

Manuale di Istruzioni Uso e Manutenzione



**VALVOLA PNEUMATICA
AD ALTA PRESSIONE**
**BBZQ - BBYQ -
BBZU**

Bardiani Valvole S.p.A.

via G. di Vittorio, 50/52 - 43045 Fornovo di Taro (PR) - Italy
tel. +39 0525 400044 - fax +39 0525 3408
bardiani@bardiani.com - www.bardiani.com

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REVISIONE MANUALE	DATA

PREMESSA

Il presente "Manuale di Istruzioni, Uso e Manutenzione" è espressamente destinato all'utilizzo da parte di personale tecnico qualificato. Per tale motivo le informazioni che potrebbero essere facilmente dedotte dalla lettura del testo e/o dall'esame delle illustrazioni e/o dai disegni in esso contenuti non sono oggetto di ulteriore specificazione.

Il presente "Manuale di Istruzioni, Uso e Manutenzione" costituisce parte integrante della valvola.

E' obbligatoria la consultazione del presente manuale prima di procedere all'installazione / utilizzo/manutenzione di ogni tipo di valvola.

La conservazione del presente manuale dovrà essere effettuata per ogni consultazione futura.

Nel caso di utilizzo di valvole conformi alla Direttiva 2014/34/UE (ATEX) è obbligatoria la consultazione di un apposito manuale.

Ferme restando le caratteristiche essenziali del tipo di valvola descritta, il Produttore si riserva il diritto, senza alcun obbligo di comunicazione, di modificare e/o integrare e/o aggiornare, in qualunque momento, i dati e/o le informazioni relative all'utilizzo della valvola contenute nel "Manuale di Istruzioni, Uso e Manutenzione".

Sul sito Internet www.bardiani.com è sempre disponibile l'ultima versione aggiornata del "Manuale di Istruzioni, Uso e Manutenzione".

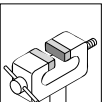
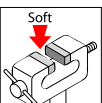
Il Produttore non è in alcun modo responsabile delle eventuali conseguenze derivanti dalla mancata e/o non corretta osservanza di tutte le prescrizioni indicate nell'apposito manuale e concernenti l'installazione, l'utilizzo, la manutenzione e la conservazione del prodotto.

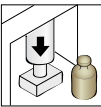
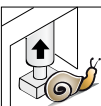
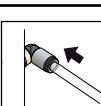
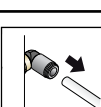
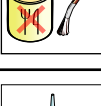
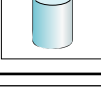
Tutti i diritti sono riservati. E' vietata, senza la preventiva autorizzazione scritta da parte del Produttore, la riproduzione totale e/o parziale e/o la trasmissione e/o la registrazione di qualunque parte del presente "Manuale di Istruzioni, Uso e Manutenzione" con qualsiasi mezzo e/o supporto, incluso quello informatico e/o elettronico e/o meccanico e/o cartaceo ovvero con qualsiasi altro sistema di memorizzazione e/o di riutilizzo, per fini diversi da quello esclusivamente personale da parte dell'acquirente.

1 Segnali di Sicurezza / Attenzione e Obbligo

SEGNALI DI ATTENZIONE		
Pittogramma	Descrizione	Note
	ATTENZIONE Generale	Segnala al personale interessato che l'operazione descritta presenta, se non effettuata nel rispetto delle norme di sicurezza, il rischio di subire danni fisici.
	ATTENZIONE Schiacciamento mani	Prestare attenzione alla procedura che si sta eseguendo. Rischio schiacciamento mani. Non toccare mai le parti mobili se all'attuatore è fornita aria compressa.
	ATTENZIONE Carichi pesanti	Prestare attenzione alla procedura che si sta eseguendo. Carichi pesanti sospesi.
	ATTENZIONE Ustioni	Pericolo di emissione di calore. Superficie molto calda, rischio di riportare gravi ustioni.
	ATTENZIONE Rischio esplosioni	Prestare attenzione, rischio di esplosioni.
	ATTENZIONE Non disperdere nell'ambiente	Raccogliere l'olio esausto in contenitori appositi e smaltire secondo le normative vigenti

SEGNALI DI OBBLIGO (PER L'OPERATORE ADDETTO ALLA MANUTENZIONE MECCANICA E PER L'OPERATORE ADDETTO AL MONTAGGIO/SMONTAGGIO)		
Pittogramma	Descrizione	Note
	OBBLIGO Generale	Si devono seguire istruzioni speciali per evitare danni alle persone.
	GUANTI DI PROTEZIONE	Guanti di protezione delle mani a disposizione in caso di manipolazione di oggetti che possono arrecare danno o in caso di possibile contatto con materie nocive.
	CASCO	Casco di protezione, a disposizione, in caso di sollevamento di parti con masse rilevanti.
	CALZATURE	Utilizzo delle calzature di sicurezza per evitare i rischi generati dalla caduta di materiali durante le operazioni di manutenzione (soprattutto durante lo smontaggio di parti).
	INDUMENTI IDONEI	Abbigliamento idoneo, come ad esempio la tuta: è vietato l'uso di indumenti con maniche larghe e/o appendici che possono essere facilmente trattieneuti da organi meccanici.
	OCCHIALI	Occhiali di protezione, a disposizione, in caso di possibile contatto con materie nocive che potrebbero arrecare danni agli occhi.

SEGNALI OPERATIVI		
Pittogramma	Descrizione	Note
	PERSONALE SPECIALIZZATO	Le procedure di manutenzione, montaggio/smottaggio devono essere eseguite da personale specializzato.
	NOTA	Seguire con attenzione la nota indicata.
	NOTA AMBIENTALE	Seguire le note vigenti del paese di appartenenza sullo smaltimento dei rifiuti.
	MORSA	Utilizzo di una morsa.
	MORSA CON GANASCE MORBIDE	Utilizzo di una morsa munita di ganasce in materiale tenero.
	SEQUENZA OPERAZIONI	Sequenza delle operazioni di montaggio e smontaggio

SEGNALI OPERATIVI		
Pittogramma	Descrizione	Note
	PRESSA	Utilizzo di una pressa.
	PRESSA (rilascio)	Utilizzo di una pressa. Rilascio graduale della forza di pressione.
	COLLEGAMENTO ELETTRICO	Collegamento elettrico all'unità di controllo (consultare il relativo manuale istruzioni).
	SCOLLEGAMENTO ELETTRICO	Scollegare l'elettricità dall'unità di controllo (consultare il relativo manuale istruzioni).
	COLLEGAMENTO PNEUMATICO	Collegare l'aria alla valvola.
	SCOLLEGAMENTO PNEUMATICO	Scollegare l'aria alla valvola.
	NON COLLEGARE ARIA	Non collegare aria compressa
	APPLICAZIONE GRASSO ALIMENTARE	Utilizzare grasso CIP-FILM o simile
	APPLICAZIONE GRASSO ALIMENTARE	Utilizzare grasso FOODLUBE Multi-paste o simile
	APPLICAZIONE GRASSO NON ALIMENTARE	Utilizzare grasso AGIP GREASE MU EP 2 SE o simile
	APPLICAZIONE FRENAFILETTI	Utilizzare frenafilietti SPEED BOND M500 o simile
	OIL	Utilizzare olio SPRINTER ADPV32 o simile
	OPTIONAL	

SEGNALI OPERATIVI		
Pittogramma	Descrizione	Note
	UTILIZZARE LE MANI	In tutte quelle fasi in cui è presente questo simbolo si possono utilizzare solo le mani per svitare / vitare i dispositivi indicati.

1.1 Formazione dell'operatore



Tutte le persone che dovranno operare sulla valvola devono avere la qualifica per svolgere le mansioni di manutenzione sulla valvola.

Devono essere informati sui possibili pericoli e devono osservare le istruzioni sulla sicurezza riportate in questo manuale.

Consentire solo a personale qualificato di agire sui componenti elettrici.

2 Sicurezza

2.1 Precauzioni Generali di Sicurezza

**Destinazione d'uso**

Le valvole Bardiani sono destinate esclusivamente per la movimentazione di fluidi e polveri.

Usi non consentiti

Non è previsto utilizzare la valvola:

- per operazioni diverse da quelle descritte al paragrafo "Destinazione d'uso";
- per la movimentazione di fluidi diversi da quelli previsti dal fabbricante e indicate nei dati tecnici della valvola;
- per la movimentazioni di fluidi con pressioni diverse da quelle previste dal fabbricante e indicate nei dati tecnici della valvola.

Limitazioni sull'utilizzo della valvola

E' vietato:

- utilizzare la valvola in una configurazione costruttiva diversa da quella prevista dal fabbricante e rappresentata nel dimostrativo allegato;
- utilizzare la valvola in luoghi a rischio di esplosione e/o incendio, se non previsto dal fabbricante (in caso di valvole certificate ai sensi della Direttiva 2014/34/UE fare riferimento al Manuale Atex);
- integrare altri sistemi e/o attrezzature non considerati dal fabbricante nel progetto esecutivo;
- utilizzare la valvola per uno scopo diverso da quelli previsti dal fabbricante.

**ATTENZIONE**

La macchina non può essere utilizzata all'interno di locali con atmosfera a rischio di esplosione o incendio se non previsto dal fabbricante (in caso di valvole certificate ai sensi della Direttiva 2014/34/UE fare riferimento al Manuale Atex).



BARDIANI VALVOLE S.p.A. declina qualsiasi responsabilità per installazione, uso e manutenzione non conformi a quanto previsto dal presente manuale!

2.2 Componenti elettrici

(vedi manuale unità di controllo)

3 Dati Tecnici

DATI VALVOLA		
Pressione massima (PN)	150 bar (2173 psi) DN25 -80 / 1" - 3"	Valore massimo dipendente dalla tipologia degli attacchi/connessioni
	55 bar (798 psi) DN100 / 4"	
Pressione massima tenuta	Vedere catalogo	
Temperatura stoccaggio	Da -10°C a +25°C	
Materiale a contatto con il prodotto	AISI 316L (1.4404). Verificare la resistenza alla corrosione nei confronti di prodotti e detergenti.	
Materiale guarnizioni a contatto con il prodotto	EPDM, FKM, P.T.F.E.e altre guarnizioni a richiesta. Verificare la compatibilità nei confronti di prodotti e detergenti.	
Finitura superficiale a contatto con il prodotto	Ra 0.8 µm. Altre finiture a richiesta.	

DATI BARRIERA VAPORE	
Attacchi	1/8" BSPP
Temperatura massima vapore	130°C (266°F)
Guarnizioni	FKM

DATI ATTUATORE PNEUMATICO	
Attacchi	1/8" BSPP
Dimensioni tubi	6 mm diametro esterno, 4 mm diametro interno
Pressione aria	da 6 bar (87 psi) a 8 bar (116 psi) per cil. 108 - 156
	da 6 bar (87 psi) a 7 bar (101 psi) per cil. 207 - 360
Qualità aria	Classe 2, 4, 3 ISO8573-1
Materiale esterno	AISI 304L (1.4307)
Guarnizioni	NBR
Rumorosità	76 dB
Alimentazione elettrica	Vedere Giotto Top

COMPATIBILITÀ MATERIALE GUARNIZIONI		
Prodotto	FKM	EPDM
Temperatura (applicazioni con aria)	Da -10°C a +150°C	Da -10°C a 140°C
Soda caustica 2%	30°C	60°C
Acido nitrico 2%	80°C	60°C
Vapore saturo 125°C	Idoneo	Idoneo
Grassi	Idoneo	Non idoneo
Alcoli	Non idoneo	Idoneo



La valvola è conforme alla Direttiva PED 2014/68/UE, con speciale riferimento all'Allegato III, Modulo A riguardante il Controllo di fabbricazione interno come indicato nelle Procedure di Valutazione della Conformità.

