KIT GUARNIZIONI CENTRALI TESTA: J-8C2TS652-A - SWIVEL MIDDLE SEALS KIT: J-8C2TS652-A

(3) SOSTITUITO DA MR-CH255177 PER COD. J-8C2TS652-H GUARN. CENTRALI ALTA VELOCITA' - REPLACED BY MR-CH255177 FOR HIGH SPEED MIDDLE SEALS, CODE J-8C2TS652-H



Jet grouting trolley courtesy of Comacchio srl

Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

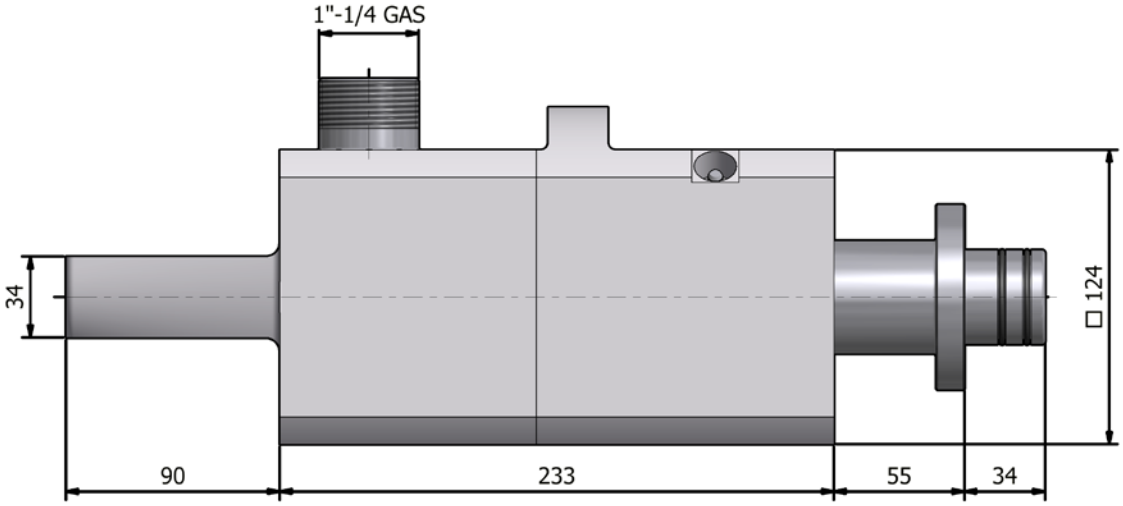
Manutenzione:
Ingrassare i cuscinetti almeno ogni 3h con grasso a base di litio. Cambiare il pacco guarnizioni quando dalla spia posta sotto l'ingresso del cemento (Safety port) si nota una perdita di cemento/acqua.

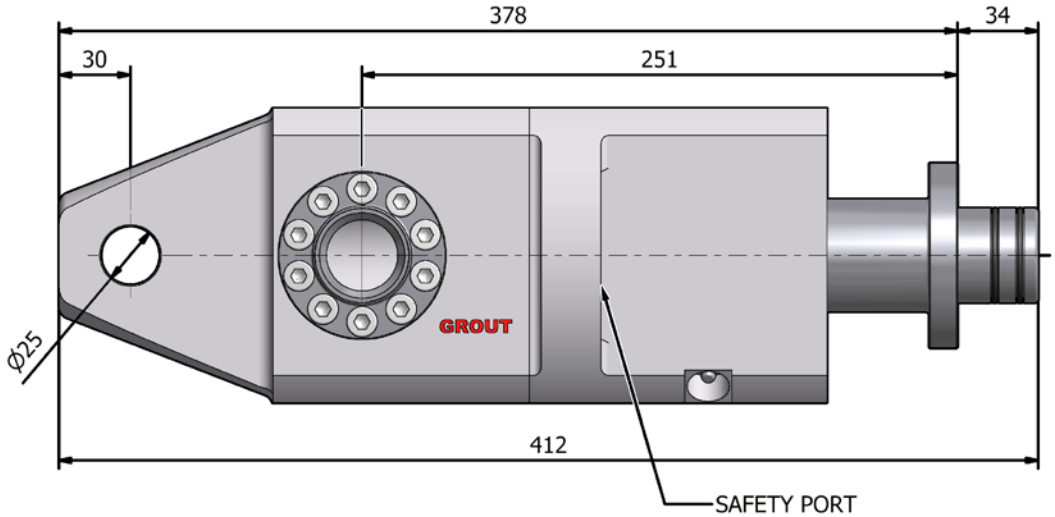
Maintenance:
Lubricate the roller bearings at least every 3h using lithium based grease. Replace the seals pack when a leackage from the safety port below the grout inlet occurs.

Ancoraggio:
La staffa antigiro e il carrello su cui fissare la testa, devono consentire un'escursione trasversale X di almeno 5 mm e radiale Y di 2 mm (vedi figura).
Nelle applicazioni con mandrino passante si raccomanda l'utilizzo di un carello simile a quello della figura. Il carello prevede due guide (dett. B in figura) fissate all'asta. Eventuali carichi in trazione e spinta sono assorbiti dalle guide. Inoltre le guide hanno una funzione di centratore e minimizzano carichi radiali dovuti alla eventuale eccentricità delle aste di perforazione.

Anchoring:
The anti-rotation bracket and the trolley where the swivel is locked must allow a transversal X gap of 5 mm at least and a Y radial gap of 2 mm (see the figure).
In the hollow clamp application it is reccommended the use of a trolley similar to the one shown in the figure. The trolley has two guides (detail B in the figure) fixed on the rod. Any thrust and pull loads are supported by these guides. Furthermore these guides have a centering function and reduce the radial loads caused by the eventual eccentricity of the drilling rods.

CODICE CODE	J-8C2TS650
PRESSIONE MASSIMA MAX PRESSURE	56 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	35 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	90-120 RPM
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM
TRAZIONE-SPINTA MASSIMA APPLICABILE MAX THRUST-PULL	7 KN
MEDIA MEDIUM	ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATRE AND GROUT-WATER MIX (RATIO G:W MAX 1,4)
PESO WEIGHT	11 KG





2.3 UNDER ROTARY SWIVEL 2”-3/8 A.R. (210 L/MIN.-500 BAR): J-SW90238R

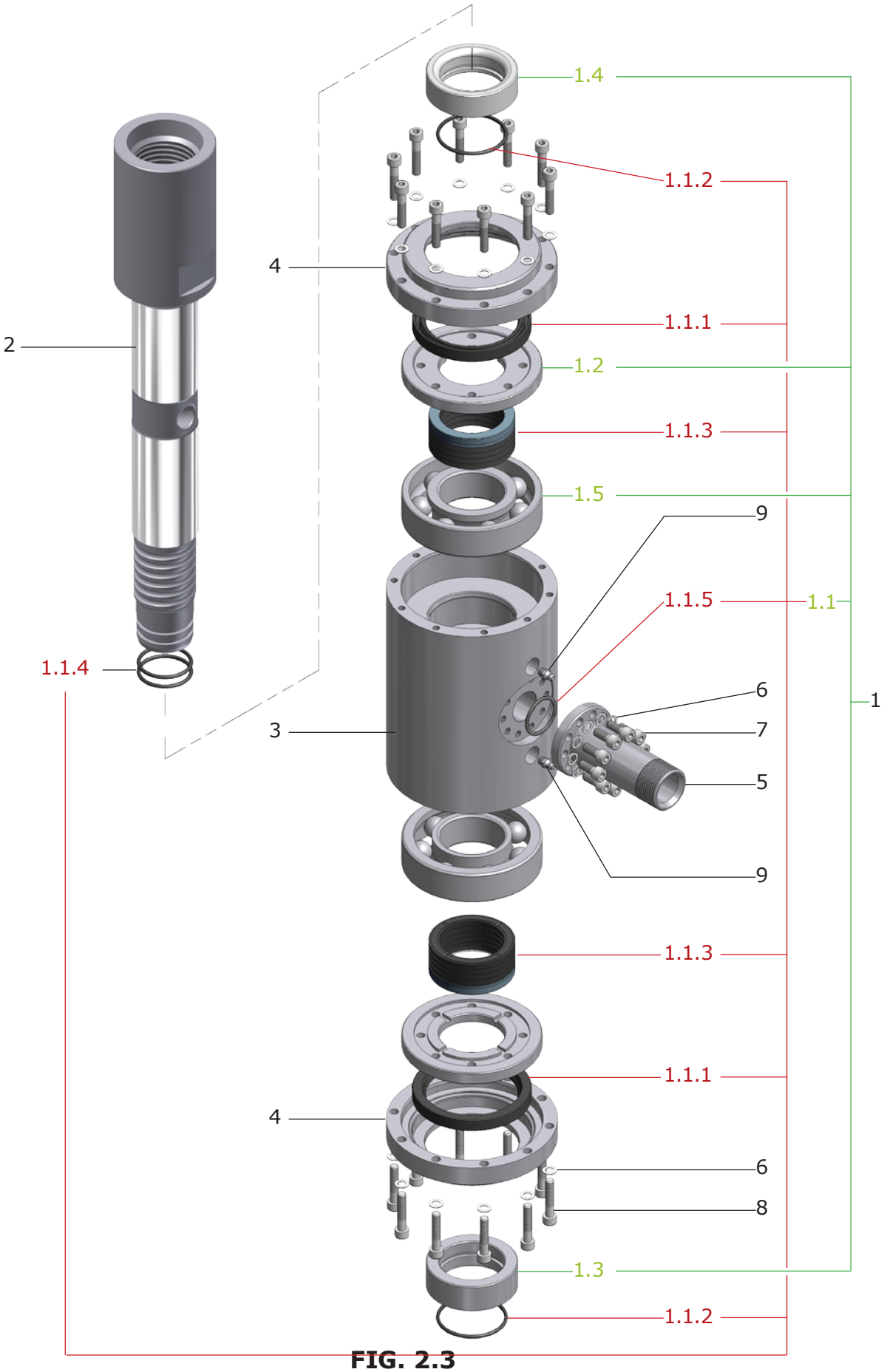
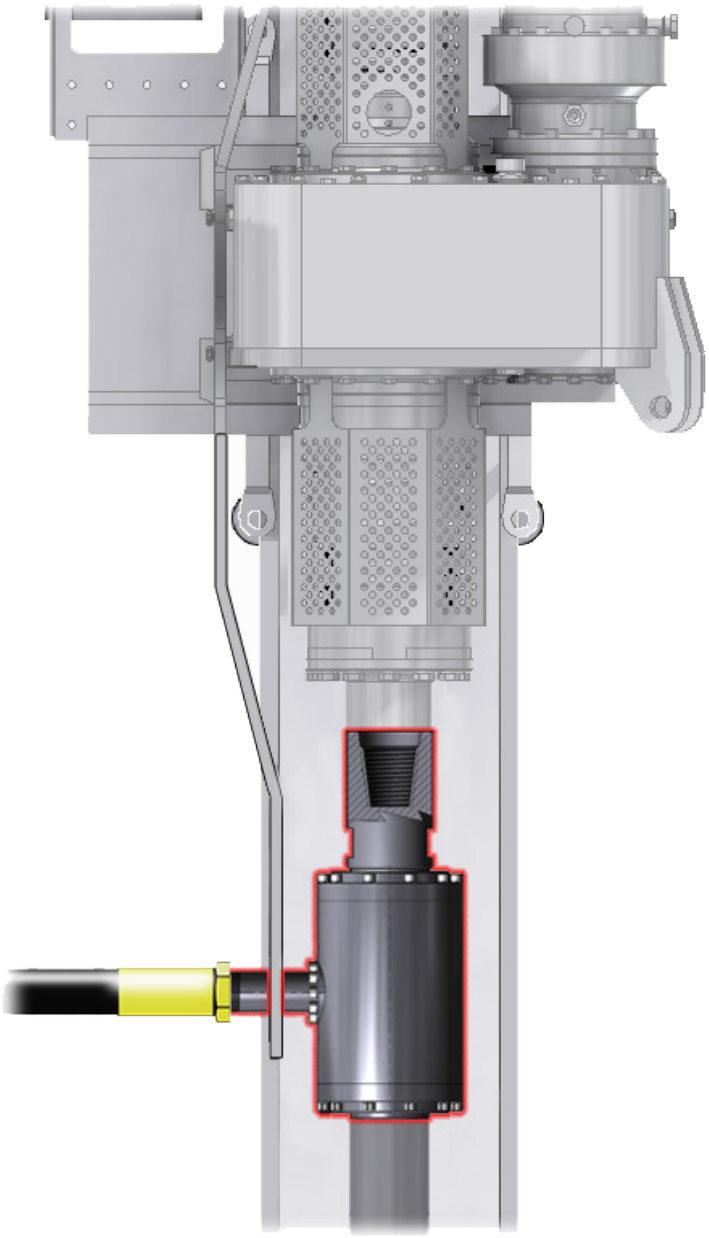


FIG. 2.3

J-SW90238R (REF. FIG. 2.3)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-SW90278R-S	KIT RICAMBI SWIVEL J-SW90	J-SW90 SW. SPARE PARTS KIT	1	
1.1	*J-SW90278R-K*	*KIT GUARN. SWIVEL J-SW90*	*J-SW90 SWIVEL SEALS KIT*	*1*	
1.1.1	*MR-A85X110X12*	*PARAOLIO 85X110X12 SING. LAB.*	*85X110X12 ONE LIP SEAL*	*2*	*(1)*
1.1.2	*MR-OR229*	*OR-229 RIF POLYPAC*	*O-RING 229 SEAL REF POLYPAC*	*2*	*(1)*
1.1.3	*MR-SM314236-1AX*	*GUARN. SM314236-1AX*	*SM314236-1AX SEAL*	*2*	*(1)*
1.1.4	*MR-OR224*	*O-RING 224 RIF. POLIPAC*	*O-RING 224 SEAL REF. POLIPAC*	*2*	*(1)*
1.1.5	*MR-OR126*	*O-RING 126 RIF. POLIPAC*	*O-RING 126 SEAL REF. POLIPAC*		*(1)*
1.2	*D-1351-4*	*PREMIGUARNIZIONE SWIVEL J-SW90*	*J-SW90 SWIVEL SEAL RETAINER*	*2*	*(1)*
1.3	*D-1351-5*	*DISTANZIALE SWIVEL J-SW90*	*J-SW90 SWIVEL SPACER*	*1*	*(1)*
1.4	*D-1351-7*	*DISTANZ. EST. SWIVEL J-SW90*	*J-SW90 SWIVEL EXTERNAL SPACER*	*1*	*(1)*
1.5	*MR-7312BE*	*CUSCINETTO OBL. 7312 BE*	*7312 BE ROLLER BEARING*	*2*	*(1)*
2	D-1351-6-238	ALBERO SWIVEL SOTTO TESTA 2"-3/8 AR	SWIVEL SHAFT 2"-3/8 AR	1	
3	D-1351-1	CORPO ESTERNO SWIVEL J-SW90	J-SW90 SWIVEL BODY	1	
4	D-1351-3	FLANGIA PARAOLIO SWIVEL J-SW90	J-SW90 SW. LIP SEAL FLANGE	2	
5	D-0699-3-4-2	ATTACCO 1”-1/4	1”-1/4 INLET	1	
6	SCHNORM8ZB	RONDELLA SCHNORR M8	SCHNORR M8 WASHER	30	
7	5931M8X20P125129GR	VITE TCEI M8X20 12.9 UNI 5931	SOCKET SCREW M8X20 12.9	10	
8	5931M8X40P125129GR	VITE TCEI M8X40 12.9 UNI 5931	SOCKET SCREW M8X40 12.9	20	
9	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	2	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



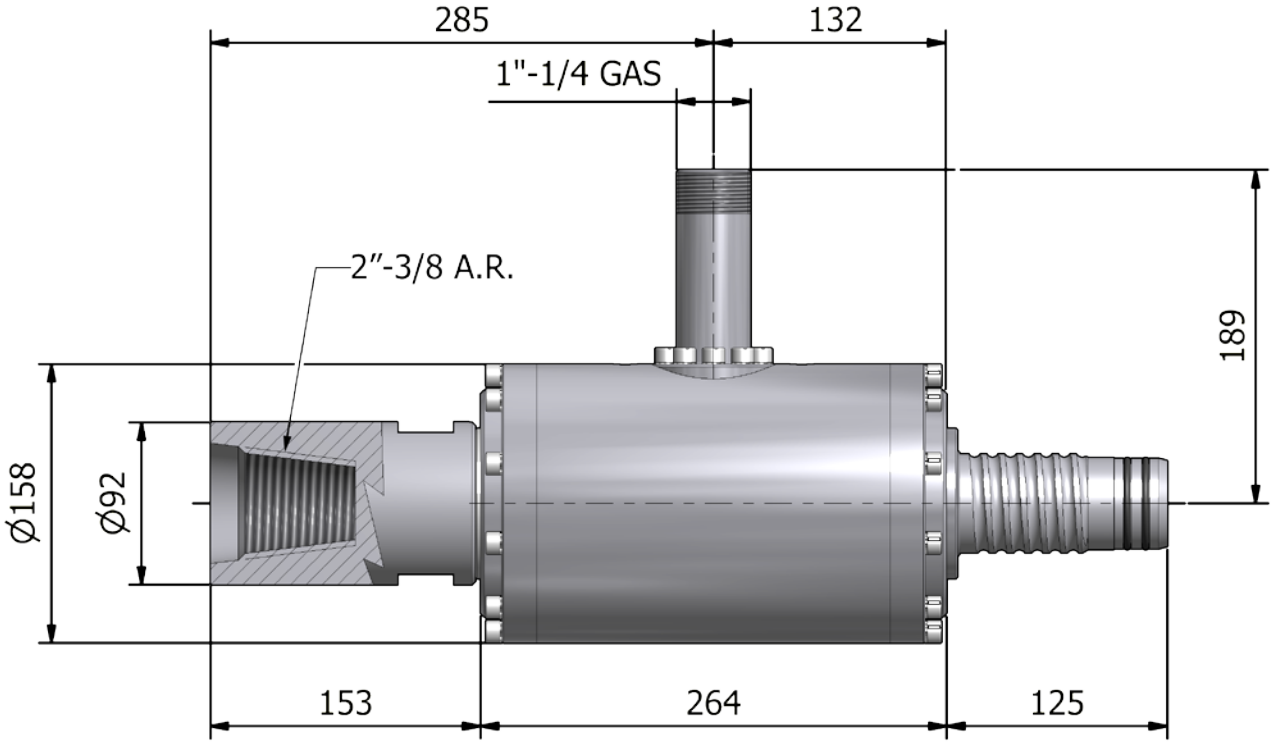
Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

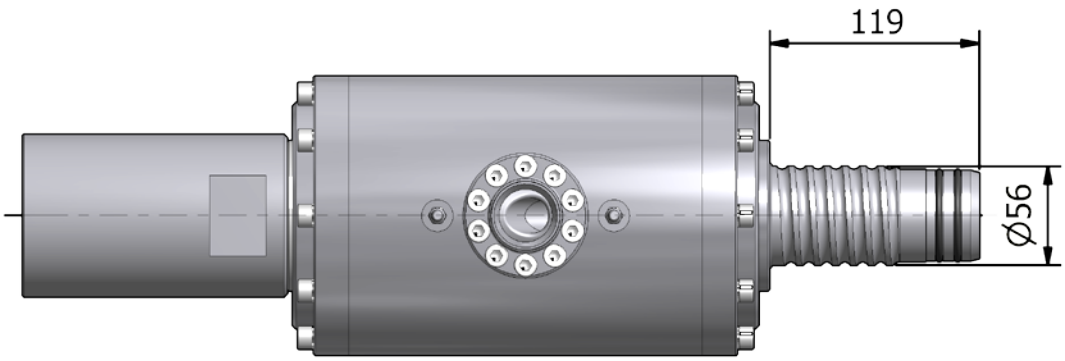
Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare i cuscinetti almeno ogni 3h con grasso a base di litio.

Maintenance:
Lubricate the roller bearings at least every 3h using lithium based grease.

CODICE CODE	J-SW90238R
PRESSIONE MASSIMA MAX PRESSURE	56 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	25 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	80-100 RPM
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM
COPPIA MASSIMA APPLICABILE MAX TORQUE	15 KNm
MEDIA MEDIUM	ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATRE AND GROUT-WATER MIX (RATIO G:W MAX 1,4)
PESO WEIGHT	42 KG





2.4 UNDER ROTARY SWIVEL 2”-7/8 A.R. (210 L/MIN.-500 BAR): J-SW90278R

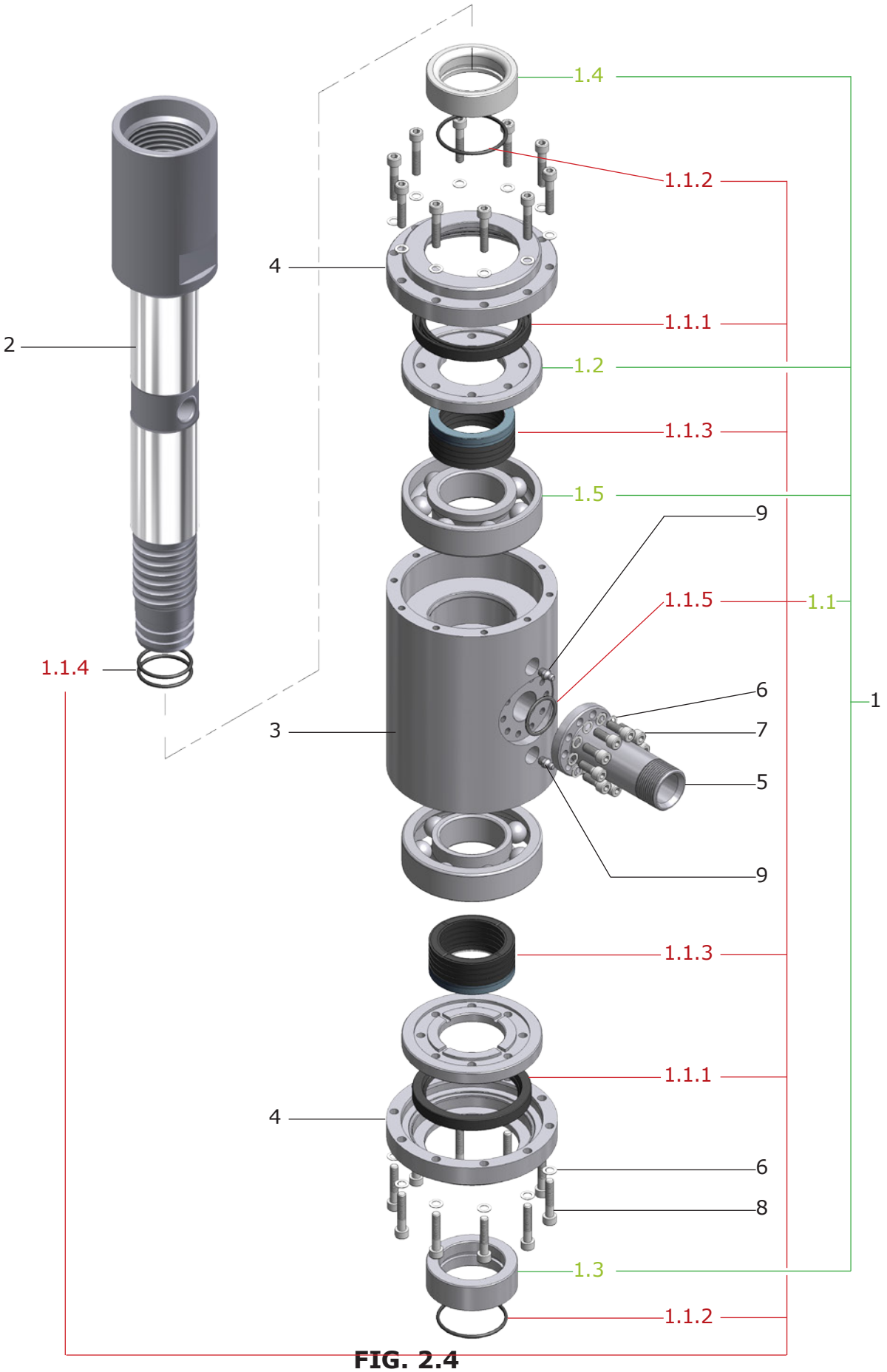
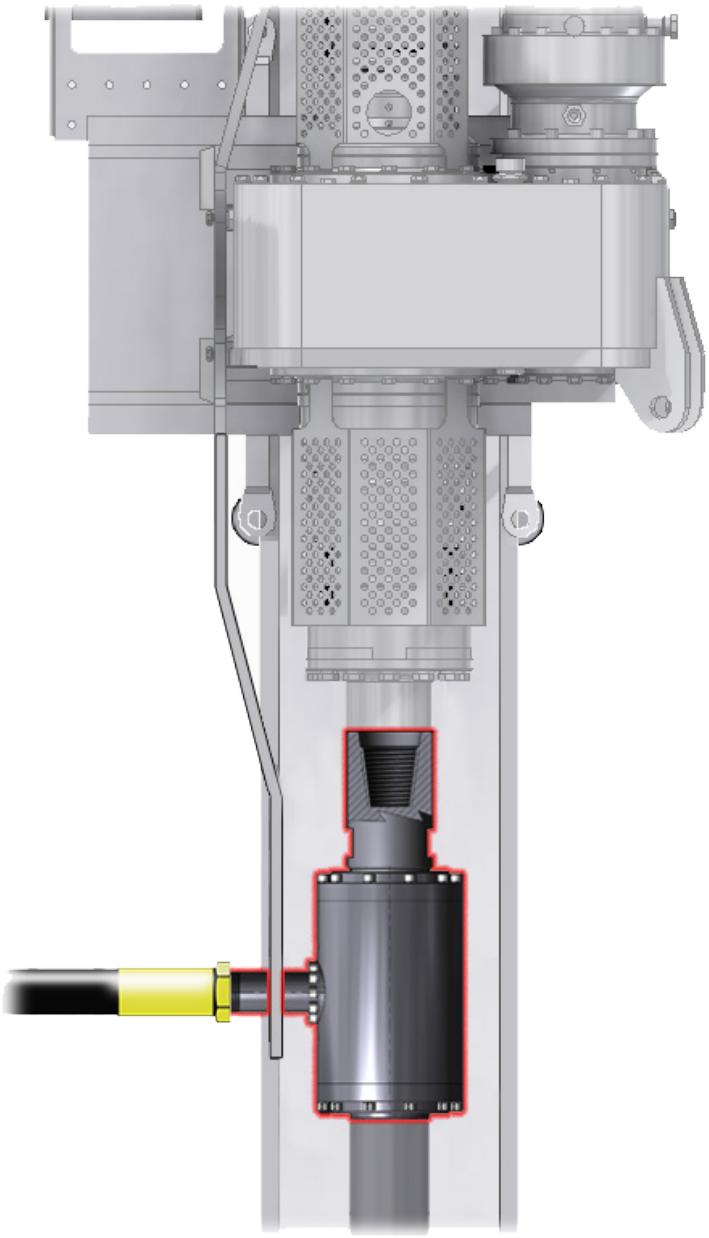


FIG. 2.4

J-SW90278R (REF. FIG. 2.4)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-SW90278R-S	KIT RICAMBI SWIVEL J-SW90	J-SW90 SW. SPARE PARTS KIT	1	
1.1	*J-SW90278R-K*	*KIT GUARN. SWIVEL J-SW90*	*J-SW90 SWIVEL SEALS KIT*	*1*	
1.1.1	*MR-A85X110X12*	*PARAOLIO 85X110X12 SING. LAB.*	*85X110X12 ONE LIP SEAL*	*2*	*(1)*
1.1.2	*MR-OR229*	*OR-229 RIF POLYPAC*	*O-RING 229 SEAL REF POLYPAC*	*2*	*(1)*
1.1.3	*MR-SM314236-1AX*	*GUARN. SM314236-1AX*	*SM314236-1AX SEAL*	*2*	*(1)*
1.1.4	*MR-OR224*	*O-RING 224 RIF. POLIPAC*	*O-RING 224 SEAL REF. POLIPAC*	*2*	*(1)*
1.1.5	*MR-OR126*	*O-RING 126 RIF. POLIPAC*	*O-RING 126 SEAL REF. POLIPAC*		*(1)*
1.2	*D-1351-4*	*PREMIGUARNIZIONE SWIVEL J-SW90*	*J-SW90 SWIVEL SEAL RETAINER*	*2*	*(1)*
1.3	*D-1351-5*	*DISTANZIALE SWIVEL J-SW90*	*J-SW90 SWIVEL SPACER*	*1*	*(1)*
1.4	*D-1351-7*	*DISTANZ. EST. SWIVEL J-SW90*	*J-SW90 SWIVEL EXTERNAL SPACER*	*1*	*(1)*
1.5	*MR-7312BE*	*CUSCINETTO OBL. 7312 BE*	*7312 BE ROLLER BEARING*	*2*	*(1)*
2	D-1351-6-278	ALBERO SWIVEL SOTTO TESTA 2"-7/8 AR	SWIVEL SHAFT 2"-7/8 AR	1	
3	D-1351-1	CORPO ESTERNO SWIVEL J-SW90	J-SW90 SWIVEL BODY	1	
4	D-1351-3	FLANGIA PARAOLIO SWIVEL J-SW90	J-SW90 SW. LIP SEAL FLANGE	2	
5	D-0699-3-4-2	ATTACCO 1”-1/4	1”-1/4 INLET	1	
6	MR-SCHNORR8	RONDELLA SCHNORR M8	SCHNORR M8 WASHER	30	
7	5931M8X20P125129GR	VITE TCEI M8X20 12.9 UNI 5931	SOCKET SCREW M8X20 12.9	10	
8	5931M8X40P125129GR	VITE TCEI M8X40 12.9 UNI 5931	SOCKET SCREW M8X40 12.9	20	
9	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	2	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



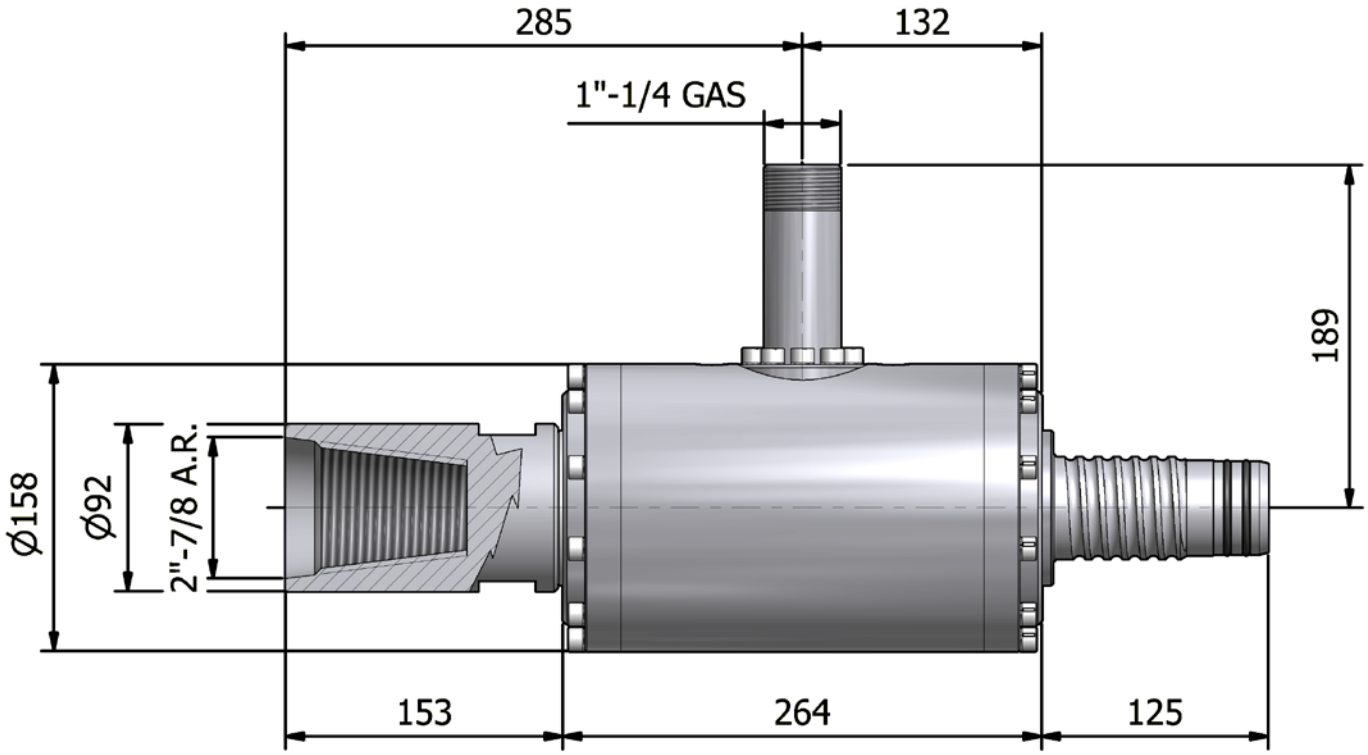
Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

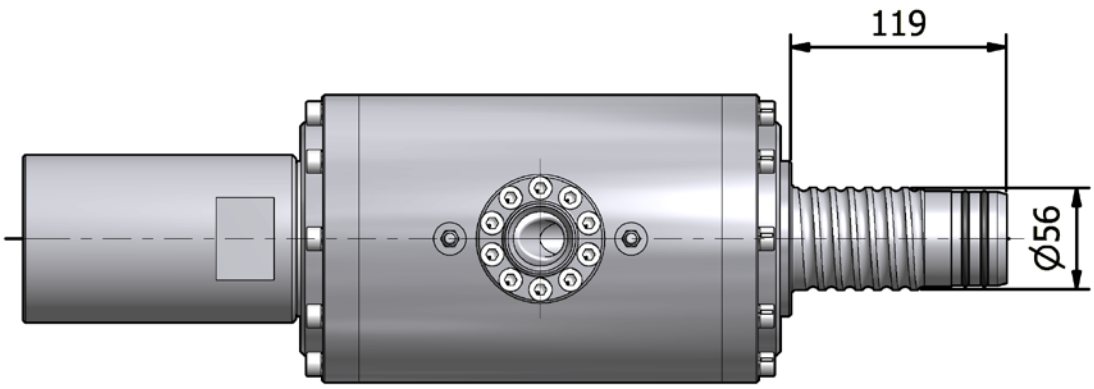
Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare i cuscinetti almeno ogni 3h con grasso a base di litio.

Maintenance:
Lubricate the roller bearings at least every 3h using lithium based grease.

CODICE CODE	J-SW90278R
PRESSIONE MASSIMA MAX PRESSURE	56 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	25 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	80-100 RPM
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM
COPPIA MASSIMA APPLICABILE MAX TORQUE	15 KNm
MEDIA MEDIUM	ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATRE AND GROUT-WATER MIX (RATIO G:W MAX 1,4)
PESO WEIGHT	42 KG





2.5 D.114 H.P. JET SWIVEL (700 L/MIN.-560 BAR): J-8C2TS700

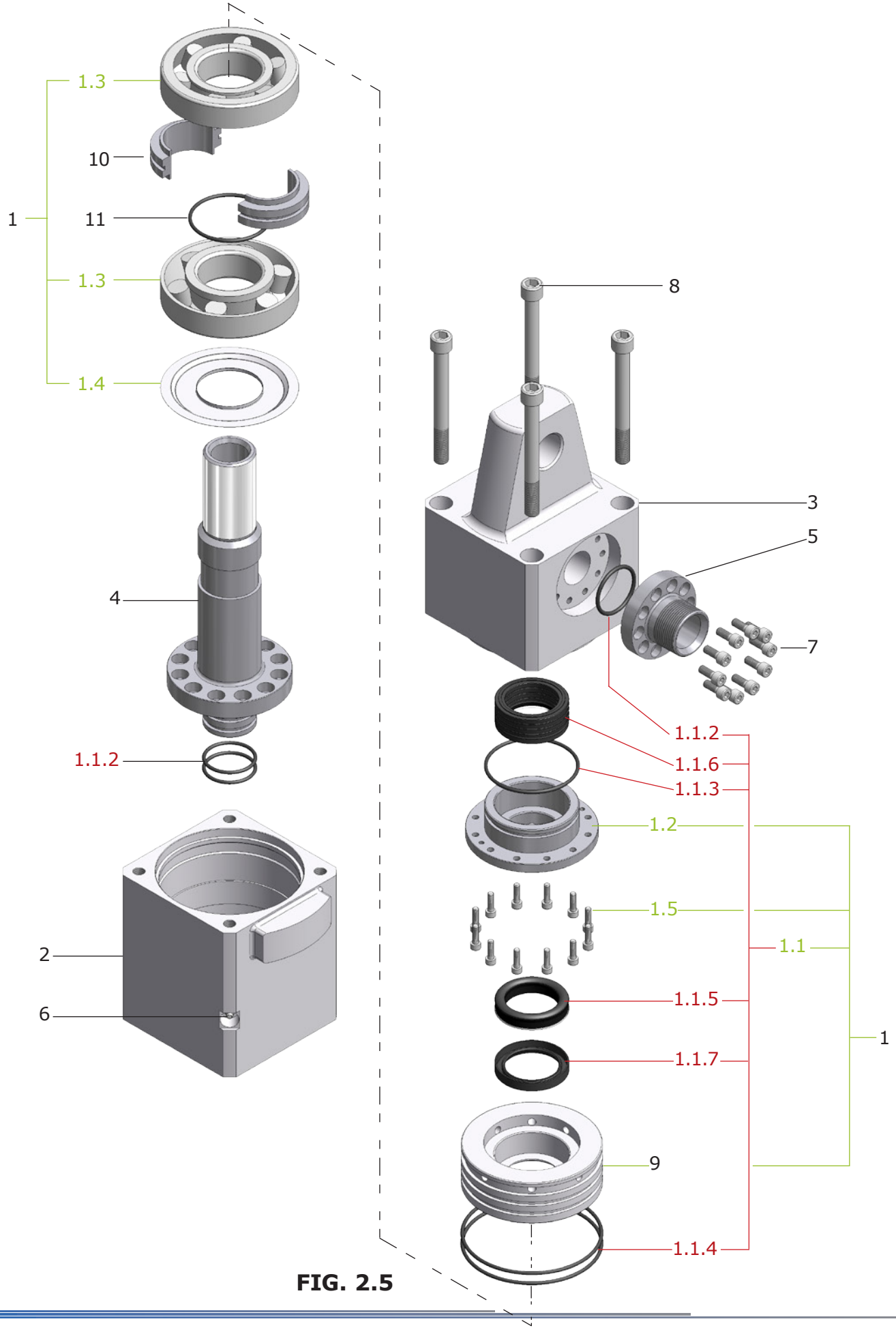


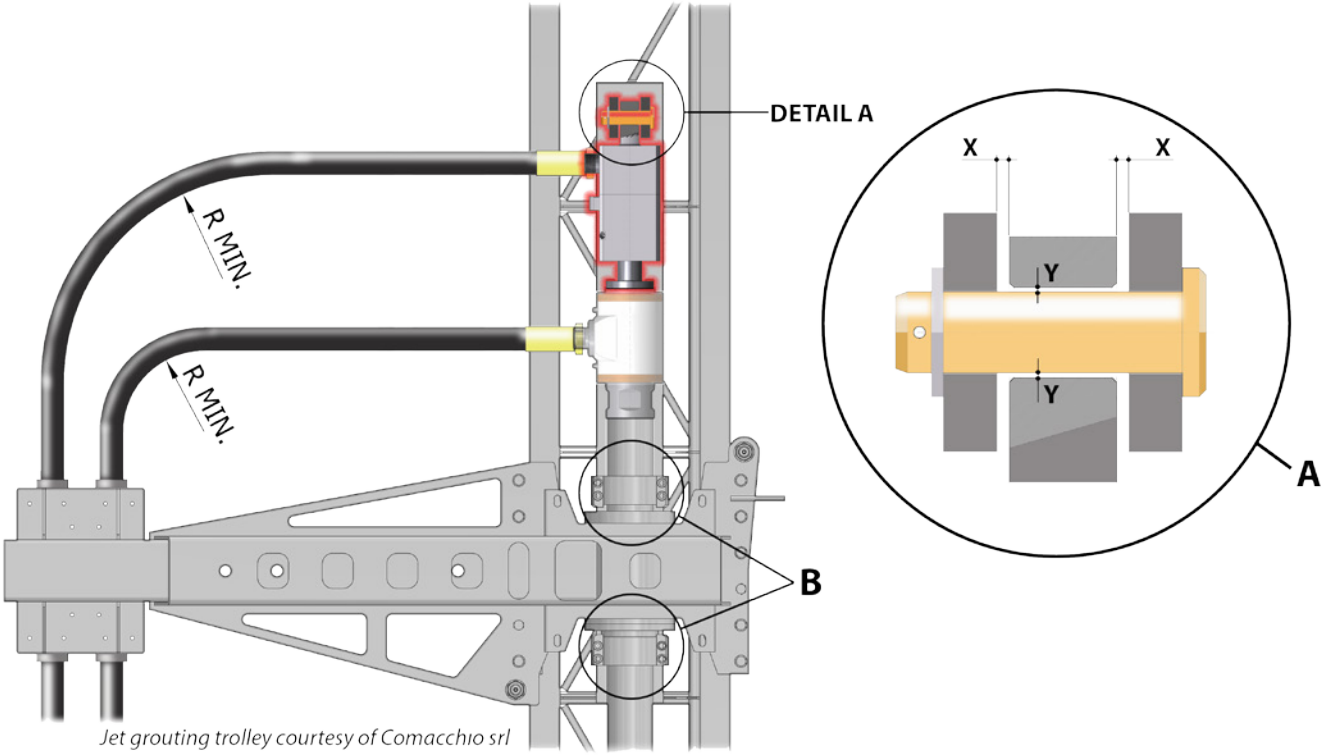
FIG. 2.5

J-8C2TS700 (REF. FIG. 2.5)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-8C2TS701	KIT RICAMBI TESTA A.P.	H.P. SW. SPARE PARTS	1	
1.1	*J-8C2TS702*	*KIT GUARNIZIONI TESTA A.P.*	*H.P. SWIVEL SEALS KIT*	*1*	
1.1.2	*MR-OR827*	*O-RING RIF POLYPAC 827*	*O-RING REF. POLYPAC 827*	*3*	*(1)*
1.1.3	*MR-OR236*	*O-RING RIF POLYPAC 236*	*O-RING REF. POLYPAC 236*	*1*	*(1)(2)*
1.1.4	*MR-OR249*	*O-RING RIF POLYPAC 249*	*O-RING REF. POLYPAC 249*	*2*	*(1)*
1.1.5	*MR-DS275196*	*GUARN. DS275196 RIF POLYPAC*	*DS275196 SEAL REF. POLYPAC*	*1*	*(1)(2)*
1.1.6	*MR-SM275196/1BX*	*GUARNIZIONE SM275196/1BX*	*SM275196/1BX SEAL REF. POLYPAC*	*1*	*(1)(2)(3)*
1.1.7	*MR-AS50X70X10*	*PARAOLIO AS 50x70x10 UNI5927*	*AS LIP SEAL 50x70x10 UNI5927*	*1*	*(1)(2)*
1.2	*J-8C2TS706*	*GUIDA PORTA GUARNIZIONI*	*H.P. SWIVEL SEALS HOUSING*	*1*	*(1)*
1.3	*MR-30312*	*CUSCINETTO 2FB 60x130x33.5*	*2FB 60x130x33.5 BEARING*	*2*	*(1)*
1.4	*MR-30312JV*	*ANELLO JV 30312*	*JV RING 30312*	*1*	*(1)*
1.5	*5931M6X20P1129GR*	*VITE TCCE M6x20 12.9*	*SOCKET HEAD SCREW M6x20 12.9*	*12*	*(1)*
2	J-8C2TS703	CORPO EST. INF. TESTA	LOWER EXT. SWIVEL BODY	1	
3	J-8C2TS704	CORPO SUP TESTA	UPPER EXT. SWIVEL BODY	1	
4	J-8C2TS705	ALBERO TESTA	SWIVEL SHAFT	1	
5	J-8C2TS709	ATTACCO 1"1/2	1"-1/2 INLET	1	
6	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	1	
7	5931M8X20P125129GR	VITE TCEI M8X20 12.9 UNI 5931	SOCKET HEAD SCREW M8x20 12.9	10	
8	5931M14X130P2129GR	VITE TCEI M14X130 12.9 UNI 5931	SOCKET HEAD SCREW M14x130 12.9	4	
9	J-8C2TS708	DISTANZIALE PORTA GUARNIZIONI	SEALS HOUSING SPACER	1	
10	J-8C2TS707	MEZZALUNA ALBERO TESTA A.P.	SHAFT HALF RING	1	
11	MR-OR840	O-RING RIF.POLYPAC 840	O-RING SEAL REF.POLYPAC 840	1	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

(2) KIT GUARNIZIONI CENTRALI TESTA: J-8C2TS702-A - SWIVEL MIDDLE SEALS KIT: J-8C2TS702-A

(3) SOSTITUITO DA MR-CH275196 PER COD. J-8C2TS702-H GUARN. CENTRALI ALTA VELOCITA' - REPLACED BY MR-CH275196 FOR HIGH SPEED MIDDLE SEALS, CODE J-8C2TS702-H



Jet grouting trolley courtesy of Comacchio srl

Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

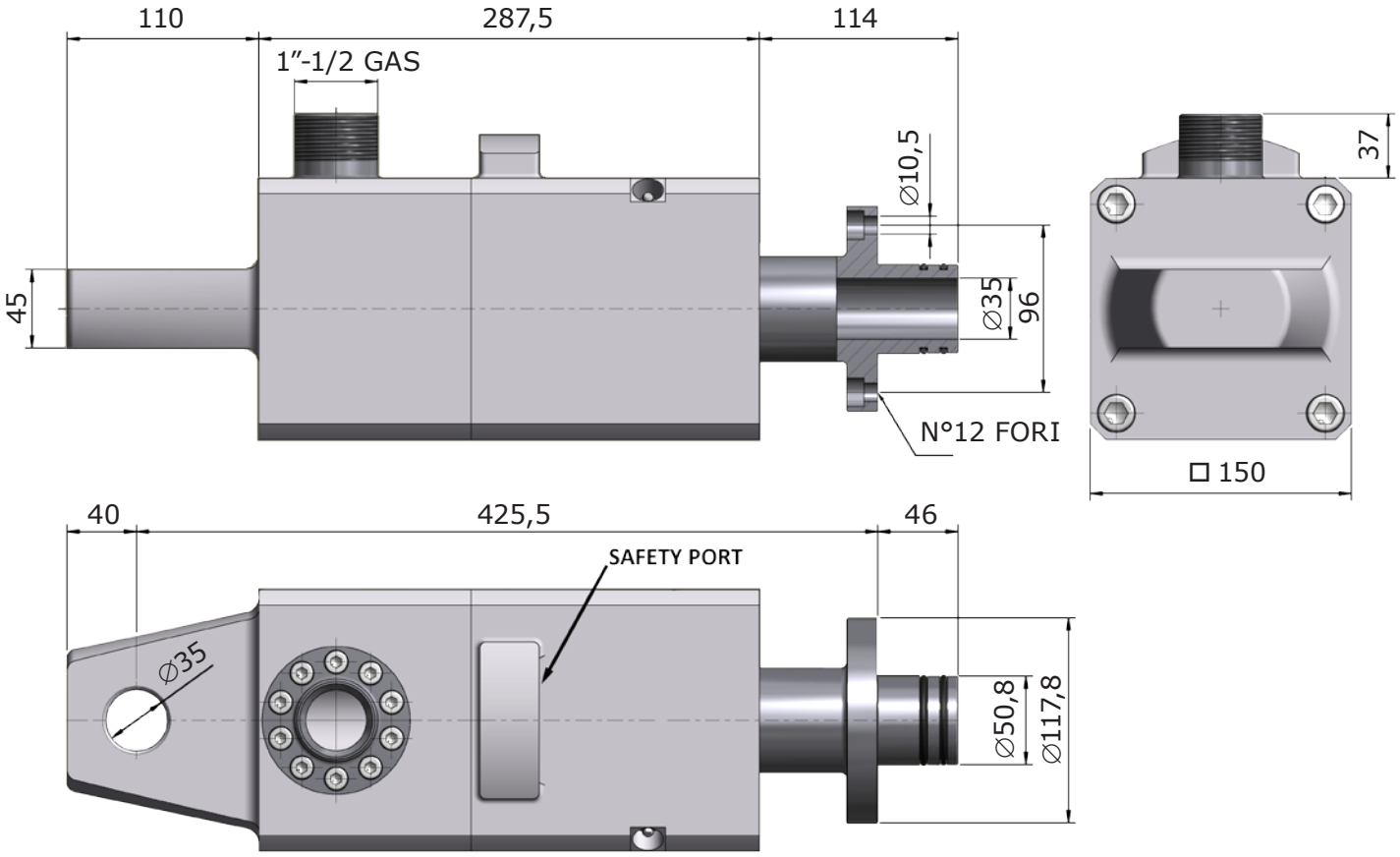
Manutenzione:
Ingrassare i cuscinetti almeno ogni 3h con grasso a base di litio. Cambiare il pacco guarnizioni quando dalla spia posta sotto l'ingresso del cemento (Safety port) si nota una perdita di cemento/acqua.

Maintenance:
Lubricate the roller bearings at least every 3h using lithium based grease. Replace the seals pack when a leackage from the safety port below the grout inlet occurs.

Ancoraggio:
La staffa antigiro e il carrello su cui fissare la testa, devono consentire un'escursione trasversale X di almeno 5 mm e radiale Y di 2 mm (vedi figura).
Nelle applicazioni con mandrino passante si raccomanda l'utilizzo di un carello simile a quello della figura. Il carello prevede due guide (dett. B in figura) fissate all'asta. Eventuali carichi in trazione e spinta sono assorbiti dalle guide. Inoltre le guide hanno una funzione di centratore e minimizzano carichi radiali dovuti alla eventuale eccentricità delle aste di perforazione.

Anchoring:
The anti-rotation bracket and the trolley where the swivel is locked must allow a transversal X gap of 5 mm at least and a Y radial gap of 2 mm (see the figure).
In the hollow clamp application it is reccommended the use of a trolley similar to the one shown in the figure. The trolley has two guides (detail B in the figure) fixed on the rod. Any thrust and pull loads are supported by these guides. Furthermore these guides have a centering function and reduce the radial loads caused by the eventual eccentricity of the drilling rods.

CODICE CODE	J-8C2TS700
PRESSIONE MASSIMA MAX PRESSURE	56 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	30 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	85-105 RPM
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM
TRAZIONE-SPINTA MASSIMA APPLICABILE MAX THRUST-PULL	16 KN
MEDIA MEDIUM	ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATER AND GROUT-WATER MIX (RATIO G:W MAX 1,4)
PESO WEIGHT	23,5 KG



2.6 ROTOPERCUSSION H.P. SWIVEL 65 RPM (210 L/MIN.-500 BAR): J-8JRP5D60

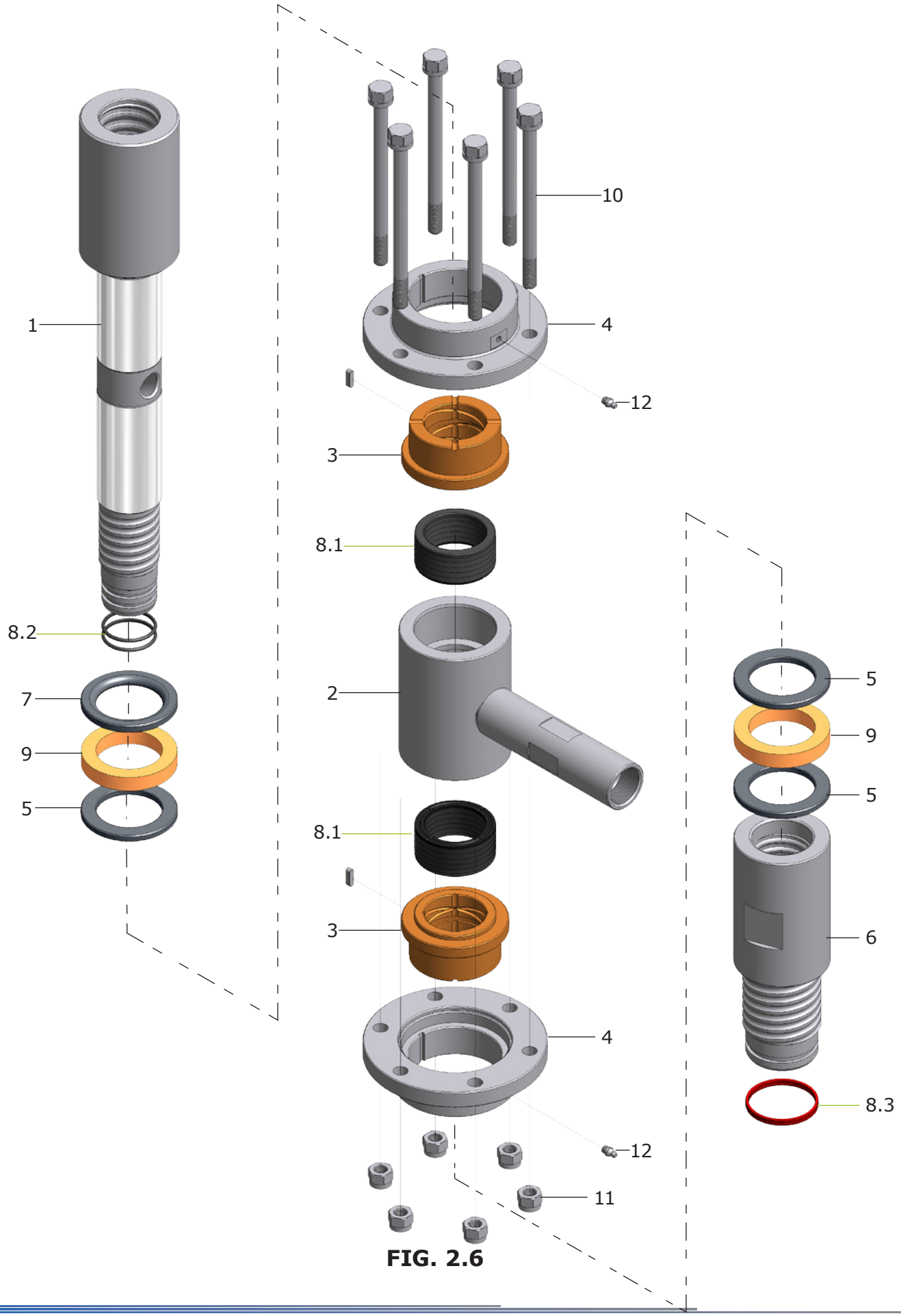
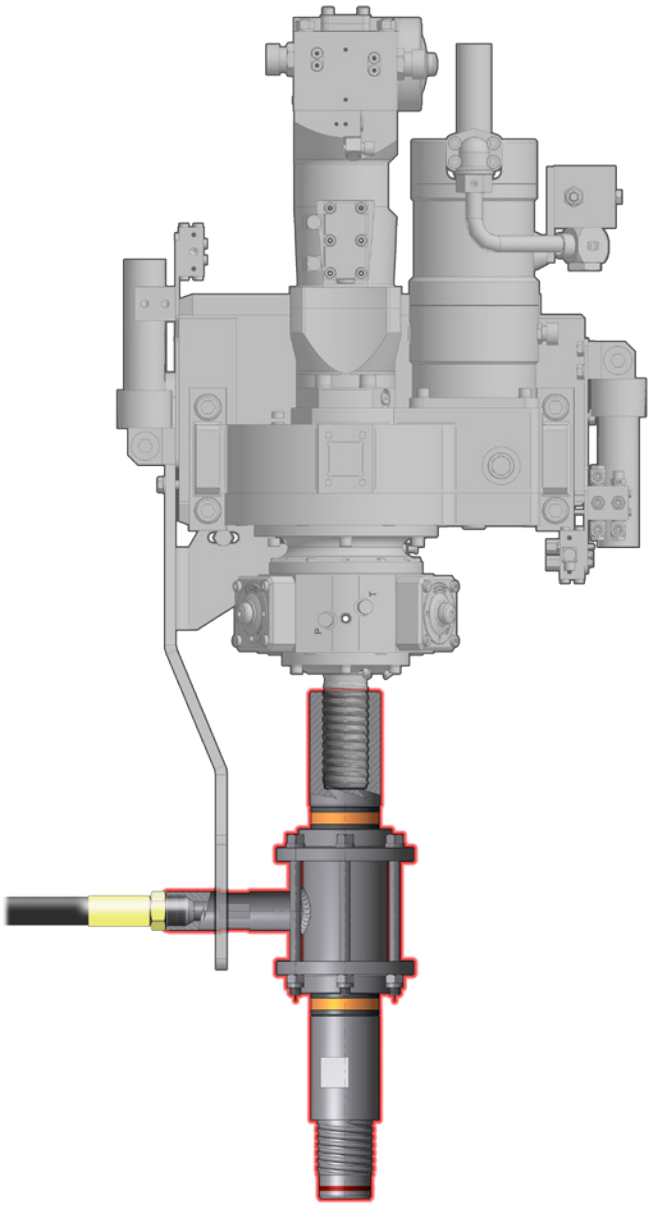


FIG. 2.6

J-8JRP5D60 (REF. FIG. 2.6)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1710-1A	ALBERO TESTA R.P. D.60 H55	H55 R.P. D.60 SWIVEL SHAFT	1	
2	D-1710-2	CORPO ESTERNO TESTA R.P.	EXTERNAL SWIVEL BODY	1	
3	D-1710-3	BRONZINA TESTA R.P. D.60	D.60 BRONZE BUSHING	2	
4	D-1710-4	FLANGIA TESTA R.P.	SWIVEL FLANGE	2	
5	D-1710-5	DISTANZ. TESTA JET R.P.	R.P. SWIVEL SPACER	3	
6	D-1219-6	RIDUZ. TESTA/D.90 RP JET	SWIVEL ADAPTER D.90 JET RP	1	
7	D-1710-7	DISTANZ. SUP. TESTA R.P.	SWIVEL UPPER SPACER	1	
8	D-1219-K	KIT GUARNIZIONI TESTA A.P. R.P.	SWIVEL SEALS KIT	1	
8.1	*MR-CH314236*	*CH314236 RIF POLYPAC*	*CH314236 REF. POLYPAC*	*2*	*(1)*
8.2	*MR-OR224*	*OR-224 RIF POLYPAC*	*OR-224 REF. POLYPAC*	*2*	*(1)*
8.3	*D-0604-12*	*R15-P60.8X67XL5.9 H-ECOPUR*	*R15-P60.8X67XL5.9 H-ECOPUR*	*2*	*(1)*
9	D-1710-6	ANELLO AMMORTIZZANTE	SHOCK ABSORBER RING	2	
10	J-8JRP5007	TIRANTE TESTA R.P.	SWIVEL BODY SCREW	6	
11	J-8JRP5008	DADO AUTOBLOCCANTE M14x1,5	LOCKNUT M14x1,5	6	
12	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	2	
13	6604A6X6X20	LINGUETTA UNI 6604A 6x6x20	UNI 6604A 6x6x20 PARALLEL KEY	2	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



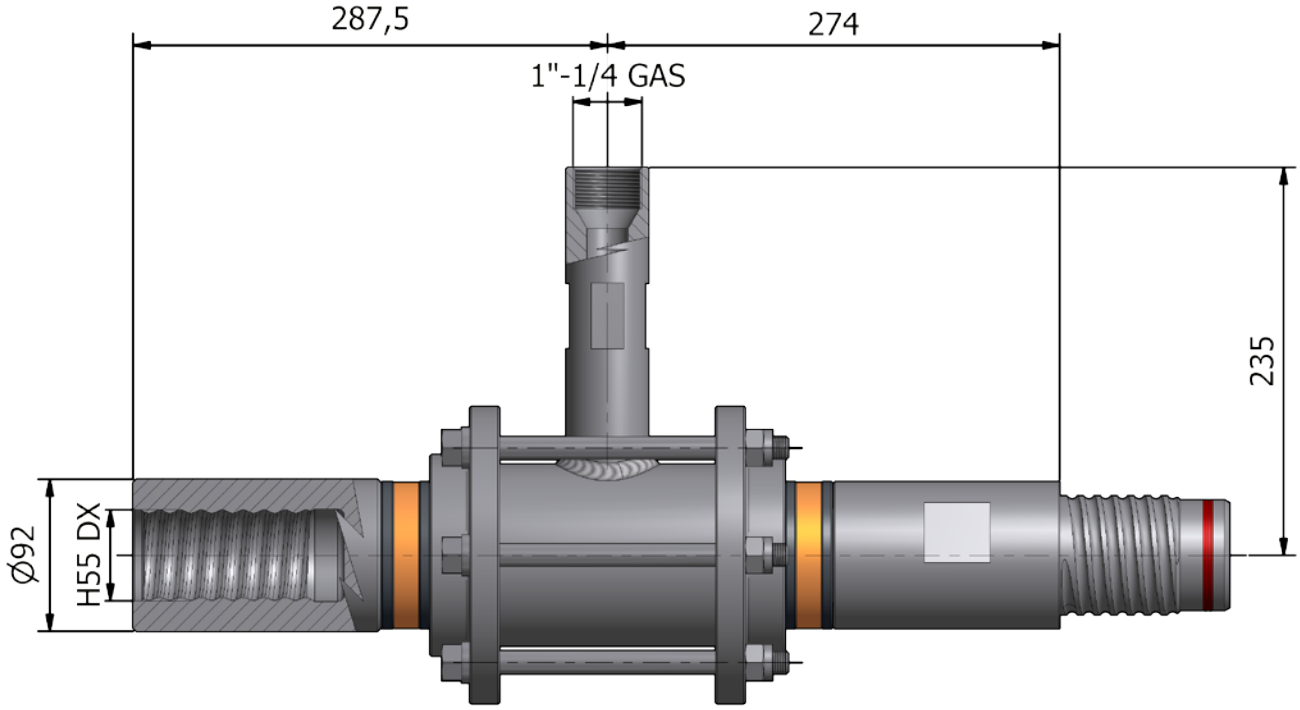
Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

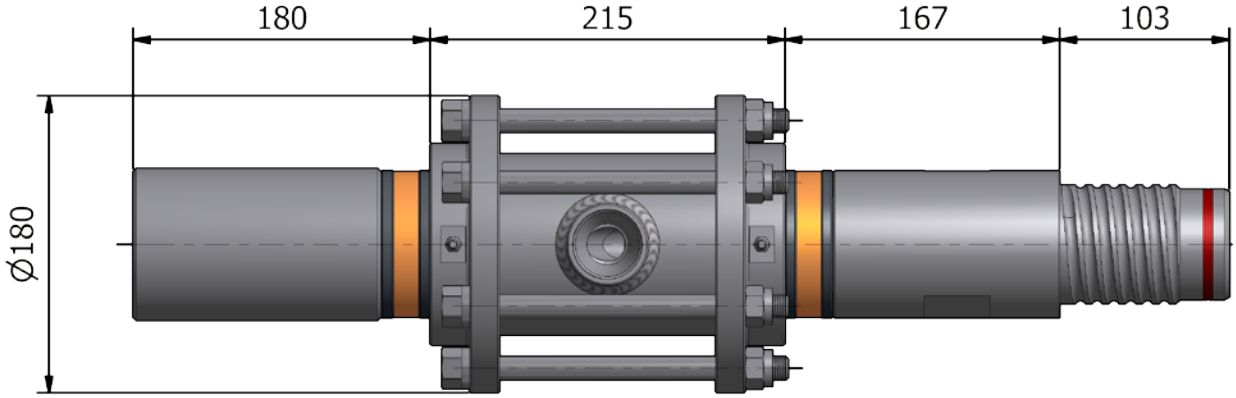
Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare le bronzine almeno ogni 3h con grasso a base di litio.

Maintenance:
Lubricate the bushings at least every 3h using lithium based grease.

CODICE CODE	J-8JRP5D60
PRESSIONE MASSIMA MAX PRESSURE	50 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	25 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	65 RPM
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM
COPPIA MASSIMA APPLICABILE MAX TORQUE	15 KNm
MEDIA MEDIUM	ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATRE AND GROUT-WATER MIX (RATIO G:W MAX 1,4)
PESO WEIGHT	39 KG





2.7 D.90 ROTOPERCUSSION H.P. JET SWIVEL (240 L/MIN.-500 BAR): J-8JRP5000

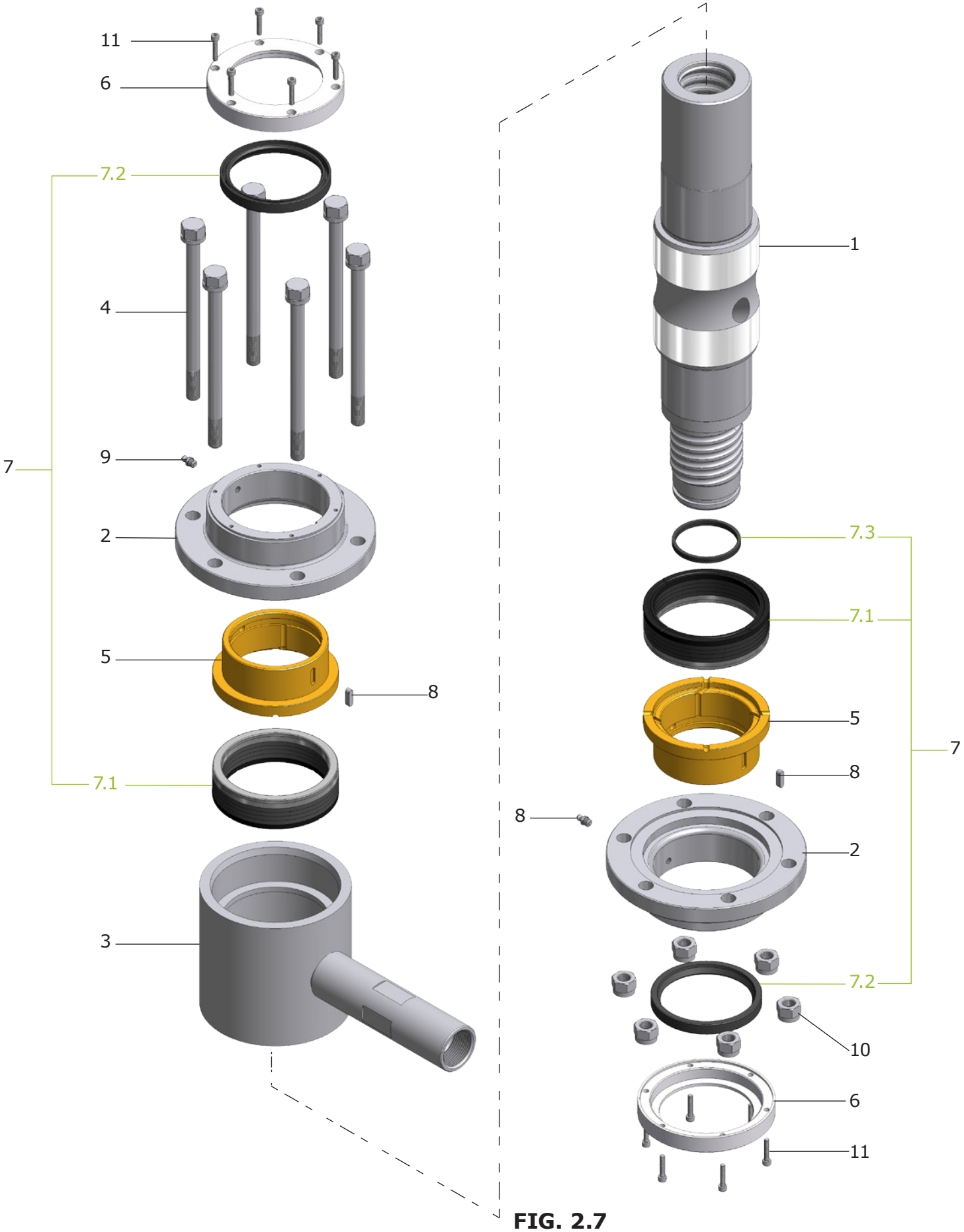
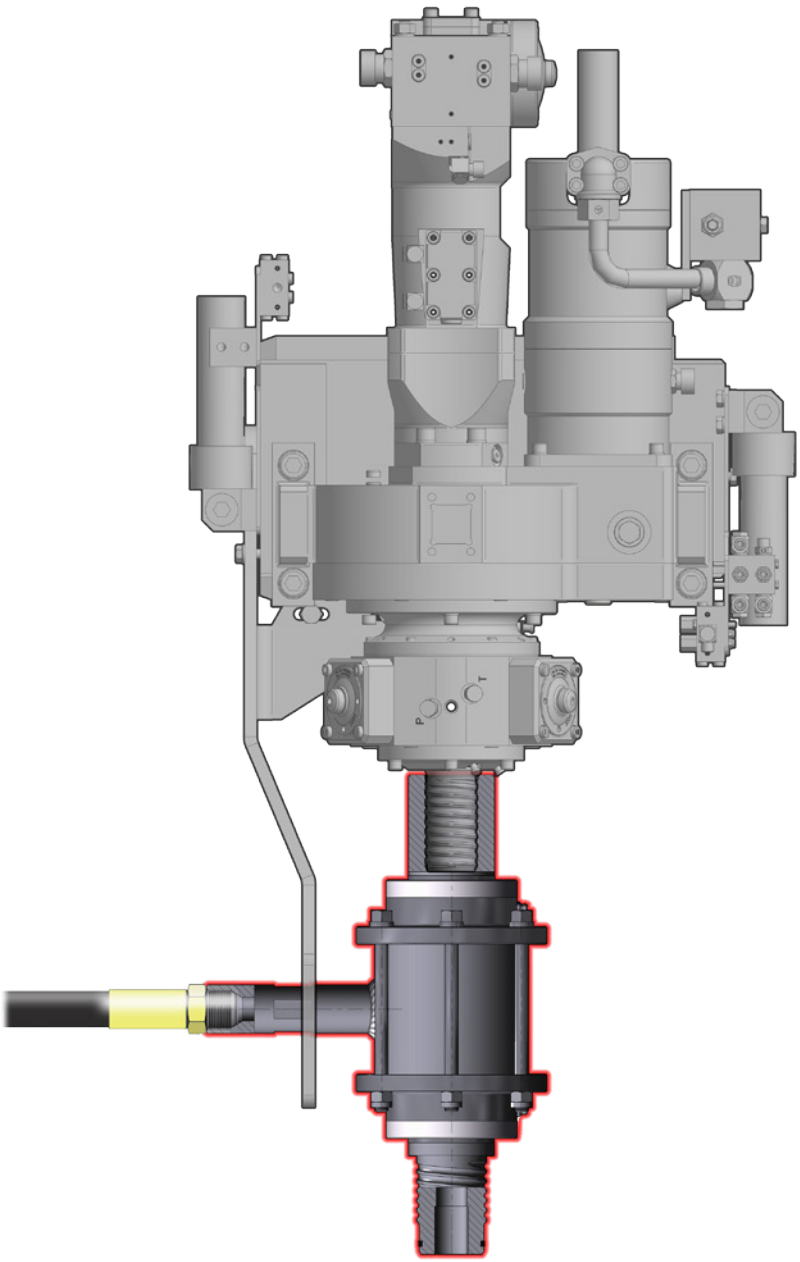


FIG. 2.7

J-8JRP5000 (REF. FIG. 2.7)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-8JRP5003	ALBERO TESTA A.P. RP	ROTOP. HP SWIVEL SHAFT	1	
2	J-8JRP5004	FLANGIA TESTA RP	SWIVEL FLANGE	2	
3	J-8JRP5005	CORPO EST. TESTA A.P. JET. RP	EXTERNAL SWIVEL BODY	1	
4	J-8JRP5007	TIRANTE TESTA RP	SWIVEL BODY SCREW	6	
5	J-8JRP5030	BRONZINA TESTA RP	SWIVEL BRONZE BUSHING	2	
6	J-8JRP5009	FLANGIA PARAOLIO TESTA RP	LIP SEAL FLANGE	2	
7	J-8JRP5002	KIT GUARNIZIONI TESTA A.P. RP	ROTOP. HP SWIVEL SEALS KIT	1	
7.1	*MR-CH492413*	*CH492413 RIF POLYPAC*	*CH492413 REF. POLYPAC*	*2*	*(1)*
7.2	*J-8JRP5010*	*PARAOLIO SINGOLO LABBRO 110x90x12*	*SINGLE LIP SEAL 110x90x12*	*2*	*(1)*
7.3	*D-0604-12*	*R15-P60.8X67XL5.9 H-ECOPUR*	*R15-P60.8X67XL5.9 H-ECOPUR*	*1*	*(1)*
8	6604A6X6X20	LINGUETTA 6x6x20	PARALLEL KEY 6x6x20	2	
9	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	2	
10	7473M14P156SZB	DADO AUTOBL. M14x1.5 UNI 7473	UNI 7473 M14x1.5 LOCKNUT	6	
11	5931M5X25P0888ZB	VITE TCEI M5x25	SOCKET HEAD SCREW M5x25	12	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



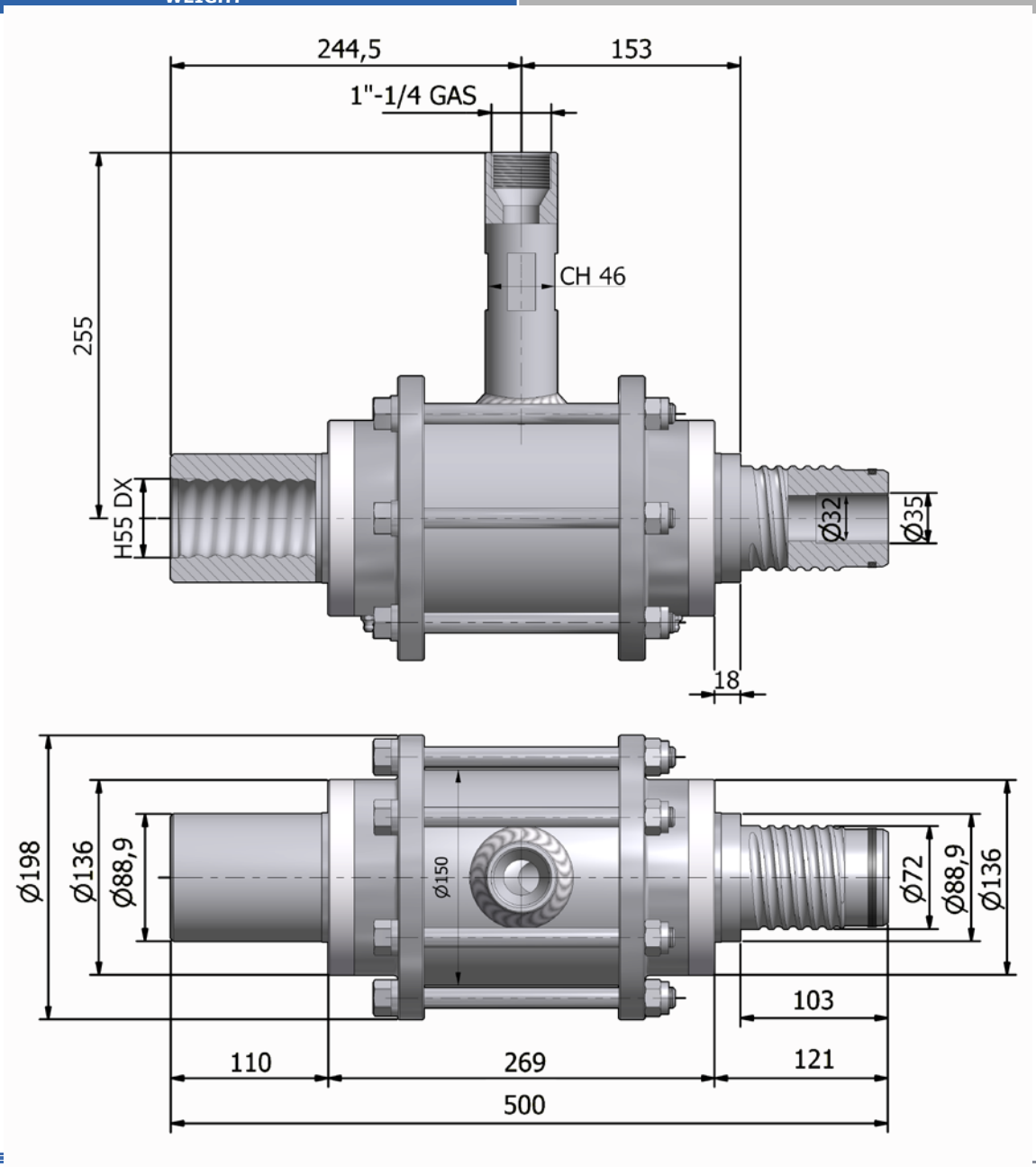
Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare le bronzine almeno ogni 3h con grasso a base di litio.

Maintenance:
Lubricate the bushings at least every 3h using lithium based grease.

CODICE CODE	J-8JRP5000
PRESSIONE MASSIMA MAX PRESSURE	50 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	20 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	35-40 RPM
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM
COPPIA MASSIMA APPLICABILE MAX TORQUE	15 KNm
MEDIA MEDIUM	ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATRE AND GROUT-WATER MIX (RATIO G:W MAX 1,4)
PESO WEIGHT	42 KG



2.8 UNDER ROTARY SWIVEL 3”-1/2 A.R.-D.114 JET M/M: J-SW11312R

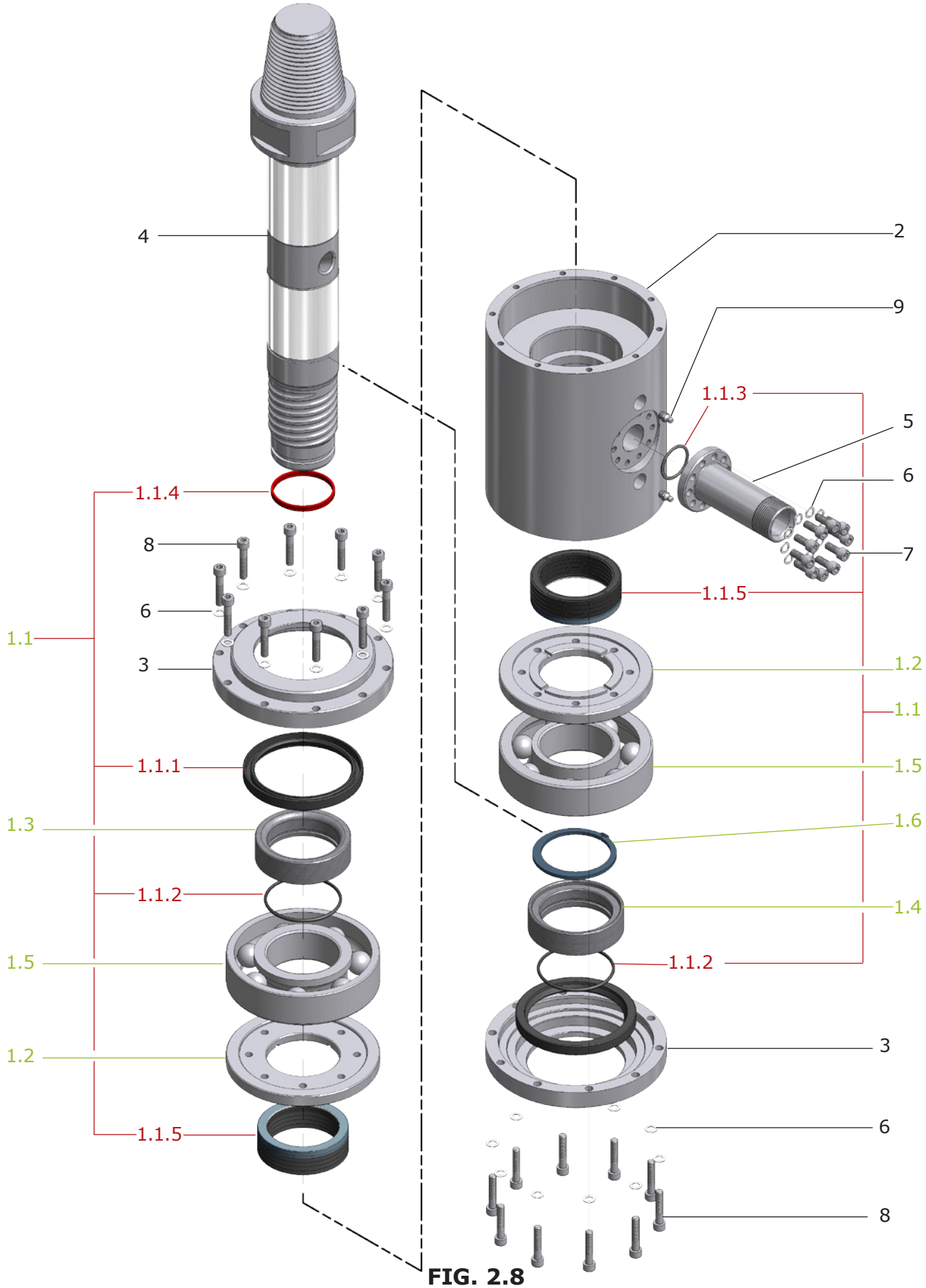
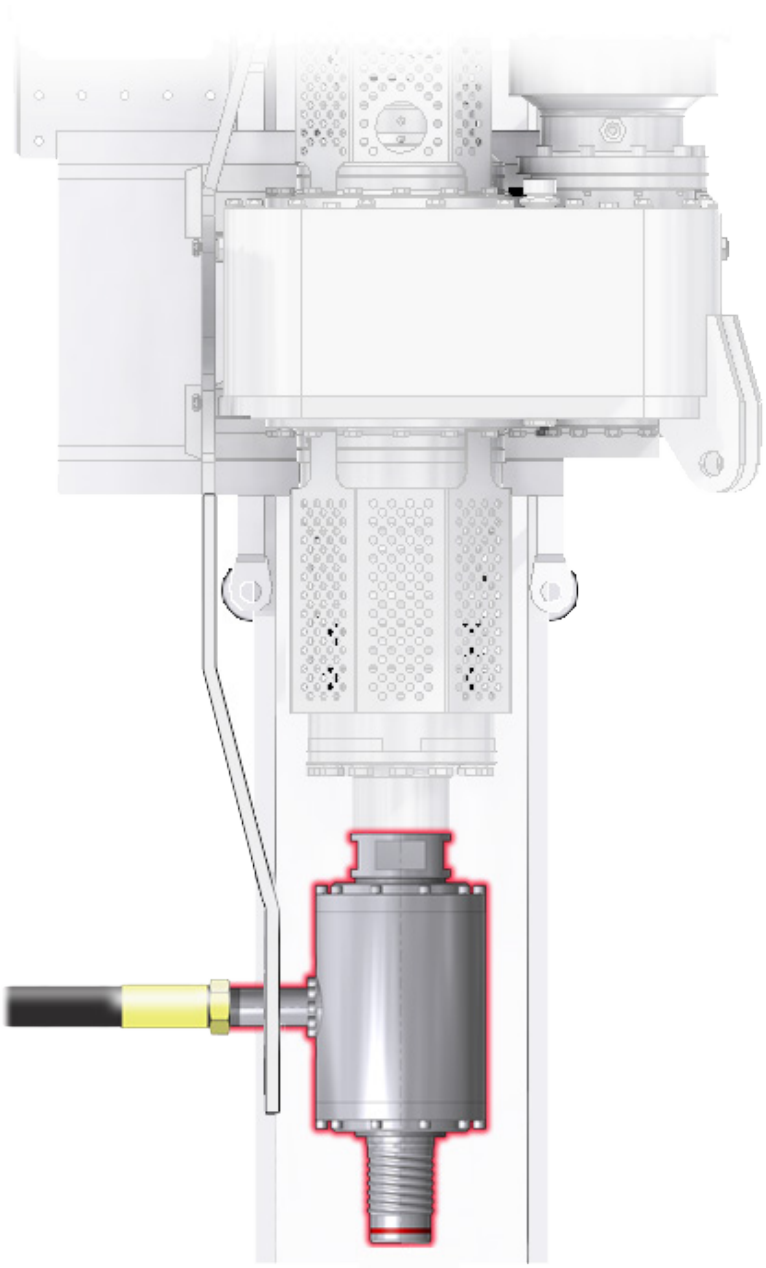


FIG. 2.8

J-SW11312R (REF. FIG. 2.8)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-SW11312R-S	KIT RICAMBI SWIVEL J-SW11	J-SW11 SWIVEL PARTS KIT	1	
1.1	*J-SW11312R-K*	*KIT GUARNIZ. SWIVEL J-SW11*	*J-SW11 SWIVEL SEALS KIT*	*1*	
1.1.1	*MR-A100X125X12*	*PARAOLIO 100X125X12 SING.LAB*	*100x125x12 LIP SEAL*	*2*	*(1)*
1.1.2	*MR-OR846*	*GUARN O-RING 846 RIF POLYPAC*	*O-RING 846 SEAL REF. POLYPAC*	*2*	*(1)*
1.1.3	*MR-OR126*	*O-RING 126 RIF POLYPAC*	*O-RING 126 SEAL REF. POLYPAC*	*1*	*(1)*
1.1.4	*D-0604-12*	*R15-P60.8X67XL5.9 H-ECOPUR*	*R15-P60.8X67XL5.9 H-ECOPUR*	*1*	*(1)*
1.1.5	*MR-SM374295-2CX*	*GUARN. SM374295-2CX 75X95X30*	*SM374295-2CX 75X95X30 SEAL*	*2*	*(1)*
1.2	*D-1573-4*	*PREMIGUARNIZIONI*	*SEALS PLATE*	*2*	*(1)*
1.3	*D-1573-5*	*DISTANZIALE*	*SPACER*	*1*	*(1)*
1.4	*D-1573-7*	*DISTANZIALE ESTERNO*	*EXTERNAL SPACER*	*1*	*(1)*
1.5	*MR-7315BE*	*CUSC. OBLIQUO 7315BE 75x160x37*	*7315BE 75x160x37 BEARING*	*2*	*(1)*
1.6	*7436D75S4*	*AN. EL. TIPO RINF. FOR.75 SP.4 UNI7436*	*ELASTIC RING D.75 SP.4 UNI7436*	*1*	*(1)*
2	D-1573-1	CORPO ESTERNO	EXTERNAL BODY	1	
3	D-1573-3	FLANGIA	FLANGE	2	
4	D-1573-6	ALBERO SWIVEL D.75 3"-1/2 ARM	D.75 3”-1/2 ARM SWIVEL SHAFT	1	
5	D-699-3-4-2	ATTACCO 1”-1/4 FLANGIATO	1”-1/4 FLANGED INLET	1	
6	SCHNORM8ZB	RONDELLA SHNORR M8	M8 SHNORR WASHER	30	
7	5931M8X20P12588ZB	VITE TCEI UNI5931 M8x20	UNI5931 M8x20 SOCKET SCREW	10	
8	5931M8X40P12588ZB	VITE TCEI UNI5931 M8x40	UNI5931 M8x40 SOCKET SCREW	20	
9	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	2	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



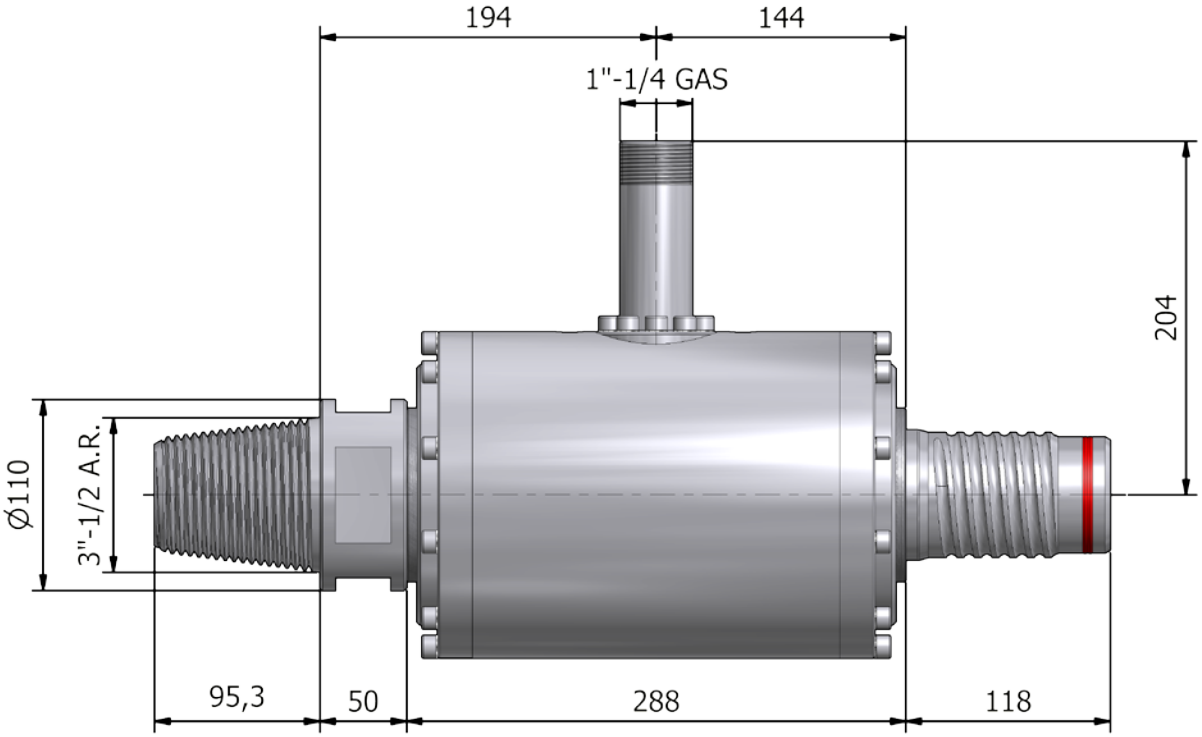
Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

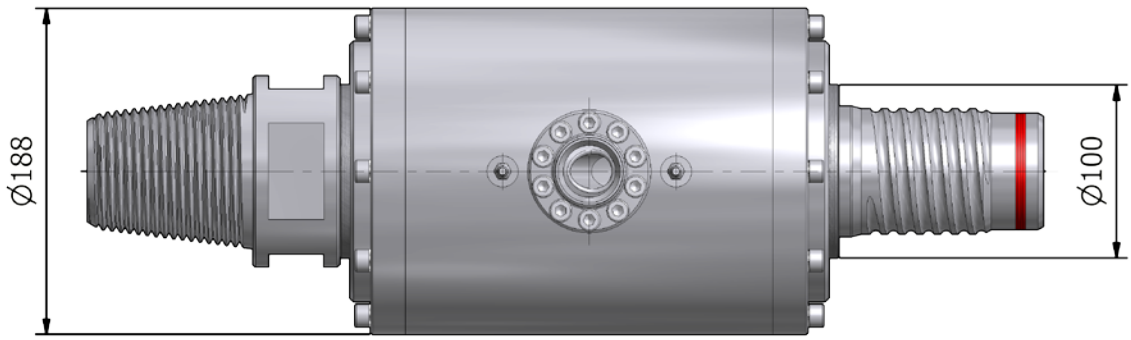
Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare i cuscinetti almeno ogni 3h con grasso a base di litio.

