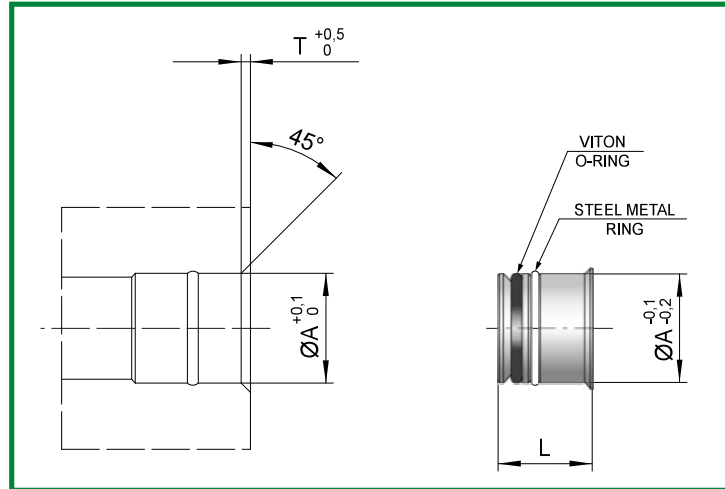


“ RAPID PLUG AND UNPLUG SYSTEM ”
COMPLETE PRODUCTS LINE FOR THE
EQUIPMENT OF THE CONDITIONING
CIRCUITS OF THE MOULDS



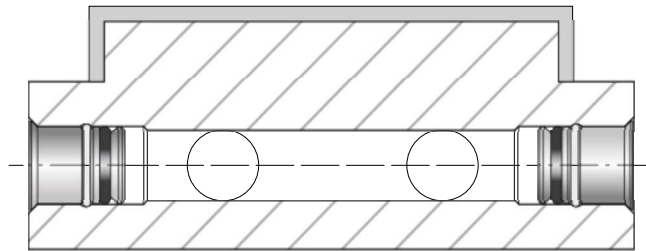
EXTERNAL PLUG

RAPID PLUG AND UNPLUG SYSTEM (PATENTED SYSTEM)



CODE: TR..

CODE	A	T	L
TR-6I	6,5	0,7	7,5
TR-8I	8,5	1	9
TR-10	10,5	1	12,5
TR-12	12,5	1	12,5
TR-14	14,5	1	12,5



CHARACTERISTICS

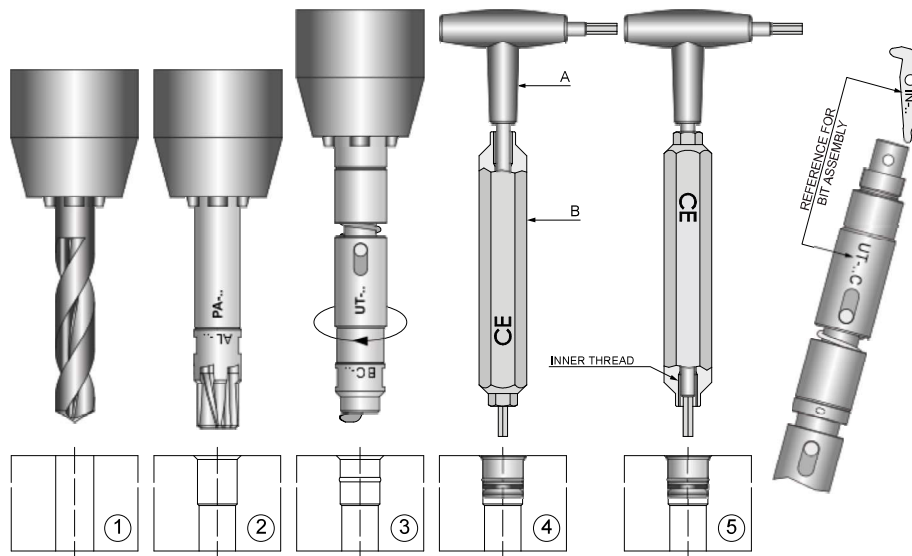
- 1) RAPID MACHINING OF THE HOUSING ;
- 2) RAPID PLUG FITTING AND REMOVING;
- 3) SECURE SEAL IS MAINTAINED EVEN UNDER HIGH PRESSURE CONDITIONS (~100 BAR);

N.B.: ON DEMAND AVAILABLE ALSO WITH SCREW IN STAINLESS STEEL.

TR-6I AND TR-8I AVAILABLE ONLY WITH SCREW MADE IN STAINLESS STEEL.

PROCEDURE FOR THE APPLICATION

STANDARD SET



EXECUTION PLUGS' HOUSING

1. PERFORM HOLE WITH DRILL (the diameter of the drill has to correspond to the mark of the plug; example: for the plug TR-8 use drill Ø8). See picture 1.
The diameter obtained by the drill can also be increased of 0,2+0,3 millimeters.
2. PERFORM BLADE WITH A SUITABLE REAMER. See picture 2. In the operation n° 2 the hole has to be calibrated with a suitable reamer to $\text{Ø drill} + 0,5$ (example: the hole Ø8 will be brought up to Ø8,5). N.B.: the cutting speed of this operation will change according to the type of machined steel and will be equal to the one used for any other reamer in HSS (high-speed tool steel).
3. PERFORM RETAINING GROOVE WITH SUITABLE TOOL. See picture 3

SOME ADVICE FOR THE CORRECT USE OF ABOVE MENTIONED TOOL

- A. Before beginning the operation put a drop of oil on the chamfer created on the piece by the reamer (picture 2) to encourage the sliding of the centering bush of the tool.
- B. The descent in vertical of the tool has to be slow (as adopted when a center drill is used). Consider however that such a tool works only in the last millimeter of the descent.
- C. When the two elements of the tool separated by the spring (visible) touch each other, the operation is completed. Now neither making further pressure on the tool nor stopping in such a position more than a few seconds is not advisable (so to avoid the heating of the centering bush that rubs on the piece).
- D. The above mentioned advice, related to the pressure that has to be applied on the tool, are obviously usable by the worker only in case of operation on a drill or also on a miller, only if provided by a mobile chuck (type drill) so to have the sensitivity of the practiced pressure. In case of performing the above mentioned operation on a machine with fixed head or on a machining center, it's necessary to use the tool with the pressure compensator (provided on request).

PLUGS ASSEMBLY

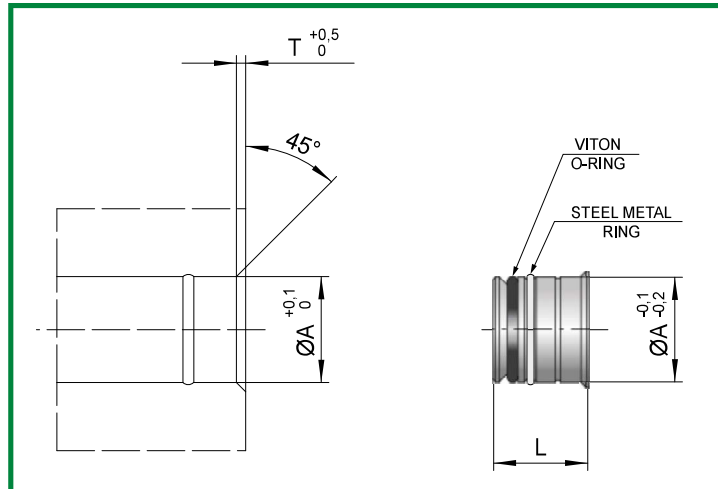
1. Insert the piece to be assembled in its seat.
2. Insert the keys as in picture 4.
3. Holding the key "A" tight, rotate the key "B" clockwise blocking the plug with strong pressure, but using only the hands (without the help of any other keys to subsequently increase the pressure of locking).

PLUGS DISASSEMBLY

1. Insert the keys as in picture 4.
2. Unblock the plug holding the key "A" tight and rotating the key "B" counter clockwise (1-2 turns maximum).
3. Remove the keys.
4. Using the key "B" from the side with the inner thread hook the plug and extract.

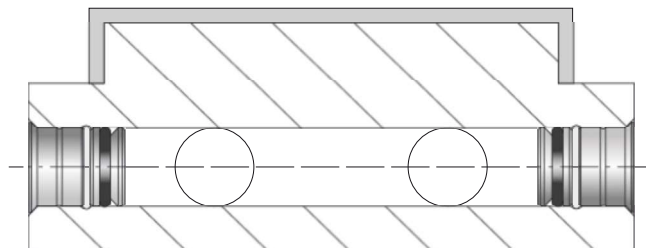
EXTERNAL PLUG

RAPID PLUG AND UNPLUG SYSTEM (PATENTED SYSTEM)



CODE: TR-..F

CODE	A	T	L
TR-5FINOX	5	0,7	7
TR-6F	6	0,7	7,5
TR-8F	8	1	9
TR-10F	10	1	12,5
TR-11F	11	1	12,5
TR-11,5F	11,5	1	12,5
TR-12F	12	1	12,5
TR-14F	14	1	12,5
TR-15F	15	1,2	13
TR-16F	16	1,2	13
TR-18F	18	1,2	13
TR-19F	19	1,2	13
TR-20F	20	1,2	13
TR-25F	25	1,2	13



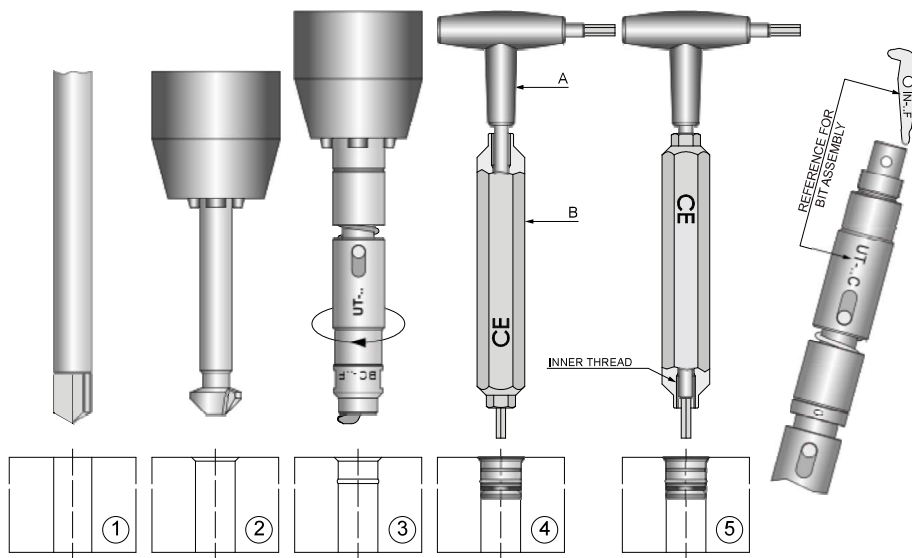
CHARACTERISTICS

TR-5F INOX STAINLESS STEEL.

TR-6FI AND TR-8FI AVAILABLE ONLY WITH SCREW MADE IN STAINLESS STEEL.

SECURE SEAL IS MAINTAINED EVEN UNDER HIGH PRESSURE CONDITIONS (~100 BAR)

SET 'F'



EXECUTION PLUGS' HOUSING

1. PERFORM THE HOLE WITH GUN DRILL (the diameter of the drill has to correspond to the mark of the plug; for example: for the plug type TR-8F use drill $\varnothing 8$. See picture 1)
2. PERFORM CHAMFERING. See picture 2
3. PERFORM RETAINING GROOVE WITH SUITABLE TOOL. See picture 3

SOME ADVICE FOR THE CORRECT USE OF ABOVE MENTIONED TOOL

- A. Before beginning the operation put a drop of oil on the piece by the chamfer (picture 2) to encourage the sliding of the centering bush of the tool.
- B. The descent in vertical of the tool has to be slow (as adopted when a center drill is used). Consider however that such a tool works only in the last millimeter of the descent.
- C. When the two elements of the tool separated by the spring (visible) touch each other, the operation is completed. Now neither making further pressure on the tool nor stopping in such a position more than a few seconds is not advisable (so to avoid the heating of the centering bush that rubs on the piece).
- D. The above mentioned advice, related to the pressure that has to be applied on the tool, are obviously usable by the worker only in case of operation on a drill or also on a miller, only if provided by a mobile chuck (type drill) so to have the sensitivity of the practiced pressure. In case of performing the above mentioned operation on a machine with fixed head or on a machining center, it's necessary to use the tool with the pressure compensator (provided on request).

PLUGS ASSEMBLY

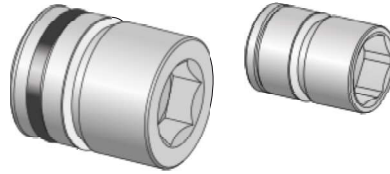
1. Insert the piece to be assembled in its seat.
2. Insert the key as in picture 4.
3. Holding the key "A" tight, rotate the key "B" clockwise blocking the plug with strong pressure, but using only the hands (without the help of any other keys to subsequently increase the pressure of locking).

PLUGS DISASSEMBLY

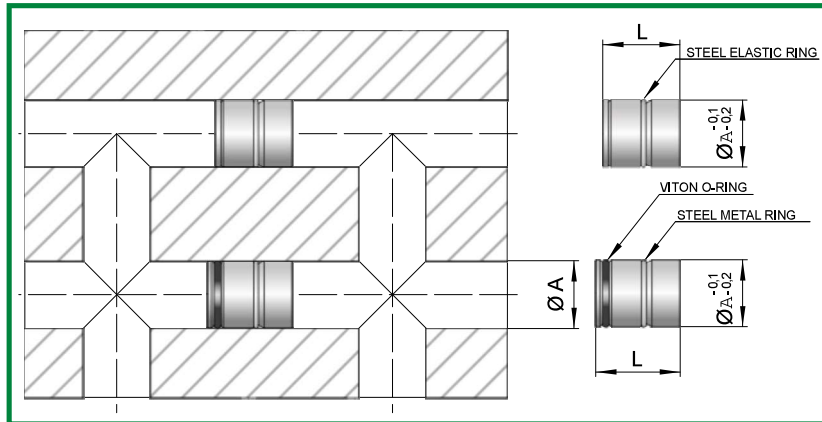
1. Insert the keys as in picture 4.
2. Unblock the plug holding the key "A" tight and rotating the key "B" counter clockwise (1-2 turns maximum).
3. Remove the keys.
4. Using the key "B" from the side with the inner thread hook the plug and extract.

PLUG FOR THE DEVIATION OF THE FLOW

RAPID PLUG AND UNPLUG SYSTEM
(PATENTED SYSTEM)



CODE: TRI-..

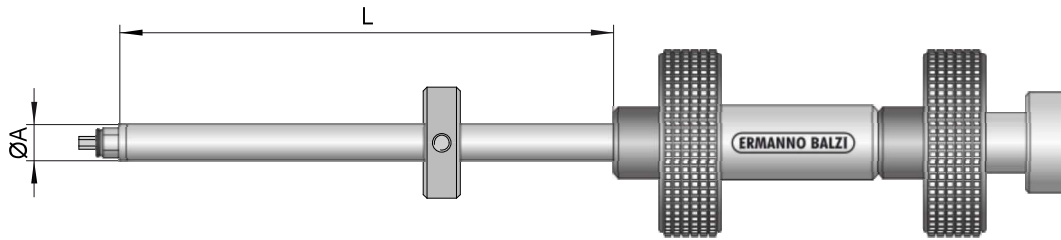


CODE	A	L	NOTE	ASSEMBLY DEVICE
TRI-6L	6	12		APT-0
TRI-6C	6	10	WITHOUT O-RING	
TRI-8L	8	15		APT-1
TRI-8C	8	10,5	WITHOUT O-RING	
TRI-10L	10	17,5		APT-2
TRI-10C	10	13,5	WITHOUT O-RING	
TRI-11	11	17,5		
TRI-11,5	11,5	17,5		
TRI-12	12	17,5		
TRI-14	14	17,5		APT-3
TRI-15	15	17,5		
TRI-16	16	22		
TRI-18	18	22,5		
TRI-19	19	22,5		
TRI-20	20	22,5		
TRI-25	25	22,5		

CHARACTERISTICS

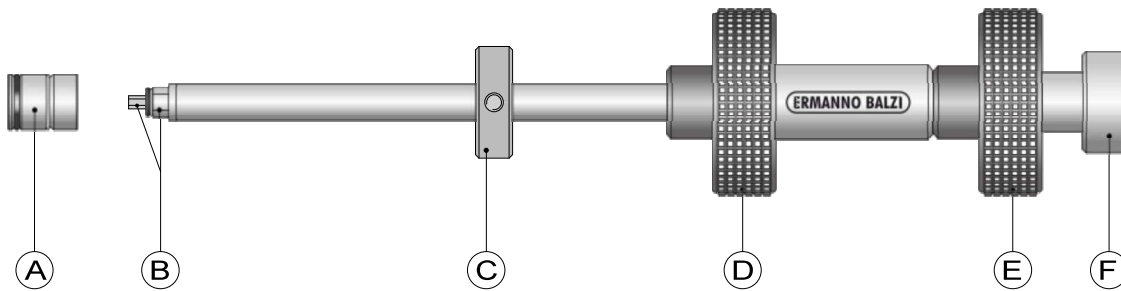
- 1) RAPID PLUG FITTING AND REMOVING;
- 2) UNLIMITED PLUG REUTILIZATION;
- 3) POSSIBLE PLUG SECURING FOR HOLES WITH INCREASED DIAMETER (UP $\text{ØA}+0.3 \pm 0.4\text{mm}$).

ASSEMBLY DEVICE



CODE	A	L
APT-0	5,9	250
APT-1	7,7	400
APT-2	9,7	800
APT-3	14	1000

N.B.: on demand the rod can be supplied in special lengths.