Le valvole con DN uguale o inferiore al DN32 non sono comprese conformemente all'Articolo 4 paragrafo 3.

Le valvole destinate a gas, gas liquidi, gas disciolti sotto pressione, vapore e quei liquidi la cui tensione di vapore alla temperatura massima ammissibile è superiore di 0,5 bar alla pressione atmosferica normale (1.013 mbar) sono comprese entro i seguenti limiti:

- le valvole con DN uguale o superiore al DN40 con fluidi del gruppo 2.

Si rimanda all'utilizzatore finale l'esecuzione delle prove di emissione acustica una volta avvenuta l'installazione della valvola nello stabilimento di destinazione.

In caso di qualsiasi dubbio di qualsiasi tipo, contattare Bardiani Valvole S.p.A.

4 Verifica / Disimballo / Sollevamento

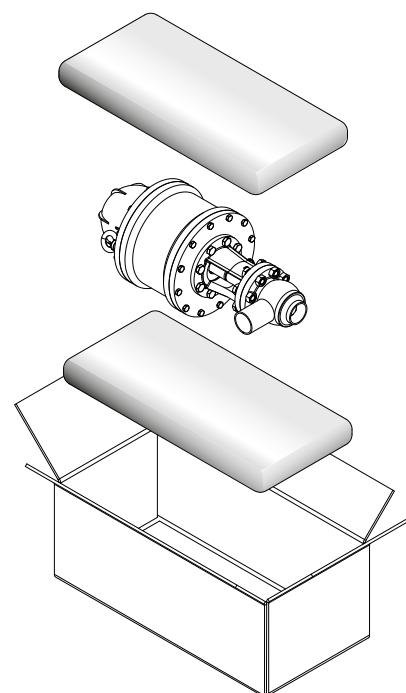
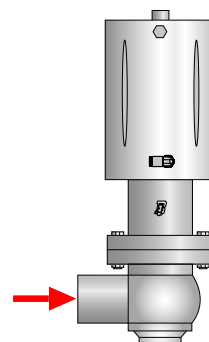
1. VERIFICA:

- Verificare che la valvola non presenti danni da trasporto e coincida con quanto richiesto in fase d'ordine;
- Controllare interno valvola.



2. DISIMBALLO:

L'imballo della valvola è costituito da cartone, legno e plastica. La valvola è composta principalmente da materiali metallici. Le guarnizioni sono in materiale elastomerico. Smaltire secondo le norme locali vigenti.



3. SOLLEVAMENTO VALVOLA:

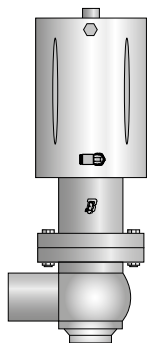
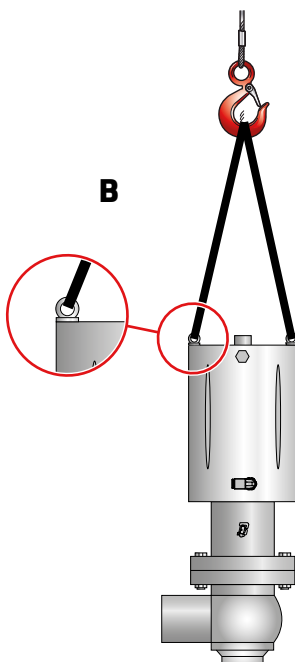
Prestare attenzione al tipo di valvola che si intende movimentare. In base alla dimensione esistono procedure diverse di sollevamento.

**ATTENZIONE!**

Prima di attuare il sollevamento, verificare che non vi siano parti smontate o separate dalla valvola che possano cadere, causando danni alle persone e alla valvola stessa.

ATTENZIONE!

Le raffigurazioni sopra riportate hanno valore meramente rappresentativo delle modalità e delle procedure di sollevamento della valvola.

A**B**

Movimentare il dispositivo secondo le norme vigenti del paese di utilizzo.

Bardiani Valvole S.p.A. declina ogni e qualsiasi responsabilità per eventuali danni a cose e/o persone derivanti da un improprio e/o non corretto sollevamento della valvola.

5 Installazione



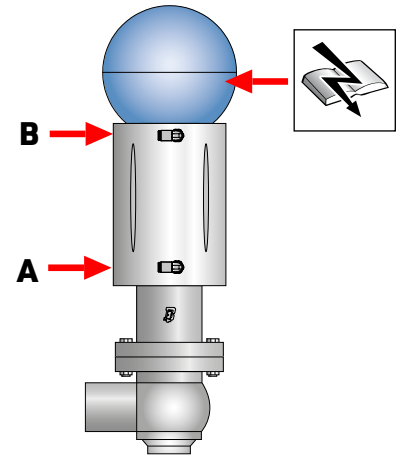
1. ALIMENTAZIONE ELETTRICA E PNEUMATICA:

- Utilizzare personale specializzato per l'installazione/disinstallazione;
- Verificare la corretta pressione e qualità aria (vedi "Dati Tecnici");
- Verificare la corretta alimentazione elettrica dell'unità di controllo (consultare relativo manuale istruzioni).

A = Movimento verso l'alto dell'otturatore

B = Movimento verso il basso dell'otturatore

Nelle valvole a semplice effetto è presente solo uno dei comandi descritti sopra.



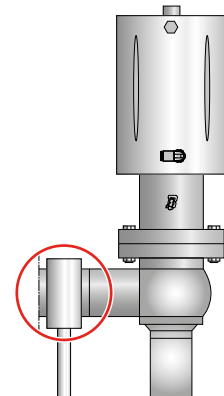
2. RIDURRE LE SOLLECITAZIONI A CUI È SOTTOPOSTA LA VALVOLA:

- Vibrazioni;
- Dilatazione termica delle tubazioni;
- Saldature eccessive;
- Sovraccarico.



ATTENZIONE!

Possono deformare le sedi delle tenute o causare il malfunzionamento della valvola.



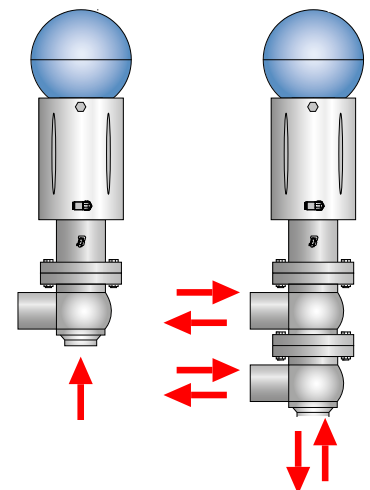
3. DIREZIONE CORRETTA DEL FLUSSO:

Il flusso contrario alla direzione di chiusura della valvola minimizza i colpi d'ariete.



ATTENZIONE!

Bardiani Valvole S.p.A. declina ogni e qualsiasi responsabilità per eventuali danni a cose e/o persone derivanti dalla mancata e/o non corretta osservanza delle procedure di installazione.

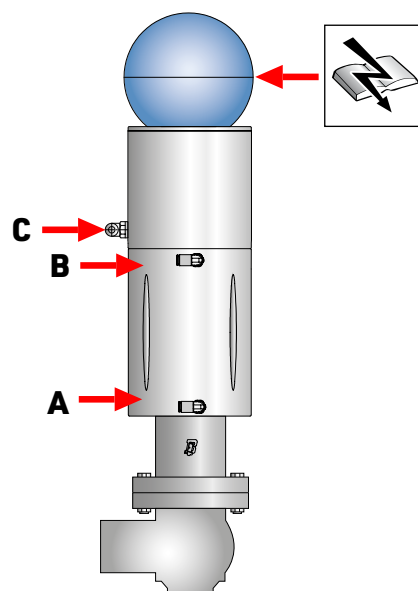




4. COLLEGAMENTO BBZU DOPPIO EFFETTO:

- Utilizzare personale specializzato per l'installazione/ disinstallazione;
- Verificare la corretta pressione e qualità aria (vedi "Dati Tecnici");
- Verificare la corretta alimentazione elettrica dell'unità di controllo (consultare relativo manuale istruzioni).

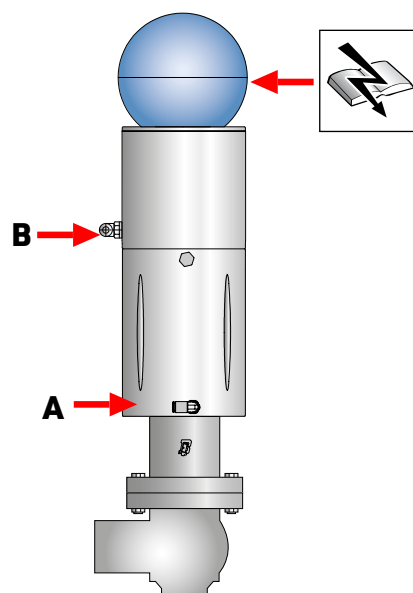
A = Movimento verso l'alto dell'otturatore
 B = Movimento verso il basso dell'otturatore
 C = Lift superiore



5. COLLEGAMENTO BBZU SINGOLO EFFETTO:

- Utilizzare personale specializzato per l'installazione/ disinstallazione;
- Verificare la corretta pressione e qualità aria (vedi "Dati Tecnici");
- Verificare la corretta alimentazione elettrica dell'unità di controllo (consultare relativo manuale istruzioni).

A = Movimento verso l'alto dell'otturatore
 B = Lift superiore





6. COLLEGAMENTI/RACCORDI VALVOLA:

Se la valvola è dotata di raccordi si può procedere all'installazione sulle tubazioni. Inserire correttamente le guarnizioni e stringere i raccordi.



7. SALDATURA CORPO VALVOLA SULLA TUBAZIONE:

Smontare i corpi dal resto della valvola prima di procedere alla saldatura. Fare riferimento alle pagine seguenti del presente manuale.



ATTENZIONE!

Pericolo schiacciamento mani. Durante il funzionamento esiste il pericolo di schiacciamento all'interno del corpo valvola e nella zona tra l'attuatore ed il corpo valvola.