Maintenance:
Lubricate the roller bearings at least every 3h using lithium based grease.

CODICE CODE	J-SW11312R
PRESSIONE MASSIMA MAX PRESSURE	50 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	25 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	80 RPM
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM
COPPIA MASSIMA APPLICABILE MAX TORQUE	21 KNm
MEDIA MEDIUM	ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATRE AND GROUT-WATER MIX (RATIO G:W MAX 1,4)
PESO WEIGHT	60 KG





2.9 D.114 ROTOP. JET SWIVEL H90 THREAD (410 L/MIN.-560 BAR): J-11JRPH90

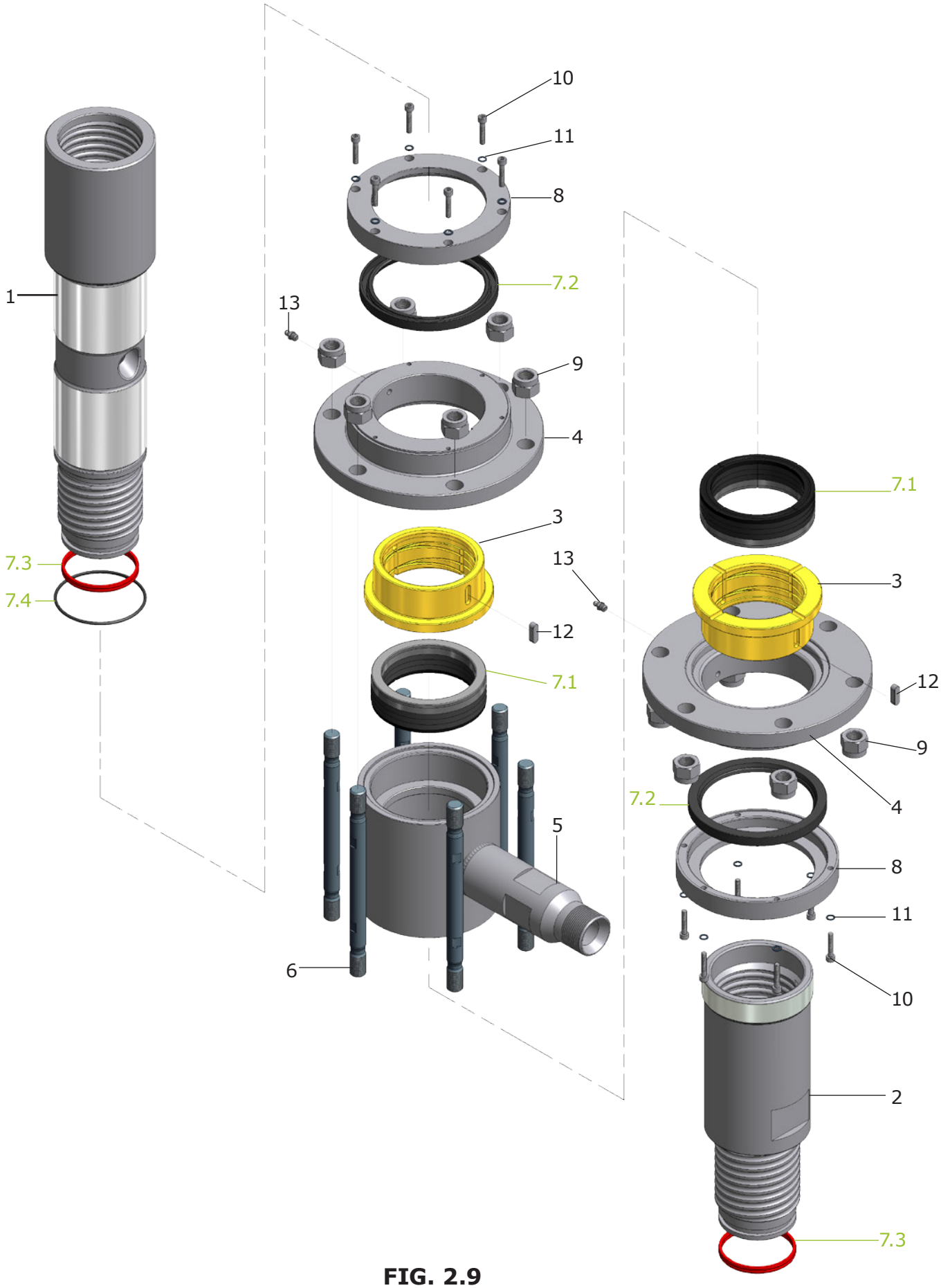
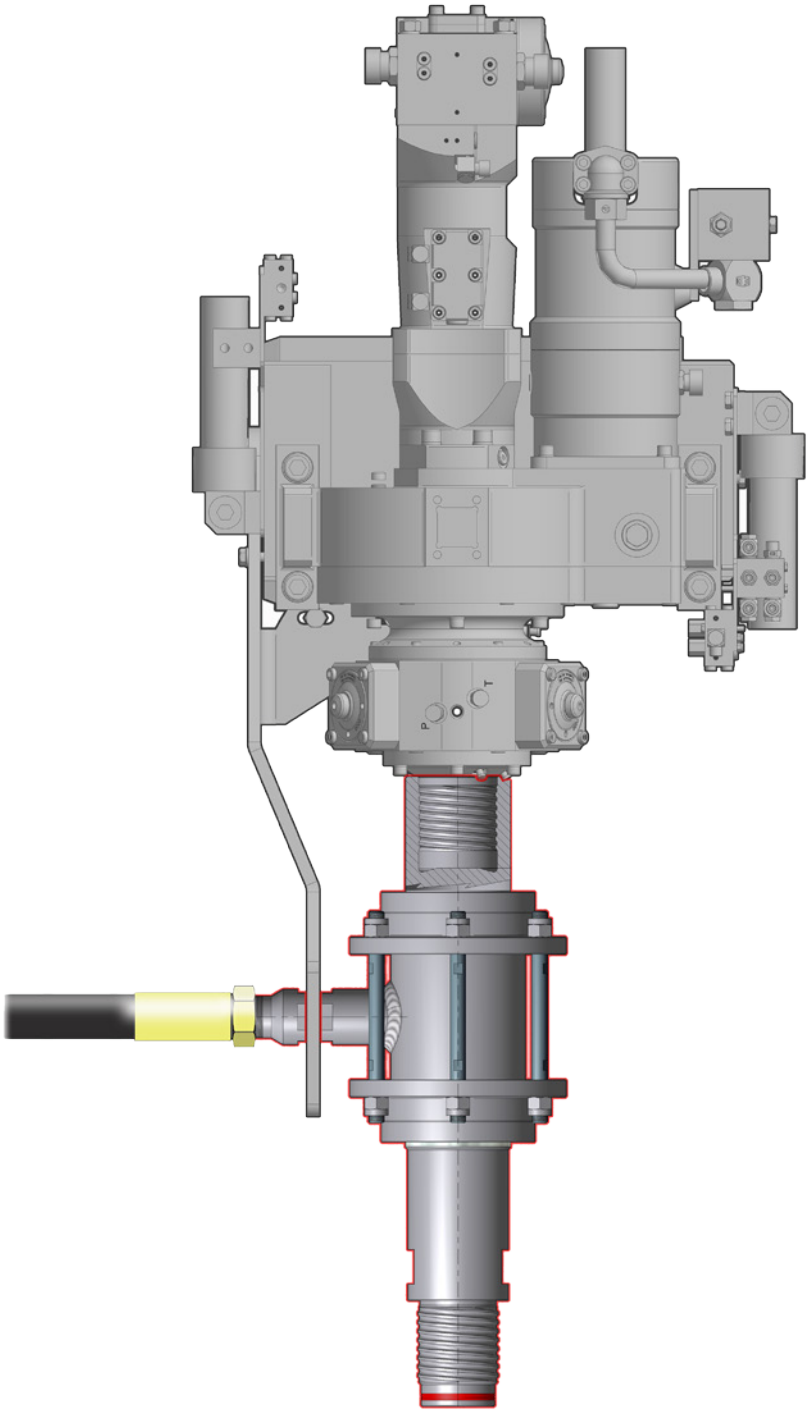


FIG. 2.9

J-11JRPH90 (REF. FIG. 2.9)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1707-20-1	ALBERO TESTA D.114 JET RP	D.114 ROTOP. HP JET SWIVEL SHAFT	1	
2	D-1707-20-2	MANICOTTO INF. D.114 JET RP M	SWIVEL LOWER MALE COUPLING	1	
3	D-1571-6-3	BRONZINA TESTA D.114 JET RP	SWIVEL BRONZE BUSHING	2	
4	D-1571-6-5	FLANGIA TESTA D.114 JET RP	D.114 ROTOP. JET SWIVEL FLANGE	2	
5	D-1571-6-11	CORPO EST. TESTA D.114 JET RP	EXTERNAL SWIVEL BODY	1	
6	D-1707-20-13	TIRANTE TESTA D.114 JET RP	SWIVEL BODY SCREW	6	
7	J-11JRPC90-K	KIT GUARN. TESTA D.114 JET RP	D.114 JET RP SWIVEL SEALS KIT	1	
7.1	*MR-CH492393*	*CH492393 125x100x36.9 RIF POLYPAC*	*CH492393 REF. POLYPAC*	*2*	*(1)*
7.2	*MR-A120X150X12*	*PARAOLIO SING. LABBRO 150x120x12*	*SINGLE LIP SEAL 150x120x12*	*2*	*(1)*
7.3	*R15-P76X84XL7.7*	*R15-P 76x84xL7.7 H-ECOPUR*	*R15-P 76x84xL7.7 H-ECOPUR*	*2*	*(1)*
7.4	*MR-OR239*	*O-RING 239 RIF. POLYPAC*	*O-RING 239 REF. POLYPAC*	*1*	*(1)*
8	D-1561-6-10	FLANGIA PARAOLIO	LIP SEAL FLANGE	2	
9	7473M18P156SZB	DADO UNI 7473 M18x1.5	UNI 7473 M18x1.5 LOCKNUT	12	
10	5931M6X30P1129GR	VITE TCEI M6x30 CL.12.9	SOCKET HEAD SCREW M6x30 12.9	12	
11	SCHNORM6ZB	RONDELLA SHNORR M6	M6 SHNORR WASHER	12	
12	6604A7X8X25	LINGUETTA 8x7x25	PARALLEL KEY 8x7x25	2	
13	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	2	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



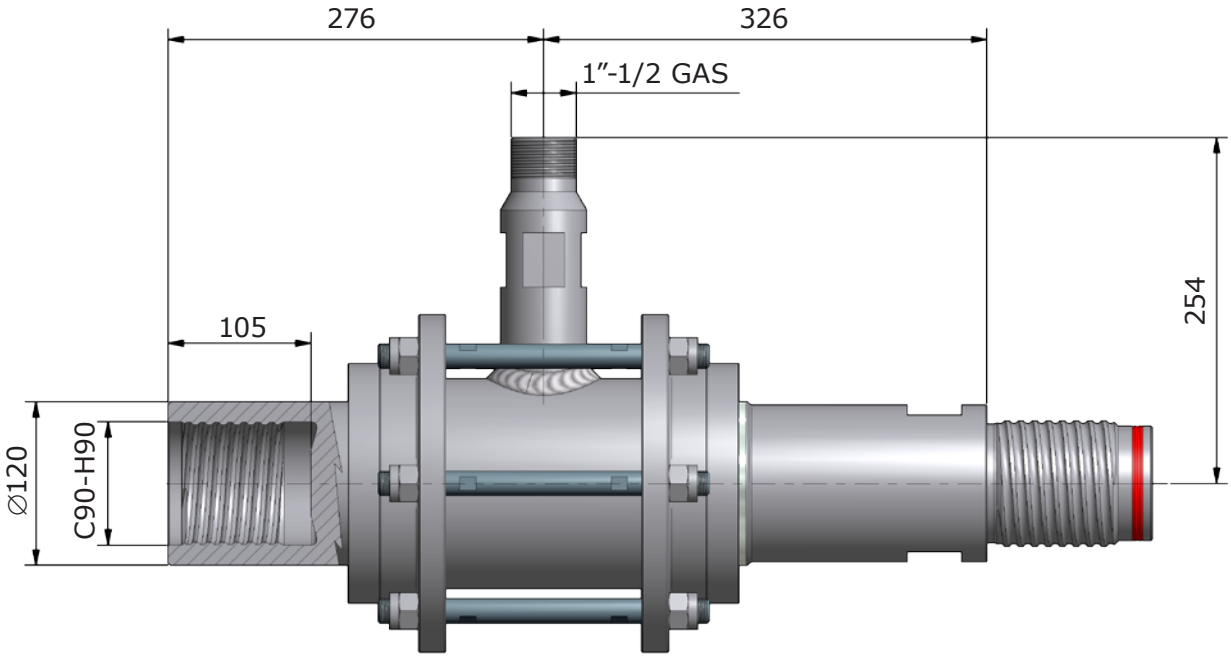
Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

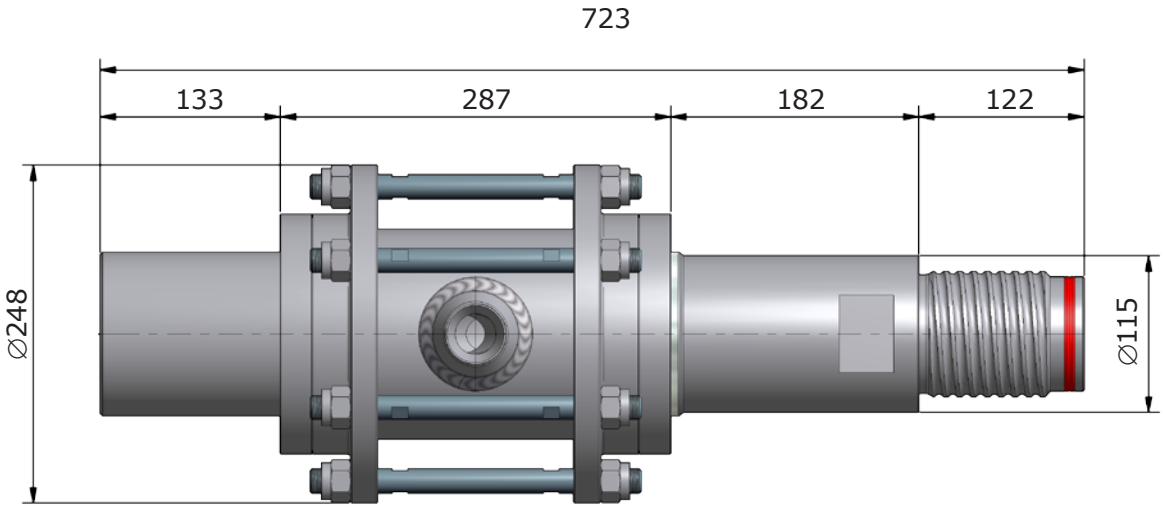
Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare le bronzine almeno ogni 3h con grasso a base di litio.

Maintenance:
Lubricate the bushings at least every 3h using lithium based grease.

CODICE CODE	J-11JRPH90
PRESSIONE MASSIMA MAX PRESSURE	50 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	20 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	30-35 RPM
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM
COPPIA MASSIMA APPLICABILE MAX TORQUE	25 KNm
MEDIA MEDIUM	ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATRE AND GROUT-WATER MIX (RATIO G:W MAX 1,4)
PESO WEIGHT	78 KG





2.10 L.P. D.90 C2 AIR SWIVEL: J-8C214550

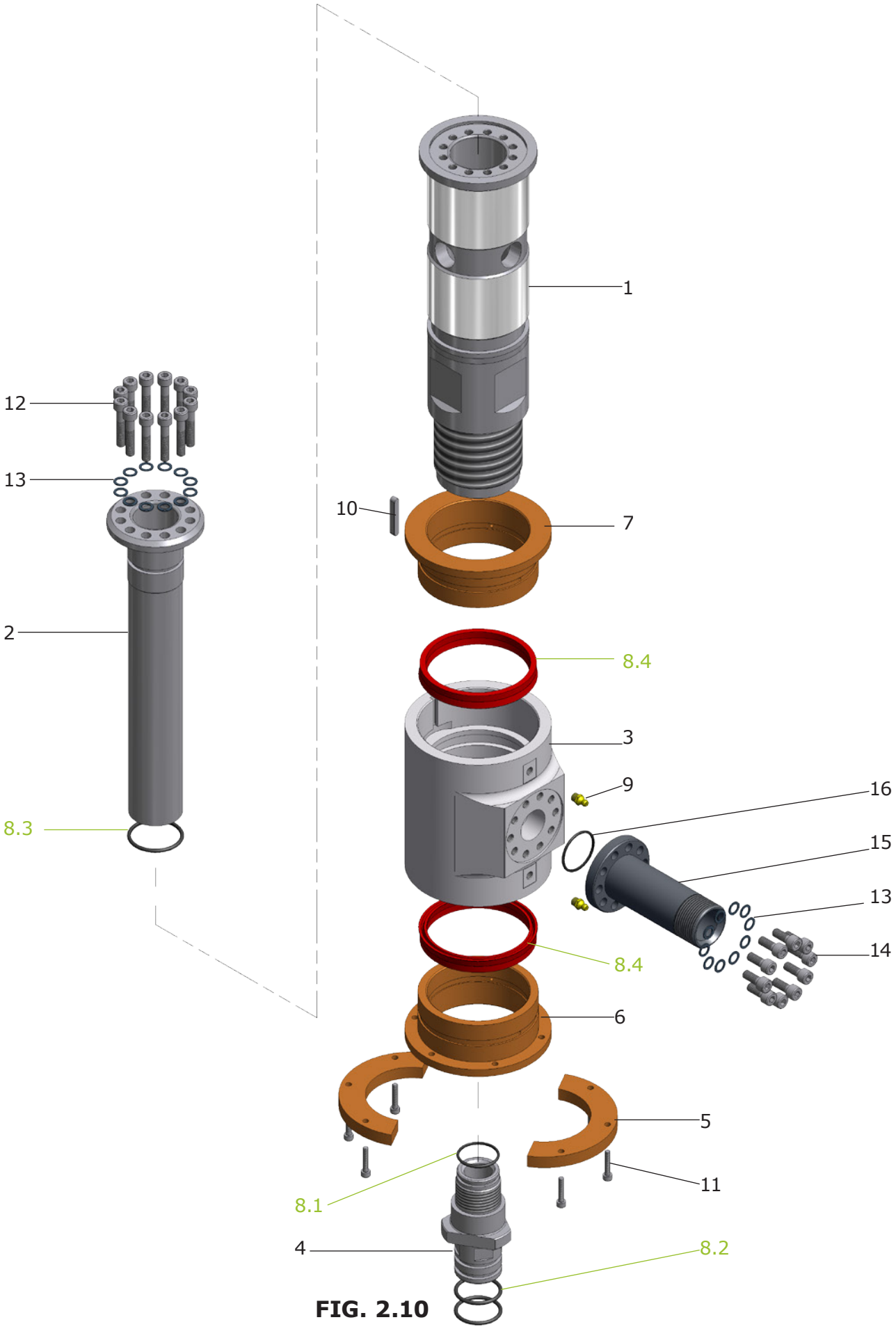
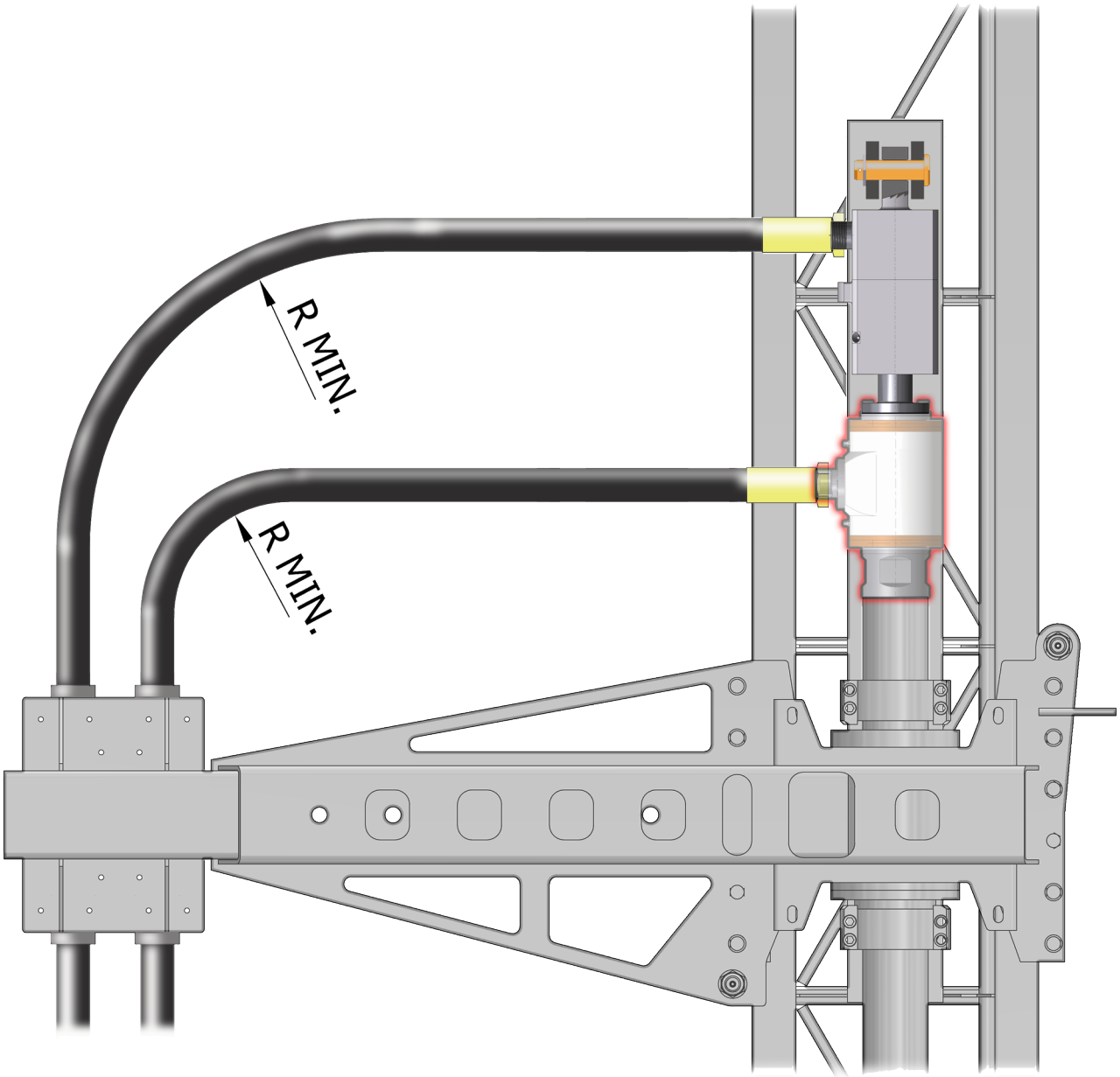


FIG. 2.10

J-8C214550 (REF. FIG. 2.10)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-8C214552	ALBERO TESTA B.P. C2	L.P. SWIVEL SHAFT C2 TYPE	1	
2	J-8C214555	ALBERO INT. TESTA B.P. C2	L.P. SWIVEL INNER SHAFT C2 TYPE	1	
3	J-8C214553	CORPO TESTA B.P. C2 MAX D. 90	L.P. SWIVEL BODY C2 TYPE	1	
4	J-8C214513	MANICOTTO TESTA B.P.	L.P. SWIVEL COUPLING	1	
5	J-8C214507	BRONZINA 1/2 TESTA B.P.	HALF BRONZE BUSHING	1+1	
6	J-8C214506	BRONZINA TESTA B.P.	BRONZE BUSHING	1	
7	J-8C214505	BRONZINA TESTA B.P. SUPERIORE	UPPER BRONZE BUSHING	1	
8	J-8C214551	KIT GUARNIZ. TESTA ARIA/B.P. C2	C2 AIR L.P. SWIVEL SEALS KIT	1	
8.1	*MR-OR125*	*O-RING RIF. POLYPAC 125*	*O-RING REF. POLYPAC 125*	*1*	*(1)*
8.2	*MR-OR220*	*O-RING RIF.POLYPAC 220*	*O-RING REF.POLYPAC 220*	*2*	*(1)*
8.3	*MR-OR826*	*O-RING RIF. POLYPAC 826*	*O-RING REF. POLYPAC 826*	*1*	*(1)*
8.4	*MR-MUP10590*	*GUARNIZ. MU/P 105/90 RIF.POLYPAC*	*MU/P SEAL 105/90 RIF.POLYPAC*	*2*	*(1)*
9	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	2	
10	6604A6X6X40	LINGUETTA 6x6x40	6x6x40 PARALLEL KEY	1	
11	5931M5X25P0888ZB	VITE TCEI M5x25	SOCKET SCREW M5x25	6	
12	5931M8X40P125129GR	VITE TCEI M8x40 12.9 UNI5931	SOCKET SCREW M8x40 12.9 UNI5931	12	
13	SCHNORM8ZB	RONDELLA SCHNORR D.8	D.8 SHNORR WASHER	22	
14	5931M8X20P125129GR	VITE TCEI M8x20 12.9	SOCKET SCREW M8x20 12.9 UNI5931	10	
15	D-0699-3-4-2	ATTACCO TESTA ARIA 1"-1/4	1”-1/4 AIR INLET	1	
16	MR-OR126	O-RING 126 RIF POLYPAC	O-RING 126 REF. POLYPAC	1	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



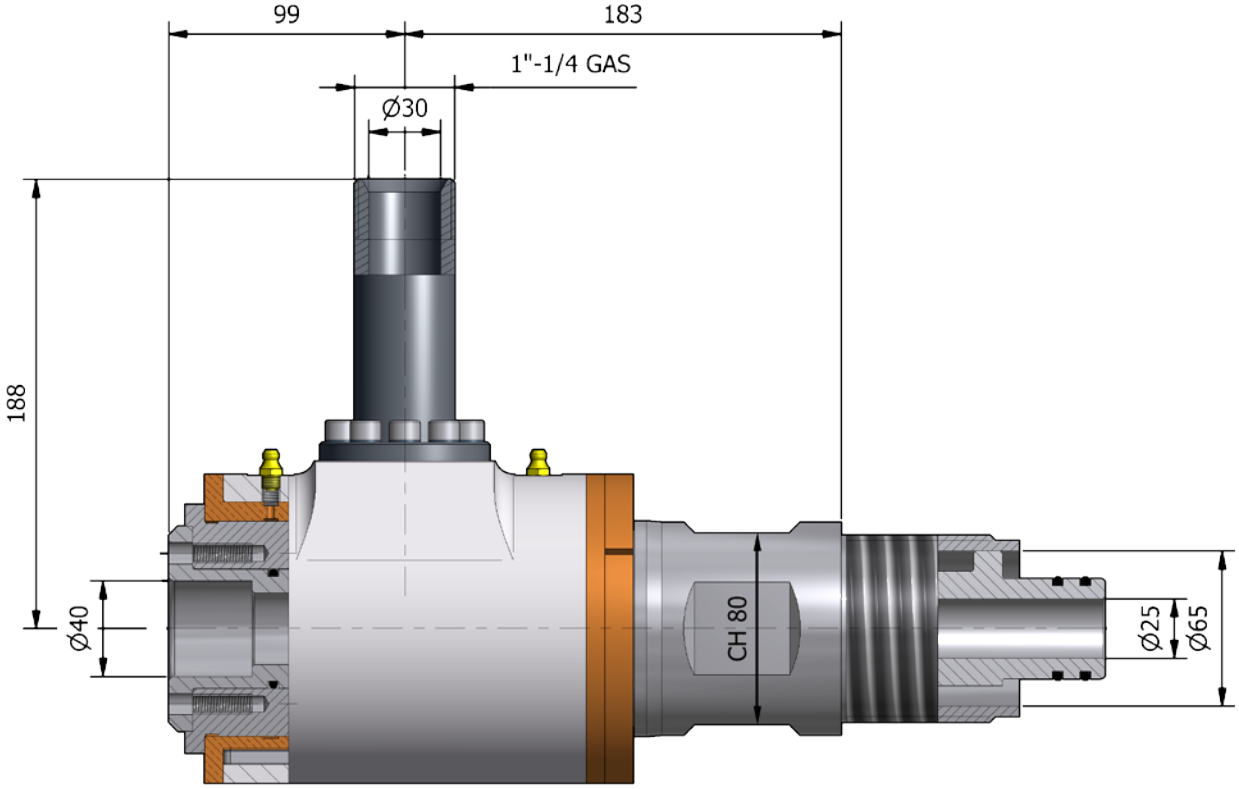
Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

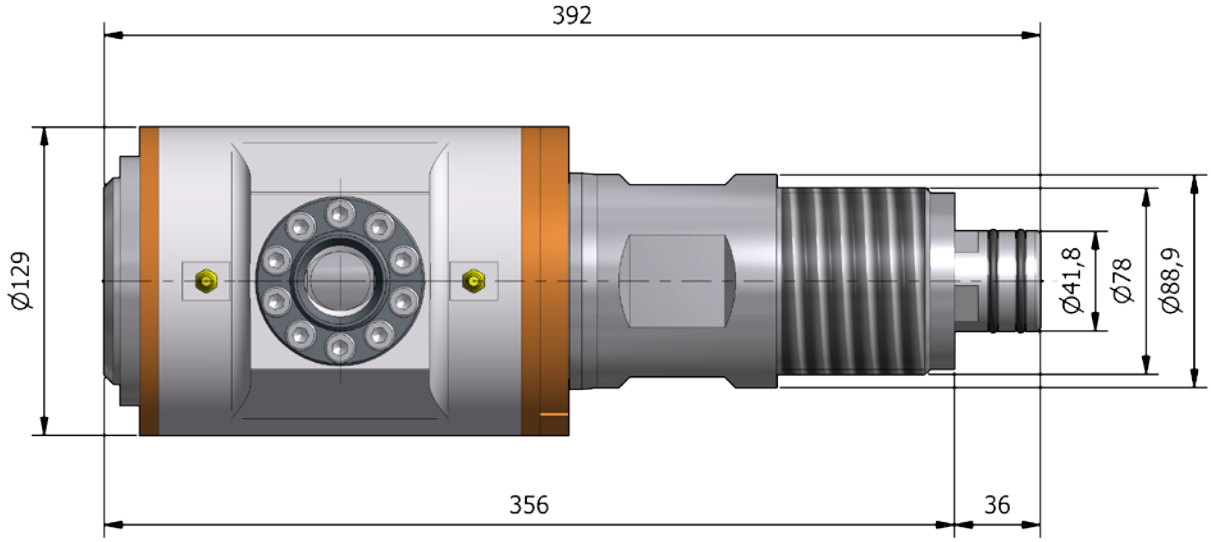
Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare le bronzine almeno ogni 3h con grasso a base di litio.

Maintenance:
Lubricate the bushings at least every 3h using lithium based grease.

CODICE CODE	J-8C214550
PRESSIONE MASSIMA MAX PRESSURE	3 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	2,4 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +110 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	35 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	110 RPM
MEDIA MEDIUM	AIR
PESO WEIGHT	19 KG





2.11 UNDER ROTARY L.P. D.90 JET AIR SWIVEL: J-SW914550

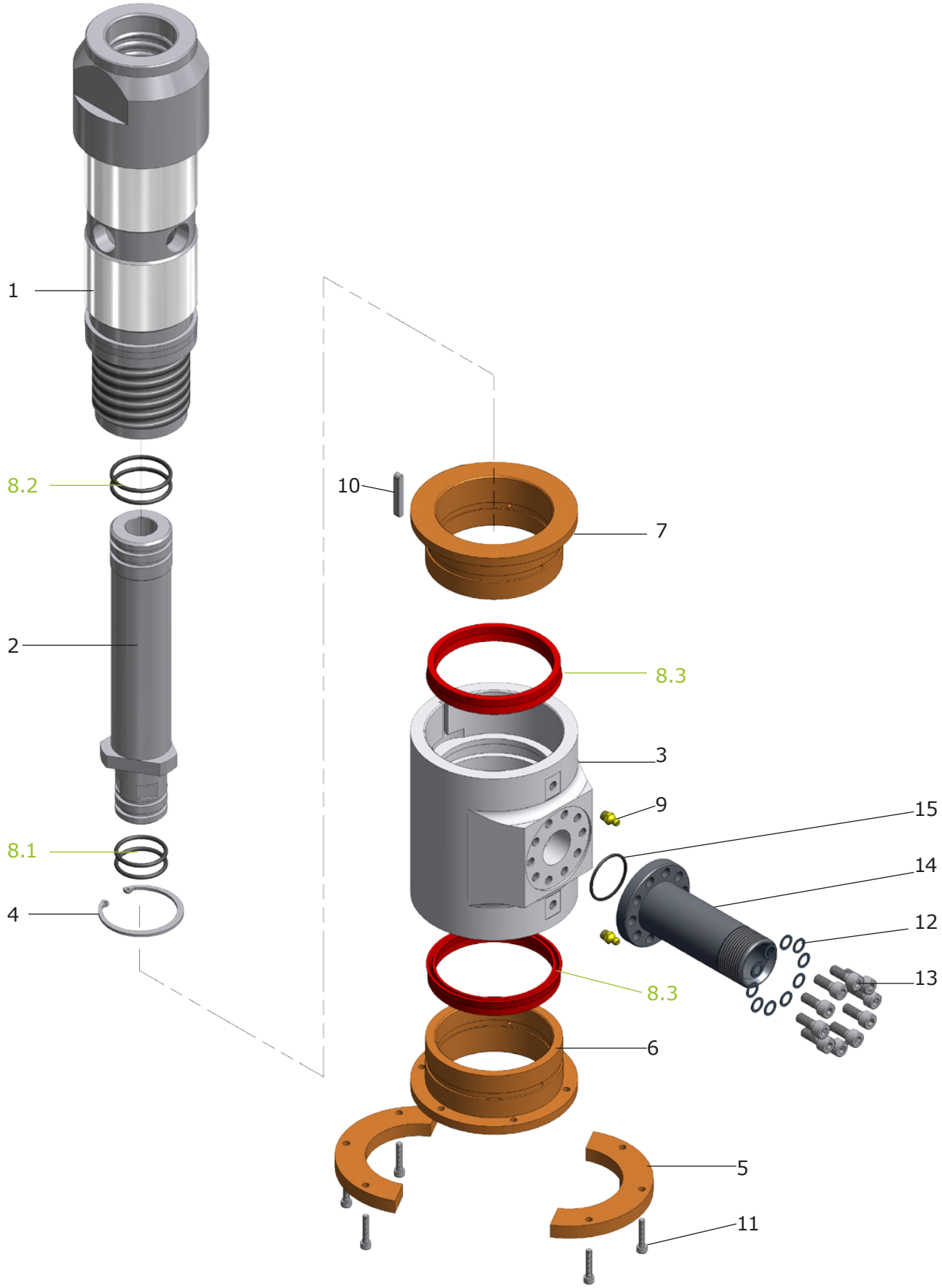
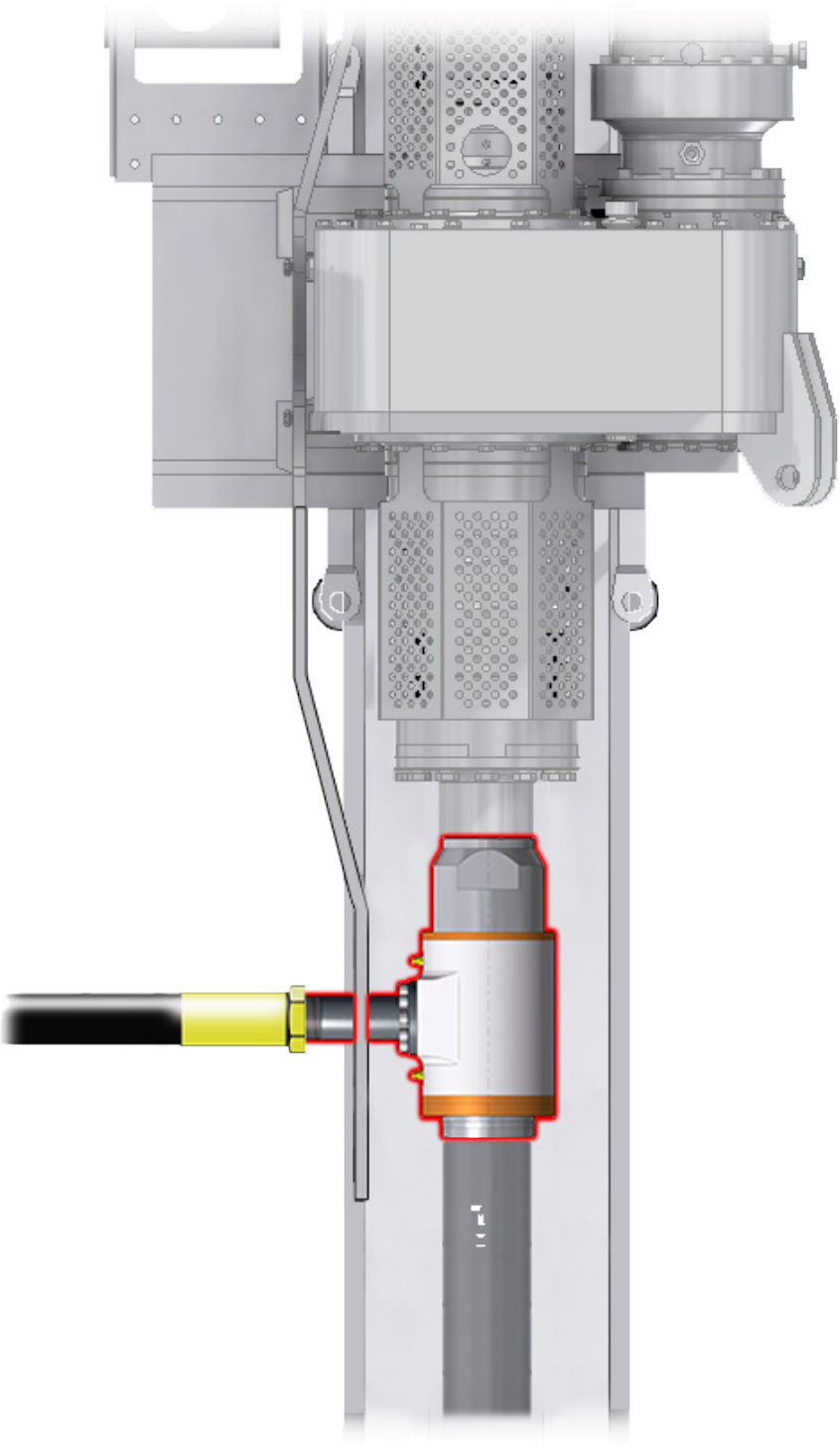


FIG. 2.11

J-SW914550 (REF. FIG. 2.11)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1745-1	ALBERO TESTA B.P. SOTTO TESTA	L.P. SWIVEL SHAFT C2 TYPE	1	
2	D-1745-2	ALBERO INT. TESTA B.P. S. TESTA	L.P. SWIVEL INNER SHAFT C2 TYPE	1	
3	J-8C214553	CORPO TESTA B.P. C2 MAX D. 90	L.P. SWIVEL BODY C2 TYPE	1	
4	7437D65S25	SEEGER X INTERNI 65 MM	ELASTIC HOLE RING D.65	1	
5	J-8C214507	BRONZINA 1/2 TESTA B.P.	HALF BRONZE BUSHING	1+1	
6	J-8C214506	BRONZINA TESTA B.P.	BRONZE BUSHING	1	
7	J-8C214505	BRONZINA TESTA B.P. SUPERIORE	UPPER BRONZE BUSHING	1	
8	J-SW914550-K	KIT GUARNIZ. TESTA ARIA/B.P. S.T.	UNDER ROTARY AIR SW. SEALS KIT	1	
8.1	*MR-OR220*	*O-RING RIF.POLYPAC 220*	*O-RING REF.POLYPAC 220*	*2*	*(1)*
8.2	*MR-OR826*	*O-RING RIF. POLYPAC 826*	*O-RING REF. POLYPAC 826*	*1*	*(1)*
8.3	*MR-MUP10590*	*GUARNIZ. MU/P 105/90 RIF.POLYPAC*	*MU/P SEAL 105/90 RIF.POLYPAC*	*2*	*(1)*
9	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	2	
10	6604A6X6X40	LINGUETTA 6x6x40	6x6x40 PARALLEL KEY	1	
11	5931M5X25P0888ZB	VITE TCEI M5x25	SOCKET SCREW M5x25	6	
12	SCHNORM8ZB	RONDELLA SCHNORR D.8	D.8 SHNORR WASHER	10	
13	5931M8X20P125129GR	VITE TCEI M8x20 12.9	SOCKET SCREW M8x20 12.9 UNI5931	10	
14	D-0699-3-4-2	ATTACCO TESTA ARIA 1"-1/4	1”-1/4 AIR INLET	1	
15	MR-OR126	O-RING 126 RIF POLYPAC	O-RING 126 REF. POLYPAC	1	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



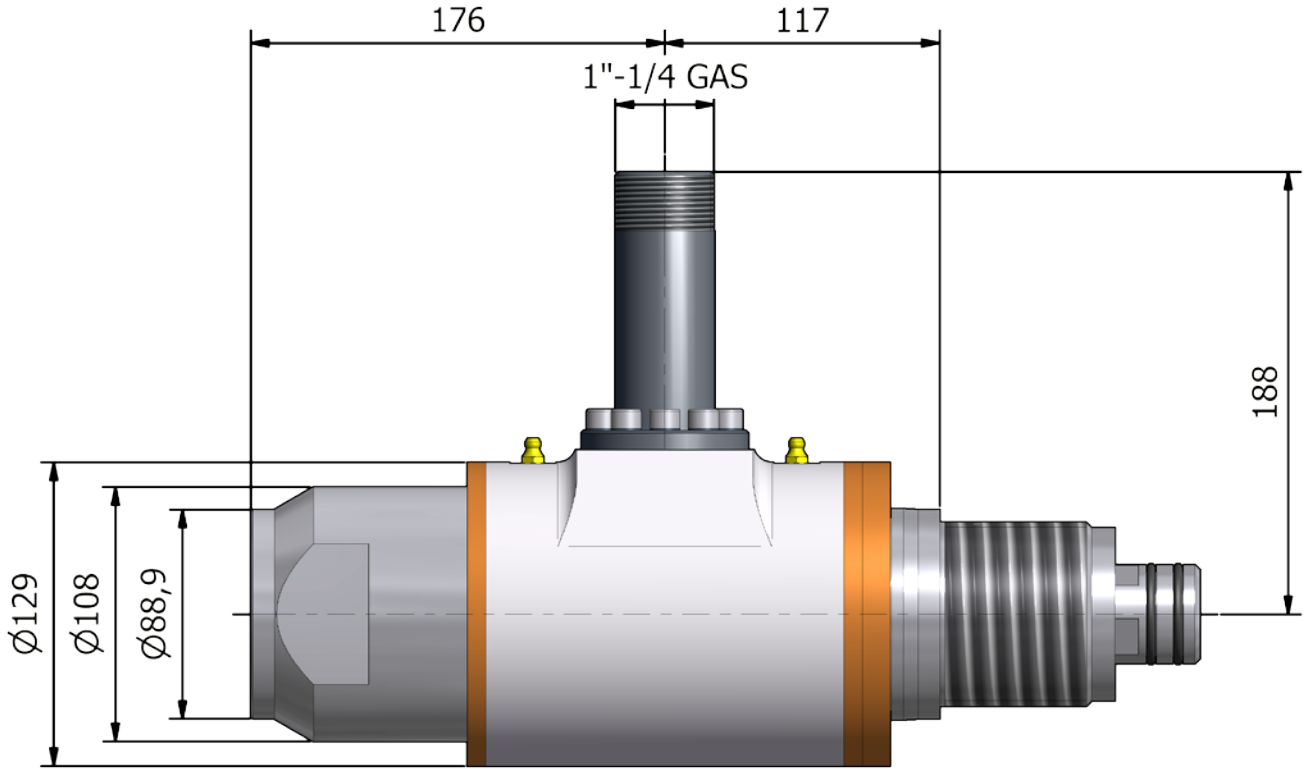
Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

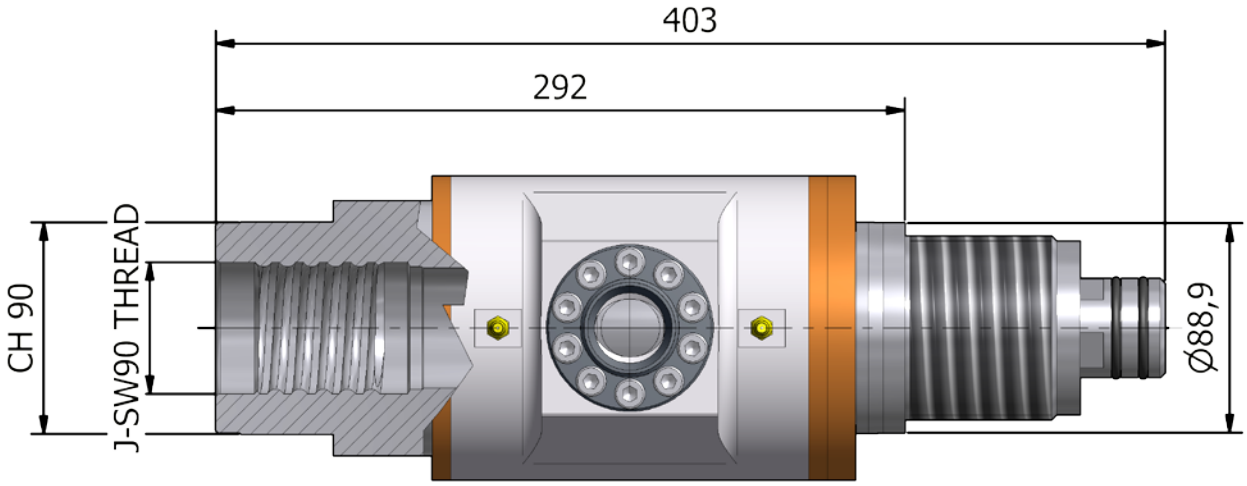
Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare le bronzine almeno ogni 3h con grasso a base di litio.

Maintenance:
Lubricate the bushings at least every 3h using lithium based grease.

CODICE CODE	J-SW914550
PRESSIONE MASSIMA MAX PRESSURE	3 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	2,4 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +110 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	35 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	110 RPM
MEDIA MEDIUM	AIR
COPPIA MASSIMA APPLICABILE MAX TORQUE	15 KNm
PESO WEIGHT	20,5 KG





2.12 MODULAR H.P. SWIVEL D.45 C2 GROUT-AIR: J-AMHPS4C2

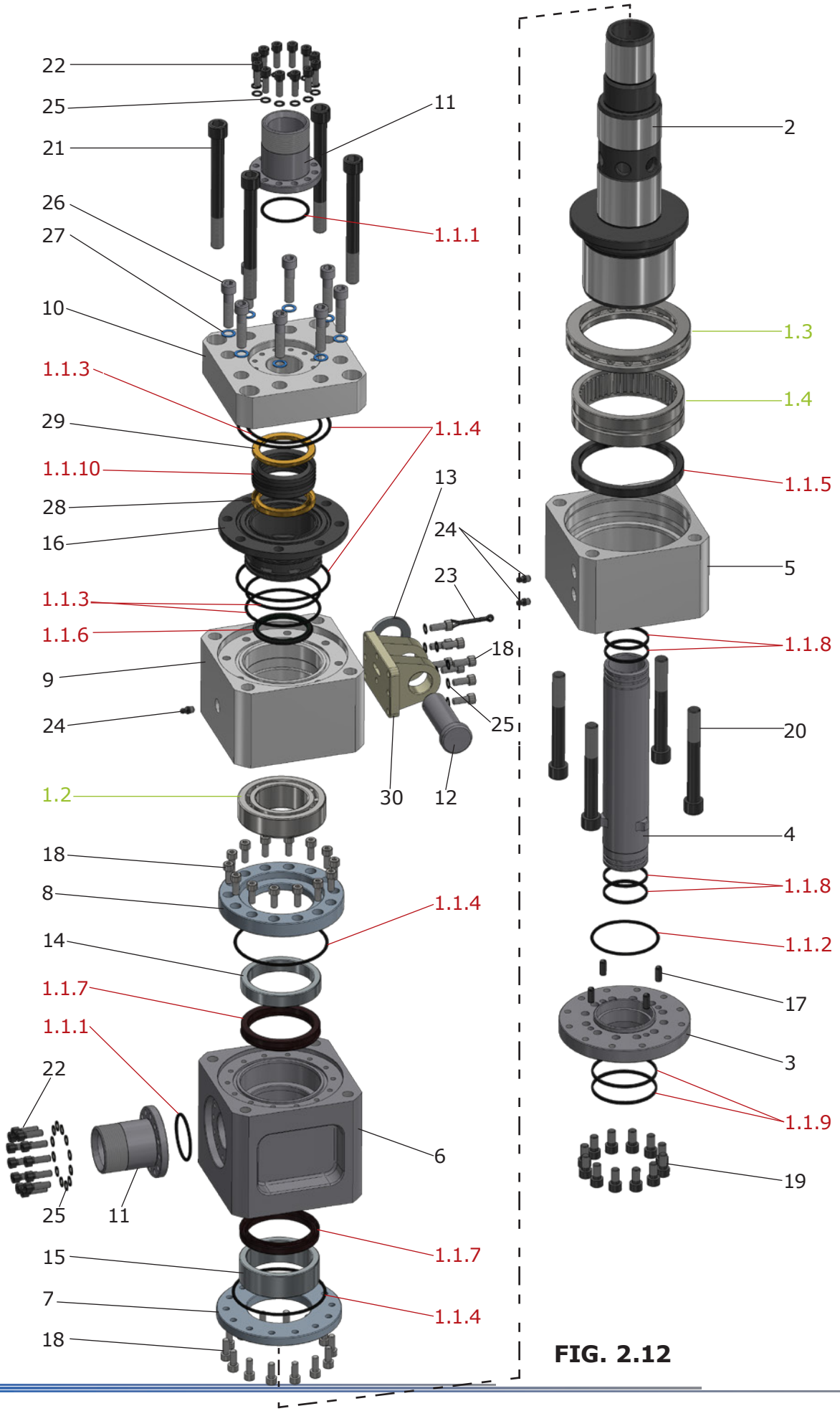
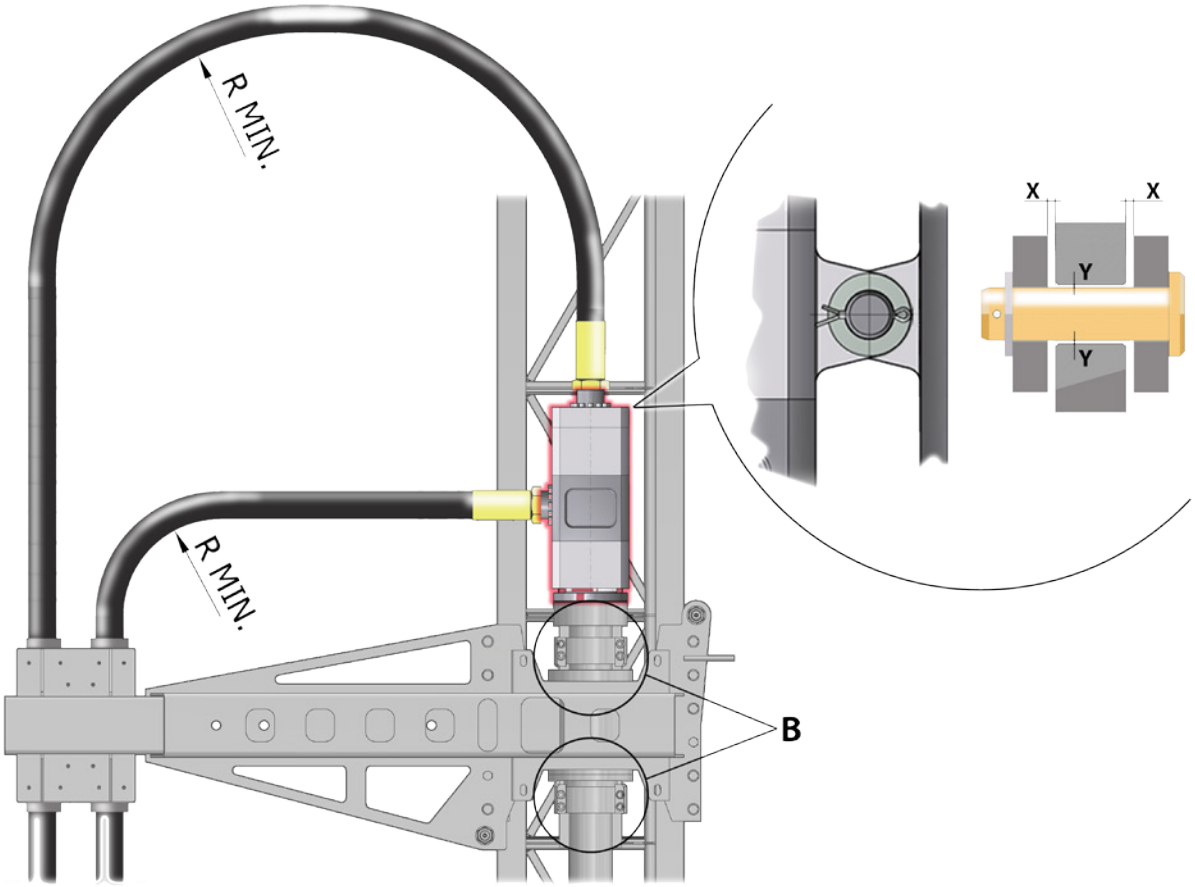


FIG. 2.12

J-AMHPS4C2 (REF. FIG. 2.12)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-AMHPS4C2-A	KIT RICAMBI MODULAR SWIVEL C2	SPARE PARTS KIT MODULAR SW.	1	
1.1	J-AMHPS4C2-B	KIT GUARNIZIONI MODULAR SWIVEL C2	SEALS KIT MODULAR SWIVEL C2	1	
1.1.1	MR-OR227	O-RING 227 RIF POLYPAC	O-RING 227 REF. POLYPAC	2	(1)
1.1.2	MR-OR235	O-RING 235 RIF POLYPAC	O-RING 235 REF. POLYPAC	1	(1)
1.1.3	MR-OR238	O-RING 238 RIF POLYPAC	O-RING 238 REF. POLYPAC	3	(1)
1.1.4	MR-OR245	O-RING 245 RIF. POLYPAC	O-RING 245 REF. POLYPAC	4	(1)
1.1.5	MR-A115X140X12	PARAOLIO A 115X140X12 SINGOLO LAB.	ONE LIP SEAL A 115X140X12	1	(1)
1.1.6	MR-IG/R0600	GUARNIZ. IG/R 0600 RIF. POLYPAC	IG/R 0600 SEAL REF. POLYPAC	1	(1)
1.1.7	MR-MUP80100	GUARNIZ. MU/P 80-100 RIF POLYPAC	MU/P 80-100 SEAL REF. POLYPAC	2	(1)
1.1.8	D-1410-A	K35-P 56X51.5 L=3.5 T-ECOPUR	K35-P 56X51.5 L=3.5 T-ECOPUR	4	(1)
1.1.9	D-1410-B	K35-P 82X77.5 L=3.5 T-ECOPUR	K35-P 82X77.5 L=3.5 T-ECOPUR	2	(1)
1.1.10	KIT-CH314236	CH314236 (4+1 ELEM.)	CH314236 SEAL (4+1 RINGS)	1	(1)
1.2	MR-3DE33113	CUSCINETTO 3DE 65X110X34 ISO355	3DE 65X110X34 ISO355 BEARING	1	(1)
1.3	MR-51124	CUSC. 120X155X25 DIN711	120X155X25 DIN711 BEARING	1	(1)
1.4	MR-RNA4920	RNA4920 115X140X40 DIN617	RNA4920 115X140X40 DIN617	1	(1)
2	D-1410-1	ALBERO TESTA MODULARE	MODULAR SWIVEL SHAFT	1	
3	D-1410-2	FLANGIA INFERIORE	LOWER FLANGE	1	
4	D-1410-3	TUBO INTERNO	INNER PIPE	1	
5	D-1410-4	STADIO N°4 TESTA	SWIVEL BODY PART No.4	1	
6	D-1410-5	STADIO N°3 TESTA	SWIVEL BODY PART No.3	1	
7	D-1410-6	FLANGIA INTERNA INFERIORE	INNER LOWER FLANGE	1	
8	D-1410-7	FLANGIA INTERNA SUPERIORE	INNER UPPER FLANGE	1	
9	D-1410-8	STADIO N°2 TESTA	SWIVEL BODY PART No.2	1	
10	D-1410-9	STADIO N°1 TESTA	SWIVEL BODY PART No.1	1	
11	D-1410-10	ATTACCO 2” GAS	2” GAS INLET	2	
12	D-1410-11	PERNO	PIN	1	
13	D-1410-12	RONDELLA PER PERNO	PIN WASHER	1	
14	D-1410-13	DISTANZ. SUP MODULAR C2	UPPER SPACER	1	
15	D-1410-14	DISTANZ. INF MODULAR C2	LOWER SPACER	1	
16	D-1410-20-31	PORTA GUARN. MODULAR SWIVEL	SEALS HOUSING	1	

J-AMHPS4C2 (REF. FIG. 2.12)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
17	8735AD8X20	SPINA D.8X20-A ISO8735	D.8X20-A ISO8735 PIN	4	
18	5931M8X20P125129GR	VITE TCEI M8x20 12.9 UNI 5931	SOCKET SCREW M8x20 12.9	36	
19	5931M10X20P15129GR	VITE TCEI M10X20 12.9 UNI 5931	SOCKET SCREW M10X20 12.9	12	
20	5931M16X130P2129GR	VITE TCEI M16x130 12.9 UNI 5931	SOCKET SCREW M16x130 12.9	4	
21	5931M16X160P2129GR	VITE TCEI M16x160 CL 12.9 UNI 5931	SOCKET SCREW M16x160 12.9	4	
22	5931M8X25P125129GR	VITE TCEI M8x25 12.9 UNI5931	SOCKET SCREW M8x25 12.9	24	
23	1336D5X45ZB	COPIGLIA UNI1336-5x45	COTTER PIN UNI1336-5x45	1	
24	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	3	
25	SCHNORM8ZB	RONDELLA SCHNORR D.8	D.8 SHNORR WASHER	32	
26	5931M12X50P175129GR	VITE TCEI M12x50 12.9 UNI 5931	SOCKET SCREW M12x50 12.9	8	
27	SCHNORM12ZB	RONDELLA SCHNORR D.12	D.12 SHNORR WASHER	8	
28	D-1410-20-30	BASE RING PER CH314236 A 5 ELEM.	CH314236 X 5 RINGS BASE RING	1	
29	D-1410-20-32	ENERGISER RING PER CH314236 A 5 EL.	CH314236 X 5 RINGS ENERGISER RING	1	
30	D-1410-8-2	STAFFA DI ATTACCO	ATTACHMENT BRACKET	1	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

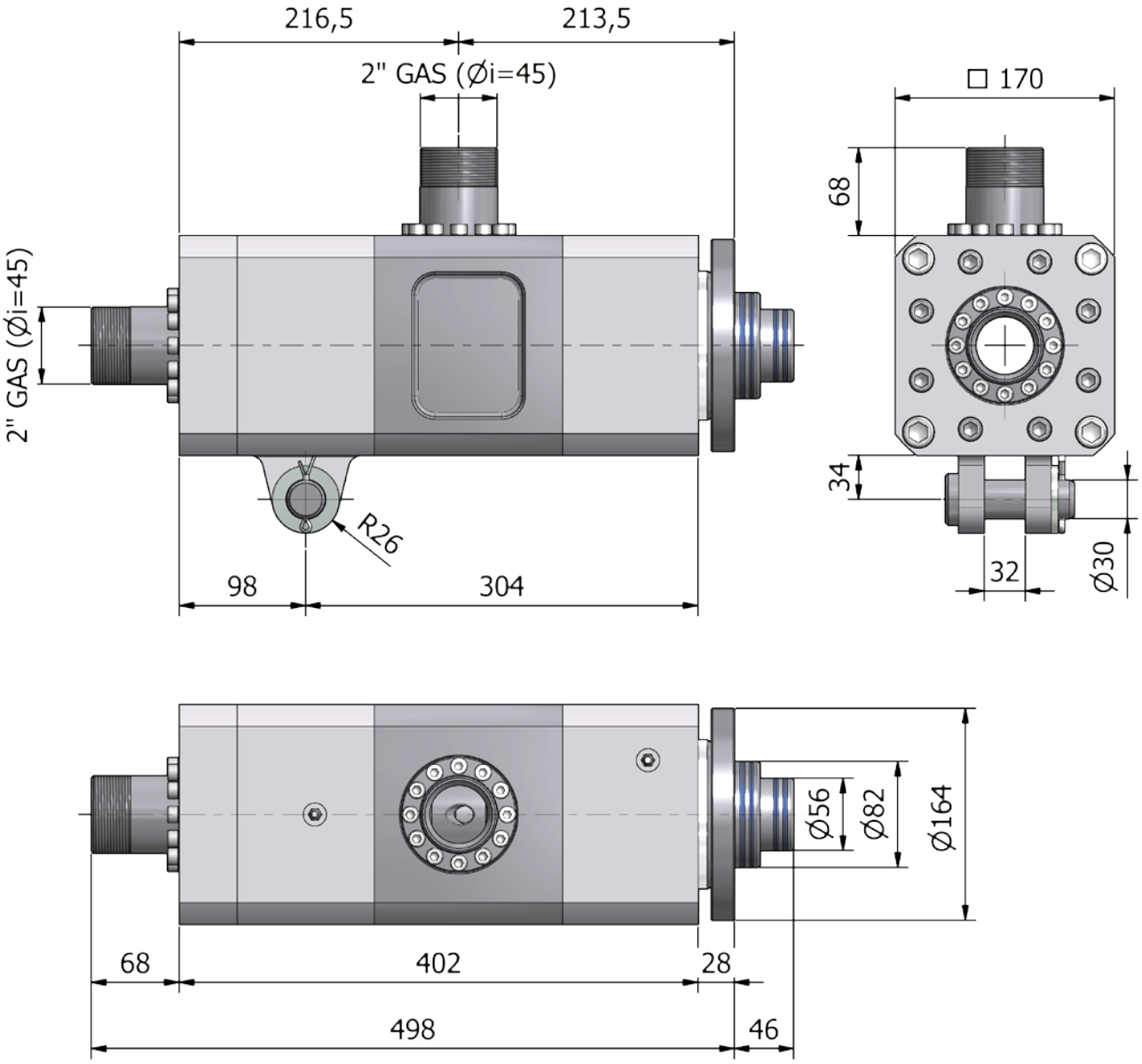
Manutenzione:
Ingrassare i cuscinetti almeno ogni 3h con grasso a base di litio. Cambiare il pacco guarnizioni quando dalla spia posta sotto l'ingresso del cemento (Safety port) si nota una perdita di cemento/acqua.

Maintenance:
Lubricate the roller bearings at least every 3h using lithium based grease. Replace the seals pack when a leackage from the safety port below the grout inlet occurs.

Ancoraggio:
La staffa antigiro e il carrello su cui fissare la testa, devono consentire un'escursione trasversale X di almeno 5 mm e radiale Y di 2 mm (vedi figura).
Nelle applicazioni con mandrino passante si raccomanda l'utilizzo di un carello simile a quello della figura. Il carello prevede due guide (dett. B in figura) fissate all'asta. Eventuali carichi in trazione e spinta sono assorbiti dalle guide. Inoltre le guide hanno una funzione di centratore e minimizzano carichi radiali dovuti alla eventuale eccentricità delle aste di perforazione.

Anchoring:
The anti-rotation bracket and the trolley where the swivel is locked must allow a transversal X gap of 5 mm at least and a Y radial gap of 2 mm (see the figure).
In the hollow clamp application it is reccommended the use of a trolley similar to the one shown in the figure. The trolley has two guides (detail B in the figure) fixed on the rod. Any thrust and pull loads are supported by these guides. Furthermore these guides have a centering function and reduce the radial loads caused by the eventual eccentricity of the drilling rods.

CODICE CODE	J-AMHPS4C2	
PRESSIONE MASSIMA MAX PRESSURE	56 MPa (CEMENTO / GROUT)	3 MPa (ARIA / AIR)
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa (CEMENTO / GROUT)	2,4 MPa (ARIA / AIR)
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +120 °C	
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	25 RPM (MAX 2 h)	
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	85-105 RPM	
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM	
TRAZIONE-SPINTA MASSIMA APPLICABILE MAX THRUST-PULL	45 KN	
MEDIA MEDIUM	ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATER AND GROUT-WATER MIX (RATIO G:W MAX 1,4)	AIR
PESO WEIGHT	48,7 KG	



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2.13 L.P. D.114 C2 AIR SWIVEL: J-8C212500

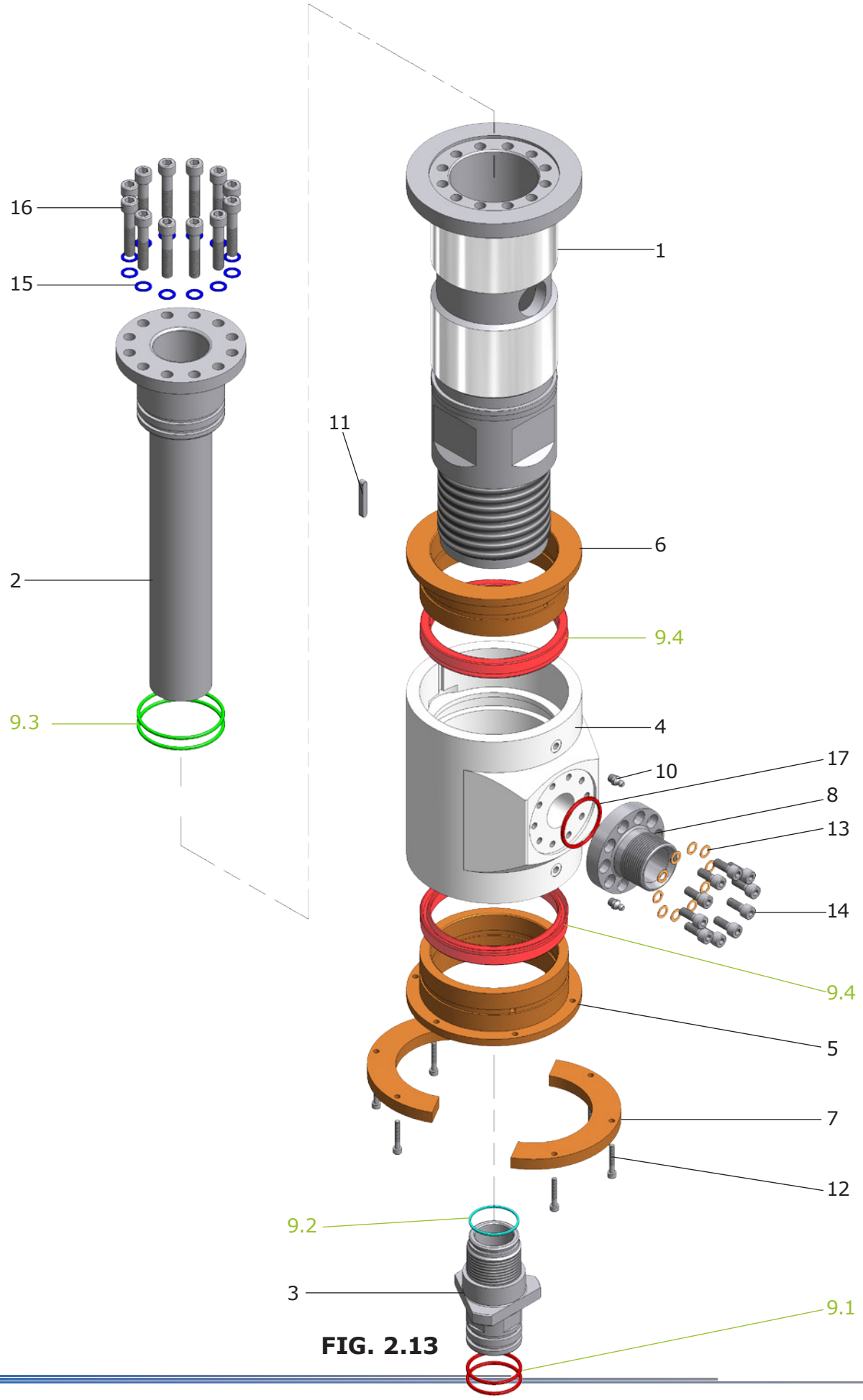
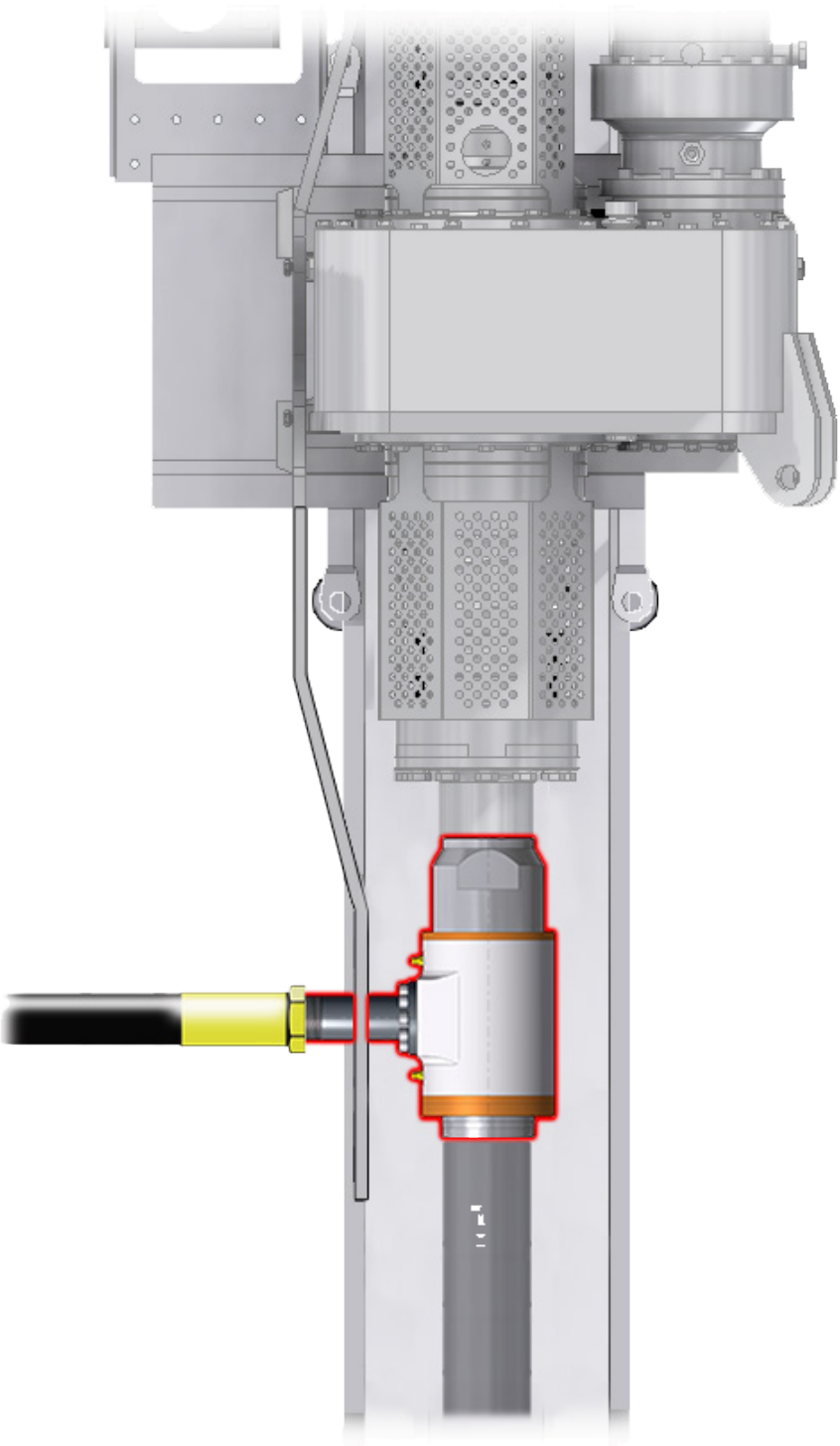


FIG. 2.13

J-8C212500 (REF. FIG. 2.13)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-8C212552	ALBERO TESTA B.P. C2 D.114 1"-1/2	L.P. C2 D.114 SWIVEL SHAFT	1	
2	J-8C212555	ALBERO INT. B.P. C2 D.114 1"-1/2	L.P. C2 D.114 SWIVEL INNER SHAFT	1	
3	J-8C212513	MANICOTTO TESTA B.P. D.114 1"-1/2	L.P. C2 D.114 SWIVEL COUPLING	1	
4	D-1089/3	CORPO EST. B.P. C2 D.114 1"-1/2	L.P. C2 D.114 SWIVEL BODY	1	
5	J-8C212507	BRONZINA INF. TESTA B.P. D.114	L.P. SW. LOWER BRONZE BUSHING	1	
6	J-8C212506	BRONZINA SUP. TESTA B.P. D.114	L.P. SW. UPPER BRONZE BUSHING	1	
7	J-8C212505	1/2 BRONZINA TESTA B.P. D.114	L.P. SW. BRONZE HALF BUSHING	1	
8	J-8C2TS709	ATTACCO 1"-1/2 TESTA	1”-1/2 INLET	1	
9	J-8C212501	KIT GUARNIZ. TESTA ARIA/B.P. C2	L.P. C2 D.114 SWIVEL SEALS KIT	1	
9.1	*MR-OR827*	*O-RING RIF POLYPAC 827*	*O-RING REF. POLYPAC 827*	*3*	*(1)*
9.2	*MR-OR130*	*O-RING 130 RIF POLYPAC*	*O-RING 130 REF. POLYPAC*	*1*	*(1)*
9.3	*MR-OR845*	*O-RING RIF POLYPAC 845*	*O-RING REF. POLYPAC 845*	*2*	*(1)*
9.4	*MR-MUP115135*	*GUARNIZ. MU/P 115-135 RIF.POLYPAC*	*MU/P 115-135 SEAL REF.POLYPAC*	*2*	*(1)*
10	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	2	
11	6604A6X6X40	LINGUETTA 6x6x40	6x6x40 PARALLEL KEY	1	
12	5931M5X30P08129GR	VITE TCEI M5x30 12.9 UNI 5931	SOCKET SCREW M5x30 12.9	6	
13	SCHNORM8ZB	RONDELLA SCHNORR D.8	SCHNORR D.8 WASHER	10	
14	5931M8X20P125129GR	VITE TCEI M8x20 12.9 UNI 5931	SOCKET SCREW M8x20 12.9	10	
15	SCHNORM10ZB	RONDELLA SCHNORR D.10	SCHNORR D.10 WASHER	12	
16	5931M10X50P15129GR	VITE TCEI M10x50 12.9 UNI 5931	SOCKET SCREW M10x50 12.9	12	
17	MR-OR827	O-RING RIF. POLYPAC 827	O-RING REF. POLYPAC 827	1	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



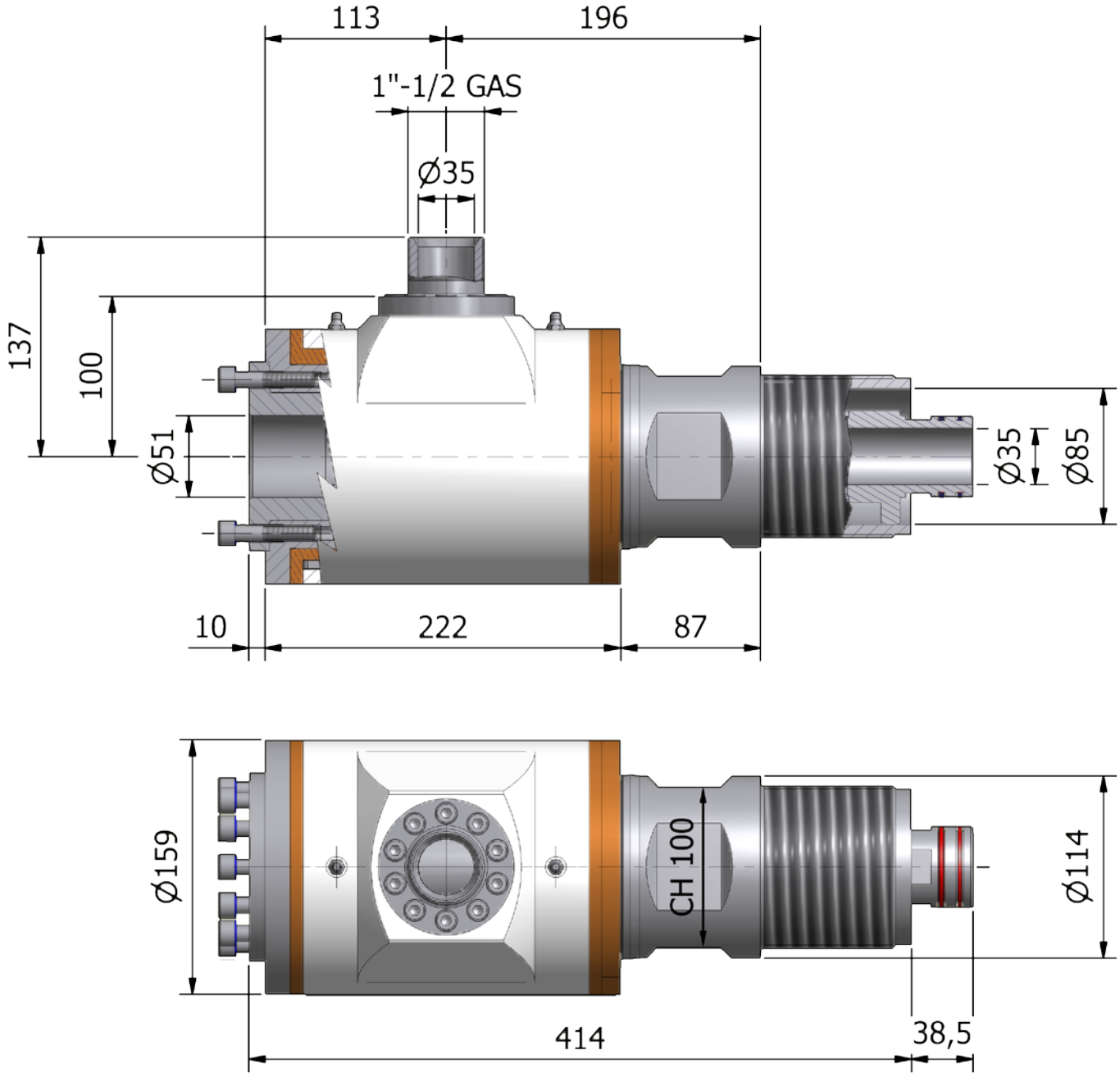
Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

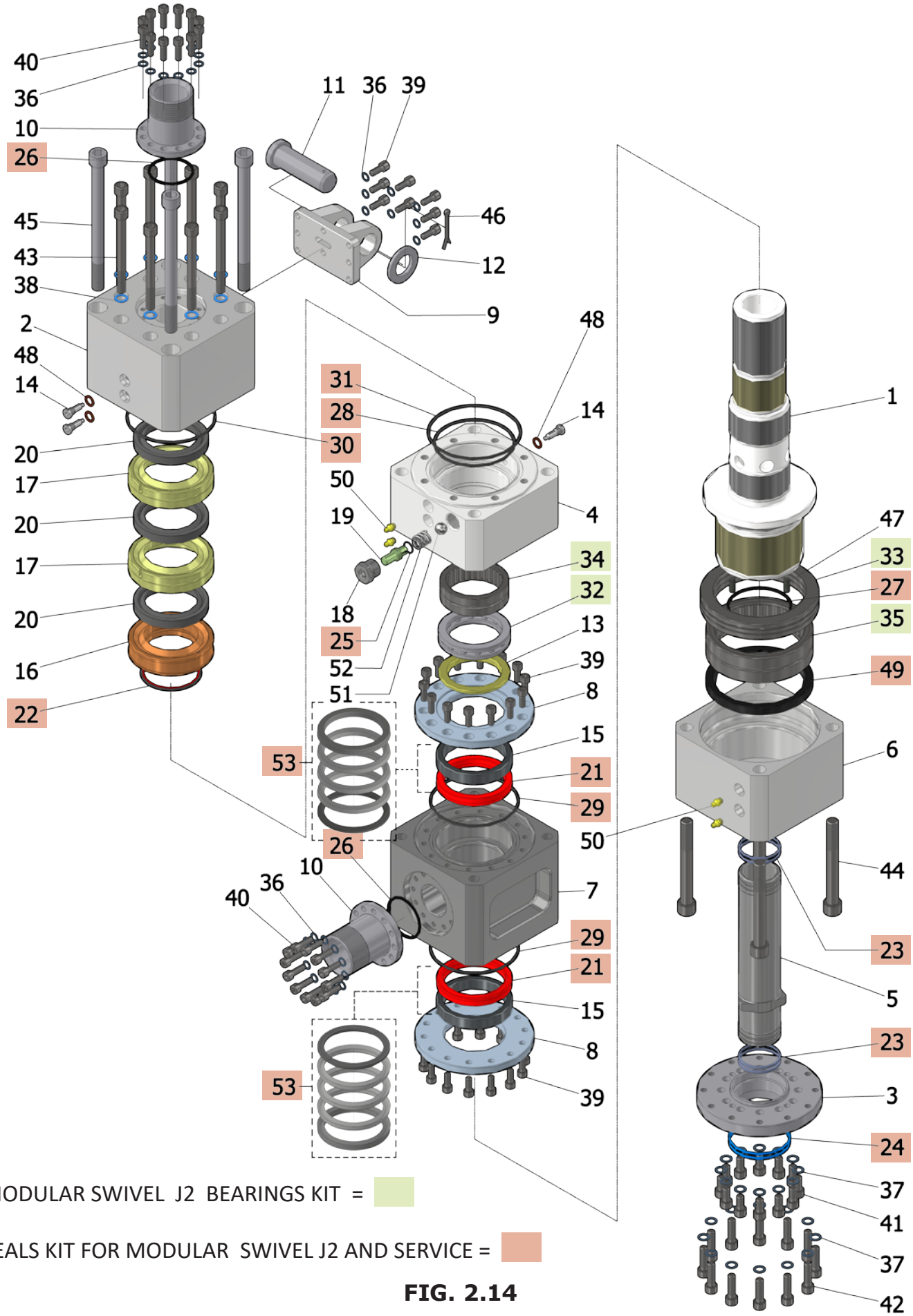
Manutenzione:
Ingrassare le bronzine almeno ogni 3h con grasso a base di litio.

Maintenance:
Lubricate the bushings at least every 3h using lithium based grease.