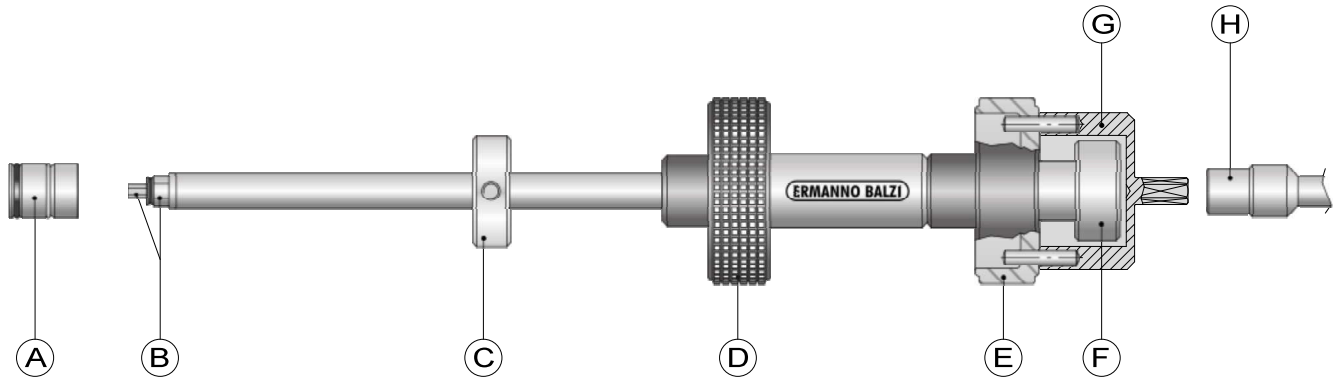


PLUGS ASSEMBLY

1. Assemble the plug "A" on the two hexagons "B" verifying that it's well inserted.
2. Holding the handle "E" tight, screw the handle "F", blocking it with a light pressure.
3. Verify that the plug is hooked to the rod.
4. Insert the rod in the hole determining the position with the ring nut "C".
5. Holding the handle "D" tight, rotate the handle "E" counter-clockwise until it blocks .
6. Verify that the plug is blocked in the hole, pushing the rod forwards and backwards.
7. Holding the handle "E" tight, unscrew the handle "F" (1 or 2 turns are enough).
8. Remove the rod holding it preferably by the handle "D".

PLUGS DISASSEMBLY

1. Insert the rod in the hole and, slightly rotating the handle "D" and "E", practice a light pressure on the plug until the two hexagons "B" have entered in their seats (the operation has happened when the handle "D" and "E" don't rotate anymore).
2. Holding the handle "E" tight, screw the handle "F" blocking it with a light pressure and verify that the plug is hooked, pulling the rod towards outside.
3. Holding the handle "D" tight, unblock the handle "E" clockwise.
4. Remove APT tool from the bore and unscrew the plug from APT rod.



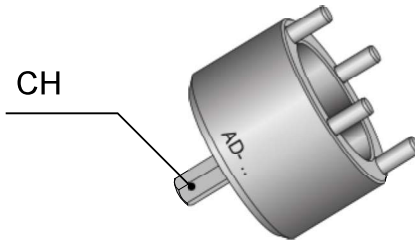
PLUGS ASSEMBLY

1. Assemble the plug "A" on the two hexagons "B" verifying that it's well inserted.
2. Holding the handle "E" tight, screw the handle "F", locking it with a light pressure.
3. Verify that the plug is hooked to the rod.
4. Insert the rod in the hole determining the depth position with the ring nut "C".
5. Connect the torque adaptor "G" to the handle "E", holding the handle "D" rotate the torque adaptor "G" with a torque screwdriver "H" counter-clockwise. Torque force will have to be set according to suggested value.
6. Holding the handle "E" tight, unscrew the handle "F" (1 or 2 turns are enough).
7. Remove the rod holding it preferably by the handle "D".

PLUGS DISASSEMBLY

1. Insert the rod in the hole and, slightly rotating the handle "D" and "E", apply a light pressure on the plug until the two hexagons "B" have entered in their seats (the operation has completed when the handle "D" and "E" does not rotate anymore).
2. Holding the handle "E" tight, screw the handle "F" locking it with a light pressure and verify that the plug is connected, then pull the rod towards outside.
3. Holding the handle "D" tight, unlock the handle "E" clockwise.
4. Remove APT tool from the bore and unscrew the plug from APT rod.

TORQUE ADAPTOR



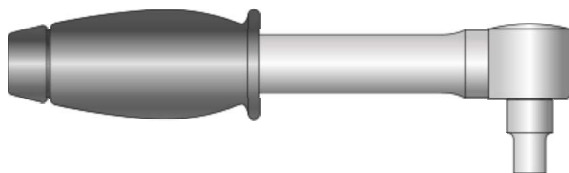
CODE	PLUGS	TORQUE FORCE (Nm)	PRESSURE (BAR)	CH	ASSEMBLY DEVICE
AD-0	TRI-6L TRI-6C	1,5	40	1/4	APT-0
AD-1/2	TRI-8L TRI-8C	2	30	1/4	APT-1
	TRI-10L TRI-10C	2	30		
	TRI-11 TRI-11,5	5	30		
	TRI-12	5	30	1/4	APT-2
	TRI-14	6	30		
	TRI-15	8	30		
AD-3	TRI-16	15	30	3/8	APT-3
	TRI-18	15	15		
	TRI-19	15	15		
	TRI-20	15	15		
	TRI-25	15	15		

TORQUE BAR FOR LEFT-HAND TIGHTENING



CODE: TS-1,2/6

TORQUE RANGE:
1,2÷6 N/m

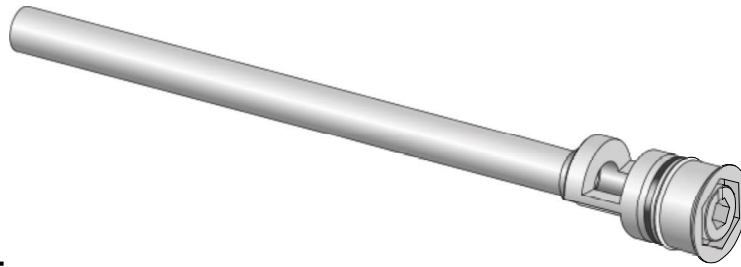


CODE: TB-4/20

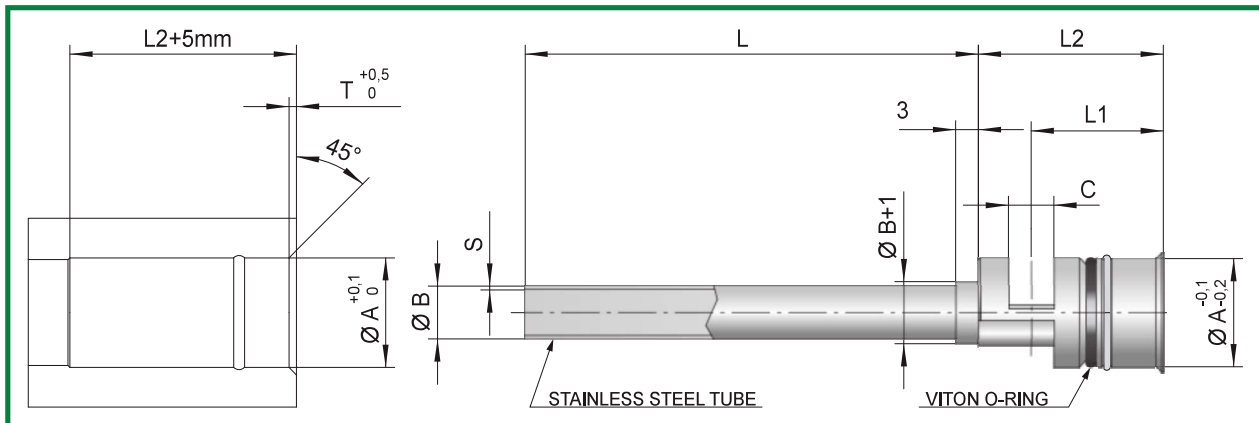
TORQUE RANGE:
4÷20 N/m

BUBBLES

RAPID PLUG AND UNPLUG SYSTEM (PATENTED SYSTEM)

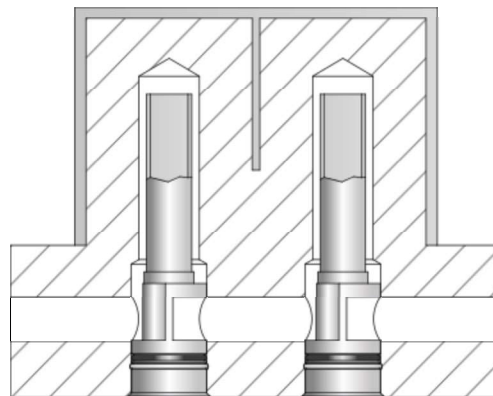


CODE: RF-..



CODE	A	T	B			S	C	L1	L2	L			
RF-8	8,5	1	2	3	4	0,25	4	13,5	18	150	300	450	600
RF-10	10,5	1	2,5	3	4	0,25	5	16	22,5	150	300	450	600
RF-12	12,5	1	6			0,5	5	16,5	23	150	300	450	600
RF-14	14,5	1	7			0,5	6	17,5	24,5	150	300	450	600

Order example: RF-8x150/2l

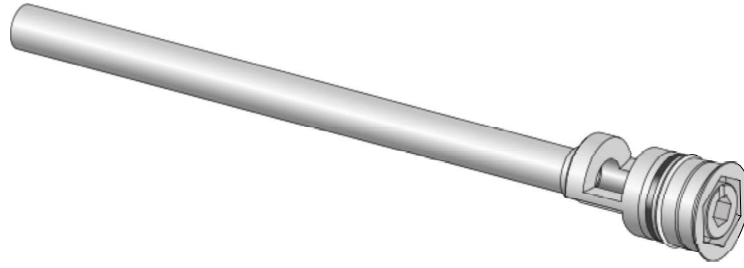


CHARACTERISTICS

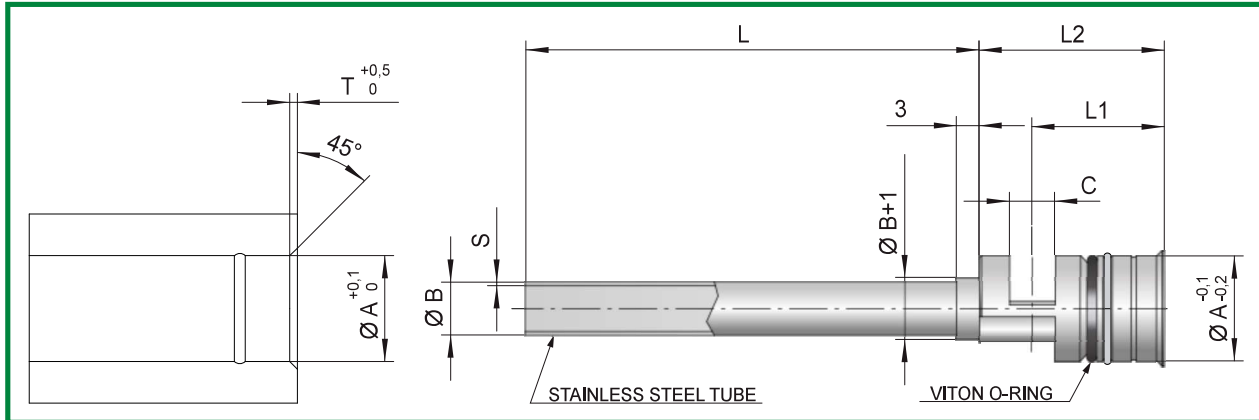
- 1) RAPID MACHINING OF THE HOUSING;
- 2) RAPID FITTING AND REMOVING;
- 3) PLACEMENT VERSATILITY (due to the shape of the inlet and outlet liquid discharges);
- 4) SECURE SEAL IS MAINTAINED EVEN UNDER HIGH PRESSURE CONDITIONS (~100 BAR).

BUBBLES

RAPID PLUG AND UNPLUG SYSTEM (PATENTED SYSTEM)

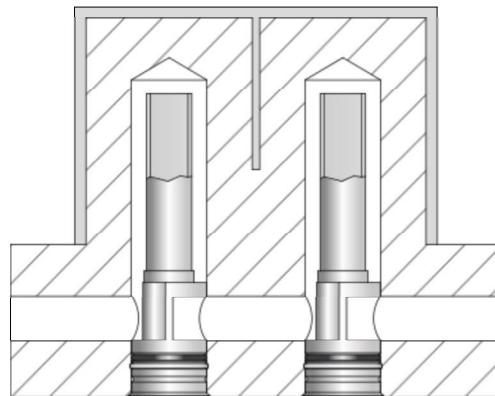


CODE: RF-..F



CODE	A	T	B				S	C	L1	L2	L			
RF-8F	8	1	2	3	4	0,25	4	13,5	18	150	300	450	600	
RF-10F	10	1	2,5	3	4	5	0,25	5	16	22,5	150	300	450	600
RF-12F	12	1	6				0,5	5	16,5	23	150	300	450	600
RF-14F	14	1	7				0,5	6	17,5	24,5	150	300	450	600
RF-16F	16	1,2	8				0,5	8	19	27,5	150	300	450	600
RF-20F	20	1,2	12				1	10	20	29,5	150	300	450	600
RF-25F	25	1,2	15				1	12	22,5	33,5	150	300	450	600

Order example: RF-8Fx150/21

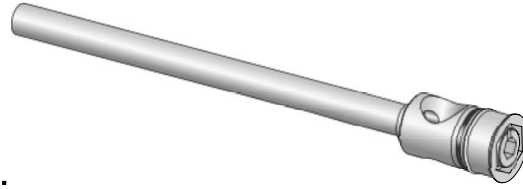


CHARACTERISTICS

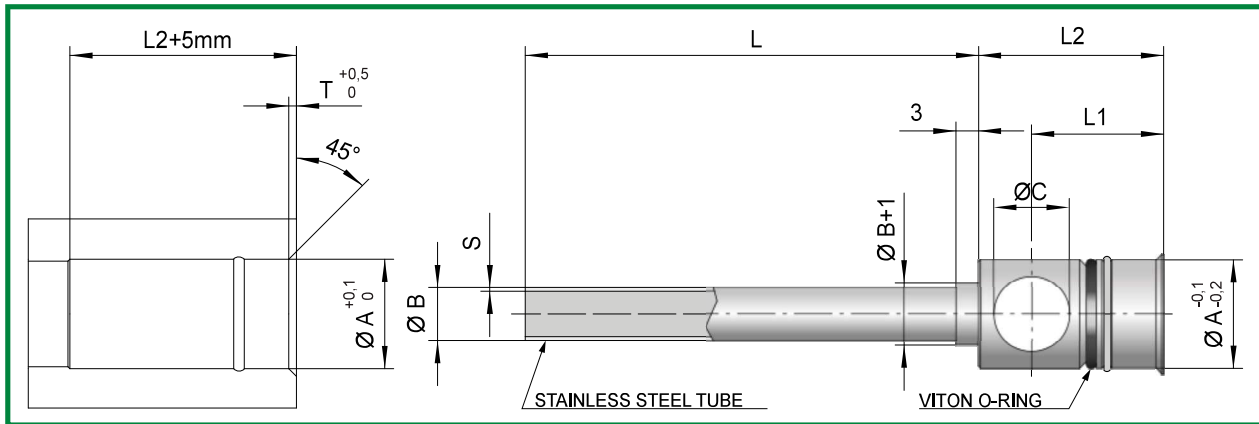
- 1) RAPID MACHINING OF THE HOUSING;
- 2) RAPID FITTING AND REMOVING;
- 3) PLACEMENT VERSATILITY (due to the shape of the inlet and outlet liquid discharges);
- 4) SECURE SEAL IS MAINTAINED EVEN UNDER HIGH PRESSURE CONDITIONS (~100 BAR).

BUBBLES

RAPID PLUG AND UNPLUG SYSTEM
FOR PARALLEL COOLING

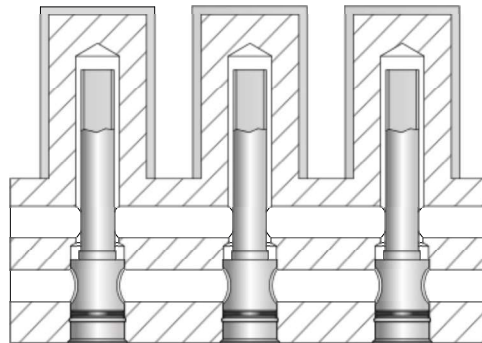


CODE: RFP-..