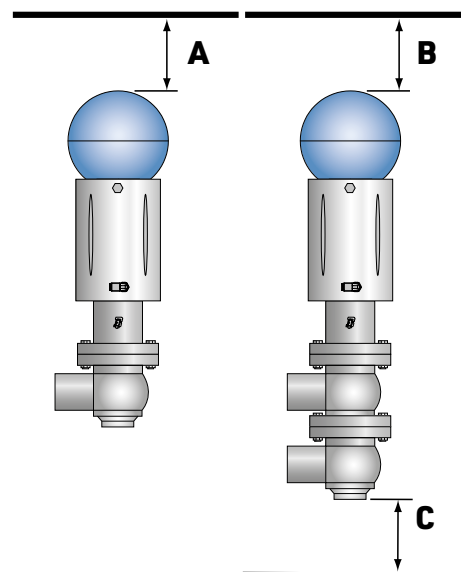
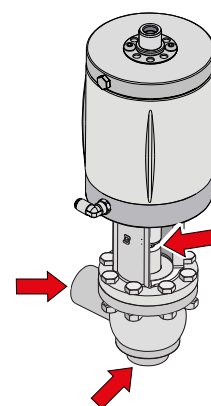
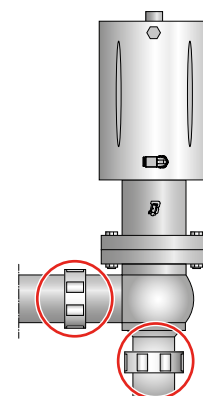


8. SPAZIO MINIMO PER MANUTENZIONE:

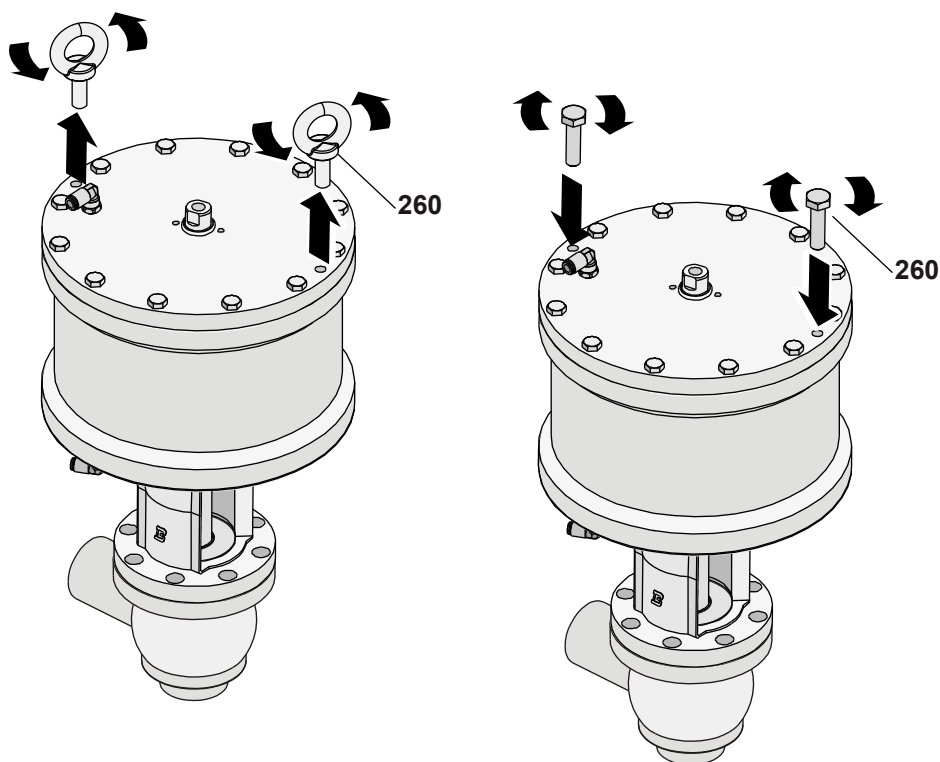
Assicurare lo spazio libero sufficiente per lo smontaggio della valvola (provvista di unità di controllo montata).

BBZQ (cil. 108-156)			
Dimensione valvola (DN)	A (mm)	B (mm)	C (mm)
25-40	225	225	225
50	283	283	283
65	240	240	240
80	315	315	315
100	240	315	315

BBZQ (cil.207-360)			
Dimensione valvola (DN)	A (mm)	B (mm)	C (mm)
25-40	275	275	225
50	344	335	283
65	290	305	240
80	377	366	315
100	310	385	315

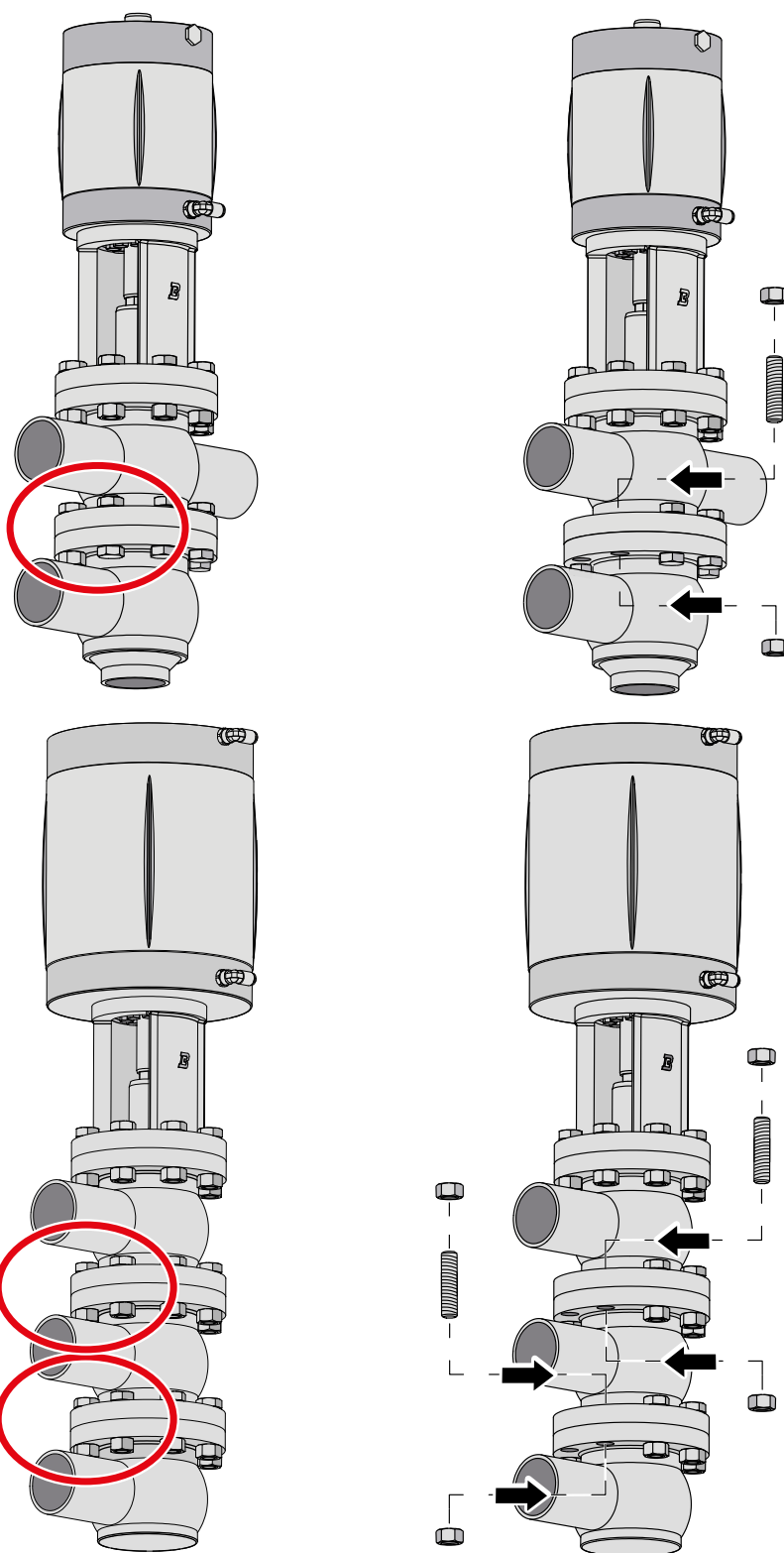


Una volta installata la valvola rimuovere i golfari e installare le viti.

**ATTENZIONE!**

Bardiani Valvole S.p.A. declina ogni e qualsiasi responsabilità per eventuali danni a cose e/o persone derivanti dalla mancata e/o non corretta osservanza delle procedure di installazione.

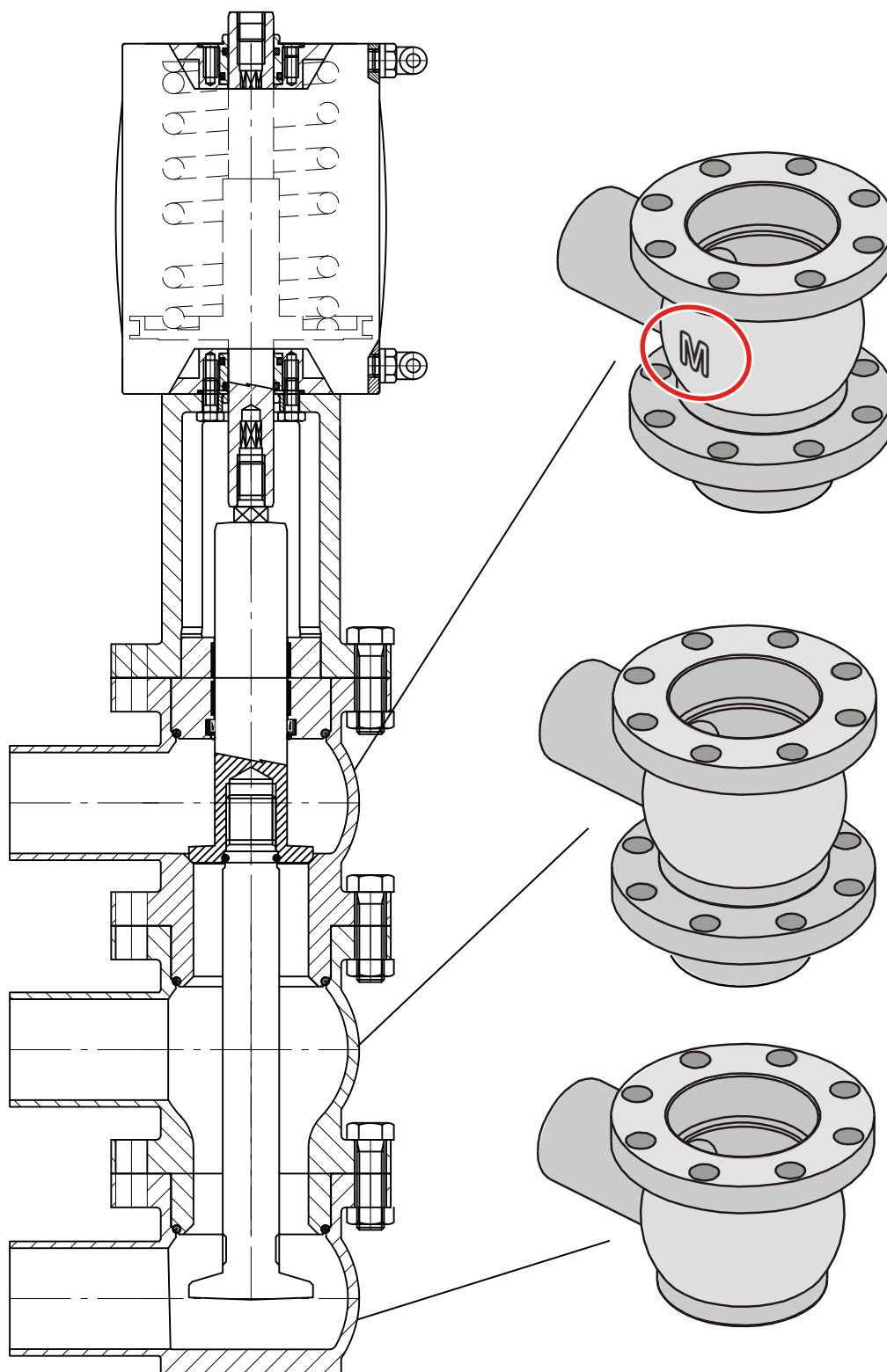
Montaggio con connessioni sovrapposte



DN	
25--40	M10X50
50	M12X55
65	M14X55
80	M14X55
100	M14X55

(Non di nostra fornitura)