CODICE CODE	J-8C212500
PRESSIONE MASSIMA MAX PRESSURE	3 MPa
PRESSIONE DI ESERCIZIO WORKING PRESSURE	2,4 MPa
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +110 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	30 RPM (MAX 2 h)
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	105 RPM
MEDIA MEDIUM	AIR
PESO WEIGHT	28,3 KG



2.14 D.114 J2 SWIVEL J-AMHPS4J2 (GROUT-AIR) [J-WMHPS4J2 (GROUT-WATER)]



MODULAR SWIVEL J2 BEARINGS KIT =

SEALS KIT FOR MODULAR SWIVEL J2 AND SERVICE =

FIG. 2.14

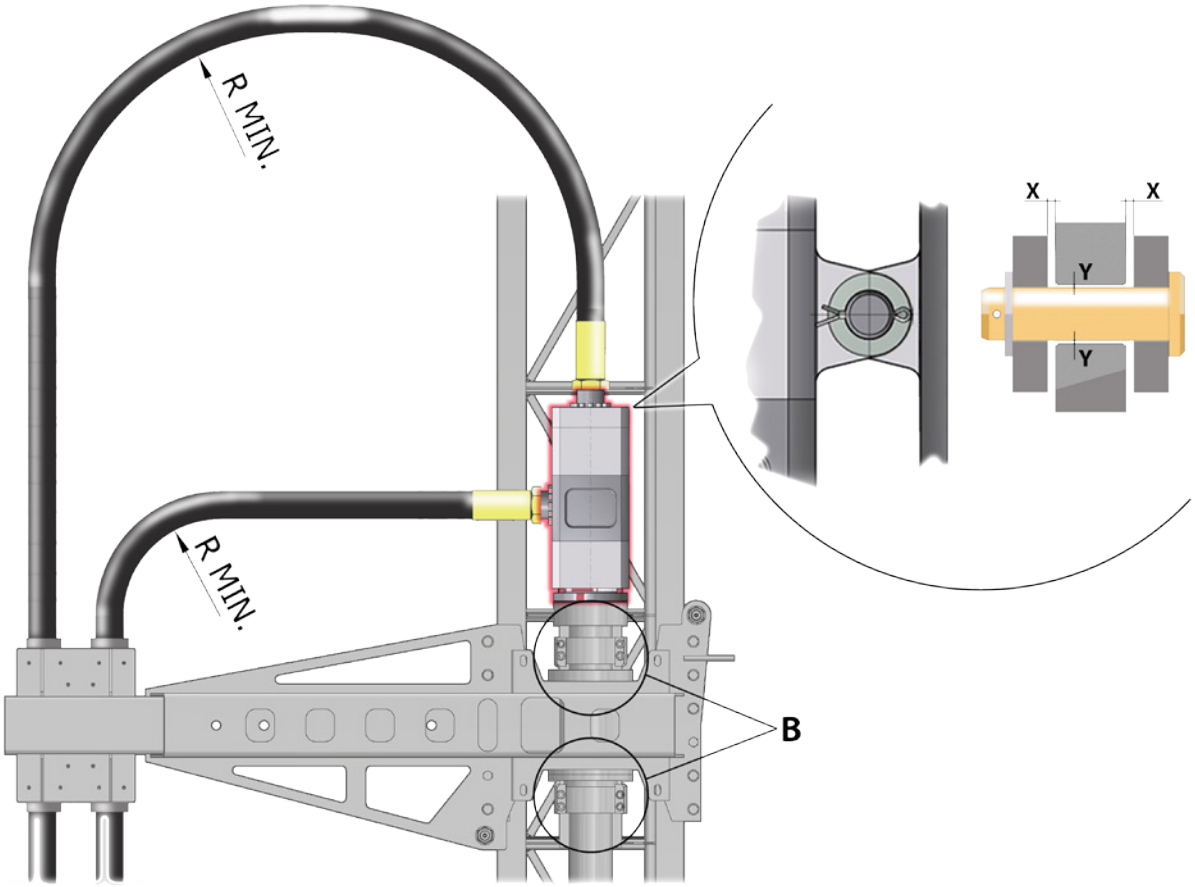
J-AMHPS4J2 (GROUT-AIR) [J-WMHPS4J2 (GROUT-WATER)] (REF. FIG. 2.14)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	1410K-1	ALBERO MODULAR HP SWIVEL C2 KALSI SEALS	MODULAR HP SWIVEL C2 KALSI SEALS SHAFT	1	
2	1410J2-2	STADIO N°1 TIPO F	SWIVEL BODY N.1 TYPE F	1	
3	1410-2	FLANGIA INFERIORE	LOWER FLANGE	1	
4	1410J2-3	STADIO N°2 TIPO F	SWIVEL BODY N.2 TYPE F	1	
5	1410K-3	TUBO INTERNO	INNER PIPE	1	
6	1410-4	STADIO N°4	SWIVEL BODY N.4	1	
7	1410-5B	STADIO N°3	SWIVEL BODY N.3	1	
8	1410-6B	FLANGIA INTERNA	INNER FLANGE	2	
9	1410-8-2	STAFFA DI ATTACCO	ATTACHMENT BRACKET	1	
10	1410-10	ATTACCO 2" GAS	2” GAS INLET	2	
11	1410-11	PERNO	PIN	1	
12	1410-12	RONDELLA PER PERNO	PIN WASHER	1	
13	1410F-15	ANELLO BATTUTA CUSCINETTO ANTERIORE	FRONT BEARING SPACER	1	
14	1410-20K-4	PERNO ANTIGIRO	ANTI-SPIN PIN	3	
15	1410-13	DISTANZIALE SUPERIORE	UPPER SPACER	2	*(2)*
16	602-32H	ANELLO POST. PER GUARNIZ. 602-25	602-25 SEAL BACK RING	1	
17	602-32	DISTANZIALE PER GUARNIZ. 602-25	602-25 SEAL SPACER	2	
20	602-25	GUARNIZIONE 602-25 d.2,75"	SEAL 602-25 d.2,75"	3	
18	1410J2-20	GHIERA PER SPIA CEMENTO	SAFETY PORT NUT	1	
19	1410J2-21	SPIA CEMENTO	SAFETY PORT BODY	1	
36	RONDELLA SHNORR M8	RONDELLA DI SICUREZZA	SAFETY WASHER	32	
37	RONDELLA SHNORR M10	RONDELLA DI SICUREZZA	SAFETY WASHER	24	
38	RONDELLA SHNORR M12	RONDELLA DI SICUREZZA	SAFETY WASHER	8	
39	UNI 5931 - M 8 x 20	VITE TCCE CL.12.9	CL. 12.9 SOCKET HEAD SCREW	36	
40	UNI 5931 - M 8 x 25	VITE TCCE CL.12.9	CL. 12.9 SOCKET HEAD SCREW	24	
41	UNI 5931 - M 10 x 20	VITE TCCE CL.12.9	CL. 12.9 SOCKET HEAD SCREW	12	
42	UNI 5931 - M 10 x 35	VITE TCCE CL.12.9	CL. 12.9 SOCKET HEAD SCREW	12	
43	UNI 5931 - M 12 x 120	VITE TCCE CL.12.9	CL. 12.9 SOCKET HEAD SCREW	8	
44	UNI 5931 - M 16 x 130	VITE TCCE CL.12.9	CL. 12.9 SOCKET HEAD SCREW	4	
45	UNI 5931 - M 16 x 200	VITE TCCE CL.12.9	CL. 12.9 SOCKET HEAD SCREW	4	
46	UNI 1336 - 5 x 45	COPIGLIA	COTTER PIN	1	

J-AMHPS4J2 (GROUT-AIR) [J-WMHPS4J2 (GROUT-WATER)] (REF. FIG. 2.14)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
47	ISO 8735 - 8 x 20 - A	SPINA CILINDRICA	PIN	4	
48	J-CU18	GUARNIZIONE RAME 1/8"	1/8” COPPER WASHER	3	
50	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	4	
51	SFERA ACCIAIO AL CROMO D.16 (SKF RB-16)	SFERA SKF ACCIAIO AL CROMO 62-65 HRC	STEEL BALL	1	
52	J00TP206	MOLLA 70 BAR Do=18.8 Di=12 d=3.4 Lo=27 54SiCr6 DIN17223/2	SPRING 70 BAR Do=18.8 Di=12 d=3.4 Lo=27 54SiCr6 DIN17223/2	1	
-	J-AMHPS4J2-A	KIT CUSCINETTI MODULAR SW. J2	MODULAR SW. J2 BEARINGS KIT	1	
32	51114	CUSCINETTO REGGISPINTA 70x95x18	THRUST BEARING 70x95x18	1	*(1)*
33	51124	CUSCINETTO REGGISPINTA 120x155x25	THRUST BEARING 120x155x25	1	*(1)*
34	NKS 70	CUSCINETTO A RULLINI 70x90x28	ROLLER BEARING 70x90x28	1	*(1)*
35	RNA 4920 115x140x40	CUSCINETTO A RULLINI 115x140x40	ROLLER BEARING 115x140x40	1	*(1)*
-	J-AMHPS4J2-B	KIT GUARNIZ. MODULAR SWIVEL J2 ARIA E SERVICE	SEALS KIT FOR MODULAR SWIVEL J2 AIR AND SERVICE	1	
-	J-WMHPS4J2-B	KIT GUARNIZ. MODULAR SWIVEL J2 ACQUA E SERVICE	SEALS KIT FOR MODULAR SWIVEL J2 WATER AND SERVICE	1	
21	MUP 10080	GUARNIZ. A LABBRO MUP 100x80x13	LIP SEAL MUP 100x80x13	2	*(1)(2)*
22	XRB-70x81x4.2	GUARNIZ. PER STELO ROTANTE	ROTARY SEAL	1	*(1)*
23	K35-P 56x51.5x3.5 (D-1410-A)	GUARNIZIONE POLIURETANO	POLIURETHANE SEAL	4	*(1)*
24	K35P 82x77.5x3.5	GUARNIZIONE POLIURETANO	POLIURETHANE SEAL	2	*(1)*
25	OR 014	O-RING	O-RING SEAL	1	*(1)*
26	OR 227	O-RING	O-RING SEAL	2	*(1)*
27	OR 235	O-RING	O-RING SEAL	1	*(1)*
28	OR 242	O-RING	O-RING SEAL	1	*(1)*
29	OR 245	O-RING	O-RING SEAL	2	*(1)*
30	OR 246	O-RING	O-RING SEAL	1	*(1)*
31	OR 247	O-RING	O-RING SEAL	1	*(1)*
49	MR-A115x140x12	PARAOLIO SINGOLO LABBRO	LIP SEAL	1	*(1)*
53	MR-CH393314	GUARNIZIONE CH 80x100x30	CH SEAL 80x100x30	2	*(1)(3)*

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

(2) NON USATO PER SWIVEL CEMENTO-ACQUA J-WMHPS4J2 - NOT USED FOR GROUT-WATER SWIVEL J-WMHPS4J2

(3) NON USATO PER SWIVEL CEMENTO-ARIA J-AMHPS4J2 - NOT USED FOR GROUT-AIR SWIVEL J-AMHPS4J2



Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare i cuscinetti almeno ogni 8h con grasso a base di litio. Cambiare il pacco guarnizioni quando dalla spia posta sotto l'ingresso del cemento (Safety port) si nota una perdita di cemento/acqua.

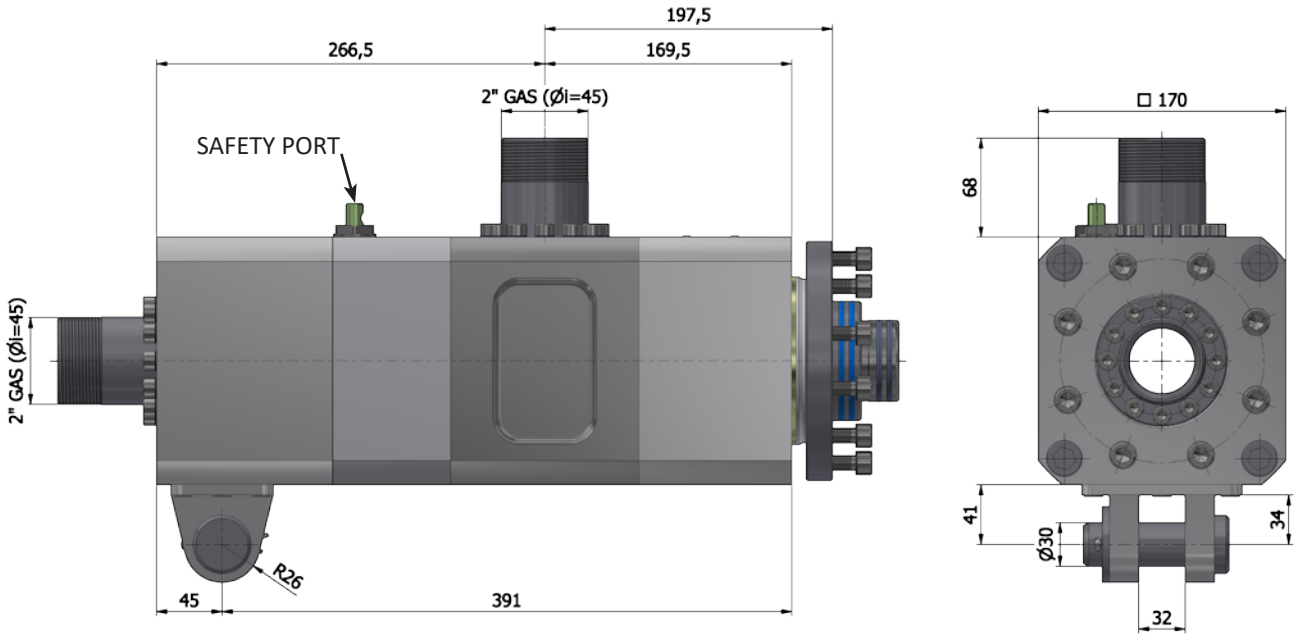
Maintenance:
Lubricate the roller bearings at least every 8h using lithium based grease. Replace the seals pack when a leackage from the safety port below the grout inlet occurs.

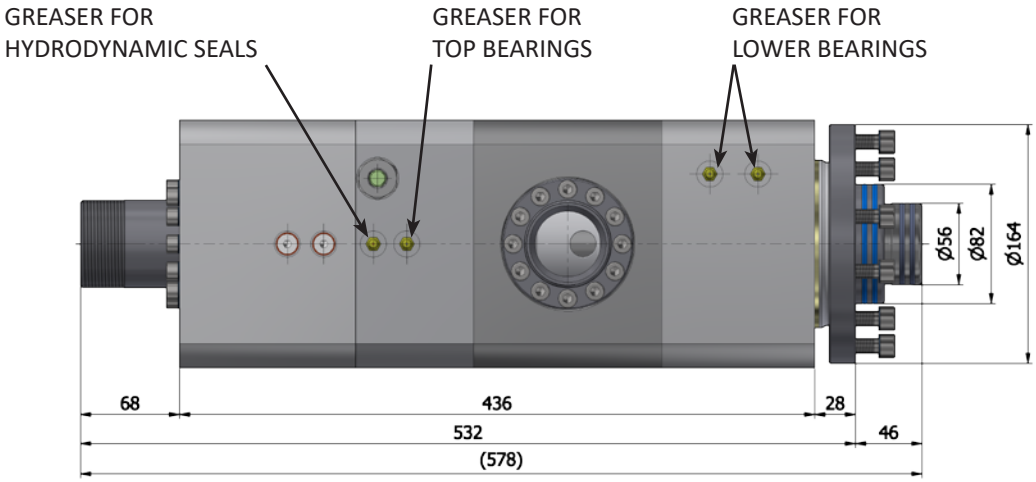
Ancoraggio:
La staffa antigiro e il carrello su cui fissare la testa, devono consentire un'escursione trasversale X di almeno 5 mm e radiale Y di 2 mm (vedi figura).
Nelle applicazioni con mandrino passante si raccomanda l'utilizzo di un carello simile a quello della figura. Il carello prevede due guide (dett. B in figura) fissate all'asta. Eventuali carichi in trazione e spinta sono assorbiti dalle guide. Inoltre le guide hanno una funzione di centratore e minimizzano carichi radiali dovuti alla eventuale eccentricità delle aste di perforazione.

Anchoring:
The anti-rotation bracket and the trolley where the swivel is locked must allow a transversal X gap of 5 mm at least and a Y radial gap of 2 mm (see the figure).
In the hollow clamp application it is reccommended the use of a trolley similar to the one shown in the figure. The trolley has two guides (detail B in the figure) fixed on the rod. Any thrust and pull loads are supported by these guides. Furthermore these guides have a centering function and reduce the radial loads caused by the eventual eccentricity of the drilling rods.

CODICE CODE	J-AMHPS4J2	J-WMHPS4J2
PRESSIONE MASSIMA MAX PRESSURE	42 MPa (CEMENTO / GROUT) 3 MPa (ARIA / AIR)	42 MPa (CEMENTO / GROUT) 42 MPa (ACQUA / WATER)
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa (CEMENTO / GROUT) 2,4 MPa (ARIA / AIR)	40 MPa (CEMENTO / GROUT) 40 MPa (ACQUA / WATER)
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +110 °C	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	25 RPM (MAX 2 h)	
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	150 RPM (*)	
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM	
TRAZIONE-SPINTA MASSIMA APPLICABILE MAX THRUST-PULL	39 KN	
MEDIA MEDIUM	1ST INLET: ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATER AND GROUT-WATER MIX (RATIO G:W MAX 1,4)	2ND INLET: AIR (J-AMHPS4J2) WATER (J-WMHPS4J2)
PESO WEIGHT	58,7 KG	

(*): Rispettare gli intervalli di ingrassaggio - Take care to greasing intervals





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2.15 SWIVEL C2 RP C64 DX: J-SWC20C64

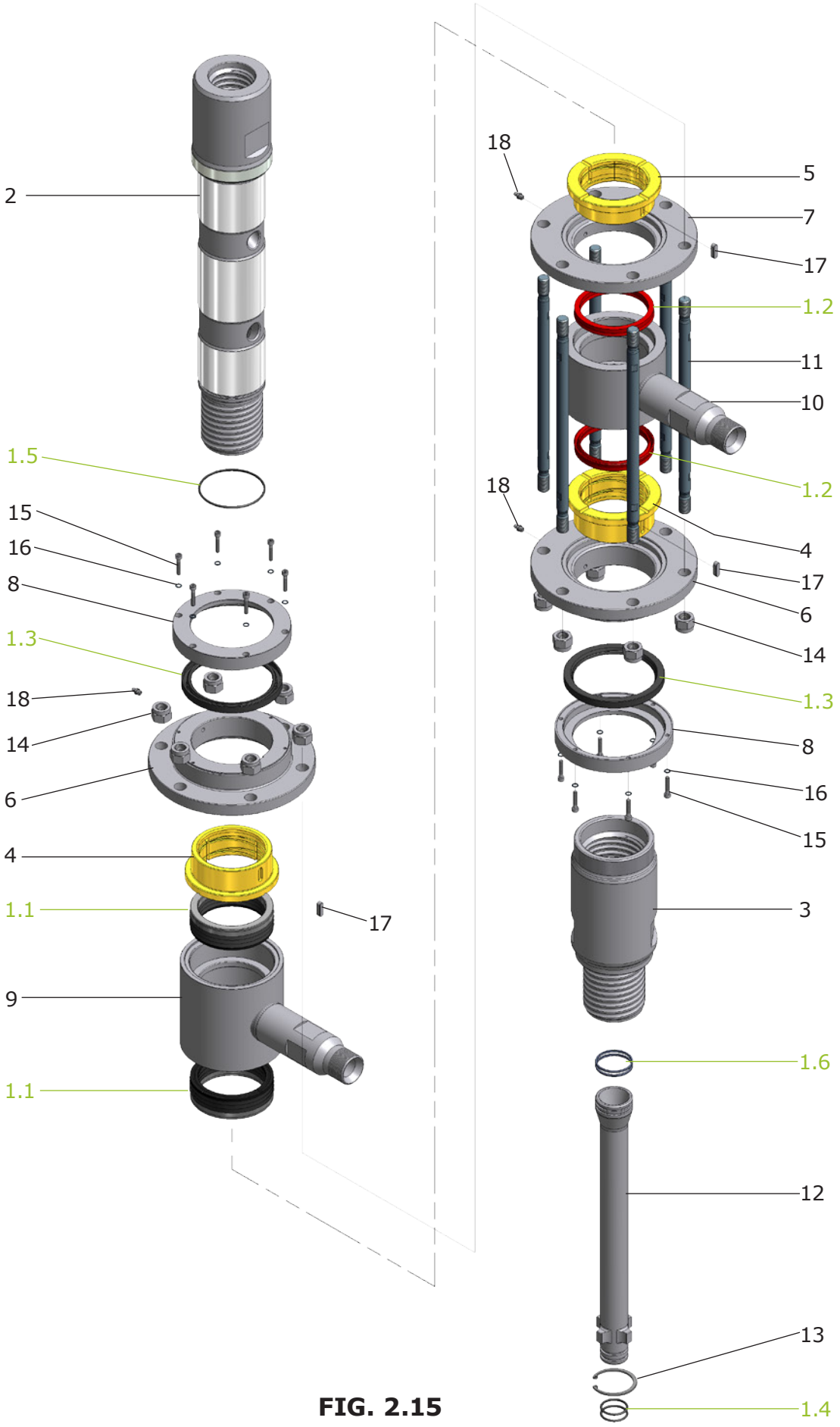
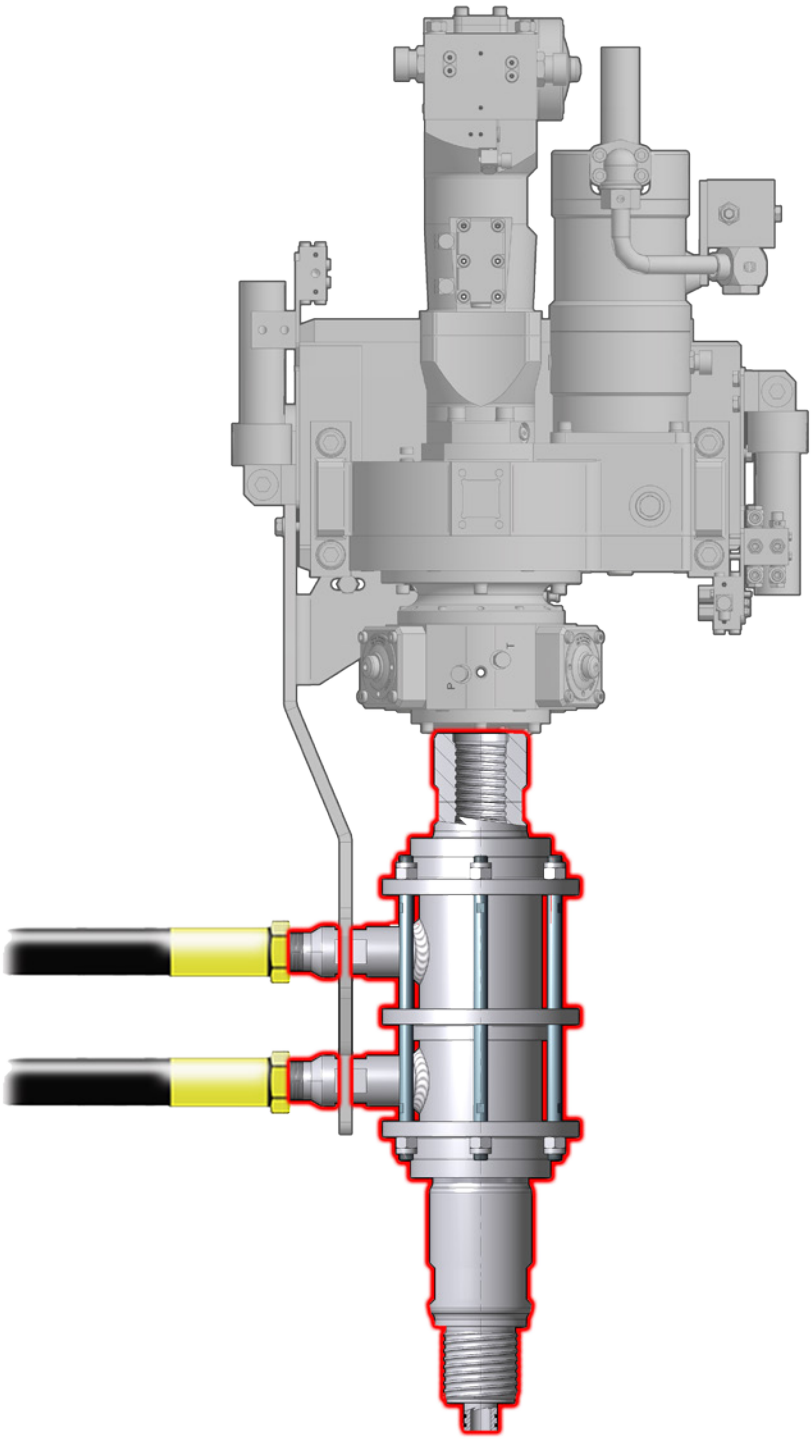


FIG. 2.15

J-SWC20C64 (REF. FIG. 2.15)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-SWC20C64-A	KIT GUARNIZ. SWIVEL C2 RP JET	C2 RP JET SWIVEL SEALS KIT	1	
1.1	*MR-CH492393*	*GUARN. CH492393 RIF POLYPAC*	*CH492393 SEAL REF POLYPAC*	*2*	*(1)*
1.2	*MR-MUP100120*	*GUARNIZ. MU/P 100-120 RIF POLYPAC*	*MU/P 100-120 SEAL REF POLYPAC*	*2*	*(1)*
1.3	*MR-A120X150X12*	*PARAOLIO A 120X150X12 SINGOLO LAB.*	*LIP SEAL 120X150X12*	*2*	*(1)*
1.4	*MR-OR220*	*O-RING RIF.POLIPAC 220*	*O-RING REF.POLIPAC 220*	*2*	*(1)*
1.5	*MR-OR239*	*O-RING RIF.POLIPAC 239*	*O-RING REF.POLIPAC 239*	*1*	*(1)*
1.6	*D-1410-A*	*K35-P 56X51.5 L=3.5 T-ECOPUR*	*K35-P 56X51.5 L=3.5 T-ECOPUR SEAL*	*2*	*(1)*
2	D-1571-6-1	ALBERO TESTA RP C2	C2 RP JET SWIVEL SHAFT	1	
3	D-1571-6-2	RID. TESTA C2 RP F/M C2 RP JET	C2 RP SW. F/M C2 RP JET ADAPTER	1	
4	D-1571-6-3	BRONZINA TESTA C2 RP ESTERNA	C2 RP SW. EXT. BRONZE BUSHING	2	
5	D-1571-6-4	BRONZINA TESTA C2 RP INTERMEDIA	C2 RP SW. MID. BRONZE BUSHING	1	
6	D-1571-6-5	FLANGIA TESTA C2 RP	C2 RP SW. FLANGE	2	
7	D-1571-6-6	FLANGIA INTERMEDIA TESTA C2 RP	C2 RP SW. MIDDLE FLANGE	1	
8	D-1571-6-10	FLANGIA PARAOLIO TESTA C2 RP	C2 RP SW. LIP SEAL FLANGE	2	
9	D-1571-6-11	CORPO SUP. TESTA C2 RP	C2 RP SW. UPPER BODY	1	
10	D-1571-6-12	CORPO INF. TESTA C2 RP	C2 RP SW. LOWER BODY	1	
11	D-1571-6-13	TIRANTE TESTA C2 RP	C2 RP SWIVEL BODY SCREW	6	
12	D-1571-6-14	MANICOTTO INT. TESTA C2 RP	C2 RP SW. INNER COUPLING	1	
13	7438D65S3	SEEGER X INTERNI 65X3 UNI 7438	UNI 7438 D.65 ELASTIC RING	1	
14	7473M18P156SZB	DADO UNI 7473 M18x1.5	UNI 7473 M18x1.5 LOCKNUT	12	
15	MR-TCEI6X30	VITE TCEI M6x30 CL.12.9	SOCKET HEAD SCREW M6x30 12.9	12	
16	SCHNORM6ZB	RONDELLA SHNORR M6	M6 SHNORR WASHER	12	
17	6604A8X7X25	LINGUETTA 8x7x25	PARALLEL KEY 8x7x25	3	
18	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	3	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

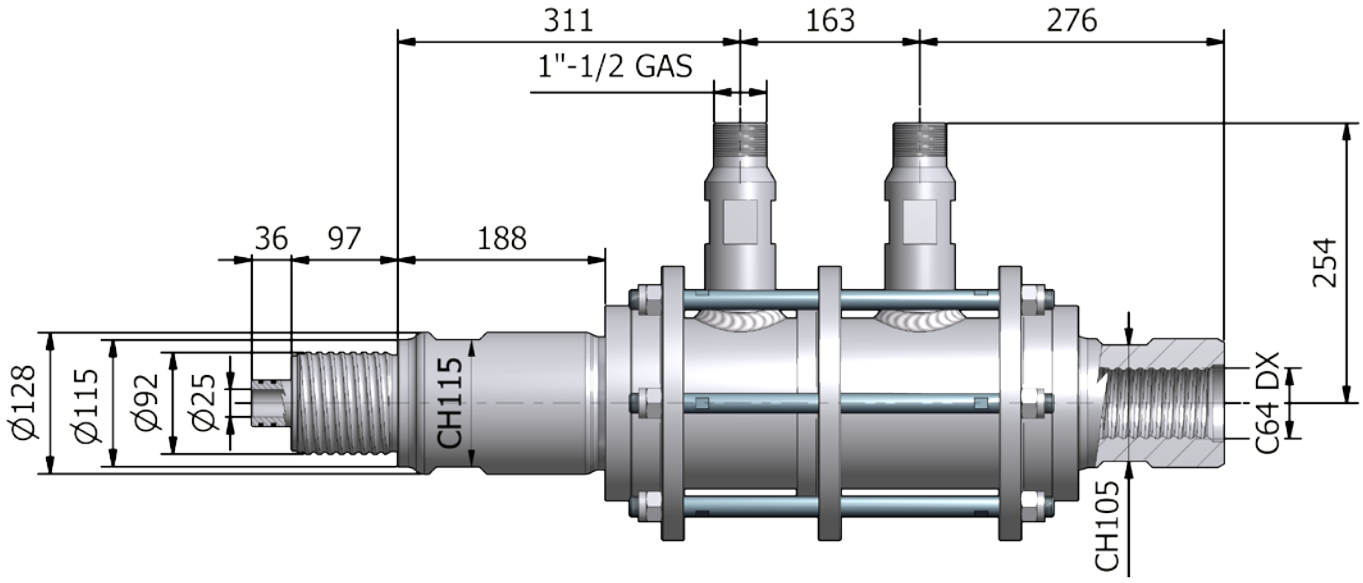
Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

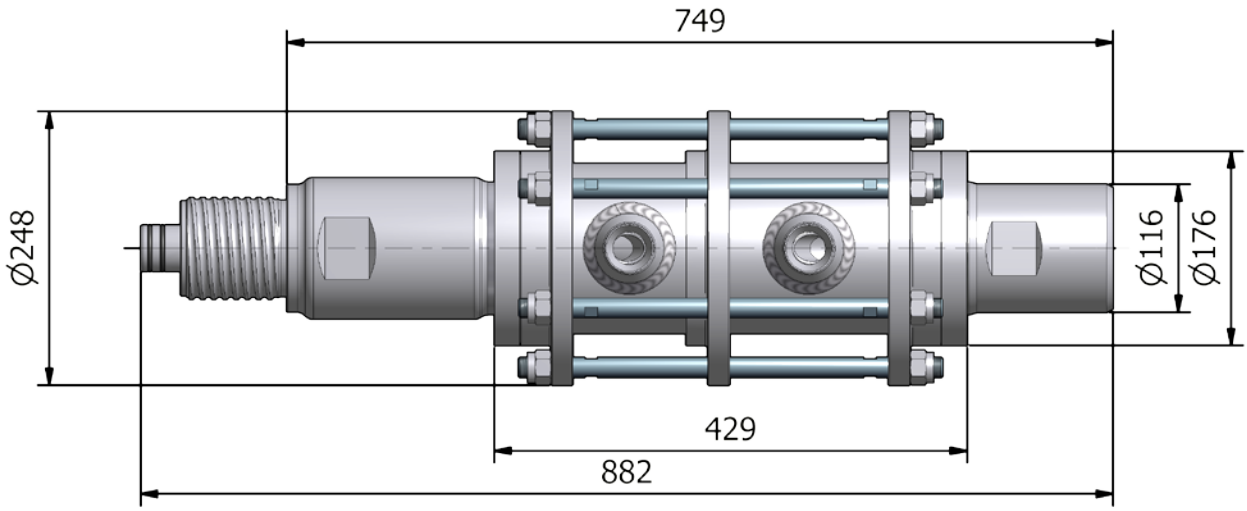
Manutenzione:
Ingrassare le bronzine almeno ogni 3h con grasso a base di litio.

Maintenance:
Lubricate the bushings at least every 3h using lithium based grease.

CODICE CODE	J-SWC20C64	
PRESSIONE MASSIMA MAX PRESSURE	42 MPa (CEMENTO / GROUT) 3 MPa (ARIA / AIR)	
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa (CEMENTO / GROUT) 2,4 MPa (ARIA / AIR)	
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +110 °C	
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	30 RPM (MAX 2 h)	
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	40 RPM (*)	
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM	
COPPIA MASSIMA APPLICABILE MAX TORQUE	25 KNm	
MEDIA MEDIUM	1ST INLET: ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATER AND GROUT-WATER MIX (RATIO G:W MAX 1,4)	2ND INLET: AIR
PESO WEIGHT	107 KG	

(*): Rispettare gli intervalli di ingrassaggio - Take care to greasing intervals





2.16 D.114 T3 TRIPLE FLUID SWIVEL J-WMHPSWT3

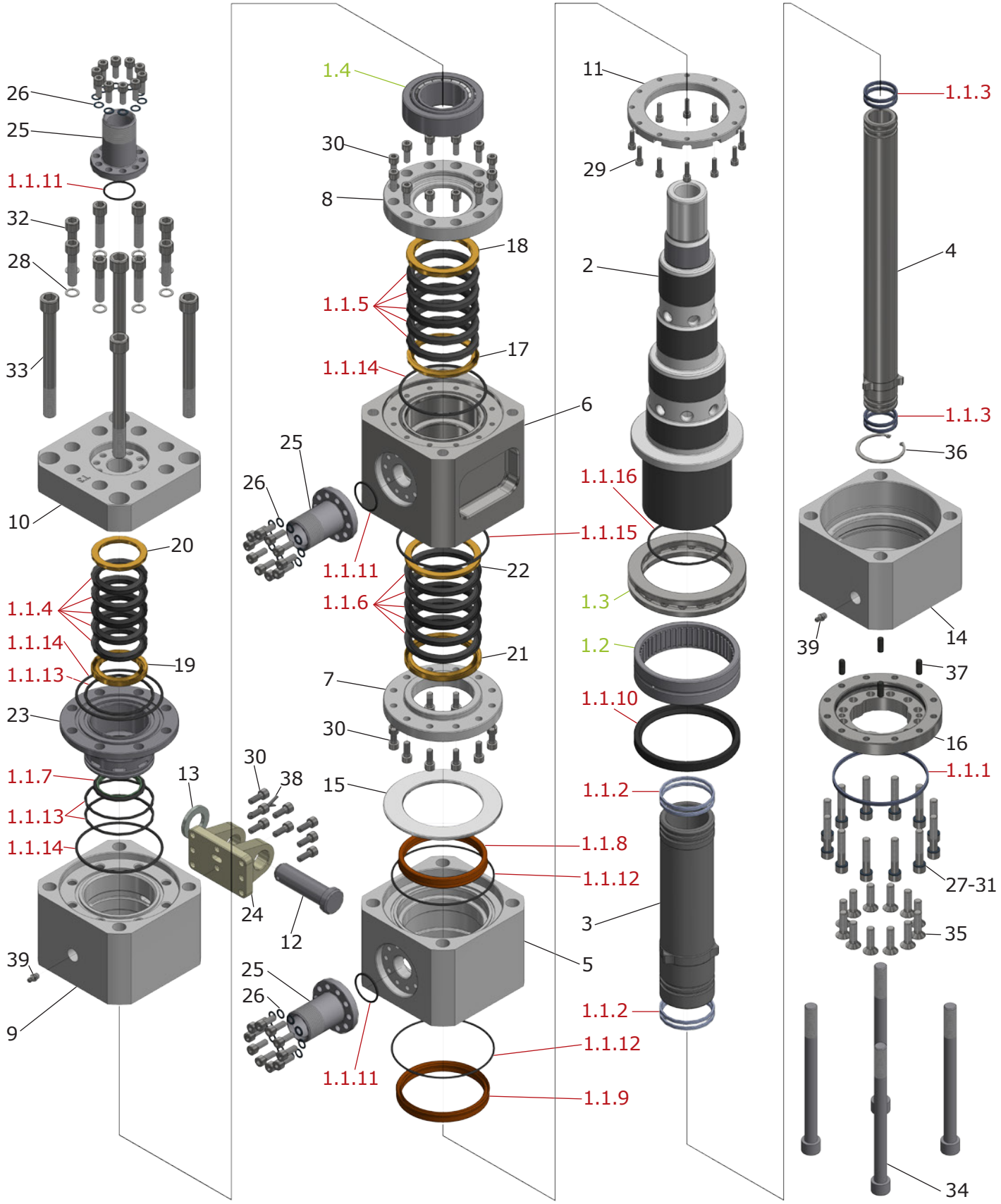
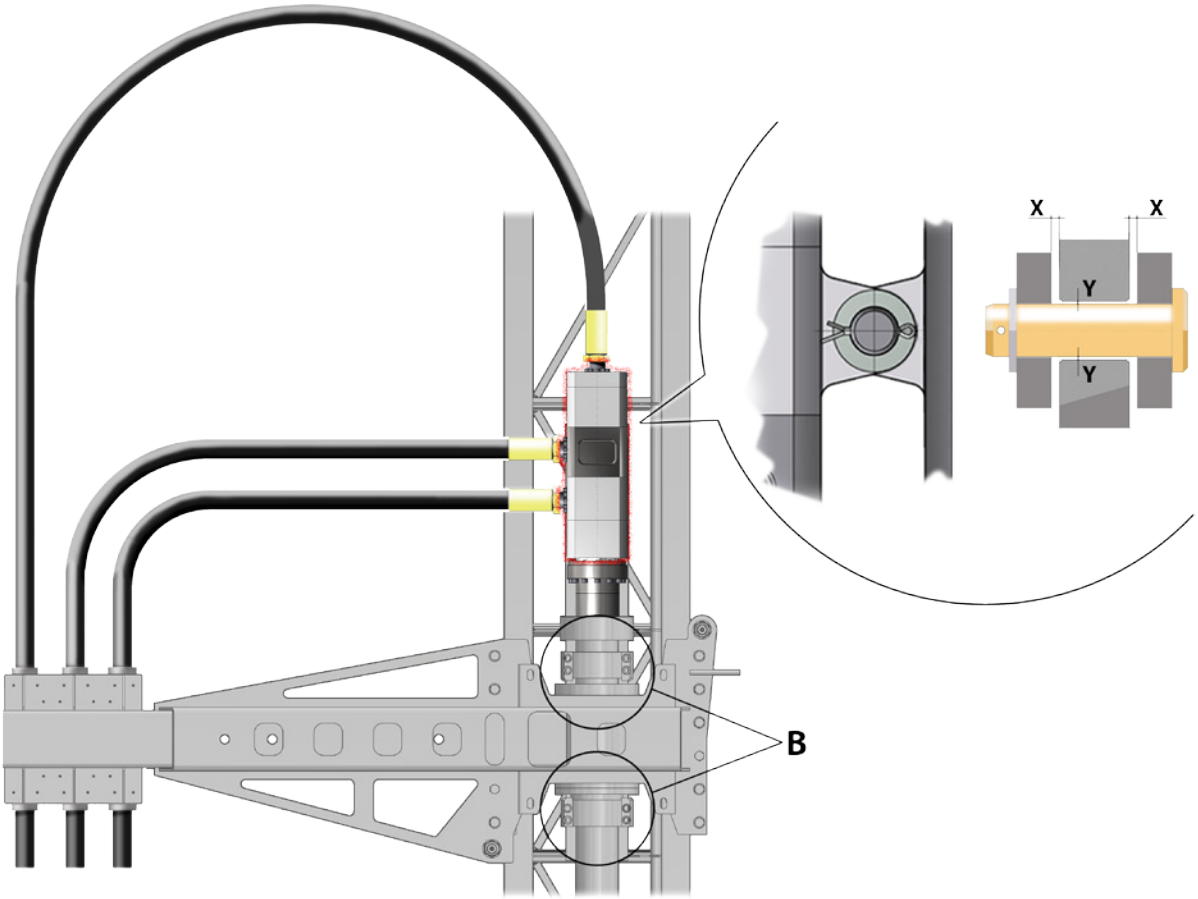


FIG. 2.16

J-WMHPSWT3 (REF. FIG. 2.16)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-WMHPSWT3-A	KIT RICAMBI SWIVEL D.114 HP T3	D.114 HP T3 SWIVEL SPARE PARTS	1	
1.1	J-WMHPSWT3-B	KIT GUARNIZIONI SWIVEL D.114 HP T3	D.114 HP T3 SWIVEL SEALS KIT	1	(1)
1.1.1	D-1731-20-A	K35-P 111.8x118 L=4.5 T-ECOPUR	K35-P 111.8x118 L=4.5 T-ECOPUR	1	
1.1.2	D-1731-20-B	K35-P 61.8x68 L=4.5 T-ECOPUR	K35-P 61.8x68 L=4.5 T-ECOPUR	4	
1.1.3	D-1731-20-C	K35-P 35.8x42 L=4.5 T-ECOPUR	K35-P 35.8x42 L=4.5 T-ECOPUR	4	
1.1.4	KIT-CH275196	KIT-CH275196 (4+1 ELEMENTI)	KIT-CH275196 (4+1 SEAL RINGS)	1	
1.1.5	KIT-CH354275	KIT-CH354275 (4+1 ELEMENTI)	KIT-CH354275 (4+1 SEAL RINGS)	1	
1.1.6	KIT-CH374295	KIT-CH374295 (4+1 ELEMENTI)	KIT-CH374295 (4+1 SEAL RINGS)	1	
1.1.7	MR-IG/R0500	GUARN. IG/R 0500 RIF. POLYPAC	IG/R 0500 ROTARY SEAL	1	
1.1.8	MR-EU95110	GUARN. EU95x110x13 RIF. POLYPAC	EU95x110x13 LIP SEAL	1	
1.1.9	MR-EU100115	GUARN. EU100x115x13 RIF. POLYPAC	EU100x115x13 LIP SEAL	1	
1.1.10	MR-A110X130X12	PARAOLIO A 110x130x12 SINGOLO LAB.	110x130x12 ONE LIP SEAL	1	
1.1.11	MR-OR126	O-RING 126 RIF POLYPAC	O-RING 126	3	
1.1.12	MR-OR158	O-RING 158 RIF POLYPAC	O-RING 158	2	
1.1.13	MR-OR235	O-RING 235 RIF POLYPAC	O-RING 235	3	
1.1.14	MR-OR242	O-RING 242 RIF POLYPAC	O-RING 242	3	
1.1.15	MR-OR244	O-RING 244 RIF POLYPAC	O-RING 244	1	
1.1.16	MR-OR245	O-RING 245 RIF. POLYPAC	O-RING 245	1	
1.2	MR-RNA4919	CUSC. A RULLI RNA4919 110x130x35	BEARING RNA4919 110x130x35	1	(1)
1.3	MR-51122	CUSC. REGGISPINTA 110x145x25 DIN711	AXIAL BEARING 110x145x25 DIN711	1	(1)
1.4	MR-33211	CUSC. CONICO 3DE 55x100x35 ISO355	BEARING 3DE 55x100x35 ISO355	1	(1)
2	D-1731-20-1	ALBERO TESTA TRIPLA T3	T3 SWIVEL SHAFT	1	
3	D-1731-20-2	TUBO ACQUA TESTA TRIPLA T3	T3 SWIVEL WATER TUBE	1	
4	D-1731-20-3	TUBO CEMENTO TESTA TRIPLA T3	T3 SWIVEL GROUT TUBE	1	
5	D-1731-20-4	STADIO N°4 TESTA T3	T3 SWIVEL N°4 BODY PART	1	
6	D-1731-20-5	STADIO N°3 TESTA T3	T3 SWIVEL N°3 BODY PART	1	
7	D-1731-20-6	FLANGIA INTERNA INFERIORE	LOWER INNER FLANGE	1	
8	D-1731-20-7	FLANGIA INTERNA SUPERIORE	UPPER INNER FLANGE	1	
9	D-1731-20-8B	STADIO N°2 TESTA T3-D2	T3-D2 SWIVEL N°2 BODY PART	1	
10	D-1731-20-9	STADIO N°1 TESTA T3	T3 SWIVEL N°1 BODY PART	1	

J-WMHPSWT3 (REF. FIG. 2.16)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
11	D-1731-20-10	FLANGIA INTERNA ARIA	INNER AIR FLANGE	1	
12	D-1731-20-11	PERNO PER TESTA TRIPLA D.114 HP T3	T3 SWIVEL PIN	1	
13	D-1731-20-12	RONDELLA PERNO	PIN WASHER	1	
14	D-1731-20-14	STADIO N°5 TESTA T3-D2	T3-D2 SWIVEL N°5 BODY PART	1	
16	D-1731-20-16	DISTANZIALE INTERNO	INNER SPACER	1	
17	D-1731-20-17	FLANGIA DI CHIUSURA	CLOSING FLANGE	1	
18	D-1731-20-24	ENERGISER RING PER CH354275	ENERGISER RING FOR CH354275	1	
19	D-1731-20-25	BASE RING PER CH354275	BASE RING FOR CH354275	1	
20	D-1731-30-20	BASE RING PER CH 275196	BASE RING FOR CH 275196	1	
21	D-1731-30-21	ENERGISER RING PER CH275196	ENERGISER RING FOR CH275196	1	
22	D-1731-30-22	BASE RING PER CH374295	BASE RING FOR CH374295	1	
23	D-1731-30-23	ENERGISER RING PER CH374295	ENERGISER RING FOR CH374295	1	
24	D-1731-30-24	PORTAGUARNIZIONE SUPERIORE	UPPER SEAL HOUSING	1	
25	D-1092-30	STAFFA DI ATTACCO	ATTACHMENT BRACKET	1	
26	D-1176-8	ATTACCO 1" 1/4 GAS TESTA D.114 K3	1”-1/4 G SWIVEL INLET	3	
27	SCHNORM8ZB	RONDELLA SCHNORR M8 ZINCATA	SCHNORR M8 WASHER	30	
28	SCHNORM10ZB	RONDELLA SCHNORR M10 ZINCATA	SCHNORR M10 WASHER	12	
29	SCHNORM12ZB	RONDELLA SCHNORR M12 ZINCATA	SCHNORR M12 WASHER	8	
30	5931M6X20P1129GR	VITE TCCE M6x20 UNI 5931 12.9	UNI 5931 12.9 SCREW M6x20	12	
31	5931M8X20P125129GR	VITE TCCE M8x20 UNI 5931 12.9	UNI 5931 12.9 SCREW M8x20	62	
32	5931M10X50P15129GR	VITE TCCE M10x50 UNI 5931 12.9	UNI 5931 12.9 SCREW M10x50	12	
33	5931M12X50175129GR	VITE TCCE M12x50 UNI 5931 12.9	UNI 5931 12.9 SCREW M12x50	8	
34	5931M16X160P2129GR	VITE TCCE M16x160 UNI 5931 12.9	UNI 5931 12.9 SCREW M16x160	4	
35	5931M16X200P2129GR	VITE TCCE M16x200 UNI 5931 12.9	UNI 5931 12.9 SCREW M16x200	4	
36	5933M10X35P15109GR	VITE TPSEI M10x35 UNI 5933 10.9	UNI 5933 10.9 SCREW M10x35	12	
37	7437D58S2	ANELLO EL. PER FORI 58x2 UNI 7437	SPRING RING UNI 7437 D.58x2	1	
38	8735AD8X20	SPINA CILINDR. D.8x20 UNI EN 8735 A	PIN D.8x20 UNI EN 8735 A	4	
39	1336D5X36ZB	COPIGLIA 5x36 UNI 1336 ZINCATA	COTTER PIN 5x36 UNI 1336	1	
40	71412AM8P125	INGRASSATORE M8x1.25 DIN 71412A	M8x1.25 LUBRICATOR	2	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare i cuscinetti almeno ogni 8h con grasso a base di litio. Cambiare il pacco guarnizioni quando dalla spia posta sotto l'ingresso del cemento (Safety port) si nota una perdita di cemento/acqua.

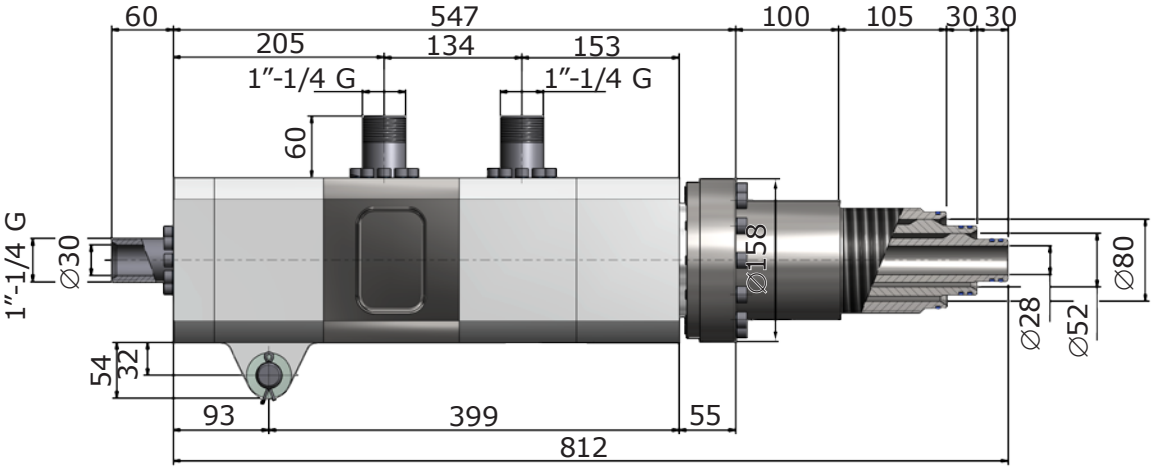
Maintenance:
Lubricate the roller bearings at least every 8h using lithium based grease. Replace the seals pack when a leackage from the safety port below the grout inlet occurs.

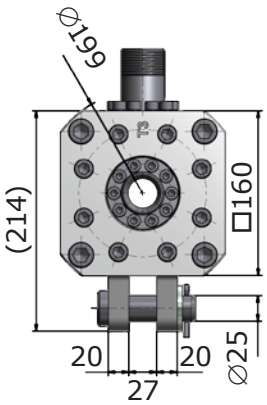
Ancoraggio:
La staffa antigiro e il carrello su cui fissare la testa, devono consentire un'escursione trasversale X di almeno 5 mm e radiale Y di 2 mm (vedi figura).
Nelle applicazioni con mandrino passante si raccomanda l'utilizzo di un carello simile a quello della figura. Il carello prevede due guide (dett. B in figura) fissate all'asta. Eventuali carichi in trazione e spinta sono assorbiti dalle guide. Inoltre le guide hanno una funzione di centratore e minimizzano carichi radiali dovuti alla eventuale eccentricità delle aste di perforazione.

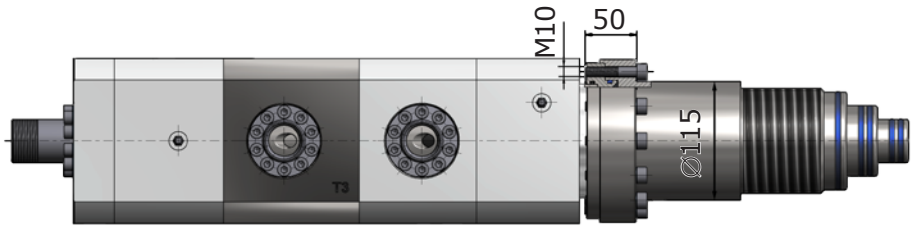
Anchoring:
The anti-rotation bracket and the trolley where the swivel is locked must allow a transversal X gap of 5 mm at least and a Y radial gap of 2 mm (see the figure).
In the hollow clamp application it is reccommended the use of a trolley similar to the one shown in the figure. The trolley has two guides (detail B in the figure) fixed on the rod. Any thrust and pull loads are supported by these guides. Furthermore these guides have a centering function and reduce the radial loads caused by the eventual eccentricity of the drilling rods.

CODICE CODE	J-WMHPSWT3		
PRESSIONE MASSIMA MAX PRESSURE	42 MPa (CEMENTO / GROUT) 50 MPa (ACQUA / WATER) 3 MPa (ARIA / AIR)		
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa (CEMENTO / GROUT) 45 MPa (ACQUA / WATER) 2,4 MPa (ARIA / AIR)		
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +110 °C		
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	30 RPM (MAX 2 h)		
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	105 RPM (*)		
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM		
TRAZIONE-SPINTA MASSIMA APPLICABILE MAX THRUST-PULL	31 KN		
MEDIA MEDIUM	1ST INLET: ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATER AND GROUT-WATER MIX (RATIO G:W MAX 1,4)	2ND INLET: ACQUA - WATER	3RD INLET: ARIA - AIR
PESO WEIGHT	59 KG (**)		

(*): Rispettare gli intervalli di ingrassaggio - Take care to greasing intervals
(**): Peso con adattatore J-WMHPSAT3=71 KG - Weight with J-WMHPSAT3 ADAPTER=71 KG







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2.17 D.114 T3 TRIPLE FLUID SWIVEL-ROD ADAPTER J-XMHPSAT3

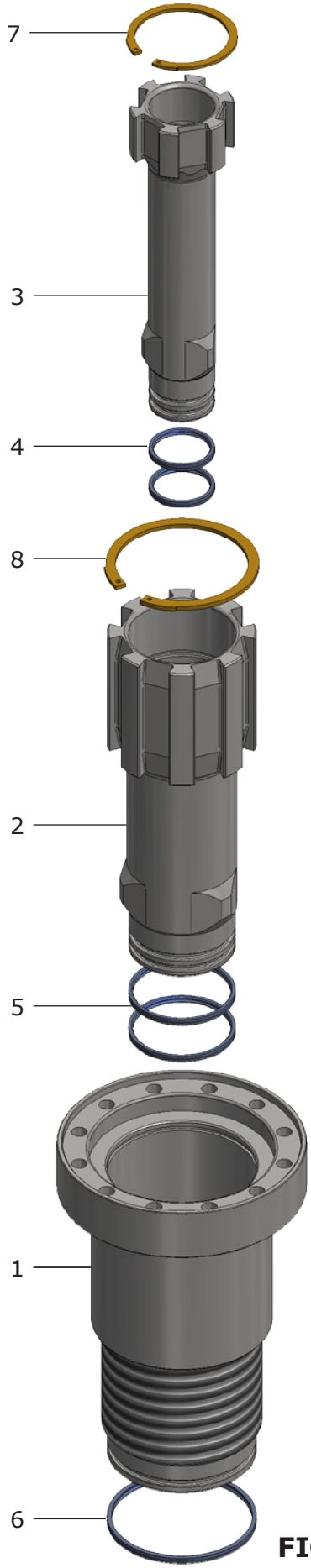


FIG. 2.17

J-XMHPSAT3 (REF. FIG. 2.17)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1731-21-1	CORPO ESTERNO	EXTERNAL BODY	1	
2	D-1731-21-2	CORPO INTERMEDIO	MIDDLE BODY	1	
3	D-1731-21-3	CORPO INTERNO	INNER BODY	1	
4	D-1731-20-C	K35-P 35.8x42 L=4.5 T-ECOPUR	K35-P 35.8x42 L=4.5 T-ECOPUR	2	
5	D-1731-20-B	K35-P 61.8x68 L=4.5 T-ECOPUR	K35-P 61.8x68 L=4.5 T-ECOPUR	2	
6	D-1439-B	K35P 88.8x95 L=4.5 T-ECOPUR	K35P 88.8x95 L=4.5 T-ECOPUR	1	
7	SEEGJVD68S25	ANELLO SEEGER PER FORI D.68 TIPO JV	D.68 LOCKING RING JV TYPE	1	
8	SEEGJVD95S3	ANELLO SEEGER PER FORI D.95 TIPO JV	D.95 LOCKING RING JV TYPE	1	

2.18 D.114 D2 SWIVEL J-WMHPSWD2 (GROUT-WATER) [J-AMHPSWD2 (GROUT-AIR)]

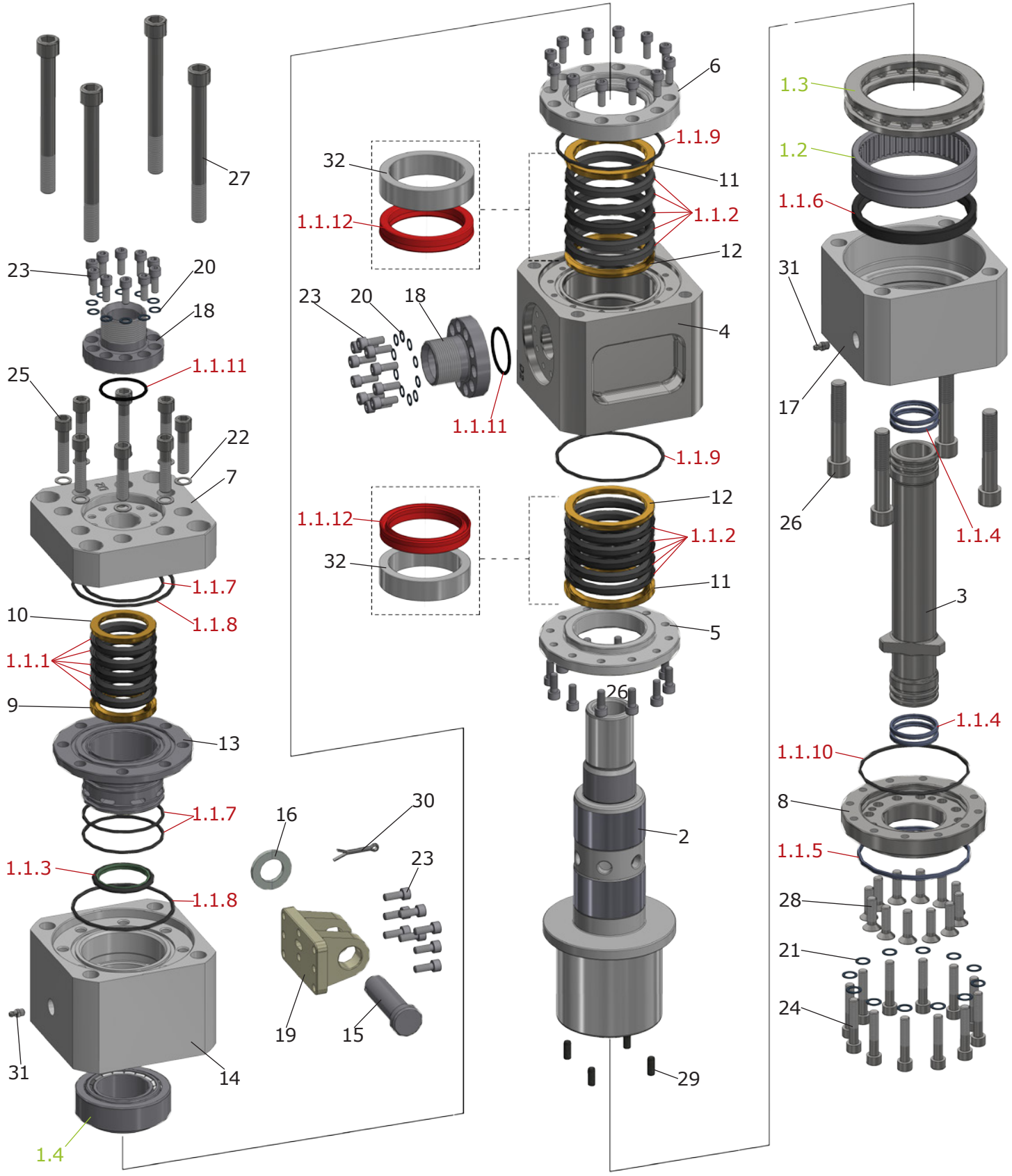


FIG. 2.18

J-WMHPSWD2 (GROUT-WATER) [J-AMHPSWD2 (GROUT-AIR)] (REF. FIG. 2.18)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-WMHPSWD2-A	KIT RICAMBI SWIVEL D.114 D2	D.114 D2 SWIVEL SPARE PARTS	1	(2)
1.1	J-WMHPSWD2-B	KIT GUARNIZIONI SWIVEL D.114 D2	D.114 D2 SWIVEL SEALS KIT	1	(3)
1.1.1	KIT-CH275196	KIT CH275196 (4+1 ELEMENTI)	KIT CH275196 SEAL (4+1 RINGS)	1	
1.1.2	KIT-CH374295	KIT CH374295 (4+1 ELEMENTI)	KIT CH374295 SEAL (4+1 RINGS)	1	(4)
1.1.3	MR-IG/R0500	GUARN. IG/R 0500 RIF. POLYPAC	IG/R 0500 ROTARY SEAL	1	
1.1.4	D-1439-A	K35-P 44.8x51 L=4.5 T-ECOPUR	K35-P 44.8x51 L=4.5 T-ECOPUR	4	
1.1.5	D-1731-20-A	K35-P 111.8x118 L=4.5 T-ECOPUR	K35-P 111.8x118 L=4.5 T-ECOPUR	1	
1.1.6	MR-A110X130X12	PARAOLIO A 110x130x12 SINGOLO LAB.	110x130x12 ONE LIP SEAL	1	
1.1.7	MR-OR235	O-RING 235 RIF POLYPAC	O-RING 235	3	
1.1.8	MR-OR242	O-RING 242 RIF POLYPAC	O-RING 242	2	
1.1.9	MR-OR244	O-RING 244 RIF POLYPAC	O-RING 244	2	
1.1.10	MR-OR245	O-RING 245 RIF. POLYPAC	O-RING 245	1	
1.1.11	MR-OR827	O-RING 827 RIF. POLYPAC	O-RING 827	2	
1.1.12	MR-MU/P 9575	GUARNIZIONE MU/P 95X75X14,5	MU/P SEAL 95X75X14,5	2	(5)
1.2	MR-RNA4919	CUSC. A RULLI RNA4919 110x130x35	BEARING RNA4919 110x130x35	1	(1)
1.3	MR-51122	CUSC. REGGISPINTA 110x145x25 DIN711	AXIAL BEARING 110x145x25 DIN711	1	(1)
1.4	MR-33211	CUSC. CONICO 33211-3DE 55x100x35	BEARING 33211-3DE 55x100x35	1	(1)
2	D-1731-30-1	ALBERO TESTA D2	D2 SWIVEL SHAFT	1	
3	D-1731-30-2	TUBO CEMENTO TESTA D2	D2 SWIVEL GROUT TUBE	1	
4	D-1731-30-5	STADIO N°3 TESTA D2	D2 SWIVEL N°3 BODY PART	1	
5	D-1731-30-6	FLANGIA INTERNA INFERIORE	LOWER INNER FLANGE	1	
6	D-1731-30-7	FLANGIA INTERNA SUPERIORE	UPPER INNER FLANGE	1	
7	D-1731-30-9	STADIO N°1 TESTA D2	D2 SWIVEL N°1 BODY PART	1	
8	D-1731-30-17	FLANGIA DI CHIUSURA	CLOSING FLANGE	1	
9	D-1731-30-20	BASE RING PER CH275196 A 5 ELEM.	BASE RING CH275196 5 RINGS	1	
10	D-1731-30-21	ENERGISER RING PER CH275196 A 5 ELEM.	ENERGISER RING CH275196 5 RINGS	1	
11	D-1731-30-22	BASE RING PER CH374295 A 5 ELEM.	BASE RING CH374295 5 RINGS	1	(4)
12	D-1731-30-23	ENERGISER RING PER CH374295 A 5 ELEM.	ENERGISER RING CH374295 5 RINGS	1	(4)
13	D-1731-30-24	PORTAGUARNIZIONE SUPERIORE	UPPER SEAL HOUSING	1	
14	D-1731-20-8B	STADIO N°2 TESTA T3-D2	T3-D2 SWIVEL N°2 BODY PART	1	
15	D-1731-20-11	PERNO PER TESTA TRIPLA D.114 HP T3	T3 SWIVEL PIN	1	

J-WMHPSWD2 (GROUT-WATER) [J-AMHPSWD2 (GROUT-AIR)] (REF. FIG. 2.18)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
16	D-1731-20-12	RONDELLA PERNO	PIN WASHER	1	
17	D-1731-20-14	STADIO N°5 TESTA T3-D2	T3-D2 SWIVEL N°5 BODY PART	1	
18	J-8C2TS709	ATTACCO 1”-1/2 GAS	1”-1/2 G SWIVEL INLET	2	
19	D-1092-30	STAFFA DI ATTACCO	ATTACHMENT BRACKET	1	
20	SCHNORM8ZB	RONDELLA SCHNORR M8 ZINCATA	SCHNORR M8 WASHER	20	
21	SCHNORM10ZB	RONDELLA SCHNORR M10 ZINCATA	SCHNORR M10 WASHER	12	
22	SCHNORM12ZB	RONDELLA SCHNORR M12 ZINCATA	SCHNORR M12 WASHER	8	
23	5931M8X20P125129GR	VITE TCCE M8x20 UNI 5931 12.9	UNI 5931 12.9 SCREW M8x20	52	
24	5931M10X50P15129GR	VITE TCCE M10x50 UNI 5931 12.9	UNI 5931 12.9 SCREW M10x50	12	
25	5931M12X50175129GR	VITE TCCE M12x50 UNI 5931 12.9	UNI 5931 12.9 SCREW M12x50	8	
26	5931M16X90P2129GR	VITE TCCE M16x90 UNI 5931 12.9	UNI 5931 12.9 SCREW M16x90	4	
27	5931M16X160P2129GR	VITE TCCE M16x160 UNI 5931 12.9	UNI 5931 12.9 SCREW M16x160	4	
28	5933M10X35P15109GR	VITE TPSEI M10x35 UNI 5933 10.9	UNI 5933 10.9 SCREW M10x35	12	
29	8735AD8X20	SPINA CILINDR. D.8x20 UNI EN 8735 A	PIN D.8x20 UNI EN 8735 A	4	
30	1336D5X36ZB	COPIGLIA 5x36 UNI 1336 ZINCATA	COTTER PIN 5x36 UNI 1336	1	
31	71412AM8P125	INGRASSATORE M8x1.25 DIN 71412A	M8x1.25 LUBRICATOR	2	
32	D-1731-30-25	DISTANZIALE INTERNO ARIA D2	INNER SPACER FOR AIR D2	2	*(5)*

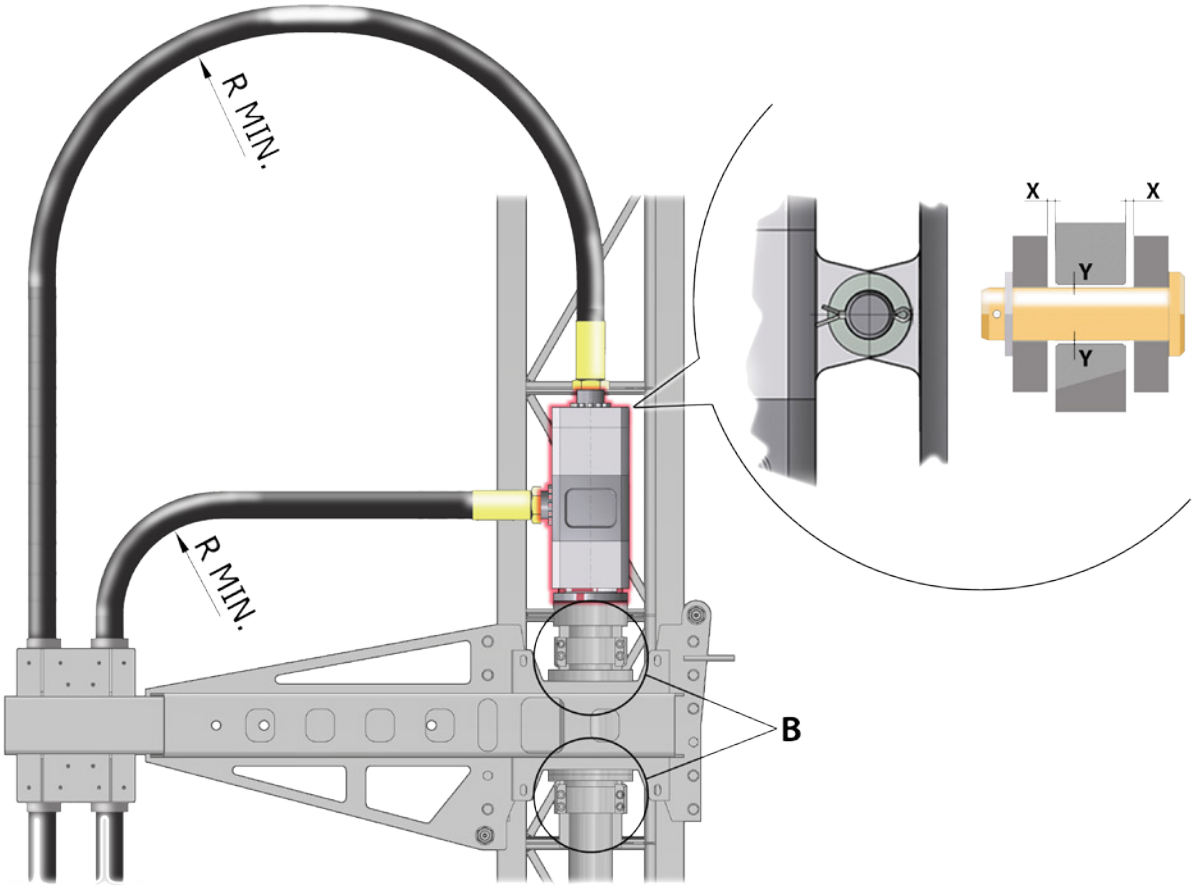
(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

(2) CODICE J-AMHPSWD2-A PER SWIVEL CEMENTO-ARIA - CODE J-AMHPSWD2-A FOR GROUT-AIR SWIVEL VERSION

(3) CODICE J-AMHPSWD2-B PER SWIVEL CEMENTO-ARIA - CODE J-AMHPSWD2-B FOR GROUT-AIR SWIVEL VERSION

(4) NON USATO PER SWIVEL CEMENTO-ARIA J-AMHPSWD2 - NOT USED FOR J-AMHPSWD2 GROUT-AIR SWIVEL

(5) NON USATO PER SWIVEL CEMENTO-ACQUA J-WMHPSWD2 - NOT USED FOR J-WMHPSWD2 GROUT-WATER SWIVEL



Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

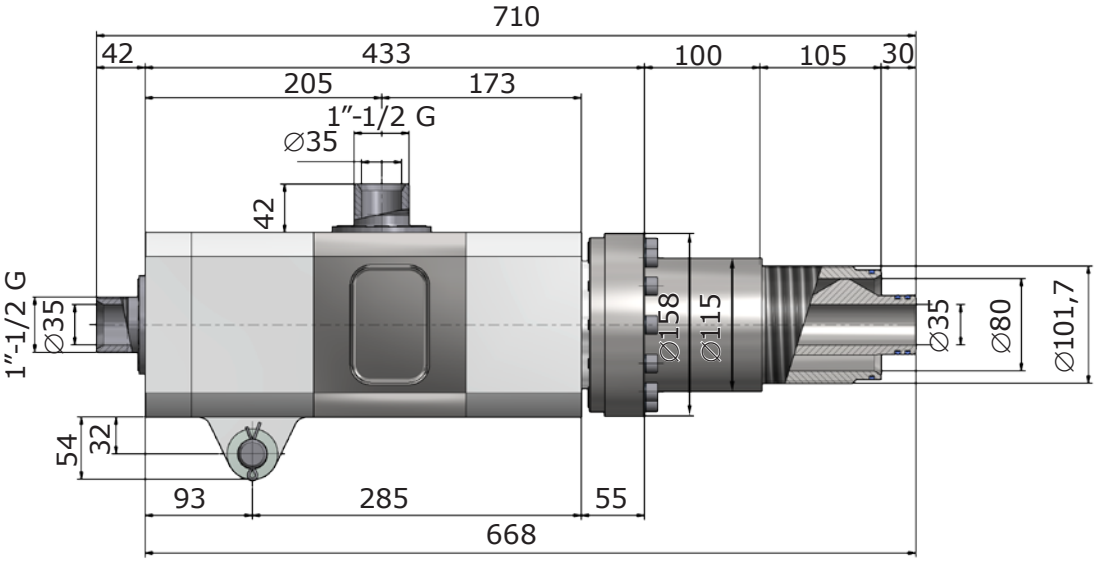
Manutenzione:
Ingrassare i cuscinetti almeno ogni 3h con grasso a base di litio. Cambiare il pacco guarnizioni quando dalla spia posta sotto l'ingresso del cemento (Safety port) si nota una perdita di cemento/acqua.

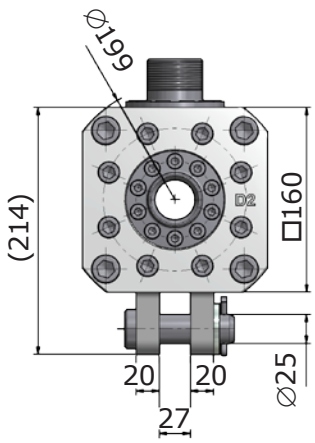
Maintenance:
Lubricate the roller bearings at least every 3h using lithium based grease. Replace the seals pack when a leackage from the safety port below the grout inlet occurs.

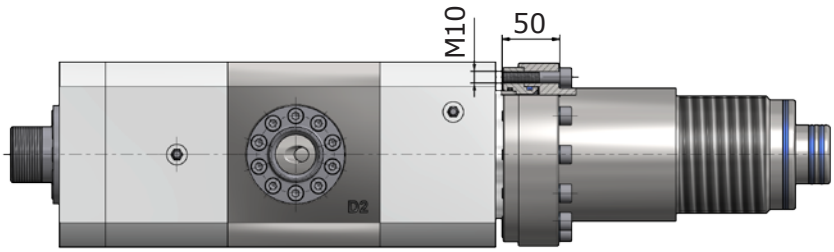
Ancoraggio:
La staffa antigiro e il carrello su cui fissare la testa, devono consentire un'escursione trasversale X di almeno 5 mm e radiale Y di 2 mm (vedi figura).
Nelle applicazioni con mandrino passante si raccomanda l'utilizzo di un carello simile a quello della figura. Il carello prevede due guide (dett. B in figura) fissate all'asta. Eventuali carichi in trazione e spinta sono assorbiti dalle guide. Inoltre le guide hanno una funzione di centratore e minimizzano carichi radiali dovuti alla eventuale eccentricità delle aste di perforazione.

Anchoring:
The anti-rotation bracket and the trolley where the swivel is locked must allow a transversal X gap of 5 mm at least and a Y radial gap of 2 mm (see the figure).
In the hollow clamp application it is reccommended the use of a trolley similar to the one shown in the figure. The trolley has two guides (detail B in the figure) fixed on the rod. Any thrust and pull loads are supported by these guides. Furthermore these guides have a centering function and reduce the radial loads caused by the eventual eccentricity of the drilling rods.

CODICE CODE	J-AMHPSWD2	J-WMHPSWD2
PRESSIONE MASSIMA MAX PRESSURE	56 MPa (CEMENTO / GROUT) 3 MPa (ARIA / AIR)	56 MPa (CEMENTO / GROUT) 56 MPa (ACQUA / WATER)
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa (CEMENTO / GROUT) 2,4 MPa (ARIA / AIR)	40 MPa (CEMENTO / GROUT) 45 MPa (ACQUA / WATER)
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +110 °C	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	30 RPM (MAX 2 h)	
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	85-105 RPM	
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM	
TRAZIONE-SPINTA MASSIMA APPLICABILE MAX THRUST-PULL	31 KN	
MEDIA MEDIUM	1ST INLET: ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATER AND GROUT-WATER MIX (RATIO G:W MAX 1,4) 2ST INLET: AIR	1ST INLET: ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATER AND GROUT-WATER MIX (RATIO G:W MAX 1,4) 2ST INLET: WATER
PESO WEIGHT	46 KG	







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2.19 D.114 D2 SWIVEL-ROD ADAPTER J-WMHPSAD2

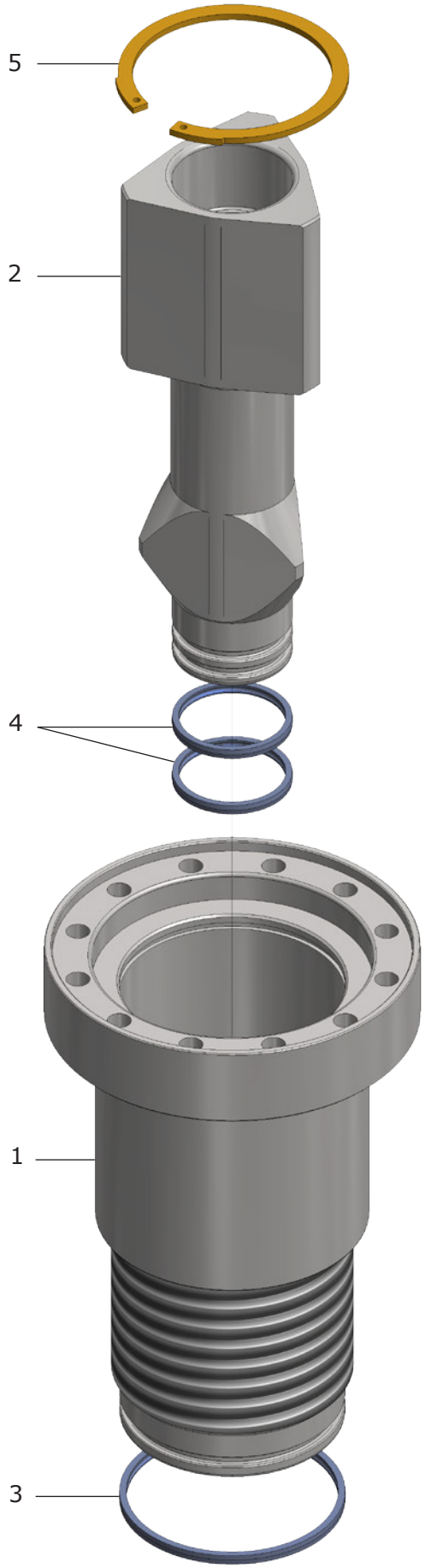
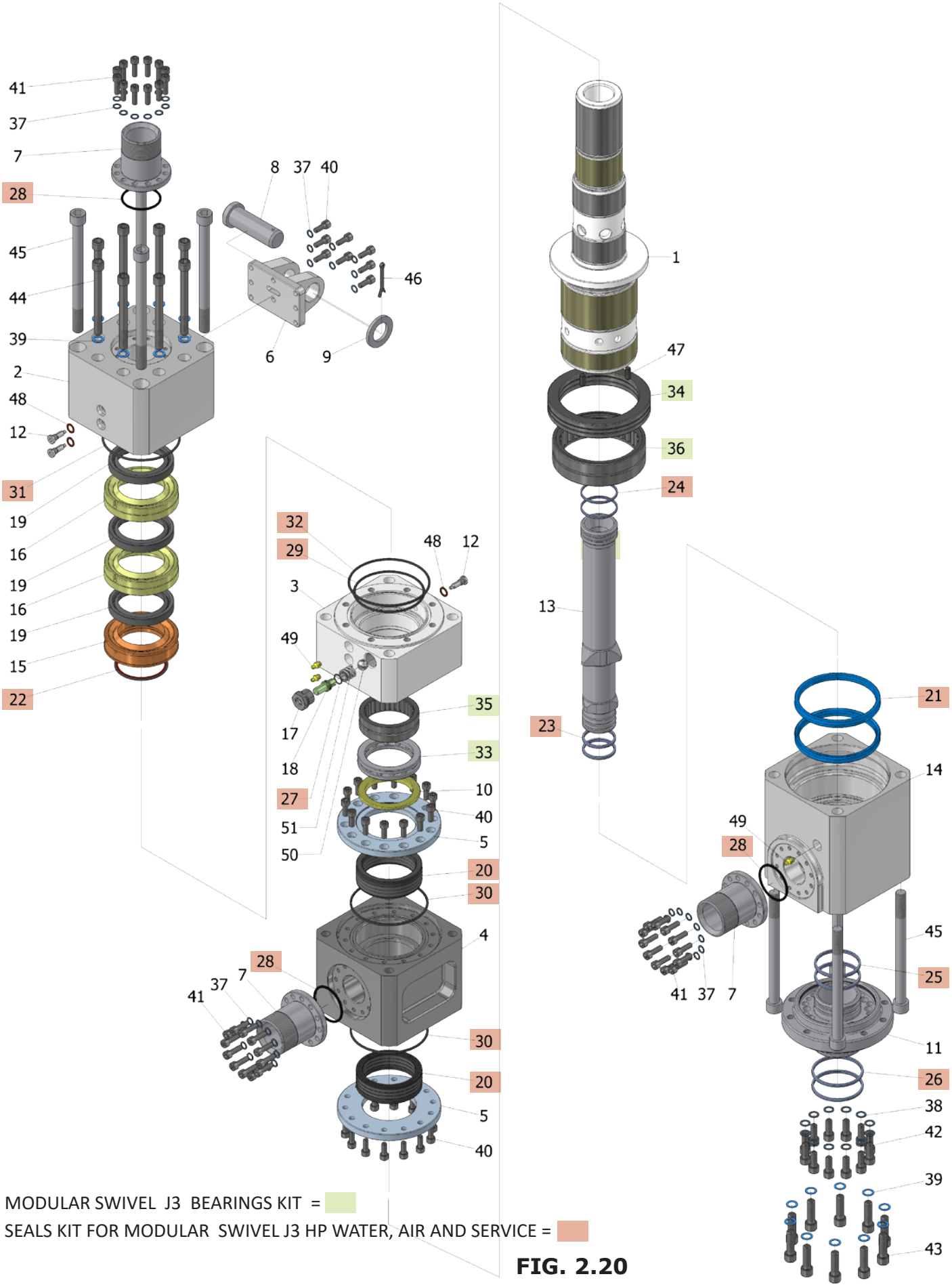


FIG. 2.19

J-WMHPSAD2 (REF. FIG. 2.19)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1731-21-1	CORPO ESTERNO	EXTERNAL BODY	1	
2	D-1731-31-2	CORPO INTERNO	INNER BODY	1	
3	D-1439-B	K35P 88.8x95 L=4.5 T-ECOPUR	K35P 88.8x95 L=4.5 T-ECOPUR	1	
4	D-1439-A	K35-P 44.8x51 L=4.5 T-ECOPUR	K35-P 44.8x51 L=4.5 T-ECOPUR	2	
5	SEEGJVD95S3	ANELLO SEEGER PER FORI D.95 TIPO JV	D.95 LOCKING RING JV TYPE	1	

2.20 D.127 J3 SWIVEL J-WMHPS4J3 (GROUT-WATER-AIR)



MODULAR SWIVEL J3 BEARINGS KIT =

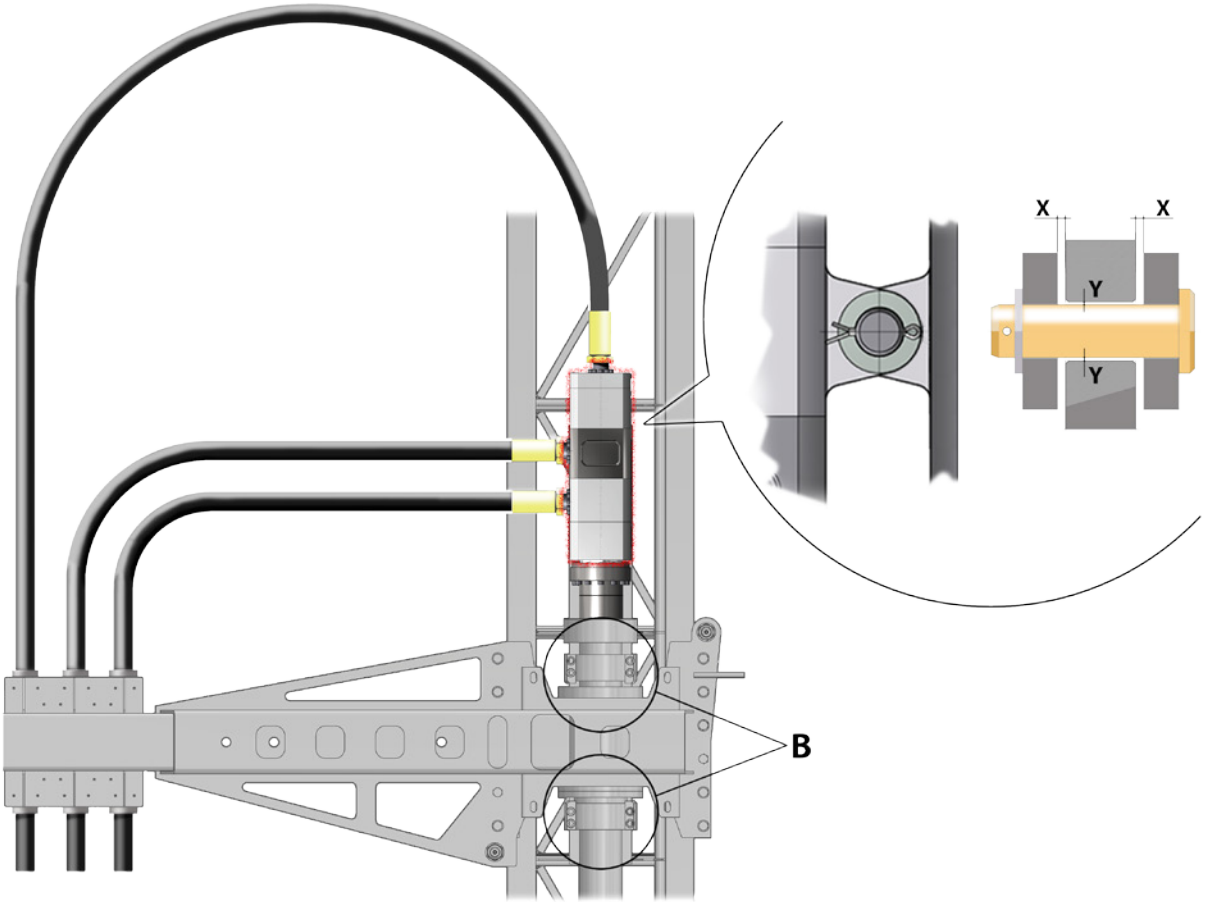
SEALS KIT FOR MODULAR SWIVEL J3 HP WATER, AIR AND SERVICE =

FIG. 2.20

J-WMHPS4J3 (GROUT-WATER-AIR) (REF. FIG. 2.20)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	1410F-1	ALBERO MODULAR HP SWIVEL D.127 C3	J3 HP SWIVEL SHAFT	1	
2	1410J2-2	STADIO N°1 TIPO F	SWIVEL BODY N.1 F TYPE	1	
3	1410J2-3	STADIO N°2 TIPO F	SWIVEL BODY N.2 F TYPE	1	
4	1410-5B	STADIO N°3 VERSIONE CON SEDI SIMMETRICHE	SWIVEL BODY N.3	1	
5	1410-6B	FLANGIA INTERNA PER CORPO A SEDI SIMMET-RICHE	INNER FLANGE	2	
6	1410-8-2	STAFFA DI ATTACCO	ATTACHMENT BRACKET	1	
7	1410-10	ATTACCO 2" GAS	2” GAS INLET	3	
8	1410-11	PERNO	PIN	1	
9	1410-12	RONDELLA PER PERNO	PIN WASHER	1	
10	1410F-15	ANELLO BATTUTA CUSCINETTO ANTERIORE	FRONT BEARING SPACER	1	
11	1410F-16	FLANGIA ATTACCO ASTA D.127 C3	D.127 C3 ROD FLANGE	1	
12	1410-20K-4	PERNO ANTIGIRO	ANTI-SPIN PIN	3	
13	1410-20-35	TUBO INTERNO PER MODULAR SWIVEL D.127 C3	D.127 C3 SWIVEL INNER PIPE	1	
14	1410-20-37	STADIO N°4 PER TERZA VIA	SWIVEL BODY N.4	1	
15	602-32H	ANELLO POSTERIORE PER GUARNIZIONE 602-25	602-25 SEAL BACK RING	1	
16	602-32	DISTANZIALE PER GUARNIZIONE 602-25	602-25 SEAL SPACER	2	
17	1410J2-20	GHIERA PER SPIA CEMENTO	SAFETY PORT NUT	1	
18	1410J2-21	SPIA CEMENTO	SAFETY PORT BODY	1	
19	602-25	GUARNIZIONE 602-25 d.2,75"	SEAL 602-25 d.2,75”	3	
37	RONDELLA SHNORR M8	RONDELLA DI SICUREZZA	SAFETY WASHER	44	
38	RONDELLA SHNORR M10	RONDELLA DI SICUREZZA	SAFETY WASHER	12	
39	RONDELLA SHNORR M12	RONDELLA DI SICUREZZA	SAFETY WASHER	18	
40	UNI 5931 - M 8 x 20	VITE TCCE CL.12.9	CL.12.9 SOCKET HEAD SCREW	36	
41	UNI 5931 - M 8 x 25	VITE TCCE CL.12.9	CL.12.9 SOCKET HEAD SCREW	36	
42	UNI 5931 - M 10 x 25	VITE TCCE CL.12.9	CL.12.9 SOCKET HEAD SCREW	12	
43	UNI 5931 - M 12 x 40	VITE TCCE CL.12.9	CL.12.9 SOCKET HEAD SCREW	10	
44	UNI 5931 - M 12 x 120	VITE TCCE CL.12.9	CL.12.9 SOCKET HEAD SCREW	8	
45	UNI 5931 - M 16 x 200	VITE TCCE CL.12.9	CL.12.9 SOCKET HEAD SCREW	8	
46	UNI 1336 - 5 x 45	COPIGLIA	COTTER PIN	1	
47	ISO 8735 - 8 x 20 - A	SPINA CILINDRICA	PIN	4	
48	J-CU18	GUARNIZIONE RAME 1/8"	1/8” COPPER WASHER	3	

J-WMHPS4J3 (GROUT-WATER-AIR) (REF. FIG. 2.20)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
49	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	3	
50	SFERA ACCIAIO AL CROMO D.16 (SKF RB-16)	SFERA SKF ACCIAIO AL CROMO 62-65 HRC	STEEL BALL	1	
51	J00TP206	MOLLA 70 BAR Do=18.8 Di=12 d=3.4 Lo=27 54SiCr6 DIN17223/2	SPRING 70 BAR Do=18.8 Di=12 d=3.4 Lo=27 54SiCr6 DIN17223/2	1	
-	J-WMHPS4J3-A	KIT CUSCINETTI MODULAR SW. J3	J3 HP SWIVEL BEARINGS KIT		
33	51114	CUSCINETTO A SFERE REGGISPINTA 70x95x18	THRUST BEARING 70x95x18	1	(1)
34	51124	CUSCINETTO REGGISPINTA A SFERE 120x155x25	THRUST BEARING 120x155x25	1	(1)
35	NKS 70	CUSCINETTO A RULLINI 70x90x28	ROLLER BEARING 70x90x28	1	(1)
36	RNA 4920	CUSCINETTO A RULLINI 115x140x40	ROLLER BEARING 115x140x40	1	(1)
	J-WMHPS4J3-B	KIT GUARNIZ. SWIVEL J3 HP WATER, AIR AND SERVICE	SEALS KIT SWIVEL J3 HP WATER, AIR AND SERVICE		
20	CH393314	GUARNIZIONE CH 80x100x30	CHEVRON SEAL 80x100x30	2	(1)
21	GUARNIZIONE A LABBRO ASTON A 115 130 11	GUARNIZIONE A LABBRI ASIMMETRICI 115x130x11 POLIURETANO 93 SHORE A	LIP SEAL 115x130x11	2	(1)
22	XRB 70 81 4.2	GUARNIZIONE ASTON PER STELO ROTANTE	ROTARY SEAL	1	(1)
23	K35-P 44.8x51x4.5 (D-1439-A)	GUARNIZIONE POLIURETANO (T-ECOPUR)	POLIURETHANE SEAL	2	(1)
24	K35-P 56x51.5x3.5 (D-1410-A)	GUARNIZIONE POLIURETANO (T-ECOPUR)	POLIURETHANE SEAL	2	(1)
25	K35-P 70x63.8x4.5 (D-1354-D)	GUARNIZIONE T-ECOPUR	POLIURETHANE SEAL	2	(1)
26	K35-P 71.8x78x4.5 (D-1354-B)	GUARNIZIONE POLIURETANO (T-ECOPUR)	POLIURETHANE SEAL	2	(1)
27	OR 014	O-RING	O-RING SEAL	1	(1)
28	OR 227	O-RING	O-RING SEAL	3	(1)
29	OR 242	O-RING	O-RING SEAL	1	(1)
30	OR 245	O-RING	O-RING SEAL	2	(1)
31	OR 246	O-RING	O-RING SEAL	1	(1)
32	OR 247	O-RING	O-RING SEAL	2	(1)

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare i cuscinetti almeno ogni 8h con grasso a base di litio. Cambiare il pacco guarnizioni quando dalla spia posta sotto l'ingresso del cemento (Safety port) si nota una perdita di cemento/acqua.