CODE	A	T	B			S	C	L1	L2	L				
RFP-8	8,5	1	2	3	4	0,25	5,5	13,5	18	150	300	450	600	
RFP-10	10,5	1	2,5	3	4	5	0,25	7	16	22,5	150	300	450	600
RFP-12	12,5	1	6			0,5	8	16,5	23	150	300	450	600	
RFP-14	14,5	1	7			0,5	10	17	24,5	150	300	450	600	

Order example: RFP-8x150/2l

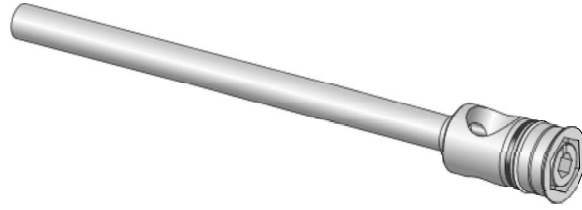


CHARACTERISTICS

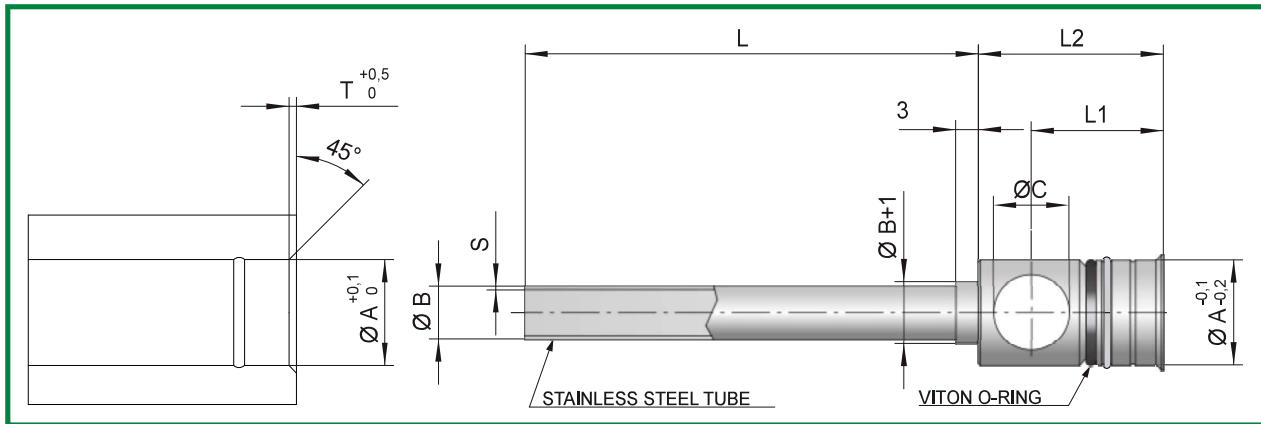
- 1) RAPID MACHINING OF THE HOUSING;
- 2) RAPID FITTING AND REMOVING;
- 3) UNIFORMITY OF TEMPERATURE ON THE MOULD;
- 4) SECURE SEAL IS MAINTAINED EVEN UNDER HIGH PRESSURE CONDITIONS (~100 BAR).

BUBBLES

RAPID PLUG AND UNPLUG SYSTEM FOR PARALLEL COOLING

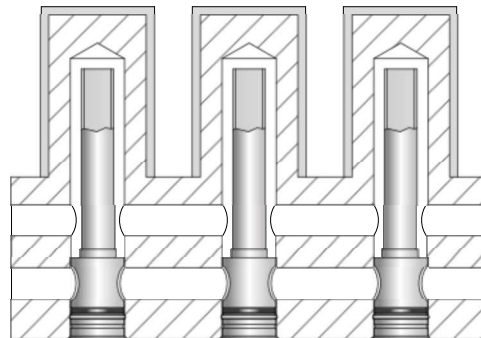


CODE: RFP-..F



CODE	A	T	B				S	C	L1	L2	L			
RFP-8F	8	1	2	3	4	0,25	5,5	13,5	18	150	300	450	600	
RFP-10F	10	1	2,5	3	4	5	0,25	7	16	22,5	150	300	450	600
RFP-12F	12	1	6				0,5	8	16,5	23	150	300	450	600
RFP-14F	14	1	7				0,5	10	17	24,5	150	300	450	600
RFP-16F	16	1,2	8				0,5	12	19	27,5	150	300	450	600
RFP-20F	20	1,2	12				0,5	14	20	29,5	150	300	450	600
RFP-25F	25	1,2	15				0,5	16	22,5	33,5	150	300	450	600

Order example: RFP-8Fx150/2l



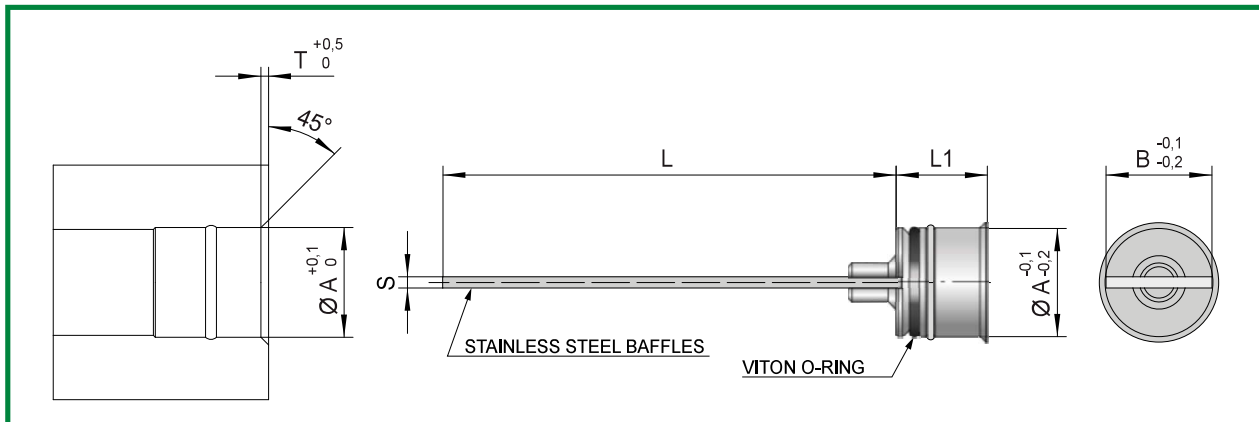
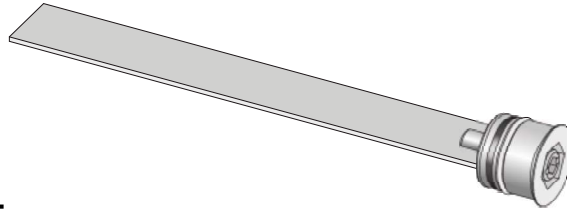
CHARACTERISTICS

- 1) RAPID MACHINING OF THE HOUSING;
- 2) RAPID FITTING AND REMOVING;
- 3) UNIFORMITY OF TEMPERATURE ON THE MOULD;
- 4) SECURE SEAL IS MAINTAINED EVEN UNDER HIGH PRESSURE CONDITIONS (~100 BAR).

BAFFLES

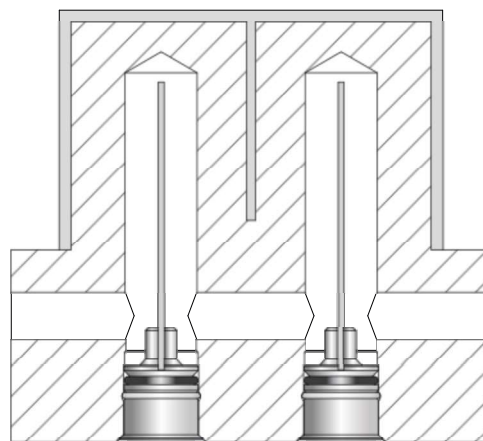
RAPID PLUG AND UNPLUG SYSTEM
(PATENTED SYSTEM)

CODE: RL-..



CODE	A	T	S	B	L1	L		
RL-6	6,5	0,7	1	6	7,5	100	200	300
RL-8	8,5	1	1	8	9,5	100	200	300
RL-10	10,5	1	1	10	12,5	100	200	300
RL-12	12,5	1	1	12	12,5	100	200	300
RL-14	14,5	1	1	14	12,5	100	200	300

Order example: RL-8x100

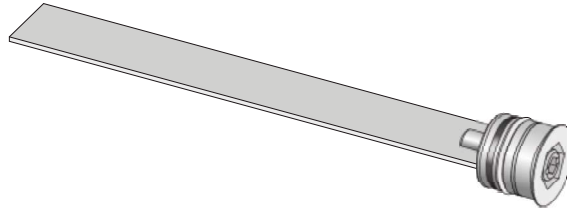


CHARACTERISTICS

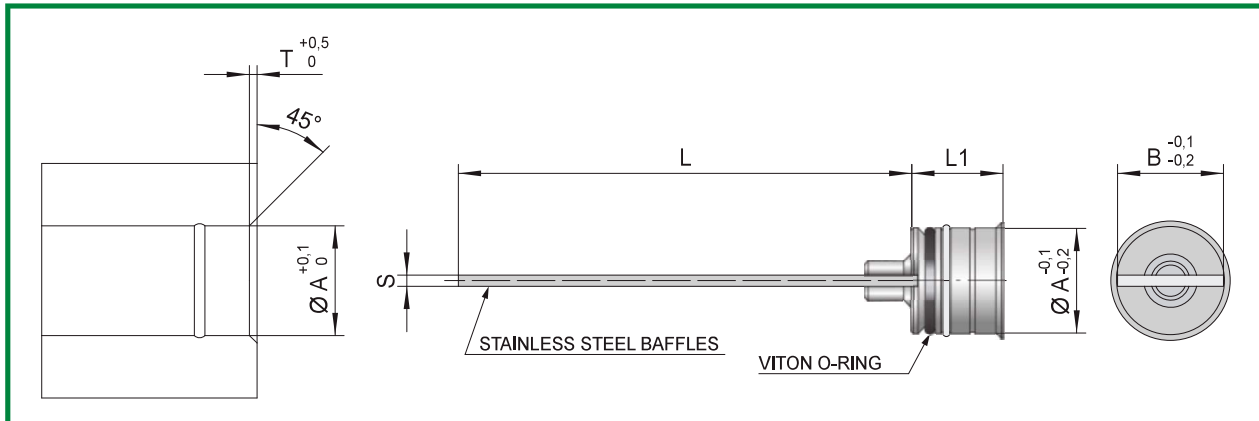
- 1) RAPID MACHINING OF THE HOUSING;
- 2) RAPID FITTING AND REMOVING;
- 3) SUPPLIED WITH VITON O-RINGR WHICH MAY ALSO BE USED AT HIGH TEMPERATURES;
- 4) SECURE SEAL IS MAINTAINED EVEN UNDER HIGH PRESSURE CONDITIONS (~100 BAR).

BAFFLES

RAPID PLUG AND UNPLUG SYSTEM (PATENTED SYSTEM)



CODE: RL-..F



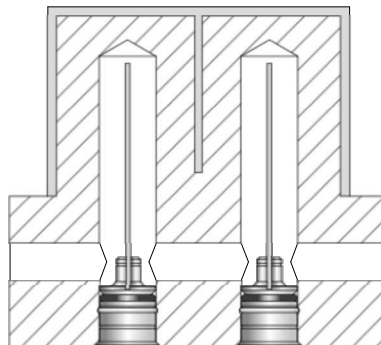
CODE	A	B	T	S	L1	L			
RL-6F	6	6	0,7	1	7,5	100	200	300	
RL-8F	8	8	1	1	9,5	100	200	300	
RL-10F	10	10	1	1	12,5	100	200	300	
RL-12F	12	12	1	1	12,5	100	200	300	
RL-14F	14	14	1	1	12,5	100	200	300	
RL-15F	15	15	1,2	1	14	150	300	450	600
RL-16F	16	15,5 16	1,2	1	14	150	300	450	600
RL-19F	19	19	1,2	1	14	150	300	450	600
RL-20F	20	19,5 20	1,2	1	14	150	300	450	600
RL-25F	25	24,5 25	1,2	1	14	150	300	450	600
RL-30F	30	30	1,2	1	14	150	300	450	600

Order example: RL-8Fx100

N.B.: The baffles RL-16F-20F-25F are available with two different baffle dimensions "B".

Order example:

RL-16Fx150p (baffle 15,5mm)

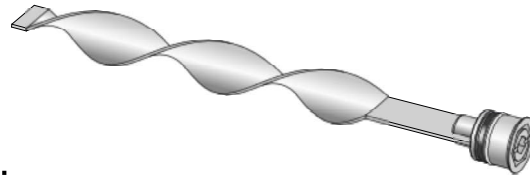


CHARACTERISTICS

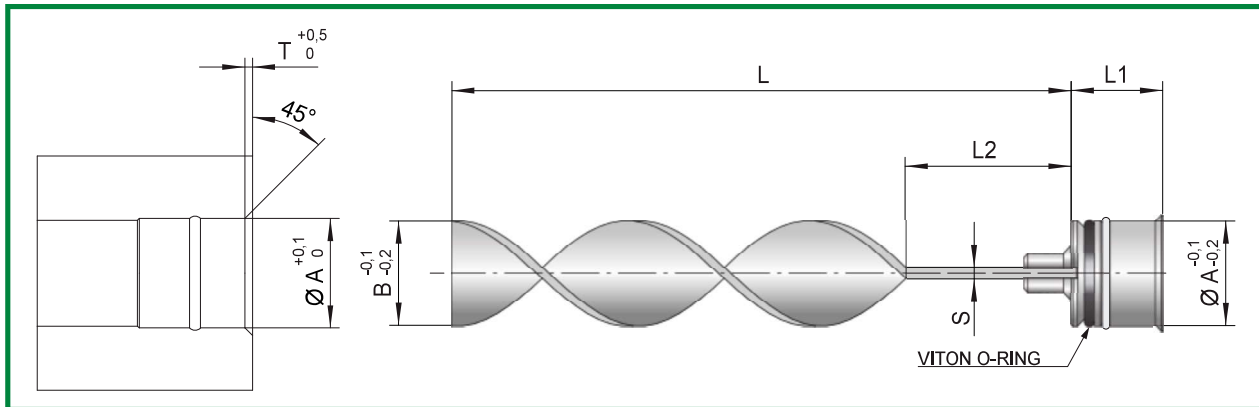
- 1) RAPID MACHINING OF THE HOUSING;
- 2) RAPID FITTING AND REMOVING;
- 3) SUPPLIED WITH VITON O-RING WHICH MAY ALSO BE USED AT HIGH TEMPERATURES;
- 4) SECURE SEAL IS MAINTAINED EVEN UNDER HIGH PRESSURE CONDITIONS (~100 BAR).

BAFFLES

RAPID PLUG AND UNPLUG SYSTEM SPIRAL SHAPE

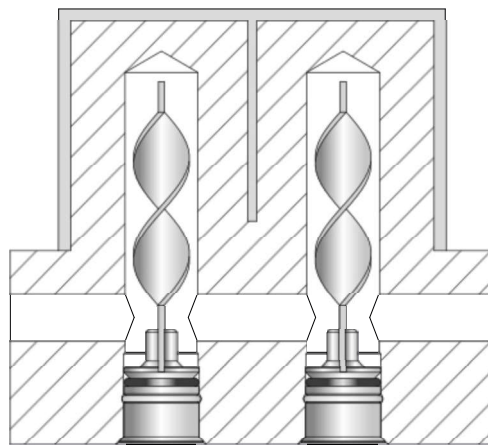


CODE: RLS-...



CODE	A	B	T	S	L1	L2	L		
RLS-6	6,5	6	0,7	1	7,5	1/4 L	100	200	300
RLS-8	8,5	8	1	1	9,5	1/4 L	100	200	300
RLS-10	10,5	10	1	1	12,5	1/4 L	100	200	300
RLS-12	12,5	12	1	1	12,5	1/4 L	100	200	300
RLS-14	14,5	14	1	1	12,5	1/4 L	100	200	300

Order example: RLS-8x100

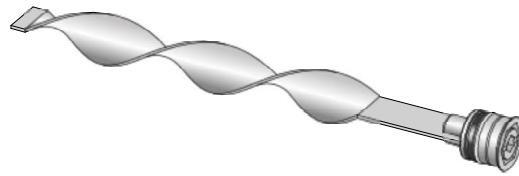


CHARACTERISTICS

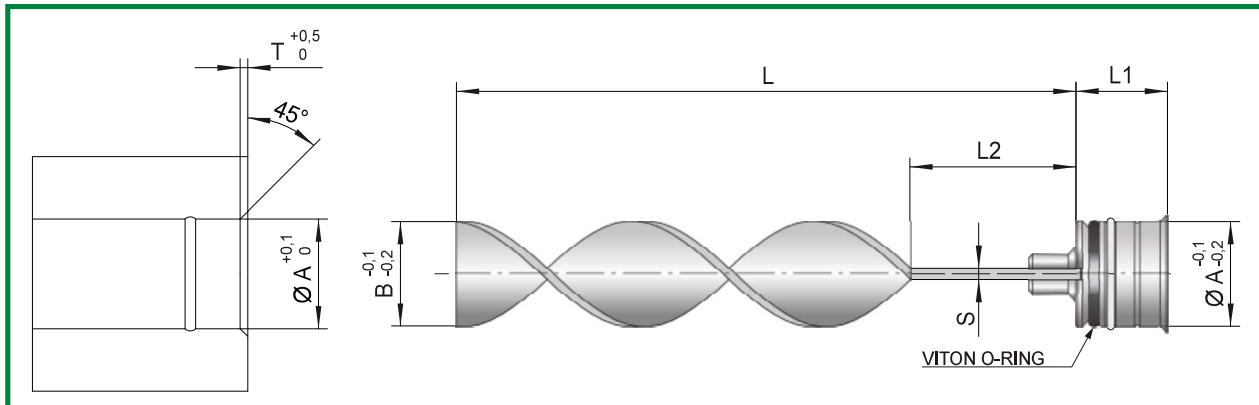
- 1) RAPID MACHINING OF THE HOUSING;
- 2) RAPID FITTING AND REMOVING;
- 3) OPTIMIZATION OF THE COOLING;
- 4) SECURE SEAL IS MAINTAINED EVEN UNDER HIGH PRESSURE CONDITIONS (~100 BAR).