5.1 Montaggio corpi M8 deviatrice



6 Funzionamento



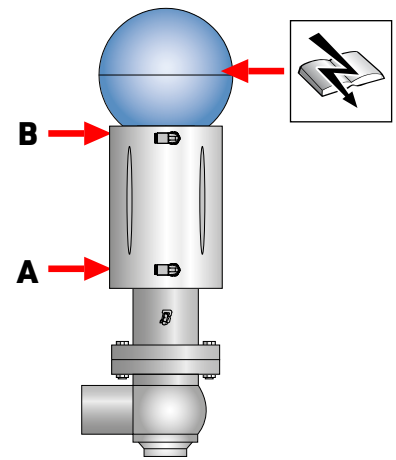
1. CONTROLLO VALVOLA PRIMA DEL FUNZIONAMENTO:

- Alimentare attuatore con aria;
- Fornire corrente alla valvola (tramite unità di controllo);
- Aprire e chiudere la valvola diverse volte;
- Verificare che la valvola funzioni correttamente e regolarmente.

A = Movimento verso l'alto dell'otturatore

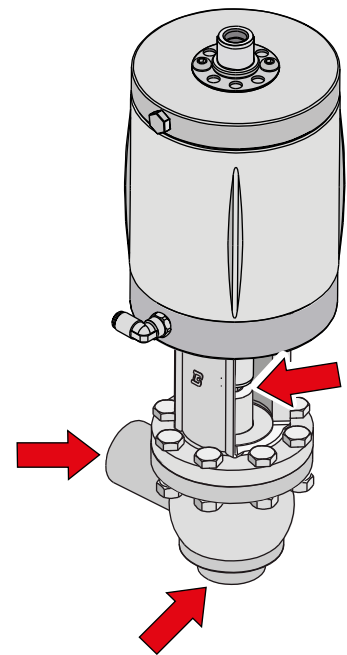
B = Movimento verso il basso dell'otturatore

Nelle valvole a semplice effetto è presente solo uno dei comandi descritti sopra.



ATTENZIONE!

Pericolo schiacciamento mani. Durante il funzionamento esiste il pericolo di schiacciamento all'interno del corpo valvola e nella zona tra l'attuatore ed il corpo valvola.



7 Ricerca Problemi



PROBLEMA	POSSIBILE CAUSA	POSSIBILE RIMEDIO
Perdita esterna	Guarnizione usurata	Sostituire la guarnizione
Perdita interna a valvola chiusa causata da normale usura		
Perdita esterna	Pressione eccessiva	Sostituire con guarnizioni realizzate con un diverso tipo di elastomero
	Temperatura eccessiva	
Perdita interna a valvola chiusa verificatasi prematuramente	Fluidi aggressivi	Modificare condizioni operative
	Troppi comandi attivi	
Difficoltà di apertura e chiusura	Tipologia non corretta degli elastomeri della guarnizione	Sostituire con guarnizione di diverso tipo di elastomeri
	Posizionamento scorretto dell'attuatore	Montare correttamente l'attuatore
	Funzionamento scorretto dell'attuatore	Passare da NC a NA o viceversa
	Impurità nell'attuatore	Controllo e manutenzione dell'attuatore
	Posizionamento scorretto corpo valvola	Smontare e riposizionare correttamente il corpo valvola

8 Pulizia



1. PULIZIA VALVOLA CON DETERGENTI:

Eseguire la pulizia degli impianti in cui è installata la valvola servendosi di personale specializzato e rispettando quanto segue:

- Attenersi alle concentrazioni indicate dei detergenti;
- Rispettare le istruzioni dei fornitori di detergenti;
- Indossare sempre occhiali protettivi e guanti.



IMPORTANTE!

- Dosare regolarmente i detergenti per evitare concentrazioni eccessive;
- Risciacquare sempre accuratamente con acqua pulita dopo la pulizia;
- Verificare la compatibilità dei materiali della valvola.



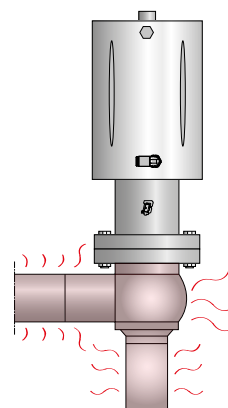
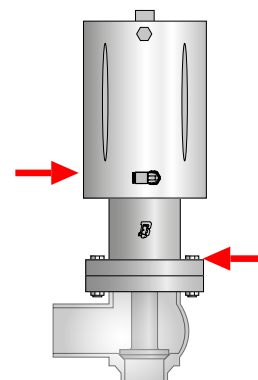
ATTENZIONE!

Pericolo di scottature. La valvola o le tubazioni possono essere molto calde. Utilizzare guanti protettivi.



AVVERTENZA

Dopo l'installazione di una valvola nuova o revisionata, effettuare un ciclo di lavaggio interno prima di utilizzare le tubazioni con un fluido alimentare. Nel caso sia stata oggetto di saldature dovrà subire una fase di passivazione.



ESEMPIO DI CICLO DI LAVAGGIO INTERNO (CIP)		
Fasi	Temperatura °C	Prodotto di lavaggio
Risciacquo iniziale	Ambiente	Acqua priva di cloro o cloruri
Lavaggio	70 °C	Soda (NaOH) all'1%
Risciacquo intermedio	Ambiente	Acqua priva di cloro o cloruri
Lavaggio	70 °C	Acido Nitrico (HNO ₃) allo 0,5%
Risciacquo finale	Ambiente	Acqua priva di cloro o cloruri

Velocità del prodotto di lavaggio consigliata = 2 m/s

	EPDM	FKM
Product		
Massima temperatura	95°C	95°C
Minima temperatura	-20 °C	-5 °C

	EPDM	FKM
Steam		
Massima temperatura (continuata)	130°C	120°C
Massima temperatura (per un periodo 15-20 min)	150 °C	140 °C

	EPDM	FKM
Soda caustica		
Soluzione di pulizia diluita	<5%	<5%
Temperatura minima	1 °C	1° C
Temperatura massima	80 °C	80 °C

	EPDM	FKM
Acido (Nitrico / Fosforico / Acido peracetico)		
Soluzione di pulizia diluita	<2%	<2%
Temperatura minima	1 °C	1° C
Temperatura massima	40 °C	65 °C

	EPDM	FKM
Disinfezione		
Disinfettante diluito (a base di acido peracetico)	<0,7%	<0,7%
Temperatura minima	1 °C	1° C
Temperatura massima	30 °C	30 °C

9 Smaltimento



Alla fine del suo utilizzo il dispositivo deve essere riciclato in accordo con la legge vigente nel paese dove è installata la valvola.

I residui pericolosi devono essere considerati e trattati in modo adeguato.

La valvola è costituita di acciaio AISI316L e AISI 304, elastomeri (guarnizioni), plastiche (unità di controllo) e componenti elettrici (morsettiera, elettrovalvole, sensori).

Attenersi ai passi successivi prima di disconnettere la valvola facendo riferimento al paragrafo "Manutenzione generale":

- Assicurarsi che la linea della valvola non sia in funzione
- Svuotare la linea che interessa la valvola e pulire se necessario
- Disconnettere l'aria se non richiesta per lo smontaggio
- Scollegare l'energia dalla valvola
- Smontare la valvola dall'impianto
- Spostare la valvola attenendosi alle regole nel paragrafo "Sollevamento"
- Per lo smontaggio della valvola fare riferimento al paragrafo "Smontaggio"

10 Manutenzione

10.1 Manutenzione Generale



1. PRECAUZIONI DI MANUTENZIONE

Tutte le operazioni di manutenzione devono essere eseguite da personale specializzato.



ATTENZIONE!

Le operazioni di manutenzione devono essere eseguite a impianto fermo e con tutte le utenze (tensione elettrica, aria) scollegate.



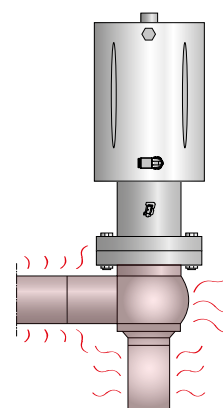
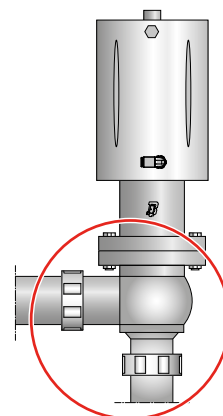
ATTENZIONE!

Scaricare sempre la pressione del fluido dalla valvola e della tubazione prima di smontare la valvola.



ATTENZIONE!

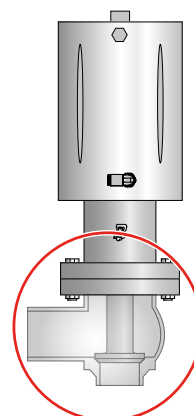
Pericolo di scottature. La valvola o le tubazioni possono essere molto calde. Utilizzare guanti protettivi.





2. PULIZIA DA DEPOSITI:

- Lavare e pulire accuratamente tutte le parti della valvola prima dello smontaggio;
- Fare attenzione a possibili depositi di detergenti e altri fluidi aggressivi (vedi "Pulizia");
- Usare sempre occhiali e guanti protettivi, ove necessario.



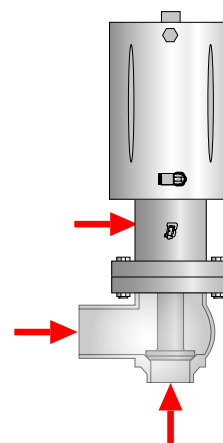
ATTENZIONE!

Pericolo schiacciamento mani. Durante il funzionamento esiste il pericolo di schiacciamento all'interno del corpo valvola e nella zona tra l'attuatore e il corpo valvola.



3. SOSTITUZIONE PARTI USURATE DELLA VALVOLA:

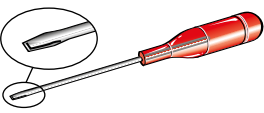
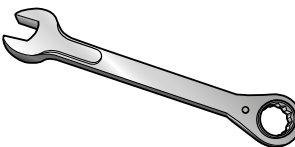
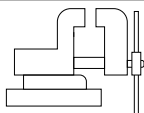
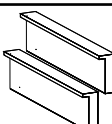
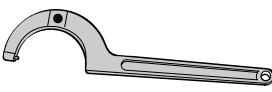
Utilizzare sempre ricambi originali.