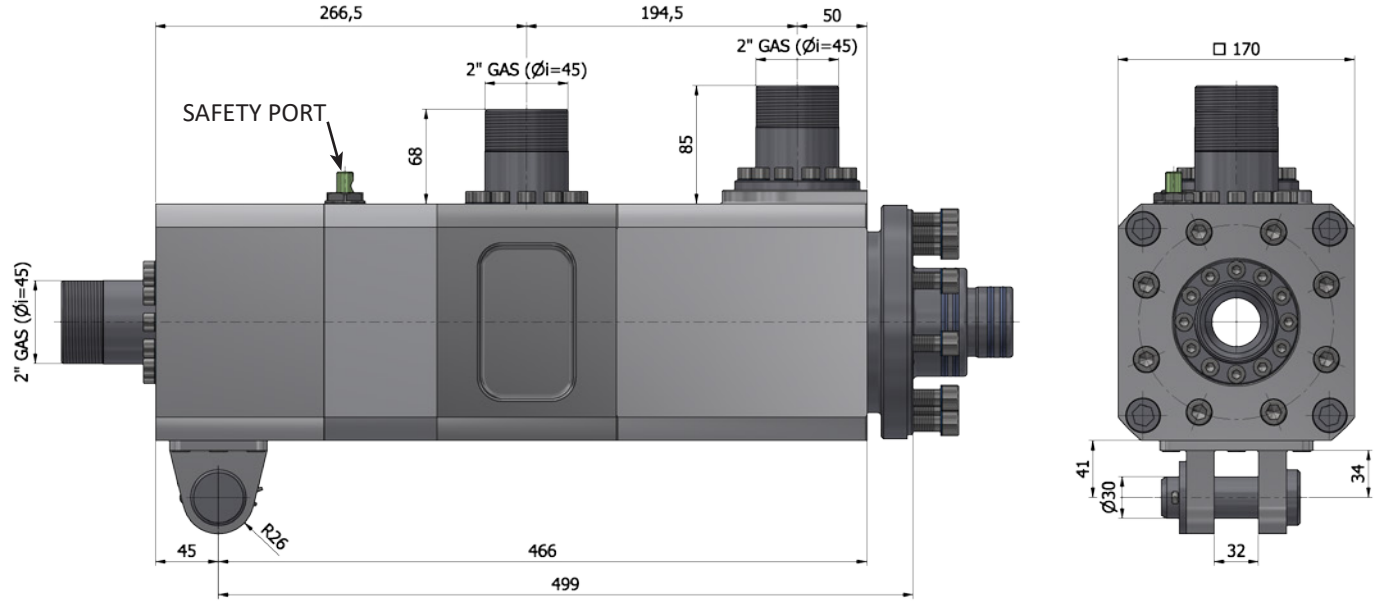
Maintenance:
Lubricate the roller bearings at least every 8h using lithium based grease. Replace the seals pack when a leackage from the safety port below the grout inlet occurs.

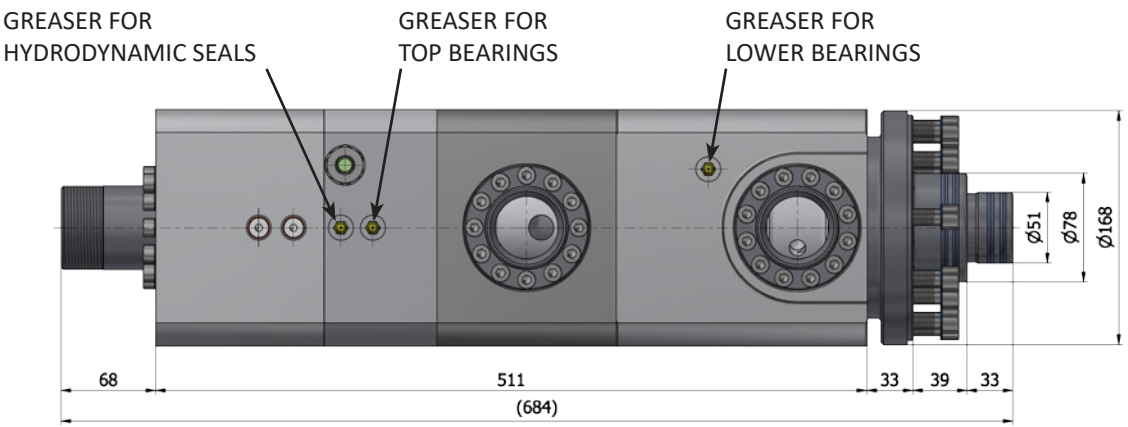
Ancoraggio:
La staffa antigiro e il carrello su cui fissare la testa, devono consentire un'escursione trasversale X di almeno 5 mm e radiale Y di 2 mm (vedi figura).
Nelle applicazioni con mandrino passante si raccomanda l'utilizzo di un carello simile a quello della figura. Il carello prevede due guide (dett. B in figura) fissate all'asta. Eventuali carichi in trazione e spinta sono assorbiti dalle guide. Inoltre le guide hanno una funzione di centratore e minimizzano carichi radiali dovuti alla eventuale eccentricità delle aste di perforazione.

Anchoring:
The anti-rotation bracket and the trolley where the swivel is locked must allow a transversal X gap of 5 mm at least and a Y radial gap of 2 mm (see the figure).
In the hollow clamp application it is reccommended the use of a trolley similar to the one shown in the figure. The trolley has two guides (detail B in the figure) fixed on the rod. Any thrust and pull loads are supported by these guides. Furthermore these guides have a centering function and reduce the radial loads caused by the eventual eccentricity of the drilling rods.

CODICE CODE	J-WMHPS4J3		
PRESSIONE MASSIMA MAX PRESSURE	42 MPa (CEMENTO / GROUT) 42 MPa (ACQUA / WATER) 3 MPa (ARIA / AIR)		
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa (CEMENTO / GROUT) 40 MPa (ACQUA / WATER) 2,4 MPa (ARIA / AIR)		
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +110 °C		
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	25 RPM (MAX 2 h)		
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	150 RPM (*)		
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM		
TRAZIONE-SPINTA MASSIMA APPLICABILE MAX THRUST-PULL	39 KN		
MEDIA MEDIUM	1ST INLET: ACQUA E MISCELE CEMENTO-ACQUA (RAPP. C:A NON OLTRE 1,4) WATER AND GROUT-WATER MIX (RATIO G:W MAX 1,4)	2 ND INLET: WATER	3 RD INLET: AIR
PESO WEIGHT	69,4 KG		

(*): Rispettare gli intervalli di ingrassaggio - Take care to greasing intervals





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2.21 D.127 C3 SWIVEL-ROD ADAPTER J-XMHPA4C3

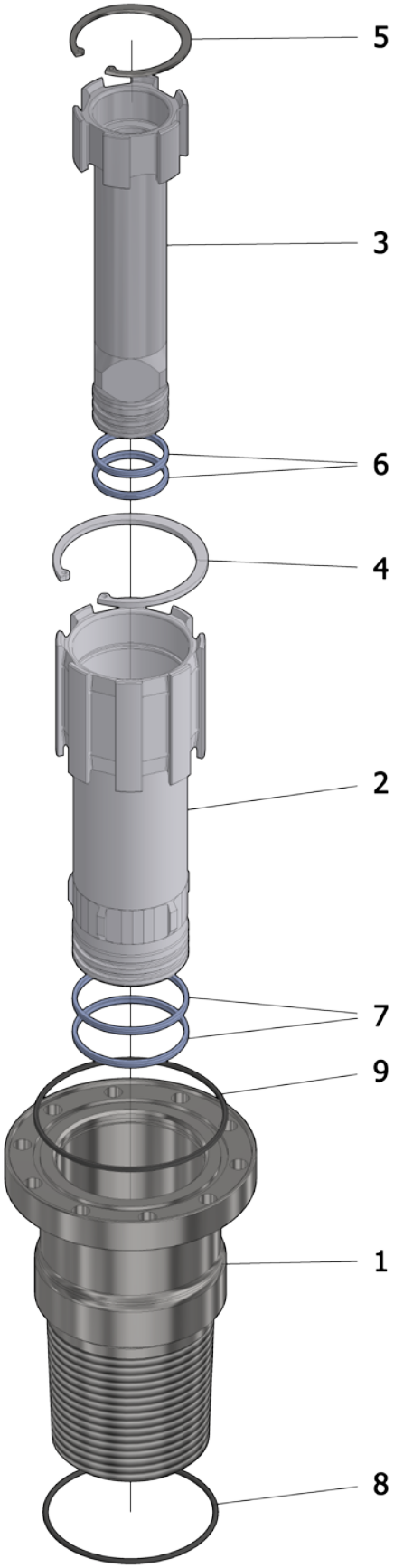


FIG. 2.21

J-XMHPA4C3 (REF. FIG. 2.21)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1354-546-1	CORPO ESTERNO	EXTERNAL BODY	1	
2	D-1354-546-2	CORPO INTERMEDIO	MIDDLE BODY	1	
3	D-1354-546-3	CORPO INTERNO	INNER BODY	1	
4	7438D100S4	ANELLO SEEGER PER FORI D.100	D.100 LOCKING RING	1	
5	7437D78S25	ANELLO SEEGER PER FORI D.78	D.78 LOCKING RING	1	
6	D-1439-A	K35-P 44.8x51 L=4.5 T-ECOPUR	K35-P 44.8x51 L=4.5 T-ECOPUR	2	
7	D-1354-B	K35P 71.8x78 L=4.5 T-ECOPUR	K35P 71.8x78 L=4.5 T-ECOPUR	2	
8	MR-OR244	O-RING 244 RIF. POLYPAC	O-RING 244 REF. POLYPAC	1	
9	MR-OR249	O-RING 249 RIF. POLYPAC	O-RING 249 REF. POLYPAC	1	

2.22 MODULAR HP SWIVEL HYDRODINAMIC ROTATING SEALS [J-AMHPSWJ2 / J-WMHPSWJ2]

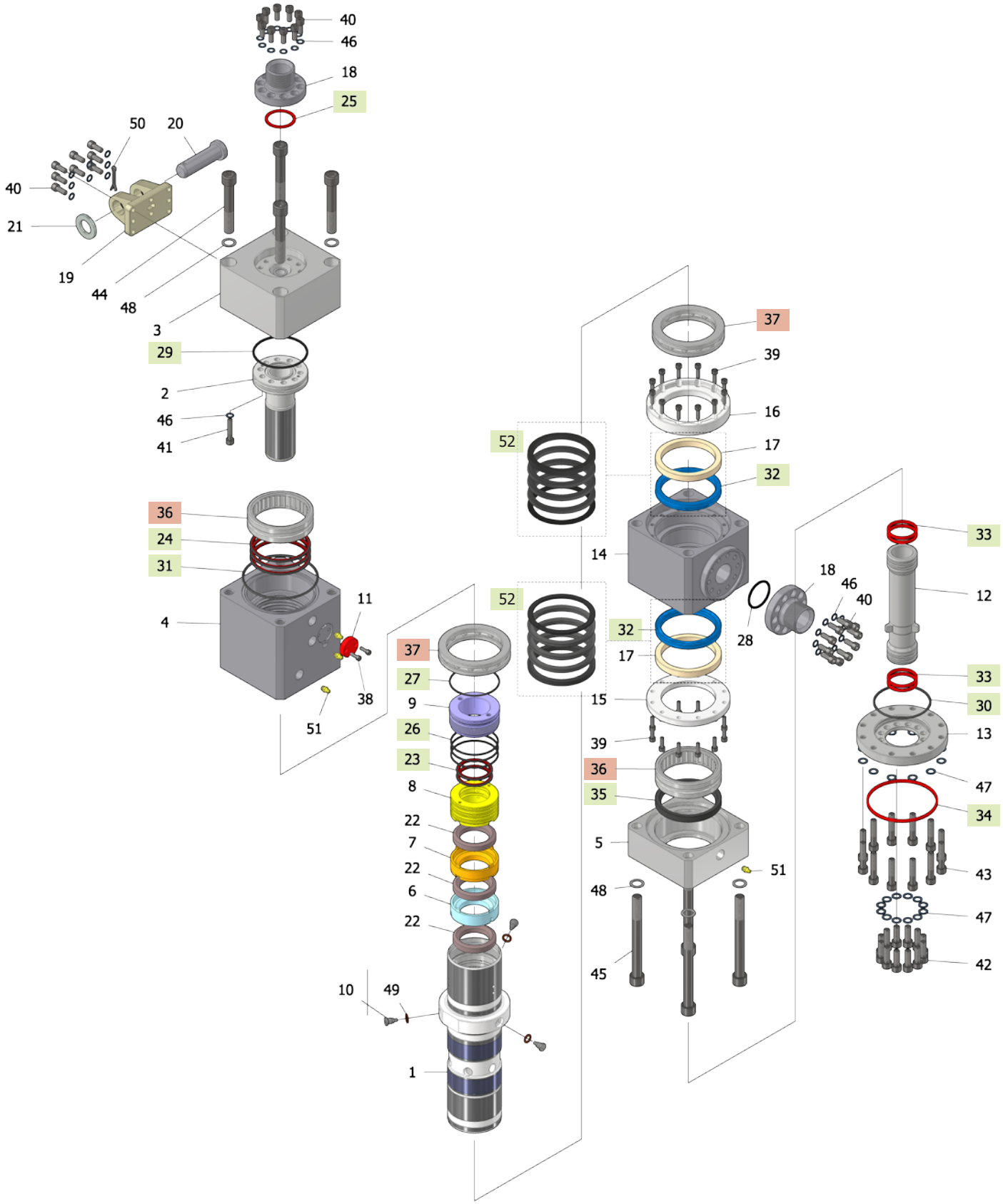


FIG. 2.22

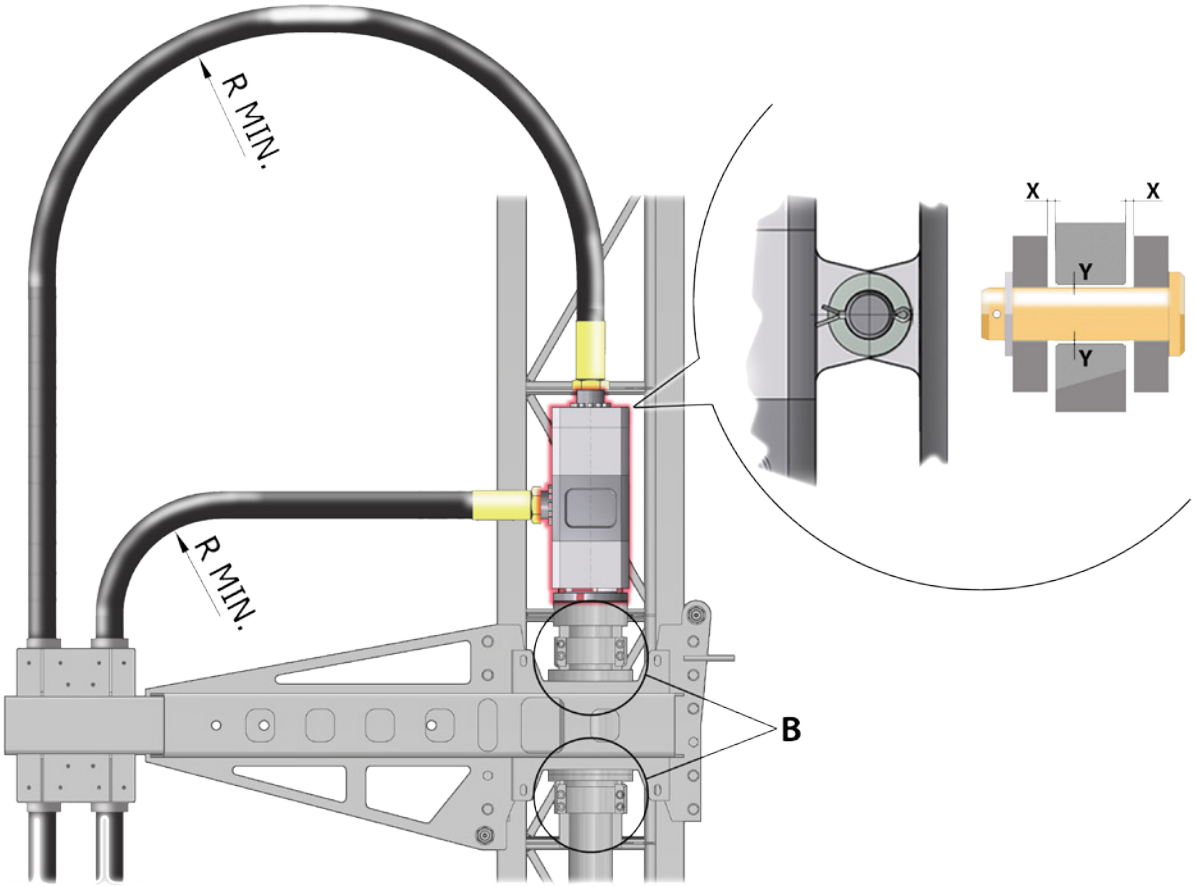
J-AMHPSWJ2 (GROUT-AIR) / J-WMHPSWJ2 (GROUT-WATER) (REF. FIG. 2.22)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	2155-1BF	ALBERO ROTANTE	ROTATING SHAFT	1	
2	2155-2	ALBERO INTERNO	INNER SHAFT	1	
3	2155-3	CORPO SUPERIORE	UPPER BODY	1	
4	2155-4BF	CORPO CENTRALE	MIDDLE BODY	1	
5	2155-5BF	CORPO INFERIORE	LOWER BODY	1	
6	2155-6	DISTANZIALE PORTA-GUARNIZIONE ANTERIORE 602-33 KALSI	602-33 FRONT SEAL HOUSING	1	
7	2155-7	DISTANZIALE PORTA-GUARNIZIONE CENTRALE 602-33 KALSI	602-33 MIDDLE SEAL HOUSING	1	
8	2155-8	DISTANZIALE PORTA-GUARNIZIONE POSTERIORE 602-33 KALSI	602-33 REAR SEAL HOUSING	1	
9	2155-9	GHIERA CHIUSURA PORTA-GUARNIZIONI	SEAL HOUSING CLOSING NUT	1	
10	2155-10	PERNO ANTIGIRO	ANTI-SPIN PIN	3	
11	2155-11	CALOTTA PER FORO SPIA CEMENTO	SAFETY PORT CUP	1	
12	2155-13	TUBO CEMENTO	GROUT TUBE	1	
13	2155-14	FLANGIA DI CHIUSURA	CLOSING FLANGE	1	
14	2155-15	CORPO INTERMEDIO ARIA/ACQUA	AIR / WATER INTERMEDIATE BODY	1	
15	2155-16	ANELLO PREMIGUARNIZIONI INFERIORE	LOWER SEAL RING	1	
16	2155-17	ANELLO PREMIGUARNIZIONI SUPERIORE	UPPER SEAL RING	1	
17	2155-18	DIASTANZIALE GUARNIZIONI ARIA	AIR SEAL SPACER	2	(2)
18	1092-7	ATTACCO 1"-1/2 GAS	1”-1/2 GAS INLET	2	
19	1092-30	STAFFA DI ATTACCO	ATTACHMENT BRACKET	1	
20	1731-20-11	PERNO	PIN	1	
21	1731-20-12	RONDELLA	PIN WASHER	1	
22	602-33	GUARNIZIONE KALSI Di=50 mm	I.D. 50 mm KALSI SEAL	3	
38	UNI 5931 - M 5 x 16	VITE TCCE CL. 12.9	CL.12.9 SOCKET HEAD SCREW	2	
39	UNI 5931 - M 6 x 20	VITE TCCE CL. 12.9	CL.12.9 SOCKET HEAD SCREW	24	
40	UNI 5931 - M 8 x 20	VITE TCCE CL. 12.9	CL.12.9 SOCKET HEAD SCREW	28	
41	UNI 5931 - M 8 x 40	VITE TCCE CL. 12.9	CL.12.9 SOCKET HEAD SCREW	10	
42	UNI 5931 - M 10 x 30	VITE TCCE CL. 12.9	CL.12.9 SOCKET HEAD SCREW	12	
43	UNI 5931 - M 10 x 50	VITE TCCE CL. 12.9	CL.12.9 SOCKET HEAD SCREW	12	
44	UNI 5931 - M 16 x 100	VITE TCCE CL. 12.9	CL.12.9 SOCKET HEAD SCREW	4	
45	UNI 5931 - M 16 x 160	VITE TCCE CL. 12.9	CL.12.9 SOCKET HEAD SCREW	4	
46	RONDELLA SHNORR M8	RONDELLA DI SICUREZZA	SAFETY WASHER	38	

J-AMHPSWJ2 (GROUT-AIR) / J-WMHPSWJ2 (GROUT-WATER) (REF. FIG. 2.22)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
47	RONDELLA SHNORR M10	RONDELLA DI SICUREZZA	SAFETY WASHER	24	
48	RONDELLA SHNORR M16	RONDELLA DI SICUREZZA	SAFETY WASHER	8	
49	J-CU18	GUARNIZIONE RAME 1/8"	1/8" COPPER WASHER	3	
50	UNI 1336 - 5 x 36	COPIGLIA	COTTER PIN	1	
51	71412AM8P125	INGRASSATORE M8	M8 LUBRICATOR	4	
-	J-WMHPSWJ2-A	KIT CUSCINETTI MODULAR HYDRODINAMIC SWIVEL J2	J2 HP HYDRODINAMIC SWIVEL BEARINGS KIT	1	
36	RNA4916	CUSCINETTO A RULLINI 90 x 110 x 30	ROLLER BEARING 90 x 110 x 30	2	(1)
37	SKF51118	CUSCINETTO A SFERE REGGISPINTA 90 x 120 x 22	THRUST BALL BEARING 90 x 120 x 22	2	(1)
-	J-AMHPSWJ2-B	KIT GUARNIZ. MODULAR HYDRODINAMIC SWIVEL J2 ARIA E SERVICE	SEALS KIT FOR MODULAR HYDRODINAMIC SWIVEL J2 AIR AND SERVICE	1	
-	J-WMHPSWJ2-B	KIT GUARNIZ. MODULAR HYDRODINAMIC SWIVEL J2 ACQUA E SERVICE	SEALS KIT FOR MODULAR HYDRODINAMIC SWIVEL J2 WATER AND SERVICE	1	
23	XRB 50 61 4.2	GUARNIZIONE PER STELO ROTANTE D.50	D.50 ROTATING SEAL	2	(1)
24	XRB 90 101 4.2	GUARNIZIONE PER STELO ROTANTE D.90	D.90 ROTATING SEAL	3	(1)
25	R35-A (PRESSIONE INTERNA) 51x42x2,9	GUARNIZIONE POLIURETANO 95 SHORE-A (PRESSIONE LATO INTERNO)	POLIURETHANE SEAL 95 SHORE-A (INNER SIDE PRESSURE)	2	(1)
26	OR 150	O-RING	O-RING SEAL	3	(1)
27	OR 151	O-RING	O-RING SEAL	1	(1)
28	OR 827	O-RING	O-RING SEAL	1	(1)
29	OR 237	O-RING	O-RING SEAL	1	(1)
30	OR 239	O-RING	O-RING SEAL	1	(1)
31	OR 248	O-RING	O-RING SEAL	1	(1)
32	A 90 110 12	GUARNIZIONE A LABBRI ASIMMETRICI 90x110x12 POLIURETANO 93 SHORE A	90x110x12 POLIURETHANE 93 SHORE-A LIP SEAL	2	(1) (2)
33	K35-P 44.8x51x4.5 (D-1439-A)	GUARNIZIONE POLIURETANO 95 SHORE-A	POLIURETHANE SEAL 95 SHORE-A	4	(1)
34	K35P 111,8x118x4.5 (D-1731-20-A)	GUARNIZIONE POLIURETANO 95 SHORE-A	POLIURETHANE SEAL 95 SHORE-A	1	(1)
35	DIN 3760 - A - 90 x 110 x 12 - NBR	PARAOLIO SINGOLO LABBRO	ONE LIP SEAL	1	(1)
52	CH433354/1	GUARNIZIONE CH 90 x 110 x 25	CH SEAL 90 x 110 x 25	2	(1) (3)

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

(2) NON USATO PER SWIVEL CEMENTO-ACQUA J-WMHPSWJ2 - NOT USED FOR GROUT-WATER SWIVEL J-WMHPSWJ2

(3) NON USATO PER SWIVEL CEMENTO-ARIA J-AMHPSWJ2 - NOT USED FOR GROUT-AIR SWIVEL J-AMHPSWJ2



Procedura di lavaggio dopo trattamento jet grouting:
Poco prima della fine del trattamento jet grouting aprire la valvola dell'acqua e contemporaneamente chiudere la valvola del cemento senza modificare le impostazioni della pompa. Il lavaggio sarà terminato quando si verificherà una caduta di pressione.

Washing procedure after jet grouting treatment:
Shortly before the end of jet grouting treatment, open the water valve and at the same time close the grout valve without changing the pump settings. The washing will be completed when a pressure drop will occur.

Manutenzione:
Ingrassare i cuscinetti almeno ogni 3h con grasso a base di litio. Cambiare il pacco guarnizioni quando dalla spia posta sotto l'ingresso del cemento (Safety port) si nota una perdita di cemento/acqua.

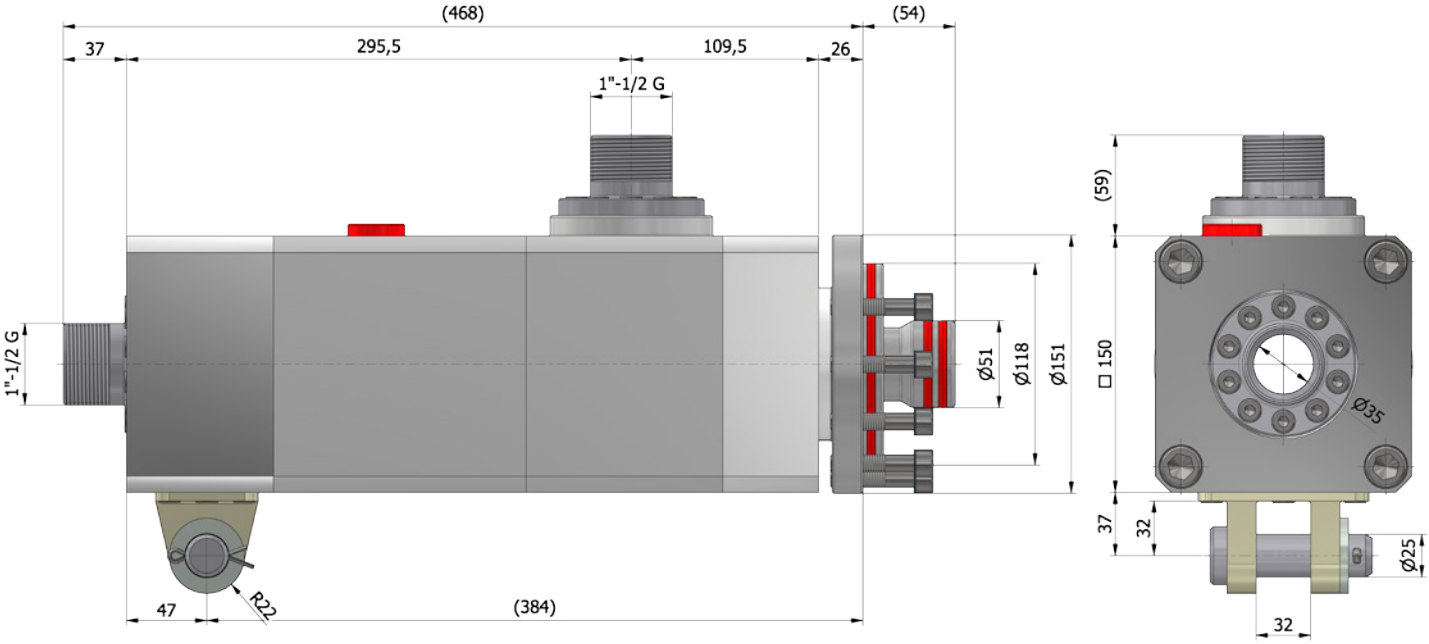
Maintenance:
Lubricate the roller bearings at least every 3h using lithium based grease. Replace the seals pack when a leackage from the safety port below the grout inlet occurs.

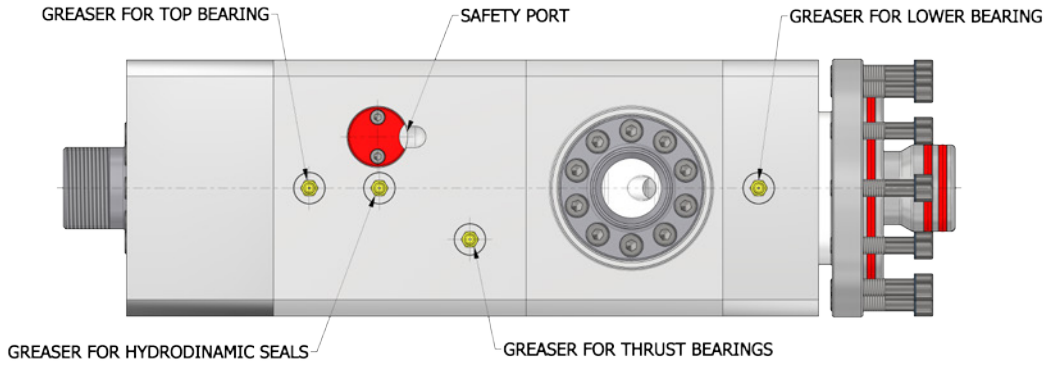
Ancoraggio:
La staffa antigiro e il carrello su cui fissare la testa, devono consentire un'escursione trasversale X di almeno 5 mm e radiale Y di 2 mm (vedi figura).
Nelle applicazioni con mandrino passante si raccomanda l'utilizzo di un carello simile a quello della figura. Il carello prevede due guide (dett. B in figura) fissate all'asta. Eventuali carichi in trazione e spinta sono assorbiti dalle guide. Inoltre le guide hanno una funzione di centratore e minimizzano carichi radiali dovuti alla eventuale eccentricità delle aste di perforazione.

Anchoring:
The anti-rotation bracket and the trolley where the swivel is locked must allow a transversal X gap of 5 mm at least and a Y radial gap of 2 mm (see the figure).
In the hollow clamp application it is reccommended the use of a trolley similar to the one shown in the figure. The trolley has two guides (detail B in the figure) fixed on the rod. Any thrust and pull loads are supported by these guides. Furthermore these guides have a centering function and reduce the radial loads caused by the eventual eccentricity of the drilling rods.

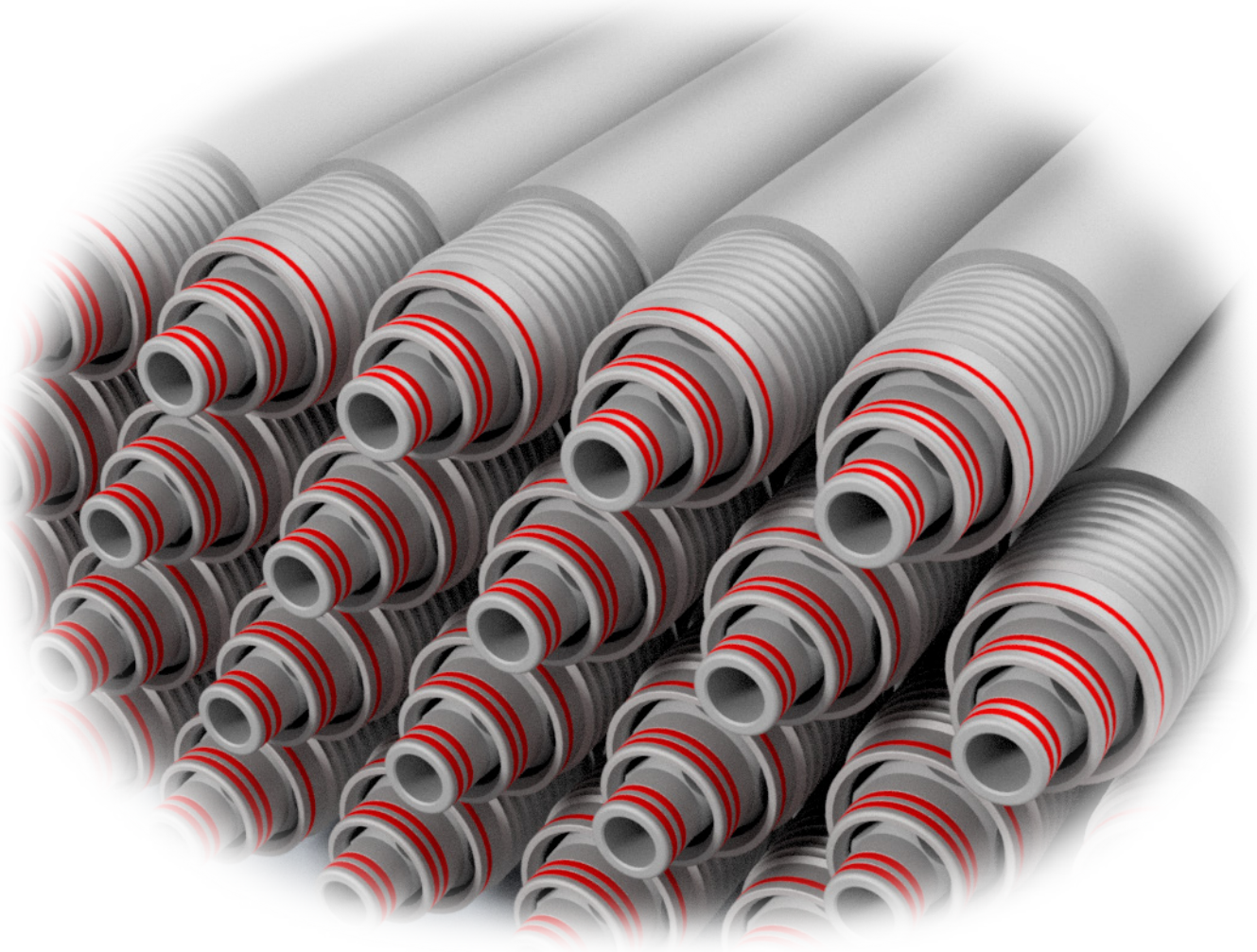
CODICE CODE	J-AMHPSWJ2	J-WMHPSWJ2
PRESSIONE MASSIMA MAX PRESSURE	42 MPa (CEMENTO / GROUT) 3 MPa (ARIA / AIR)	42 MPa (CEMENTO / GROUT) 42 MPa (ACQUA / WATER)
PRESSIONE DI ESERCIZIO WORKING PRESSURE	40 MPa (CEMENTO / GROUT) 2,4 MPa (ARIA / AIR)	40 MPa (CEMENTO / GROUT) 40 MPa (ACQUA / WATER)
TEMPERATURA TEMPERATURE MIN-MAX	-30°C / +110 °C	-30°C / +120 °C
VELOCITA' MASSIMA A SECCO IN PERFORAZIONE MAX DRILLING SPEED DRY RUN	30 RPM (MAX 2 h)	
VELOCITA' MASSIMA CON REFRIGERAZIONE IN PERFORAZIONE MAX DRILLING SPEED WITH MEDIUM	155 RPM (*)	
VELOCITA' MASSIMA DURANTE JET GROUTING MAX JET GROUTING SPEED	15 RPM	
TRAZIONE-SPINTA MASSIMA APPLICABILE MAX THRUST-PULL	30 KN	
MEDIA MEDIUM	1ST INLET: ACQUA E MISCELE CEMENTO-ACQUA (RAPPORTO C:A NON OLTRE 1,4) WATER AND GROUT-WATER MIX (RATIO G:W MAX 1,4)	2ND INLET: AIR (J-AMHPSWJ2) WATER (J-WMHPSWJ2)
PESO WEIGHT	53,8 KG	

(*): Rispettare gli intervalli di ingrassaggio - Take care to greasing intervals





3 ASTE - RODS



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INDEX OF PART 3

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3.1 D.60 JET ROD

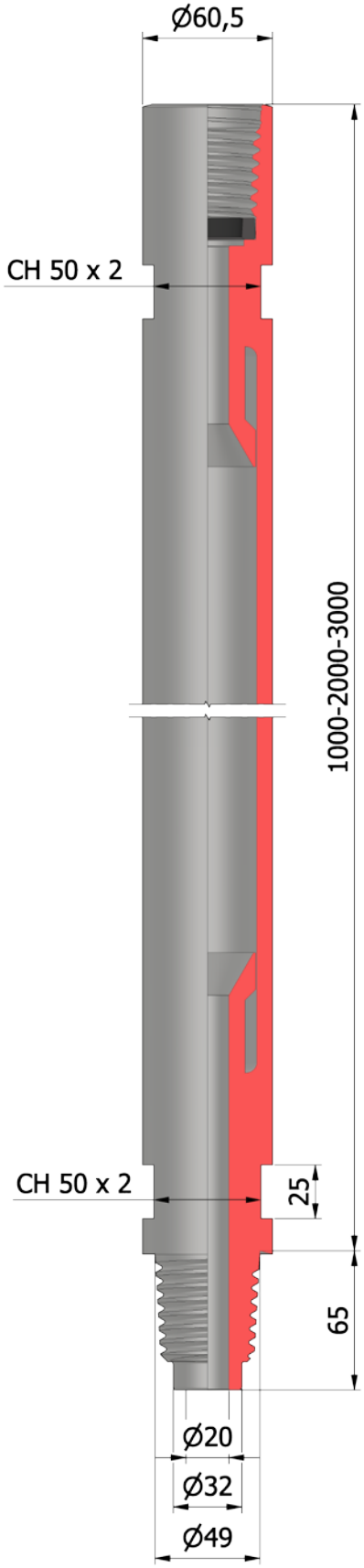


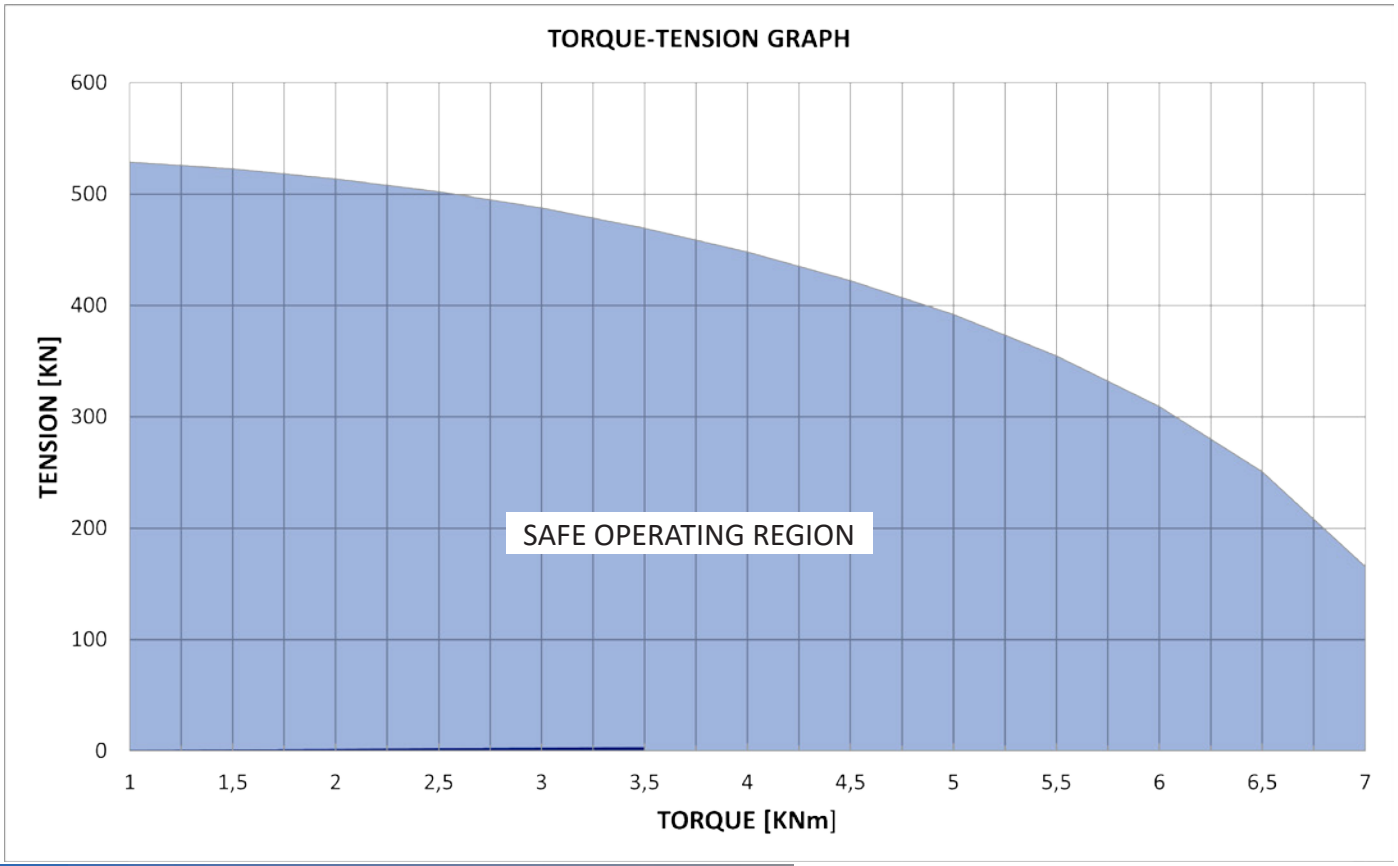
FIG. 3.1

D.60 JET ROD (REF. FIG. 3.1)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
-	J-60J13000	ASTA D.60 JET L=3000	D.60 JET ROD L=3000	-	
-	J-60J12000	ASTA D.60 JET L=2000	D.60 JET ROD L=2000	-	
-	J-60J11000	ASTA D.60 JET L=1000	D.60 JET ROD L=1000	-	
-	J-60J13011	KIT GUARNIZIONI ASTA D.60 JET	D.60 JET ROD SEALS KIT	-	

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	7,1
PRESSIONE MAX MAX PRESSURE		[MPa]	40
COPPIA MAX MAX TORQUE	(*)	[KNm]	7
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	4,2
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	530
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	20
PESO WEIGHT		[Kg]	12 [L=1m] 21 [L=2m] 31 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	56

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.



3.2 D.76 JET ROD

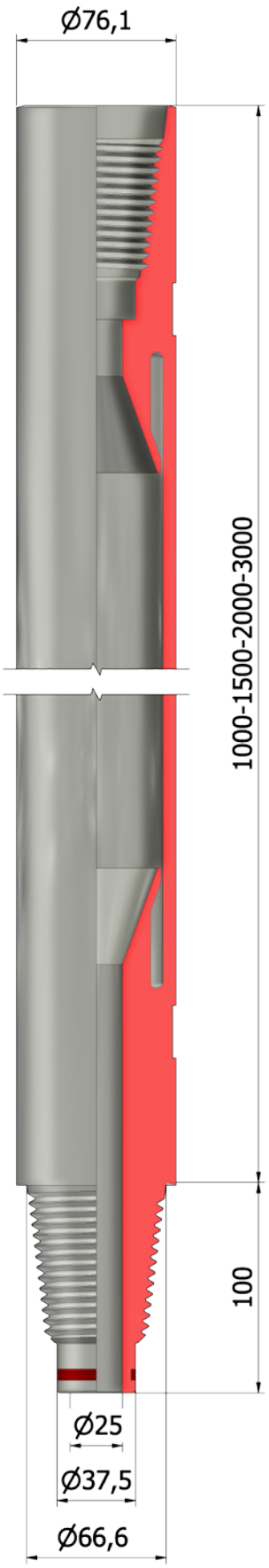


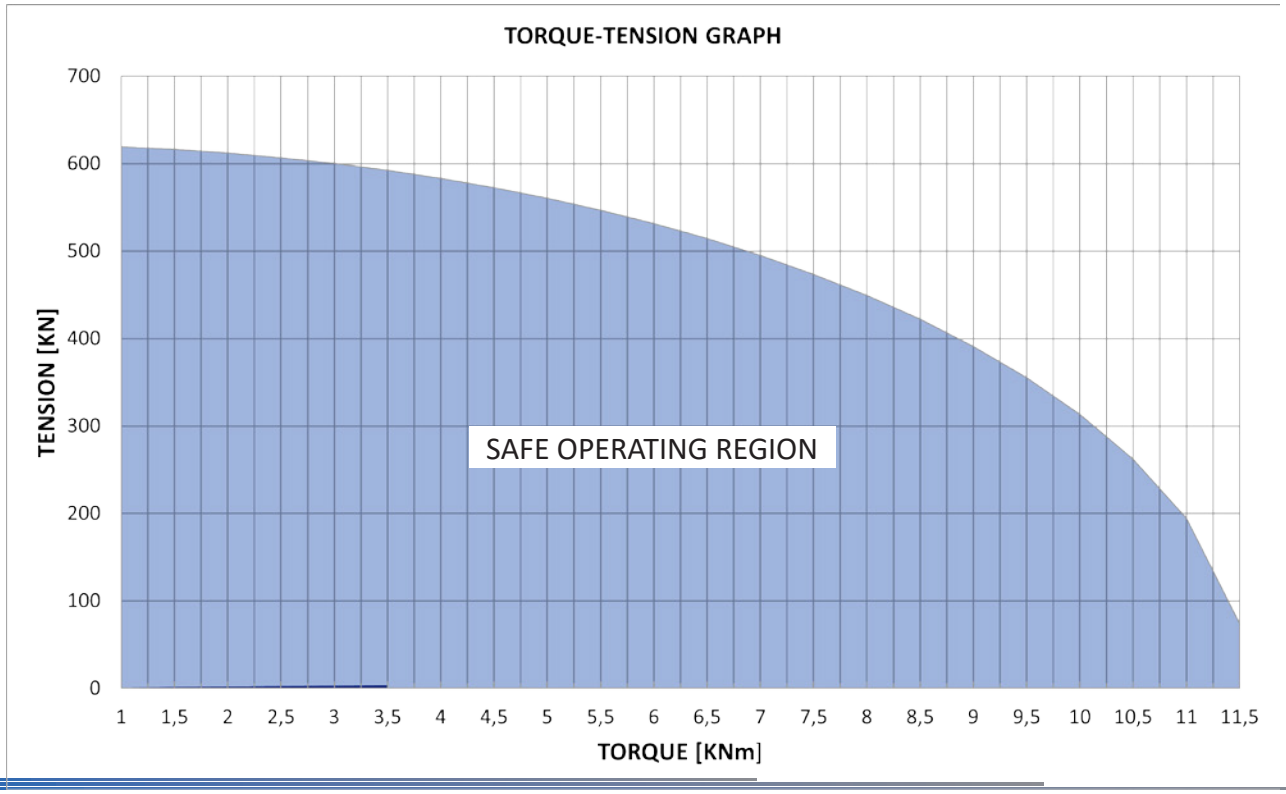
FIG. 3.2

D.76 JET ROD (REF. FIG. 3.2)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
-	J-76J13000	ASTA D.76 JET L=3000	D.76 JET ROD L=3000	-	
-	J-76J12000	ASTA D.76 JET L=2000	D.76 JET ROD L=2000	-	
-	J-76J11500	ASTA D.76 JET L=1500	D.76 JET ROD L=1500	-	
-	J-76J11000	ASTA D.76 JET L=1000	D.76 JET ROD L=1000	-	
-	J-76J13011	KIT GUARNIZIONI ASTA D.76 JET	D.76 JET ROD SEALS KIT	-	

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX MAX PRESSURE		[MPa]	40
COPPIA MAX MAX TORQUE	(*)	[KNm]	11,5
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	6,9
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	610
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	25
PESO WEIGHT		[Kg]	16 [L=1m] 22 [L=1,5m] 27 [L=2m] 38 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	72

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.



3.3 D.90 JET ROD

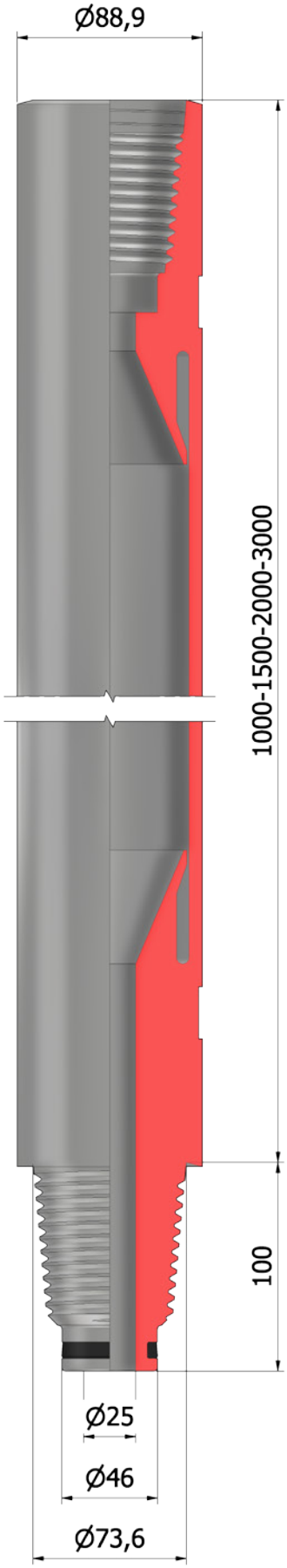


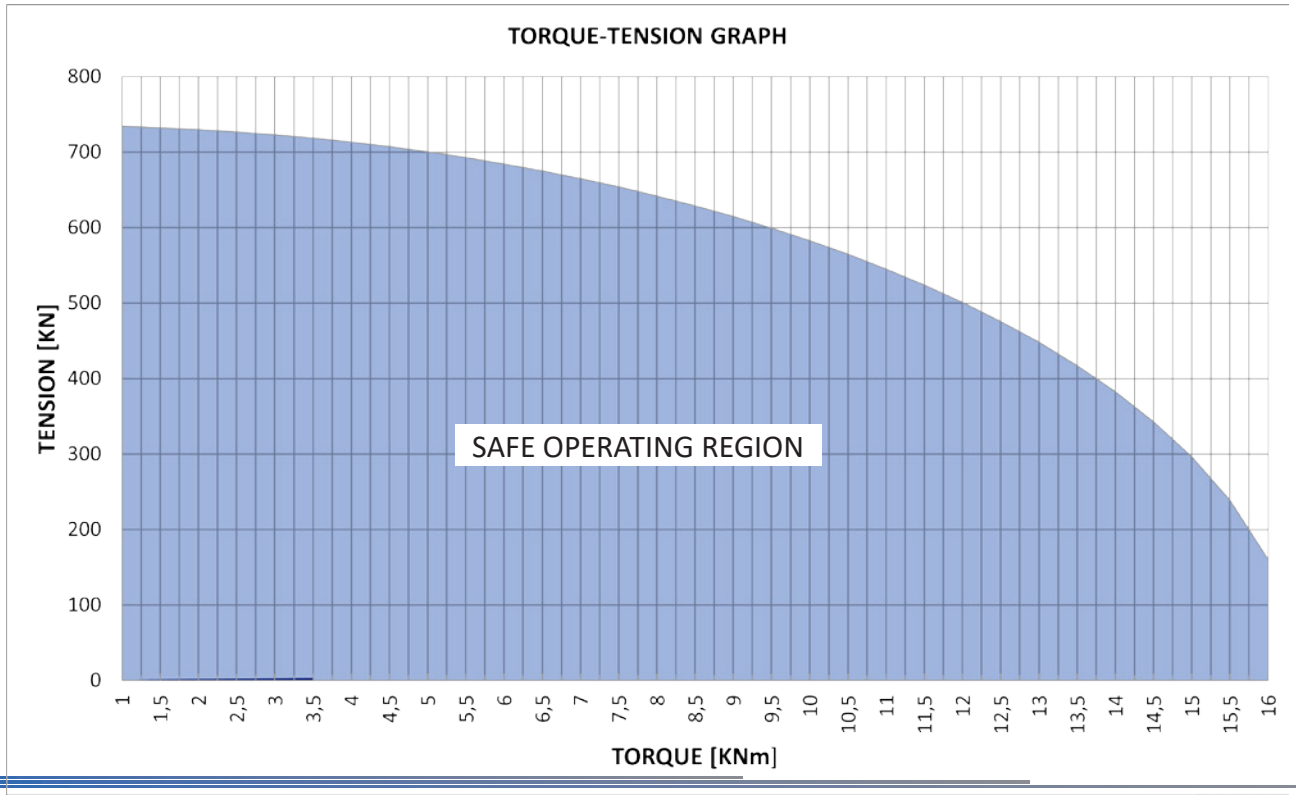
FIG. 3.3

D.90 JET ROD (REF. FIG. 3.3)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
-	J-889K3000	ASTA D.90 JET L=3000	D.90 JET ROD L=3000	-	
-	J-889K2000	ASTA D.90 JET L=2000	D.90 JET ROD L=2000	-	
-	J-889K1500	ASTA D.90 JET L=1500	D.90 JET ROD L=1500	-	
-	J-889K1000	ASTA D.90 JET L=1000	D.90 JET ROD L=1000	-	
-	J-889K3011	KIT GUARNIZIONI ASTA D.90 JET	D.90 JET ROD SEALS KIT	-	

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX MAX PRESSURE		[MPa]	40
COPPIA MAX MAX TORQUE	(*)	[KNm]	16
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	9,6
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	730
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	30
PESO WEIGHT		[Kg]	21 [L=1m] 28 [L=1,5m] 34 [L=2m] 47 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	84

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.



3.4 D.90 JET RP ROD

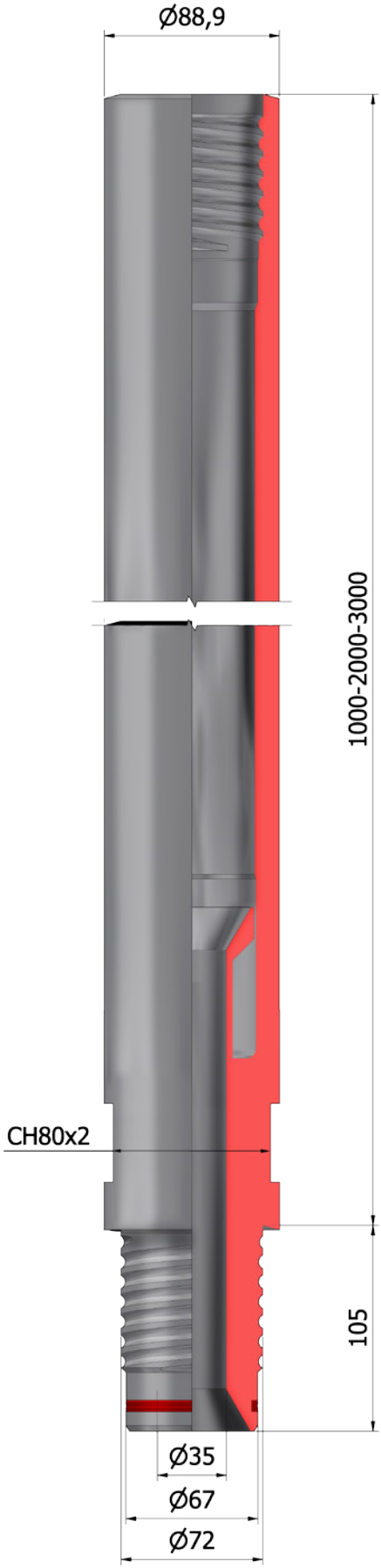


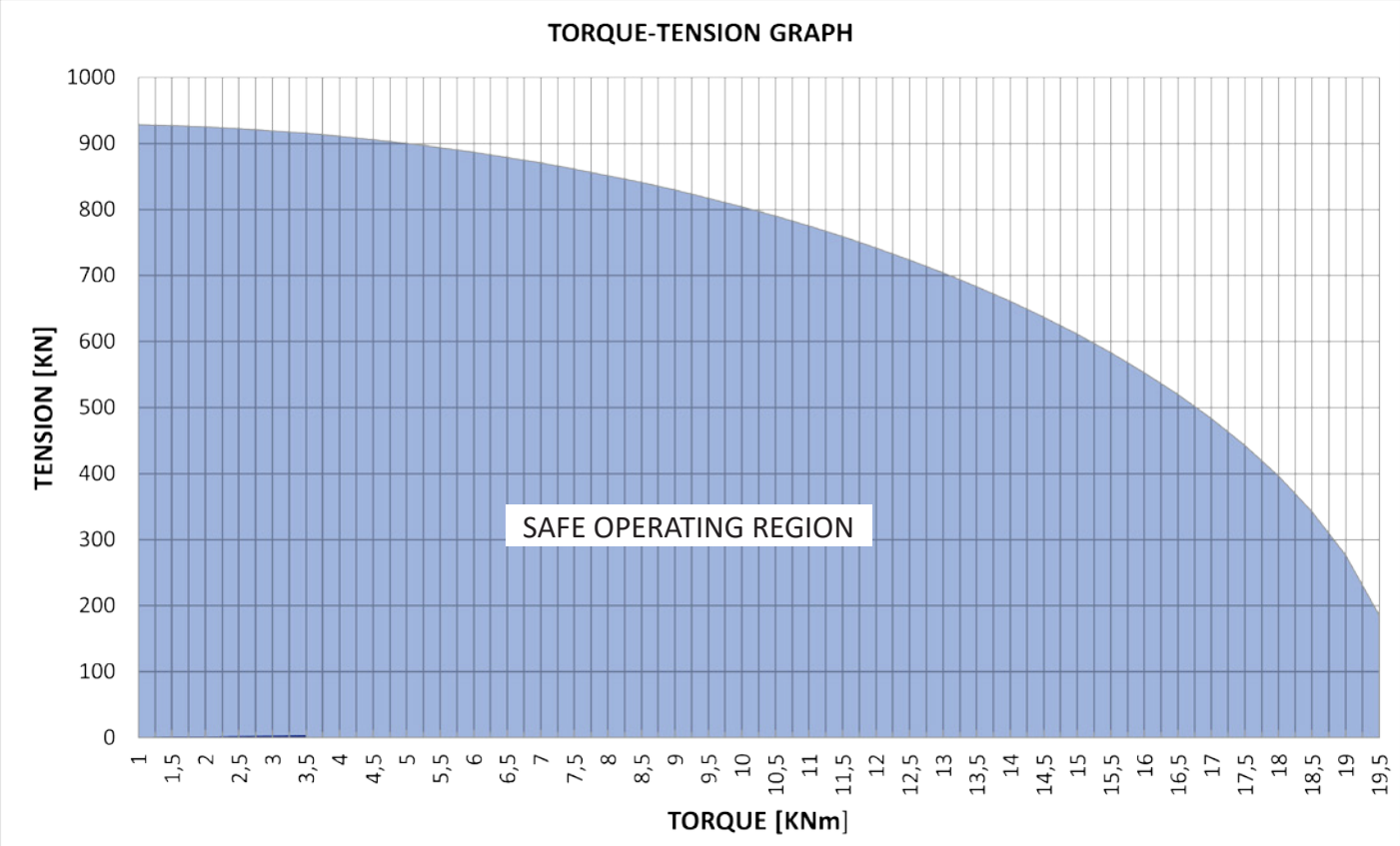
FIG. 3.4

D.90 JET RP ROD (REF. FIG. 3.4)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
-	J-8JRP3000	ASTA D.90 JET RP L=3000	D.90 JET RP ROD L=3000	-	
-	J-8JRP2000	ASTA D.90 JET RP L=2000	D.90 JET RP ROD L=2000	-	
-	J-8JRP1000	ASTA D.90 JET RP L=1000	D.90 JET RP ROD L=1000	-	
-	J-8JRP3001	KIT GUARNIZIONI ASTA D.90 JET RP	D.90 JET RP ROD SEALS KIT	-	

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	12,5
PRESSIONE MAX MAX PRESSURE		[MPa]	40
COPPIA MAX MAX TORQUE	(*)	[KNm]	19,5
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	11,7
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	929
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	30
PESO WEIGHT		[Kg]	27 [L=1m] 50 [L=2m] 73 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	80

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.



3.5 D.114 JET ROD

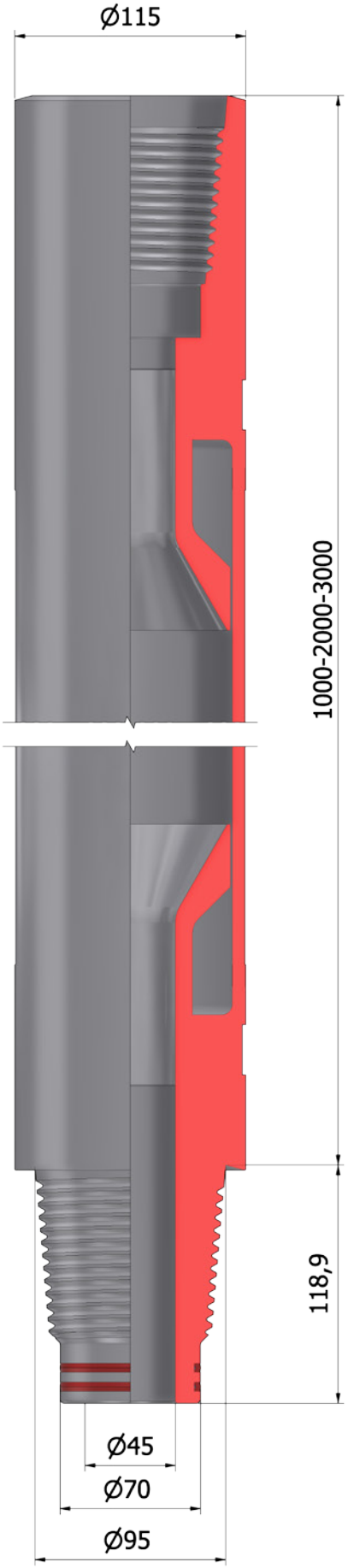


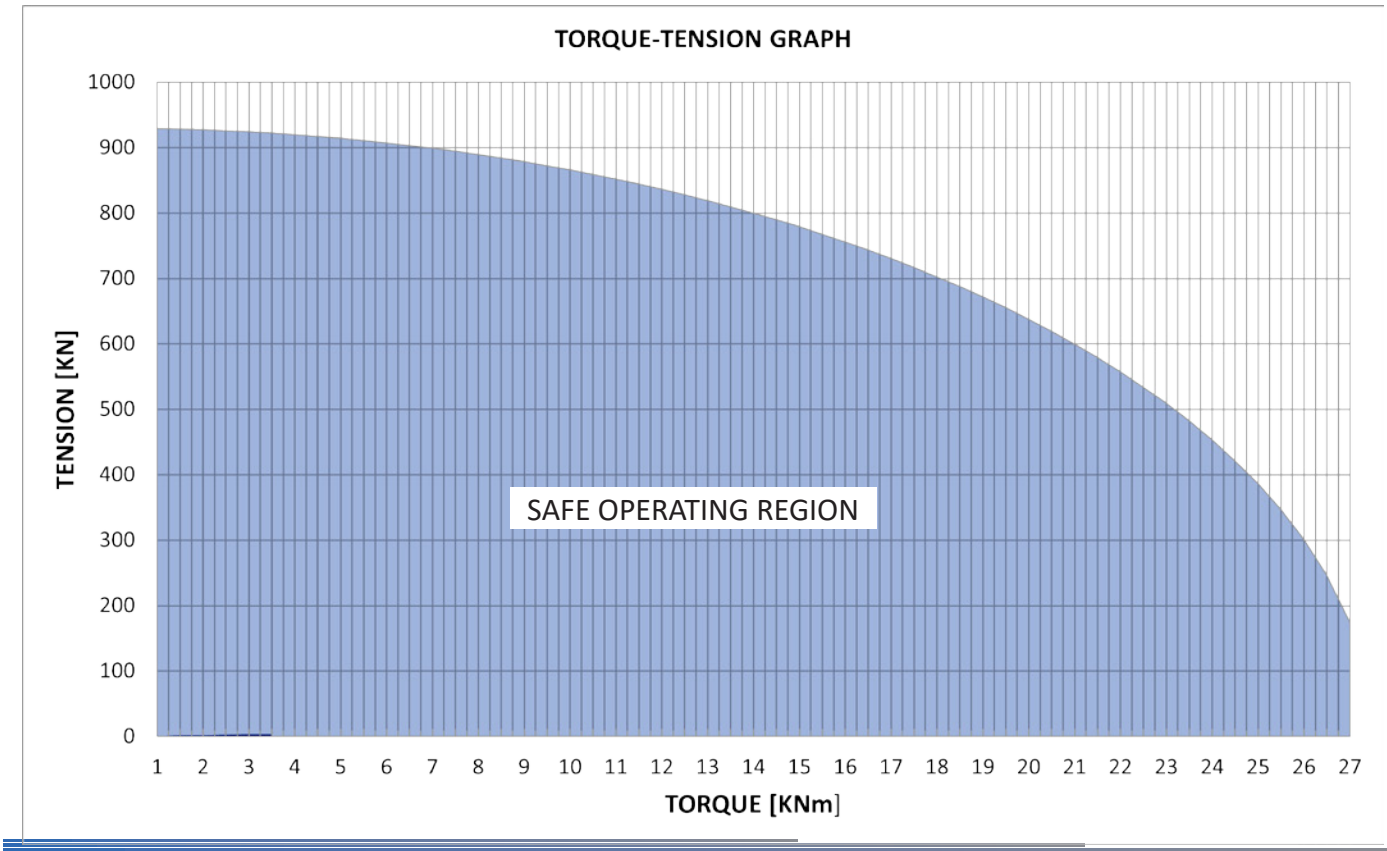
FIG. 3.5

D.114 JET ROD (REF. FIG. 3.5)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
-	J-114K3000	ASTA D.114 JET L=3000	D.114 JET ROD L=3000	-	
-	J-114K2000	ASTA D.114 JET L=2000	D.114 JET ROD L=2000	-	
-	J-114K1000	ASTA D.114 JET L=1000	D.114 JET ROD L=1000	-	
-	J-114K3011	KIT GUARNIZIONI ASTA D.114 JET	D.114 JET ROD SEALS KIT	-	

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX MAX PRESSURE		[MPa]	40
COPPIA MAX MAX TORQUE	(*)	[KNm]	27
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	16
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	930
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	45
PESO WEIGHT		[Kg]	33 [L=1m] 50 [L=2m] 67 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	110

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.



3.6 D.114 JET RP ROD

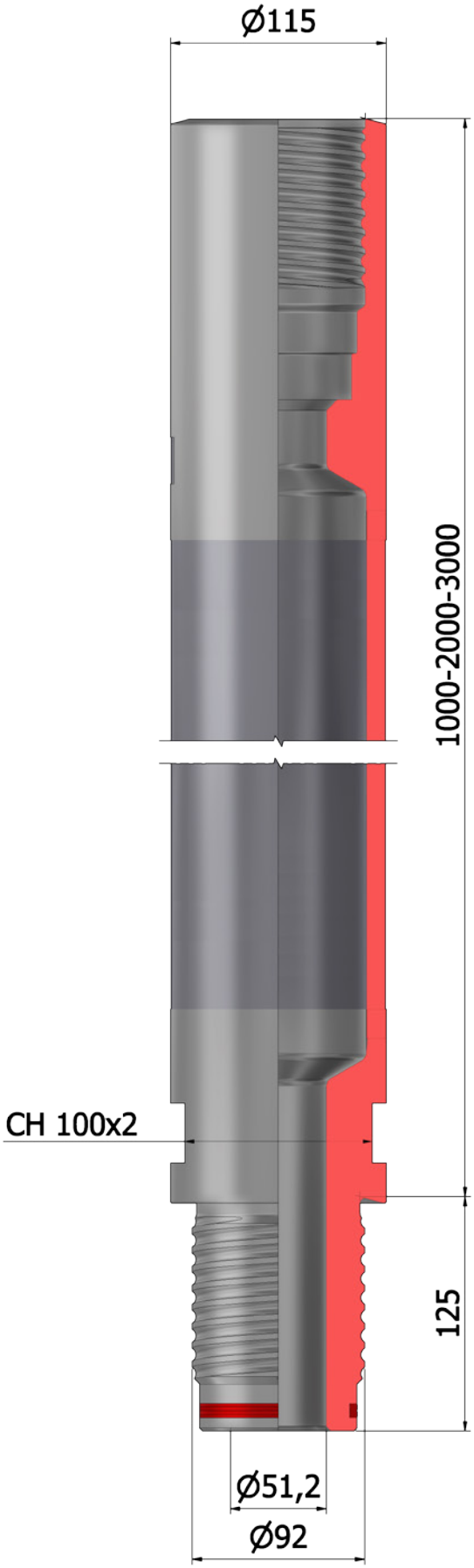


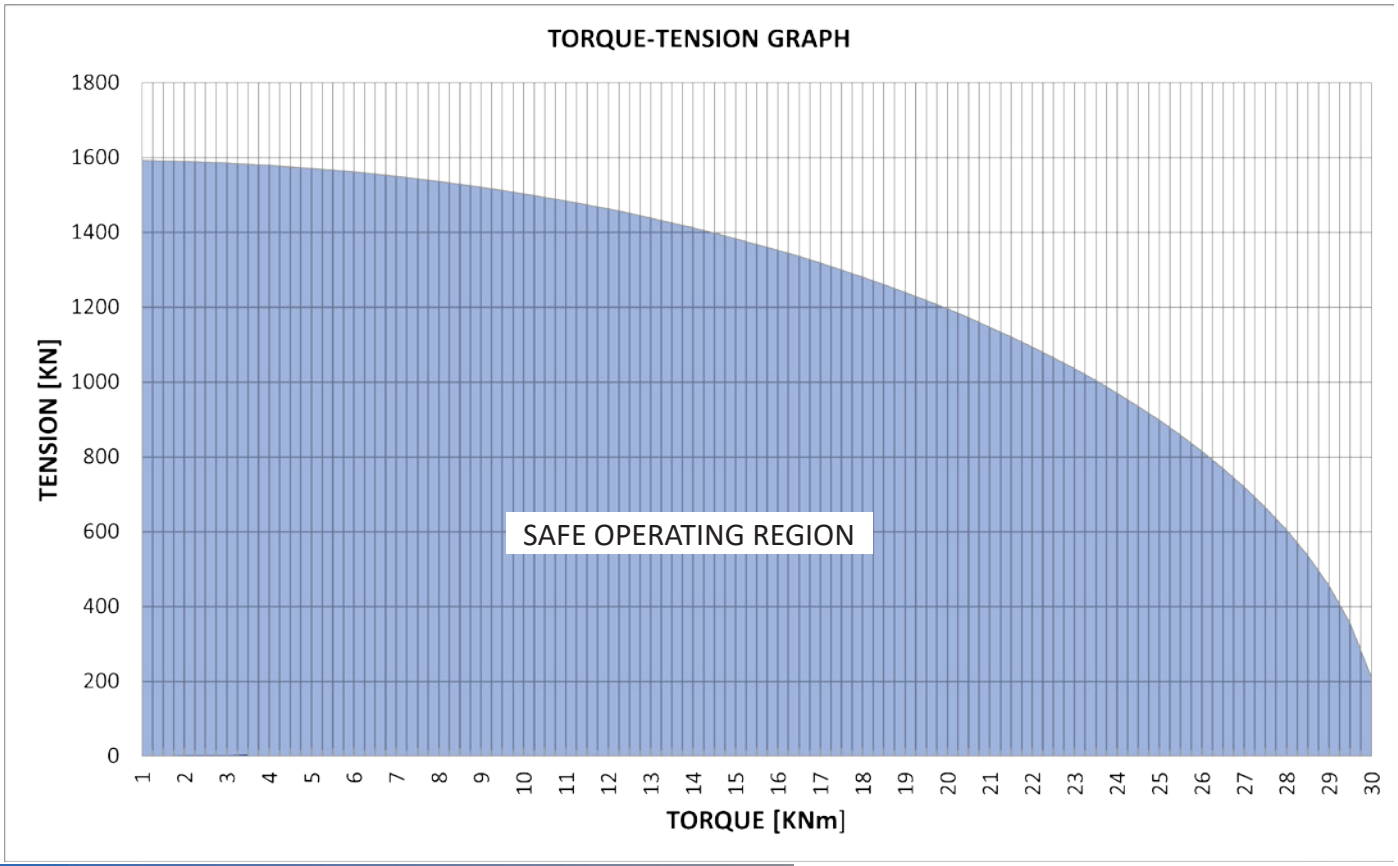
FIG. 3.6

D.114 JET RP ROD (REF. FIG. 3.6)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
-	J-11JRP300	ASTA D.114 JET RP L=3000	D.114 JET RP ROD L=3000	-	
-	J-11JRP200	ASTA D.114 JET RP L=2000	D.114 JET RP ROD L=2000	-	
-	J-11JRP100	ASTA D.114 JET RP L=1000	D.114 JET RP ROD L=1000	-	
-	J-11JRP311	KIT GUARNIZIONI ASTA D.114 JET RP	D.114 JET RP ROD SEALS KIT	-	

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	10
PRESSIONE MAX MAX PRESSURE		[MPa]	40
COPPIA MAX MAX TORQUE	(*)	[KNm]	30
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	18
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	1590
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	50
PESO WEIGHT		[Kg]	36 [L=1m] 62 [L=2m] 87,5 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	107

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.



3.7 D.114 JET RP ROD FOR TUNNELLING

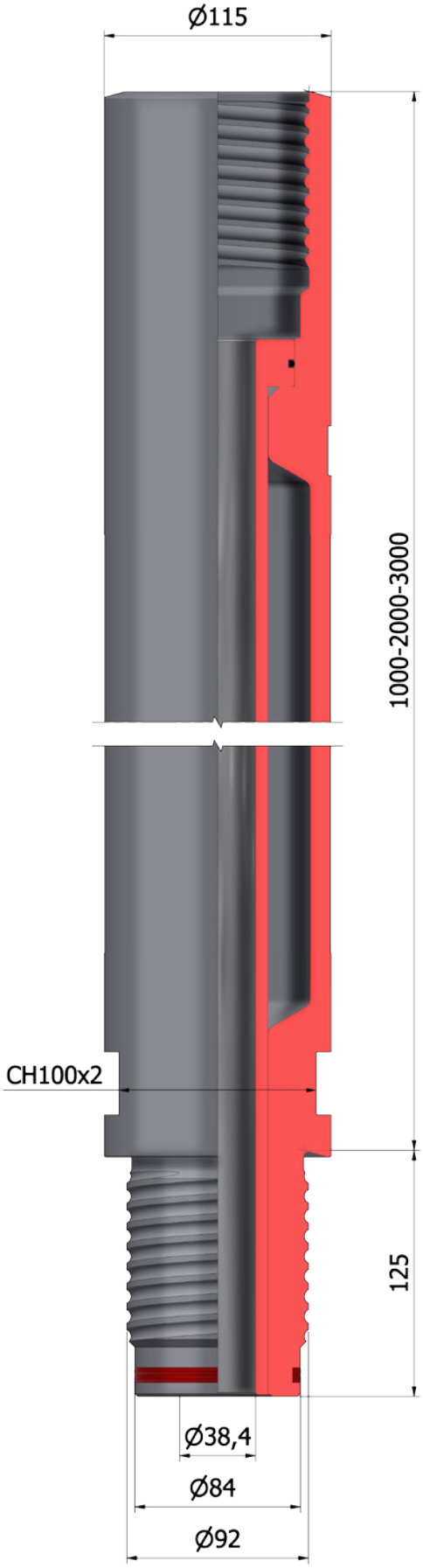


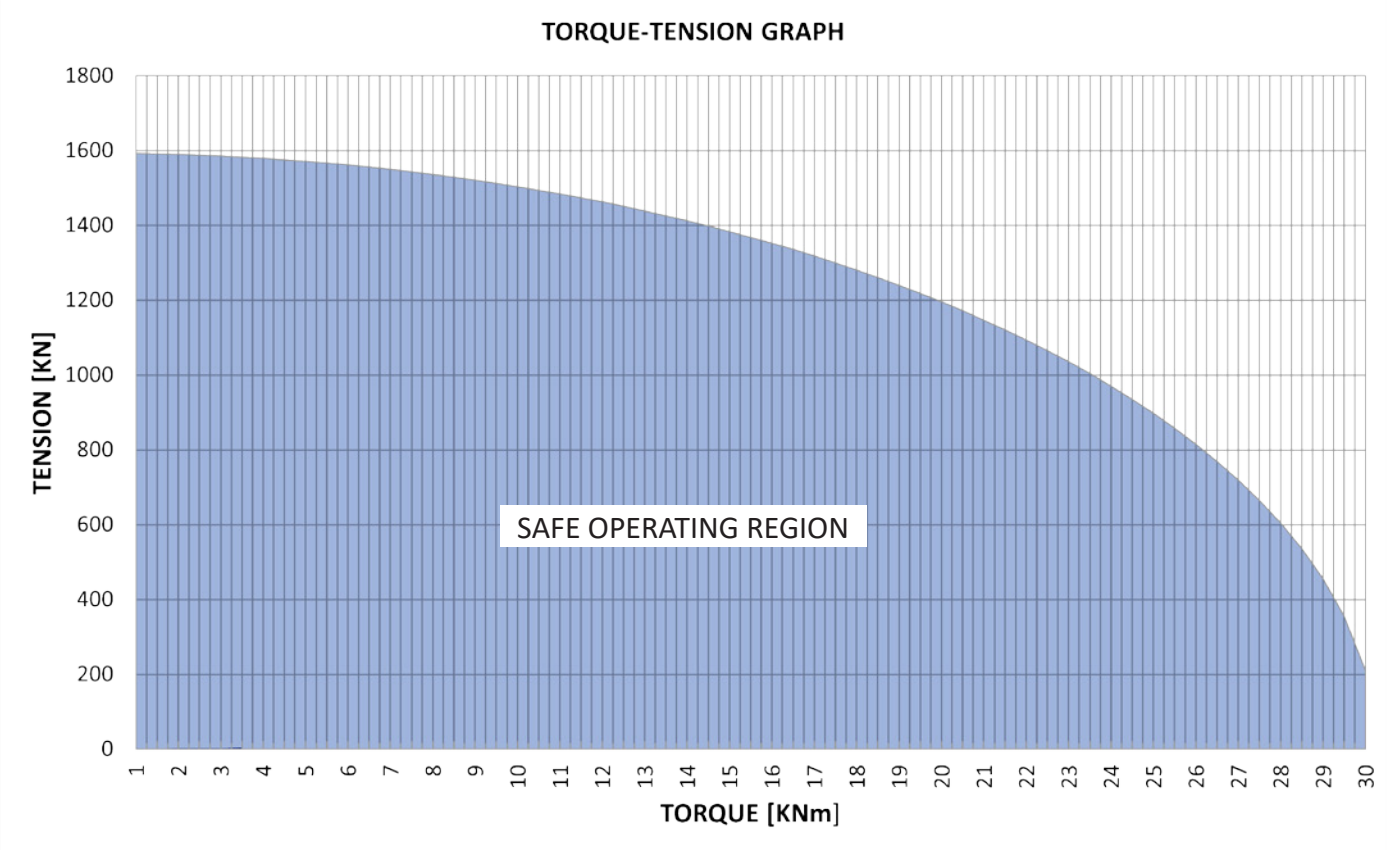
FIG. 3.7

D.114 JET RP ROD FOR TUNNELLING (REF. FIG. 3.7)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
-	J-11JRP300-O	ASTA D.114 JET RP TUNNELLING L=3000	D.114 JET RP ROD TUNN. L=3000	-	
-	J-11JRP200-O	ASTA D.114 JET RP TUNNELLING L=2000	D.114 JET RP ROD TUNN. L=2000	-	
-	J-11JRP100-O	ASTA D.114 JET RP TUNNELLING L=1000	D.114 JET RP ROD TUNN. L=1000	-	
-	J-11JRP311	KIT GUARNIZIONI ASTA D.114 JET RP	D.114 JET RP ROD SEALS KIT	-	

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	10
PRESSIONE MAX MAX PRESSURE		[MPa]	56
COPPIA MAX MAX TORQUE	(*)	[KNm]	30
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	18
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	1590
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	50
PESO WEIGHT		[Kg]	43 [L=1m] 76 [L=2m] 109,5 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	107

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.