BAFFLES

RAPID PLUG AND UNPLUG SYSTEM SPIRAL SHAPE



CODE: RLS-..F



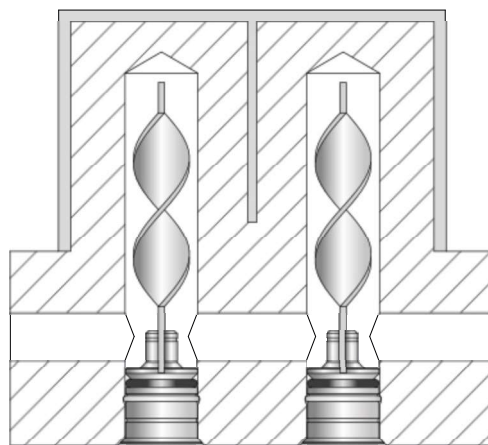
CODE	A	B	T	S	L1	L2	L				
RLS-6F	6	6	0,7	1	7,5	1/4L	100	200	300		
RLS-8F	8	8	1	1	9,5	1/4L	100	200	300		
RLS-10F	10	10	1	1	12,5	1/4L	100	200	300		
RLS-12F	12	12	1	1	12,5	1/4L	100	200	300		
RLS-14F	14	14	1	1	12,5	1/4L	100	200	300		
RLS-16F	16	15,5	16	1,2	14	1/4L	150	300	450	600	
RLS-20F	20	19,5	20	1,2	1,5	14	150	300	450	600	
RLS-25F	25	24,5	25	1,2	1,5	14	150	300	450	600	

Order example: RLS-8Fx100

N.B.: The baffles RL-16F-20F-25F are available with two different baffle dimensions "B".

Order example:

RLS -16Fx150p (baffle 15,5mm)



CHARACTERISTICS

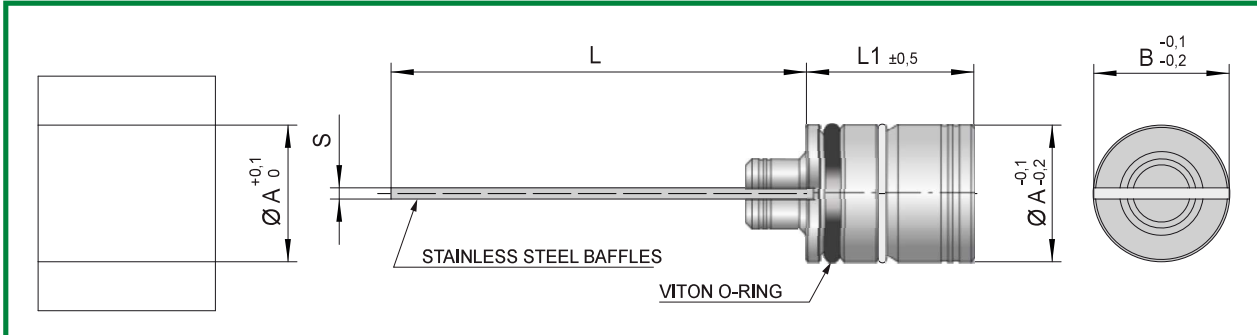
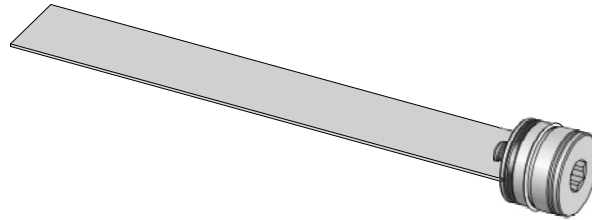
- 1) RAPID MACHINING OF THE HOUSING;
- 2) RAPID FITTING AND REMOVING;
- 3) OPTIMIZATION OF THE COOLING;
- 4) SECURE SEAL IS MAINTAINED EVEN UNDER HIGH PRESSURE CONDITIONS (~100 BAR).

N.B.: THE BLADES 1 mm THICK ARE IN STAINLESS STEEL. THE BLADE 1,5 mm THICK ARE IN BRASS OT63.

INTERNAL BAFFLES

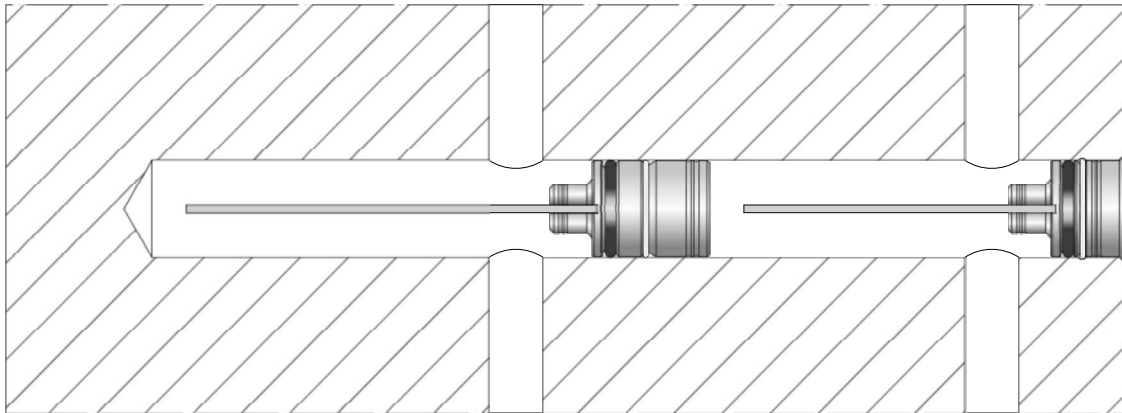
RAPID PLUG AND UNPLUG SYSTEM

CODE: RLI-..



CODE	A	B	S	L1	L				ASSEMBLY DEVICE
RLI-16F	16	16	1	22	150	300	450	600	APT-3
RLI-20F	20	20	1	22,5	150	300	450	600	
RLI-25F	25	25	1	22,5	150	300	450	600	

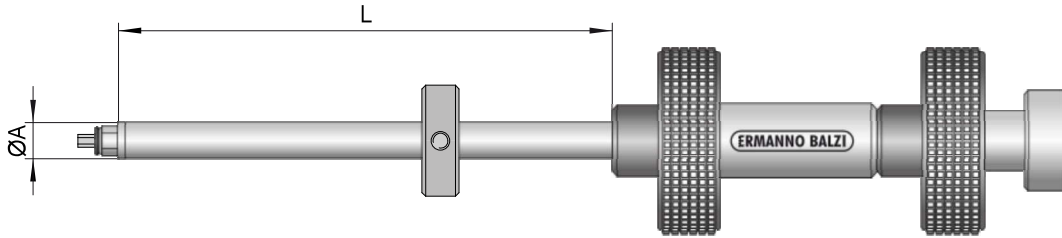
Order example: RLI-16Fx150



CHARACTERISTICS

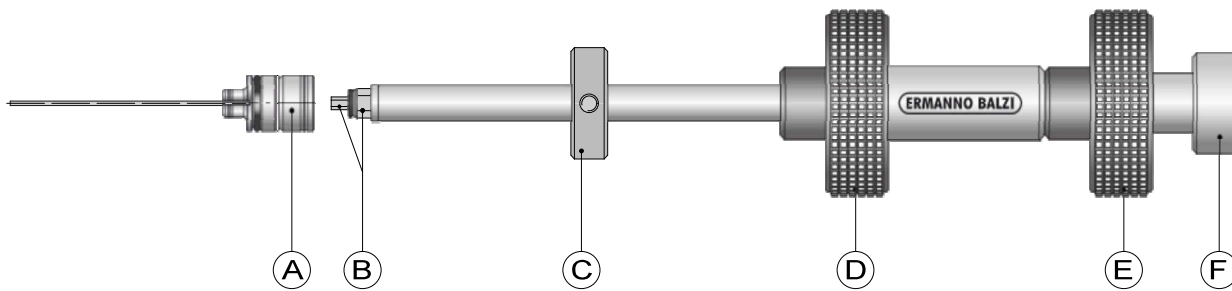
- 1) RAPID FITTING AND REMOVING;
- 2) EASY BLADE ORIENTATION;
- 3) SUPPLIED WITH VITON O-RING WHICH MAY ALSO BE USED AT HIGH TEMPERATURES.

ASSEMBLY DEVICE



CODE	Ø	L
APT-3	14	1000

N.B.: on demand the rod can be supplied in special lengths.

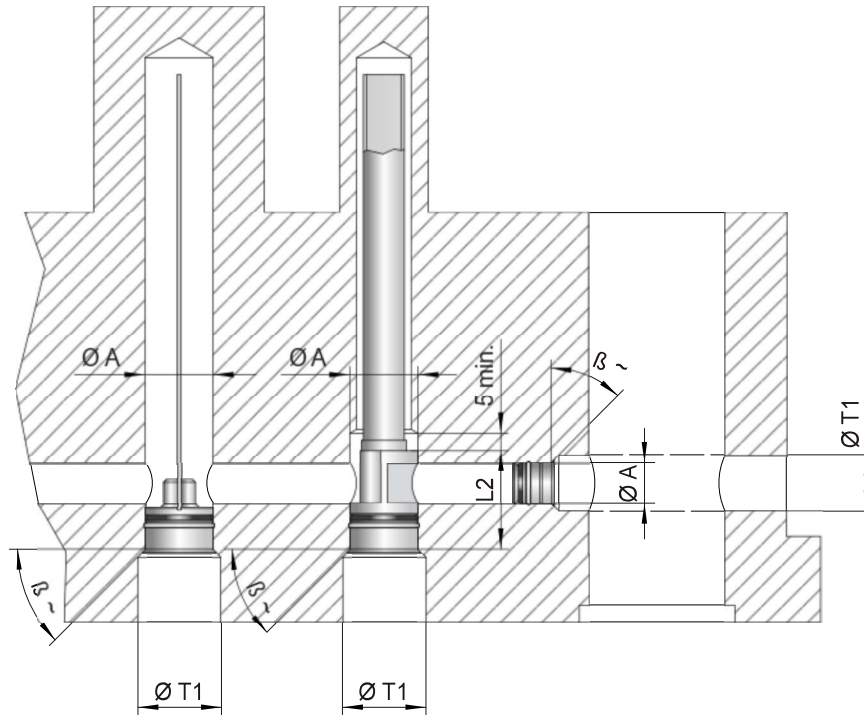


BAFFLE ASSEMBLY

1. Assemble the baffle "A" around two hexagons "B" verifying that it's well inserted.
2. Holding the handle "E" tight, screw the handle "F", blocking it with a light pressure.
3. Verify that the baffle is hooked to the rod.
4. Insert the rod in the hole determining the position with the ring nut "C".
5. Holding the handle "E" tight, rotate the handle "D" counter-clockwise until it blocks .
6. Verify that the baffle is blocked in the hole, pushing the rod forwards and backwards.
7. Holding the handle "E" tight, unscrew the handle "F" (1 or 2 turns are enough).
8. Unthread the rod preferably by the handle "D".

BAFFLE DISASSEMBLY

1. Insert the rod in the hole and, slightly rotating the handle "D" and "E", practice a light pressure on the baffle until the two hexagons "B" have entered in their seats (the operation has happened when the handle "D" and "E" don't rotate anymore).
2. Holding the handle "E" tight, screw the handle "F" blocking it with a light pressure and verify that the baffle is hooked, pulling the rod towards outside.
3. Holding the handle "D" tight, unblock the handle "F" clockwise.
4. Remove APT tool from the bore and unscrew the baffle from APT rod.



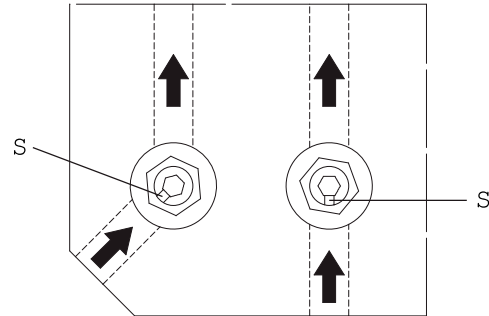
NOTE:

1. In the case where it is necessary to position some cooling elements in depth (as in the diagram above) and it is desired to execute the retaining groove using the appropriate tool, you will have to machine the undercut ØT1 with the measures indicated in table.
2. The angle β (front inclination of the drill) should vary from a minimum of 0° to a maximum of 45° .
3. During the execution of a seat with double diameter (as in the diagram above), the depth of the ØA must be at least 5mm longer than the dimension «L2» of the bubbles.

DIMENSION ØA OF THE ITEM TO APPLY	ØT1	L2
5	10,5	/
6/6,5	10,5	/
8/8,5	13	18
10/10,5	16,5	22
11	16,5	/
11,5	16,5	/
12/12,5	16,5	24
14/14,5	17,5	24
15	20	/
16	20,5	27,5
18	22,5	/
19	23,5	/
20	24,5	29,5
25	29	33,5
30	35	/

POSITIONING OF THE BUBBLES

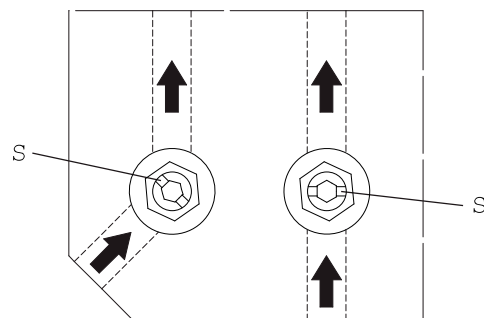
In order to obtain a proper circulation of the coolant, position the reference mark S that you can find on the bubble as indicated in the diagram.



POSITIONING OF THE BAFFLES

In order to obtain a proper circulation of the liquid, position the reference marks S that you can find on the baffles as indicated in the diagram.

The reference marks correspond to the position of the blade.



APPLICATION OF BAFFLES RL / RLS

Considering that the baffles with \varnothing bigger than 14mm are available only in the set F, and if it is not possible to machine the hole with gun drill, it is advisable to apply the baffle set F with a width B lower than the major diameter and to proceed as in the example.

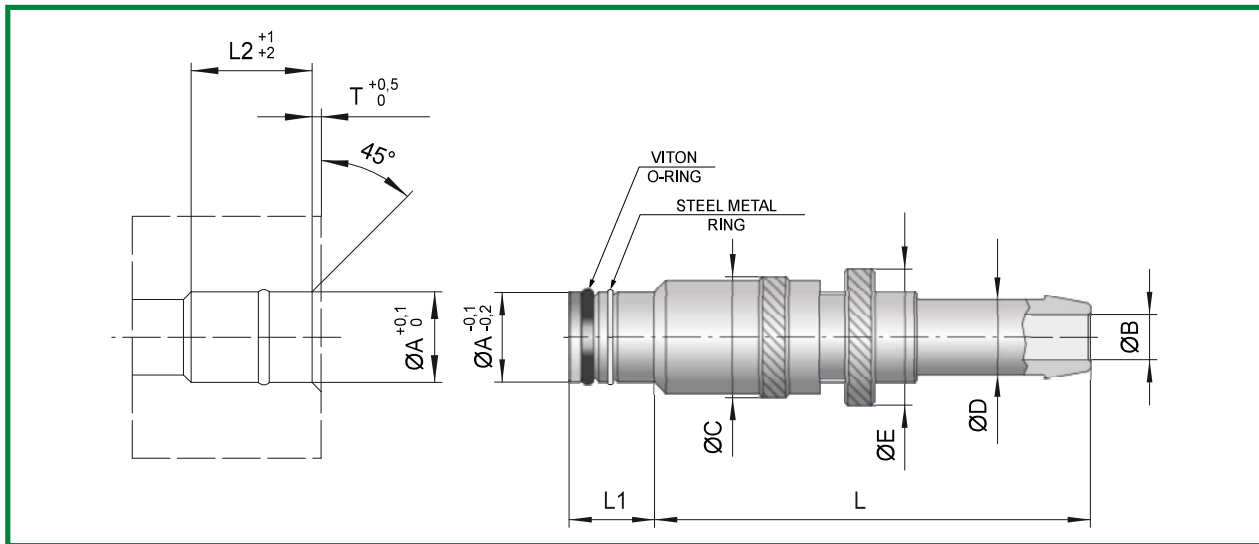
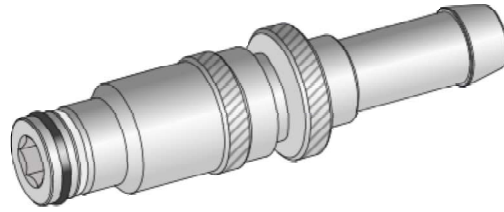
EXAMPLE OF APPLICATION RL-16Fp (B=15,5mm)

1. perform hole with drill $\varnothing 15,5$;
2. perform blade with a reamer $\varnothing 16$ for a depth of $L2+5\text{mm}$;
3. to go on with the procedure for the application of the item set F.

RAPID CONNECTOR

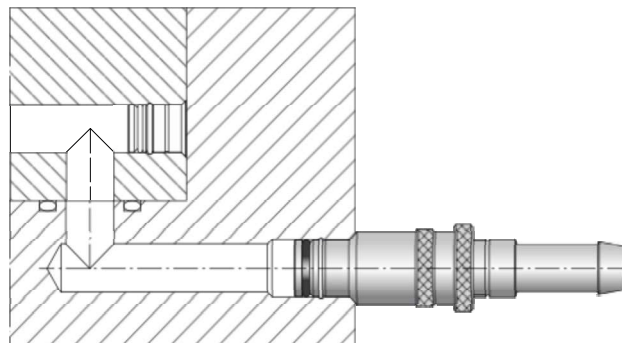
RAPID PLUG AND UNPLUG SYSTEM
(PATENTED SYSTEM)

CODE: AR-..



CODE	A	B	C	D	E	T	L	L1	L2
AR12	12	6	16	10	18	1	57	12	14
AR16	16	9	19	13	22	1	60	12,5	15
AR20	20	13	24	20	28	1	73	13,5	16,5

Order example: AR12



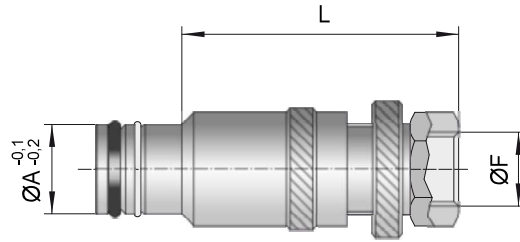
CHARACTERISTICS

- 1) RAPID MACHINING OF THE HOUSING;
- 2) RAPID FITTING AND REMOVING;
- 3) CONTAINED DIMENSION OF ENCUMBRANCE;
- 4) SUPPLIED WITH VITON O-RING FOR USE AT HIGH TEMPERATURES.