10.2 Manutenzione Programmata

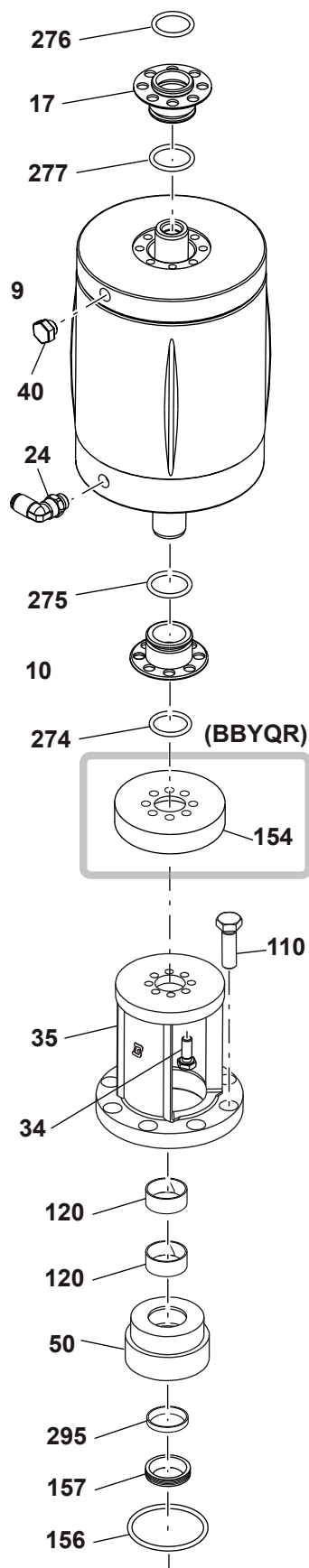
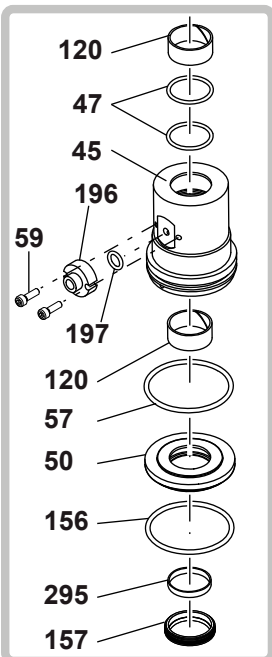
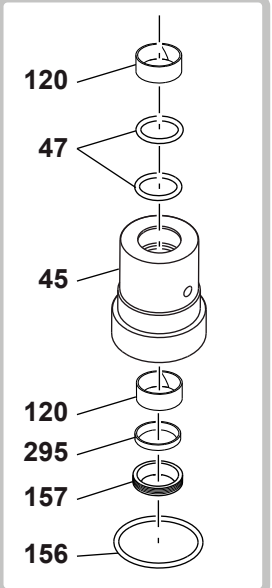
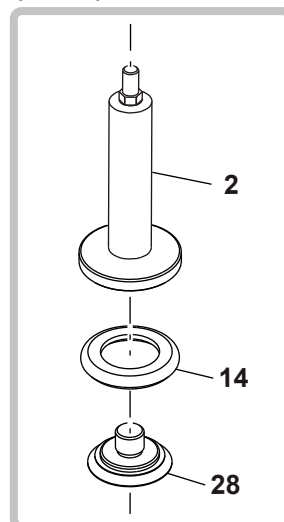
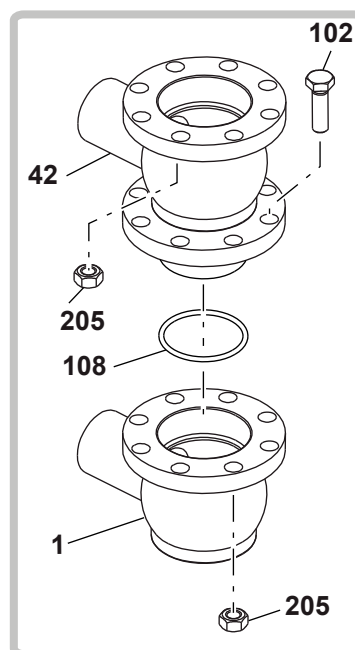
MANUTENZIONE PROGRAMMATA	GUARNIZIONI VALVOLA	GUARNIZIONI ATTUATORE
Periodica	Sostituire dopo 12 mesi	Sostituire dopo 24 mesi
In caso di perdite	Sostituire alla fine della giornata	Sostituire in caso di perdite
	Controllare l'otturatore	-
Preventiva	Controllare corretto funzionamento e assenza di perdite	Controllare corretto funzionamento e assenza di perdite
	Registrare tutte le azioni svolte	Registrare tutte le azioni svolte

10.3 Attrezzature utili allo Smontaggio / Rimontaggio

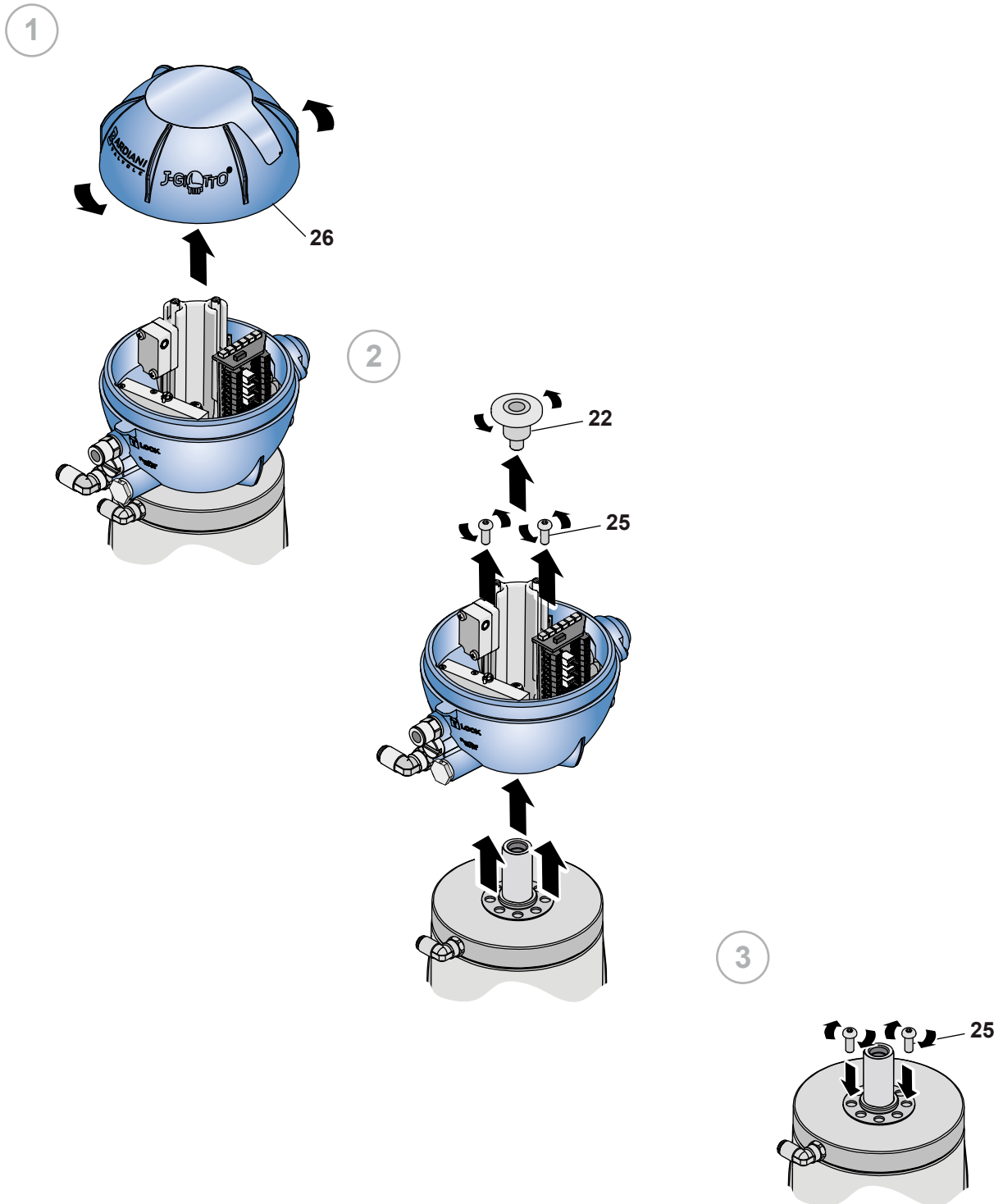
ATTREZZI	DN25	DN32	DN40	DN50	DN65	DN80	DN100
	✓						
	4 - 8						
	10-12- -13- 15-17	10-12-13-15- 17	10-12- 13-15- 17-19	10-12- 13-15- 17-22- 24	10-12-13-15- 19-22-24		
	✓						
	✓						
	BETA 99ST 35-50						

10.4 Valvola Pneumatica BBZQ - BBYQ cilindro 108-156

N°	DESCRIZIONE
1	Corpo inferiore
2	Otturatore
9	Cilindro
10	Boccola
14	Pastiglia ptfe
17	Boccola
24	Raccordo aria
28	Dado otturatore
34	Vite
35	Assemblaggio
40	Tappo
45	Barriera vapore
47	Anello di tenuta
50	Disco portatenuta
57	Anello di tenuta
59	Vite
110	Vite
120	Boccola
156	Anello di tenuta
157	Anello di tenuta
196	Collegamento vapore
197	Anello di tenuta
205	Dado
274	Anello di tenuta
275	Anello di tenuta
276	Anello di tenuta
277	Anello di tenuta
295	Boccola

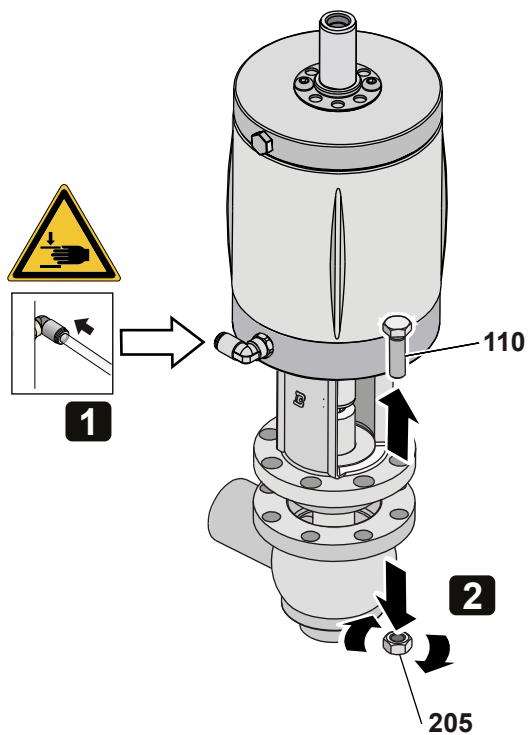
**(BBYQ Speciale)****(BBYQ)****(PTFE)****(M8)**