3.8 D.114 HEX 80 JET ROD

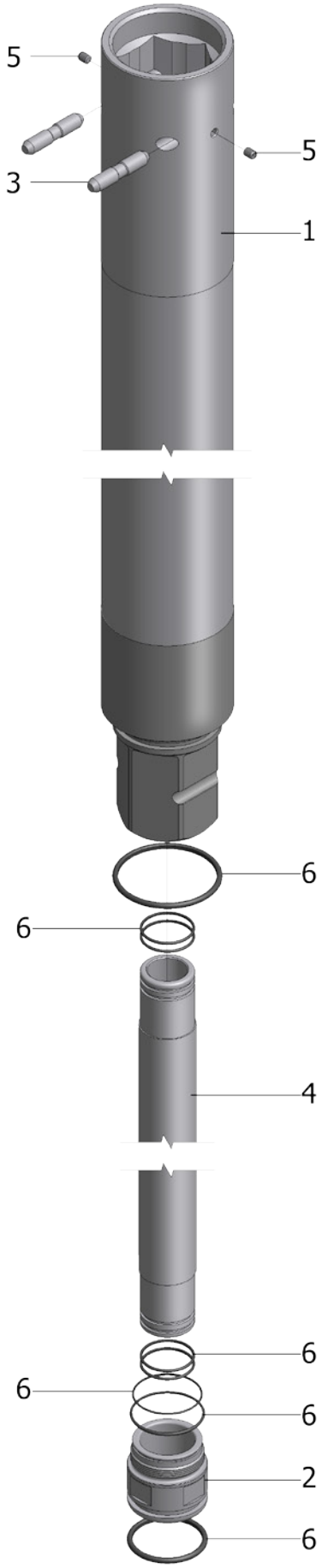


FIG. 3.8

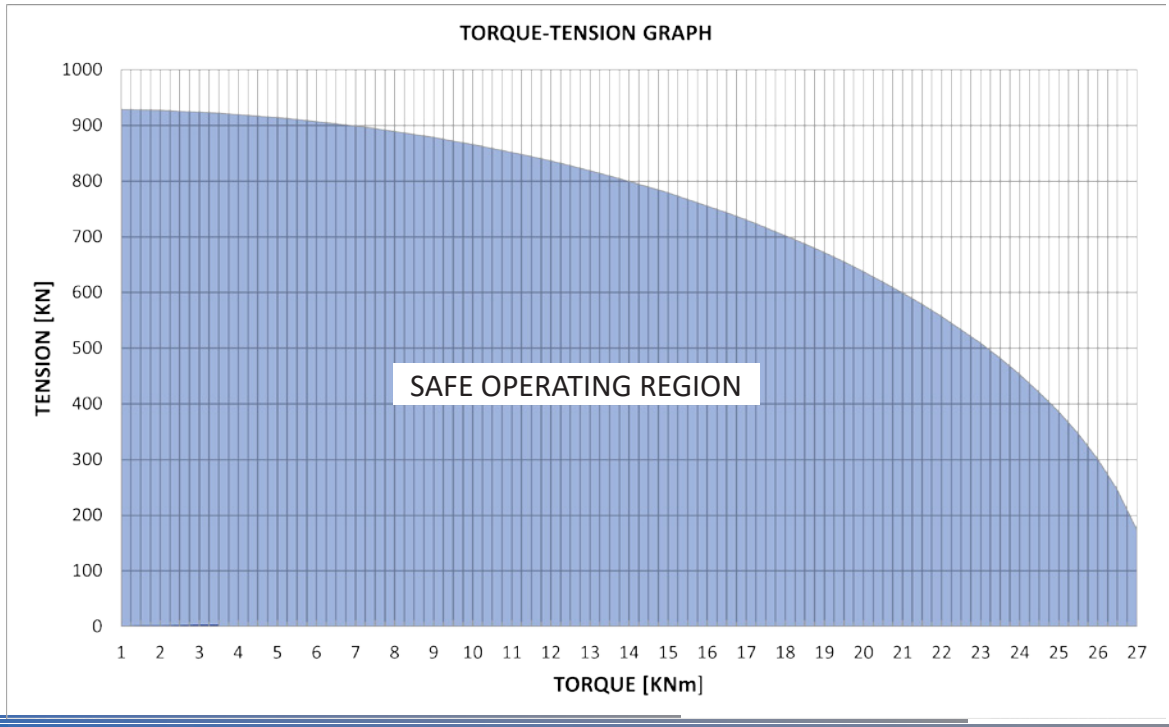
D.114 HEX 80 JET ROD: J-EJET1000 (L=1000); J-EJET2000 (L=2000); J-EJET3000 (L=3000) (REF. FIG. 3.8)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1534-1X	ASTA ESTERNA D.114 HEX80J	EXT. ROD D.114 HEX80J	1	*(1)*
2	D-1534-1-3	MANICOTTINO ANTERIORE	FRONT COUPLING	1	
3	D-1383-1-4	PERNO BLOCCO ASTE	LOCKING PIN	2	
4	D-1534-1-Y	TUBO INTERNO ASTA HEX80J	HEX80J INNER PIPE	1	*(2)*
5	5925M8X10P125H45GR	GRANO PUNTA CIL. UNI 5925	UNI 5925 LOCKING SCREW	2	
6	J-EJET3011	KIT GUARNIZIONI ASTA HEX80J	HEX80J ROD SEALS KIT	1	*(3)*

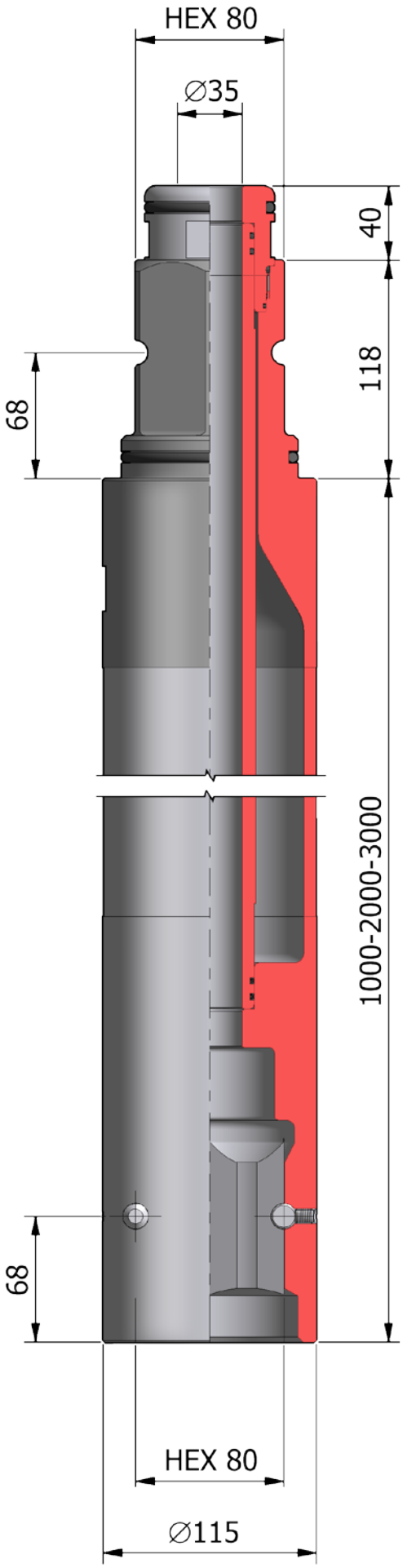
(1) L=1000, X=FB; L=2000 X=FA; L=3000 X=F
(2) L=1000 Y=7; L=2000 Y=6; L=3000 Y=5
(3) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX MAX PRESSURE		[MPa]	56
COPPIA MAX MAX TORQUE	(*)	[KNm]	27
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	N.A.
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	930
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	50
PESO WEIGHT		[Kg]	37 [L=1m] 62 [L=2m] 87 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	110

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.




HEX 80
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1000-2000-3000
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HEX 80
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3.9 D.90 C2 ROD (INNER RUBBER HOSE)

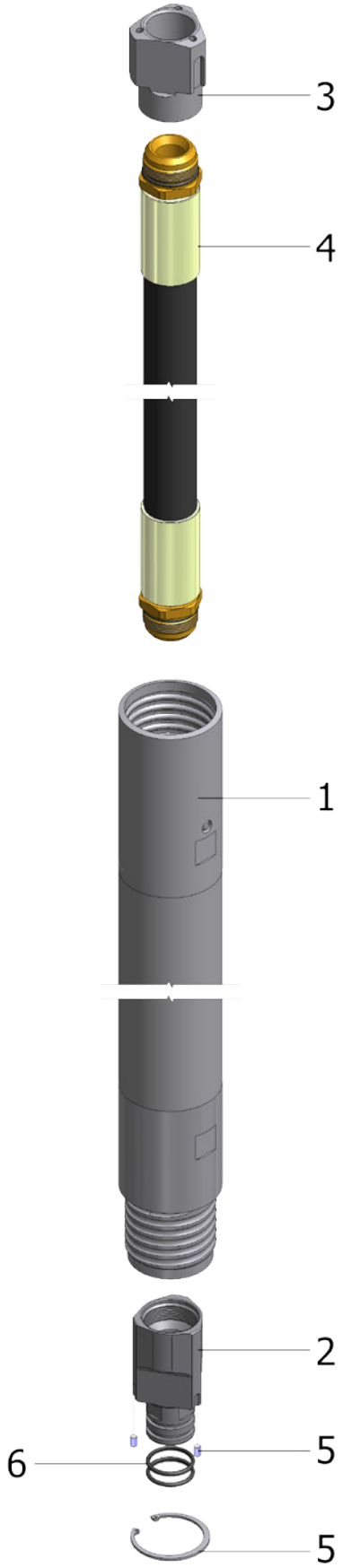


FIG. 3.9

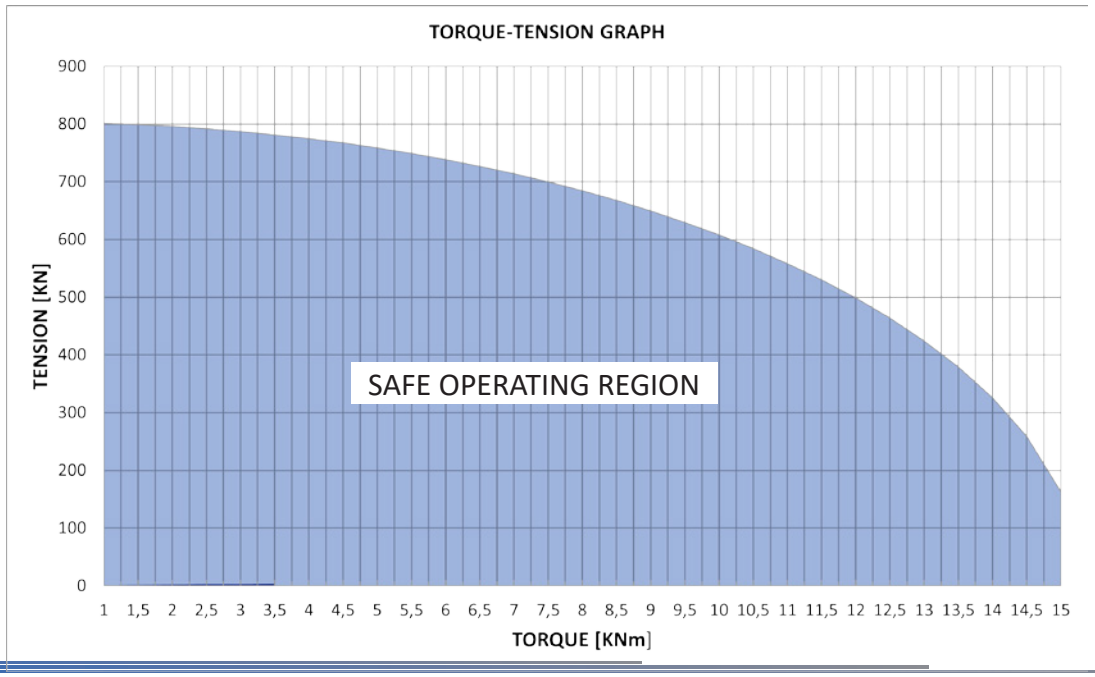
D.90 C2 ROD (INNER RUBBER HOSE): J-8C214100 (L=1000); J-8C214150 (L=1500); J-8C214200 (L=2000); J-8C214300 (L=3000) (REF. FIG. 3.9)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-8C214XX1	TUBO ESTERNO D.90x1000 C2	D.90x1000 C2 EXTERNAL ROD	1	(1)
2	J-8C214305	MANICOTTO MASCHIO INT. D.90 C2	MALE INNER COUPLING D.90 C2	1	
3	J-8C214304	MANICOTTO FEMMINA INT. D.90 C2	FEM. INNER COUPLING D.90 C2	1	
4	J-8C214309-XX	TUBO A.P. 1"-1/4	1"-1/4 H.P. HOSE	1	
5	J-8C214377	KIT ASSEMBLAGGIO ASTA	ROD ASSEMBLY KIT	1	
6	J-8C214311	KIT GUARNIZIONI ASTA D.90 C2	D.90 C2 ROD SEALS KIT	1	

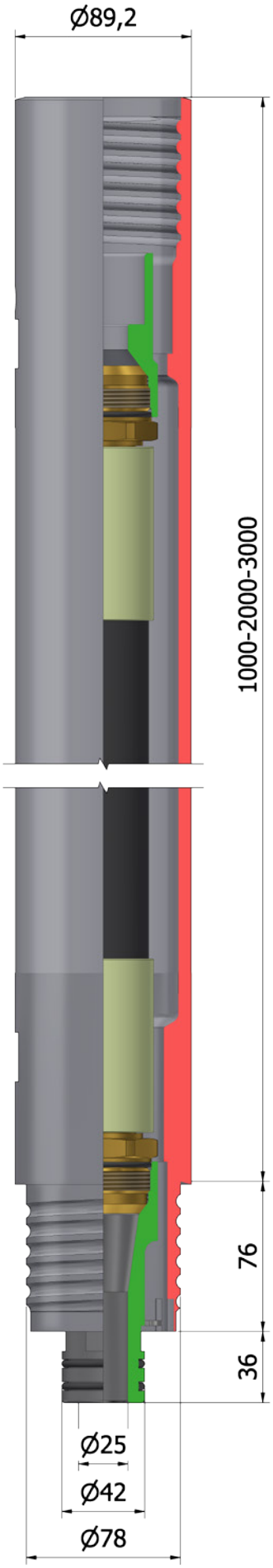
(1) L=1000 XX=10; L=1500 XX=15; L=2000 XX=20; L=3000 XX=30

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	15
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	8,9
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	800
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	25
PESO WEIGHT		[Kg]	22 [L=1m] 37,2 [L=2m] 52,7 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	85

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.




Ø89,2
1000-2000-3000
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3.10 D.90 C2 ROD (INNER STEEL PIPE)

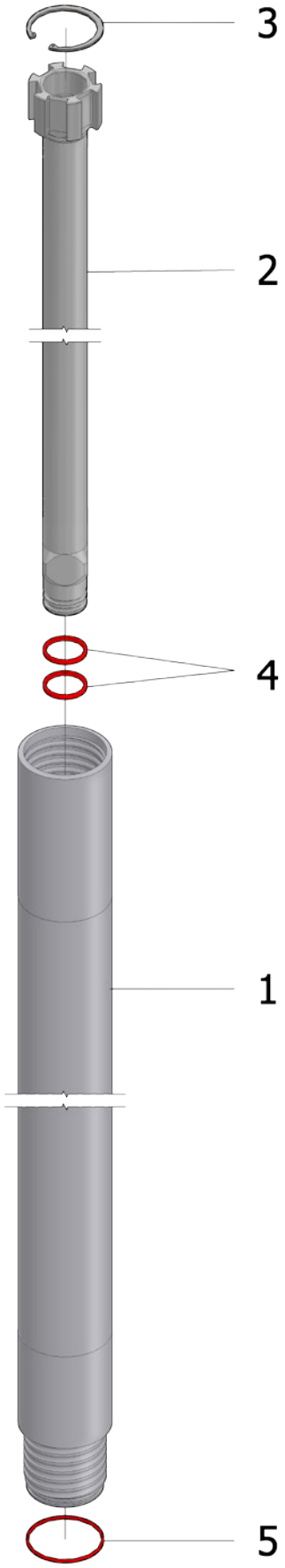


FIG. 3.10

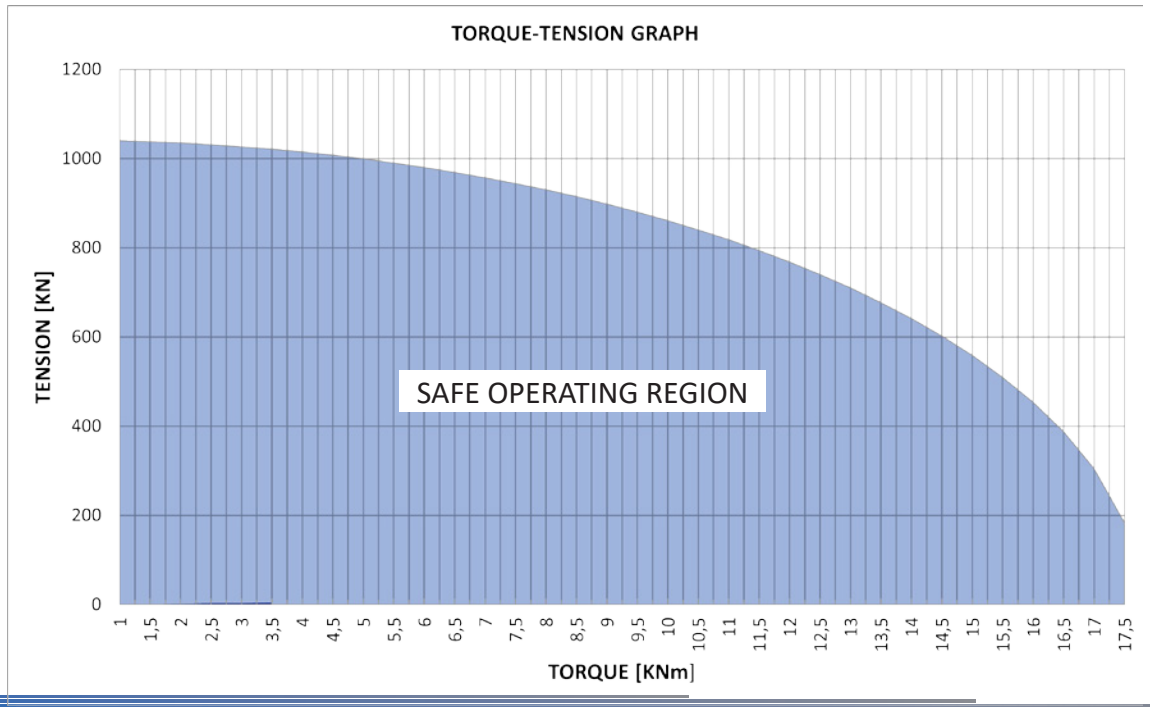
D.90 C2 ROD (INNER STEEL PIPE): J-8C2S1000 (L=1000); J-8C2S1500 (L=1500); J-8C2S2000 (L=2000); J-8C2S3000 (L=3000) (REF. FIG. 3.10)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-525-101-XX00	ASTA EST. D.90 C2 FRIZIONATA	FRICTION. D.90 C2 EXT. ROD	1	*(1)*
2	D-525-102F-XX00	TUBO INT. D.90 C2 FRIZIONATO	FRICT. D.90 C2 INNER ROD	1	*(1)*
3	UNI 7438 - 70	ANELLO EL. SERIE PESANTE FORO D.70	SPRING RING D.70 HOLE	1	
4	J-8C2S3011	KIT GUARNIZIONI D.90 C2 ALTA PRESS.	D.90 C2 HP SEALS KIT	1	
5	K35-P 69.2x73.7x3.5	GUARNIZIONE ASTA EST. D.90 C2	D.90 C2 EXTERNAL ROD SEAL	1	

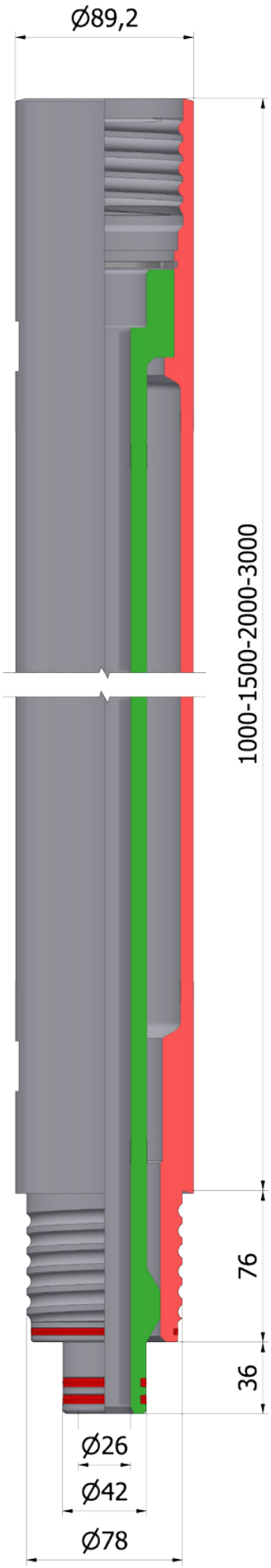
(1) L=1000 X=1; L=2000 X=2; L=3000 X=3

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	17,5
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	10,4
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	1040
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	25
PESO WEIGHT		[Kg]	23,5 [L=1m] 33 [L=1,5m] 43 [L=2m] 63 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	85

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.




Ø89,2
1000-1500-2000-3000
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3.11 D.114 C2 ROD (INNER RUBBER HOSE)

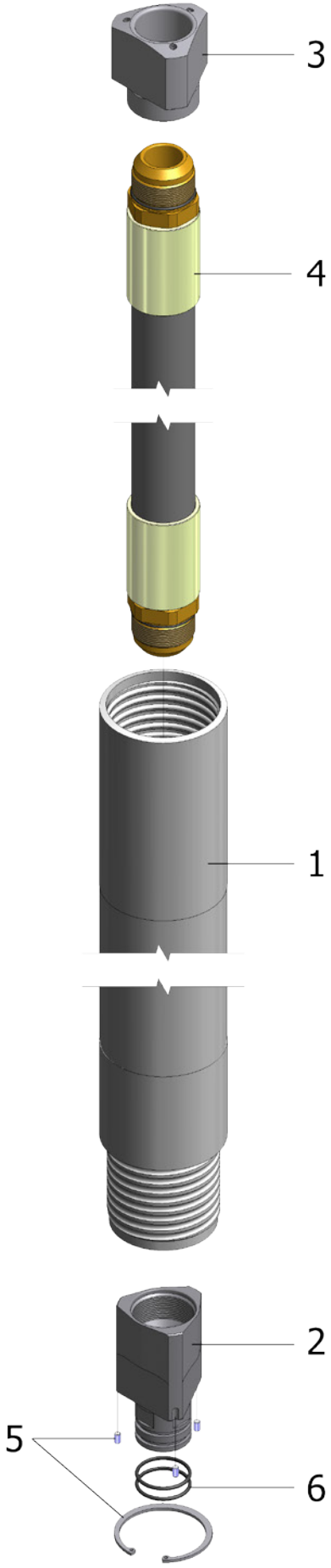


FIG. 3.11

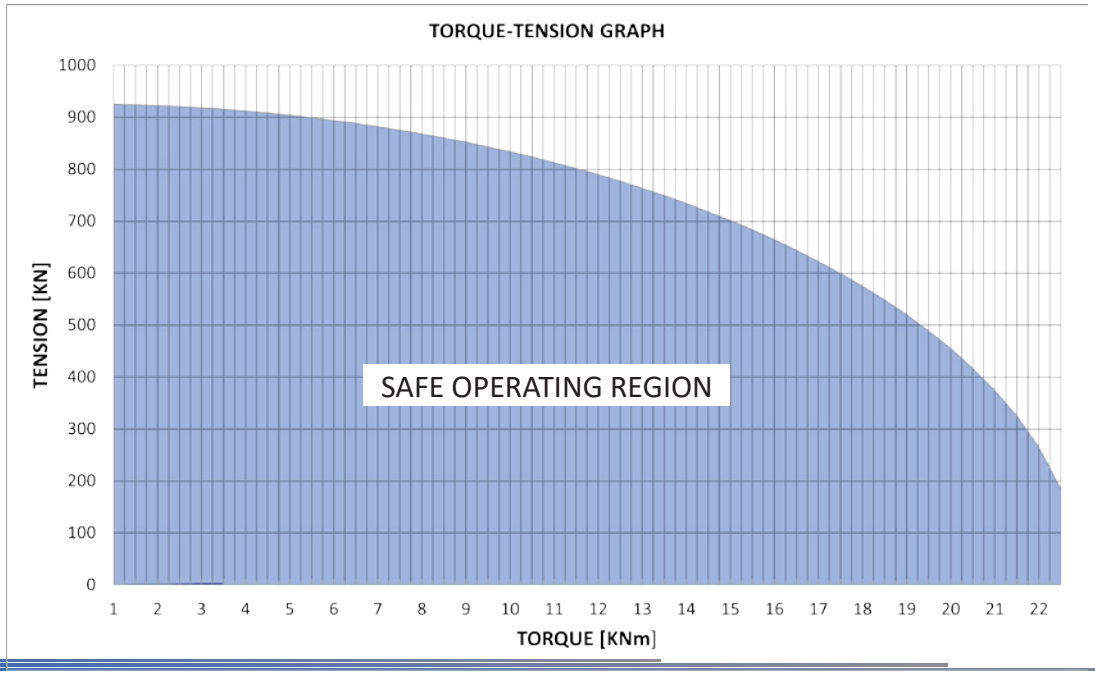
D.114 C2 ROD (INNER RUBBER HOSE): J-1C212100 (L=1000); J-1C212150 (L=1500); J-1C212200 (L=2000); J-1C212300 (L=3000) (REF. FIG. 3.11)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-1C212X01	TUBO ESTERNO D.114 C2	D.114x1000 C2 EXTERNAL ROD	1	(1)
2	D-1082/1	MANICOTTO MASCHIO INT. D.114 C2	MALE INNER COUPL. D.114 C2	1	
3	D-1082/2	MANICOTTO FEMMINA INT. D.114 C2	FEM. INNER COUPL. D.114 C2	1	
4	J-1C212309-X	TUBO A.P. 1"-1/2	1"-1/2 HIGH PRESSURE HOSE	1	(1)
5	J-1C212377	KIT ASSEMBLAGGIO ASTA D.114 C2	D.114 C2 ROD ASSEMBLY KIT	1	
6	J-1C212311	KIT GUARNIZIONI ASTA D.114 C2	D.114 C2 ROD SEALS KIT	1	

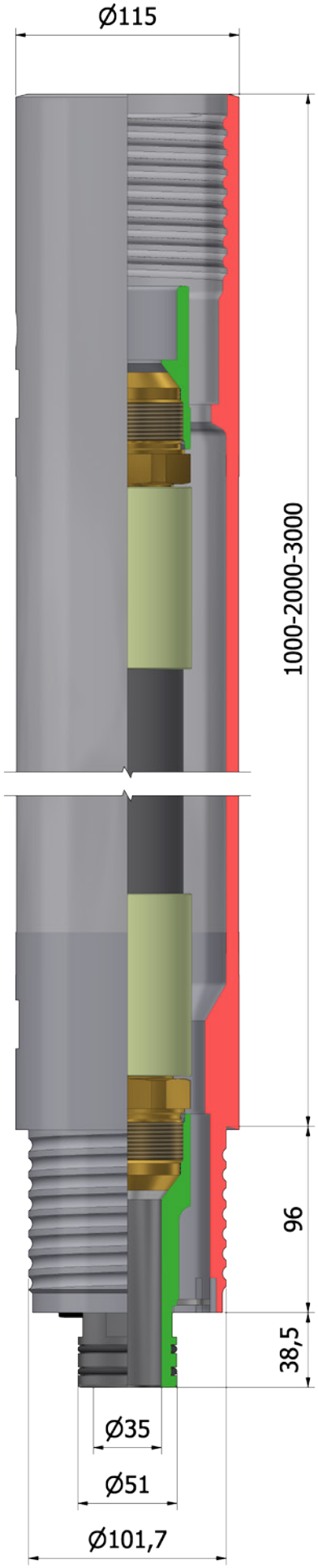
(1) L=1000 X=1; L=2000 X=2; L=3000 X=3

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	22,5
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	13,5
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	920
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	45
PESO WEIGHT		[Kg]	32,6 [L=1m] 54 [L=2m] 76 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	110

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.




Ø115
1000-2000-3000
96
38,5
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3.12 D.114 C2 HOLLOW CLAMP De 132 ROD: J-1C212132

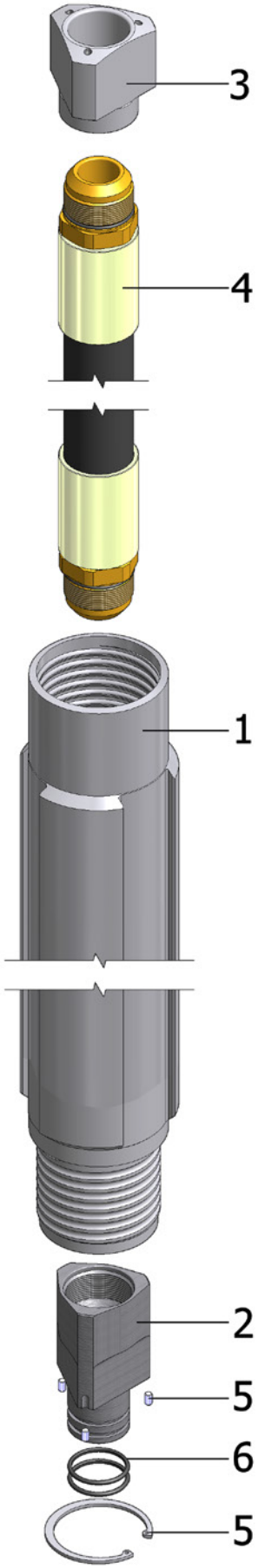
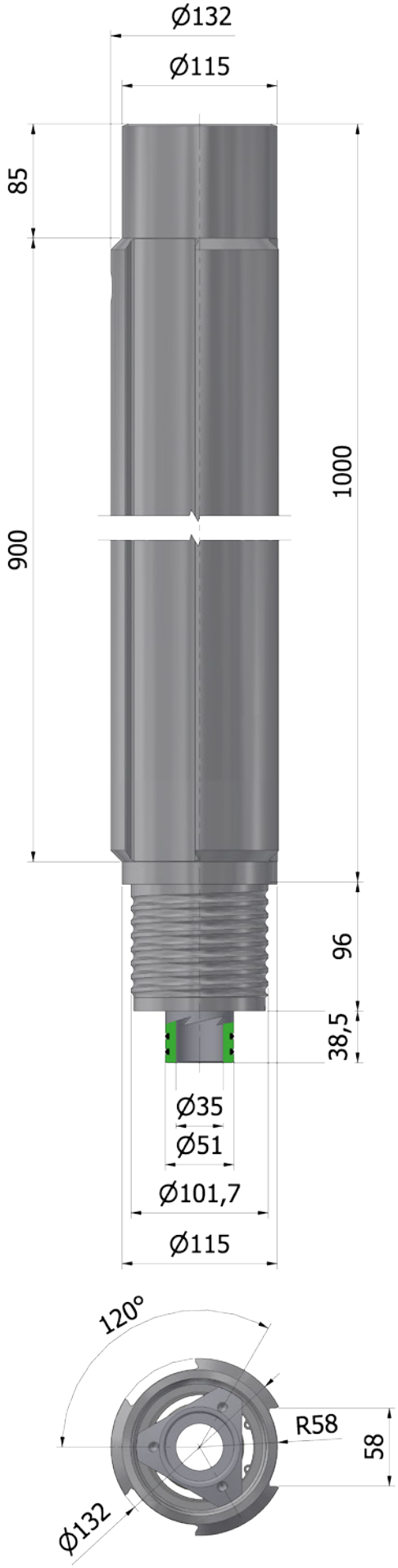


FIG. 3.12

De132 ROD FOR HOLLOW CLAMP; J-1C212132 (L=1000); (REF. FIG. 3.12)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1589-1A	ASTA ESTERNA CALETTATA De132x1000	O.D.132x1000 EXT. HOLLOW CLAMP ROD	1	
2	D-1082/1	MANICOTTO MASCHIO INT. D.114 C2	MALE INNER COUPL. D.114 C2	1	
3	D-1082/2	MANICOTTO FEMMINA INT. D.114 C2	FEM. INNER COUPL. D.114 C2	1	
4	J-1C212309-1	TUBO A.P. 1"-1/2 R13 (PER ASTA L.1000)	1"-1/2 R13 HOSE (L.1000 ROD)	1	
5	J-1C212377	KIT ASSEMBLAGGIO ASTA D.114 C2	D.114 C2 ROD ASSEMBLY KIT	1	
6	J-1C212311	KIT GUARNIZIONI ASTA D.114 C2	D.114 C2 ROD SEALS KIT	1	

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	25
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	15
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	940
PESO WEIGHT		[Kg]	61

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.


Ø132
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58
Ø132

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3.13 D.114 C2 ROD (INNER STEEL PIPE)

FIG. 3.13

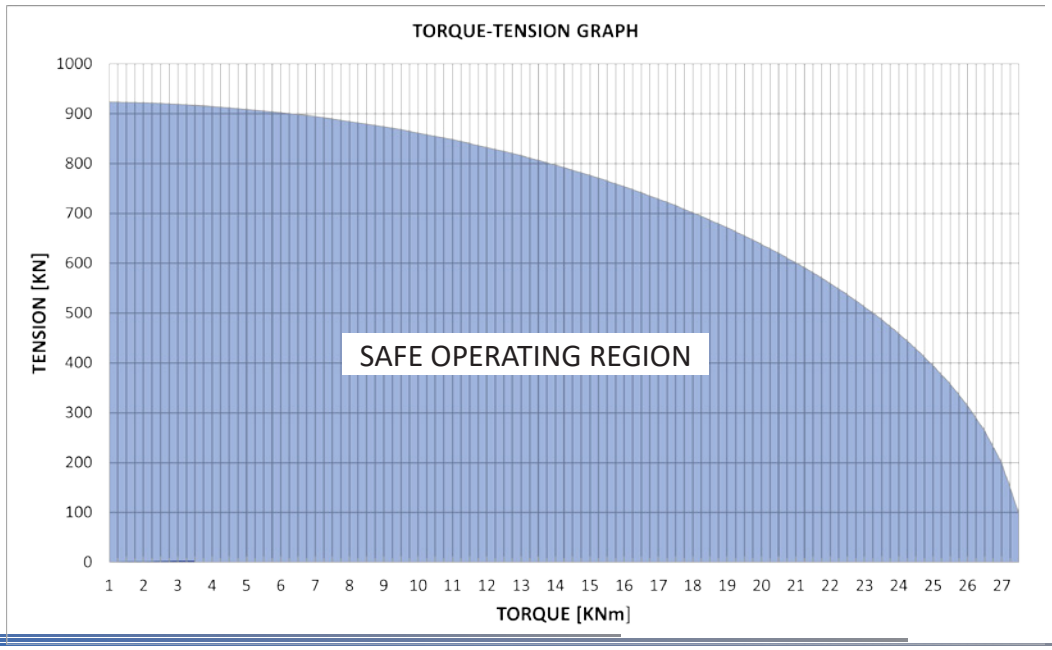
D.114 C2 ROD (INNER STEEL PIPE): J-1C212S10 (L=1000); J-1C212S15 (L=1500); J-1C212S20 (L=2000); J-1C212S30 (L=3000) (REF. FIG. 3.13)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1877-2-XX00	ASTA EST. D.114 C2 FRIZIONATA	FRICTION. D.114 C2 EXT. ROD	1	(1)
2	D-1877N-1-XX00	TUBO INT. D.114 C2 FRIZIONATO	FRICT. D.114 C2 INNER ROD	1	(1)
2	D-1877N-1-XX00	TUBO INT. D.114 C2 FRIZIONATO	FRICT. D.114 C2 INNER ROD	1	(1)
3	7438D95S4	ANELLO EL. SERIE PESANTE FORO D.95	SPRING RING HEAVY SIZE D.95	1	
4	J-1C212S31	KIT GUARNIZIONI D.114 C2 ALTA PRESS.	D.114 C2 HP SEALS KIT	1	
5	K35-P 93,4x97,9x3,5	GUARNIZIONE ASTA EST. D.114 C2	D.114 C2 EXTERNAL ROD SEAL	1	

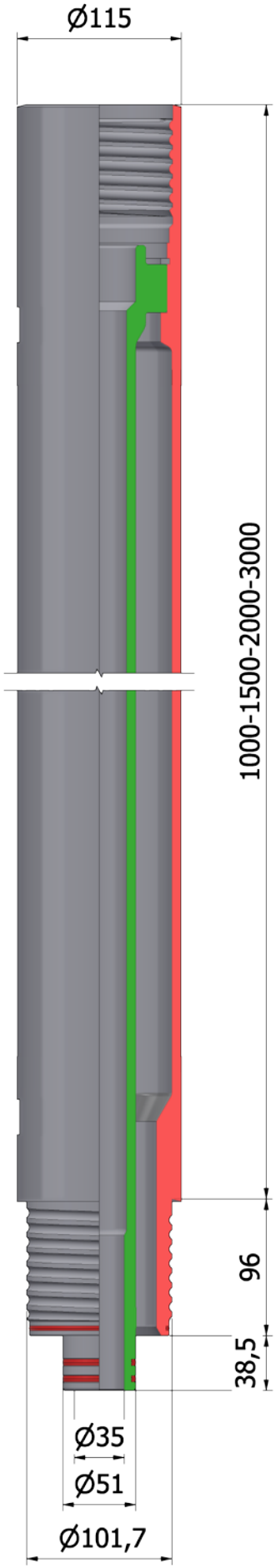
(1) L=1000 XX=10; L=1500 XX=15; L=2000 XX=20; L=3000 XX=30

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	27,5
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	16,5
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	920
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	45
PESO WEIGHT		[Kg]	31 [L=1m] 43 [L=1,5m] 54 [L=2m] 78 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	110

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.

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3.14 D.114 C2H ROD

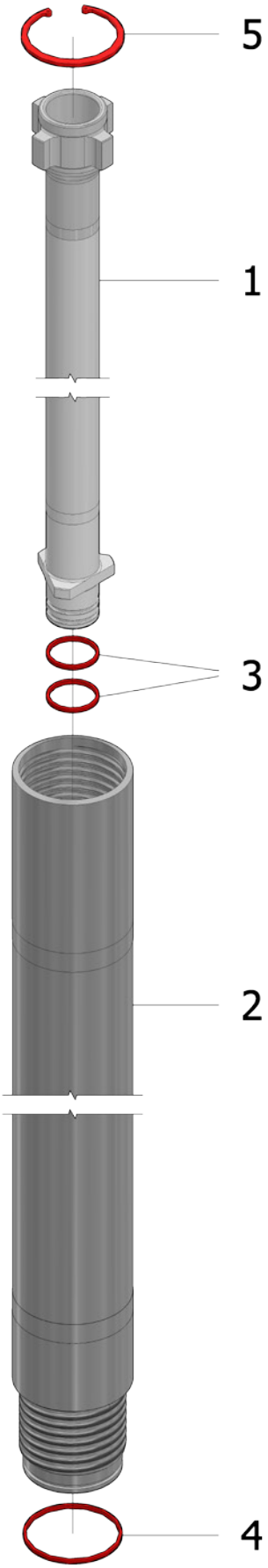


FIG. 3.14

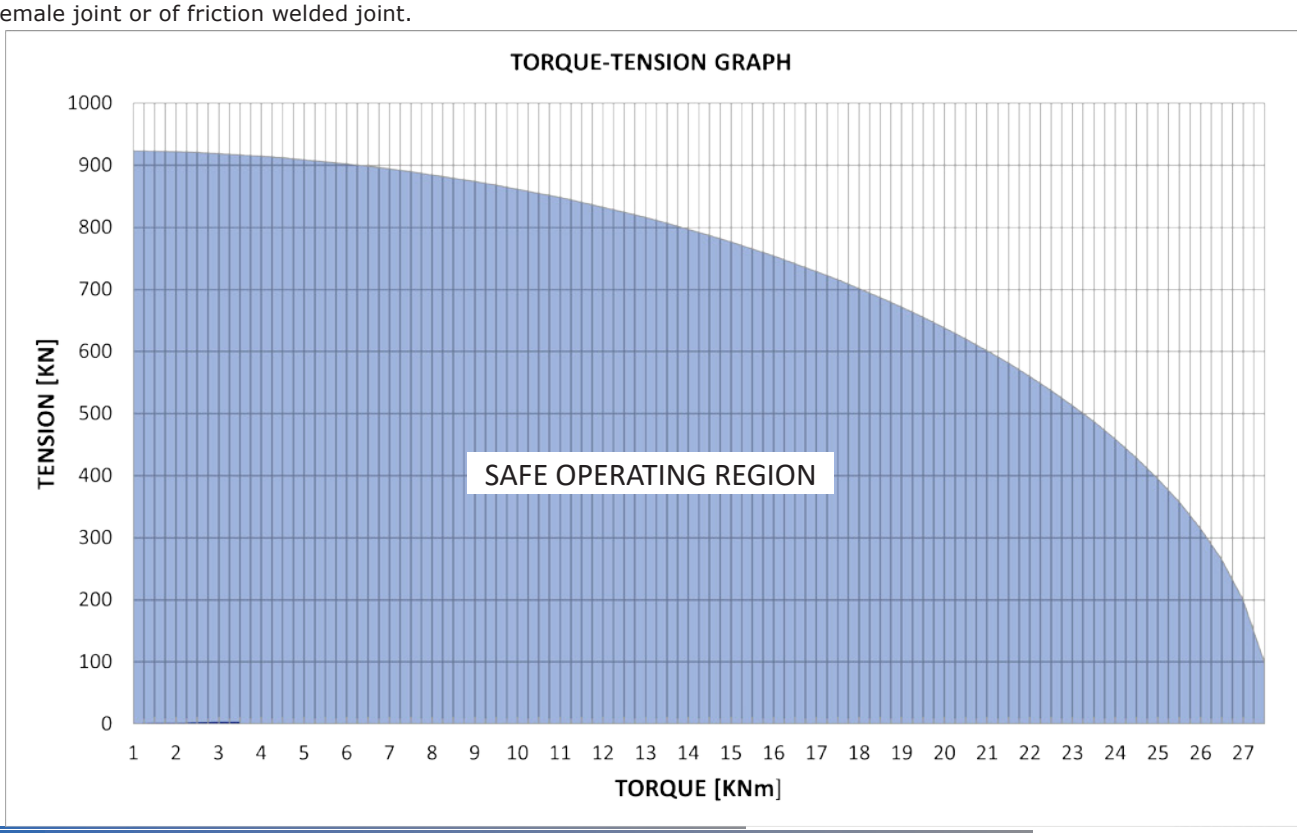
D.114 C2H ROD: J-1C2H1000 (L=1000); J-1C2H2000 (L=2000); J-1C2H3000 (L=3000) (REF. FIG. 3.14)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1877N-1-X000	TUBO INT. D.114 C2 FRIZIONATO	FRICTIONED D.114 C2 INNER ROD	1	*(1)*
2	J-1C2HX001	ASTA ESTERNA D.114 C2H	D.114 C2H EXTERNAL ROD	1	*(1)*
3	J-1C2H3011	KIT GUARNIZIONI ASTA C2H D.114	SEALS KIT C2H D.114 ROD	1	*(2)*
4	7438D95S4	ANELLO EL. SERIE PESANTE FORO D.95	SPRING RING HEAVY SIZE D.95	1	

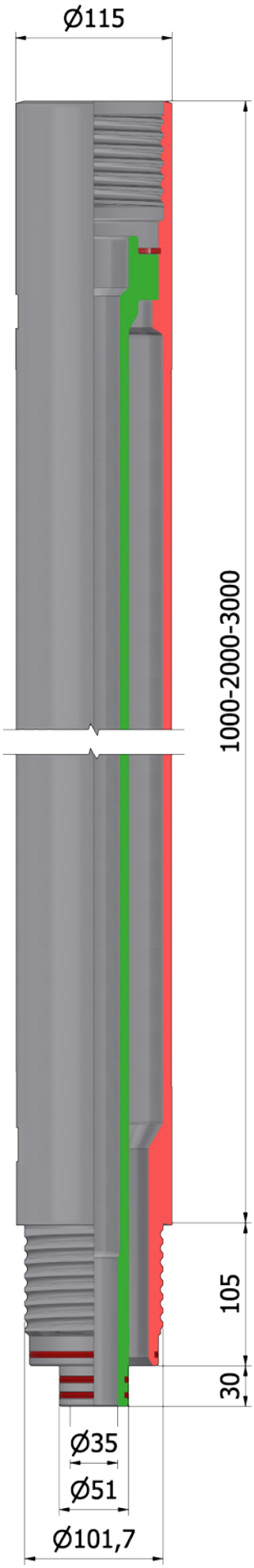
(1) L=1000 X=1; L=2000 X=2; L=3000 X=3
(2) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ACQUA WATER MAX PRESSURE		[MPa]	45
COPPIA MAX MAX TORQUE	(*)	[KNm]	27,5
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	16,5
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	920
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	45
PESO WEIGHT		[Kg]	31 [L=1m] 55 [L=2m] 78 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	110

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.




Ø115
1000-2000-3000
105
30
Ø35
Ø51
Ø101,7

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3.15 D.114 D2 ROD

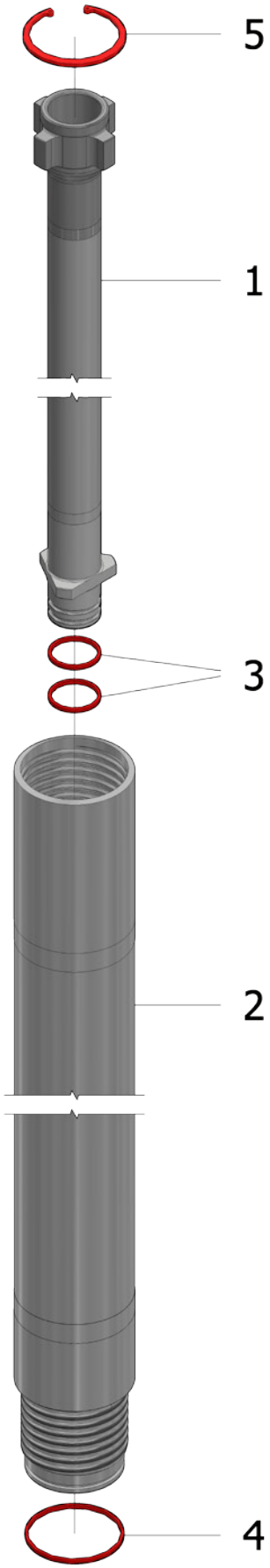


FIG. 3.15

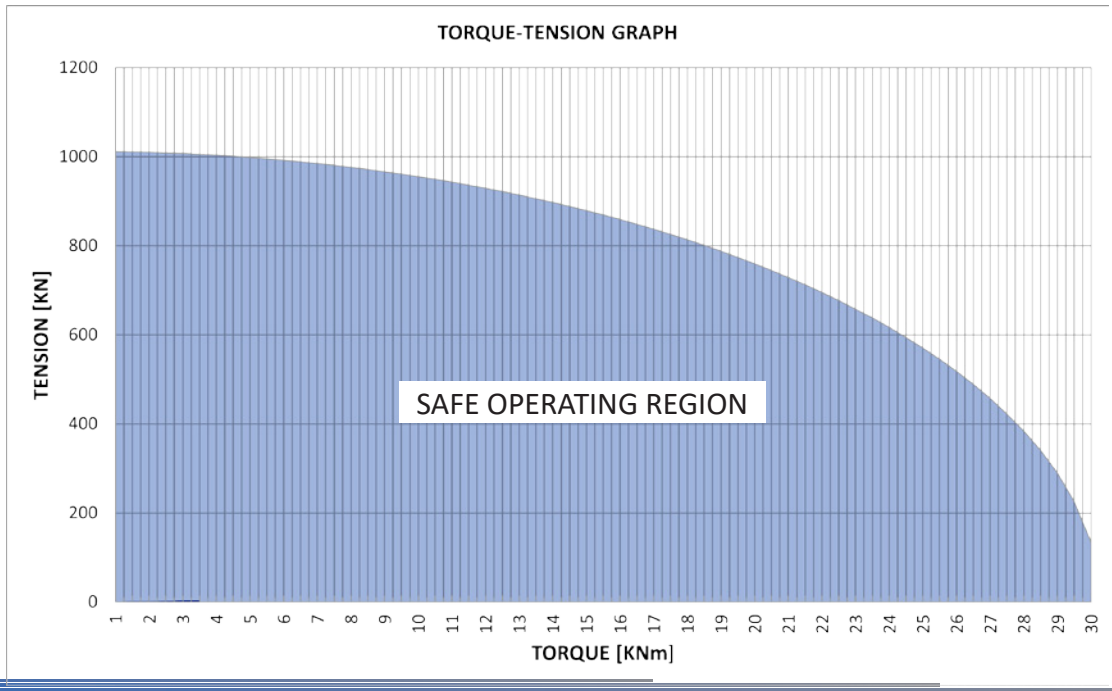
D.114 D2 ROD: J-W114D210 (L=1000); J-W114D220 (L=2000); J-W114D230 (L=3000) (REF. FIG. 3.15)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1439-1/X	ASTA INTERNA D.114 D2	D.114 D2 INNER ROD	1	*(1)*
2	D-1439D-2/X	ASTA ESTERNA D.114 D2	D.114 D2 EXT.ERNAL ROD	1	*(1)*
3	J-W114D231	KIT GUARNIZIONI ASTA D2 D.114	SEALS KIT D2 D.114 ROD	1	*(2)*
3.1	*D-1439-A*	*K35-P 44.8x51 L=4.5 T-ECOPUR*	*K35-P 44.8x51 L=4.5 T-ECOPUR*	*2*	
3.2	*D-1439-B*	*K35P 88.8x95 L=4.5 T-ECOPUR*	*K35P 88.8x95 L=4.5 T-ECOPUR*	*1*	
4	7438D95S4	SEEGER x INTERNI D.95x4 UNI 7438	D.95x4 UNI 7438 LOCKING RING	1	

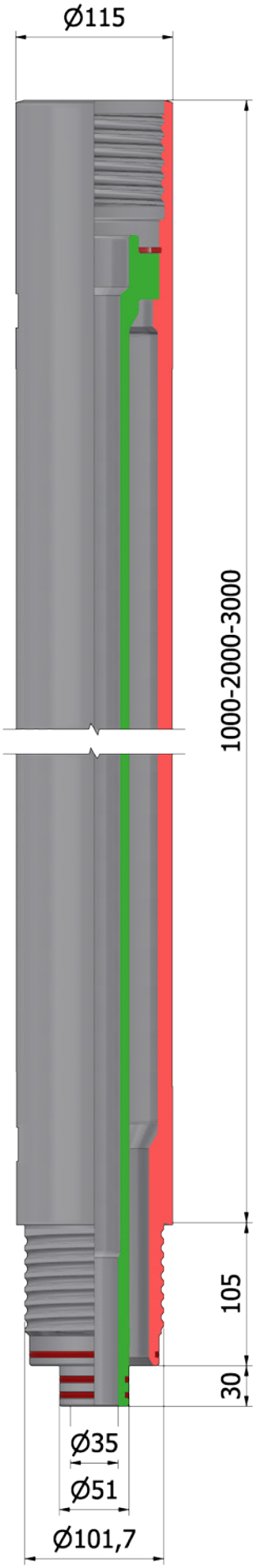
(1) L=1000 X=1; L=2000 X=2; L=3000 X=3
(2) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	10
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	30
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	18
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	1010
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	50
PESO WEIGHT		[Kg]	38 [L=1m] 71 [L=2m] 103,5 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	107

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.




Ø115
1000-2000-3000
105
30
Ø35
Ø51
Ø101,7

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3.16 D.114 MWJ ROD

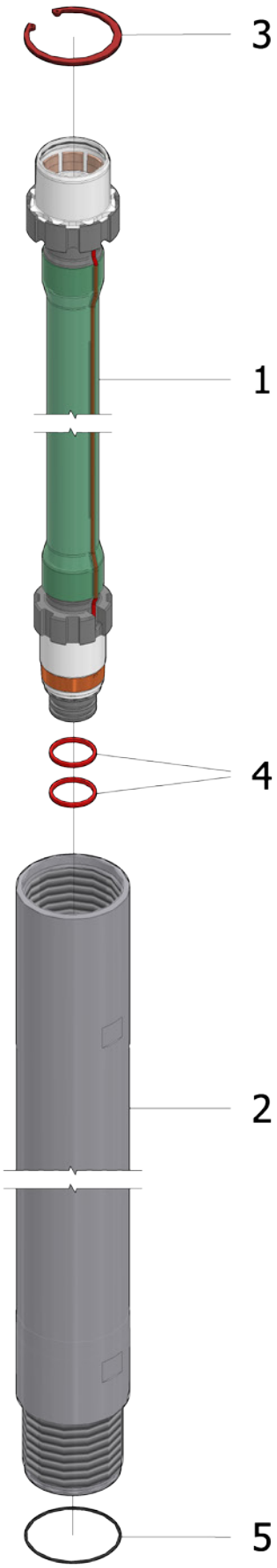


FIG. 3.16

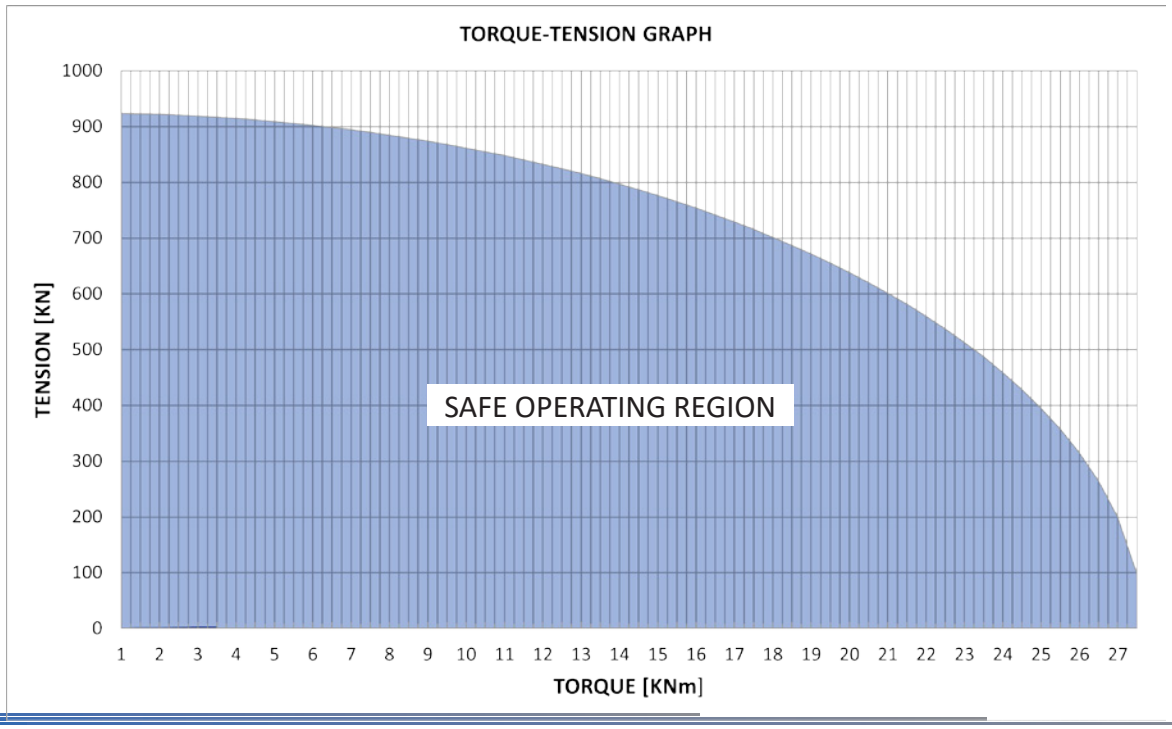
D.114 MWJ ROD: J-1C212S10-MWJ (L=1000); J-1C212S20-MWJ (L=2000); J-1C212S30-MWJ (L=3000) (REF. FIG. 3.16)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1877-2-X000	ASTA EST. D.114 C2 FRIZIONATA	FRICTIONED D.114 C2 EXT. ROD	1	
2	D-1862-1A-X000	TUBO INT. D.114 MWJ CABLATO	WIRED D.114 MWJ INNER ROD	1	
3	7438D95S4	ANELLO EL. SERIE PESANTE FORO D.95	SPRING RING HEAVY SIZE D.95	1	
4	J-1C212S31-MWJ	KIT GUARN. D.114 MWJ ALTA PRESS.	D.114 MWJ HP SEALS KIT	1	
5	K35-P 93,4x97,9x3,5	GUARNIZIONE ASTA EST. D.114 C2	D.114 C2 EXTERNAL ROD SEAL	1	

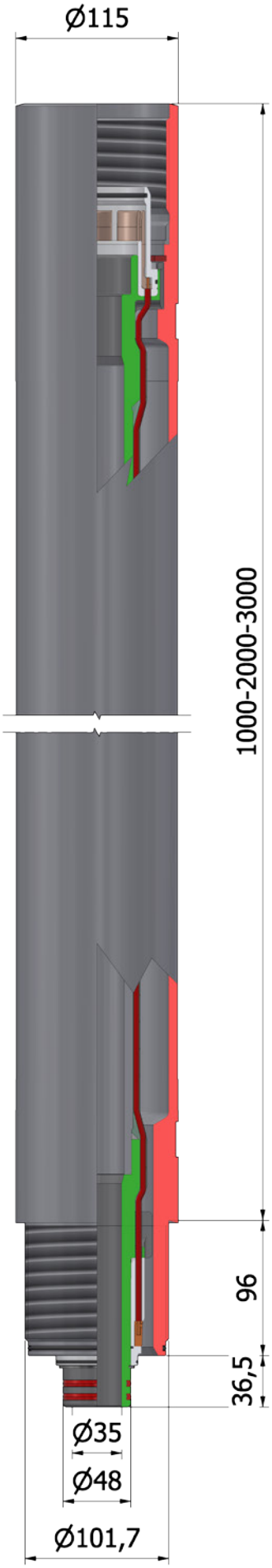
(1) L=1000 X=1; L=2000 X=2; L=3000 X=3

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	27,5
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	16,5
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	920
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	45
PESO WEIGHT		[Kg]	34 [L=1m] 61 [L=2m] 88 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	110

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.




Ø115
1000-2000-3000
96
36,5
Ø35
Ø48
Ø101,7

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3.17 D.114 C2H HEX 80 ROD

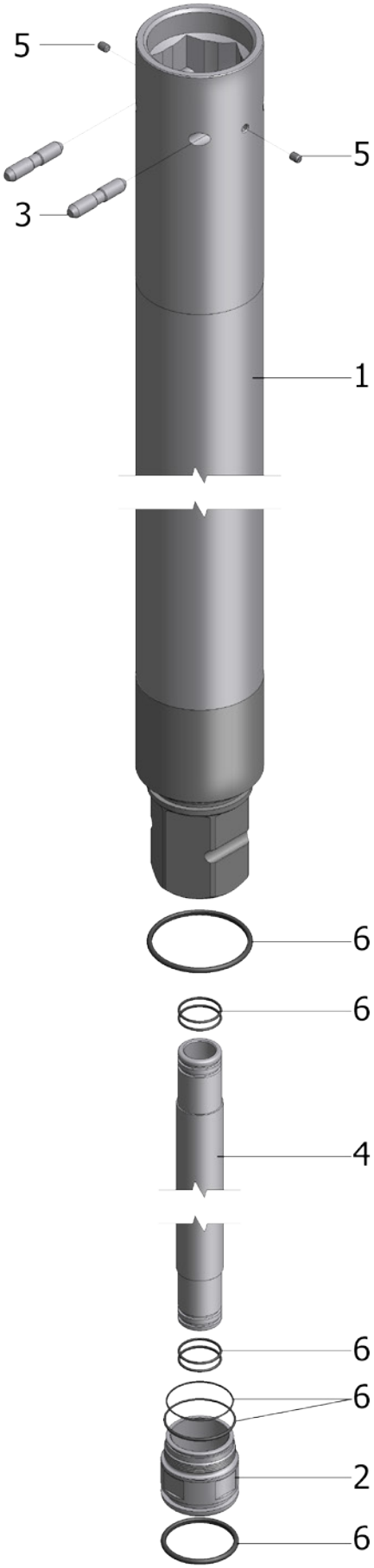


FIG. 3.17

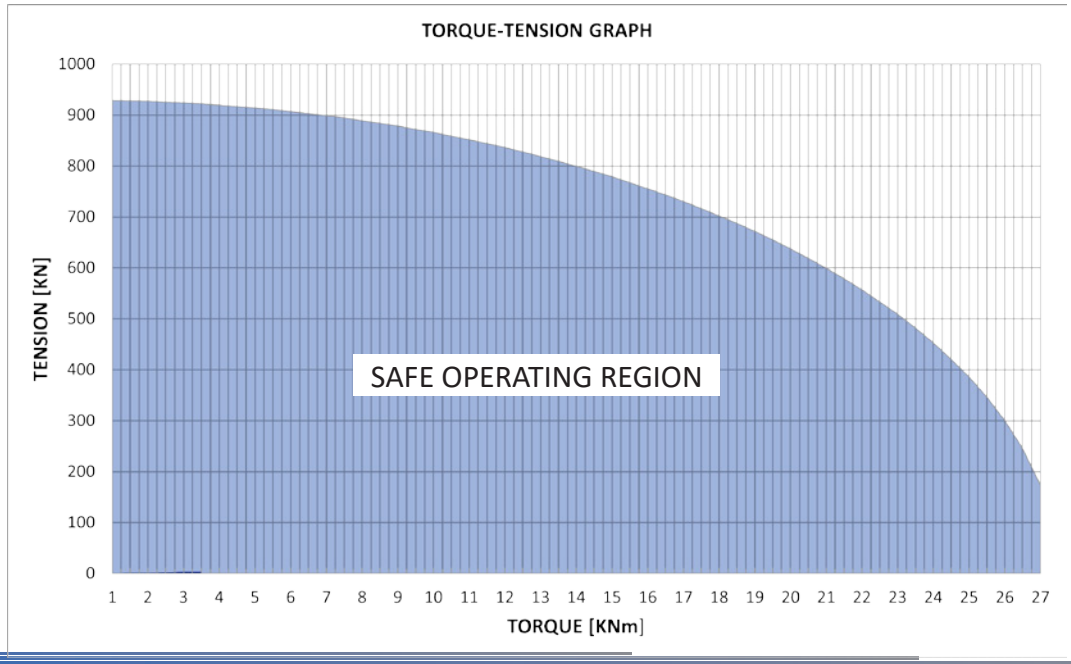
D.114 C2H HEX 80 ROD: J-EC2H1000 (L=1000); J-EC2H2000 (L=2000); J-EC2H3000 (L=3000) (REF. FIG. 3.17)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1531-1X	ASTA ESTERNA D.114 C2H HEX80	EXTERNAL ROD C2H HEX80	1	(1)
2	D-1531-1-3	MANICOTTINO ANTERIORE C2H HEX80	FRONT COUPLING C2H HEX80	1	
3	D-1383-1-4	PERNO BLOCCO ASTE	LOCKING PIN	2	
4	D-1531-1-Y	TUBO INTERNO ASTA C2H HEX80	C2H HEX80 INNER PIPE	1	(2)
5	5925M8X10P125H45GR	GRANO PUNTA CIL. UNI 5925	UNI 5925 LOCKING SCREW	2	
6	J-EC2H3011	KIT GUARNIZIONI ASTA C2H HEX80	C2H HEX80 ROD SEALS KIT	1	(3)

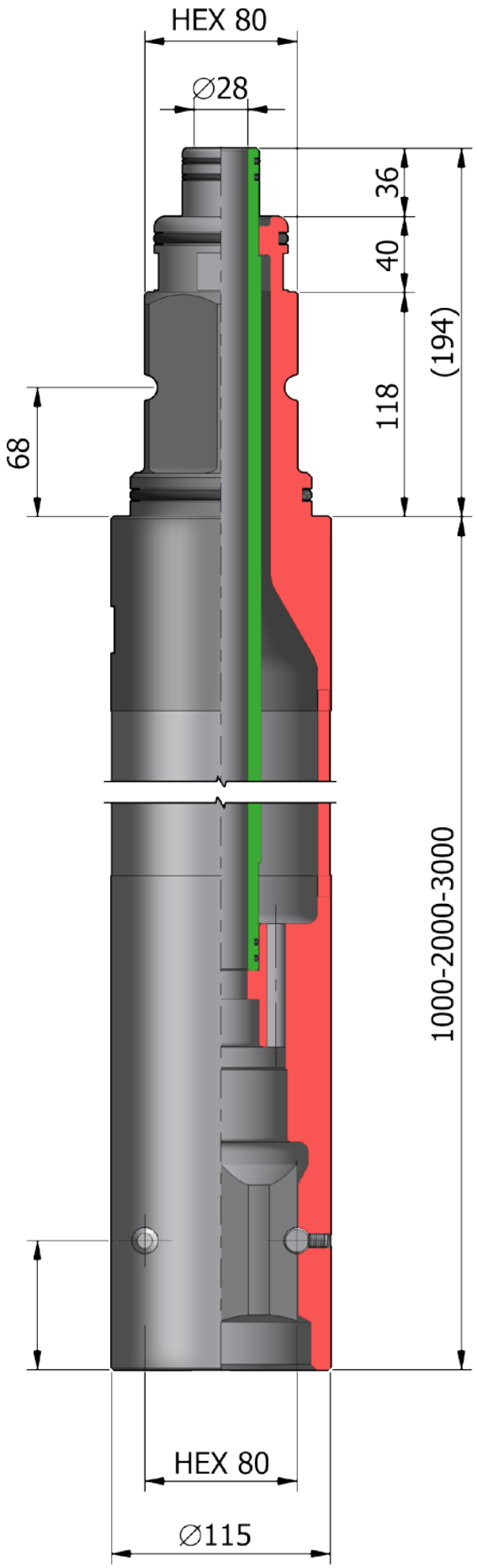
(1) L=1000, X=FB; L=2000 X=FA; L=3000 X=F
(2) L=1000 Y=7; L=2000 Y=6; L=3000 Y=5
(3) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ACQUA WATER MAX PRESSURE		[MPa]	40
COPPIA MAX MAX TORQUE	(*)	[KNm]	27
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	N.A.
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	930
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	50
PESO WEIGHT		[Kg]	33 [L=1m] 58 [L=2m] 83 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	110

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.




HEX 80
∅28
36
40
118
(194)
68
1000-2000-3000
HEX 80
∅115

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3.18 D.114 C2 RP ROD

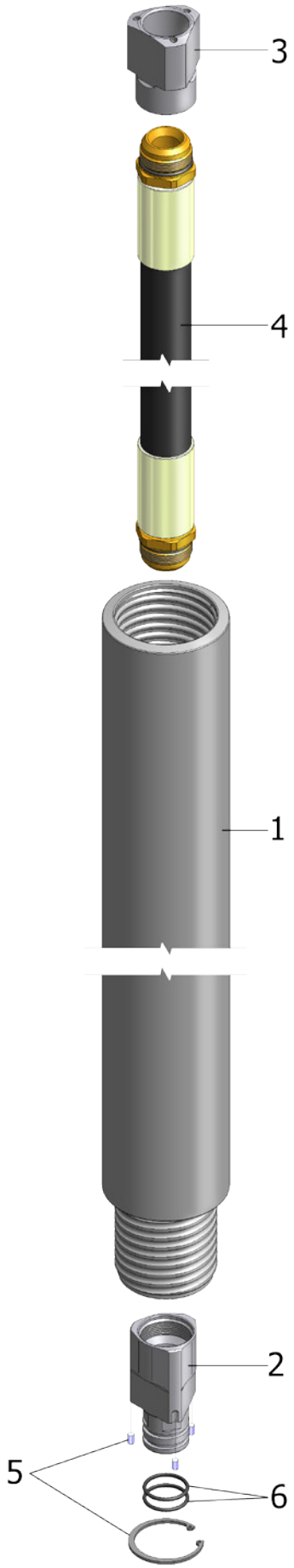


FIG. 3.18

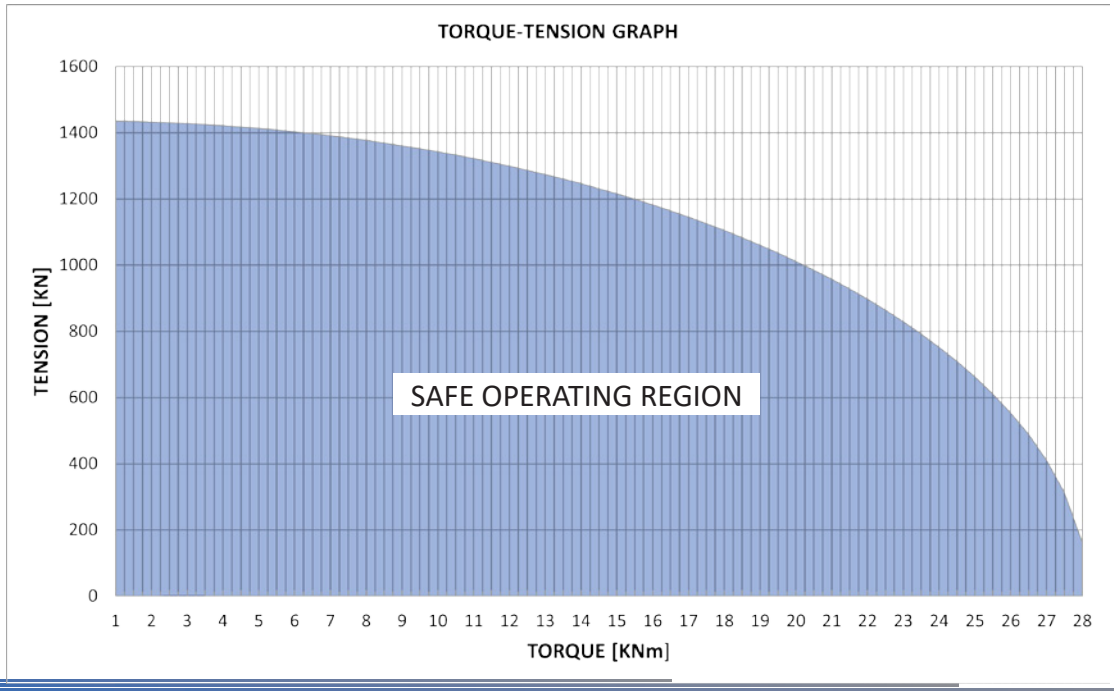
D.114 C2 RP ROD: J-1C2RP100 (L=1000); J-1C2RP200 (L=2000); J-1C2RP300 (L=3000) (REF. FIG. 3.18)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-1C2RPX01	ASTA EST. D.114 C2 RP	D.114 C2 RP EXTERNAL ROD	1	*(1)*
2	J-8C214305	MANICOTTO M. INT. D.90 C2	MALE INNER COUPLING D.90 C2	1	
3	J-8C214304	MANICOTTO F. INT. D.90 C2	FEM. INNER COUPLING D.90 C2	1	
4	J-8C214309-X	TUBO A.P. 1"-1/4 4SH	1"-1/4 4SH HOSE	1	*(1)*
5	J-1C2RP377	KIT ASSEMBLAGGIO ASTA D.114 C2 RP	D.114 C2 RP ROD ASSEMBLY KIT	1	
6	J-1C2RP311	KIT GUARNIZIONI ASTA D.114 C2 RP	D.114 C2 RP ROD SEALS KIT	1	*(2)*

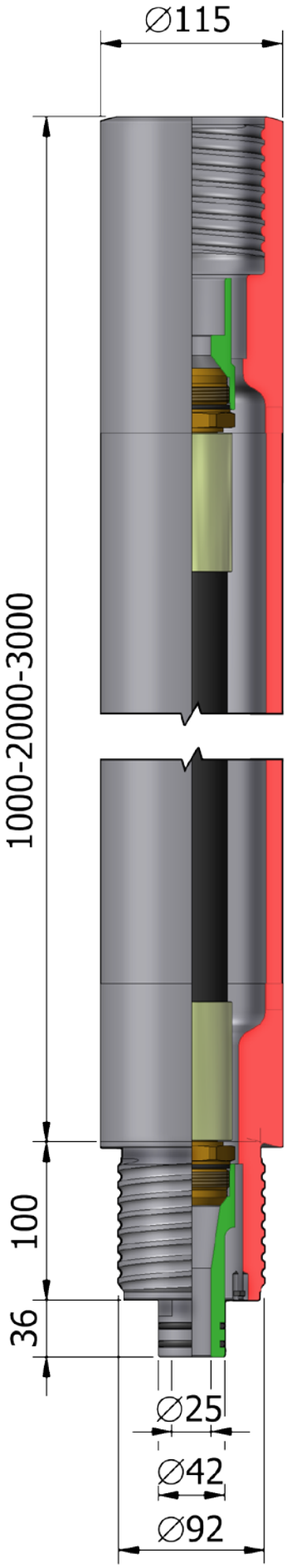
(1) L=1000 X=1; L=2000 X=2; L=3000 X=3
(2) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	10
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	28
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	16,7
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	1435
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	50
PESO WEIGHT		[Kg]	41 [L=1m] 69 [L=2m] 97 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	107

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.




∅115
1000-2000-3000
100
36
∅25
∅42
∅92

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3.19 D.127 C2 ROD

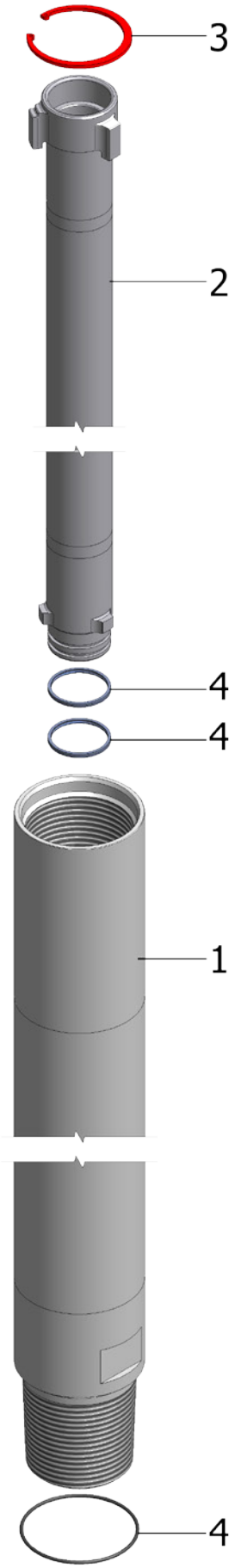


FIG. 3.19

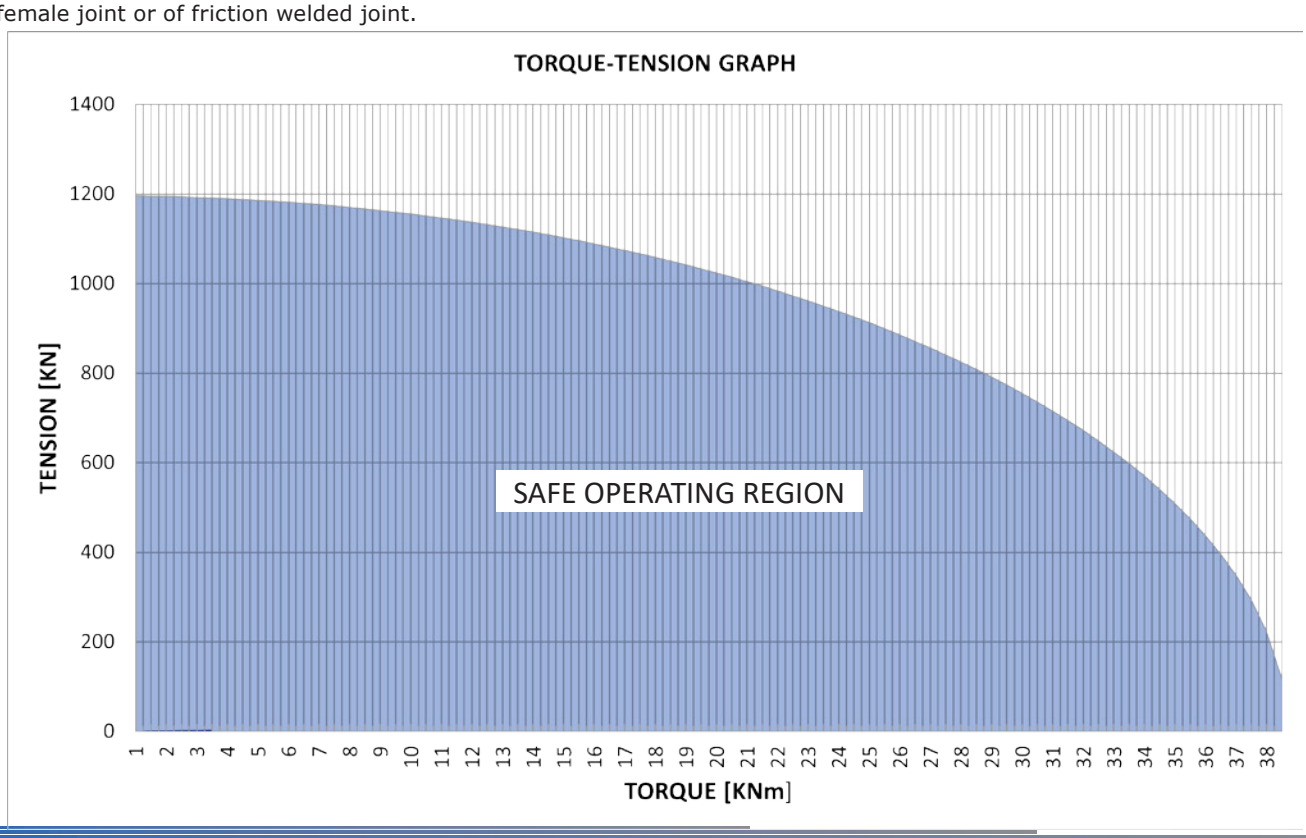
D.127 C2 ROD: J-12C21000 (L=1000); J-12C22000 (L=2000); J-12C23000 (L=3000) (REF. FIG. 3.19)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-12C2X001	ASTA ESTERNA D.127 C2	D.127 C2 EXTERNAL ROD	1	*(1)*
2	J-12C2X002	ASTA INTERNA 127/140 C2	127/140 C2 INNER ROD	1	*(1)*
3	7438D100S4	SEEGER x INTERNI D.100x4 UNI 7438	D.100x4 UNI 7438 LOCK. RING	1	
4	J-12C23011	KIT GUARNIZIONI ASTA D.127 C2	D.127 C2 ROD SEALS KIT	1	*(2)*

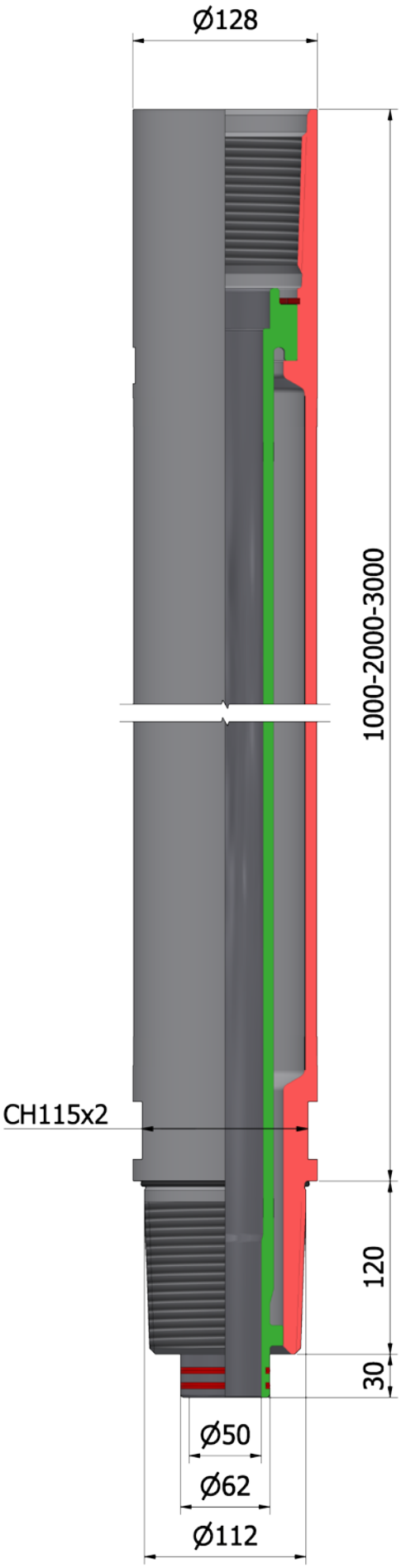
(1) L=1000 X=1; L=2000 X=2; L=3000 X=3
(2) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	8
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	38,5
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	23
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	1195
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	70
PESO WEIGHT		[Kg]	43 [L=1m] 78 [L=2m] 112 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	121

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.




Ø128
1000-2000-3000
CH115x2
120
30
Ø50
Ø62
Ø112

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3.20 D.140 C2 ROD

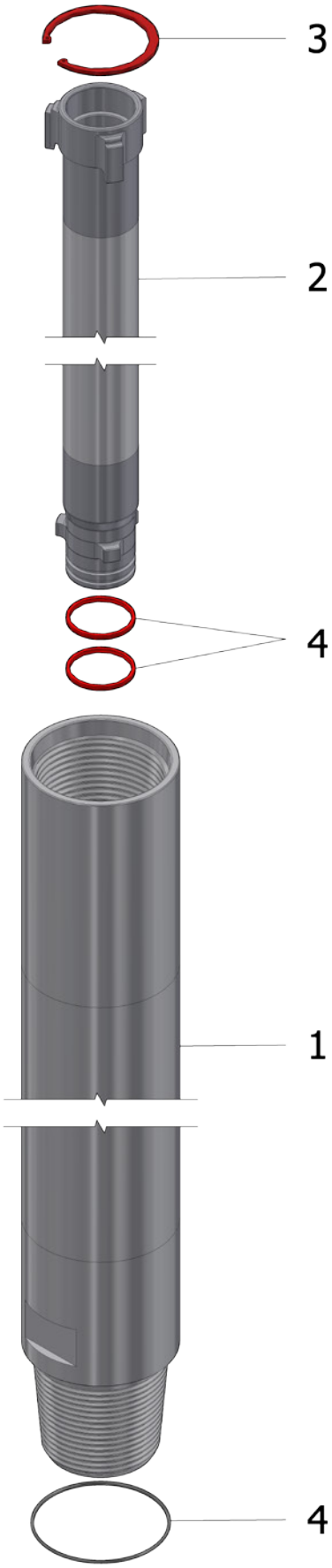


FIG. 3.20

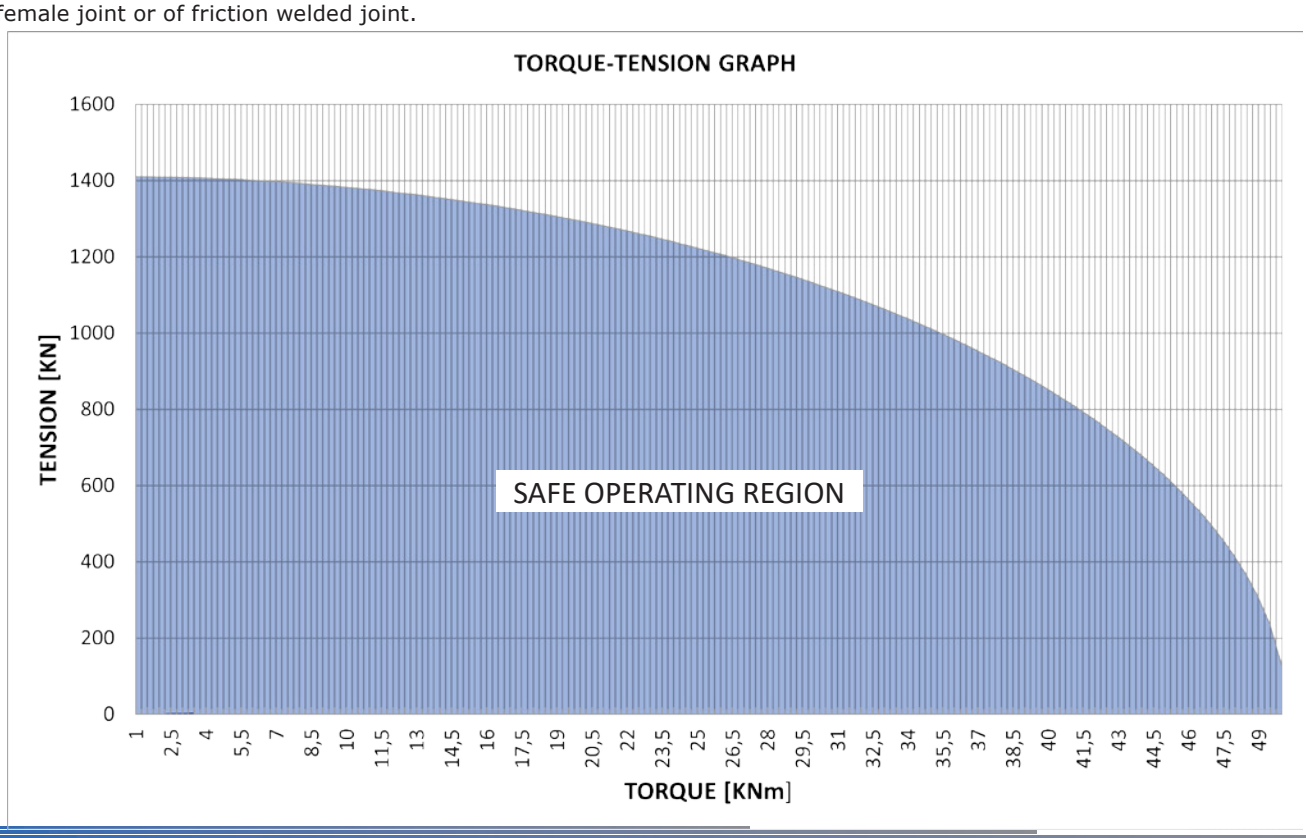
D.140 C2 ROD: J-14C21000 (L=1000); J-14C22000 (L=2000); J-14C23000 (L=3000) (REF. FIG. 3.20)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-14C2X001	ASTA EST. D.140 C2	D.140C2 EXTERNAL ROD	1	*(1)*
2	J-12C2X002	ASTA INTERNA 127/140 C2	127/140 C2 INNER ROD	1	*(1)*
3	7438D100S4	SEEGER x INTERNI D.100x4 UNI 7438	D.100x4 UNI 7438 LOCK. RING	1	
4	J-14C23011	KIT GUARNIZIONI ASTA D.140 C2	D.140 C2 ROD SEALS KIT	1	*(2)*

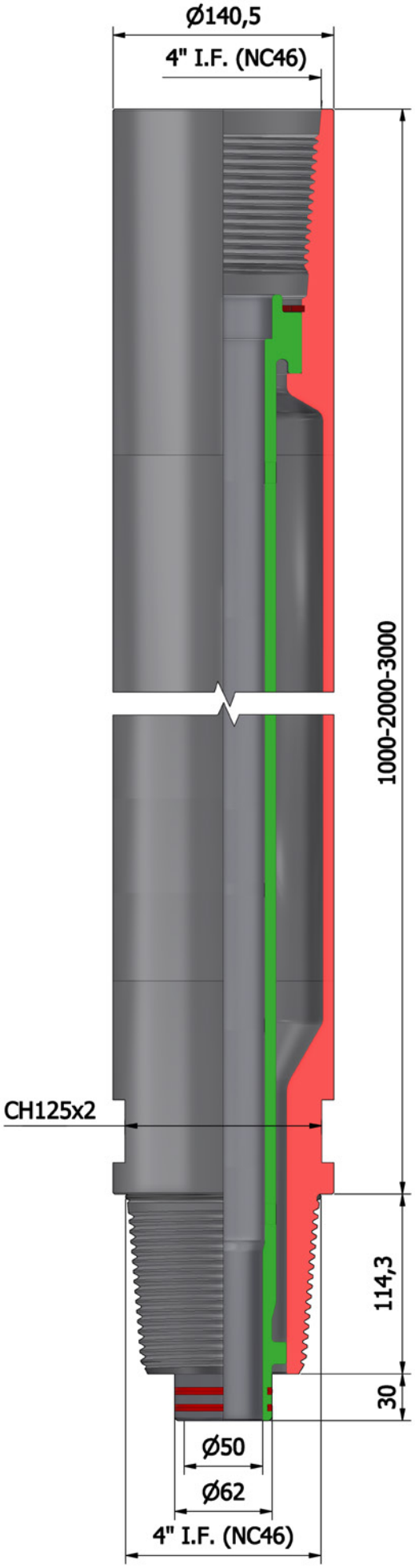
(1) L=1000 X=1; L=2000 X=2; L=3000 X=3
(2) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	8,8
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	56
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	50
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	29
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	1411
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	80
PESO WEIGHT		[Kg]	46 [L=1m] 80 [L=2m] 114 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	133

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.