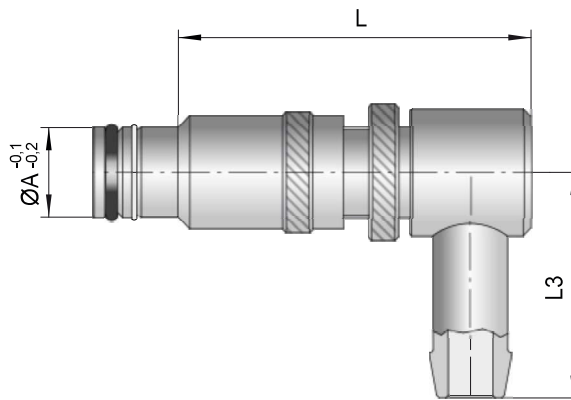
N.B.: AFTER THE RELEASE IT IS POSSIBLE TO CLOSE THE CONNECTOR WITH A CAP IN PP.

RAPID CONNECTOR

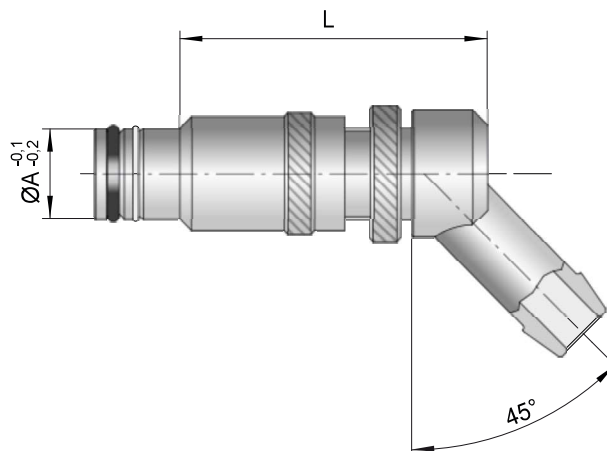
RAPID PLUG AND UNPLUG SYSTEM (PATENTED SYSTEM)



CODE	A	F	L
AR12-1/8	12	1/8	37
AR16-1/4	16	1/4	40
AR20-1/2	20	1/2	55

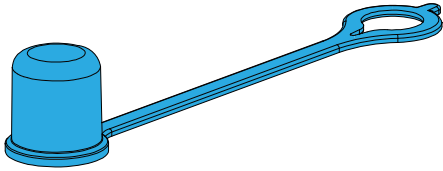


CODE	A	L	L3
AR12-90	12	47	30
AR16-90	16	55	30
AR20-90	20	65	42



CODE	ØA	L
AR12-45	12	40
AR16-45	16	46
AR20-45	20	60

CLOSING PLUG IN TWO COLORS

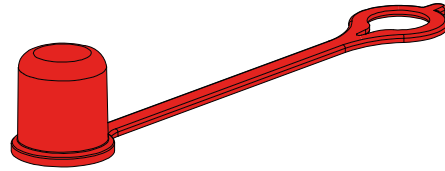


CODE (BLUE)

AR12-TPa

AR16-TPa

AR20-TPa



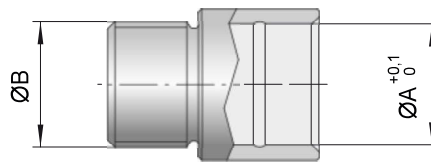
CODE (RED)

AR12-TPr

AR16-TPr

AR20-TPr

REDUCTION FOR THREADED HOLES



MAT.: BRASS

CODE	A	B
AR12-R1/4	12	1/4
AR16-R3/8	16	3/8
AR20-R1/2	20	1/2

VITON O-RING

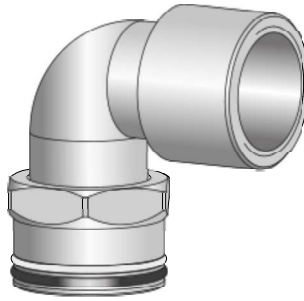


MAT.:VITON

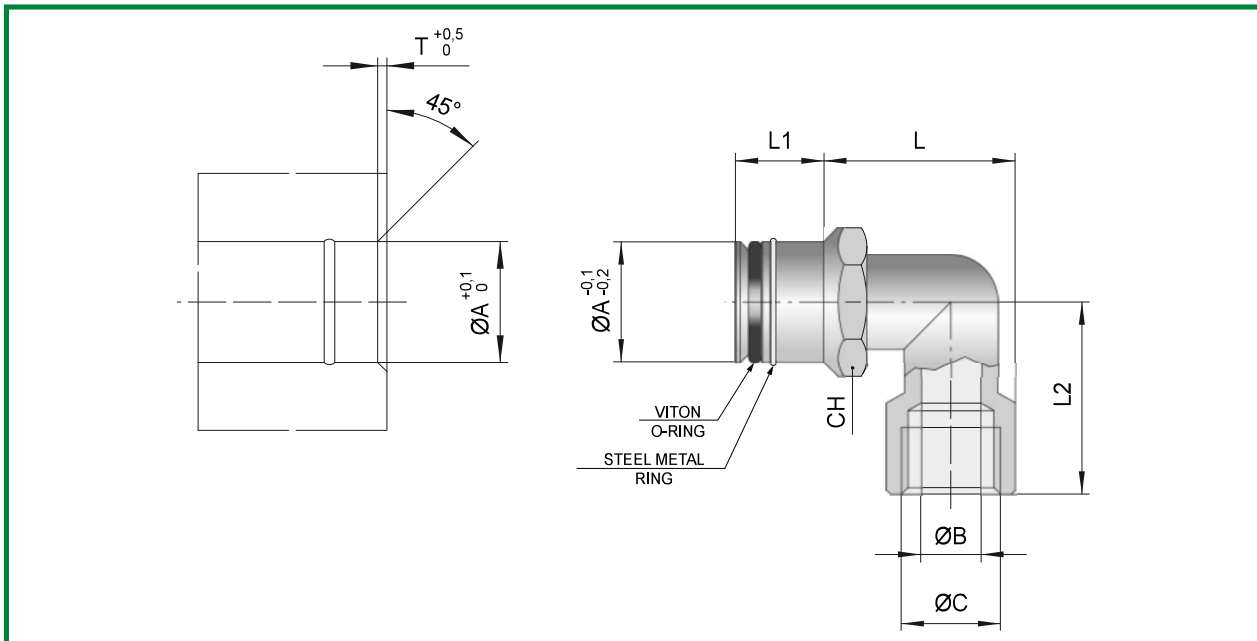
CODE	O-RING
AR12-OR	OR107
AR16-OR	OR114
AR20-OR	OR2062

CONNECTOR BRIDGE

RAPID PLUG AND UNPLUG SYSTEM
(PATENTED SYSTEM)



CODE: PT-..



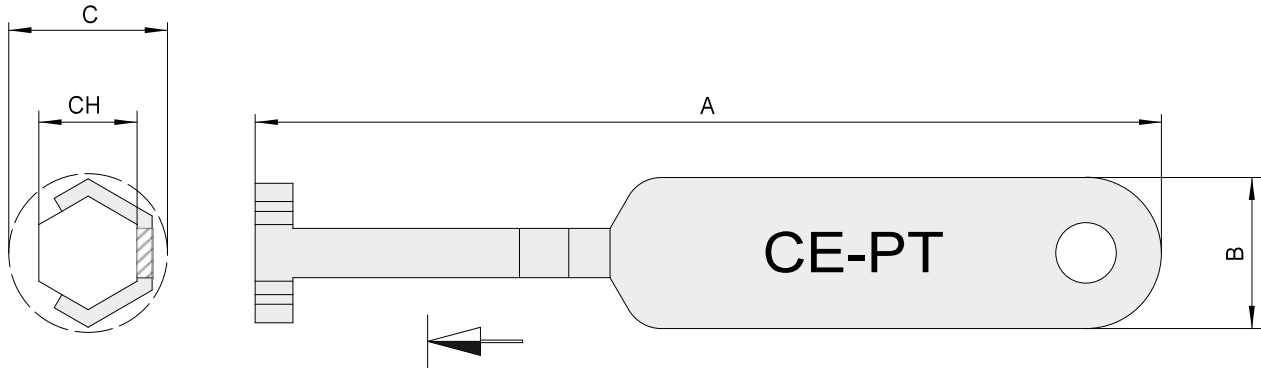
CODE	A	B	C	T	L	L1	L2	CH
PT12	12	5,5	1/8"	1	20	11,5	20	13
PT16	16	8	1/4"	1,2	25	12	25,5	17
PT20	20	10	3/8"	1,2	30	12	31	21
PT25	25	14	1/2"	1,2	36	12	35	26

Order example: PT12

CHARACTERISTICS

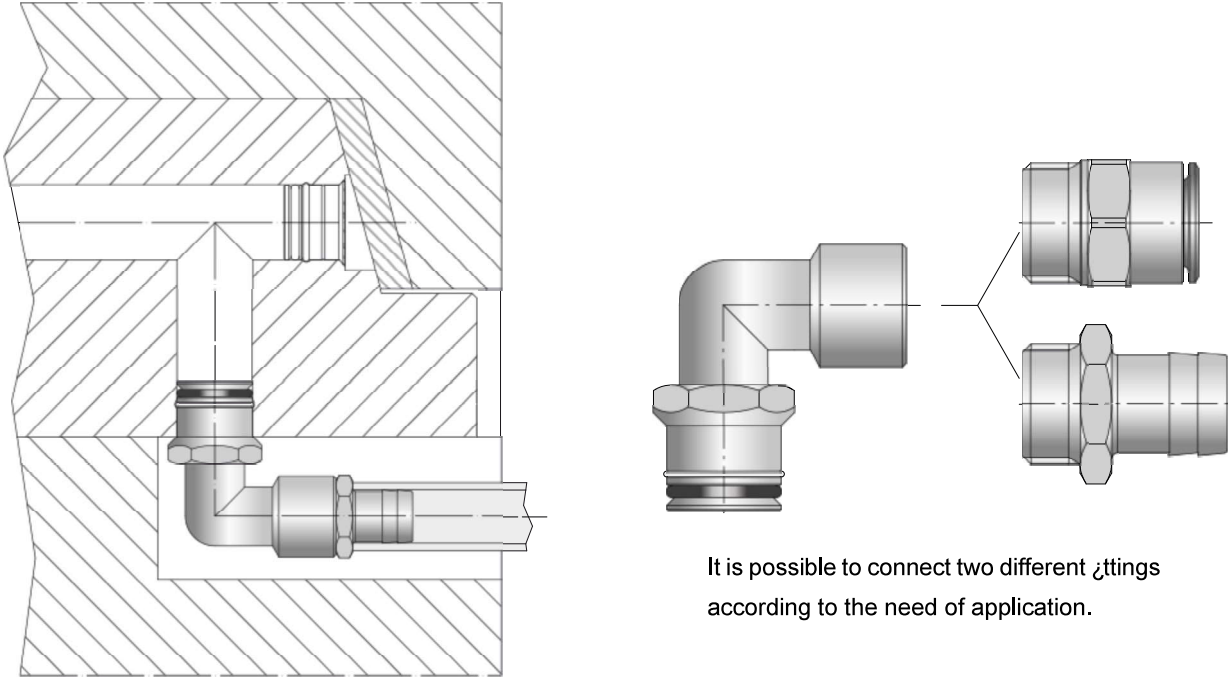
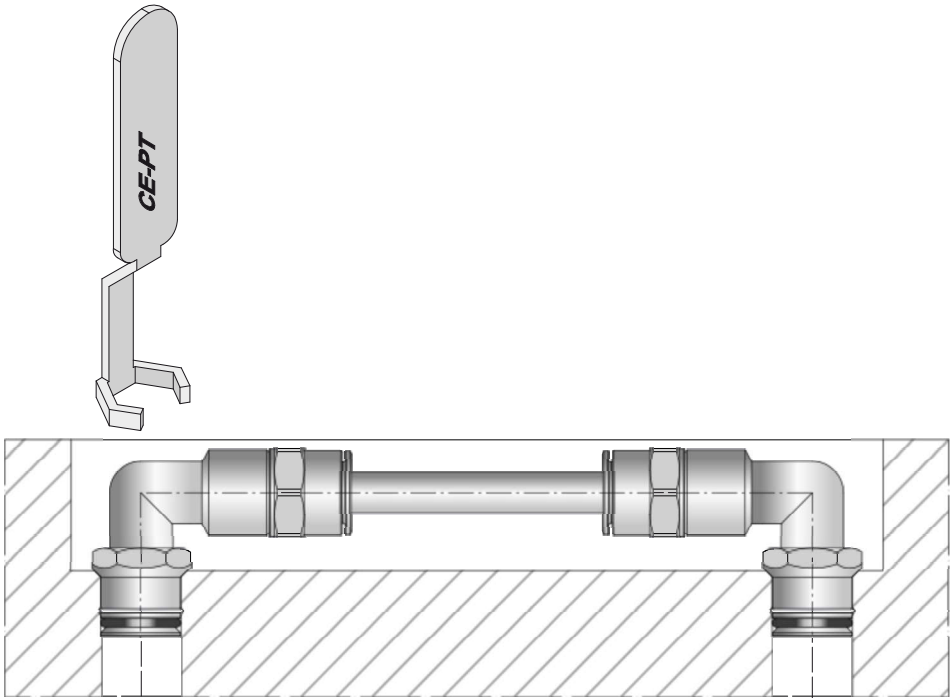
- 1) RAPID MACHINING OF THE HOUSING (check canal can be made with suitable tool);
- 2) CONTAINED DIMENSION OF ENCUMBRANCE;
- 3) SUPPLIED WITH VITON O-RING FOR USE AT HIGH TEMPERATURES;
- 4) POSSIBILITY OF 360° ROTATION.

KEY FOR APPLICATION IN DEPTH



CODE	A	B	C	CH
CE-PT12	120	20	21	13
CE-PT16	120	20	27	17
CE-PT20	120	20	32	21
CE-PT25	120	20	38	26

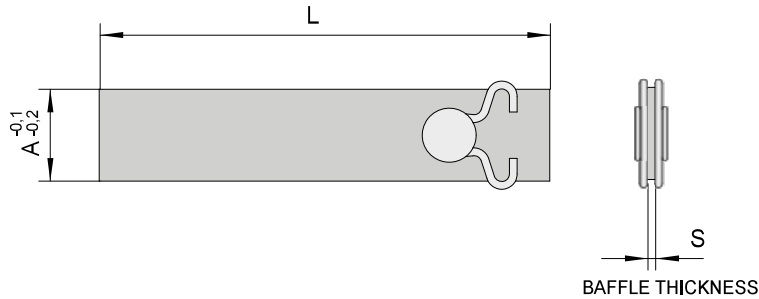
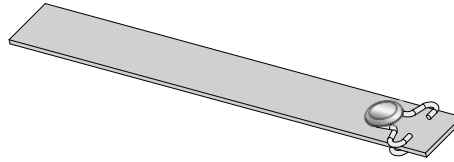
APPLICATION IN DEPTH



SELF-LOCKING

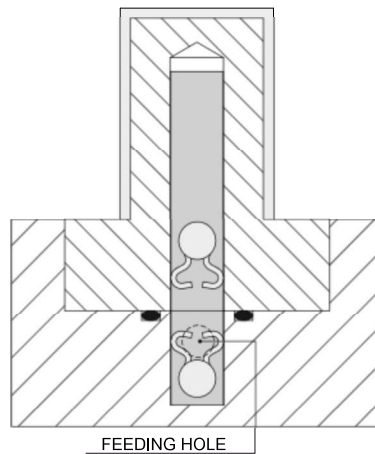
WITH POSITIONING SYSTEM

CODE: RLA-..



CODE	A	S	L		
RLA-10	10	1	18	100	200
RLA-12	12	1	20	100	200
RLA-14	14	1	22	100	200
RLA-16	16	1	24	150	300
RLA-20	20	1	26	150	300
RLA-25	25	1	28	150	300

Order example: RLA-12x100



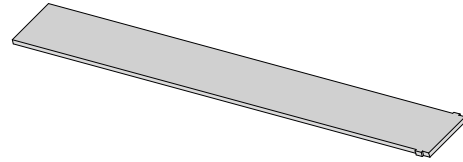
CHARACTERISTICS

- 1) RAPID APPLICATION;
- 2) POSSIBILITY TO REALIZE, WITH THE APPROPRIATE TOOL, A SEATING FOR THE POSITIONING OF THE BAFFLE;
- 3) SECURE POSITIONING EVEN IN CASE OF MAINTENAGE;
- 4) UNLIMITED REUTILIZATION.

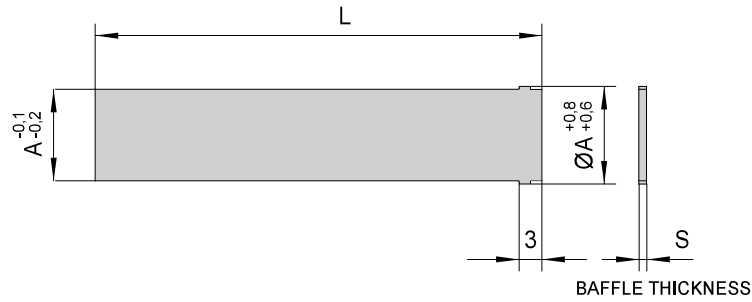
N.B.: ALL THE BAFFLES ARE IN STAINLESS STEEL.