10.5 Smontaggio della BBZQ - BBYQ cilindro 108-156

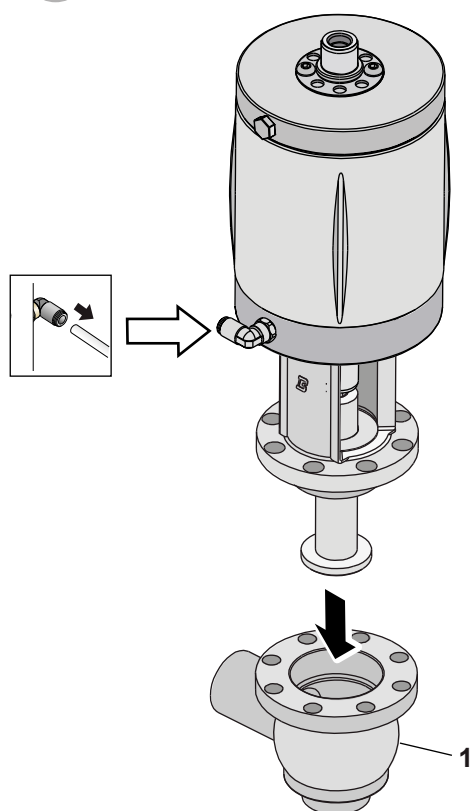


(Normalmente chiusa)

1 a

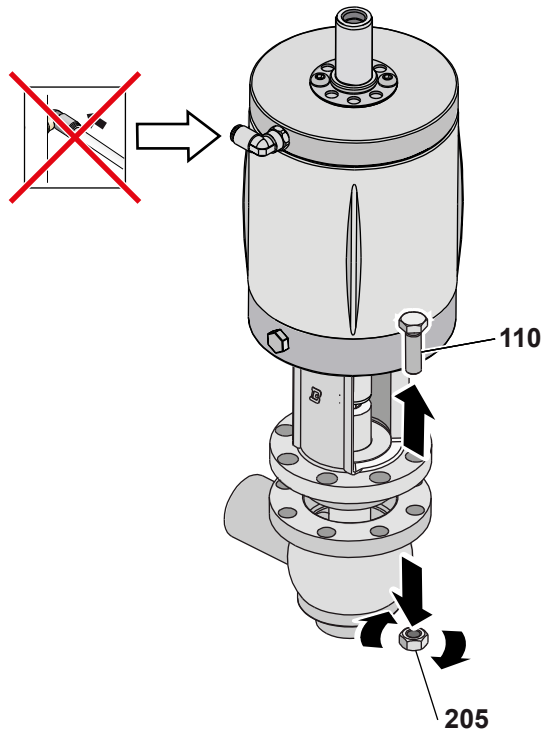


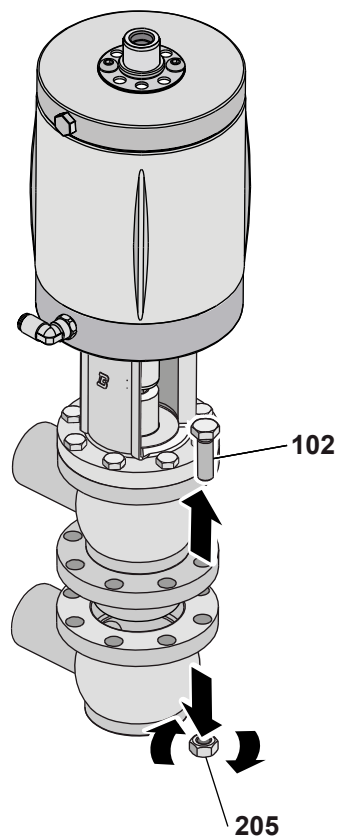
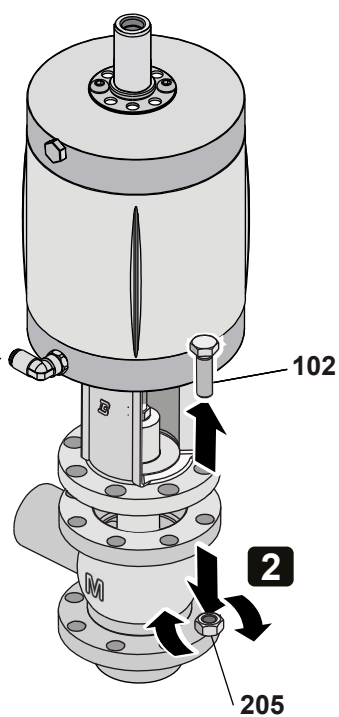
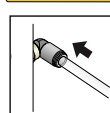
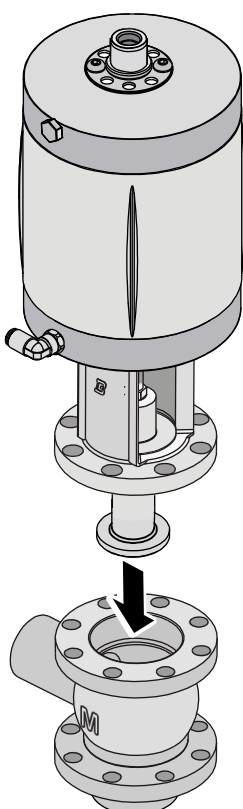
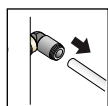
2 a



(Normalmente aperta o doppio effetto)

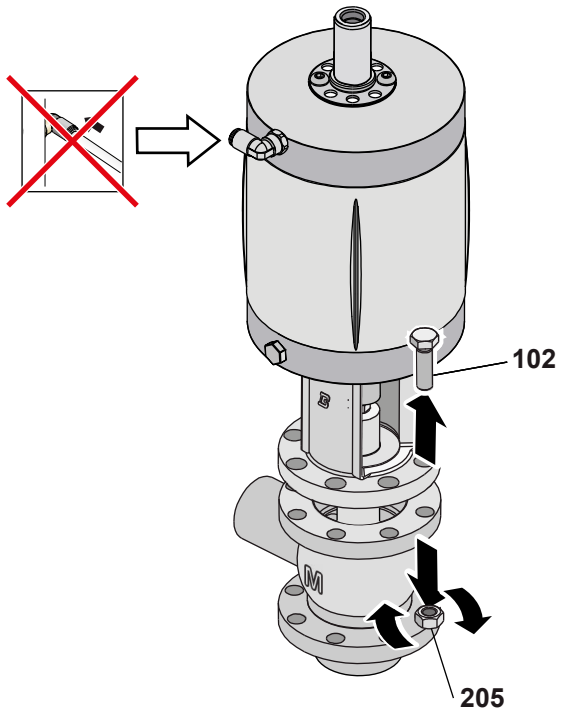
1-b



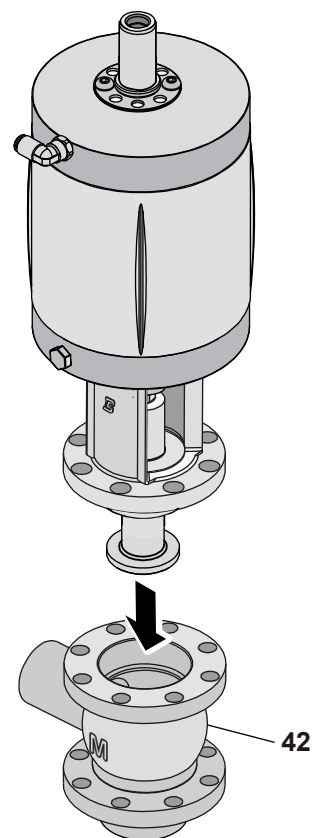
(M8 Normalmente chiusa)**1** — **C****2** — **C****3** — **C**

(M8 Normalmente aperta)

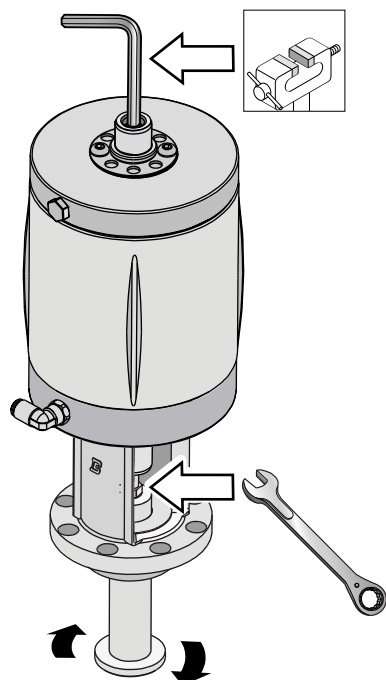
2-d



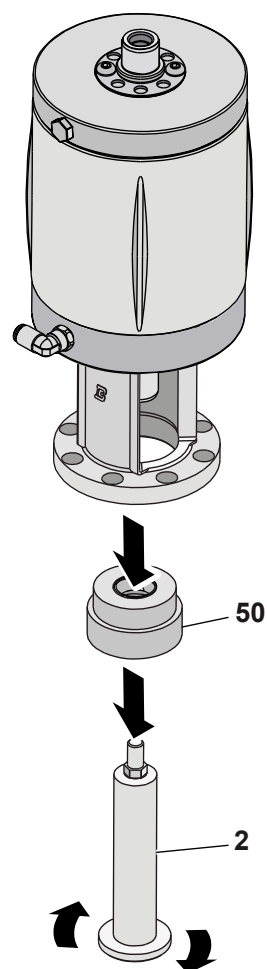
3-d



4

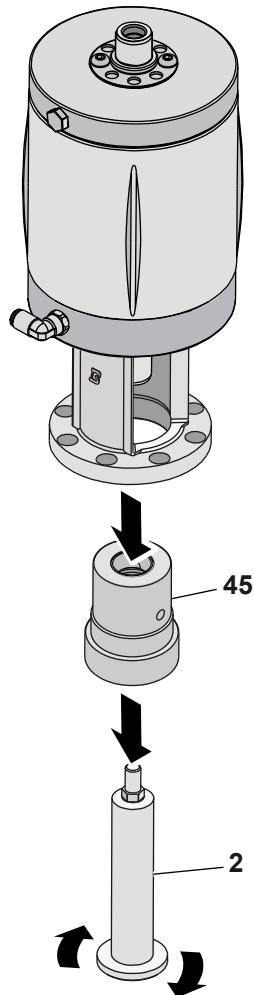


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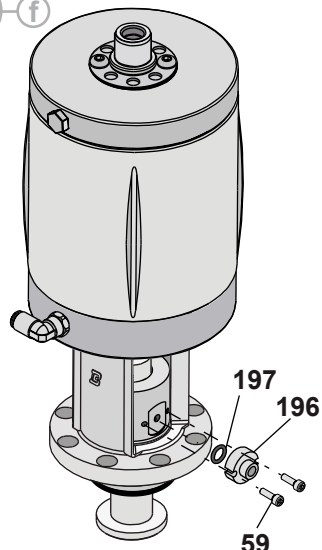
(BBYQ)

5-d

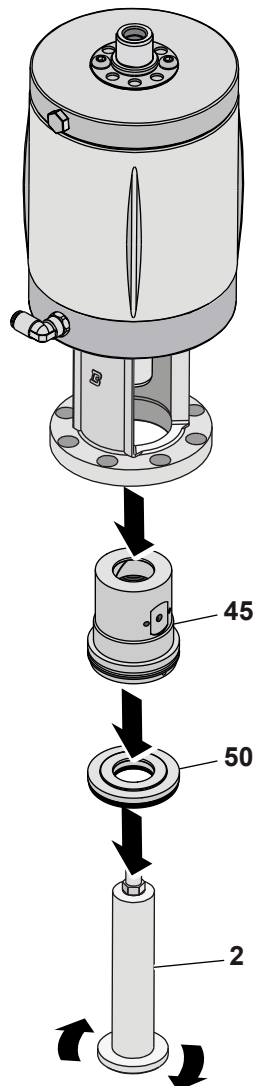


(BBYQ Speciale)

5-f

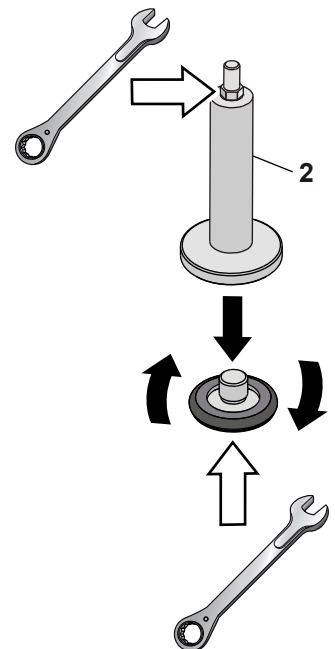


6-f

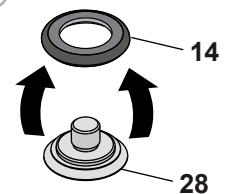


(P.T.F.E.)