Ø140,5
4" I.F. (NC46)
1000-2000-3000
CH125x2
114,3
30
Ø50
Ø62
4" I.F. (NC46)

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3.21 D.114 T3 ROD

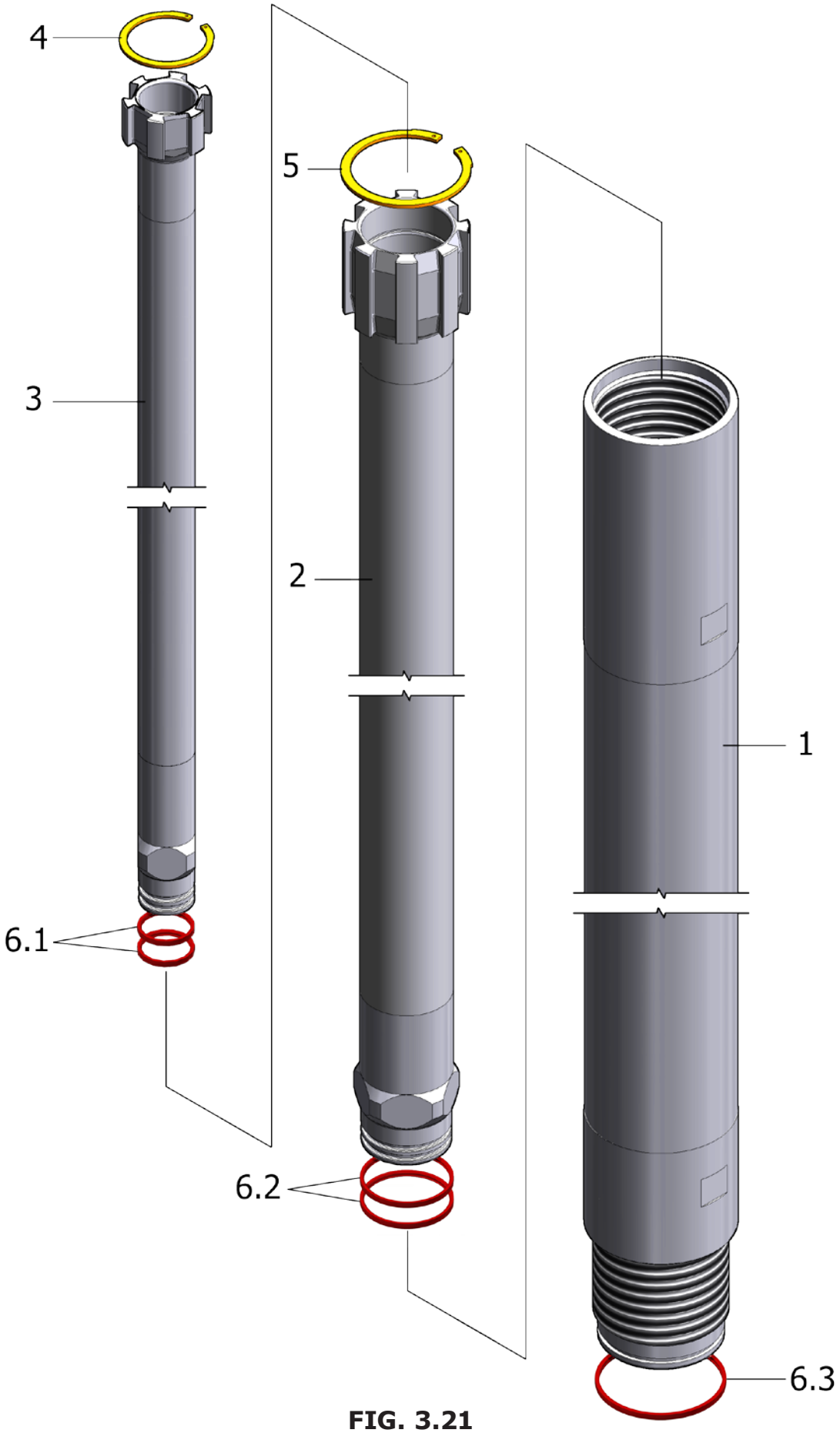


FIG. 3.21

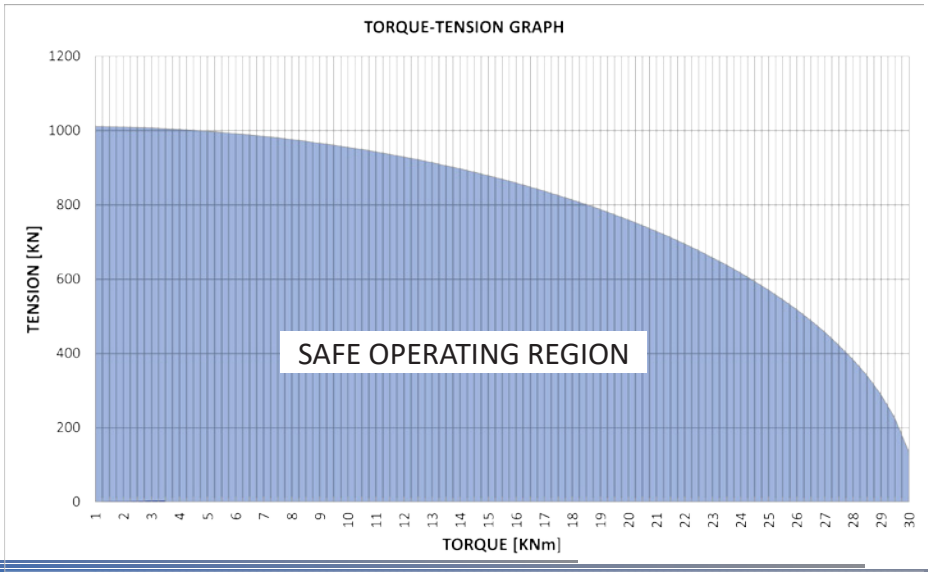
D.114 T3 ROD: J-W114T310 (L=1000); J-W114T320 (L=2000); J-W114T330 (L=3000) (REF. FIG. 3.21)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1731-3/X	ASTA ESTERNA D.114 T3	D.114 T3 EXTERNAL ROD	1	*(1)*
2	D-1731-2/X	ASTA INTERMEDIA D.114 T3	D.114 T3 MIDDLE ROD	1	*(1)*
3	D-1731-1/X	ASTA INTERNA D.114 T3	D.114 T3 INNER ROD	1	*(1)*
4	SEEGJVD68S25	ANELLO SEEGER PER FORI D.68 TIPO JV	D.68 LOCKING RING JV TYPE	1	
5	SEEGJVD95S3	ANELLO SEEGER PER FORI D.95 TIPO JV	D.95 LOCKING RING JV TYPE	1	
6	J-W114T331	KIT GUARNIZIONI ASTA D.114 T3	D.114 T3 SEALS KIT	1	

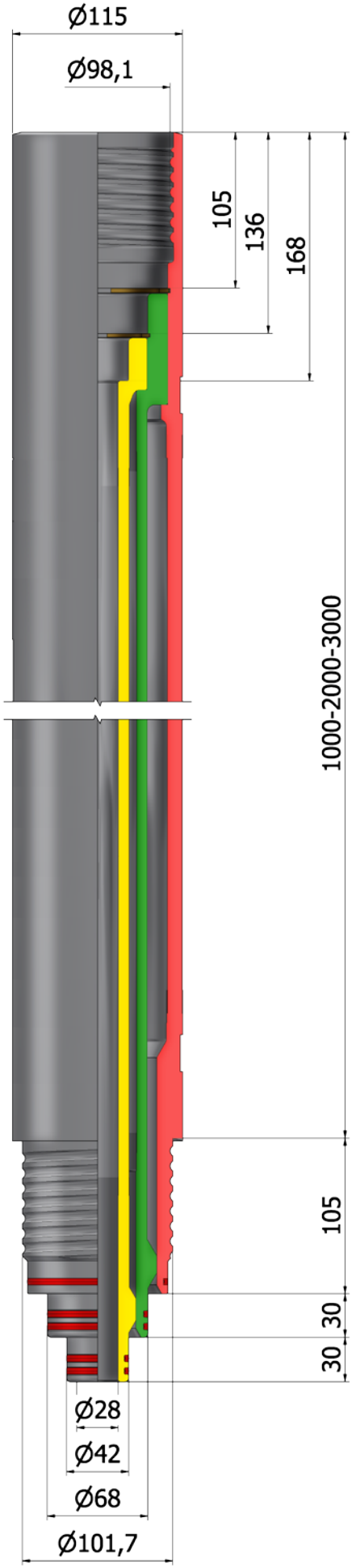
(1) L=1000 X=1; L=2000 X=2; L=3000 X=3
(2) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	10
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	30
PRESSIONE MAX ACQUA WATER MAX PRESSURE		[MPa]	50
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	30
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	18
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	1010
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	50
PESO WEIGHT		[Kg]	49 [L=1m] 92 [L=2m] 135 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	107

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.

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3.22 D.114 C3 ROD

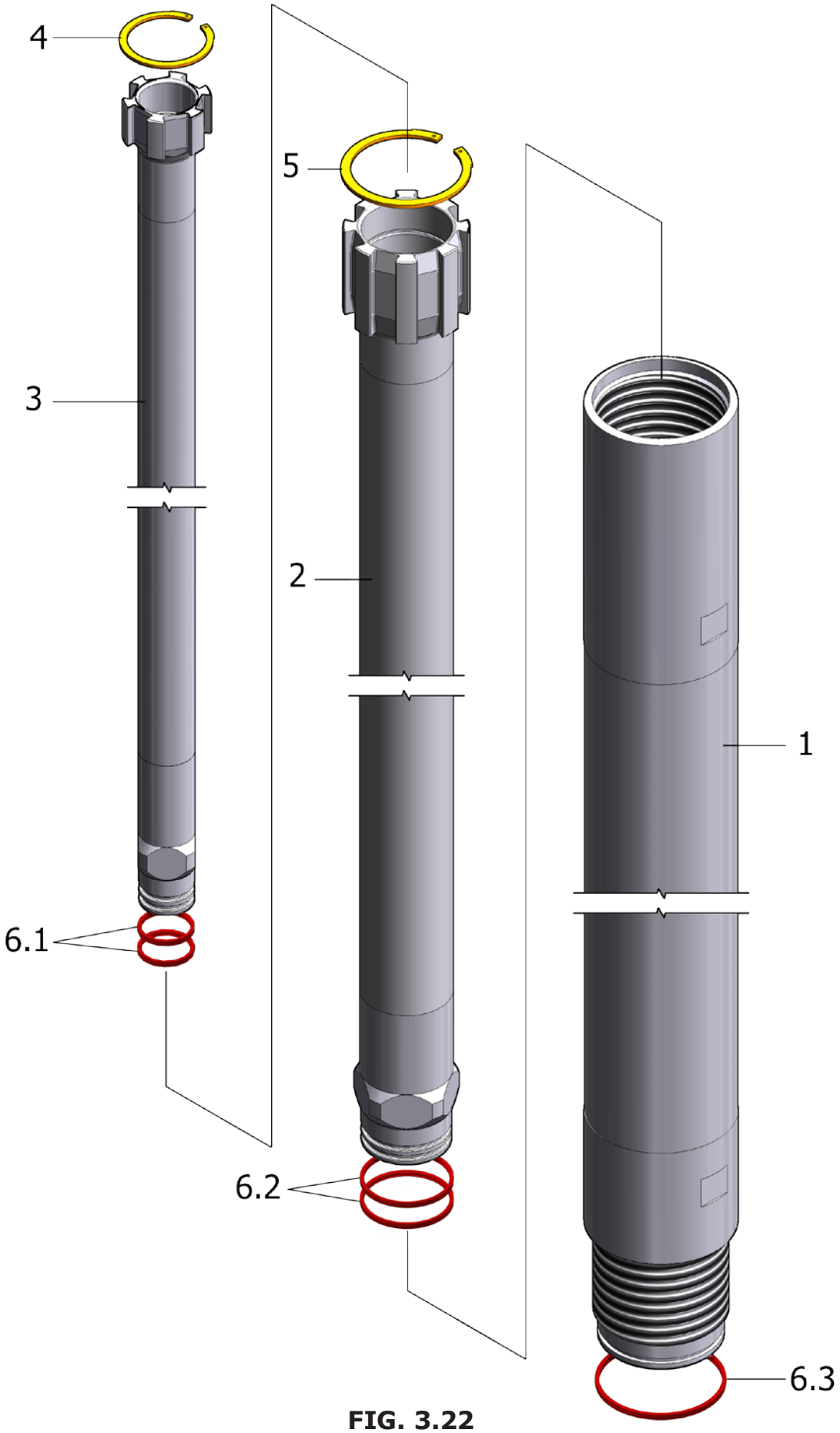


FIG. 3.22

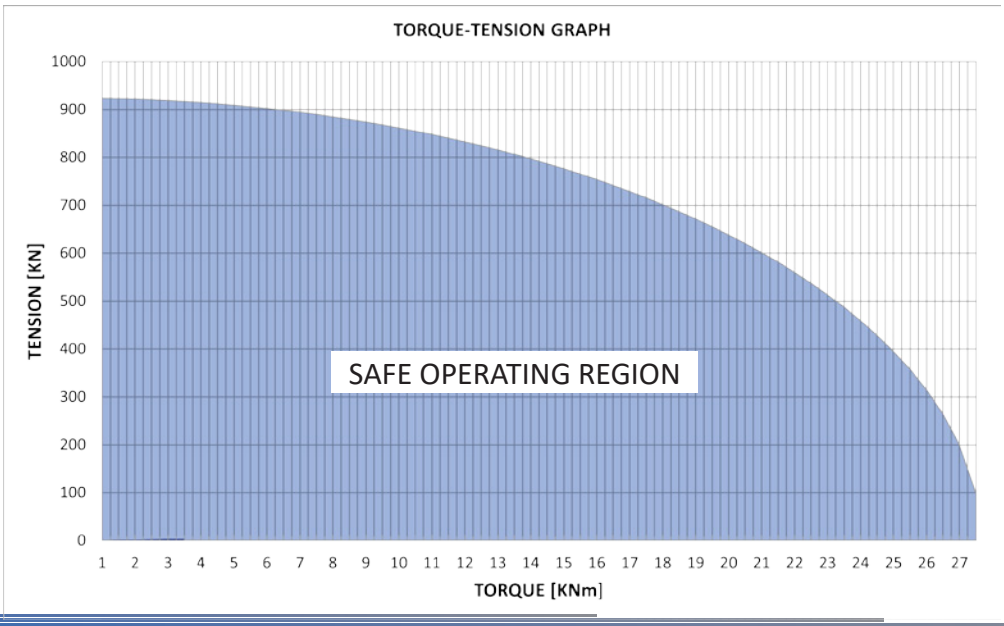
D.114 C3 ROD: J-114C3100 (L=1000); J-114C3200 (L=2000); J-114C3300 (L=3000) (REF. FIG. 3.22)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1731-C3/X	ASTA ESTERNA D.114 C3	D.114 C3 EXTERNAL ROD	1	*(1)*
2	D-1731-2/X	ASTA INTERMEDIA D.114 T3	D.114 T3 MIDDLE ROD	1	*(1)*
3	D-1731-1/X	ASTA INTERNA D.114 T3	D.114 T3 INNER ROD	1	*(1)*
4	SEEGJVD68S25	ANELLO SEEGER PER FORI D.68 TIPO JV	D.68 LOCKING RING JV TYPE	1	
5	SEEGJVD95S3	ANELLO SEEGER PER FORI D.95 TIPO JV	D.95 LOCKING RING JV TYPE	1	
6	J-W114T331	KIT GUARNIZIONI ASTA D.114 T3	D.114 T3 SEALS KIT	1	

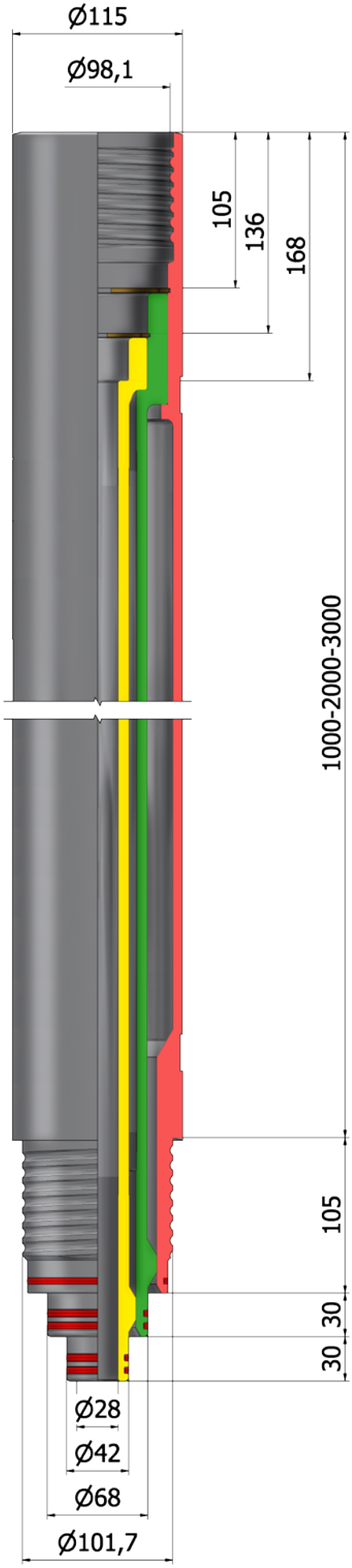
(1) L=1000 X=1; L=2000 X=2; L=3000 X=3
(2) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	6,3
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	30
PRESSIONE MAX ACQUA WATER MAX PRESSURE		[MPa]	50
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	27,5
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	16,5
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	920
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	45
PESO WEIGHT		[Kg]	42 [L=1m] 77 [L=2m] 111 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	110

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.

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3.23 D.127 C3 ROD

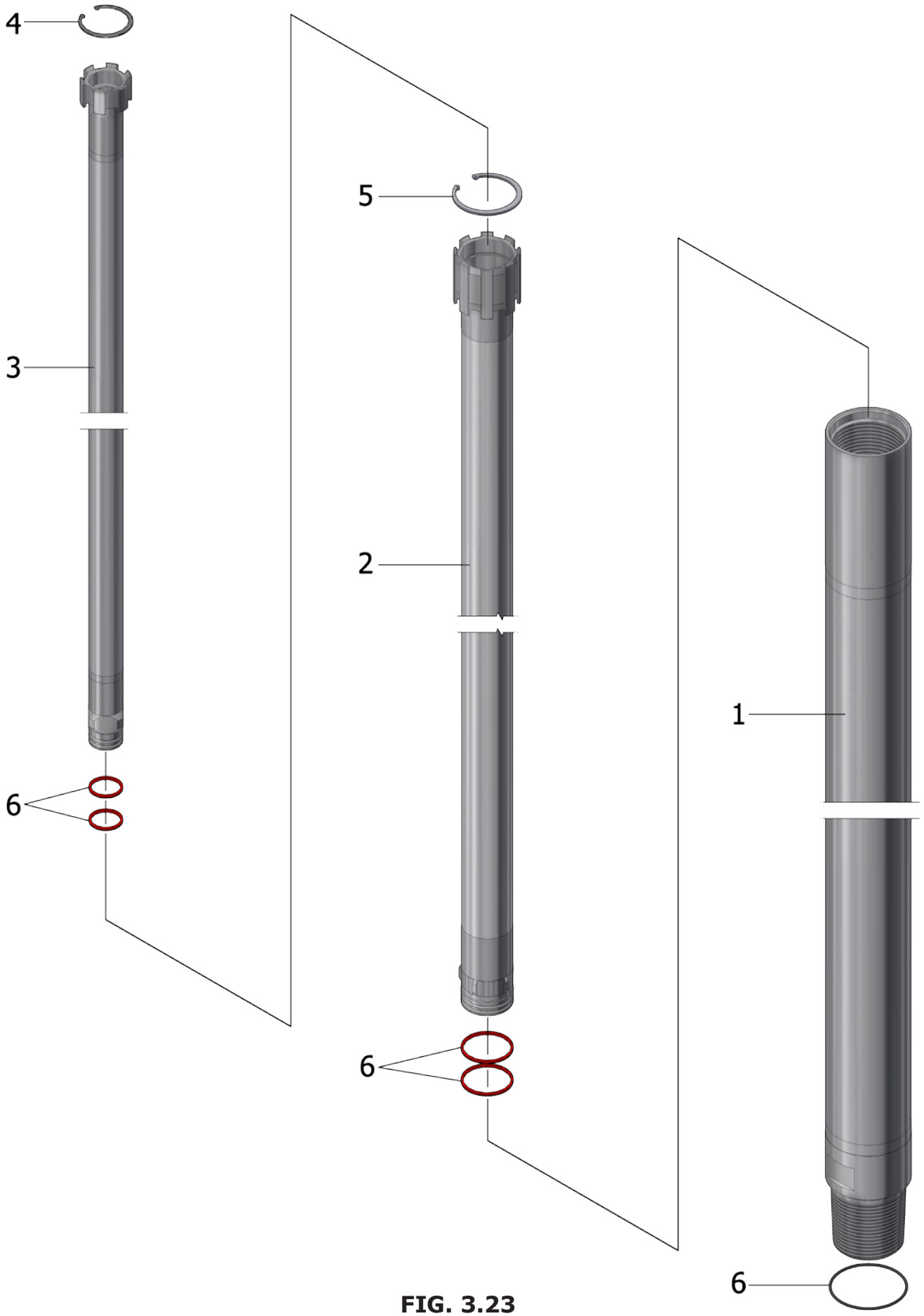


FIG. 3.23

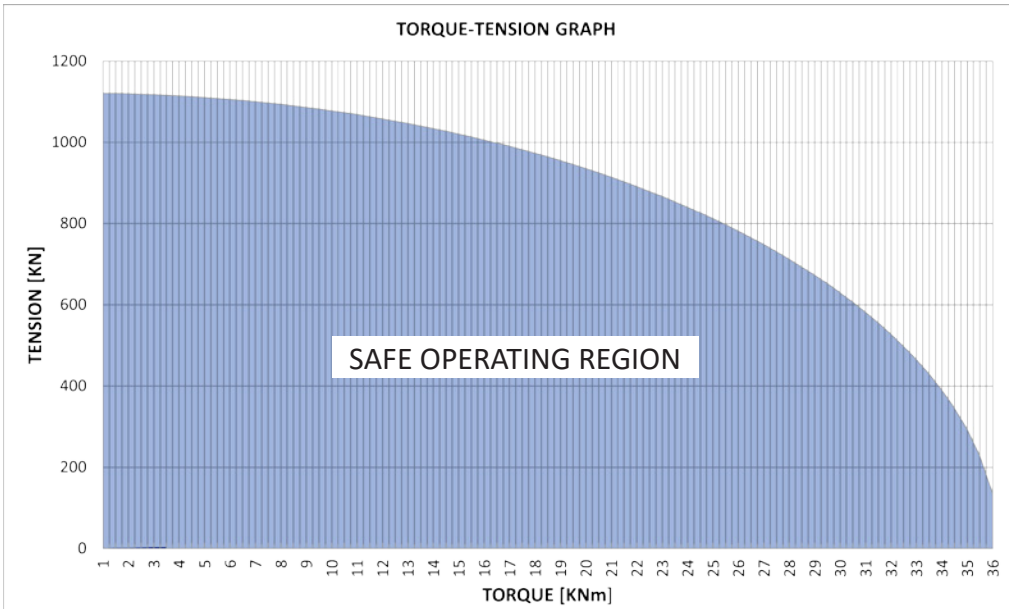
D.127 C3 ROD: J-12C31000 (L=1000); J-12C32000 (L=2000); J-12C33000 (L=3000) (REF. FIG. 3.23)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-12C3X001	ASTA ESTERNA D.127 C3	D.127 C3 EXT. ROD	1	(1)
2	J-12C3X002	ASTA INTERMEDIA D.127 C3	D.127 C3 MIDDLE ROD	1	(1)
3	J-12C3X003	ASTA INTERNA D.127 C3	D.127 C3 INNER ROD	1	(1)
4	7437D78S25	ANELLO ELAST. PER FORI D.78 UNI 7437	D.78 UNI 7437 LOCKING RING	1	
5	7437D100S3	ANELLO ELAST. PER FORI D.100 UNI 7437	D.100 UNI 7437 LOCKING RING	1	
6	J-12C33011	KIT GUARNIZIONI ASTA D.127 C3	D.127 C3 SEALS KIT	1	(2)

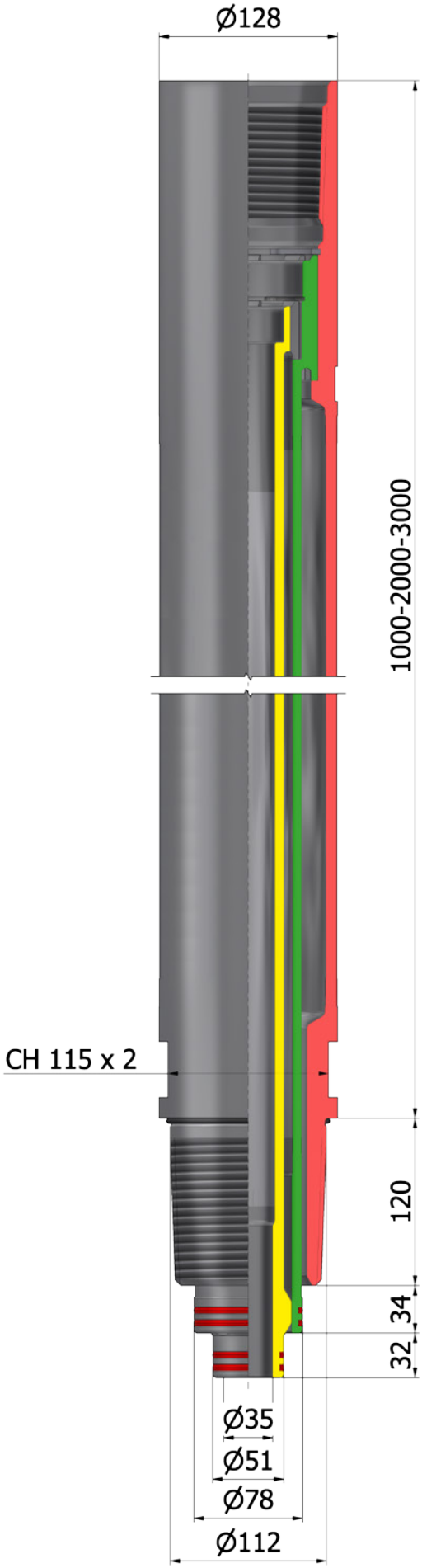
(1) L=1000 X=1; L=2000 X=2; L=3000 X=3
(2) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY

MECHANICAL SPECIFICATIONS - CARATTERISTICHE MECCANICHE (SAFETY FACTOR = 2)			
SPESSORE TUBO WALL TICKNESS		[mm]	8
PRESSIONE MAX CEMENTO GROUT MAX PRESSURE		[MPa]	42
PRESSIONE MAX ACQUA WATER MAX PRESSURE		[MPa]	55
PRESSIONE MAX ARIA AIR MAX PRESSURE		[MPa]	3
COPPIA MAX MAX TORQUE	(*)	[KNm]	36
COPPIA DI SERRAGGIO MAKE-UP TORQUE	(*)	[KNm]	21,5
TIRO MAX (SENZA COPPIA) ULTIMATE TRACTION (WITHOUT TORQUE)	(*)	[KN]	1120
PROFONDITA' OPERATIVA DEPTH CAPACITY	(*)	[m]	70
PESO WEIGHT		[Kg]	48,5 [L=1m] 85 [L=2m] 122 [L=3m]
DIAMETRO MINIMO OPERATIVO (DA CONSUMO PER ATTRITO) MINIMUM OPERATING DIAMETER (DUE TO WEARING)	(**)	[mm]	121

(*) Dati validi per aste nuove non usate e per perforazioni standard - Performance values are applicable to new unused rods and standard drilling practices.

(**) Diametro minimo misurato sul manicotto femmina o sulla zona della giunzione frizionata - Minimum measured diameter of female joint or of friction welded joint.

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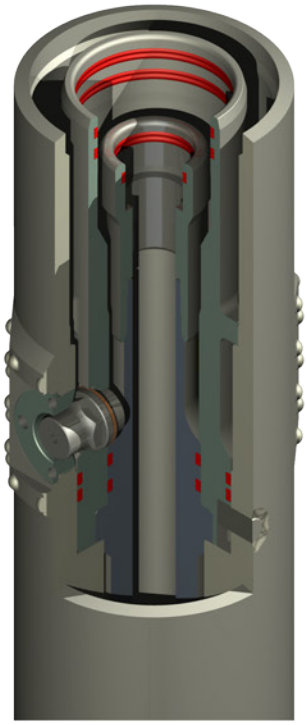
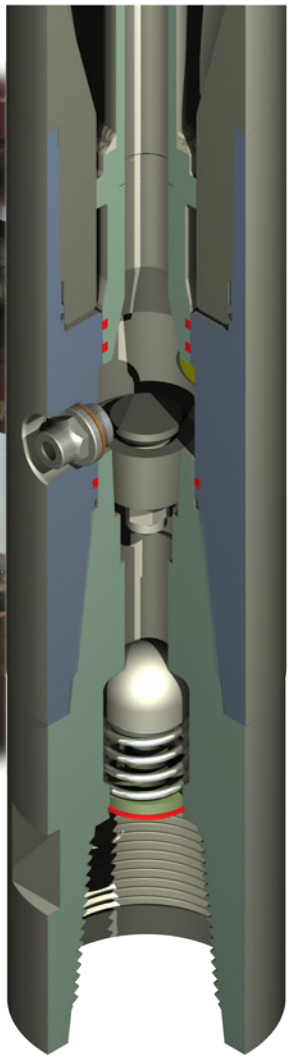
4 MONITOR - NOZZLE HOLDERS





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INDEX OF PART 4

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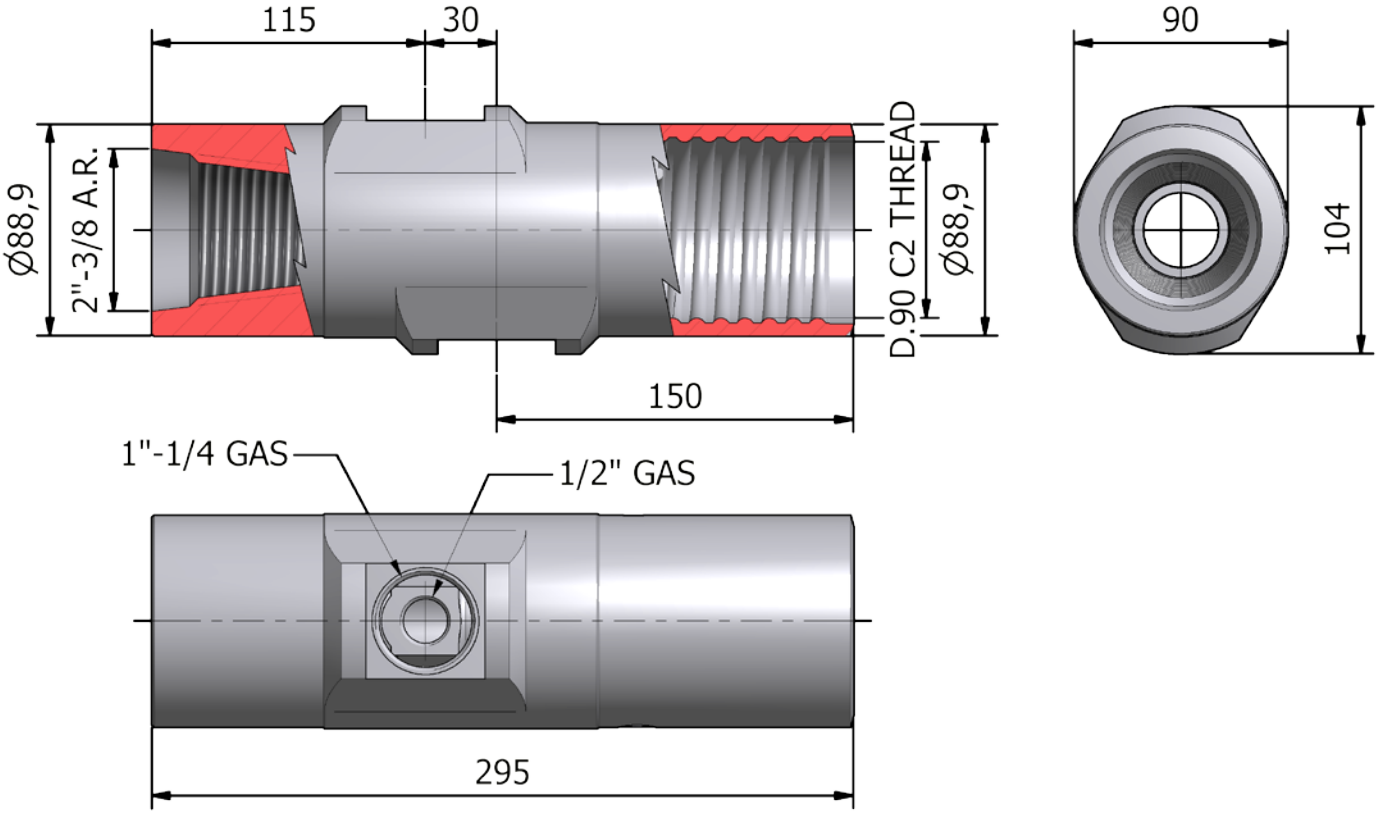
4.1 D.90 C2 STANDARD MONITOR: J-8C214483

FIG. 4.1

J-8C214483 (REF. FIG. 4.1)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-8C214483	CORPO MONITOR D.90 C2	D.90 C2 NOZZLE HOLDER BODY	1	
2	J-8C214484	GUARNIZIONE MONITOR D.90 C2	D.90 C2 NOZZLE HOLDER SEAL	1	



4.2 D.90 C2 AIR ADAPTER WITH VALVE: J-8C214702 (J-8C214702-H: DTH)

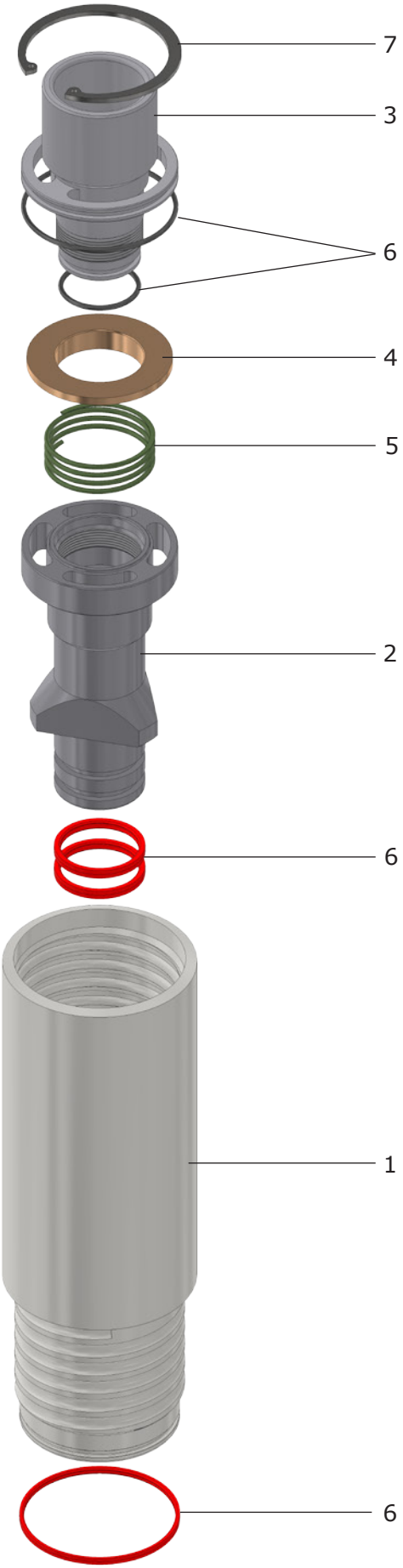
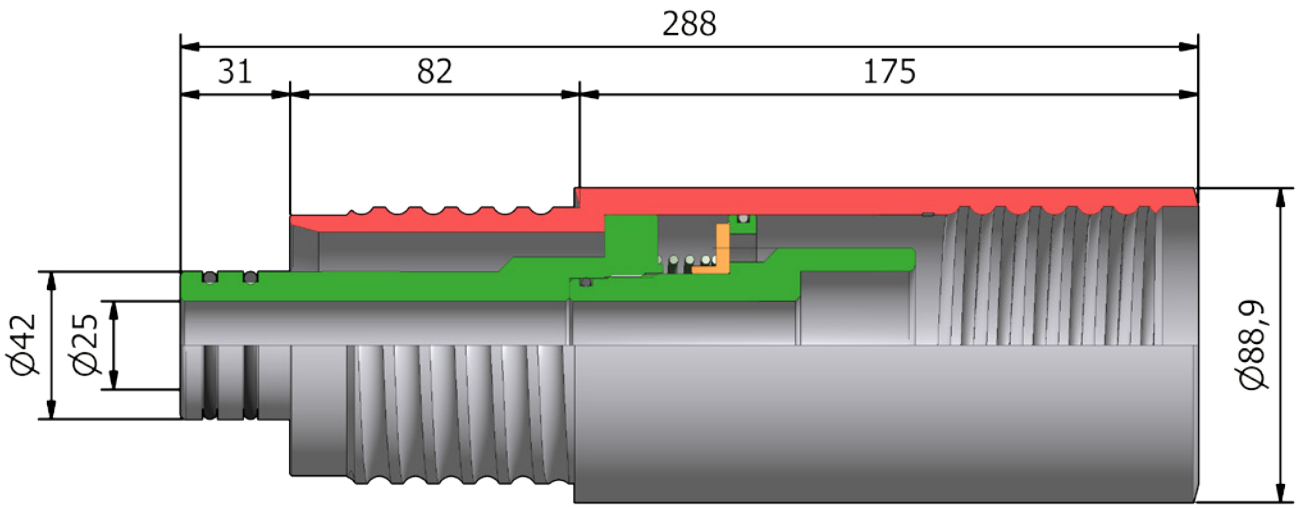


FIG. 4.2

J-8C214702 (REF. FIG. 4.2)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-8C214708	CORPO EST. RACC. VALV. D.90 C2	D.90 C2 AIR ADAPTER EXT. BODY	1	(2)
2	J-8C214705	CORPO INT. RACC. VALV. D.90 C2	D.90 C2 AIR ADAPTER INNER BODY	1	
3	J-8C214704	PORTA VALVOLA D.90 C2	D.90 C2 VALVE HOUSING	1	
4	J-8C214707	VALVOLA D.90 C2	D.90 C2 VALVE	1	
5	J-8C214706	MOLLA RACC. VALV. 2,5x51 H20	2,5x51 H20 VALVE SPRING	1	
6	J-8C214703	KIT GUARN. RACC. VALV. D.90 C2	D.90 C2 AIR ADAPTER SEALS KIT	1	(1)
7	7437D72S25	ANELLO EL. PER FORI D.72 UNI 7437	UNI 7437 D.72 ELASTIC RING	1	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY
(2) J-8C214708-H VERSIONE PER DTH - J-8C214708-H DTH VERSION



4.3 D.90 C2 DTH NOZZLES HOLDER: J-8C214461

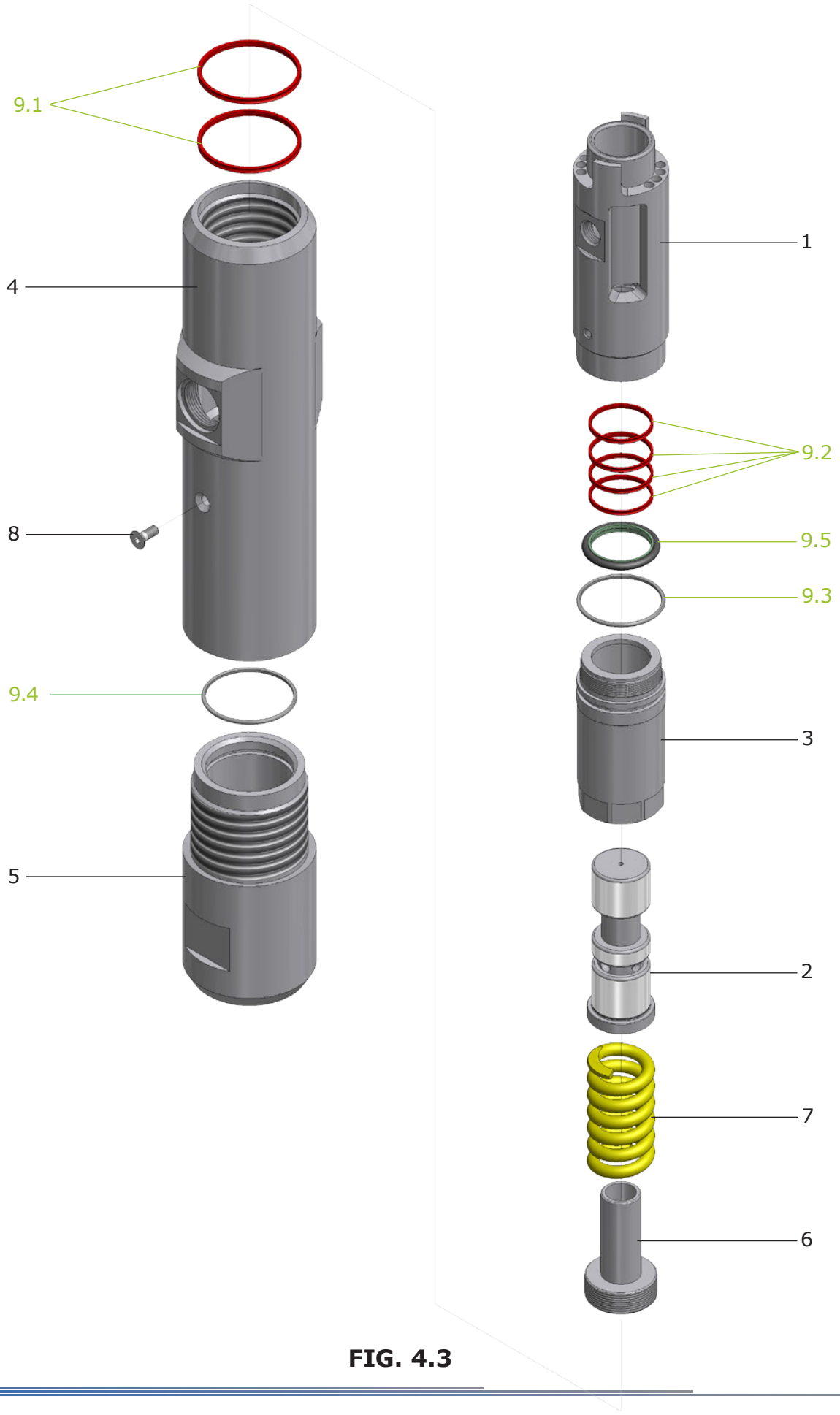
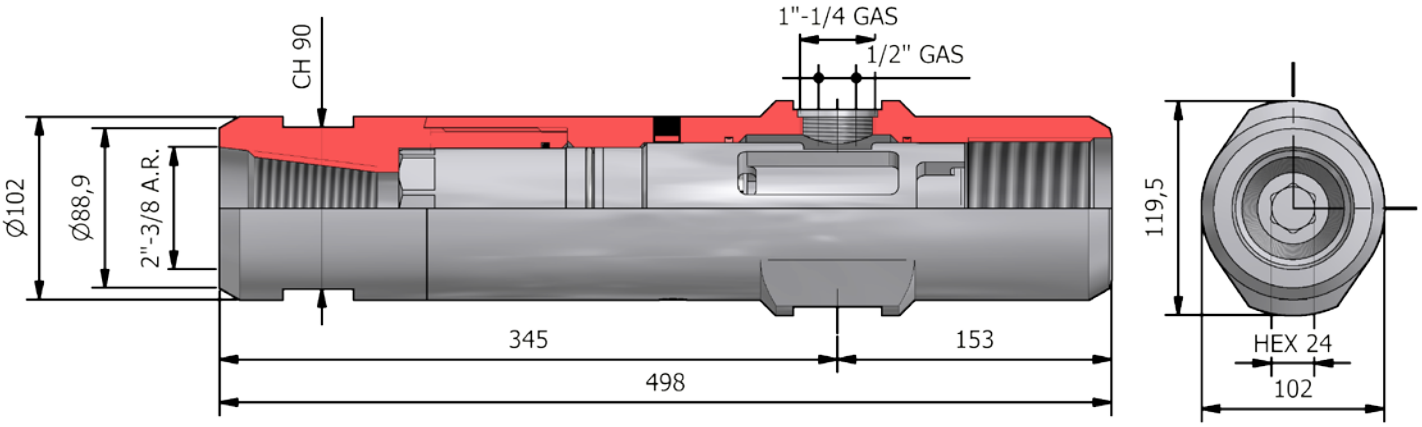


FIG. 4.3

J-8C214461 (REF. FIG. 4.3)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1255-1	CORPO INTERNO MONITOR DTH	DTH NOZZLES H. INNER BODY	1	
2	D-1255-2	SELETTORE INTERNO MONITOR DTH	DTH NOZ. H. INNER DISTRIBUTOR	1	
3	D-1255-3	PORTA MOLLA MONITOR DTH	DTH NOZZLES H. SPRING HOUSING	1	
4	D-1255-4	CORPO ESTERNO MONITOR DTH	DTH NOZZLES H. EXTERNAL BODY	1	
5	D-1255-5	CORPO EST. INF. MONITOR DTH	DTH N. H. EXTERNAL LOWER BODY	1	
6	D-1255-6	BATTUTA PORTA MOLLA	SPRING RETAINER	1	
7	D-1255-18	MOLLA Do=52 Lo=105 d=10	Do=52 Lo=105 d=10 SPRING	1	
8	5933M8X20P125109ZB	VITE TPSEI M8x20 UNI 5933	M8x20 UNI 5933 SCREW	1	
9	J-8C214461-A	KIT. GUARNIZ. MONITOR C2 DTH	DTH NOZZLES HOLDER SEALS KIT	1	
9.1	*D-1255-B*	*S35-P 73X79.2L=4.5 H-ECOPUR*	*S35-P 73X79.2L=4.5 H-ECOPUR*	*2*	*(1)*
9.2	*D-1255-A*	*S35-P 45X49.5L=3.5 H-ECOPUR*	*S35-P 45X49.5L=3.5 H-ECOPUR*	*4*	*(1)*
9.3	*MR-OR229*	*OR-229 RIF. POLYPAC*	*O-RING-229 REF. POLYPAC*	*1*	*(1)*
9.4	*MR-OR231*	*OR-231 RIF. POLYPAC*	*O-RING-231 REF. POLYPAC*	*1*	*(1)*
9.5	*MR-IG/R0450*	*GUARNIZIONE IG/R 0450 RIF. POLYPAC*	*IG/R 0450 SEAL REF. POLYPAC*	*1*	*(1)*

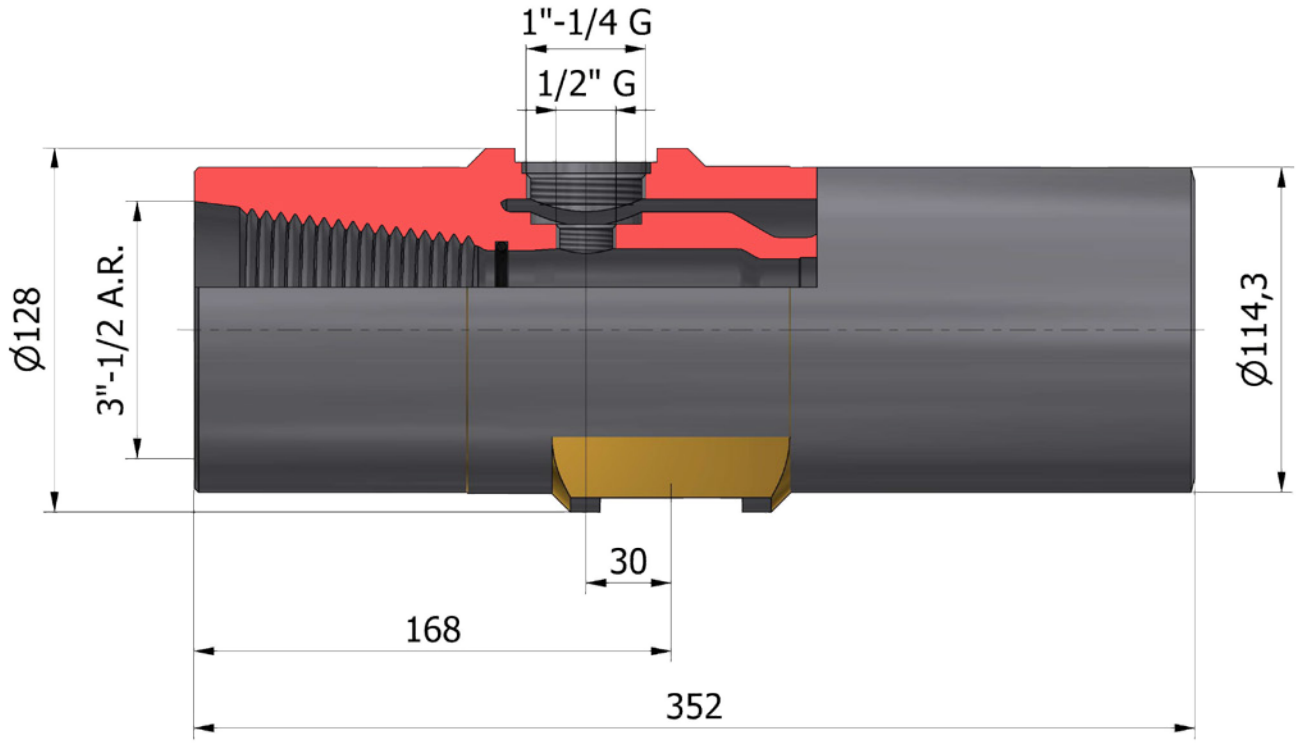
(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



4.4 D.114 C2 NOZZLES HOLDER: J-1C212483

FIG. 4.4

J-1C212483 (REF. FIG. 4.4)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-1C212483	CORPO MONITOR D.114 C2	D.114 C2 NOZZLE HOLDER BODY	1	
2	J-1C212484	GUARNIZIONE MONITOR D.114 C2	D.114 C2 NOZZLE HOLDER SEAL	1	



4.5 D.114 C2 AIR ADAPTER WITH VALVE: J-1C212702 (J-1C212702-H: DTH)

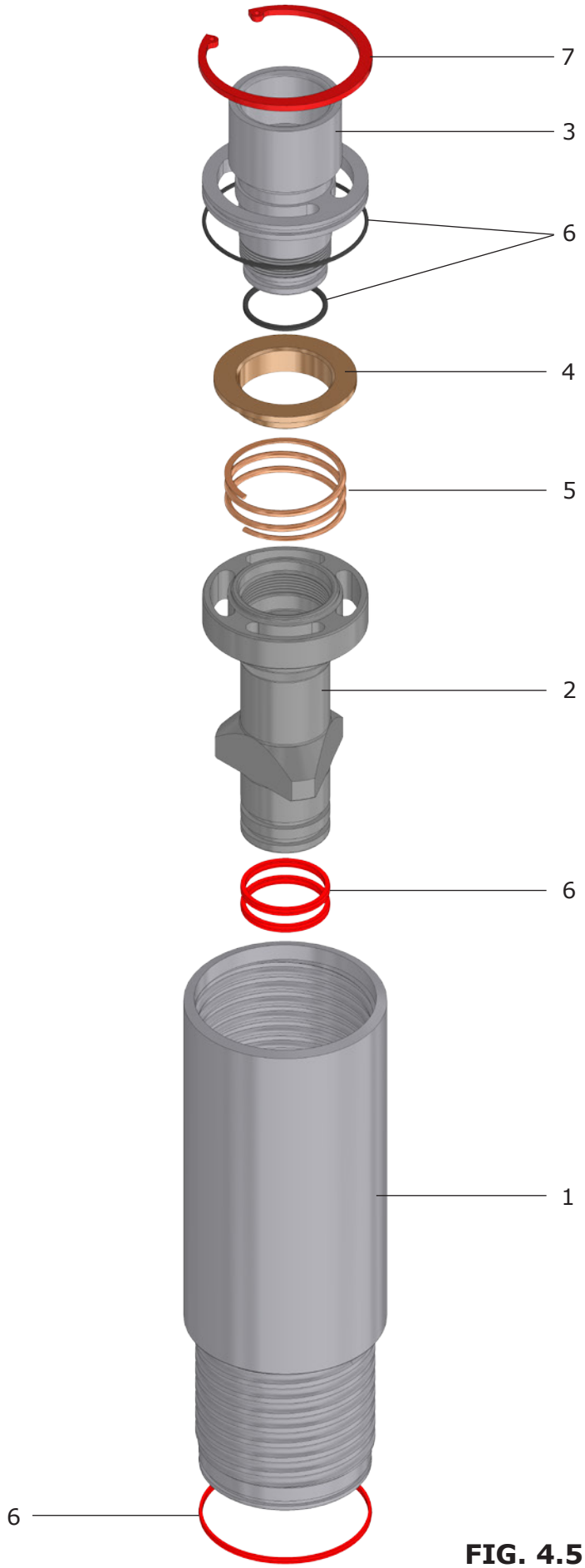
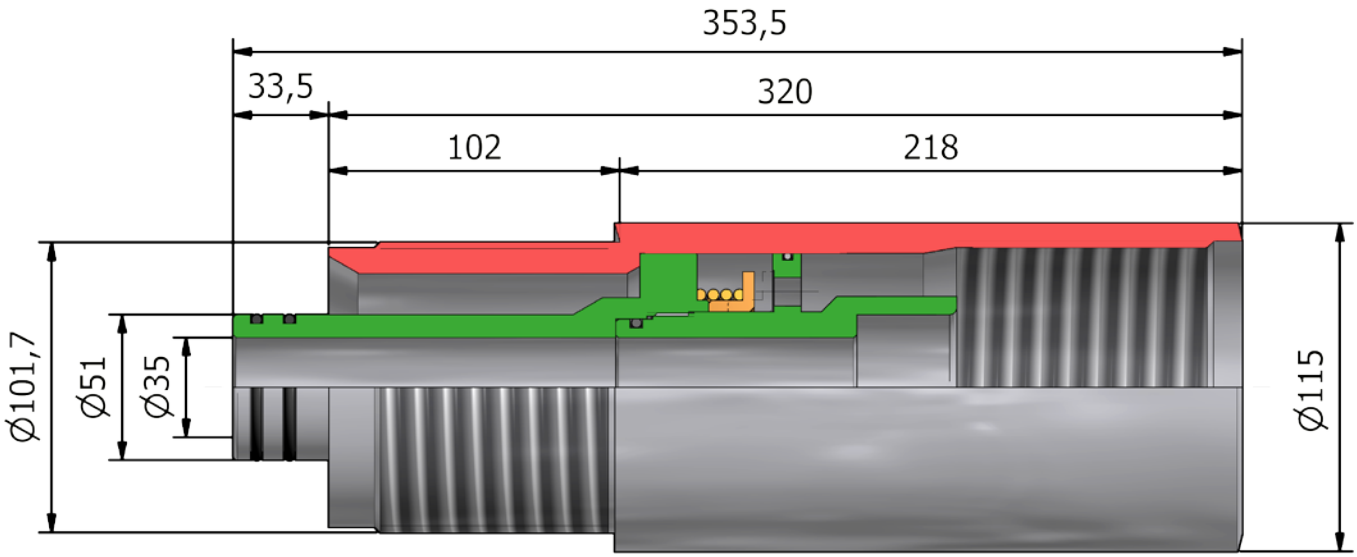


FIG. 4.5

J-1C212702 (REF. FIG. 4.5)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1106/1	CORPO EST. RACC. VALV. D.114 C2	D.114 C2 AIR ADAPTER EXT. BODY	1	*(2)*
2	D-1106/2	CORPO INT. RACC. VALV. D.114 C2	D.114 C2 AIR ADAPTER INNER BODY	1	
3	D-1106/3	PORTA VALVOLA D.114 C2	D.114 C2 VALVE HOUSING	1	
4	D-1106/4	VALVOLA D.114 C2	D.114 C2 VALVE	1	
5	D-1109/2	MOLLA d=4 Do=69 Lo=28	d=4 Do=69 Lo=28 SPRING	1	
6	J-1C212703	KIT GUARN. RACC. VALV. D.114 C2	D.114 C2 AIR ADAPTER SEALS KIT	1	*(1)*
7	7438D95S4	ANELLO EL. PER FORI D.95 UNI 7438	UNI 7438 D.95 ELASTIC RING	1	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY
(2) J-1C212708-H VERSIONE PER DTH - J-1C212708-H DTH VERSION



4.6 D.114 C2 DTH GROUT MASTER 5” NOZZLES HOLDER XL: J-1C212461-XL

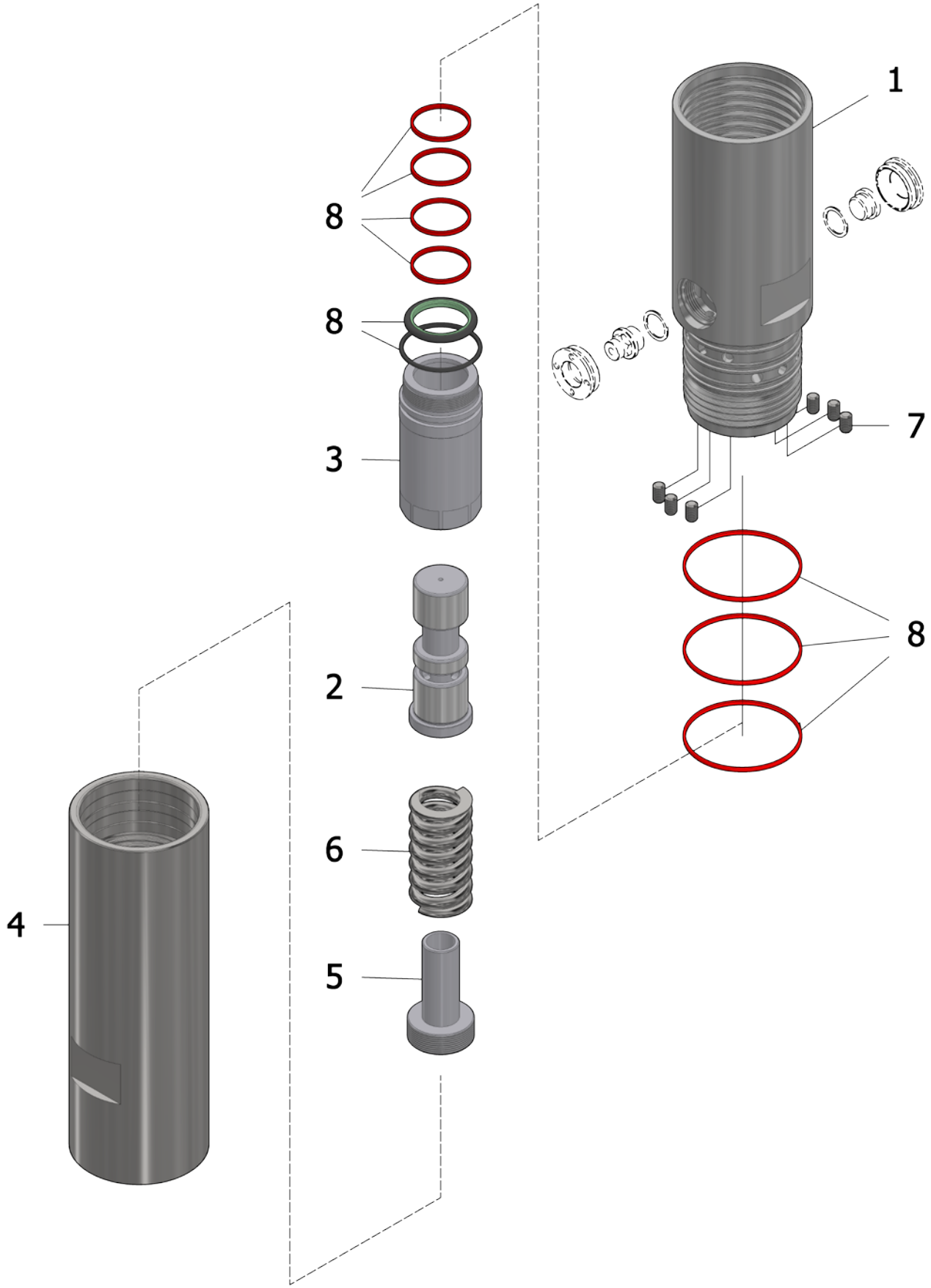
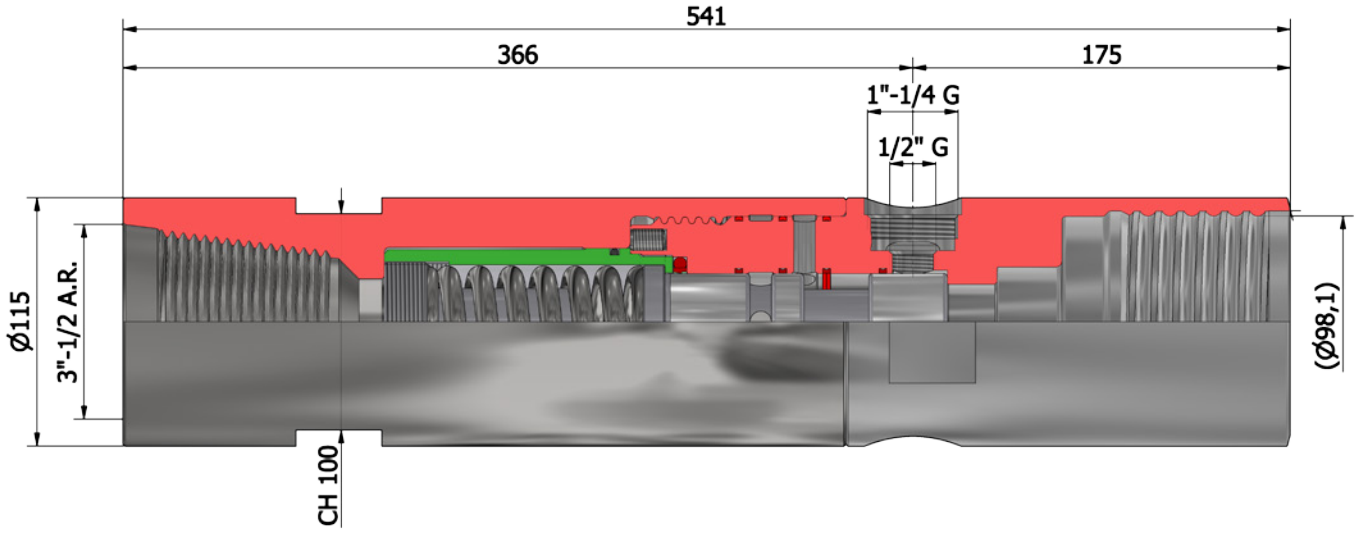


FIG. 4.6

J-1C212461-XL (REF. FIG. 4.6)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1255D-1	CORPO SUPERIORE MONITOR DTH D.114	DTH NOZZLE H. XL UPPER BODY	1	
2	D-1255-2	SELETTORE INTERNO	INNER SELECTOR	1	
3	D-1255-3	PORTAMOLLA	SPRING HOUSING	1	
4	D-1255D-4	CORPO INFERIORE MONITOR DTH D.114	DTH NOZZLE H. XL LOWER BODY	1	
5	D-1255-6	BATTUTA PORTAMOLLA	SPRING BACKPLATE	1	
6	D-1255-18	MOLLA Do=52 d=10 Lo=105	SPRING Do=52 d=10 Lo=105	1	
7	UNI 5923 - M10 x 16	GRANO PUNTA PIANA	FLAT HEAD SET SCREW	6	
8	J-1C212461-AXL	KIT GUARNIZIONI MONITOR DTH XL	DTH NOZZLE H. XL SEALS KIT	1	
8.1	*S35-P 45x49.5x3.5 (D-1255-A)*	*GUARNIZIONE POLIURETANO 95 SHORE-A*	*POLYURETHANE 95 SHORE-A SEAL*	*4*	*(1)*
8.2	*K35-P 93,4x97,9x3,5*	*GUARNIZIONE POLIURETANO 95 SHORE-A*	*POLYURETHANE 95 SHORE-A SEAL*	*3*	*(1)*
8.3	*IG-R0450*	*GUARNIZIONE IG/R*	*IG/R TYPE SEAL*	*1*	*(1)*
8.4	*OR 229*	*O-RING*	*O-RING SEAL*	*1*	*(1)*

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



4.7 D.114 C2H JET NOZZLES HOLDER: J-1C2H4000

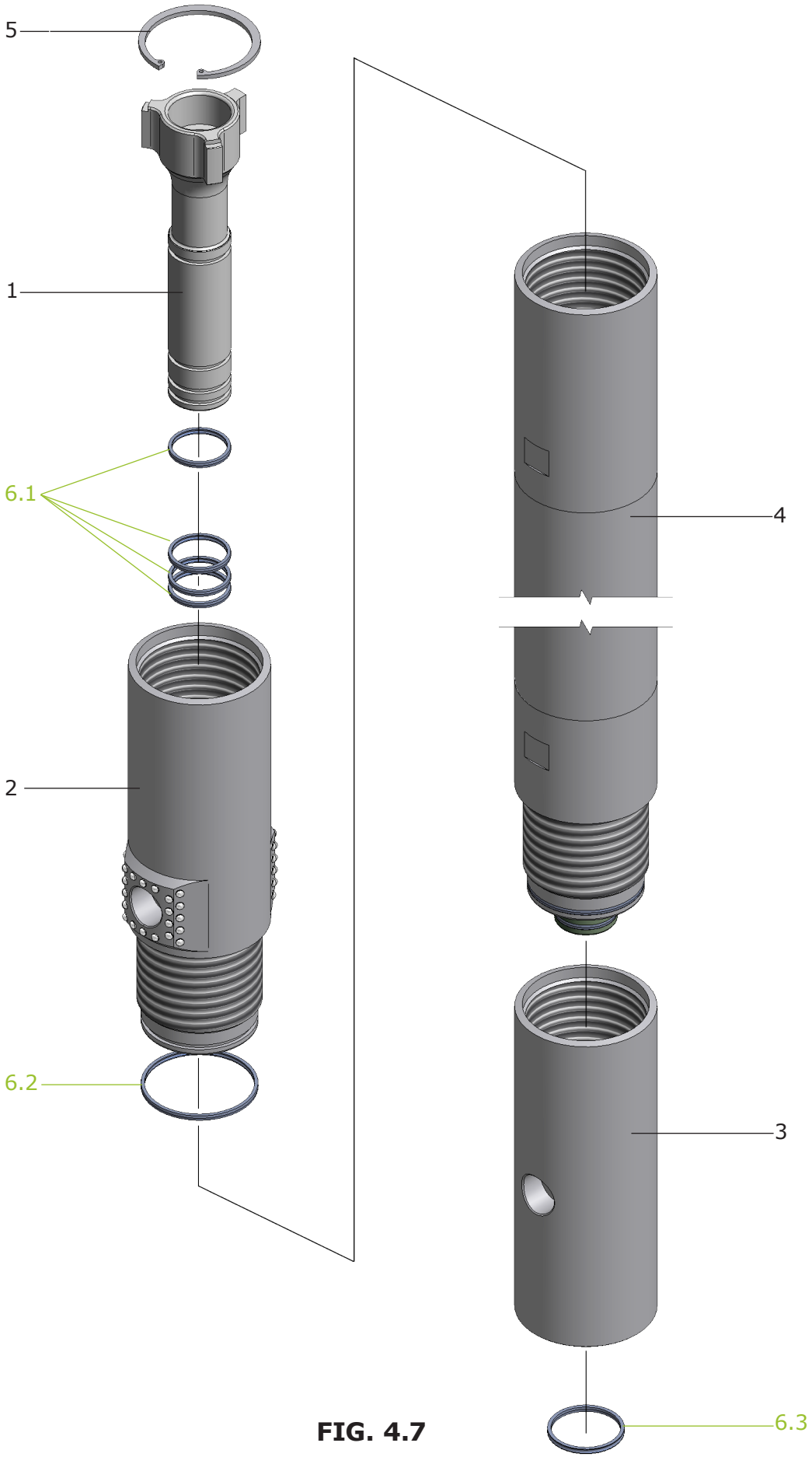
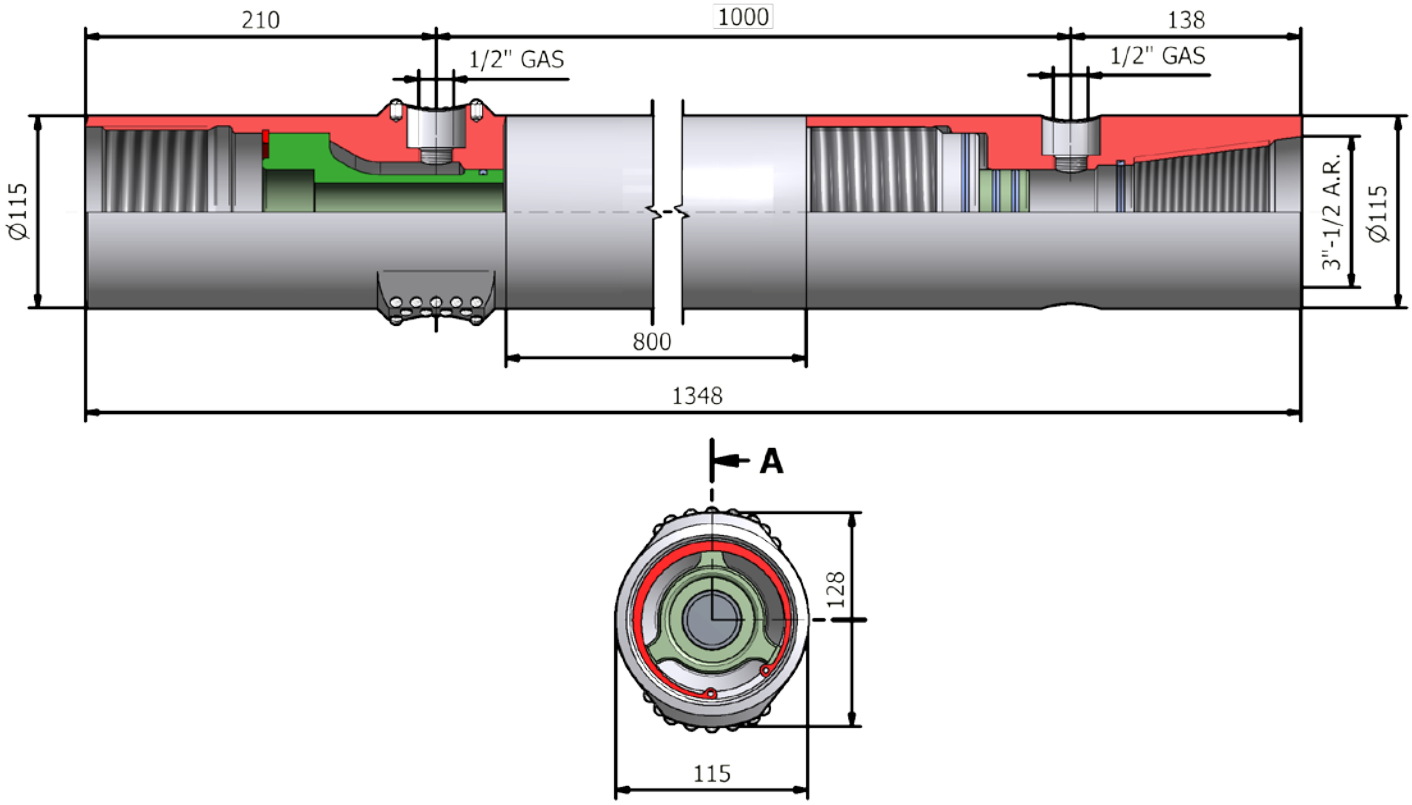


FIG. 4.7

J-1C2H4000: C2H JET NOZZLES HOLDER (REF. FIG. 4.7)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1439-3-1	MANICOTTO INTERNO ACQUA	WATER INNER COUPLING	1	
2	D-1439-3-2	MONITOR ACQUA	WATER NOZZLES HOLDER	1	
3	D-1439-3-3	MONITOR CEMENTO	GROUT NOZZLES HOLDER	1	
4	D-1439-6	ASTA COLLEGAMENTO L=800	L=800 CONNECTION ROD	1	
5	7438D95S4	ANELLO ELASTICO FORO D.95 (SP.4)	ELASTIC RING D.95 HOLE (4 TH)	1	
6	J-1C212470-A	KIT GUARNIZIONI	SEALS KIT	1	
6.1	*D-1439-A*	*GUARN. T-ECOPUR K35P 44.8x51x4.5*	*D-1439-A*		*(1)*
6.2	*D-1439-B*	*GUARN. T-ECOPUR K35P 88.8x95x4.5*	*D-1439-B*		*(1)*
6.3	*D-1439-C*	*GUARN. H-ECOPUR S35-P 56x62.2x4.5*	*D-1439-C*		*(1)*

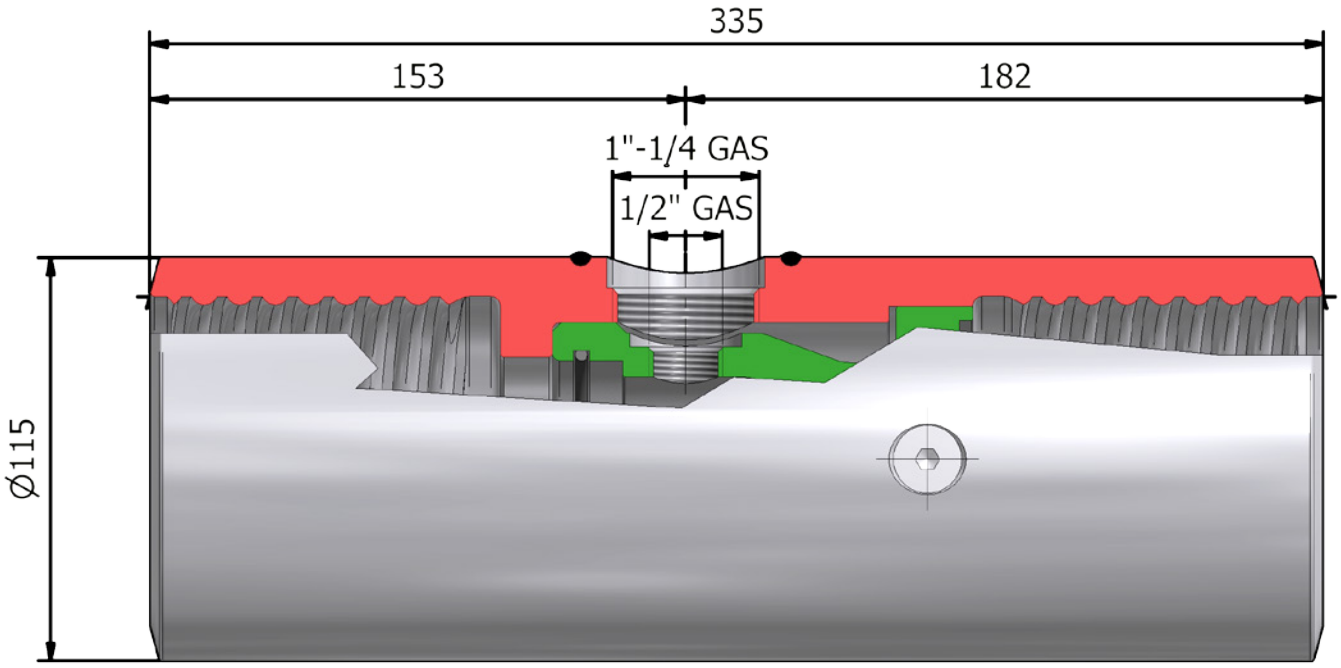
(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



4.8 D.114 C2 RP NOZZLES HOLDER: J-1C2RP400

FIG. 4.8

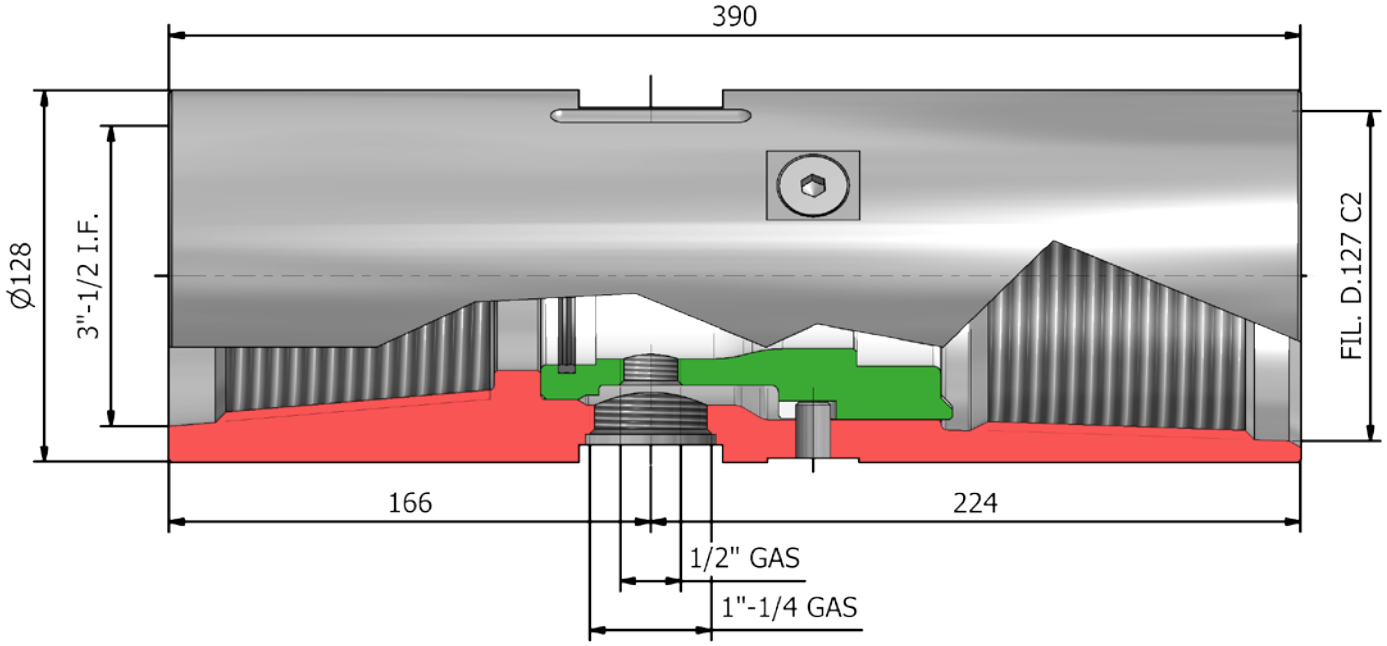
J-1C2RP400: C2 RP NOZZLES HOLDER (REF. FIG. 4.8)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1571-7-2	CORPO EST. MONITOR D.114 C2 RP	D.114 C2 RP NOZ. HOLD. EXT. BODY	1	
2	D-1571-7-1	ADATT. INT. MONITOR D.114 C2 RP	D.114 C2 RP NOZ. H. INNER ADAPT.	1	
3	J-1C2RP404	GUARNIZIONE MONITOR D.114 C2 RP	D.114 C2 RP NOZ. HOLDER SEAL	1	
4	5933M10X25P15109ZB	VITE TPSEI M10x25 UNI 5933	UNI 5933 M10x25 SCREW	1	



4.9 D.127 C2 NOZZLES HOLDER: J-12C20483

FIG. 4.9

J-12C20483: D.127 C2 NOZZLES HOLDER (REF. FIG. 4.9)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1354-100-2	CORPO EST. MONITOR D.127 C2	D.127 C2 NOZ. HOLD. EXT. BODY	1	
2	D-1354-100-1	ADATT. INT. MONITOR D.127 C2	D.127 C2 NOZ. H. INNER ADAPT.	1	
3	J-12C20484	R15-P 60.8x67x5.9 (D-0604-12)	D.127 C2 NOZ. HOLDER SEAL	1	
4	5933M12X25P175109ZB	VITE TPSEI M12x25 UNI 5933	UNI 5933 M12x25 SCREW	1	



4.10 D.127 C2 NOZZLES HOLDER ADAPTER WITH VALVE: J-12C20702

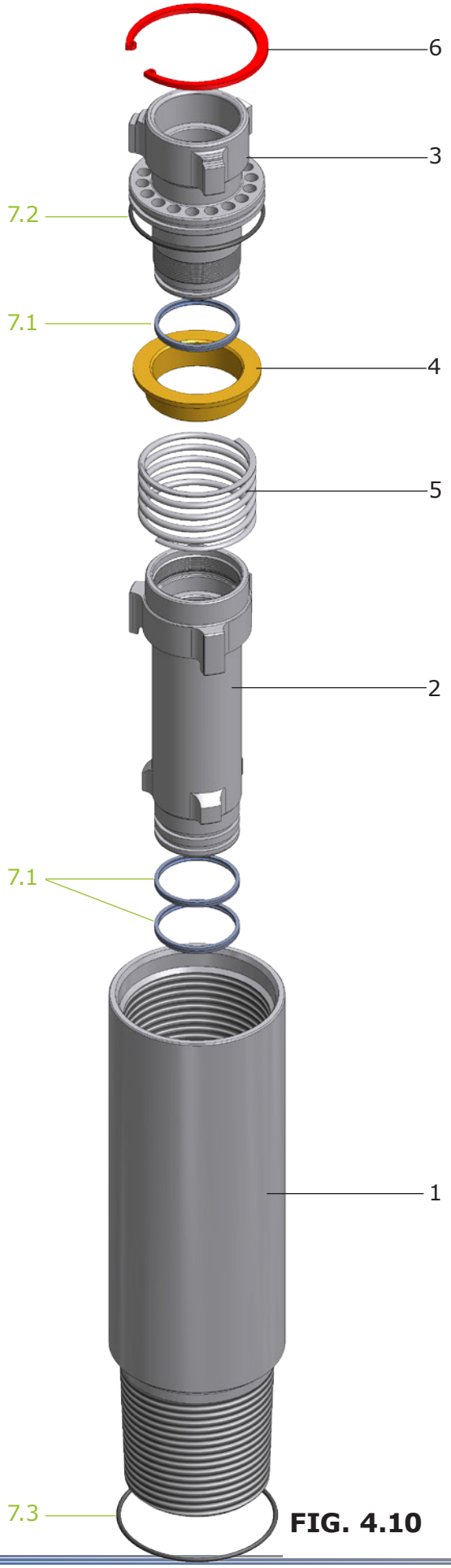
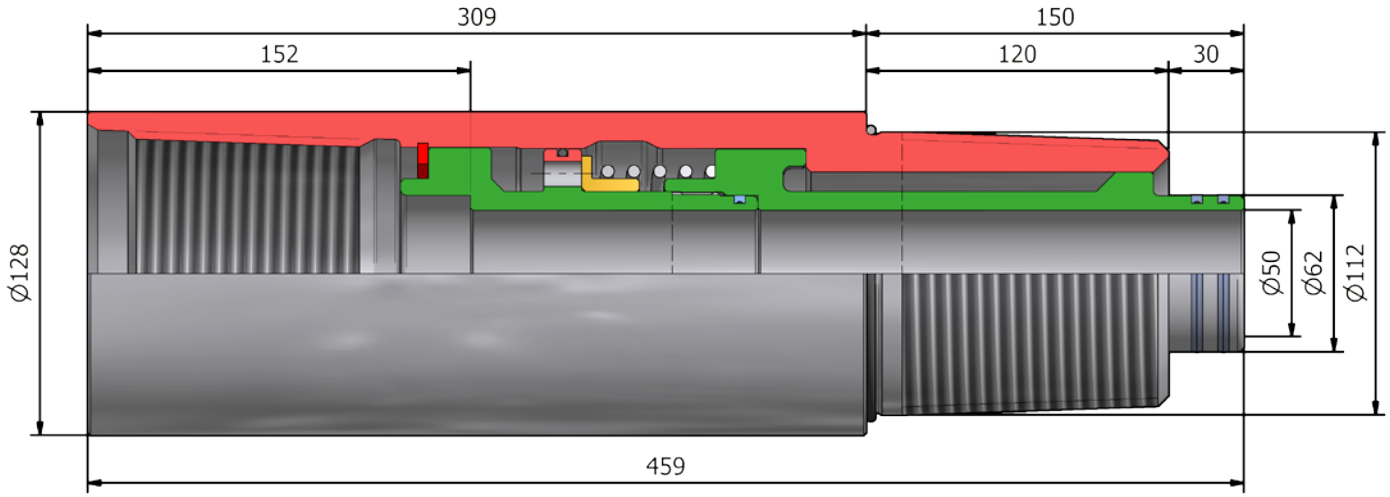


FIG. 4.10

J-12C20702: D.127 C2 NOZZLES HOLDER ADAPTER WITH VALVE (REF. FIG. 4.10)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1354-300-1	C. EST. MONITOR ADAPT. D.127 C2	D.127 C2 ADAPT. EXTERNAL BODY	1	
2	D-1599-6-2	C. INT. MONITOR ADAPT. D.127 C2	D.127 C2 ADAPT. INNER BODY	1	
3	D-1599-6-3	PORTAVALV. MONIT. ADAPT. D.127 C2	D.127 C2 ADAPT. VALVE HOUSING	1	
4	D-1599-6-4	VALVOLA MONITOR ADAPT. D.127 C2	D.127 C2 ADAPT. VALVE	1	
5	D-1599-6-5	MOLLA MONITOR ADAPT. D.127 C2	D.127 C2 ADAPT. SPRING	1	
6	7438D100S4	ANELLO EL. SERIE PESANTE D.100	HD ELASTIC RING HOLE D.100	1	
7	J-12C20703	KIT GUARN. MONITOR AD. D.127 C2	D.127 C2 ADAPTER SEALS KIT	1	
7.1	*D-1354-A*	*GUARN. (T- ECOPUR) K35P 55.8x62x4.5*	*(T- ECOPUR) K35P 55.8x62x4.5 SEAL*	*3*	*(1)*
7.2	*MR-OR239*	*O-RING*	*O-RING*	*1*	*(1)*
7.3	*MR-OR244*	*O-RING (VITON)*	*O-RING (VITON)*	*1*	*(1)*