SELF-LOCKING

WITH POSITIONING SYSTEM

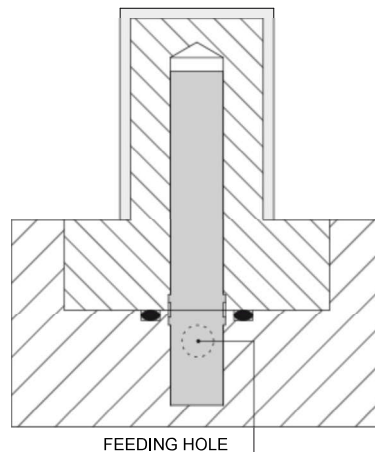


CODE: RLA-..SM



CODE	A	S	L		
RLA-6SM	6	1	14	100	200
RLA-8SM	8	1	16	100	200
RLA-10SM	10	1	18	100	200
RLA-12SM	12	1	20	100	200
RLA-14SM	14	1	22	100	200
RLA-16SM	16	1	24	150	300
RLA-20SM	20	1	26	150	300
RLA-25SM	25	1	28	150	300

Order example: RLA-12SMx100



CHARACTERISTICS

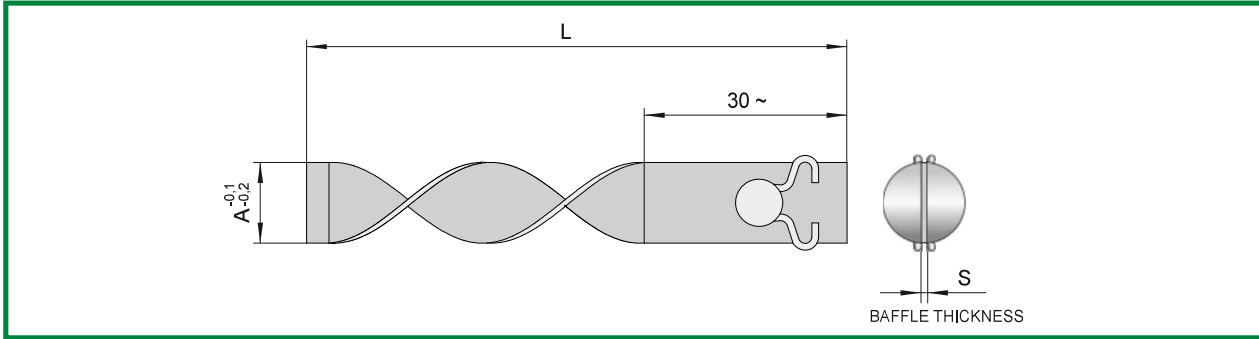
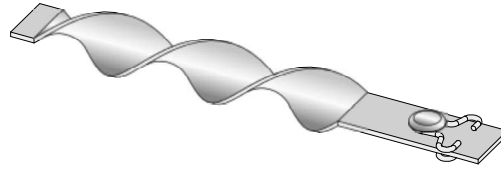
- 1) RAPID APPLICATION;
- 2) POSSIBILITY TO REALIZE, WITH THE APPROPRIATE TOOL, A SEATING FOR THE POSITIONING OF THE BAFFLE;
- 3) SECURE POSITIONING EVEN IN CASE OF MAINTENAGE;
- 4) UNLIMITED REUTILIZATION.

N.B.: ALL THE BAFFLES ARE IN STAINLESS STEEL.

SELF-LOCKING

WITH SPIRAL BAFFLE

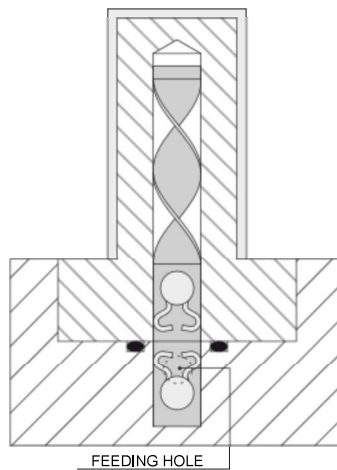
CODE: RLAS-..



CODE	A	S		L	
RLAS-10	10	1	18 *	100	200
RLAS-12	12	1	20 *	100	200
RLAS-14	14	1	22 *	100	200
RLAS-16	16	1	24 *	150	300
RLAS-20	20	1,5	26 *	150	300
RLAS-25	25	1,5	28 *	150	300

Order example: RLAS-12x100

* BAFFLE WITHOUT SPIRAL



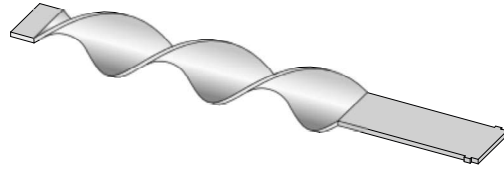
CHARACTERISTICS

- 1) RAPID APPLICATION;
- 2) UNLIMITED REUTILIZATION.

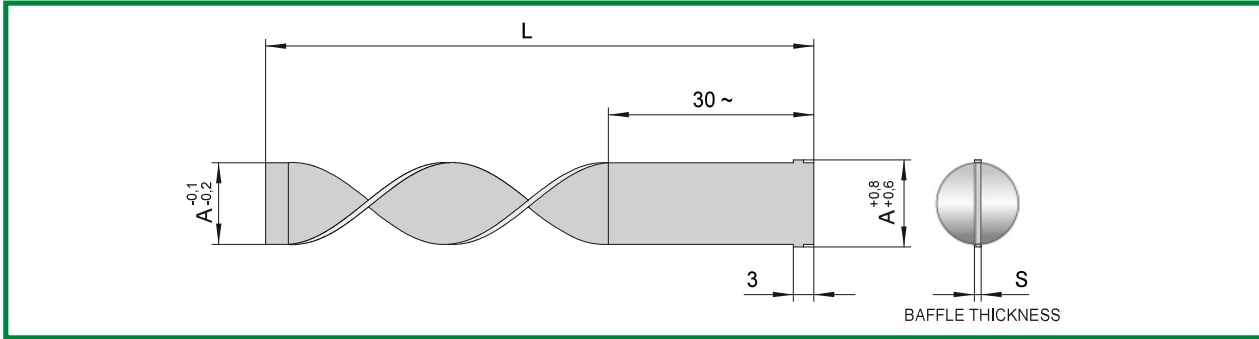
N.B.: THE BLADES 1 mm THICK ARE IN STAINLESS STEEL. THE BLADE 1,5 mm THICK ARE IN BRASS OT63.

SELF-LOCKING

WITH SPIRAL BAFFLE



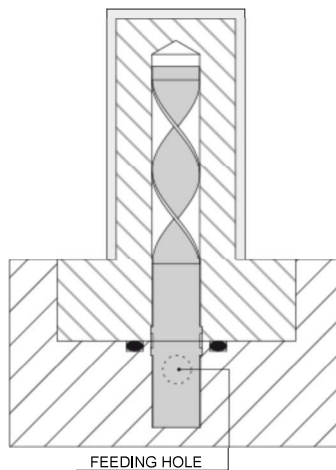
CODE: RLAS-..SM



CODE	A	S	L		
RLAS-6SM	6	1	14 *	100	200
RLAS-8SM	8	1	16 *	100	200
RLAS-10SM	10	1	18 *	100	200
RLAS-12SM	12	1	20 *	100	200
RLAS-14SM	14	1	22 *	100	200
RLAS-16SM	16	1	24 *	150	300
RLAS-20SM	20	1,5	26 *	150	300
RLAS-25SM	25	1,5	28 *	150	300

Order example: RLAS-12SMx100

* BAFFLE WITHOUT SPIRAL



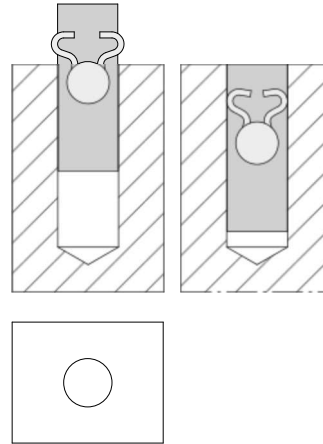
CHARACTERISTICS

- 1) RAPID APPLICATION;
- 2) POSSIBILITY TO REALIZE, WITH A PROPER TOOL, A SEATING FOR THE POSITIONING OF THE BAFFLE.

N.B.: THE BLADES 1 mm THICK ARE IN STAINLESS STEEL. THE BLADE 1,5 mm THICK ARE IN BRASS OT63.

APPLICATION OF BAFFLES RLA

The standard type COD. RLA is inserted in the hole without additional machining and the double spring allows the locking inside the same hole.



APPLICATION OF BAFFLES RLA-SM

REALIZATION OF THE SEAT FOR THE BAFFLES RLA-SM

1. Insert the tool in a normal spindle for drill or of any type.
2. Insert a hinge \varnothing 6 mm on the hole over tool and orientate the insert.
3. Center the hole to machine until the insert rests on the piece.
4. To make the machining, press until the tool UTB rests on the piece, then to return.

Due to small dimension the tool BR-6 can not properly expel the chips produced during the machining.

Because of this reason it is necessary to perform the broaching in two steps:

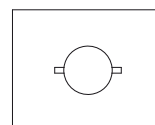
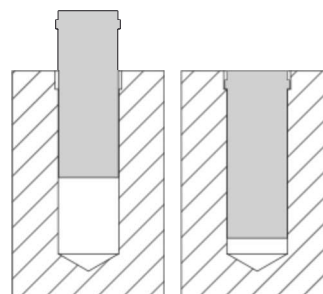
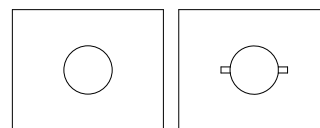
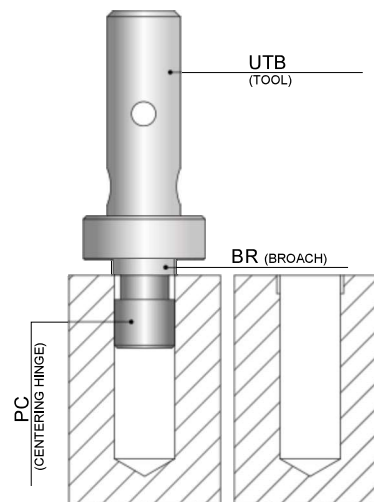
- to broach for a 1st stroke (\sim 1,5mm) and step back to help the chip evacuate;
- to complete the broaching.

NB :

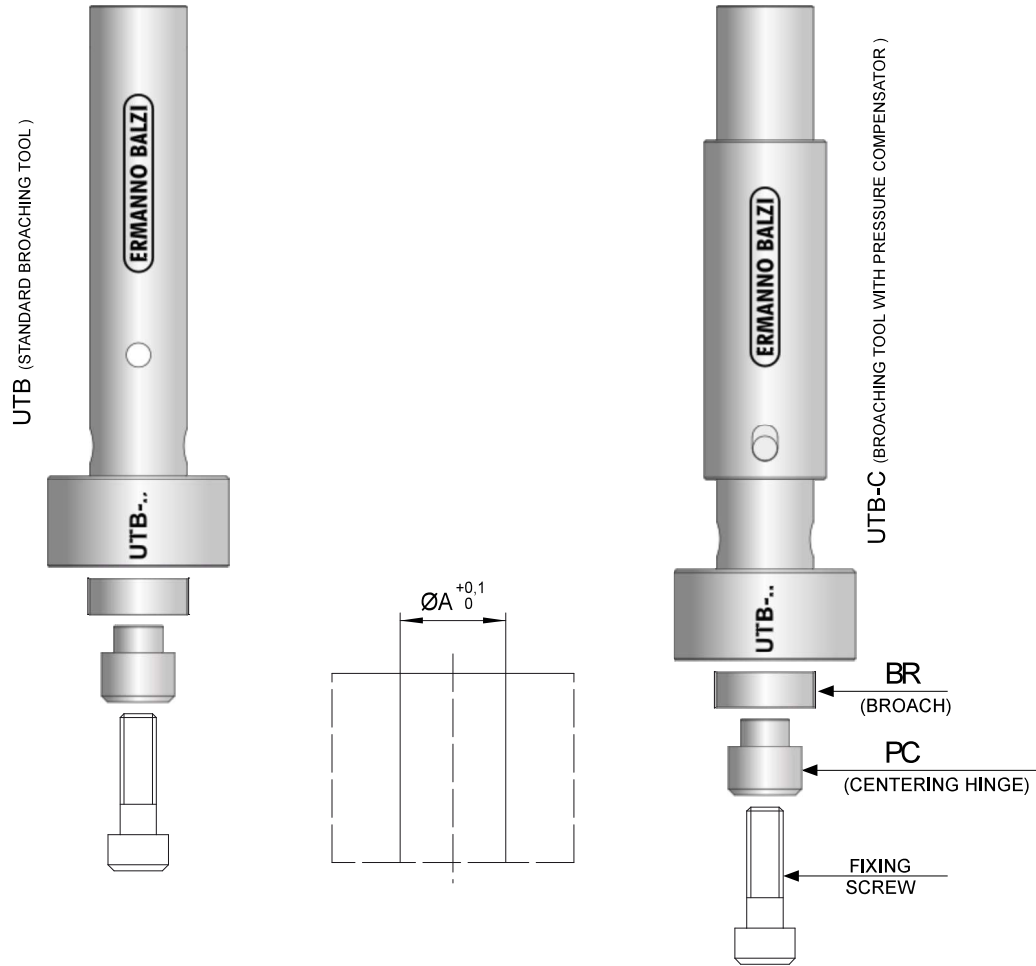
it is important that the pressure exercised over tool is carried out in the above described way and not using a hammer or suchlike.

The type without spring COD. RLA-SM is inserted in the hole after having realized, with the appropriate tool, a seat in which will be inserted the final part of the baffle.

The advantage in this application is the perfect positioning of the baffle, in case of spin or in depth, and also in the smaller cost of the component, due to the lack of the double spring.



TOOLS FOR THE MACHINING OF THE SEAT FOR RLA-SM AND RLA-SM



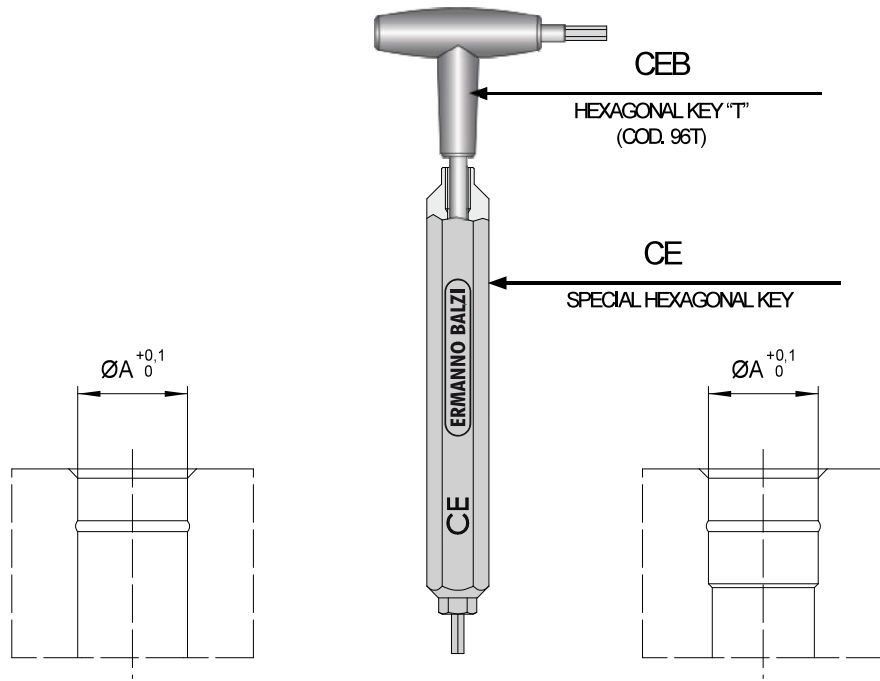
CODE	A	CENTERING HINGE	BROACH
UTB-0	Ø6	PC-6	BR-6
UTB-0C			

CODE	A	CENTERING HINGE	BROACH
UTB-1	Ø8	PC-8	BR-8
UTB-1C			

CODE	A	CENTERING HINGE	BROACH
UTB-2 UTB-2C	Ø10	PC-10	BR10
	Ø12	PC-12	BR-12
	Ø14	PC-14	BR-14

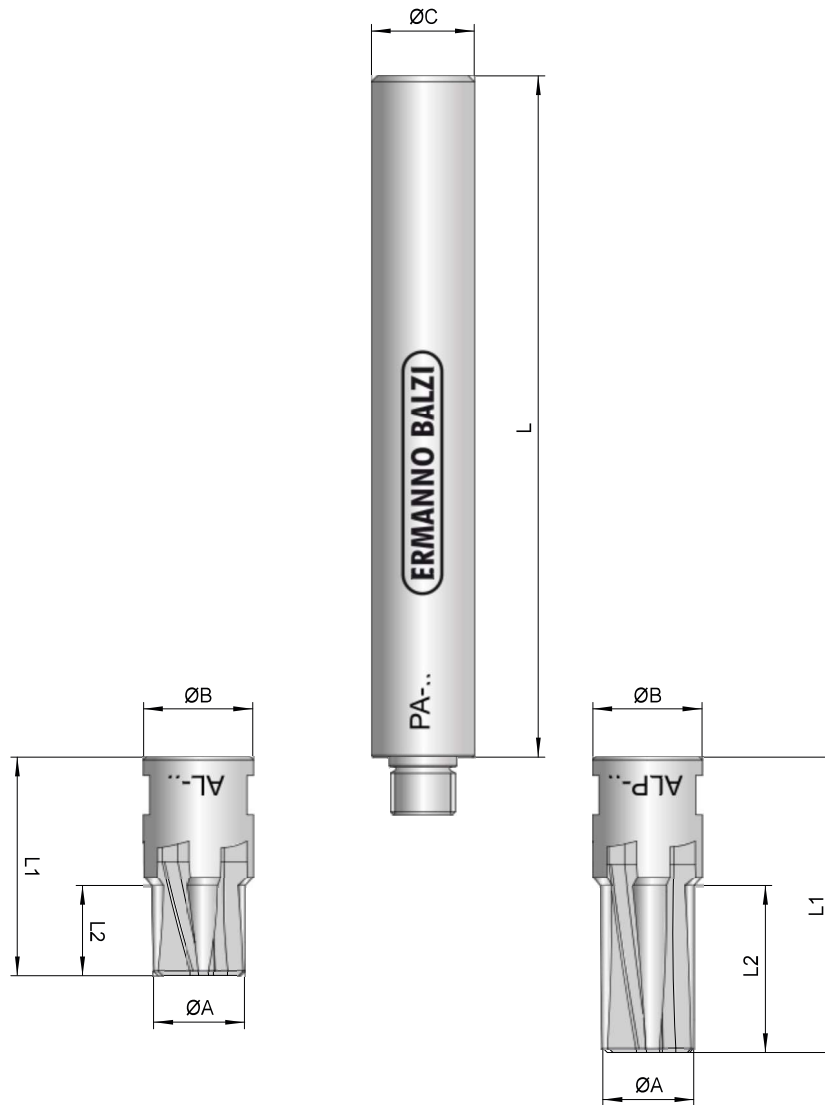
CODE	A	CENTERING HINGE	BROACH
UTB-3 UTB-3C	Ø16	PC-16	BR16
	Ø20	PC-20	BR-20
	Ø25	PC-25	BR-25
	Ø30	PC-30	BR-30