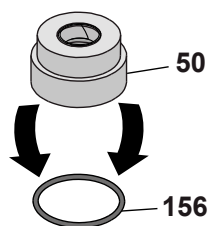
7-e



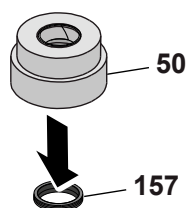
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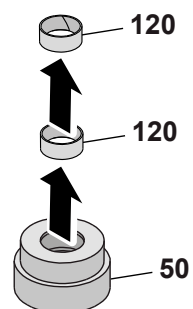
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10

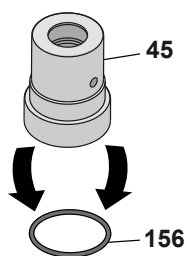


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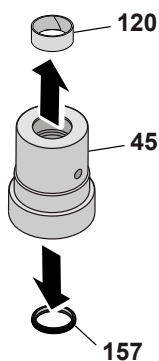


(BBYQ)

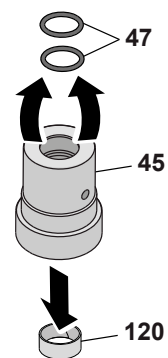
9-d



10-d

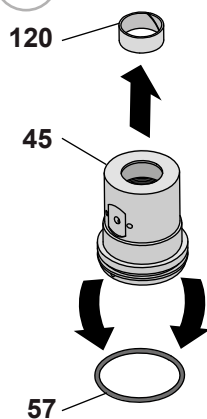


11-d

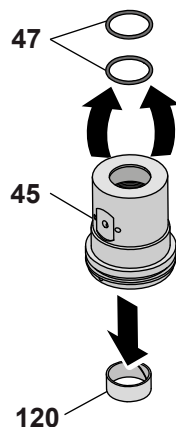


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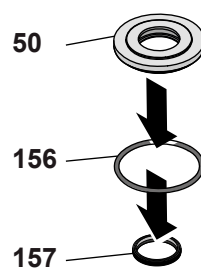
9-f

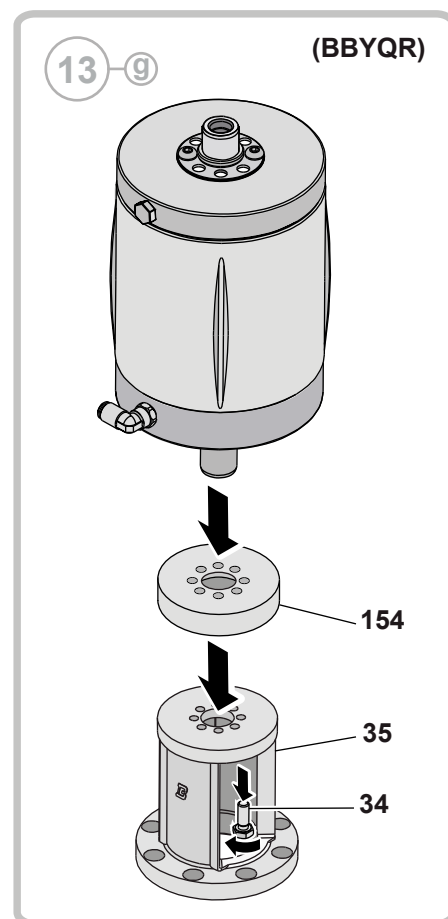
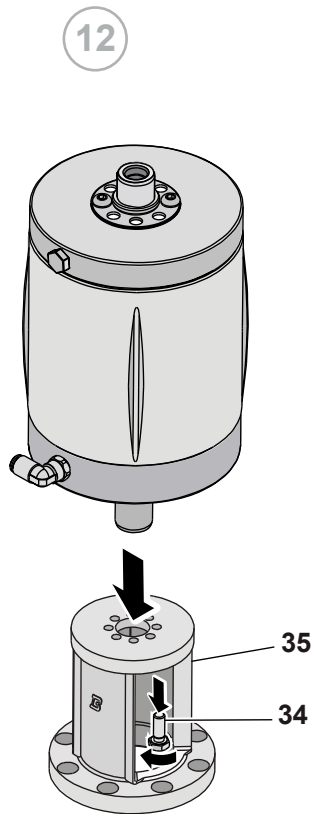


10-f

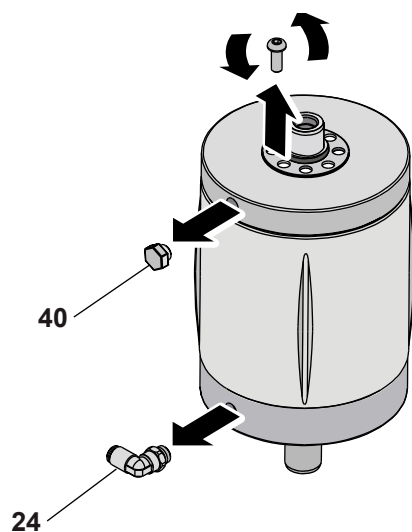


11-f

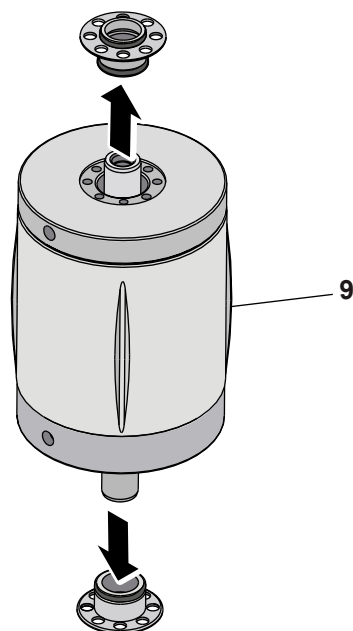




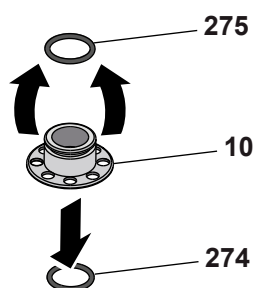
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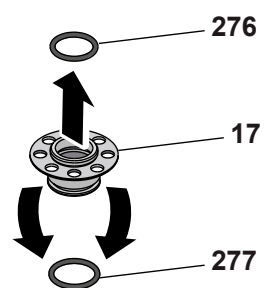
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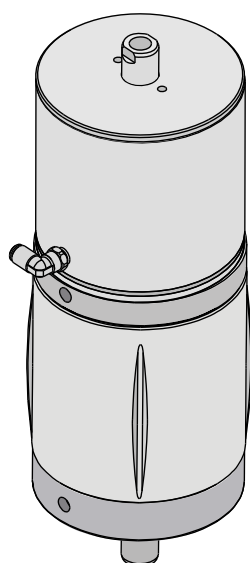
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16

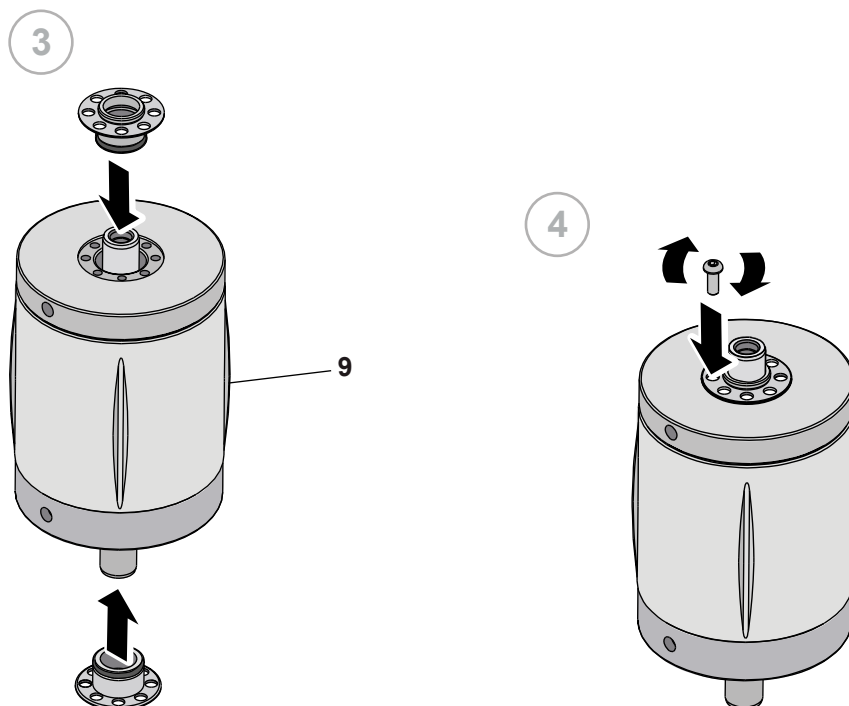
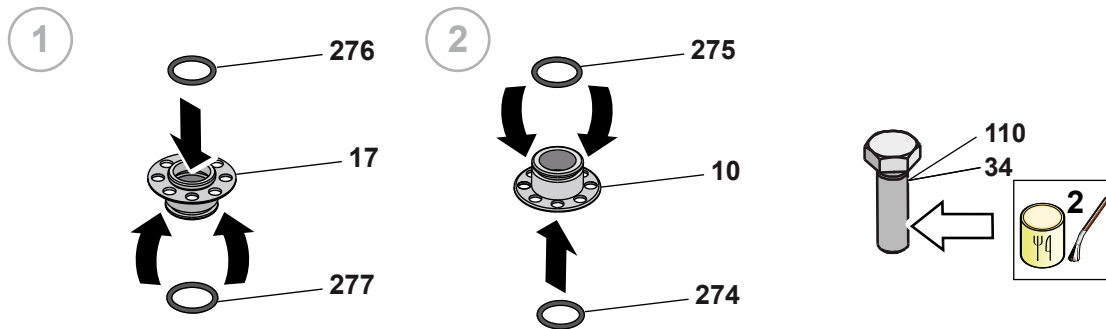