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



4.11 D.140 C2 NOZZLES HOLDER: J-14C20483

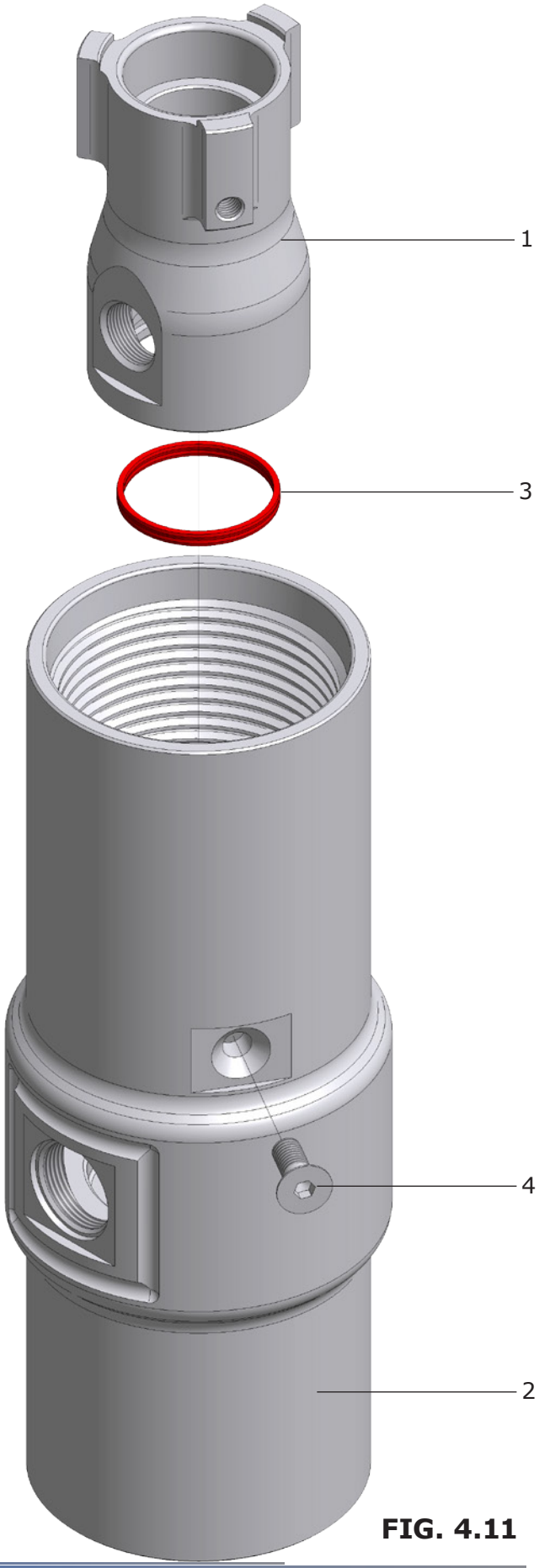
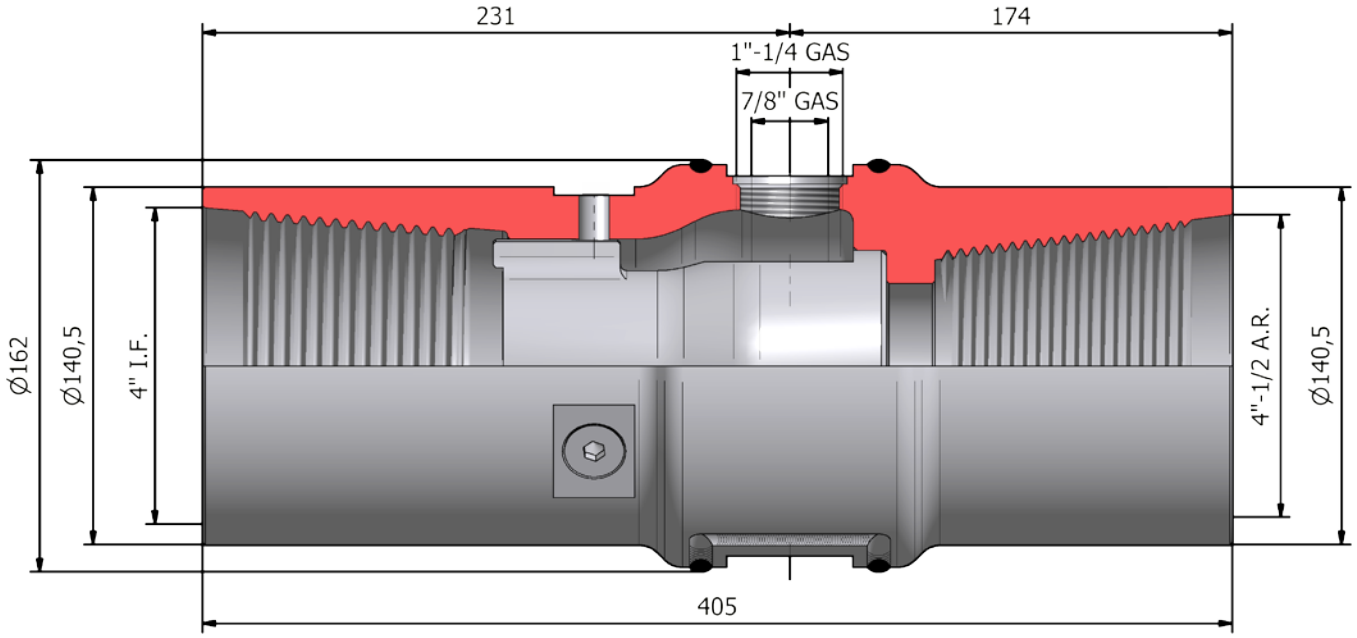


FIG. 4.11

J-14C20483: D.140 C2 NOZZLES HOLDER (REF. FIG. 4.11)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1599-5-1	CORPO INTERNO MONITOR D.140 C2	D.140 C2 N.H. INNER BODY	1	
2	D-1599-5-2	CORPO ESTERNO MONITOR D.140 C2	D.140 C2 N.H. EXTERNAL BODY	1	
3	J-14C20484	GUARN. H-ECOPUR R15-P 60.8x67x5.9	H-ECOPUR R15-P 60.8x67x5.9 SEAL	1	
4	5933M12X30P175109ZB	VITE TPSEI M12x30	VITE TPSEI M12x30	1	



4.12 D.140 C2 NOZZLES HOLDER ADAPTER WITH VALVE: J-14C20702

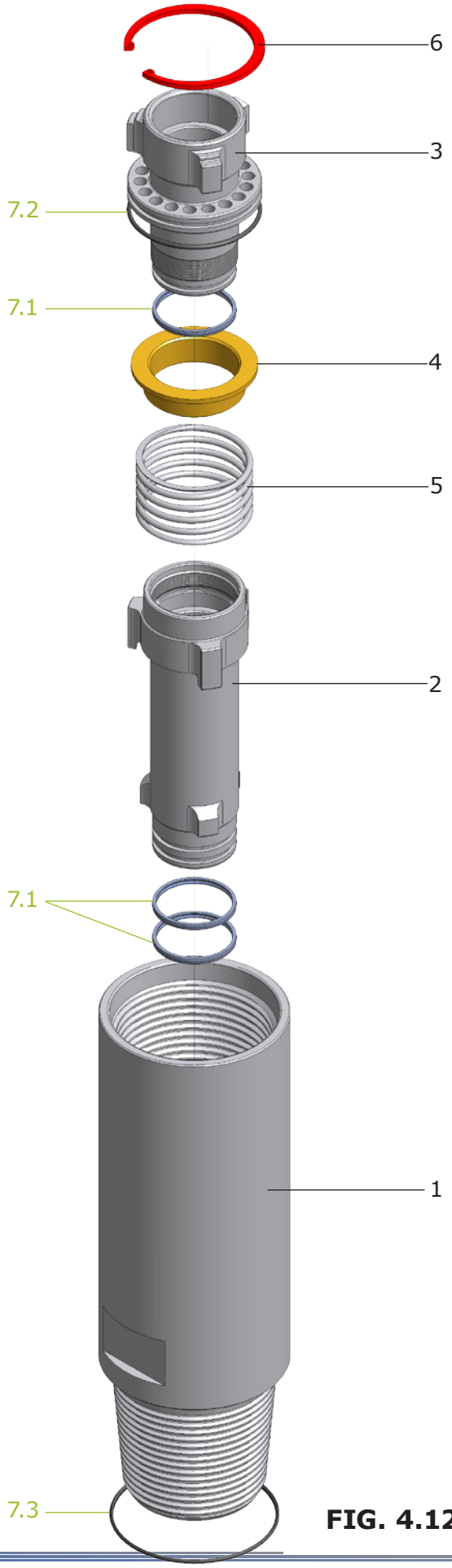
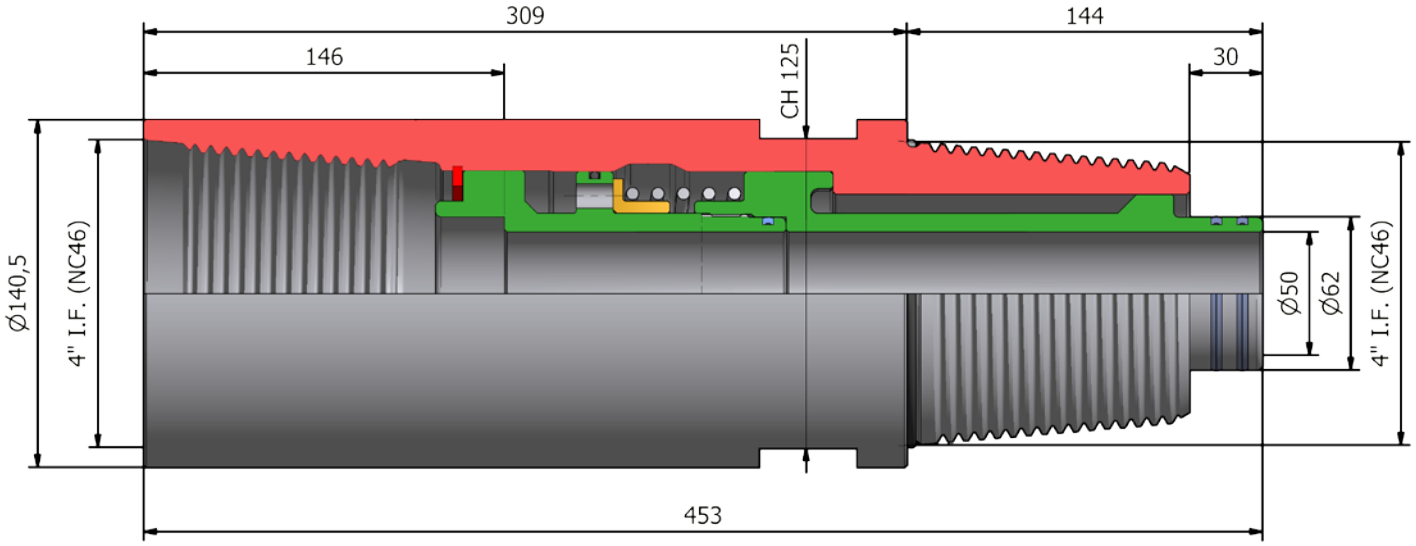


FIG. 4.12

J-14C20702: D.140 C2 NOZZLES HOLDER ADAPTER WITH VALVE (REF. FIG. 4.12)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1599-6-1	C. EST. MONITOR ADAPT. D.140 C2	D.140 C2 ADAPT. EXTERNAL BODY	1	
2	D-1599-6-2	C. INT. MONITOR ADAPT. D.140 C2	D.140 C2 ADAPT. INNER BODY	1	
3	D-1599-6-3	PORTAVALV. MONIT. ADAPT. D.140 C2	D.140 C2 ADAPT. VALVE HOUSING	1	
4	D-1599-6-4	VALVOLA MONITOR ADAPT. D.140 C2	D.140 C2 ADAPT. VALVE	1	
5	D-1599-6-5	MOLLA MONITOR ADAPT. D.140 C2	D.140 C2 ADAPT. SPRING	1	
6	7438D100S4	ANELLO EL. SERIE PESANTE D.100	HD ELASTIC RING HOLE D.100	1	
7	J-14C20703	KIT GUARN. MONITOR AD. D.140 C2	D.140 C2 ADAPTER SEALS KIT	1	
7.1	*D-1354-A*	*GUARN. (T- ECOPUR) K35P 55.8x62x4.5*	*(T- ECOPUR) K35P 55.8x62x4.5 SEAL*	*3*	*(1)*
7.2	*MR-OR239*	*O-RING*	*O-RING*	*1*	*(1)*
7.3	*MR-OR247*	*O-RING (VITON)*	*O-RING (VITON)*	*1*	*(1)*

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



4.13 D.114 T3/C3 NOZZLES HOLDER J-W114K340

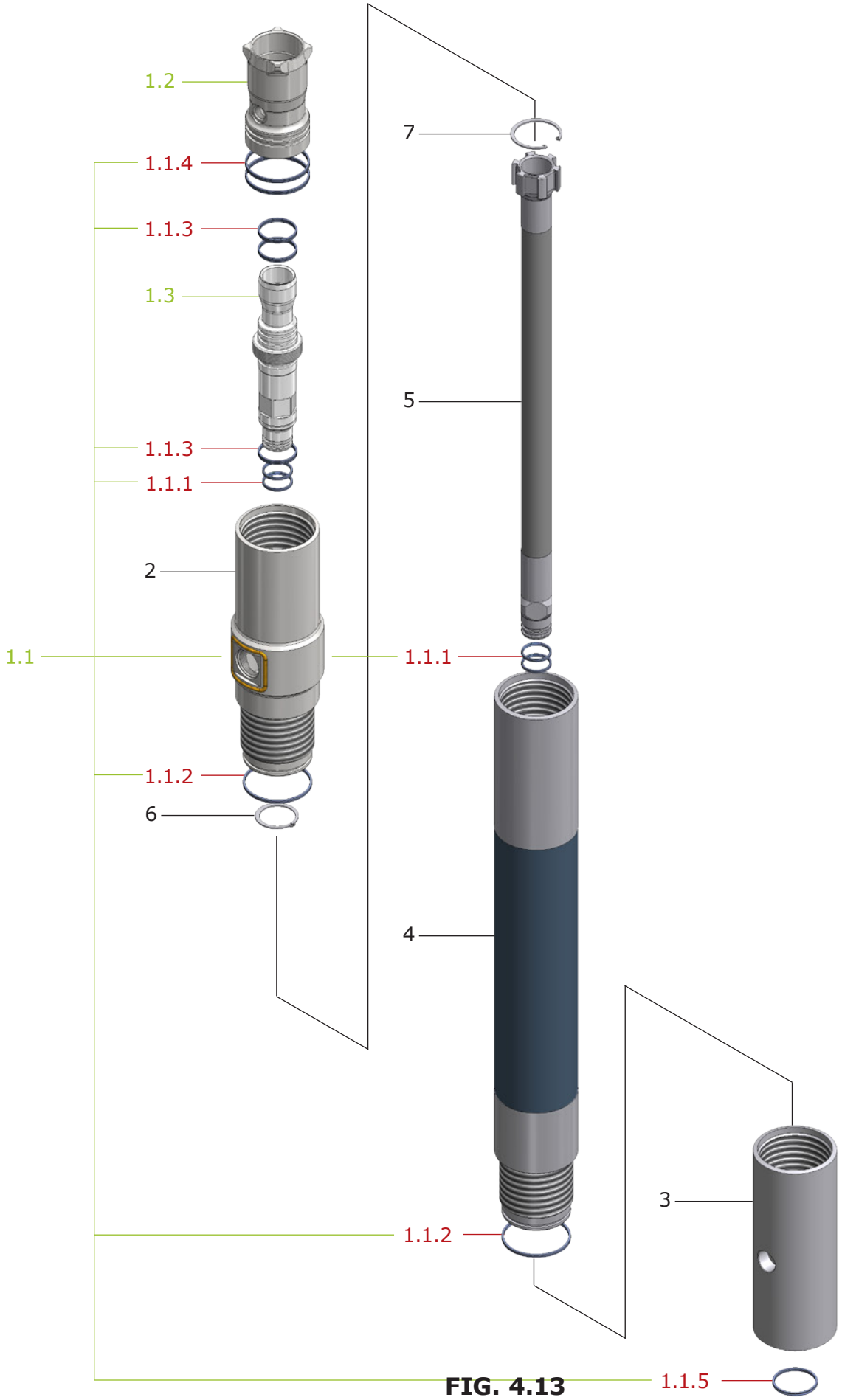
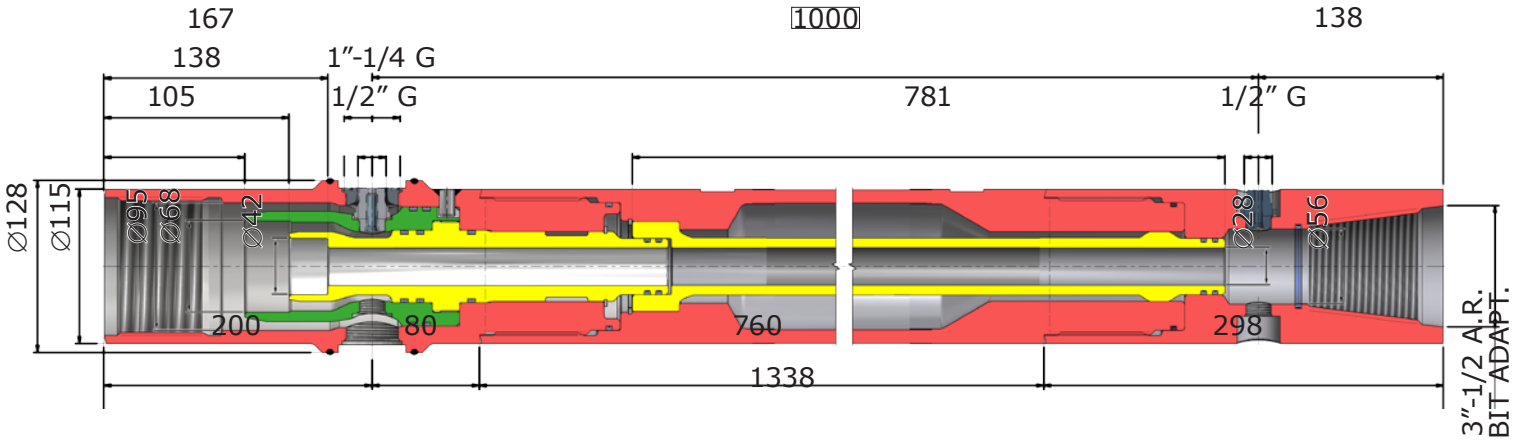


FIG. 4.13

J-W114K340 D.114 T3 NOZZLES HOLDER (REF. FIG. 4.13)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-W114K341	KIT RICAMBI MONITOR D.114 T3	NOZZLES H. SPARE PARTS KIT	1	
1.1	*J-W114K342*	*KIT GUARNIZIONI MONITOR D.114 T3*	*NOZZLES HOLDER SEALS KIT*	*1*	
1.1.1	*D-1731-20-C*	*K35-P 35.8x42 L=4.5 T-ECOPUR*	*K35-P 35.8x42 L=4.5 T-ECOPUR*	*4*	*(1)*
1.1.2	*D-1439-B*	*K35P 88.8x95 L=4.5 T-ECOPUR*	*K35P 88.8x95 L=4.5 T-ECOPUR*	*2*	*(1)*
1.1.3	*D-1171-B*	*R15-P 47.8x54 L=5.9 H-ECOPUR*	*R15-P 47.8x54 L=5.9 H-ECOPUR*	*3*	*(1)*
1.1.4	*D-1171-A*	*R15-P 82.8x89 L=5.9 H-ECOPUR*	*R15-P 82.8x89 L=5.9 H-ECOPUR*	*2*	*(1)*
1.1.5	*D-1439-C*	*S35-P 56x62.2 L=4.5 H-ECOPUR*	*S35-P 56x62.2 L=4.5 H-ECOPUR*	*1*	*(1)*
1.2	*D-1731-10-1*	*CORPO INTERMEDIO ARIA-ACQUA*	*MIDDLE AIR-WATER BODY*	*1*	
1.3	*D-1731-10-3*	*CORPO INTERNO ARIA-ACQUA*	*INNER AIR-WATER BODY*	*1*	
2	D-1731-10-2	CORPO ESTERNO ARIA-ACQUA	EXTERNAL AIR-WATER BODY	1	
3	D-1731-10-4	MONITOR CEMENTO	GROUT NOZZLES HOLDER	1	
4	D-1731-10-6	ASTA ESTERNA MONITOR HP T3	EXTERNAL ROD	1	
5	D-1731-1/M	ASTA INTERNA MONITOR HP T3	INNER ROD	1	
6	7435D52S2	ANELLO ELASTICO PER ALBERI D.52	SHAFT LOCKING RING D.52	1	
7	SEEGJVD68S25	ANELLO SEEGER PER FORI D.68 TIPO JV	D.68 LOCKING RING JV TYPE	1	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



4.14 D.127 K3 NOZZLES HOLDER: J-12K34000

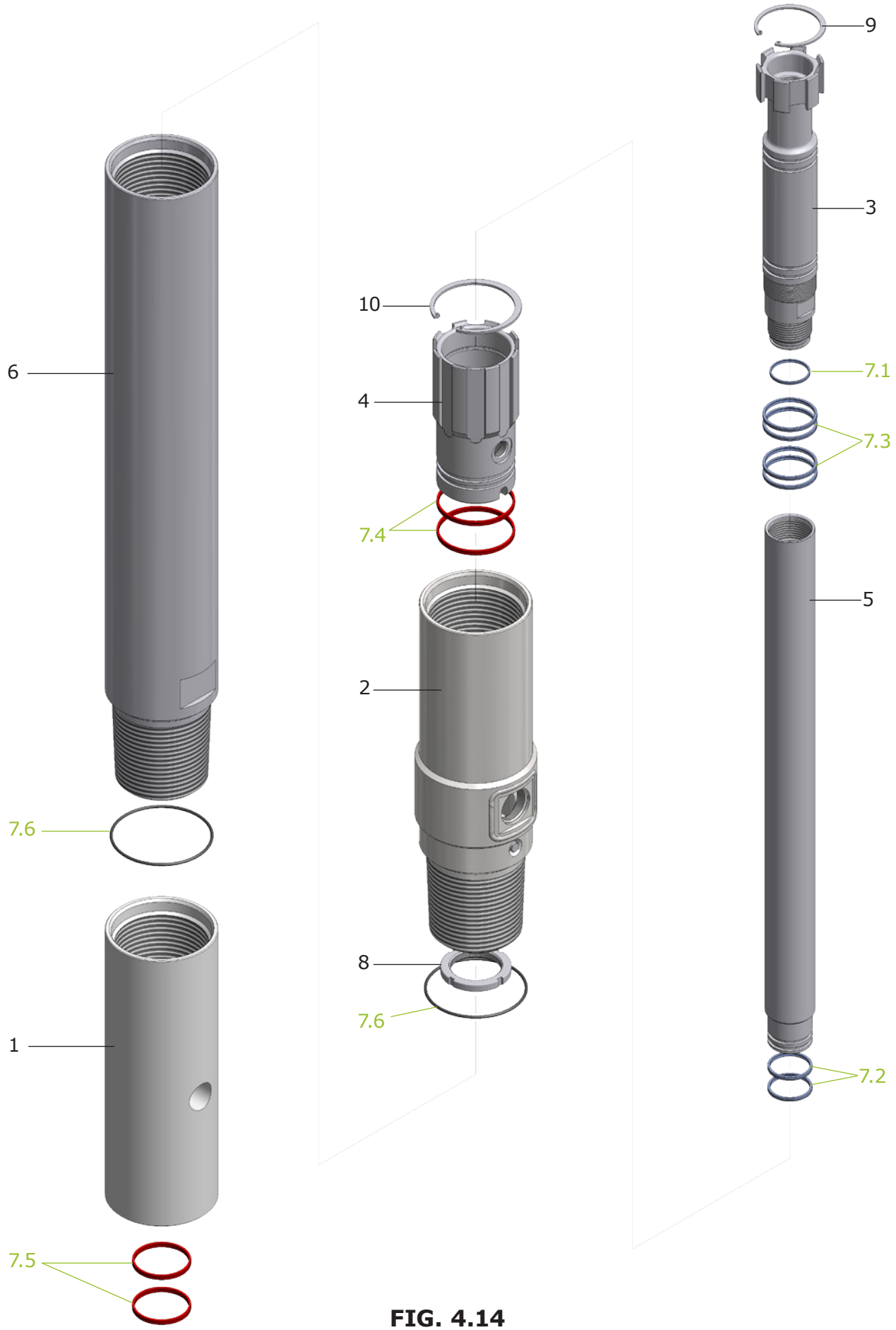
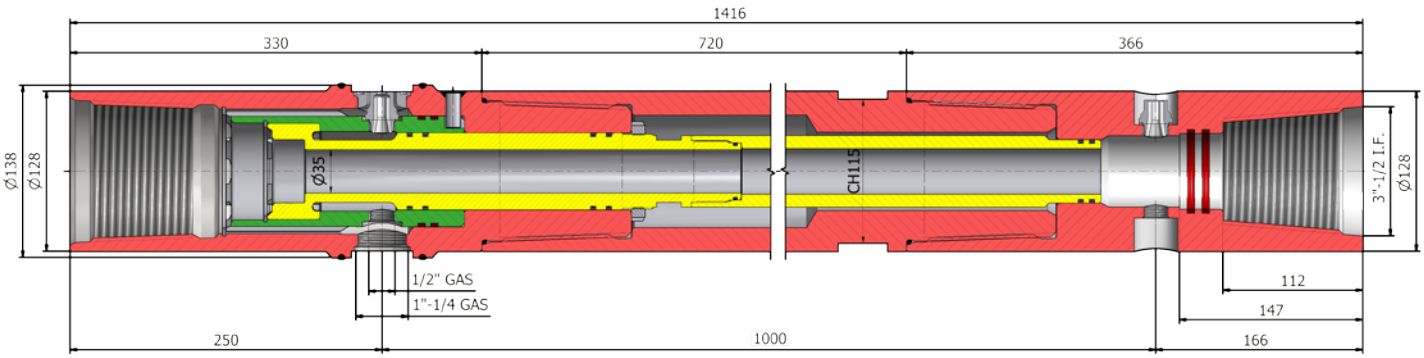


FIG. 4.14

J-12K34000: D.127 K3 NOZZLES HOLDER (REF. FIG. 4.14)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1354-600-1	MONITOR CEMENTO	GROUT NOZZLES HOLDER	1	
2	D-1354-600-2	CORPO ESTERNO ARIA/ACQUA	AIR/WATER EXTERNAL BODY	1	
3	D-1354-600-3	MANIC. FEM. INTERNO ARIA/ACQUA	INNER FEMALE AIR/WATER BODY	1	
4	D-1354-600-4	MANIC. FEM. INTERM. ARIA/ACQUA	MIDDLE FEMALE AIR/WATER BODY	1	
5	D-1354-600-5	ASTA INTERNA	INNER ROD	1	
6	D-1354-600-6	ASTA COLLEGAMENTO	CONNECTING ROD	1	
7	J-12K34001	KIT GUARNIZIONI MONITOR D.127 K3	D.127 K3 NOZ. HOLDER SEALS KIT	1	
7.1	*D-1354-F*	*K35-P 41.5X46 L=3.5 T-ECOPUR*	*K35-P 41.5X46 L=3.5 T-ECOPUR*	*1*	*(1)*
7.2	*D-1439-A*	*K35-P 44.8X51 L=4.5 T-ECOPUR*	*K35-P 44.8X51 L=4.5 T-ECOPUR*	*2*	*(1)*
7.3	*D-1354-A*	*K35-P 55.8X62 L=4.5 T-ECOPUR*	*K35-P 55.8X62 L=4.5 T-ECOPUR*	*4*	*(1)*
7.4	*D-1171-A*	*R15-P 82.8X89 L=5.9 H-ECOPUR TPU*	*R15-P 82.8X89 L=5.9 H-ECOPUR TPU*	*2*	*(1)*
7.5	*D-0604-12*	*R15-P 60.8X67 L=5.9 H-ECOPUR TPU*	*R15-P 60.8X67 L=5.9 H-ECOPUR TPU*	*2*	*(1)*
7.6	*MR-OR244*	*O-RING 244 RIF POLYPAC*	*O-RING 244 REF POLYPAC*	*2*	*(1)*
8	MR-DIN981-KM12	GHIERA M60x2 AUTOBLOCCANTE	M60x2 LOCKNUT	1	
9	7437D78S25	ANELLO ELAST. FORI D.78 UNI 7437	D.78 UNI 7437 LOCKING RING	1	
10	7437D100S3	ANELLO ELAST. FORI D.100 UNI 7437	D.100 UNI 7437 LOCKING RING	1	

(1) NON VENDIBILI SEPARATAMENTE - NOT AVAILABLE SEPARATELY



4.15 D.127 BIT ADAPTER: J-12C20752

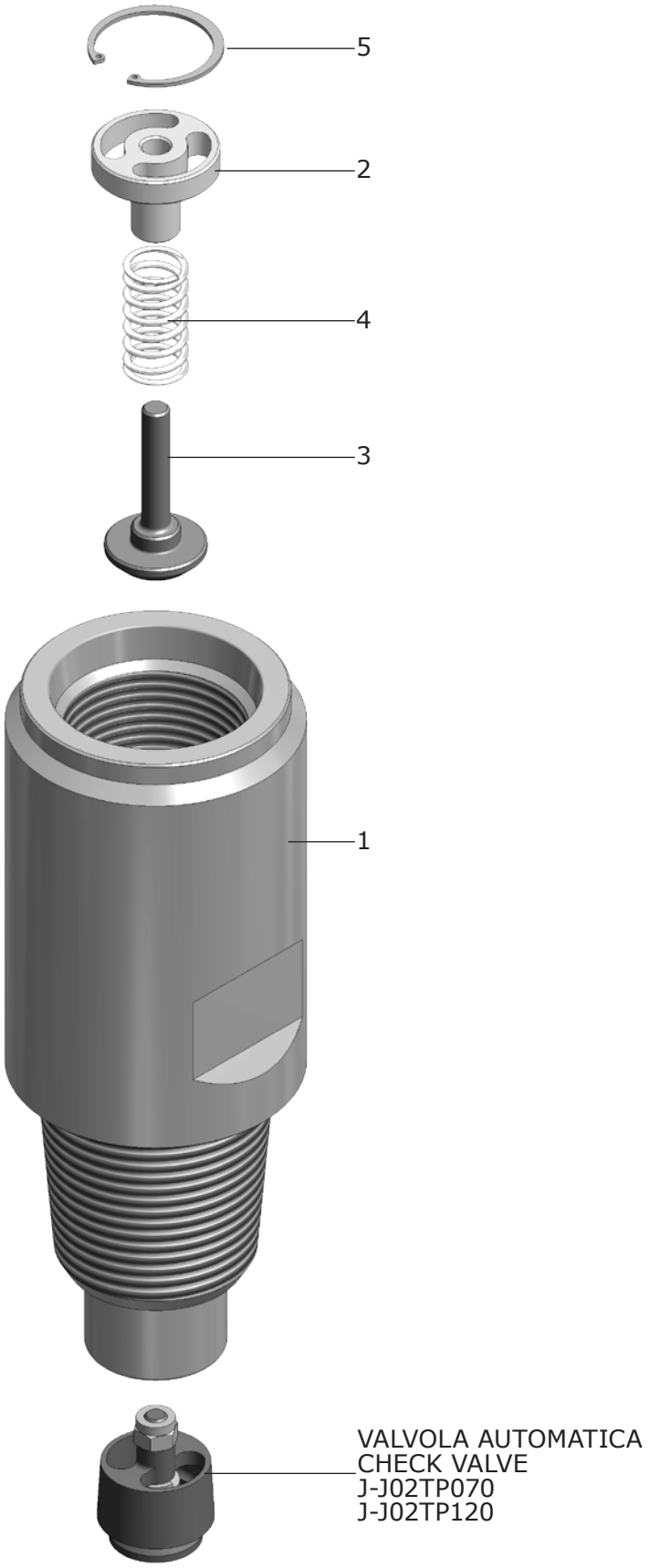


FIG. 4.15

J-12C20752: D.127 BIT ADAPTER (REF. FIG. 4.15)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1354-101-1	CORPO PORTASCALP. 127 3”-1/2 A.R.	127 BIT ADAPTER BODY 3”-1/2 A.R.	1	
2	D-1599-7-2	SUPPORTO VALVOLA NO RIT. 127/140	127/140 NO-RET. VALVE HOUSING	1	
3	D-1599-7-3	FUNGO VALVOLA NO-RIT. 127/140	127/140 NO-RETURN VALVE BODY	1	
4	C1100-125-2250S	MOLLA INOX Do 27.94 d. 3.18 Lo 57.15	STAINLESS STEEL SPRING	1	
5	7437D55S2	ANELLO ELASTICO PER FORI D.55	RETAINING RING D.55 HOLE	1	

4.16 D.114 C2 NOZZLES HOLDER PLUS TYPE: J-1C212483-P

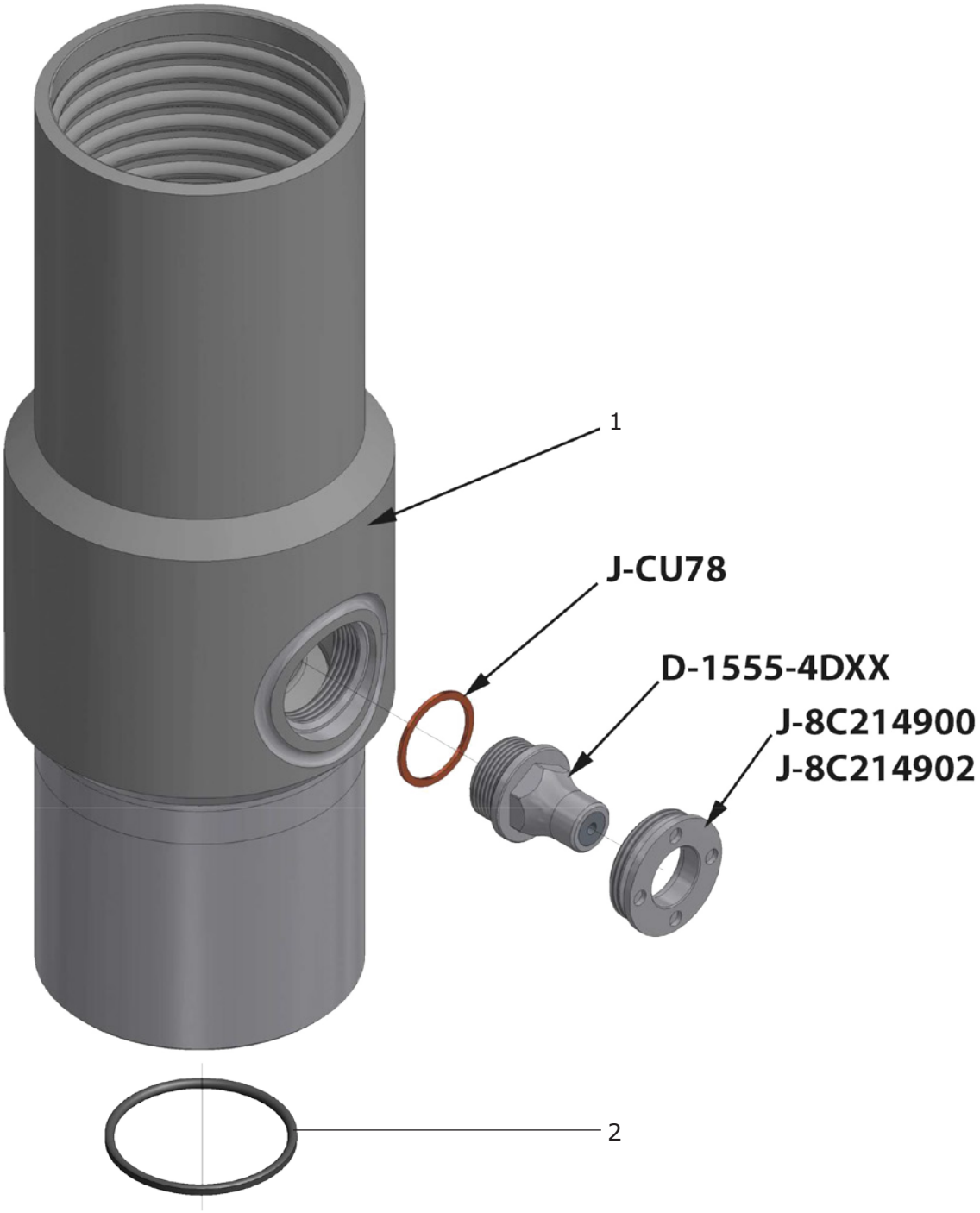
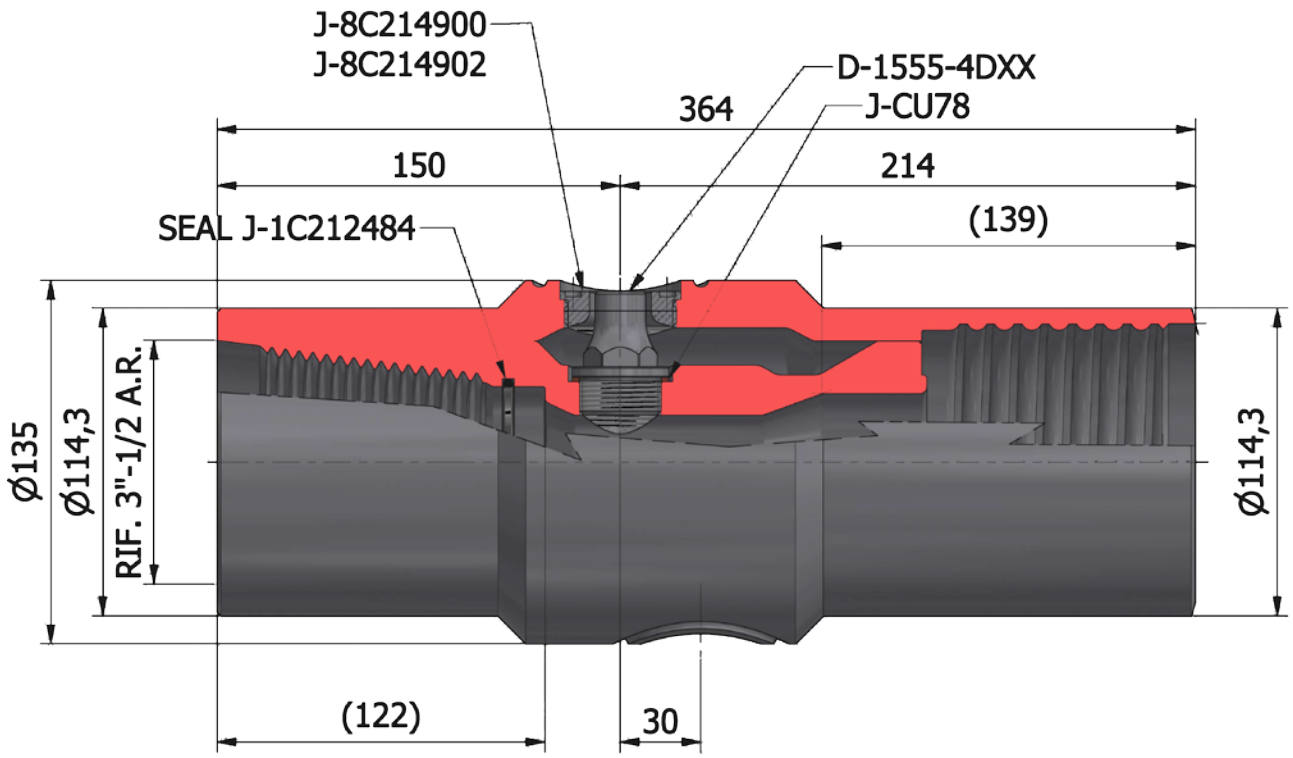


FIG. 4.16

J-1C212483-P (REF. FIG. 4.16)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	J-1C212483-P	MONITOR D.114 C2 PLUS	D.114 C2 NOZZLE HOLDER PLUS	1	
2	J-1C212484	GUARNIZIONE MONITOR D.114 C2	D.114 C2 NOZZLE HOLDER SEAL	1	



4.17 S.T.R.A.JET STEP IV NOZZLES HOLDER: J-1C212470-4

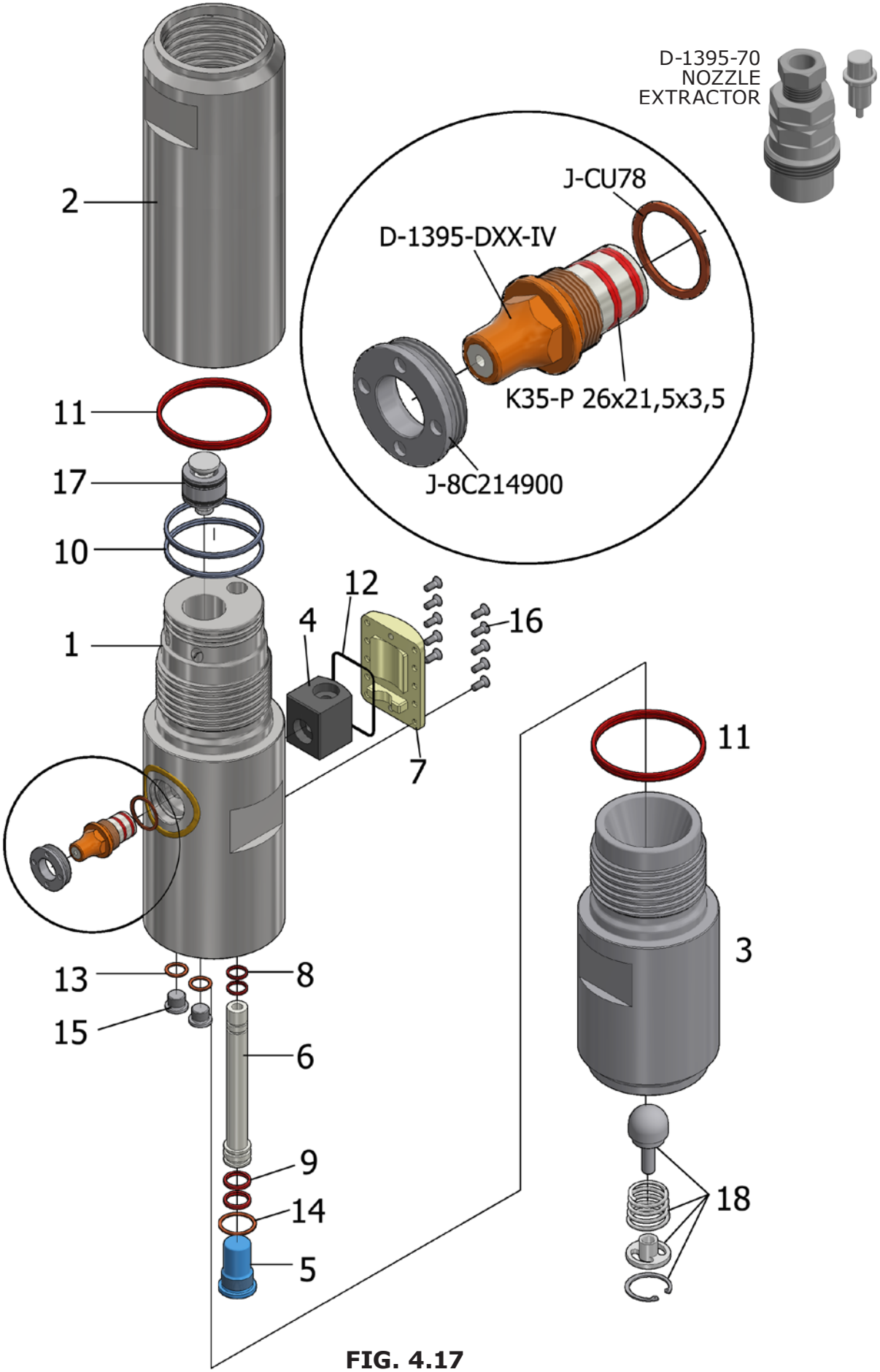
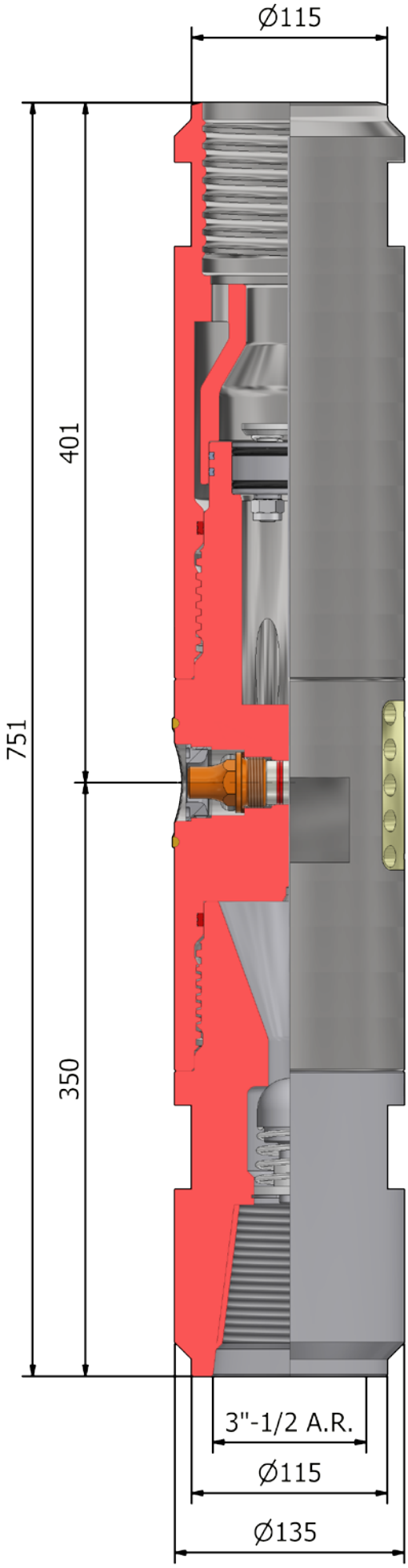


FIG. 4.17

J-1C212470-4: STRAJET STEP IV NOZZLES HOLDER (REF. FIG. 4.17)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	1395-1F	CORPO MONITOR S.T.R.A.JET STEP 4	S.T.R.A.JET STEP 4 NOZZLES HOLDER BODY	1	
2	1395-2F	CORPO SUPERIORE MONITOR S.T.R.A.JET STEP 4	S.T.R.A.JET STEP 4 NOZZLES HOLDER UPPER BODY	1	
3	1395-3D	RACCORDO INFERIORE	LOWER ADAPTER	1	
4	1395-12WA	RACCORDO IN CARBURO DI TUNGSTENO	TUNGSTEN CARBIDE ELBOW DUCT BODY	1	
5	1395-15W	TAPPO DI FERMO RACCORDO	STOP PLUG	1	
6	1395-22	CONDOTTO IN CARBURO DI TUNGSTENO	TUNGSTEN CARBIDE DUCT	1	
7	1395-23	SPORTELLO	COVER	1	
8	K35-P 20x16.9x2.5	GUARNIZIONE POLIURETANO H-ECOPUR	POLYURETHANE H-ECOPUR SEAL	2	
9	K35-P 26x21.5x3.5	GUARNIZIONE POLIURETANO H-ECOPUR	POLYURETHANE H-ECOPUR SEAL	4	
10	K35-P 88.8x95x4.5 (D-1439-B)	GUARNIZIONE POLIURETANO T-ECOPUR	POLYURETHANE T-ECOPUR SEAL	2	
11	R15-P 101x109x7.7	GUARNIZIONE POLIURETANO H-ECOPUR	POLYURETHANE H-ECOPUR SEAL	2	
12	CORDA O-RING s=1.78 L=249	GUARNIZIONE SPORTELLO	COVER SEAL	1	
13	J-CU38	GUARNIZIONE RAME 3/8” GAS	3/8” COPPER SEAL	2	
14	J-CU78	GUARNIZIONE RAME 7/8” GAS	7/8” COPPER SEAL	2	
15	DIN 908 - G 0,375 A	TAPPO HEX INCASSATO 3/8” GAS	3/8” PLUG	2	
16	UNI 5933 - M6 x 16	VITE TPSEI CL. 10.9 ZINC.	COUNTERSUNK SCREW CL. 10.9	10	
17	J-J01TPC70	VALVOLA AUTOMATICA TIPO CILINDRICO 70 BAR (D.114 JET)	CYLINDRICAL AUTOMATIC VALVE 70 BAR (D.114 JET)	1	
18	J-JOVNR112	VALVOLA NON RITORNO COMPLETA	COMPLETE NO RETURN VALVE	1	


Ø115
401
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4.18 S.T.R.A.JET XL NOZZLE HOLDER: J-1C212470-XL

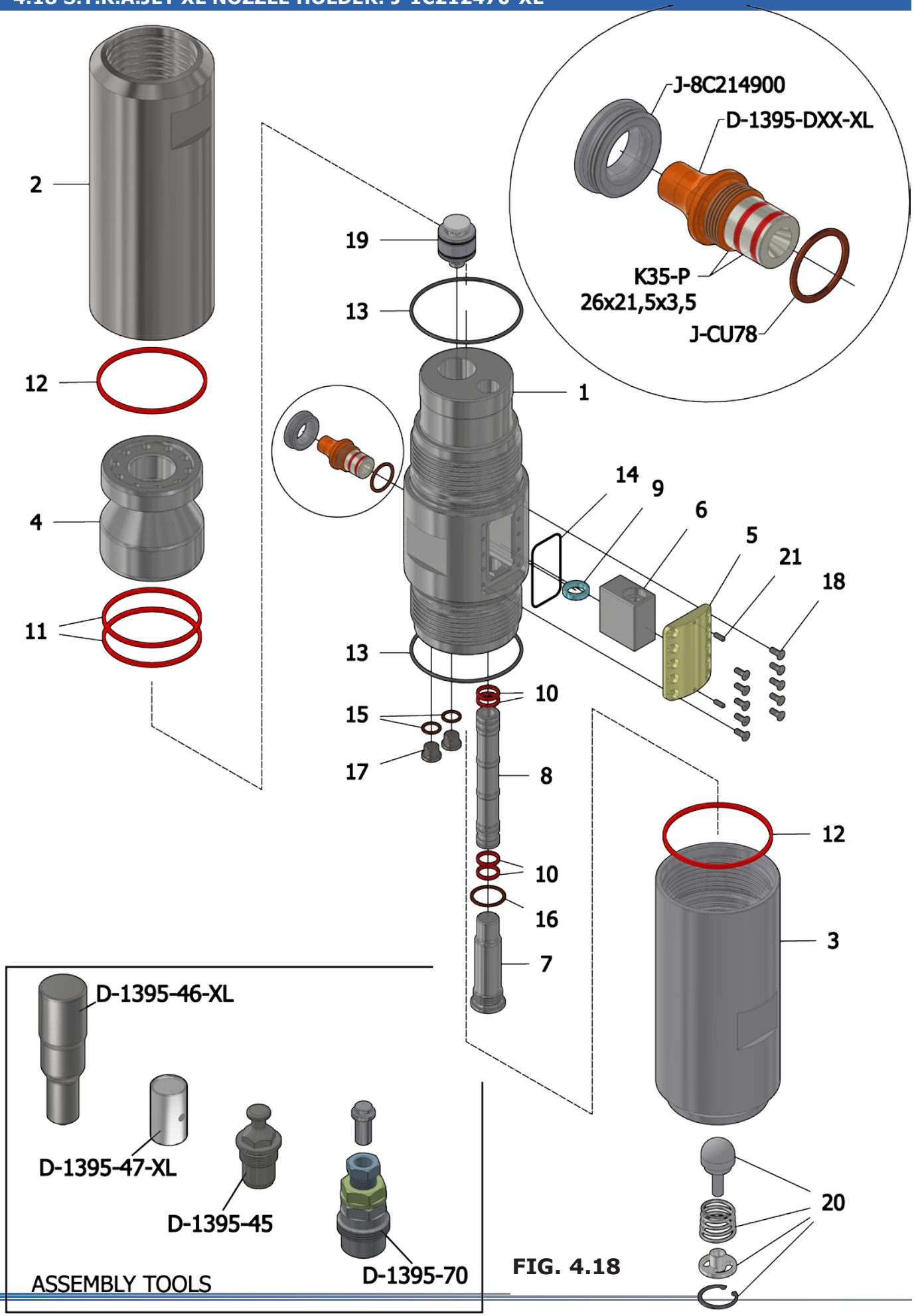
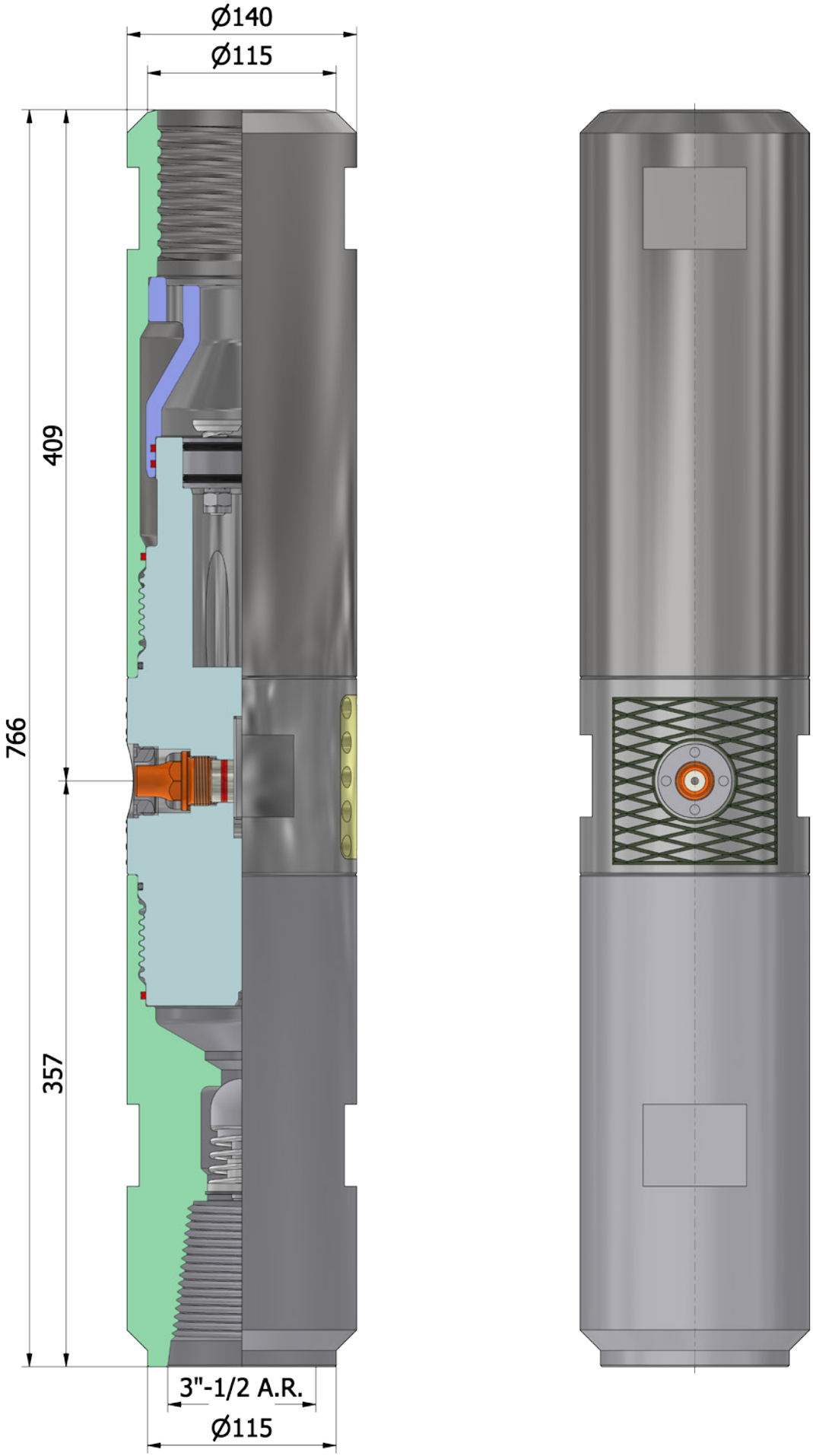


FIG. 4.18

J-1C212470-XL: STRAJET XL NOZZLE HOLDER (REF. FIG. 4.18)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	1395-100-1	CORPO MONITOR	NOZZLE HOLDER BODY	1	
2	1395-100-2	CORPO SUPERIORE	NOZZLE HOLDER UPPER BODY	1	
3	1395-100-3	RACCORDO INFERIORE	LOWER ADAPTER	1	
4	1395-100-4	BICCHIERE INTERNO	INNER ADAPTER	1	
5	1395-100-5	SPORTELLO STRAJET XL	STRAJET XL PORT	1	
6	1395-100-12	RACCORDO ID.15 (620U0208)	ID.15 DUCT (620U0208)	1	
7	1354-100-15	TAPPO DI FERMO RACCORDO ID.15	ID.15 STOP PLUG	1	
8	1395-100-22	CONDOTTO INTERNO ID.15 (620U0209)	ID.15 INNER DUCT (620U0209)	1	
9	1395-100-23	MEZZELUNE PER CONDOTTO INTERNO ID.15	ID.15 INNER DUCT HALF RINGS	1	
10	K35-P 26x21.5x3.5	GUARNIZIONE POLIURETANO 95 SHORE A	POLYURETHANE 95 SHORE A SEAL	4	
11	S35-P 105x111,2x4.5	GUARNIZIONE POLIURETANO 95 SHORE A	POLYURETHANE 95 SHORE A SEAL	2	
12	S35-P 117x123,2x4.5	GUARNIZIONE POLIURETANO 95 SHORE A	POLYURETHANE 95 SHORE A SEAL	2	
13	OR 248	O-RING	O-RING SEAL	2	
14	1395-100-24	GUARNIZIONE SPORTELLO [CORDA O-RING s=1.78 L=245 (OR040)]	PORT SEAL	1	
15	J-CU38	GUARNIZIONE RAME 3/8”	3/8” COPPER SEAL	2	
16	J-CU100	GUARNIZIONE RAME 1"	1” COPPER SEAL	1	
17	DIN 908 - G 0,375 A	TAPPO HEX INCASSATO 3/8” BSPP	3/8” BSPP PLUG	2	
18	UNI 5933 - M6 x 16	VITE TPSEI	COUNTERSUNK SCREW	10	
19	J-J01TPC70	VALVOLA AUTOMATICA TIPO CILINDRICO 70 BAR (D.114 JET)	CYLINDRICAL AUTOMATIC VALVE 70 BAR (D.114 JET)	1	
20	J-JOVNR112	VALVOLA NON RITORNO COMPLETA	COMPLETE NO RETURN VALVE	1	
21	UNI 5923 - M5 x 14	GRANO	SCREW	2	
-	D-1395-45	PERNO ALLINEAMENTO RACCORDO	CARBIDE DUCT ALIGNEMENT PLUG	-	
-	D-1395-46-XL	ATTREZZO ESTRAZ. INSERTO CARBURO	INNER DUCT EXTRACTOR	-	
-	D-1395-47-XL	ATTREZZO DI SPINTA INSERTO CARBURO	CARBIDE DUCT PUSHING TOOL	-	
-	D-1395-70	ESTRATTORE PER UGELLO	GROUT NOZZLE EXTRACTOR	-	


Ø140
Ø115
409
766
357
3"-1/2 A.R.
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4.19 S.T.R.A.JET BF NOZZLE HOLDER: J-1C212472-IV

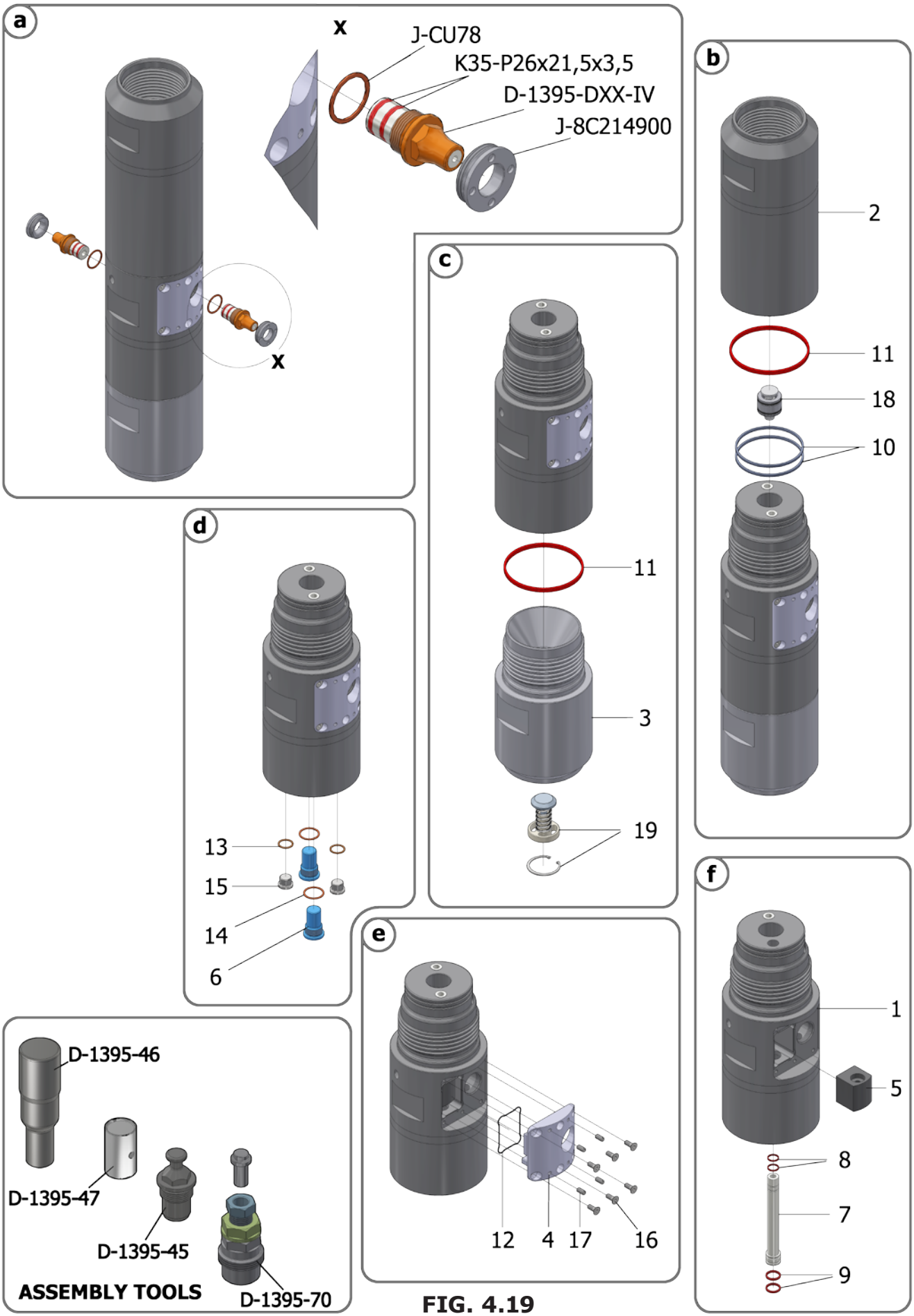
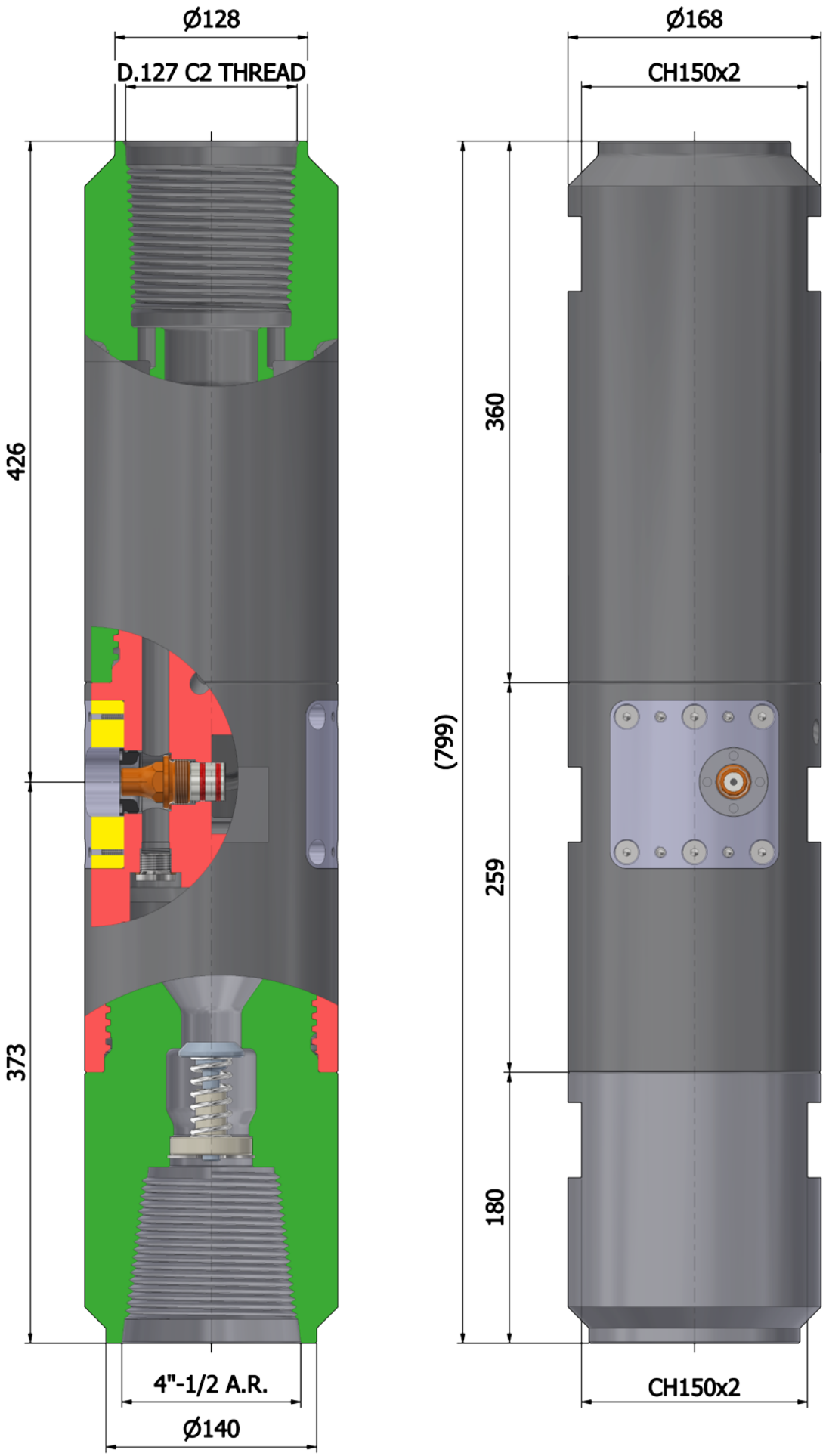


FIG. 4.19

J-1C212472-IV: STRAJET NOZZLE HOLDER (DOUBLE NOZZLE) (REF. FIG. 4.19)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1395BF-1	CORPO MONITOR BIFLUIDO	STRAJET DOUBLE NOZZLE BODY	1	
2	D-1395BF-2	CORPO SUPERIORE	UPPER BODY	1	
3	D-1395BF-3	RACCORDO INFERIORE	LOWER ADAPTER	1	
4	D-1395BF-4	SPORTELLO MONITOR STRAJET BIFLUIDO	STRAJET DOUBLE NOZZLE PORT	2	
5	D-1395-12WA	RACC. MONOLITICO CARB. TUNGSTENO	TUNGSTEN CARBIDE DUCT	2	
6	D-1395-15W	TAPPO DI FERMO RACCORDO	STOP PLUG	2	
7	D-1395-22-DZ	CONDOTTO INTERNO STRAJET DZ	DZ STRAJET INNER DUCT	2	
8	K35-P 16.9x20L2.5	GUARNIZIONE POLIURETANO 95 SHORE A	95 SHORE A POLYURETHANE SEAL	4	
9	K35-P 21.5x26L3.5	GUARNIZIONE POLIURETANO 95 SHORE A	95 SHORE A POLYURETHANE SEAL	8	
10	K35-P 111,8x118L4.5 (D-1731-20-A)	GUARNIZIONE POLIURETANO 95 SHORE A	95 SHORE A POLYURETHANE SEAL	2	
11	R15-P 130x138L7.7	GUARNIZIONE POLIURETANO 95 SHORE A	95 SHORE A POLYURETHANE SEAL	2	
12	OR 041 (D-1395BF-4-OR)	O-RING PER SPORTELLO	O-RING PORT SEAL	2	
13	J-CU12	GUARNIZIONE RAME 1/2"	1/2” COPPER SEAL	2	
14	J-CU78	GUARN. RAME De=36 Di=30.5 SP. 1.5	7/8” COPPER SEAL	4	
15	J-J33TB012	TAPPO M. 1/2" GAS EX INC	1/2” BSPP PLUG	2	
16	5933M8x20P125ZB	VITE TPSEI UNI 5933 - M8 x 20	COUNTERSUNK SCREW UNI 5933 M8x20	12	
17	5923M8x16P125H45GR	VSTCE PP 8x16 P=1.25 UNI 5923 H45 GR	UNI 5923 M8x16 SCREW	8	
18	J-J0NTPC70	VALVOLA AUTOM. TIPO CILINDRICO 70 BAR	CYLINDRICAL AUTOMATIC VALVE 70 BAR	1	
19	J-JOVNR140	VALVOLA NON RITORNO 127/140 C2	127/140 C2 NO-RETURN VALVE	1	
-	D-1395-45	PERNO ALLINEAMENTO RACCORDO	CARBIDE DUCT ALIGNEMENT PLUG	-	
-	D-1395-46	ATTREZZO ESTRAZ. INSERTO CARBURO	INNER DUCT EXTRACTOR	-	
-	D-1395-47	ATTREZZO DI SPINTA INSERTO CARBURO	CARBIDE DUCT PUSHING TOOL	-	
-	D-1395-70	ESTRATTORE PER UGELLO	GROUT NOZZLE EXTRACTOR	-	


Ø128
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426
373
4"-1/2 A.R.
Ø140
Ø168
CH150x2
360
(799)
259
180
CH150x2

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4.20 C2H HEX 80 (2x150° + 2x90°) NOZZLES HOLDER: J-EC2H4000

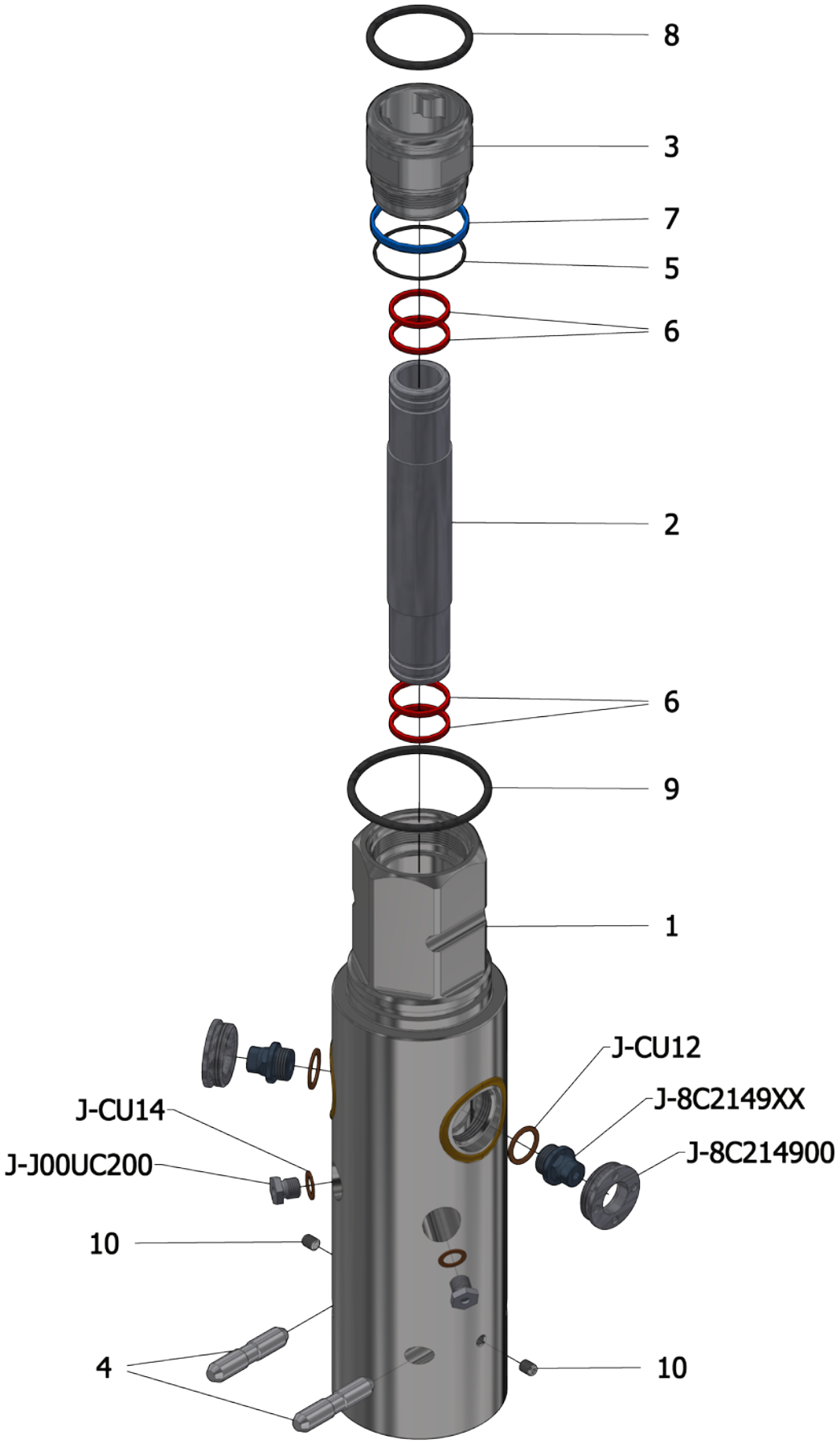
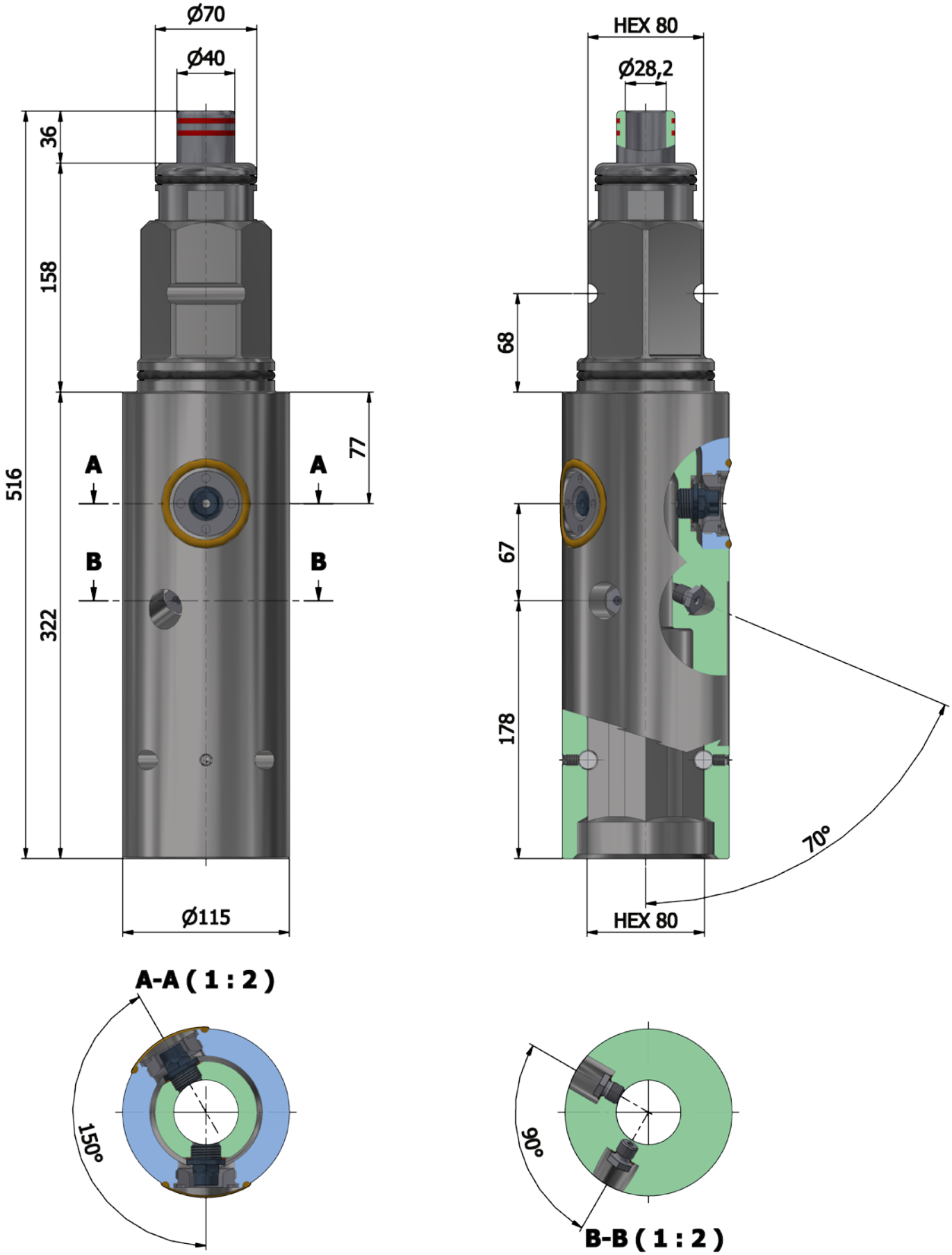


FIG. 4.20

J-EC2H4000: C2H HEX 80 (2x150° + 2x90°) NOZZLES HOLDER (REF. FIG. 4.20)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1531-11S2	CORPO MONITOR C2H HEX80	C2H HEX80 NOZZLES HOLDER BODY	1	
2	D-1531-11-3	TUBO INTERNO MONITOR C2H HEX80	C2H HEX80 N. H. INNER PIPE	1	
3	D-1531-1-3	MANICOTTINO ANTERIORE	FRONT JOINT	1	
4	D-1383-1-4	PERNO BLOCCO ASTE	LOCKING PIN	2	
5	MR-OR035FPM90	O-RING	O-RING SEAL	1	
6	OP 126	GUARNIZ. POLIURET. 93 SH.-A 40x35,5x3,5	POLIURETHANE SEAL 93 SH.-A 40x35,5x3,5	4	
7	OP 142-A	GUARNIZ. POLIURETANO 93 SH.-A 65x60,5x5	POLIURETHANE SEAL 93 SH.-A 65x60,5x5	1	
8	MR-OR332	O-RING	O-RING SEAL	1	
9	MR-OR340	O-RING	O-RING SEAL	1	
10	5923M8X10P125H45GR	GRANO PUNTA PIANA	SET SCREW FLAT TIP	2	


Ø70
Ø40
36
158
516
322
77
A
A
B
B
Ø115
HEX 80
Ø28,2
68
67
178
70°
HEX 80
A-A (1 : 2)
150°
90°
B-B (1 : 2)

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4.21 C2H HEX 80 BIT ADAPTER: J-EC2H5000

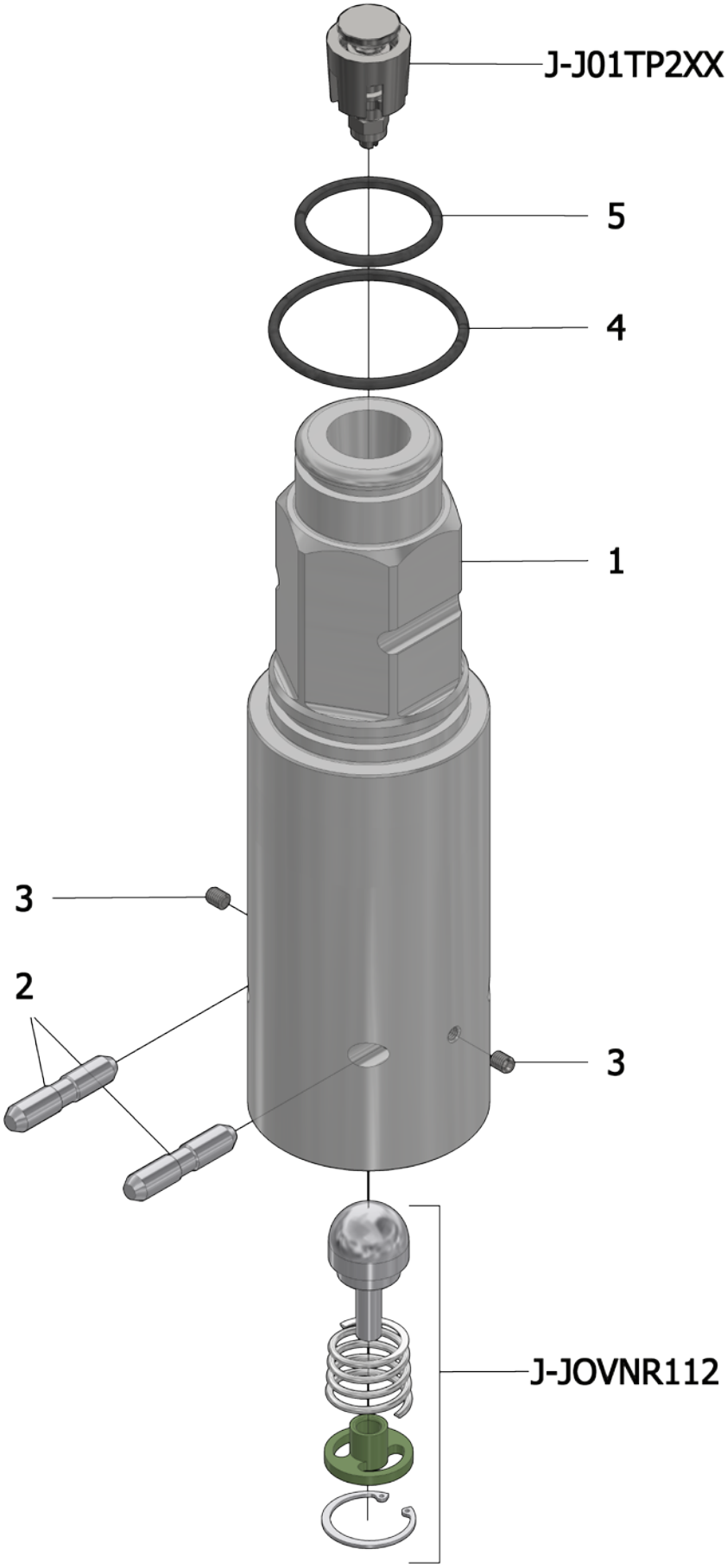
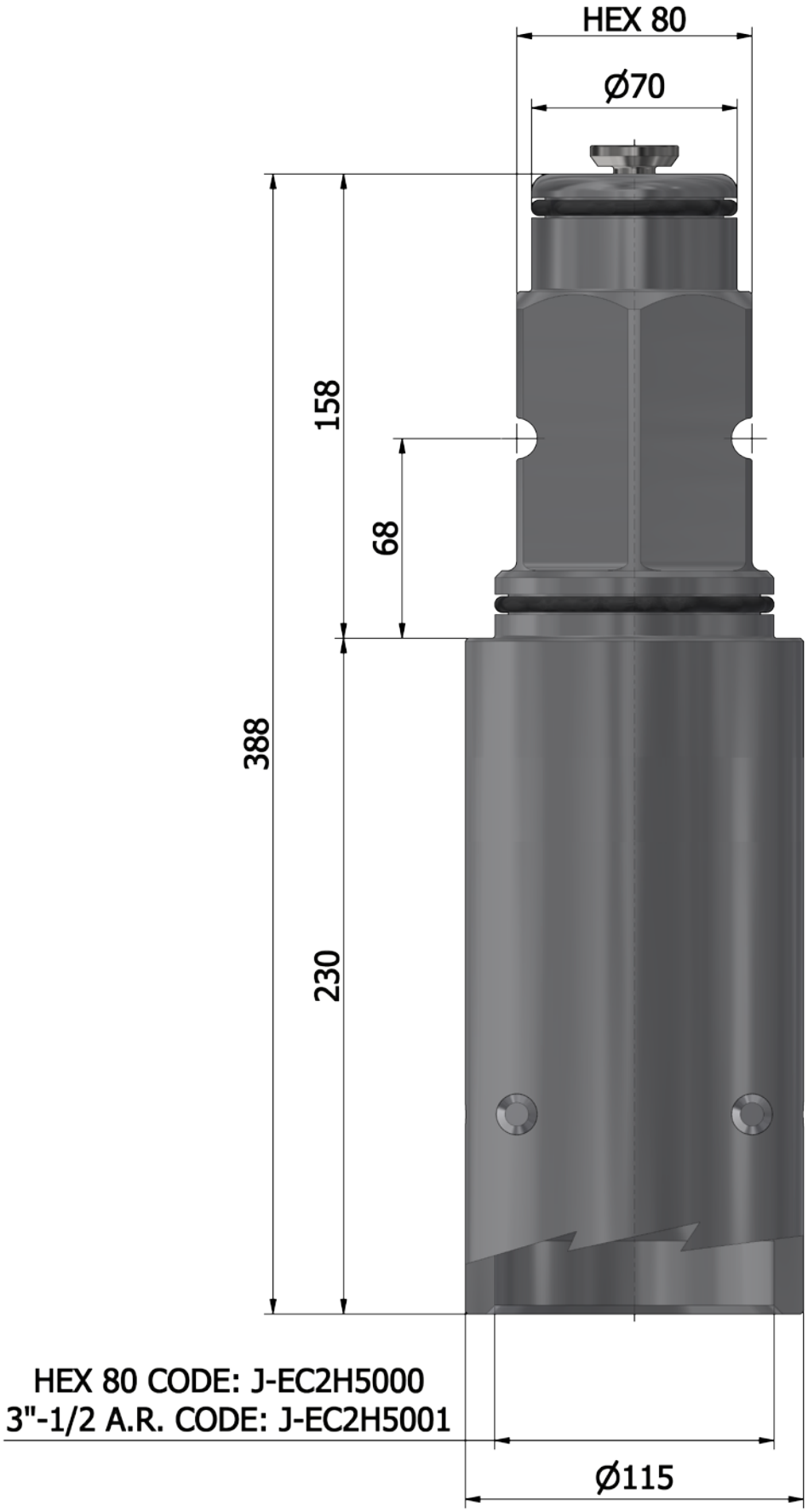


FIG. 4.21

J-EC2H5000 (J-EC2H5001): C2H HEX 80 BIT ADAPTER (REF. FIG. 4.21)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1531-13	CORPO PORTASCALPELLO C2H HEX80	C2H HEX80 BIT ADAPTER BODY	1	
1	D-1531-12	CORPO PORTASCALP. C2H HEX80 M/F 3”-1/2 A.R.	BIT ADAPTER BODY C2H HEX80 M/F 3”-1/2 A.R.	1	
2	D-1383-1-4	PERNO BLOCCO ASTE	LOCKING PIN	2	
3	5923M8X10P125H45GR	GRANO PUNTA PIANA	SET SCREW FLAT TIP	2	
4	MR-OR340	O-RING	O-RING SEAL	1	
5	MR-OR332	O-RING	O-RING SEAL	1	



HEX 80 CODE: J-EC2H5000
3"-1/2 A.R. CODE: J-EC2H5001

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4.22 S.T.R.A.JET XL NOZZLE HOLDER (DOUBLE NOZZLE)