SET KEYS FOR THE ASSEMBLY OF STANDARD SET AND SET F



CODE	A
CE-4 CEB-1,5	Ø5
CODE	A
CE-5 CEB-2	Ø6 / Ø6,5
CODE	A
CE-6,5 CEB-2,5	Ø8 / Ø8,5
CODE	A
CE-8 CEB-3	Ø10
	Ø12
	Ø14
CODE	A
CE-12 CEB-5	Ø15
	Ø16
	Ø18
	Ø20
	Ø25
	Ø30

REAMERS FOR THE EXECUTION OF STANDARD SEAT



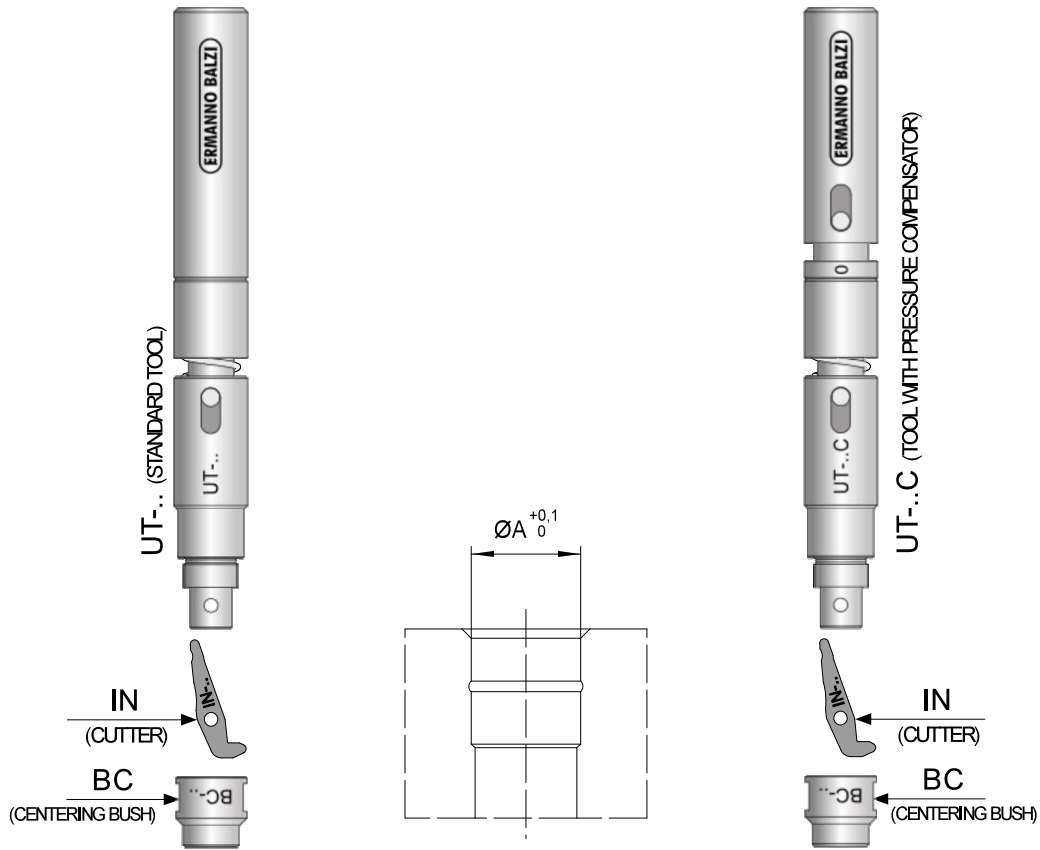
CODE	A	B	C	L	L1	L2	EXTENSION
AL-6	$\varnothing 6,5$	10	10	98	28	8	PA-1

CODE	A	B	C	L	L1	L2	EXTENSION
AL-8	$\varnothing 8,5$	12,5	12	95	31	9,5	PA-2
ALP-8					41	19,5	

CODE	A	B	C	L	L1	L2	EXTENSION
AL-10	$\varnothing 10,5$	15	16	106	34	14	PA-3
ALP-10					44	24	
AL-12	$\varnothing 12,5$	15	16	106	34	14	PA-3
ALP-12					45	25	
AL-14	$\varnothing 14,5$	15	16	106	34	14	PA-3
ALP-14					46	26	

TOOLS FOR THE PERFORMING OF THE RETAINING GROOVE

STANDARD SET



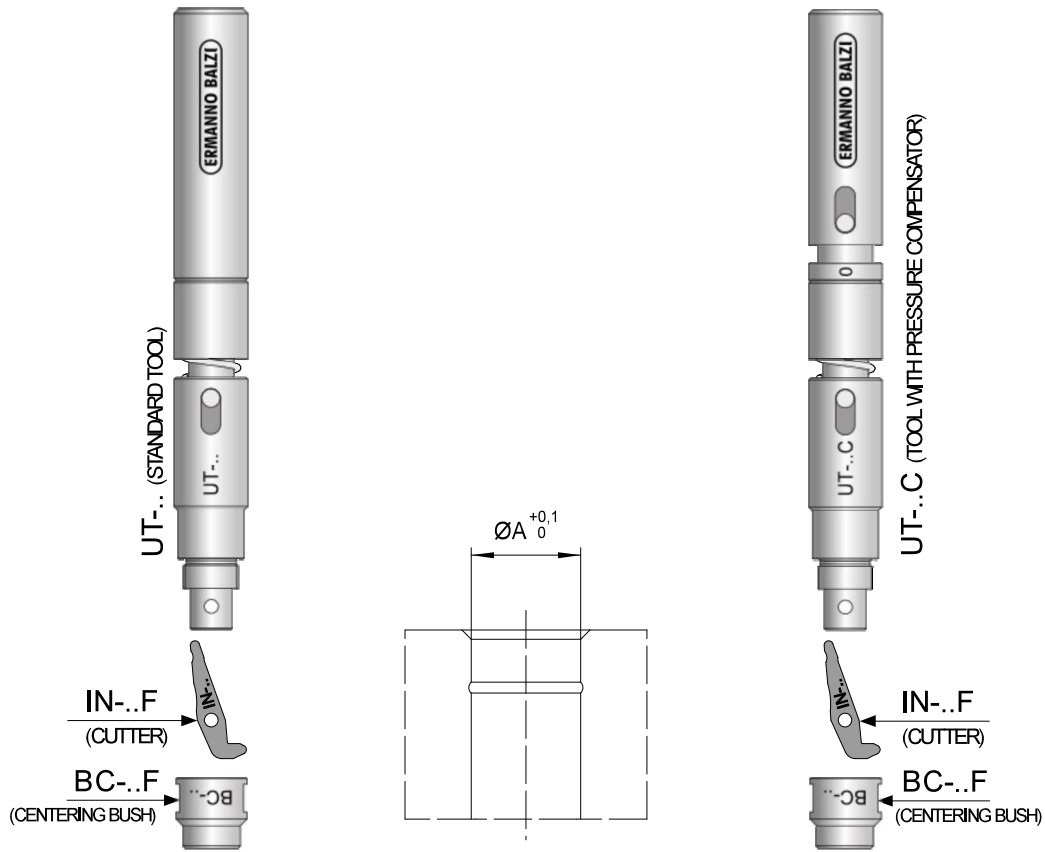
CODE	A	BC	IN
UT-1 / UT-1C	Ø6,5	BC-6	IN-6

CODE	A	BC	IN
UT-2 / UT-2C	Ø8,5	BC-8	IN-8

CODE	A	BC	IN
UT-3 / UT-3C	Ø10,5	BC-10	IN-10
	Ø12,5	BC-12	IN-12
	Ø14,5	BC-14	IN-14

TOOLS FOR THE PERFORMING OF THE RETAINING GROOVE

SET "F"



CODE	A	BC	IN
UT-0 / UT-0C	Ø5	BC-5F	IN-5F

CODE	A	BC	IN
UT-1 / UT-1C	Ø6	BC-6F	IN-6F

CODE	A	BC	IN
UT-2 / UT-2C	Ø8	BC-8F	IN-8F

CODE	A	BC	IN
UT-3 / UT-3C	Ø10	BC-10F	IN-10F
	Ø11	BC-11F	IN-11F
	Ø11,5	BC-11,5F	IN-11,5F
	Ø12	BC-12F	IN-12F
	Ø14	BC-14F	IN-14F
	Ø15	BC-15F	IN-15F

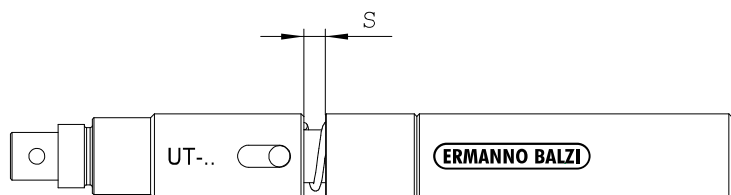
CODE	A	BC	IN
UT-4 / UT-4C	Ø16	BC-16F	IN-16F
	Ø18	BC-18F	IN-18F
	Ø19	BC-19F	IN-19F
	Ø20	BC-20F	IN-20F
	Ø25	BC-25F	IN-25F
	Ø30	BC-30F	IN-30F

STANDARD CUTTER		
CODE	CUTTING SPEED m/min.	RPM
IN-5F	9,4÷11	600÷700
IN-6F	9,4÷11	500÷600
IN-6	9,4÷11	460÷550
IN-8F	9,4÷11	370÷450
IN-8	9,4÷11	350÷420
IN-10F	9,4÷11	300÷360
IN-10	9,4÷11	290÷340
IN-12F	9,4÷11	250÷300
IN-12	9,4÷11	240÷290
IN-14F	9,4÷11	215÷260
IN-14	9,4÷11	210÷250
IN-15F	9,4÷11	200÷240
IN-16F	9,4÷11	190÷225
IN-18F	9,4÷11	200÷170
IN-19F	9,4÷11	190÷160
IN-20F	9,4÷11	150÷180
IN-25F	9,4÷11	120÷140
IN-30F	9,4÷11	100÷120

CARBIDE CUTTER		
CODE	CUTTING SPEED m/min.	RPM
IN-5FD	19÷23	1200÷1400
IN-6FD	19÷23	1000÷1200
IN-6D	19÷23	920÷1100
IN-8FD	19÷23	750÷900
IN-8D	19÷23	700÷850
IN-10FD	19÷23	600÷720
IN-10D	19÷23	570÷680
IN-12FD	19÷23	500÷600
IN-12D	19÷23	480÷580
IN-14FD	19÷23	430÷520
IN-14D	19÷23	420÷500
IN-16FD	19÷23	380÷450
IN-18FD	19÷23	340÷400
IN-20FD	19÷23	300÷360
IN-25FD	19÷23	240÷290

MATERIALS HARDNESS

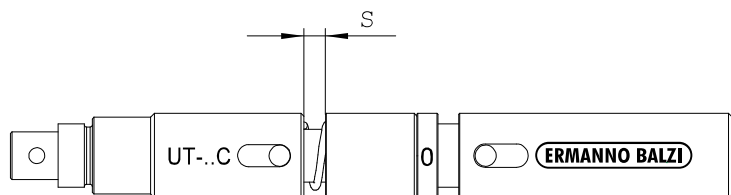
The standard cutters code IN.. are made in HSS and titanium carbonitride coated. Such cutters can machine steel with maximum hardness of 40÷42 HRC; it is necessary to consider that as the hardness of the steel increases the working life of the cutter becomes significantly shorter. In order to meet the growing need to assembly cooling components on pre hardened inserts, a new set of cutters made in carbide steel code IN..D able to machine steel with hardness up to 50÷52 HRC, is now available.



TOOL	S
UT-0	4,3
UT-1	4,3
UT-2	4,3
UT-3	4,7
UT-4	5,1

ADVICES FOR THE CORRECT USE OF THE TOOL "UT"

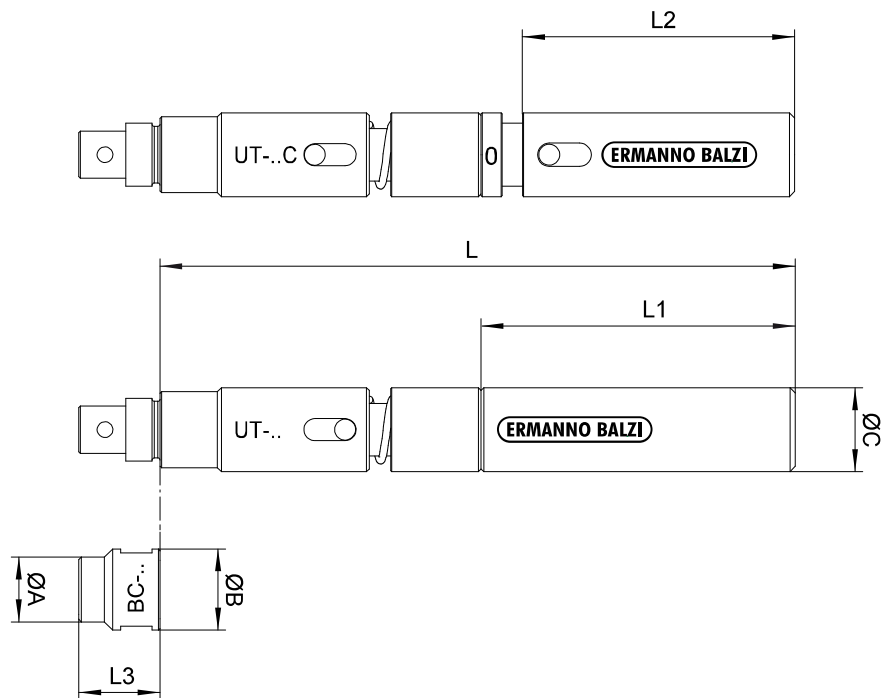
1. The tool "UT" is designed to be used on machines where the forward movement is manually controlled.
2. The cutter starts the machining of the groove a few millimeters after the centering bush "BC" get in contact with the chamfer on the hole. Starting from this point the forward movement has to be slow.
3. The machining of the groove is completed when the gap "S" is completely closed by the forward movement of the tool.
4. Once the forward movement is completed neither making further pressure on the tool, nor stopping in such a position more than a few seconds is advisable.



TOOL	S _{+2 / +3}
UT-0C	4,3
UT-1C	4,3
UT-2C	4,3
UT-3C	4,7
UT-4C	5,1

ADVICES FOR THE CORRECT USE OF THE TOOL "UT-C"

1. The tool "UT-C" is designed to be used on CNC machines where forward movement is electronically controlled.
2. It is possible to move in fast forward till 2 mm from the working position (contact point between centering bush "BC" and chamfer of the hole).
3. Starting from this point a feed rate of 0,05 mm/rotation is suggested.
4. The machining of the groove is completed when the gap "S" is completely closed by the forward movement of the tool. To guarantee the proper machining we suggest to set an extra stroke of 2±3 mm, the extra stroke will be compensated by a spring inside the tool.
5. Once the forward movement is completed neither making further pressure on the tool, nor stopping in such a position more than a few seconds is advisable.



CODE	C	L	L1	L2
UT-0 / UT-0C	10	110	70	62
UT-1 / UT-1C	10	110	70	62
UT-2 / UT-2C	12	108	60	52
UT-3 / UT-3C	16	122	60	54

UT-0 / UT-0C			
CENTERING BUSH	A	B	L3
BC-5F	5	10	12

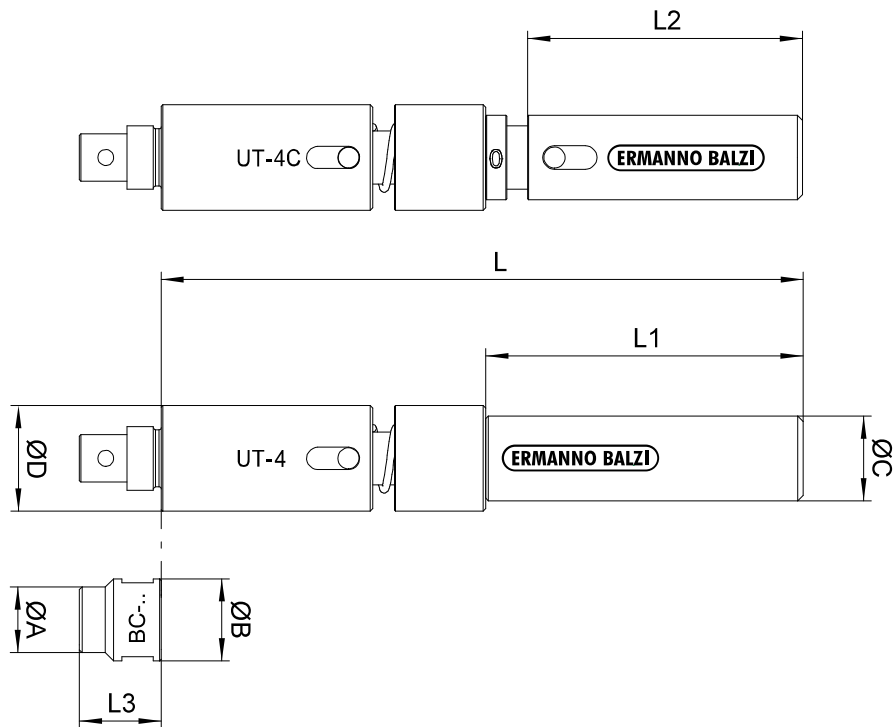
UT-1 / UT-1C			
CENTERING BUSH	A	B	L3
BC-6F	6	10	12
BC-6	6,5	10	12

UT-2 / UT-2C			
CENTERING BUSH	A	B	L3
BC-8F	8	12	14,5
BC-8	8,5	12	14,5

TOOLS DIMENSIONS

UT-3 / UT-3C

CENTERING BUSH	A	B	L3
BC-10F	10	12	14,5
BC-10	10,5	15,5	14,5
BC-11F	11	15,5	15,5
BC-11,5F	11,5	15,5	15,5
BC-12F	12	15,5	15,5
BC-12	12,5	15,5	15,5
BC-14F	14	16,5	15,5
BC-14	14,5	16,5	15,5
BC-15F	15	17,5	15,5

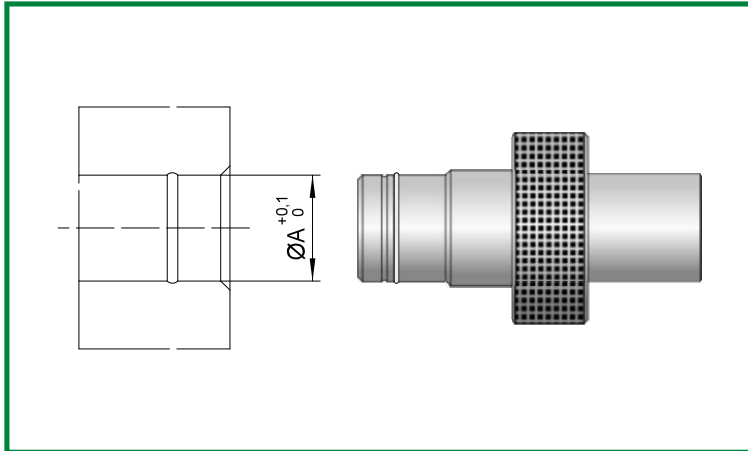


CODE	C	D	L	L1	L2
UT-4 / UT-4C	16	20	122	60	54

UT-4 / UT-4C

CENTERING BUSH	A	B	L3
BC-16F	16	19,5	15,5
BC-18F	18	21	15,5
BC-19F	19	22	15,5
BC-20F	20	23	15,5
BC-25F	25	28	15,5
BC-30F	30	34	15,5

CONTROL GAUGE FOR RETAINING GROOVE



CODE	$\varnothing A$
CST-6F	6
CST-8F	8
CST-10F	10
CST-12F	12
CST-14F	14

CODE	$\varnothing A$
CST-6	6,5
CST-8	8,5
CST-10	10,5
CST-12	12,5
CST-14	14,5

REALIZATION OF THE SEAT:

Thanks to the proper gauge it is possible to check the hole dimension and the retaining groove.

STANDARD SERIES TOOL BOX

TOOL WITHOUT PRESSURE COMPENSATION SYSTEM



CODE	STANDARD SET COMPOSITION
UT	N°1 SINGLE TOOL
CE	N°1 SPECIAL HEXAGONAL KEY
CEB	N°1 "T" BETA HEXAGONAL KEY
PA	N°1 REAMER EXTENSION
AL	N°1 REAMER FOR EACH SIZE
BC	N°1 CENTERING BUSH FOR EACH SIZE
IN	N°1 CUTTER FOR EACH SIZE

Order example: CS-10

CODE	CS-6	CS-8	CS-10	CS-12	CS-14	CS-10-12	CS-10-14	CS-12-14	CS-10-12-14
UT-1	EP 01								
UT-2		EP 01							
UT-3			EP 01	EP 01	EP 01	EP 01	EP 01	EP 01	EP 01
BC-6	EP 01								
BC-8		EP 01							
BC-10			EP 01			EP 01	EP 01		EP 01
BC-12				EP 01		EP 01		EP 01	EP 01
BC-14					EP 01		EP 01	EP 01	EP 01
IN-6	EP 01								
IN-8		EP 01							
IN-10			EP 01			EP 01	EP 01		EP 01
IN-12				EP 01		EP 01		EP 01	EP 01
IN-14					EP 01		EP 01	EP 01	EP 01
AL-6	EP 01								
AL-8		EP 01							
AL-10			EP 01			EP 01	EP 01		EP 01
AL-12				EP 01		EP 01		EP 01	EP 01
AL-14					EP 01		EP 01	EP 01	EP 01
PA-1	EP 01								
PA-2		EP 01							
PA-3			EP 01	EP 01	EP 01	EP 01	EP 01	EP 01	EP 01
CE-5	EP 01								
CE-6,5		EP 01							
CE-8			EP 01	EP 01	EP 01	EP 01	EP 01	EP 01	EP 01
CEB-2	EP 01								
CEB-2,5		EP 01							
CEB-3			EP 01	EP 01	EP 01	EP 01	EP 01	EP 01	EP 01

STANDARD SERIES TOOL BOX

TOOL WITH PRESSURE COMPENSATION SYSTEM

CODE	STANDARD SET COMPOSITION
UT-C	N°1 SINGLE TOOL
CE	N°1 SPECIAL HEXAGONAL KEY
CEB	N°1 "T" BETA HEXAGONAL KEY
PA	N°1 REAMER EXTENSION
AL	N°1 REAMER FOR EACH SIZE
BC	N°1 CENTERING BUSH FOR EACH SIZE
IN	N°1 CUTTER FOR EACH SIZE



Order example: CS-10C

CODE	CS-6C	CS-8C	CS-10C	CS-12C	CS-14C	CS-10-12C	CS-10-14C	CS-12-14C	CS-10-12-14C
UT-1C	EP 01								
UT-2C		EP 01							
UT-3C			EP 01	EP 01	EP 01	EP 01	EP 01	EP 01	EP 01
BC-6	EP 01								
BC-8		EP 01							
BC-10			EP 01			EP 01	EP 01		EP 01
BC-12				EP 01		EP 01		EP 01	EP 01
BC-14					EP 01		EP 01	EP 01	EP 01
IN-6	EP 01								
IN-8		EP 01							
IN-10			EP 01			EP 01	EP 01		EP 01
IN-12				EP 01		EP 01		EP 01	EP 01
IN-14					EP 01		EP 01	EP 01	EP 01
AL-6	EP 01								
AL-8		EP 01							
AL-10			EP 01			EP 01	EP 01		EP 01
AL-12				EP 01		EP 01		EP 01	EP 01
AL-14					EP 01		EP 01	EP 01	EP 01
PA-1	EP 01								
PA-2		EP 01							
PA-3			EP 01	EP 01	EP 01	EP 01	EP 01	EP 01	EP 01
CE-5	EP 01								
CE-6,5		EP 01							
CE-8			EP 01	EP 01	EP 01	EP 01	EP 01	EP 01	EP 01
CEB-2	EP 01								
CEB-2,5		EP 01							
CEB-3			EP 01	EP 01	EP 01	EP 01	EP 01	EP 01	EP 01

" F " SERIES TOOL BOX

TOOL WITHOUT PRESSURE COMPENSATION SYSTEM



CODE	F SERIES SET COMPOSITION
UT	N°1 SINGLE TOOL
CE	N°1 SPECIAL HEXAGONAL KEY
CEB	N°1 "T" BETA HEXAGONAL KEY
BC-F	N°1 CENTERING BUSH FOR EACH SIZE
IN-F	N°1 CUTTER FOR EACH SIZE

Order example: CSF-10

CODE	CSF-5	CSF-6	CSF-8	CSF-10	CSF-11	CSF-11,5	CSF-12	CSF-14	CSF-15
UT-0	<input type="checkbox"/>								
UT-1		<input type="checkbox"/>							
UT-2			<input type="checkbox"/>						
UT-3				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BC-5F	<input type="checkbox"/>								
BC-6F		<input type="checkbox"/>							
BC-8F			<input type="checkbox"/>						
BC-10F				<input type="checkbox"/>					
BC-11F					<input type="checkbox"/>				
BC-11,5F						<input type="checkbox"/>			
BC-12F							<input type="checkbox"/>		
BC-14F								<input type="checkbox"/>	
BC-15F									<input type="checkbox"/>
IN-5F	<input type="checkbox"/>								
IN-6F		<input type="checkbox"/>							
IN-8F			<input type="checkbox"/>						
IN-10F				<input type="checkbox"/>					
IN-11F					<input type="checkbox"/>				
IN-11,5F						<input type="checkbox"/>			
IN-12F							<input type="checkbox"/>		
IN-14F								<input type="checkbox"/>	
IN-15F									<input type="checkbox"/>
CE-4	<input type="checkbox"/>								
CE-5		<input type="checkbox"/>							
CE-6,5			<input type="checkbox"/>						
CE-8				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CE-12									<input type="checkbox"/>
CEB-1,5	<input type="checkbox"/>								
CEB-2		<input type="checkbox"/>							
CEB-2,5			<input type="checkbox"/>						
CEB-3				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CEB-5									<input type="checkbox"/>

" F " SERIES TOOL BOX

TOOL WITHOUT PRESSURE COMPENSATION SYSTEM

CODE	F SERIES SET COMPOSITION
UT	N°1 SINGLE TOOL
CE	N°1 SPECIAL HEXAGONAL KEY
CEB	N°1 "T" BETA HEXAGONAL KEY
BC-F	N°1 CENTERING BUSH FOR EACH SIZE
IN-F	N°1 CUTTER FOR EACH SIZE



Order example: CSF-16

CODE	CSF-16	CSF-18	CSF-19	CSF-20	CSF-25	CSF-30
UT-4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BC-16F	<input type="checkbox"/>					
BC-18F		<input type="checkbox"/>				
BC-19F			<input type="checkbox"/>			
BC-20F				<input type="checkbox"/>		
BC-25F					<input type="checkbox"/>	
BC-30F						<input type="checkbox"/>
IN-16F	<input type="checkbox"/>					
IN-18F		<input type="checkbox"/>				
IN-19F			<input type="checkbox"/>			
IN-20F				<input type="checkbox"/>		
IN-25F					<input type="checkbox"/>	
IN-30F						<input type="checkbox"/>
CE-12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CEB-5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

" F " SERIES TOOL BOX

TOOL WITHOUT PRESSURE COMPENSATION SYSTEM



CODE	F SERIES SET COMPOSITION
UT	N°1 SINGLE TOOL
CE	N°1 SPECIAL HEXAGONAL KEY
CEB	N°1 "T" BETA HEXAGONAL KEY
BC-F	N°1 CENTERING BUSH FOR EACH SIZE
IN-F	N°1 CUTTER FOR EACH SIZE

Order example: CSF-10-12

CODE	CSF-10-11	CSF-10-11,5	CSF-10-12	CSF-10-14	CSF-11-11,5	CSF-11-12	CSF-11-14	CSF-11,5-12	CSF-11,5-14	CSF-12-14
UT-3										
BC-10F										
BC-11F										
BC-11,5F										
BC-12F										
BC-14F										
IN-10F										
IN-11F										
IN-11,5F										
IN-12F										
IN-14F										
CE-8										
CEB-3										

" F " SERIES TOOL BOX

TOOL WITHOUT PRESSURE COMPENSATION SYSTEM

CODE	F SERIES SET COMPOSITION
UT	N°1 SINGLE TOOL
CE	N°1 SPECIAL HEXAGONAL KEY
CEB	N°1 "T" BETA HEXAGONAL KEY
BC-F	N°1 CENTERING BUSH FOR EACH SIZE
IN-F	N°1 CUTTER FOR EACH SIZE

Order example: CSF-10-12



CODE	CSF-10-12-14	CSF-16-20	CSF-16-25	CSF-20-25	CSF-16-20-25
UT-3	<input type="checkbox"/>				
UT-4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BC-10F	<input type="checkbox"/>				
BC-12F	<input type="checkbox"/>				
BC-14F	<input type="checkbox"/>				
BC-16F		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
BC-20F		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
BC-25F			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IN-10F	<input type="checkbox"/>				
IN-12F	<input type="checkbox"/>				
IN-14F	<input type="checkbox"/>				
IN-16F		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
IN-20F		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
IN-25F			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CE-8	<input type="checkbox"/>				
CE-12		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CEB-3	<input type="checkbox"/>				
CEB-5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

" F " SERIES TOOL BOX

TOOL WITH PRESSURE COMPENSATION SYSTEM



CODE	F SERIES SET COMPOSITION
UT-C	N°1 SINGLE TOOL
CE	N°1 SPECIAL HEXAGONAL KEY
CEB	N°1 "T" BETA HEXAGONAL KEY
BC-F	N°1 CENTERING BUSH FOR EACH SIZE
IN-F	N°1 CUTTER FOR EACH SIZE

Order example: CSF-10C

CODE	CSF-6C	CSF-8C	CSF-10C	CSF-11C	CSF-11,5C	CSF-12C	CSF-14C	CSF-15C
UT-1C	<input type="checkbox"/>							
UT-2C		<input type="checkbox"/>						
UT-3C			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BC-6F	<input type="checkbox"/>							
BC-8F		<input type="checkbox"/>						
BC-10F			<input type="checkbox"/>					
BC-11F				<input type="checkbox"/>				
BC-11,5F					<input type="checkbox"/>			
BC-12F						<input type="checkbox"/>		
BC-14F							<input type="checkbox"/>	
BC-15F								<input type="checkbox"/>
IN-6F	<input type="checkbox"/>							
IN-8F		<input type="checkbox"/>						
IN-10F			<input type="checkbox"/>					
IN-11F				<input type="checkbox"/>				
IN-11,5F					<input type="checkbox"/>			
IN-12F						<input type="checkbox"/>		
IN-14F							<input type="checkbox"/>	
IN-15F								<input type="checkbox"/>
CE-5	<input type="checkbox"/>							
CE-6,5		<input type="checkbox"/>						
CE-8			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CE-12								<input type="checkbox"/>
CEB-2	<input type="checkbox"/>							
CEB-2,5		<input type="checkbox"/>						
CEB-3			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CEB-5								<input type="checkbox"/>

" F " SERIES TOOL BOX

TOOL WITH PRESSURE COMPENSATION SYSTEM

CODE	F SERIES SET COMPOSITION
UT-C	N°1 SINGLE TOOL
CE	N°1 SPECIAL HEXAGONAL KEY
CEB	N°1 "T" BETA HEXAGONAL KEY
BC-F	N°1 CENTERING BUSH FOR EACH SIZE
IN-F	N°1 CUTTER FOR EACH SIZE

Order example: CSF-16C



CODE	CSF-16C	CSF-18C	CSF-19C	CSF-20C	CSF-25C	CSF-30C
UT-4C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BC-16F	<input type="checkbox"/>					
BC-18F		<input type="checkbox"/>				
BC-19F			<input type="checkbox"/>			
BC-20F				<input type="checkbox"/>		
BC-25F					<input type="checkbox"/>	
BC-30F						<input type="checkbox"/>
IN-16F	<input type="checkbox"/>					
IN-18F		<input type="checkbox"/>				
IN-19F			<input type="checkbox"/>			
IN-20F				<input type="checkbox"/>		
IN-25F					<input type="checkbox"/>	
IN-30F						<input type="checkbox"/>
CE-12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CEB-5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

" F " SERIES TOOL BOX

TOOL WITH PRESSURE COMPENSATION SYSTEM



CODE	F SERIES SET COMPOSITION
UT-C	N°1 SINGLE TOOL
CE	N°1 SPECIAL HEXAGONAL KEY
CEB	N°1 "T" BETA HEXAGONAL KEY
BC-F	N°1 CENTERING BUSH FOR EACH SIZE
IN-F	N°1 CUTTER FOR EACH SIZE

Order example: CSF-10-12C

CODE	CSF-10-11C	CSF-10-11,5C	CSF-10-12C	CSF-10-14C	CSF-11-11,5C	CSF-11-12C	CSF-11-14C	CSF-11,5-12C	CSF-11,5-14C	CSF-12-14C
UT-3C										
BC-10F										
BC-11F										
BC-11,5F										
BC-12F										
BC-14F										
IN-10F										
IN-11F										
IN-11,5F										
IN-12F										
IN-14F										
CE-8										
CEB-3										

" F " SERIES TOOL BOX

TOOL WITH PRESSURE COMPENSATION SYSTEM

CODE	F SERIES SET COMPOSITION
UT-C	N°1 SINGLE TOOL
CE	N°1 SPECIAL HEXAGONAL KEY
CEB	N°1 "T" BETA HEXAGONAL KEY
BC-F	N°1 CENTERING BUSH FOR EACH SIZE
IN-F	N°1 CUTTER FOR EACH SIZE

Order example: CSF-16-20C



CODE	CSF-10-12-14C	CSF-16-20C	CSF-16-25C	CSF-20-25C	CSF-16-20-25C
UT-3C					
UT-4C					
BC-10F					
BC-12F					
BC-14F					
BC-16F					
BC-20F					
BC-25F					
IN-10F					
IN-12F					
IN-14F					
IN-16F					
IN-20F					
IN-25F					
CE-8					
CE-12					
CEB-3					
CEB-5					