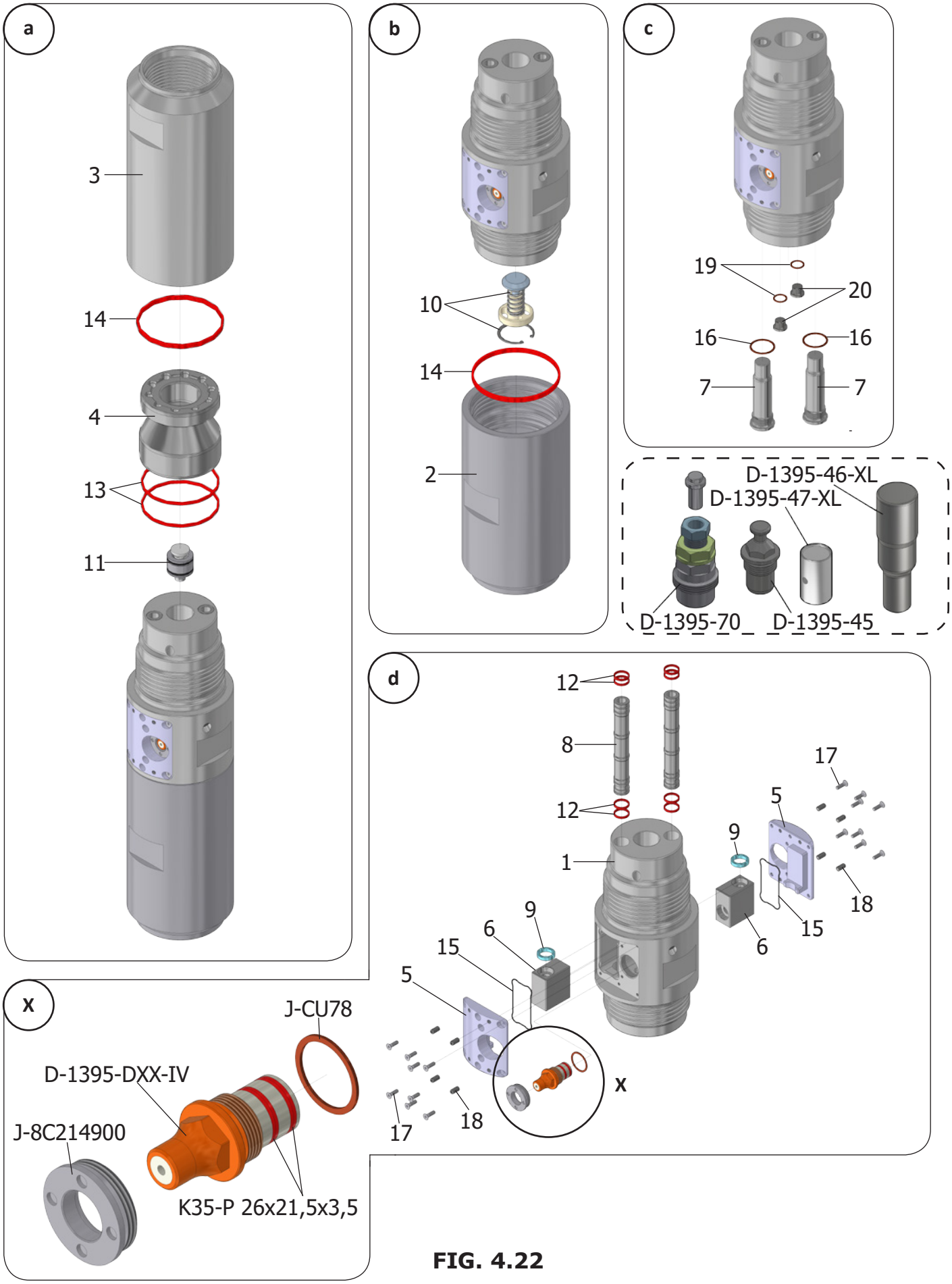
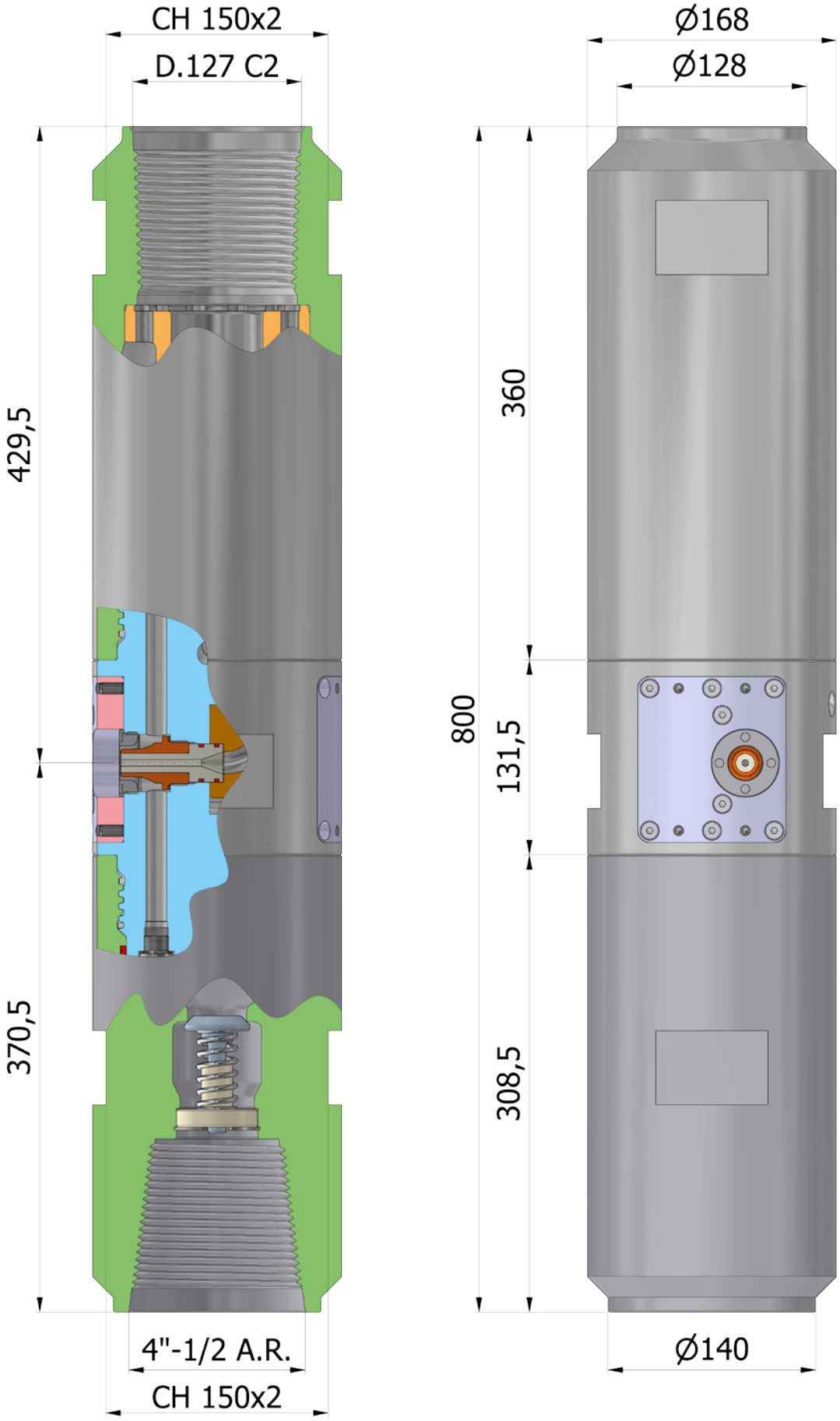


FIG. 4.22

J-1C212472-XL: STRAJET NOZZLE HOLDER XL (DOUBLE NOZZLE) (REF. FIG. 4.22)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1395DXL-1	CORPO MONITOR DOPPIO UGELLO XL	NOZZLE HOLDER XL BODY	1	
2	D-1395DXL-2	CORPO SUP. MONITOR DOPPIO UG. XL	NOZZLE HOLDER XL UPPER BODY	1	
3	D-1395DXL-3	RACC. INF. MONITOR DOPPIO UG. XL	NOZZLE H. XL LOWER ADAPTER	1	
4	D-1395DXL-4	BICCHIERE INTERNO XL	INNER COUPLING XL	1	
5	D-1395DXL-5	SPORTELLO MONITOR DOPPIO UG. XL	DOUBLE NOZZLE XL PORT	2	
6	D-1395-100-12	RACCORDO ID.15 STRAJET	ID.15 TUNGSTEN CARBIDE DUCT	2	
7	D-1395-100-15	TAPPO DI FERMO RACCORDO ID.15	ID.15 STOP PLUG	2	
8	D-1395-100-22	CONDOTTO INTERNO ID.15 STRAJET	STRAJET ID.15 INNER DUCT	2	
9	D-1395-100-23	MEZZELUNE FERMO COND. INT. ID.15	HALF RINGS ID.15 INNER DUCT	2	
10	J-JOVNR140	VALVOLA NON RITORNO 127/140 C2	127/140 C2 NO-RETURN VALVE	1	
11	J-J0NTPC70	VALVOLA AUTOM. TIPO CIL. 70 BAR	CYLINDRICAL AUTOMATIC VALVE 70 BAR	1	
12	K35-P21.50X26L3.5	GUARN. POLIURETANO 95 SHORE-A	95 SHORE A POLYURETHANE SEAL	8	
13	S35-P117X123.2X4.5	GUARN. POLIURETANO 95 SHORE-A	95 SHORE A POLYURETHANE SEAL	2	
14	R15-P130X138L7.7	GUARN. POLIURETANO 95 SHORE-A	95 SHORE A POLYURETHANE SEAL	2	
15	MR-OR041	O-RING	O-RING	2	
16	J-CU100	GUARNIZIONE RAME 1''	1” COPPER SEAL	2	
17	5933M6X20P1109ZB	VITE TPSEI M6X20 UNI 5933 10.9 ZB	M6x20 UNI5933 COUNTERSUNK SCREW	16	
18	5923M8X16P125H45GR	VSTCE PIANA M8X16 UNI5923 H45GR	M8x16 UNI5923 FLAT SET SCREW	8	
19	J-CU38	GUARNIZIONE RAME 3/8''	3/8” COPPER SEAL	2	
20	J-J13TP038	TAPPO M. 3/8 ESAGONO INCASSATO	3/8” MALE PLUG	2	
-	D-1395-45	PERNO ALLINEAMENTO RACCORDO	CARBIDE DUCT ALIGNEMENT PLUG	-	(*)
-	D-1395-46-XL	ATTREZZO ESTRAZ. INSERTO CARBURO	INNER DUCT EXTRACTOR	-	(*)
-	D-1395-47-XL	ATTREZZO DI SPINTA INSERTO CARBURO	CARBIDE DUCT PUSHING TOOL	-	(*)
-	D-1395-70	ESTRATTORE PER UGELLO	GROUT NOZZLE EXTRACTOR	-	(*)

(*) ASSEMBLY TOOLS


CH 150x2
D.127 C2
429,5
370,5
4"-1/2 A.R.
CH 150x2
Ø168
Ø128
360
800
131,5
308,5
Ø140

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4.23 D.90 S.T.R.A.JET XS SINGLE FLUID NOZZLE HOLDER

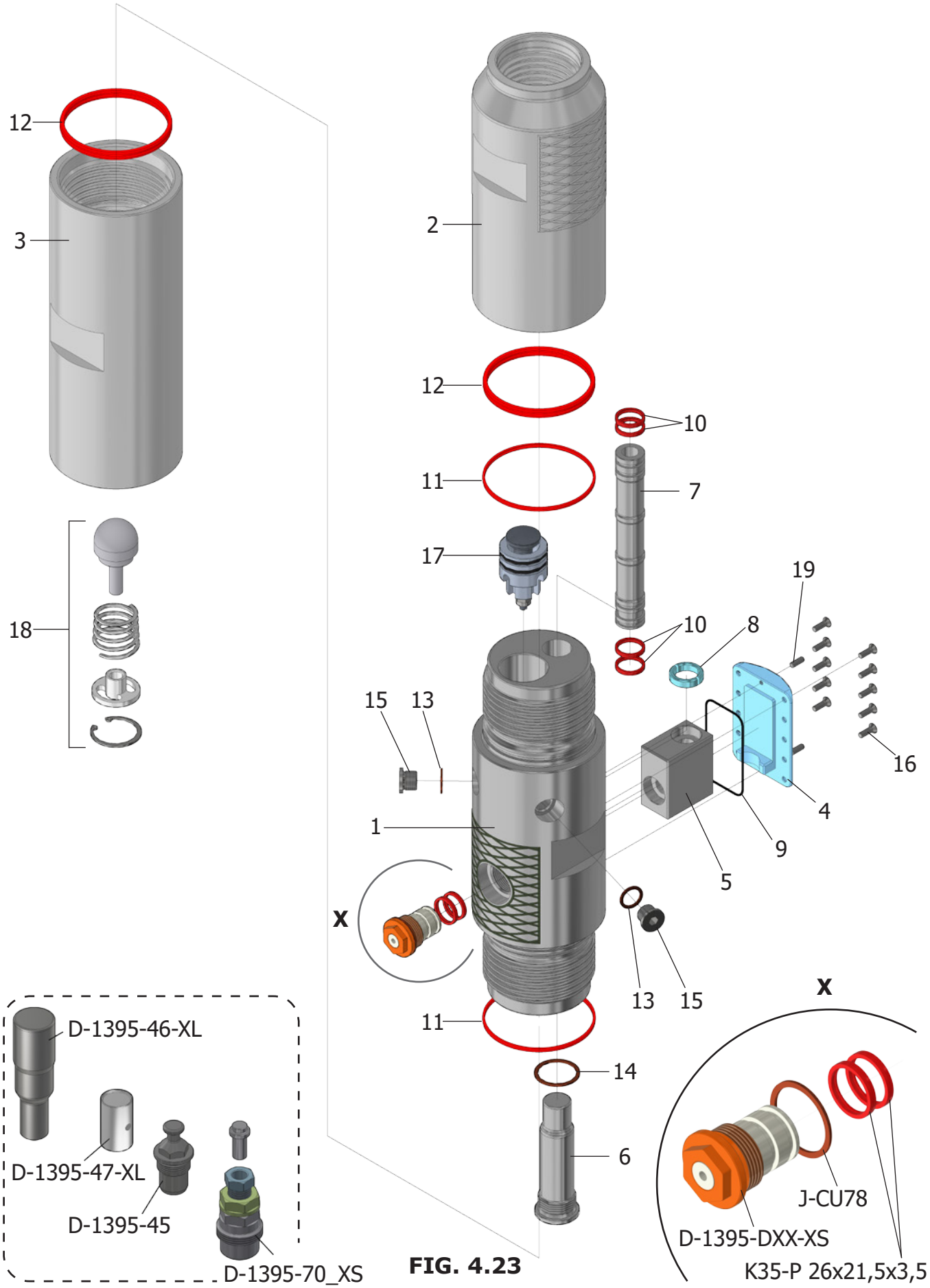
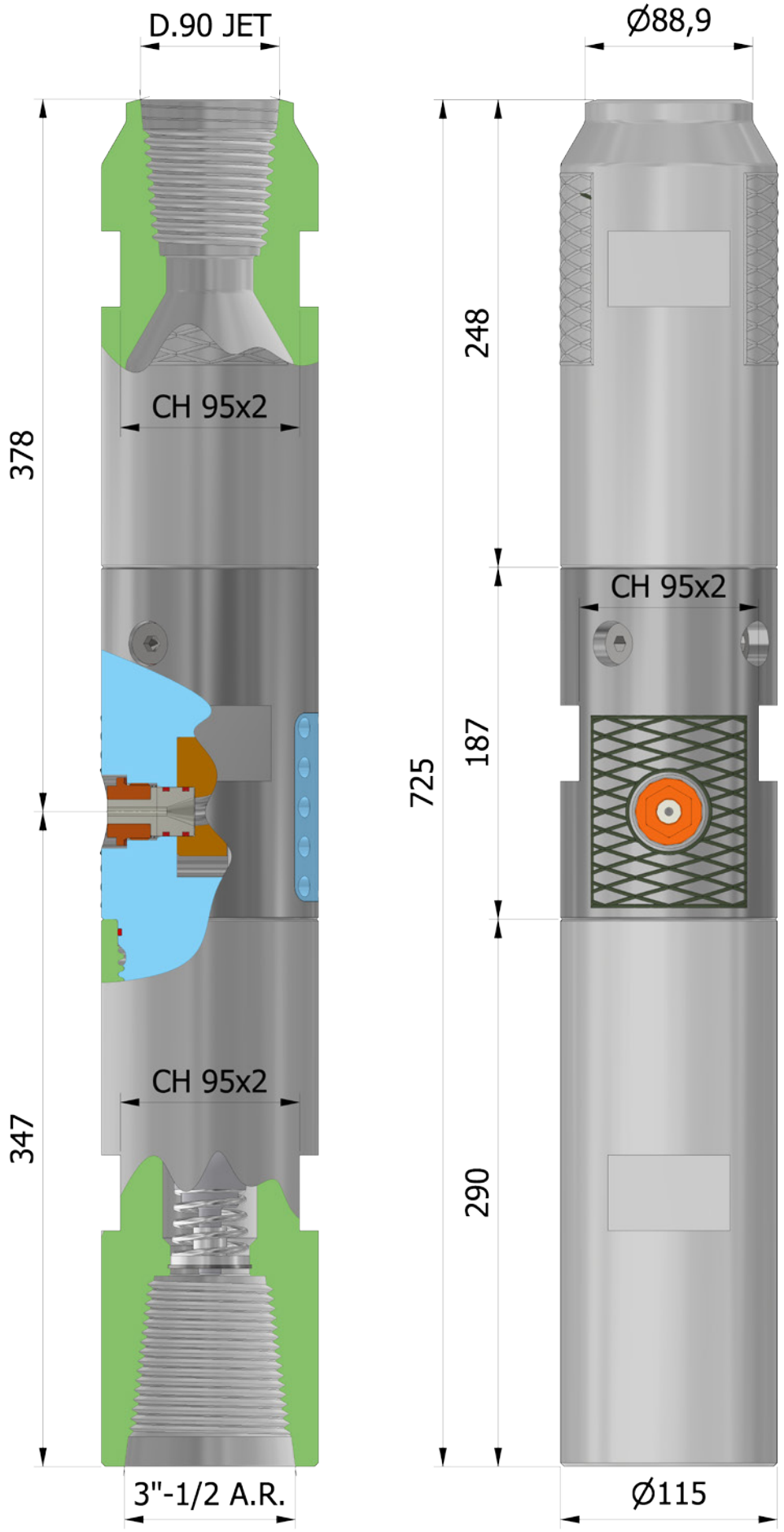


FIG. 4.23

J-889K470-XS: D.90 S.T.R.A.JET XS SINGLE FLUID NOZZLE HOLDER (REF. FIG. 4.23)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	D-1395XS-1	CORPO MONITOR STRAJET XS MONO	NOZZLE HOLDER XS BODY	1	
2	D-1395XS-2	CORPO SUP. STRAJET XS MONO	NOZZLE HOLDER XS UPPER BODY	1	
3	D-1395XS-3	RACCORDO INF. STRAJET XS MONO	NOZZLE H. XS LOWER ADAPTER	1	
4	D-1395XS-5	SPORTELLO STRAJET XS MONO	STRAJET XS PORT	1	
5	D-1395-100-12	RACCORDO ID.15 STRAJET	ID.15 TUNGSTEN CARBIDE DUCT	1	
6	D-1395-100-15	TAPPO DI FERMO RACCORDO ID.15	ID.15 STOP PLUG	1	
7	D-1395-100-22	CONDOTTO INT. ID.15 STRAJET	STRAJET ID.15 INNER DUCT	1	
8	D-1395-100-23	MEZZELUNE FERMO COND. INT. ID.15	HALF RINGS ID.15 INNER DUCT	1	
9	D-1395-100-24	GUARN. SPORTELLO STRA JET XL	XL PORT SEAL	1	
10	K35-P21.50X26L3.5	GUARN. POLIURETANO 95 SHORE-A	95 SHORE A POLYURETHANE SEAL	4	
11	K35-P93.4X97.9X3.5	GUARN. POLIURETANO 95 SHORE-A	95 SHORE A POLYURETHANE SEAL	2	
12	R15-P89X97X7.7	GUARN. POLIURETANO 95 SHORE-A	95 SHORE A POLYURETHANE SEAL	2	
13	J-CU38	GUARNIZIONE RAME 3/8''	3/8” COPPER SEAL	2	
14	J-CU100	GUARNIZIONE RAME 1''	1” COPPER SEAL	1	
15	J-J13TP038	TAPPO M. 3/8 ESAGONO	3/8” MALE PLUG	2	
16	5933M5X16P08109ZB	VITE TPSEI M5X16 UNI5933 10.9 ZB	M5x16 UNI5933 COUNTERSUNK SCREW	10	
17	J-J0NTPC70	VALVOLA AUT. 70 BAR CILINDRICA	CYLINDRICAL AUTOMATIC VALVE 70 BAR	1	
18	J-JOVNR112	VALV. N/RET. JET C2 114	C2 114 NO-RETURN VALVE	1	
19	5923M5X14P8H45GR	VSTCE PIANA 5X14 UNI5923 H45 GR	M5x14 UNI5923 FLAT SET SCREW	2	
-	D-1395-45	PERNO ALLINEAMENTO RACCORDO	CARBIDE DUCT ALIGNEMENT PLUG	-	(*)
-	D-1395-46-XL	ATTREZZO ESTRAZ. INSERTO CARBURO	INNER DUCT EXTRACTOR	-	(*)
-	D-1395-47-XL	ATTREZZO DI SPINTA INSERTO CARBURO	CARBIDE DUCT PUSHING TOOL	-	(*)
-	D-1395-70_XS	ESTRATTORE PER UGELLO	GROUT NOZZLE EXTRACTOR	-	(*)

(*) ASSEMBLY TOOLS


D.90 JET
CH 95x2
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CH 95x2
347
3"-1/2 A.R.
Ø88,9
248
CH 95x2
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725
290
Ø115

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4.24 D.114 S.T.R.A.JET XS DOUBLE FLUID NOZZLE HOLDER

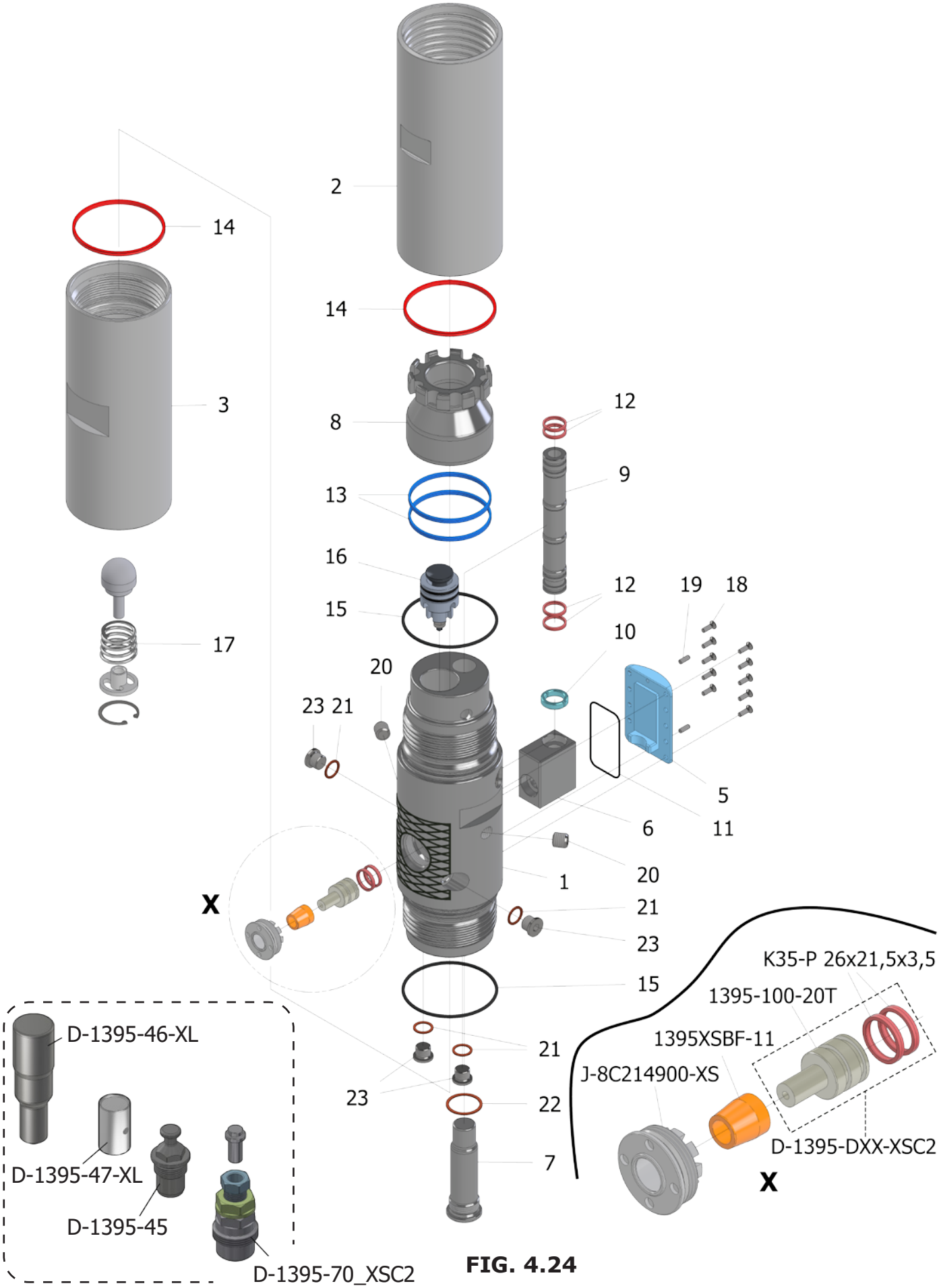
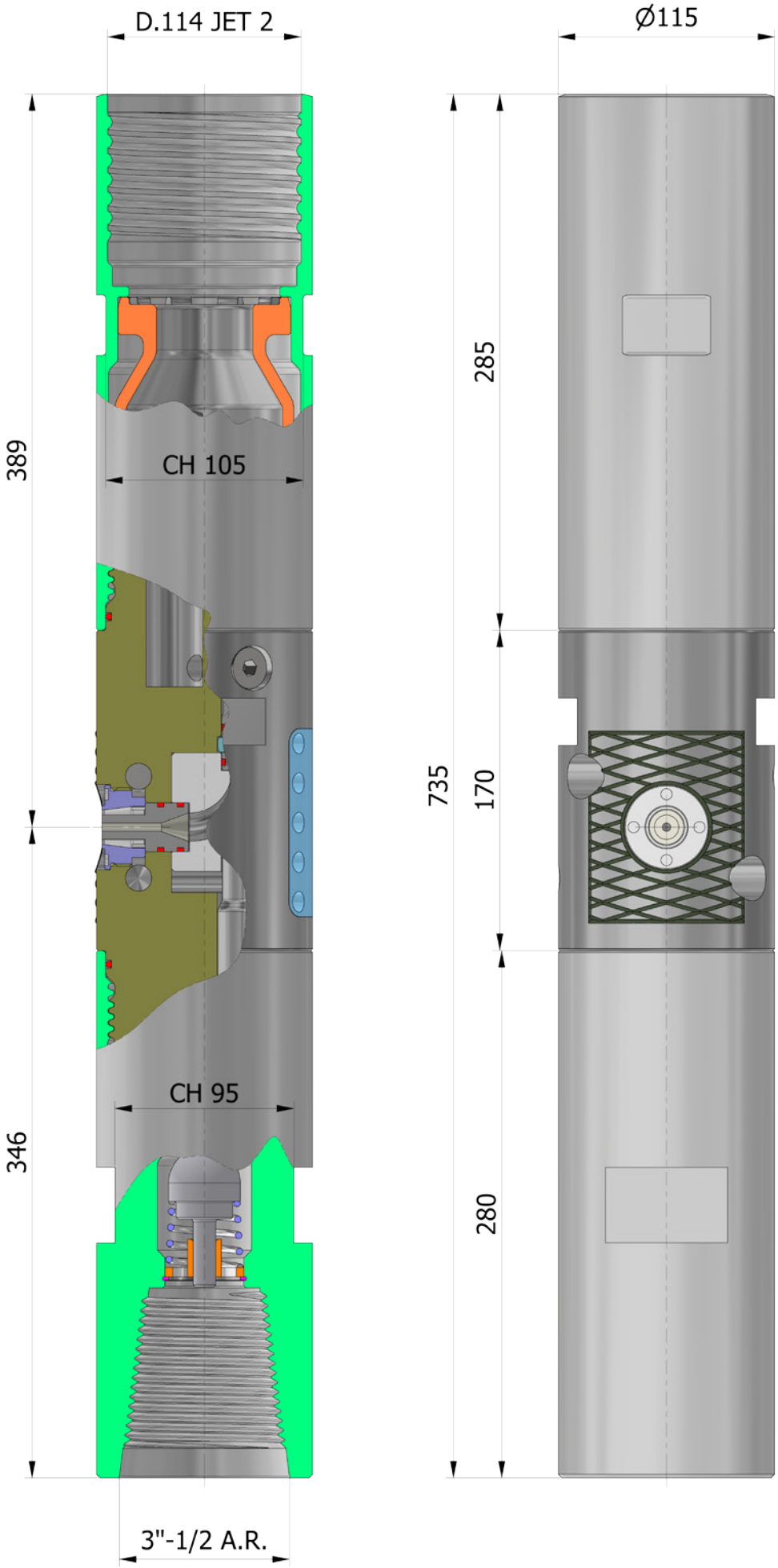


FIG. 4.24

J-1C212470-XS: D.114 S.T.R.A.JET XS DOUBLE FLUID NOZZLE HOLDER (REF. FIG. 4.24)					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	1395XSBF-1	CORPO MONITOR STRAJET XS BF	NOZZLE HOLDER XSBF BODY	1	
2	1395XSBF-2	CORPO SUPERIORE STRAJET XS BF	NOZZLE HOLDER XSBF UPPER BODY	1	
3	1395XSBF-3	RACCORDO INF. MONITOR XS BF	NOZ. HOLDER XSBF LOWER ADAPT.	1	
5	1395XS-5	SPORTELLO STRAJET XS MONO	STRAJET XS PORT	1	
6	1395-100-12	RACCORDO ID.15 (620U0208)	ID.15 TUNGSTEN CARBIDE DUCT	1	
7	1395-100-15	TAPPO DI FERMO RACCORDO ID.15	ID.15 STOP PLUG	1	
8	2028D-2	BICCHIERE INT. ADATTATORE SUP.	INNER ADAPTER FOR UPPER BODY	1	
9	1395-100-22	CONDOTTO INT. ID.15 (620U0209)	ID.15 INNER DUCT	1	
10	1395-100-23	MEZZELUNE CONDOTTO INT. ID.15	HALF RINGS ID.15 INNER DUCT	1	
11	1395-100-24	O-RING s=1.78 L=245 (OR041)	PORT SEAL	1	
12	K35-P 26x21.5x3.5	GUARNIZ. POLIURETANO 95 SHORE A	95 SHORE A POLYURETHANE SEAL	4	
13	OP 85.5 90.5 4.5	GUARNIZ. ASTON TIPO OP (VER. b)	OP SEAL (VER. b)	2	
14	S35-P 95x101.2x4.5	GUARNIZ. POLIURETANO 95 SHORE-A	95 SHORE A POLYURETHANE SEAL	2	
15	OR 241	O-RING	O-RING SEAL	2	
16	J-J01TPC70 (D-1970)	VALV. AUT. TIPO CIL. 70 BAR C2 D.114	CYLINDRICAL AUTOMATIC VALVE 70 BAR	1	
17	J-JOVNR112	VALVOLA NON RITORNO COMPLETA	C2 114 NO-RETURN VALVE	1	
18	5933M5X16P08109ZB	VITE TPSEI M5X16 UNI5933 10.9 ZB	M5x16 UNI5933 COUNTERSUNK SCREW	10	
19	5923M5X14P8H45GR	VSTCE PIANA 5X14 UNI5923 H45 GR	M5x14 UNI5923 FLAT SET SCREW	2	
20	5923M16X16P8H45GR	VSTCE PIANA 16X16 UNI5923 H45 GR	M16x16 UNI5923 FLAT SET SCREW	2	
21	J-CU38	GUARNIZIONE RAME 3/8''	3/8” COPPER SEAL	6	
22	J-CU100	GUARNIZIONE RAME 1"	1” COPPER SEAL	1	
23	J-J13TP038	TAPPO M. 3/8 ESAGONO	3/8” MALE PLUG	6	
-	D-1395-45	PERNO ALLINEAMENTO RACCORDO	CARBIDE DUCT ALIGNEMENT PLUG	-	(*)
-	D-1395-46-XL	ATTREZZO ESTRAZ. INSERTO CARBURO	INNER DUCT EXTRACTOR	-	(*)
-	D-1395-47-XL	ATTREZZO DI SPINTA INSERTO CARBURO	CARBIDE DUCT PUSHING TOOL	-	(*)
-	D-1395-70-XSC2	ESTRATTORE PER UGELLO	GROUT NOZZLE EXTRACTOR	-	(*)

(*) ASSEMBLY TOOLS


D.114 JET 2
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CH 105
285
735
170
CH 95
346
280
3"-1/2 A.R.

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4.25 S.T.R.A.JET XS DOUBLE FLUID NOZZLE HOLDER (DOUBLE NOZZLE)

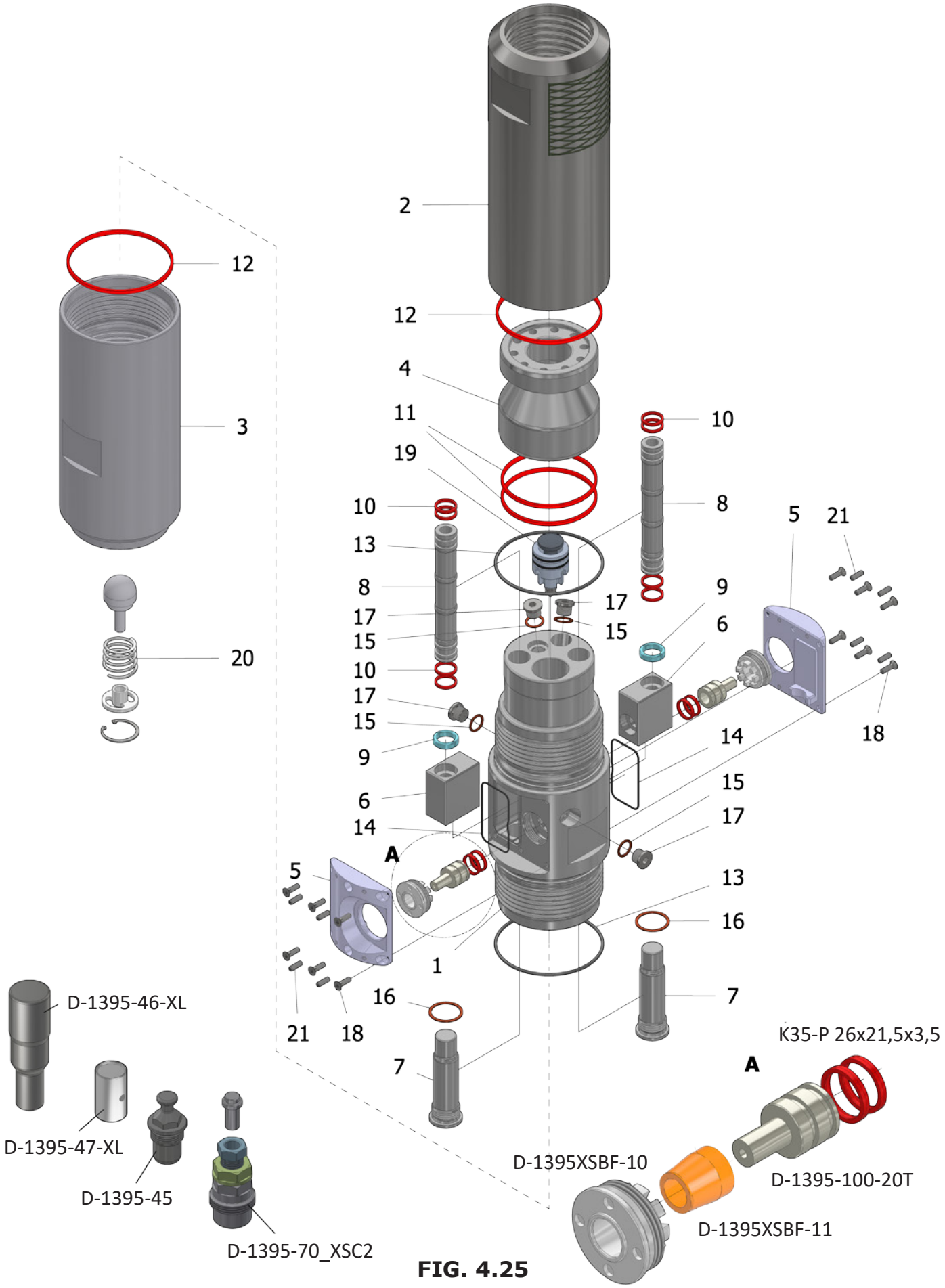
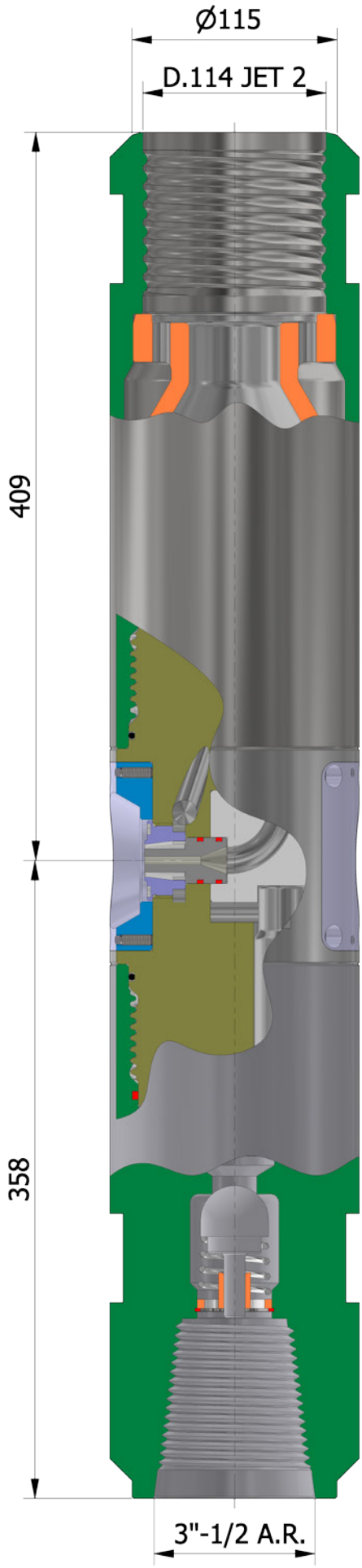
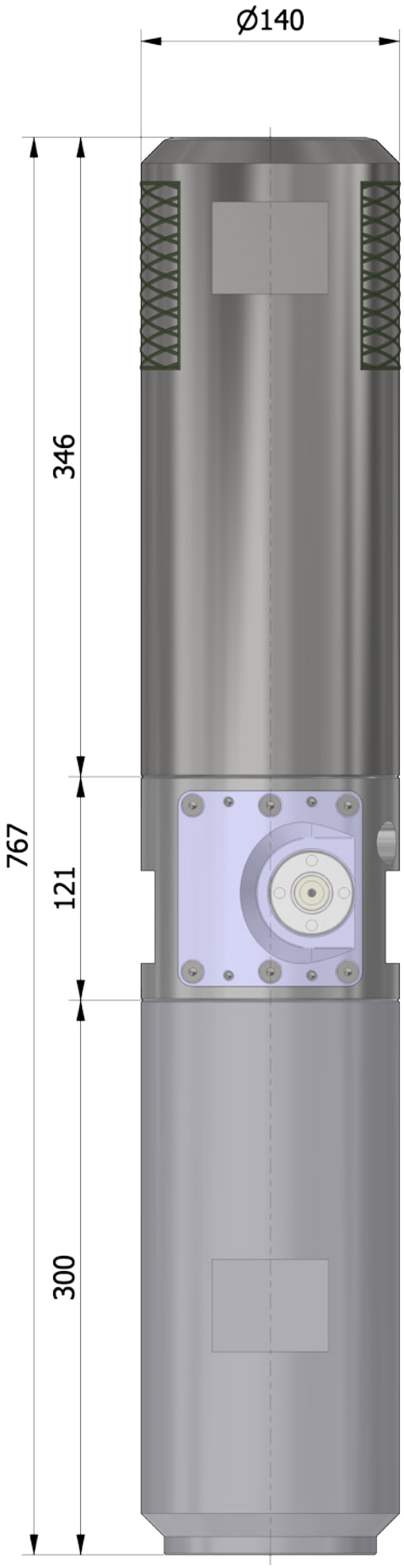


FIG. 4.25

J-1C21472XS S.T.R.A.JET XS DOUBLE FLUID NOZZLE HOLDER (DOUBLE NOZZLE) REF. FIG. 4.25					
REF. No.	CODICE CODE	DESCRIZIONE	DESCRIPTION	QTY	NOTE
1	1395DUXS-1	CORPO MONITOR DOPPIO UGELLO XS	NOZZLE HOLDER 2 NOZZLES XS BODY	1	
2	1395-100-2	CORPO SUP. MONITOR STRAJET	STRAJET NOZZLE HOLDER UPPER BODY	1	
3	1395-100-3	RACCORDO INFERIORE	LOWER ADAPTER	1	
4	1395-100-4	BICCHIERE INTERNO	INNER ADAPTER	1	
5	1395DUXS-5	SPORTELLO STRAJET 2 UGELLI XS	STRAJET PORT 2 NOZZLES XS	2	
6	1395-100-12	RACCORDO ID.15 (620U0208)	ID.15 TUNGSTEN CARBIDE DUCT	2	
7	1395-100-15	TAPPO DI FERMO RACCORDO ID.15	ID.15 STOP PLUG	2	
8	1395-100-22	CONDOTTO INT. ID.15 (620U0209)	ID.15 INNER DUCT	2	
9	1395-100-23	MEZZELUNE CONDOTTO INT. ID.15	HALF RINGS ID.15 INNER DUCT	2	
10	K35-P 26x21.5x3.5	GUARN. POLIURETANO 95 SHORE A	95 SHORE A POLYURETHANE SEAL	8	
11	S35-P 105x111,2x4.5	GUARN. POLIURETANO 95 SHORE A	95 SHORE A POLYURETHANE SEAL	2	
12	S35-P 117x123,2x4.5	GUARN. POLIURETANO 95 SHORE A	95 SHORE A POLYURETHANE SEAL	2	
13	OR 248	O-RING	O-RING SEAL	2	
14	OR041	O-RING	O-RING SEAL	2	
15	J-CU38	GUARNIZIONE RAME 3/8''	3/8” COPPER SEAL	4	
16	J-CU100	GUARNIZIONE RAME 1"	1” COPPER SEAL	2	
17	J-J13TP038	TAPPO M. 3/8 ESAGONO	3/8” MALE PLUG	4	
18	5933M6X20P08109ZB	VITE TPSEI M6X20 UNI5933 10.9 ZB	M6x20 UNI5933 COUNTERSUNK SCREW	12	
19	J-J01TPC70 (D-1970)	VALV. AUT. TIPO CIL. 70 BAR C2 D.114	CYLINDRICAL AUTOMATIC VALVE 70 BAR	1	
20	J-JOVNR112	VALVOLA NON RITORNO COMPLETA	C2 114 NO-RETURN VALVE	1	
21	5923M6X18P8H45GR	VSTCE PIANA M6x18 UNI5923 H45 GR	M6x18 UNI5923 FLAT SET SCREW	8	
-	D-1395-45	PERNO ALLINEAMENTO RACCORDO	CARBIDE DUCT ALIGNEMENT PLUG	-	(*)
-	D-1395-46-XL	ATTREZZO ESTRAZ. INSERTO CARBURO	INNER DUCT EXTRACTOR	-	(*)
-	D-1395-47-XL	ATTREZZO DI SPINTA INSERTO CARBURO	CARBIDE DUCT PUSHING TOOL	-	(*)
-	D-1395-70-XSC2	ESTRATTORE PER UGELLO	GROUT NOZZLE EXTRACTOR	-	(*)

(*) ASSEMBLY TOOLS


Ø115
D.114 JET 2
409
358
3"-1/2 A.R.


Ø140
346
767
121
300

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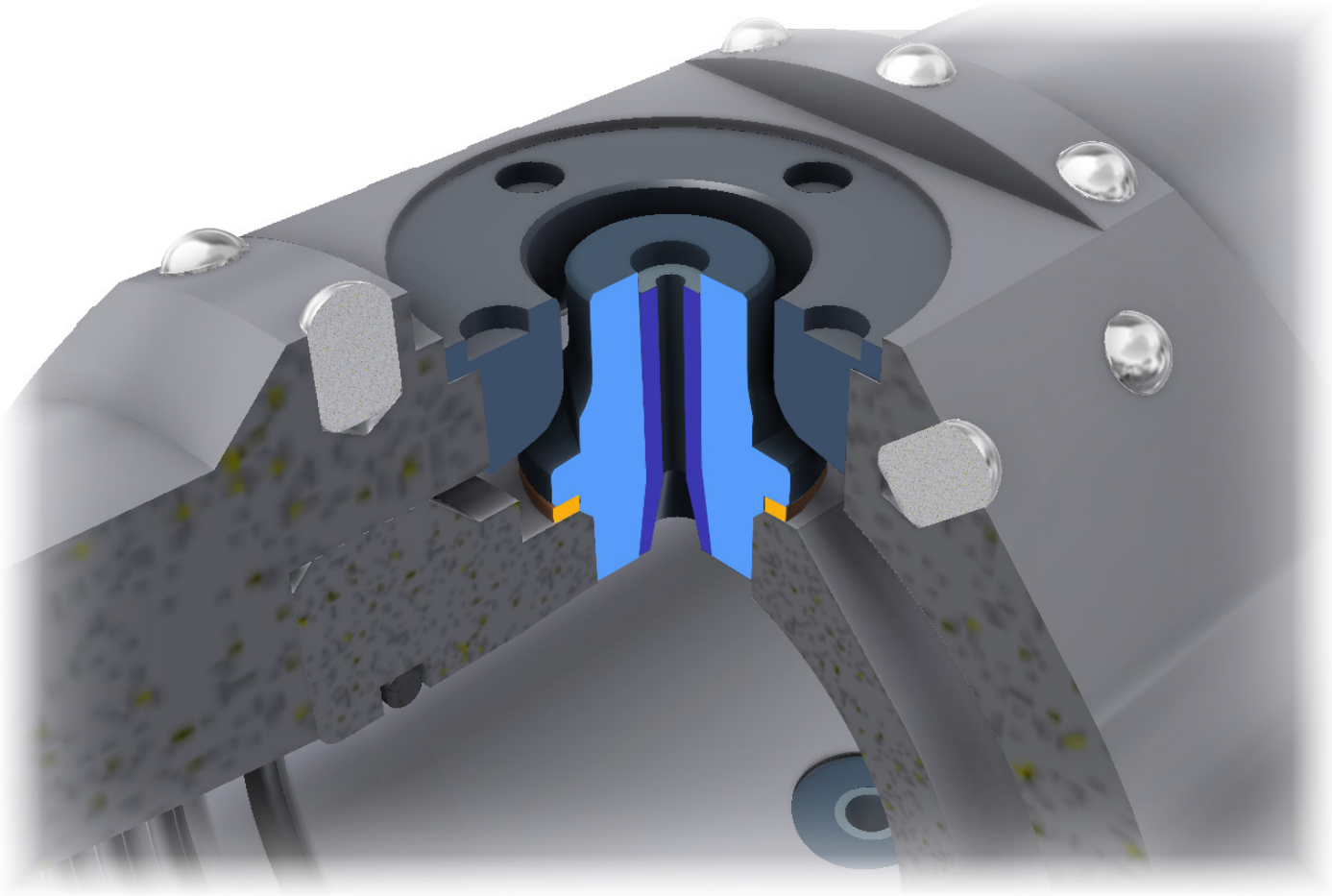
5 UGELLI JETTING - JETTING NOZZLES



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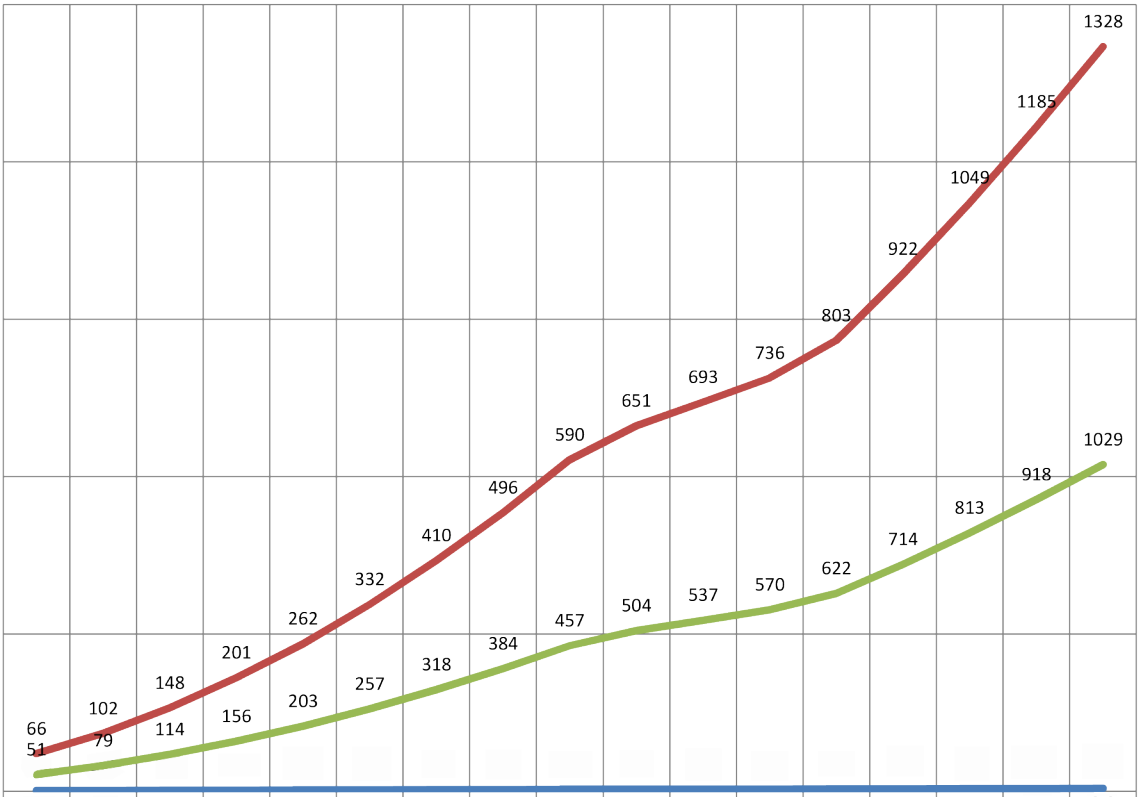
5.1 GROUT NOZZLES CAPACITY

d= diametro ugello / nozzle diameter
r= peso specifico boiacca cemento / grout mix density (Kg/dm³)

[Rapp./Ratio 1:1 r=1,5 Kg/dm³]

Pressione di riferimento / reference pressure: 400 bar
Q= portata cemento / grout mix capacity (l/min)



	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0	6,3	6,5	6,7	7,0	7,5	8,0	8,5	9,0
Q (l/min) r=0,9	66	102	148	201	262	332	410	496	590	651	693	736	803	922	1049	1185	1328
Q (l/min) r=1,5	51	79	114	156	203	257	318	384	457	504	537	570	622	714	813	918	1029
d (mm)	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0	6,3	6,5	6,7	7,0	7,5	8,0	8,5	9,0

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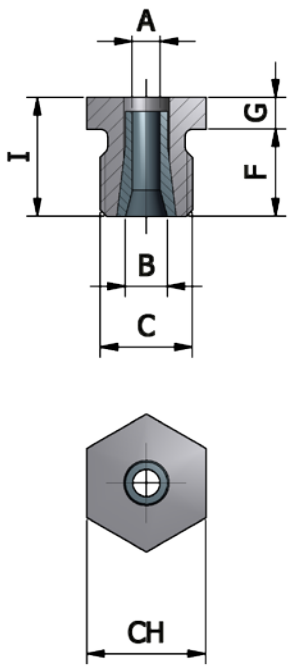
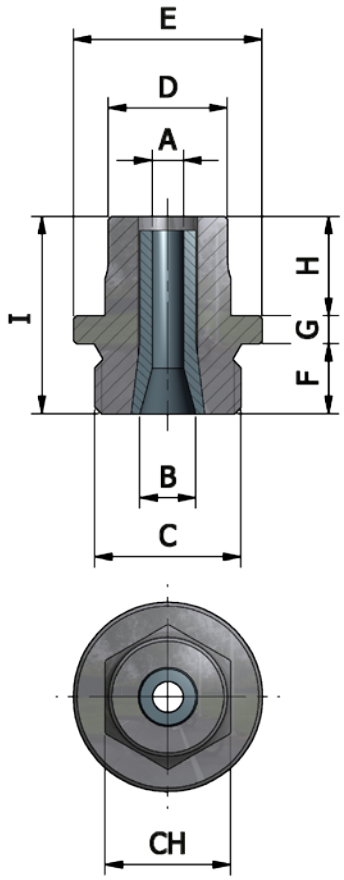
5.2 GROUT NOZZLES DIMENSIONS

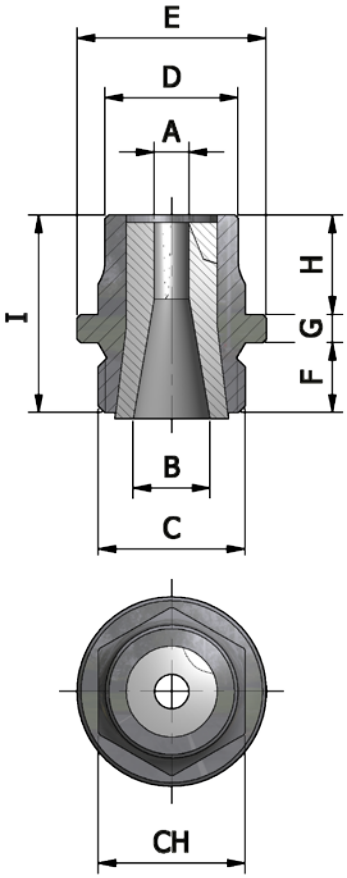
J-J00UCXXX



J-8C2149XX

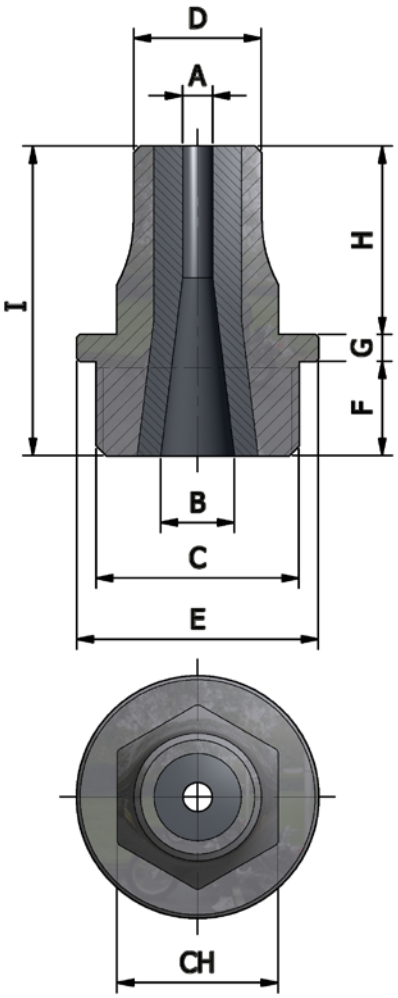


J-8C2149XX-H

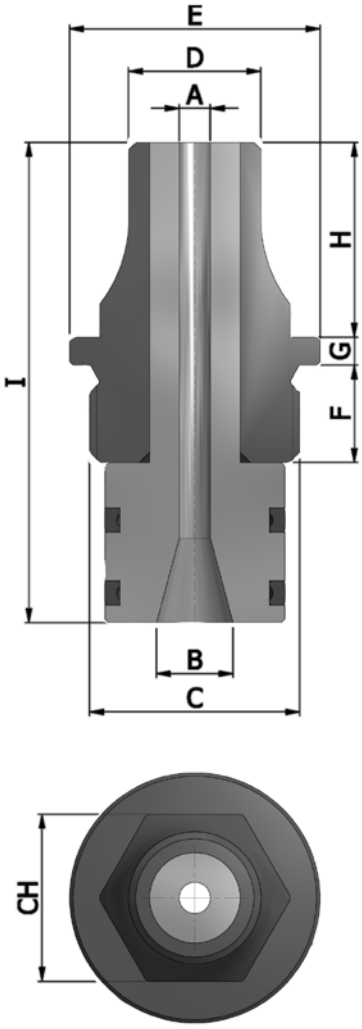


CODICE CODE	A	B	C	D	E	F	G	H	I	CH
J-J00UCXXX	1,8-4,0	4,5-6	1/4” G	-	-	12,5	4,5	-	17	17
J-8C2149XX	2,0-6,0	6-8	1/2” G	17	27	10	4	14,2	28,2	18
J-8C2149XX-H	6,3-8,0	11	1/2” G	19	27	10	4	14,2	28,2	21

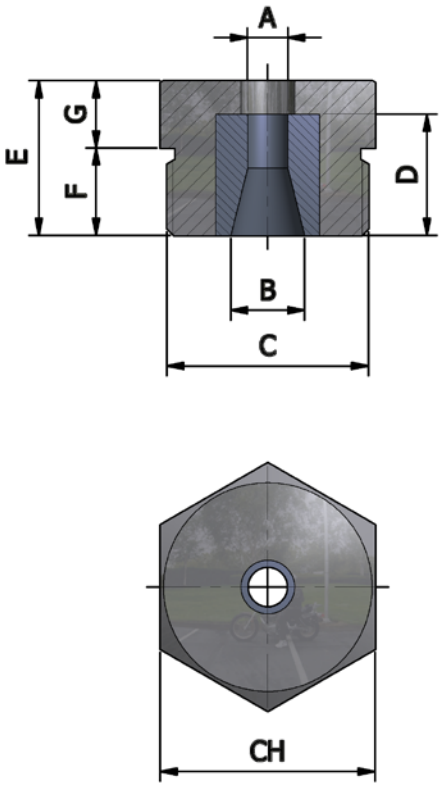
D-1555-4DXX



D-1395-DXX-IV
D-1395-DXX-XL



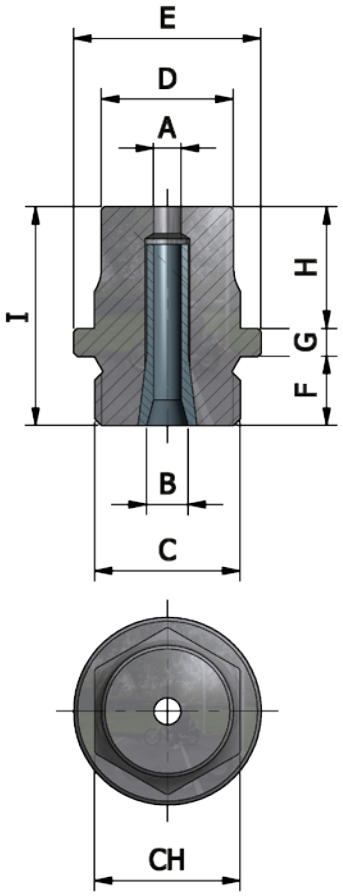
J-90K347XX



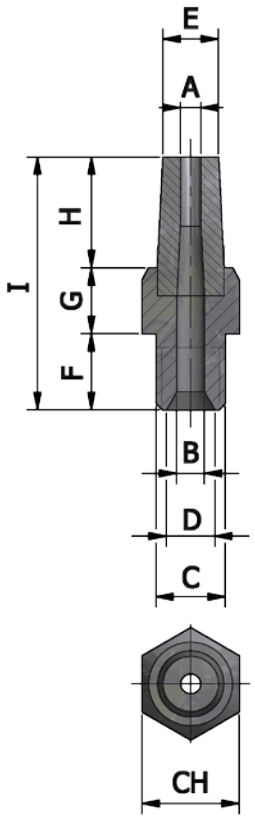
CODICE CODE	A	B	C	D	E	F	G	H	I	CH
D-1555-4DXX	6,0-9,0	8,5	7/8″ G	19	36	14	4	28	46	24
D-1395-DXX-IV	4,5-9,0	11	7/8″ G	19	36	14	4	28	69	24
D-1395-DXX-XL	4,5-9,0	15	7/8″ G	19	36	14	4	28	69	24
J-90K347XX	3,5-6,0	11	M30x1,5	18	23	13	10	-	-	32

5.3 WATER NOZZLES DIMENSIONS

J-11K349XX



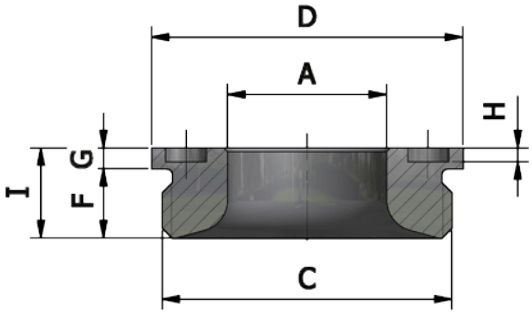
J-90K349XX



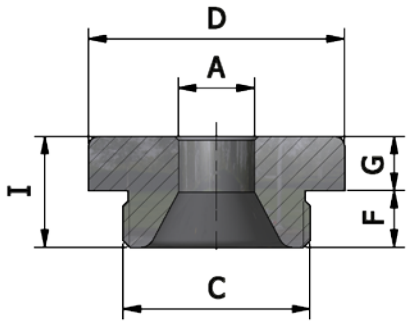
CODICE CODE	A	B	C	D	E	F	G	H	I	CH
J-11K349XX	3,5-6,0	4,5-6	1/2” G	19	27	10	4	17,6	31,6	21
J-90K349XX	2,0-3,5	4	M10x1,5	7	8	11	9.5	16	36,5	14

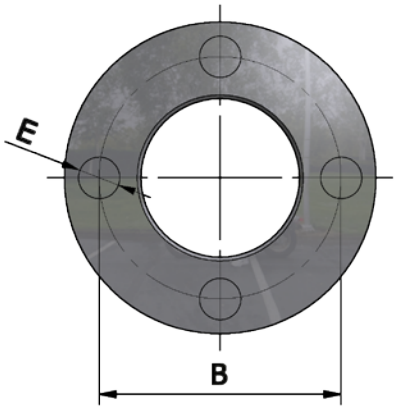
5.4 AIR NOZZLES DIMENSIONS

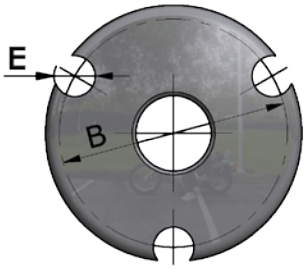
J-8C2149XX
J-11K349XX



J-90K34900

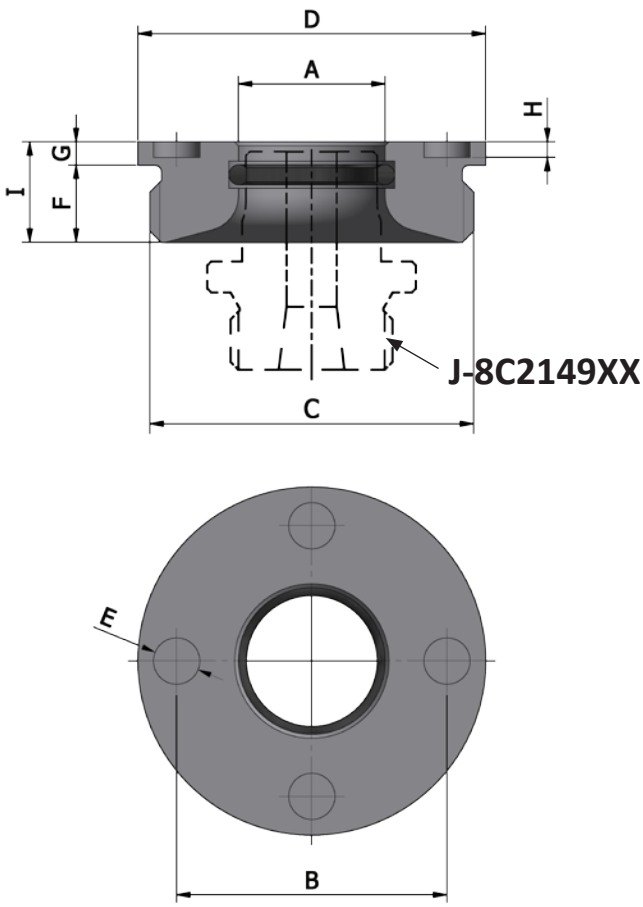




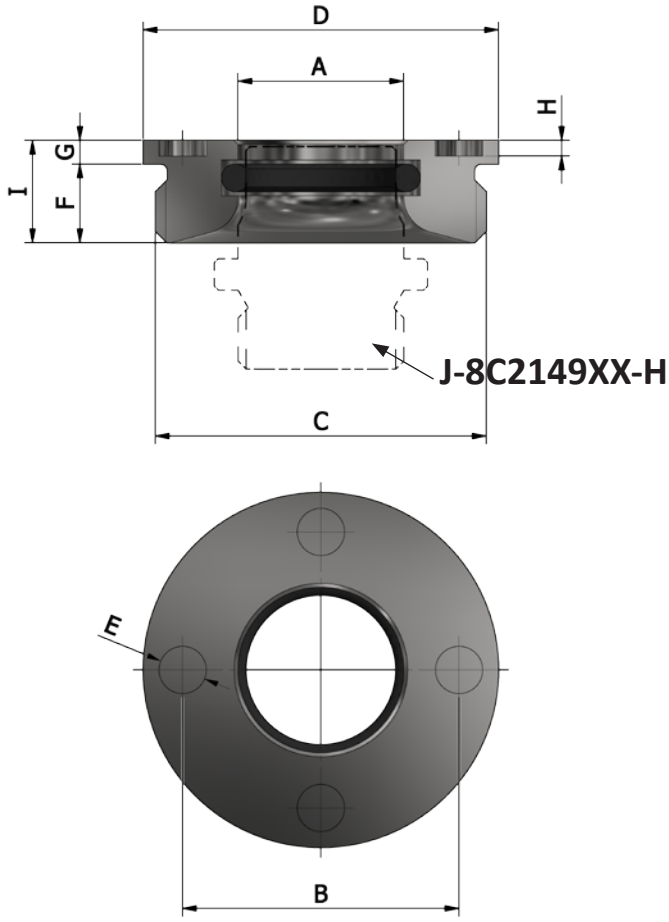


CODICE CODE	A	B	C	D	E	F	G	H	I
J-8C2149XX J-11K349XX	21-23	35	1”-1/4 G	45	6	10	3	2	13
J-90K34900	11	33	M27x1,5	37	6	8,2	7,8	-	16

D-1171-33T19

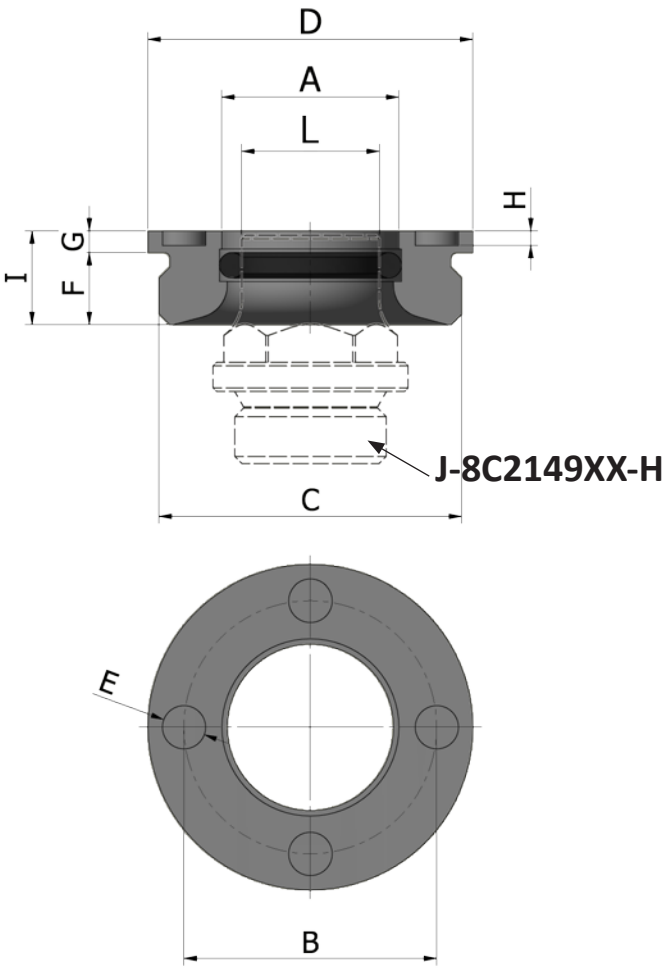


D-1171-33T

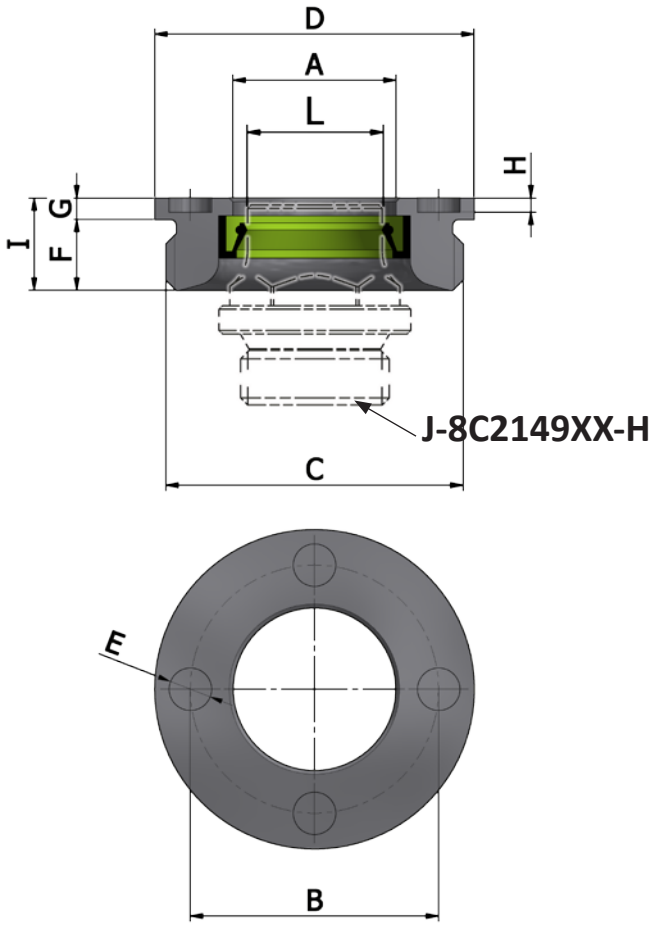


CODICE CODE	A	B	C	D	E	F	G	H	I
D-1171-33T19	19	35	1”-1/4 G	45	6	10	3	2	13
D-1171-33T	21	33	1”-1/4 G	45	6	10	3	2	13

D-1171-33TE

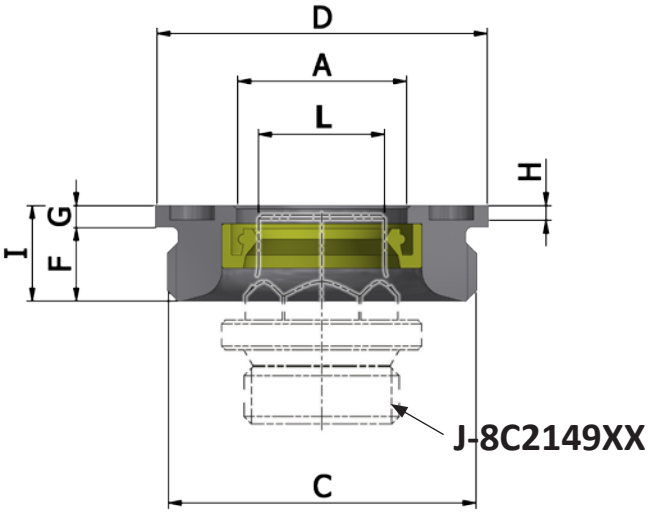


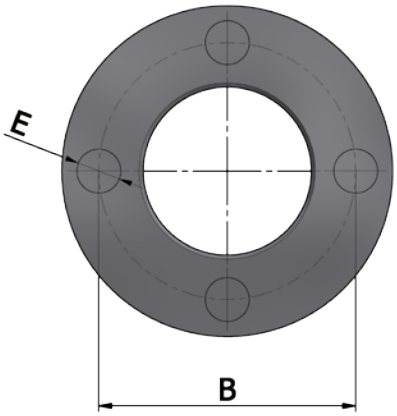
D-1354-970



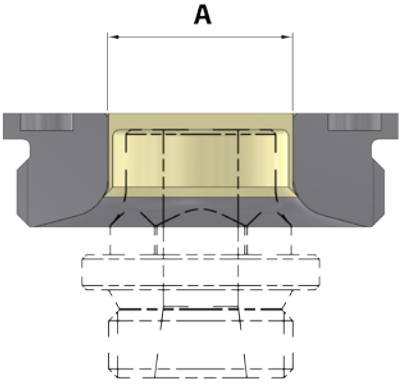
CODICE CODE	A	B	C	D	E	F	G	H	I	L
D-1171-33TE	24,5	35	1”-1/4 G	45	6	10	3	2	13	19
D-1354-970	23	33	1”-1/4 G	45	6	10	3	2	13	19

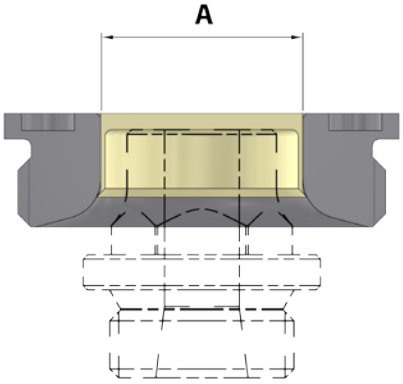
D-1354-971





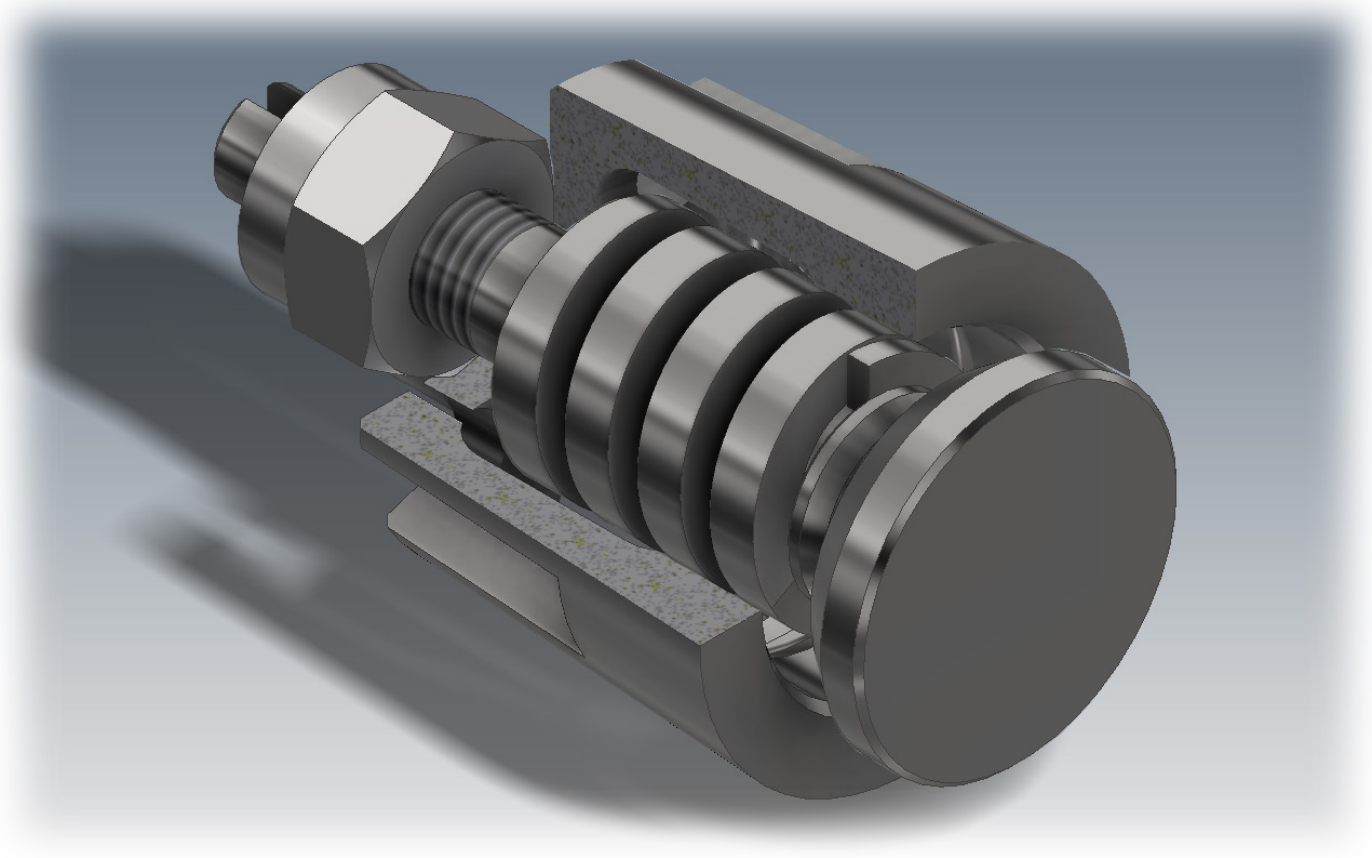
CODICE CODE	A	B	C	D	E	F	G	H	I	L
D-1354-971	23	33	1”-1/4 G	45	6	10	3	2	13	17





CODICE CODE	A
D-1376-A21	21
D-1376-A23	23

6 VALVOLE AUTOMATICHE - CHECK VALVES



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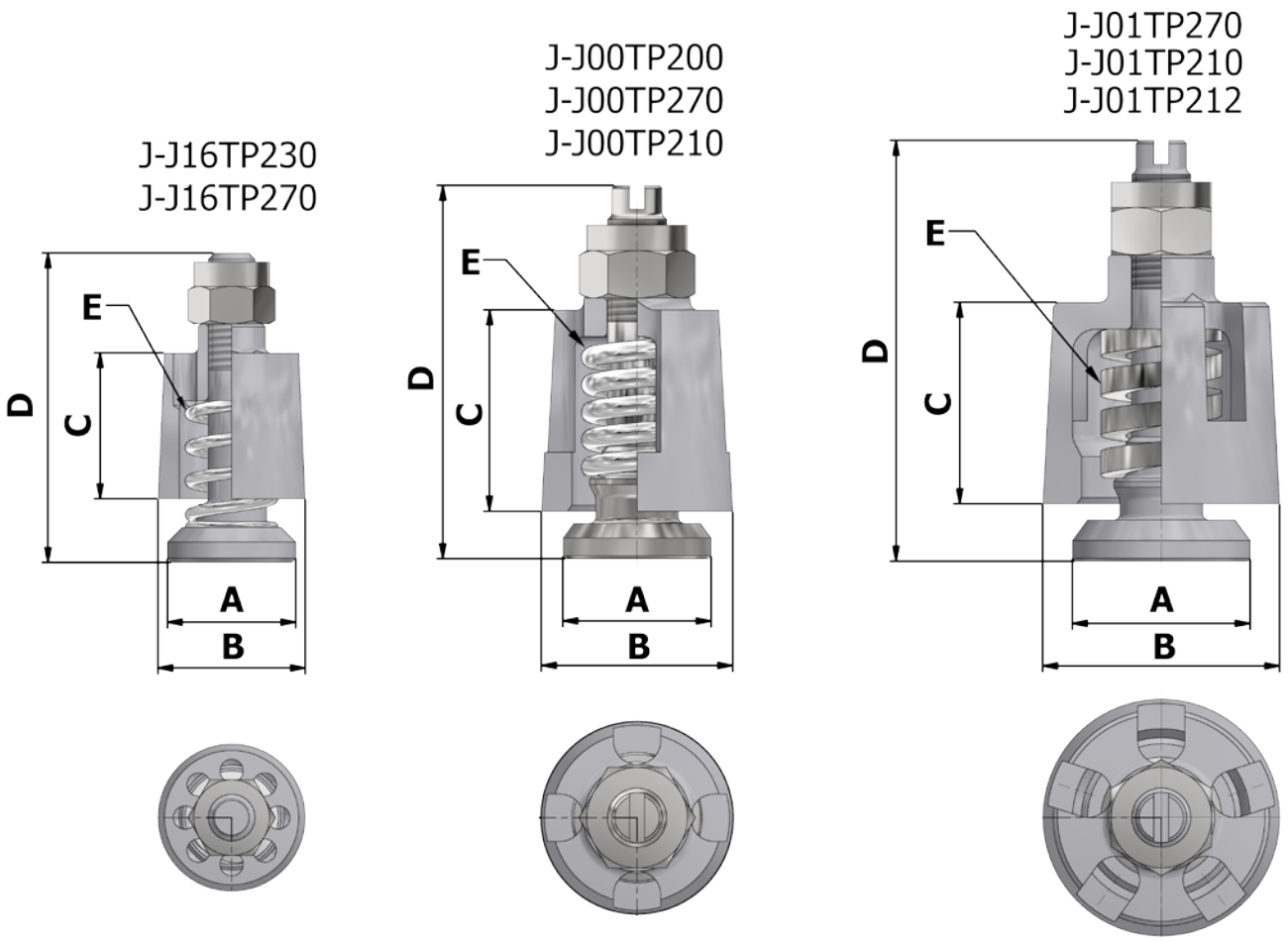
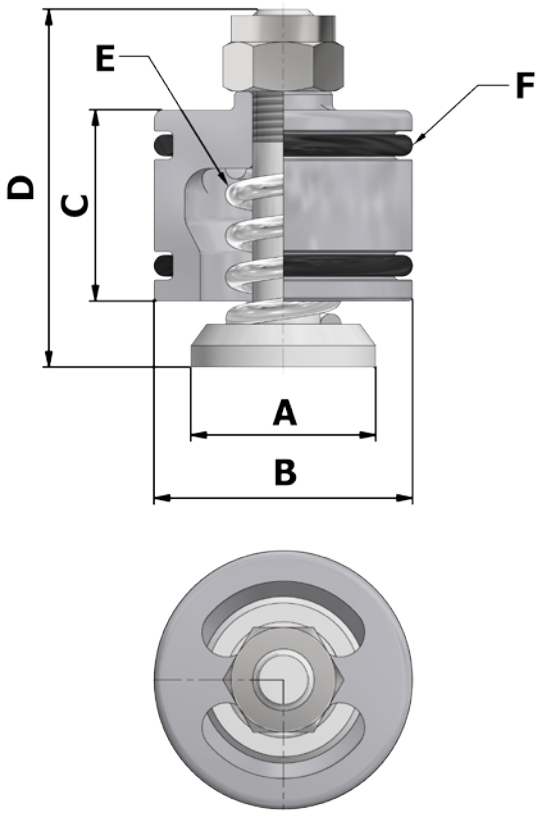
6.1 CHECK VALVES DIMENSIONS

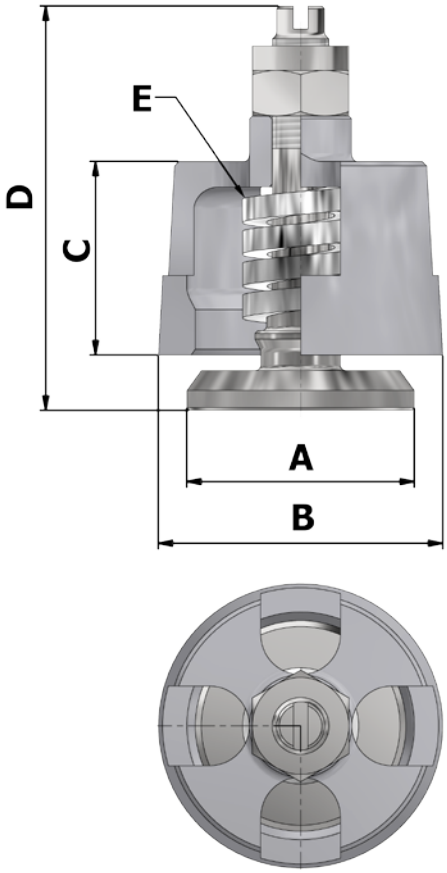


CODICE CODE	SYSTEMS	CLOSING PRESSURE (BAR)	A	B	C	D	E	F
J-J16TP230	D.60 JET	30	22	25,3	25	53	J00TP201	-
J-J16TP270	D.60 JET	70	22	25,3	25	53	J00TP206	-
J-J00TP200	FROM D.76 JET TO D.90 JET D.90 C2	30	25	32,3	34	63	J00TP201	-
J-J00TP270	FROM D.76 JET TO D.90 JET D.90 C2	70	25	32,3	34	63	J00TP206	-
J-J00TP210	FROM D.76 JET TO D.90 JET D.90 C2	100	25	32,3	34	63	J00TP207	-
J-J01TP270	D.114 JET - D.114 C2	70	30	40	34	71	J00TP206	-
J-J01TP210	D.114 JET - D.114 C2	100	30	40	34	71	J00TP207	
J-J01TP212	D.114 JET - D.114 C2	120	30	40	34	71	J00TP212	-

J-J01TPC70
J-J01TPC00
J-J01TPC12

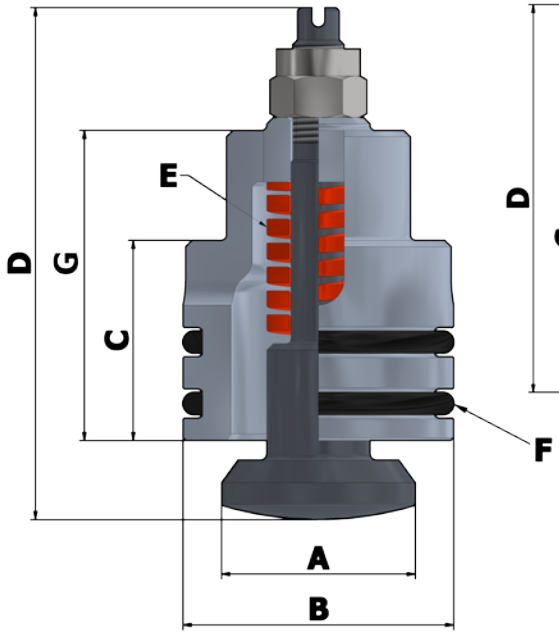


J-J00TP200
J-J00TP270
J-J00TP210

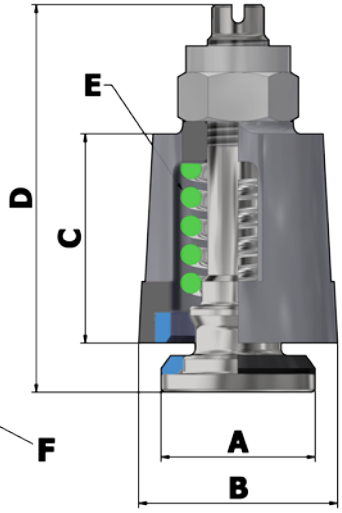


CODICE CODE	SYSTEM	CLOSING PRESSURE (BAR)	A	B	C	D	E	F
J-J01TPC70	STRAJET	70	30	42	31	58	J00TP206	OR220
J-J01TPC00	STRAJET	100	30	42	31	58	J00TP207	OR220
J-J01TPC12	STRAJET	120	30	42	31	58	J00TP212	OR220
J-J02TP270	D.127 JET D.127 C2- D.140 C2	70	40	50	34	71	J00TP206	-
J-J02TP210	D.127 JET D.127 C2- D.140 C2	100	40	50	34	71	J00TP207	-
J-J02TP212	D.127 JET D.127 C2- D.140 C2	120	40	50	34	71	J00TP212	-

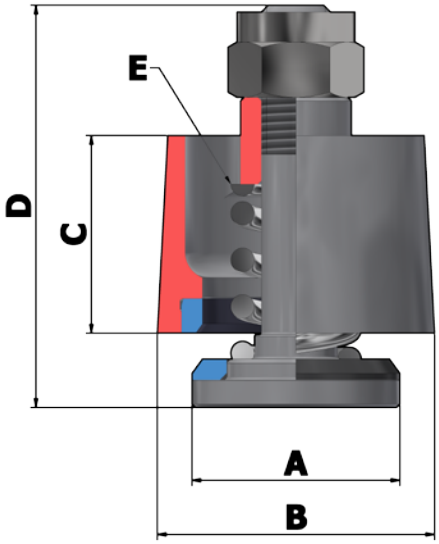
J-J00NTPCXX



J-J00TCAXX



J-J01TCAXX



CODICE CODE	SYSTEM	CLOSING PRESSURE (BAR)	A	B	C	D	E	F
J-J00NTPC70	STRAJET	70	30	42	31	79	D-1970-3	OR220
J-J00NTPC00	STRAJET	120	30	42	31	79	D-1970-5	OR220
J-J00TCA30	D.90 C2	30	25	32,3	34	63	J00TP201	-
J-J00TCA70	D.90 C2	70	25	32,3	34	63	J00TP206	-
J-J00TCA00	D.90 C2	100	25	32,3	34	63	J00TP207	-
J-J01TCA70	D.114 C2	70	30	40	28,5	58	J00TP206	-
J-J01TCA00	D.114 C2	120	30	40	28,5	58	J00TP212	-

NOTES

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Certificato N° IT00/0007