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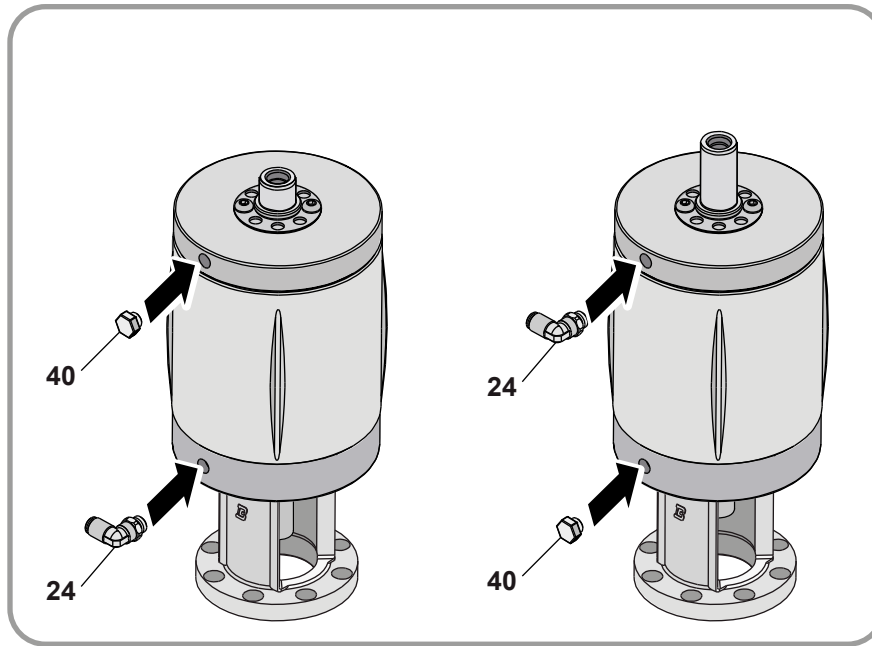
[BBZU]

10.6 Montaggio della BBZQ - BBYQ cilindro 108-156

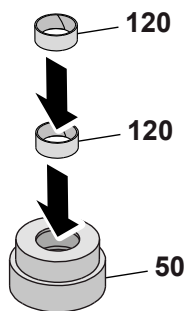


5

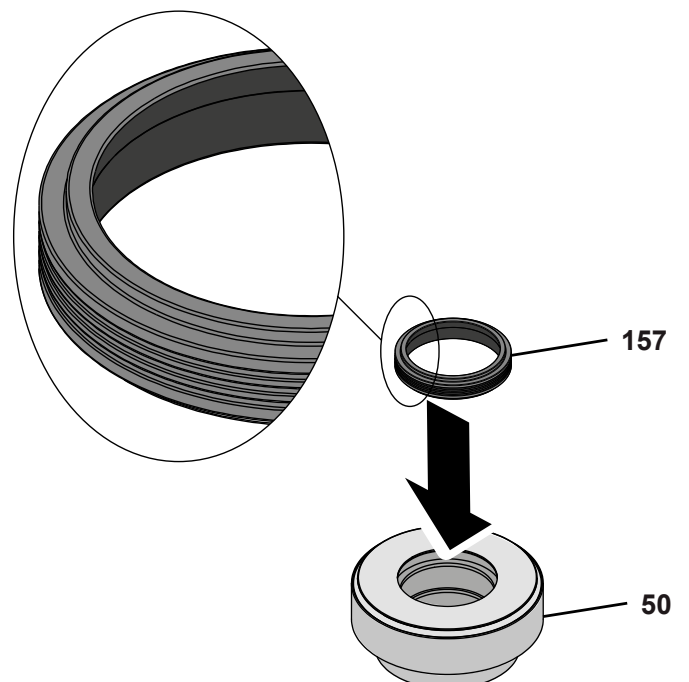
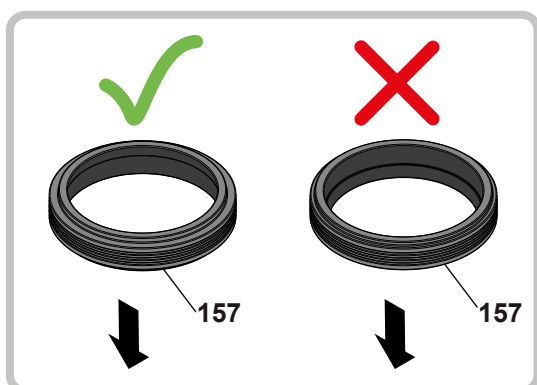


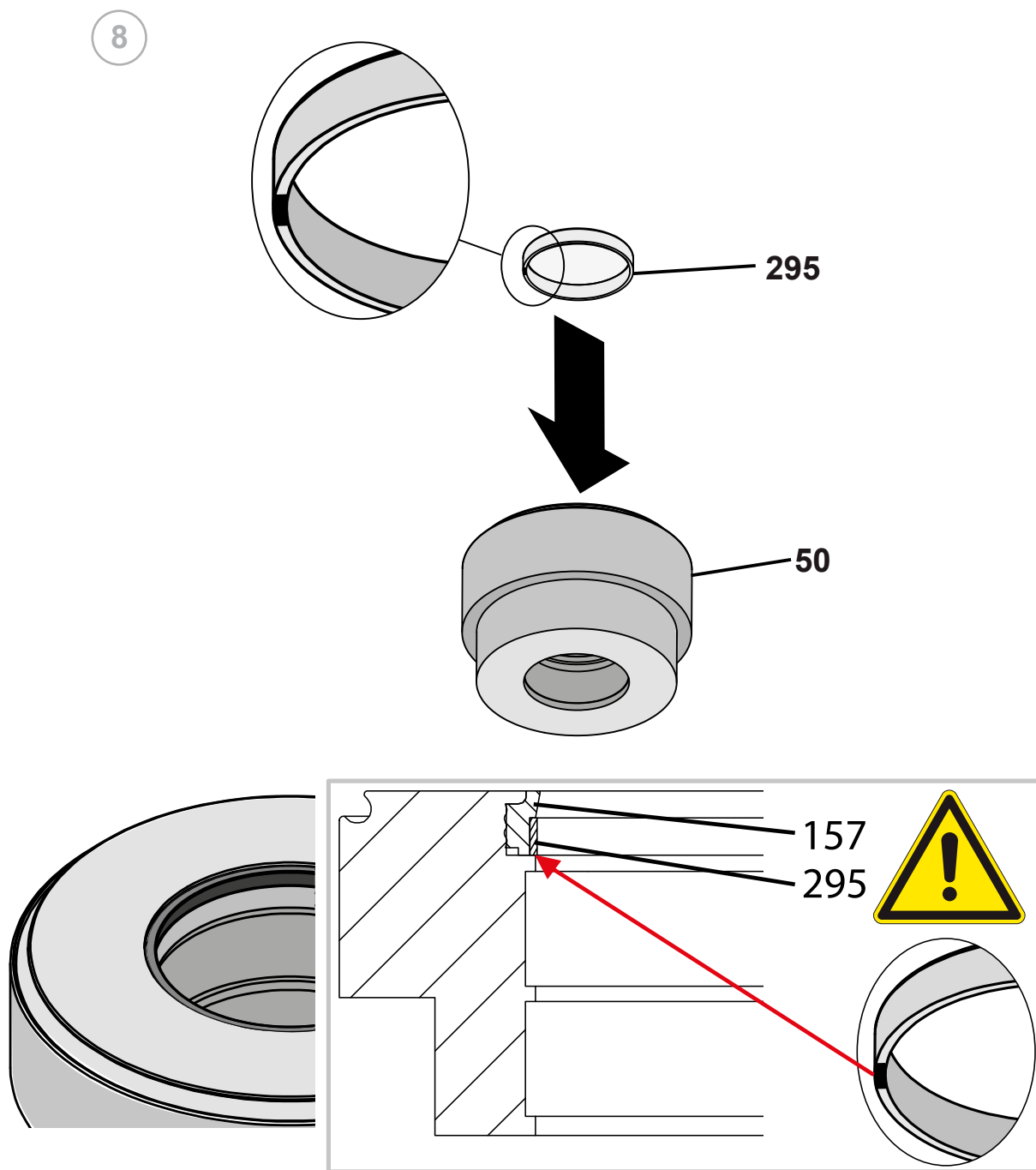


6

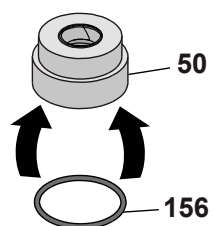


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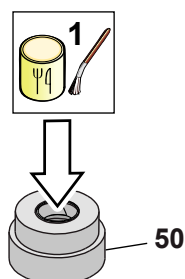




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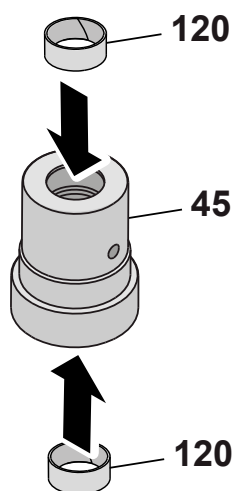


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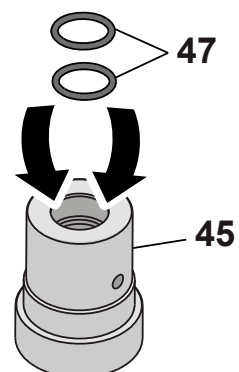


(BBYQ)

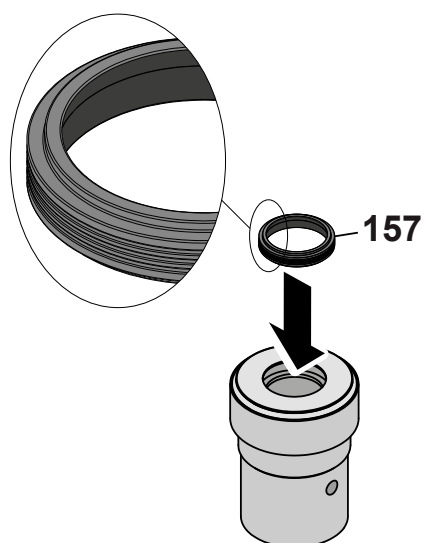
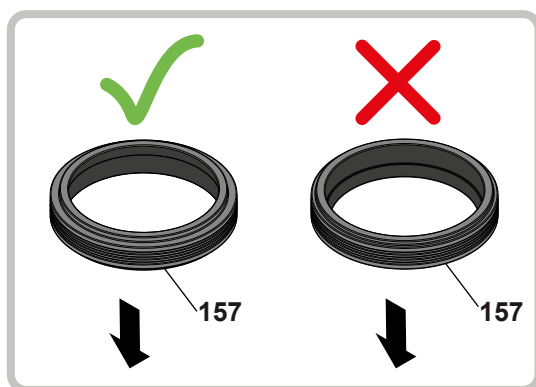
6-d



7-d

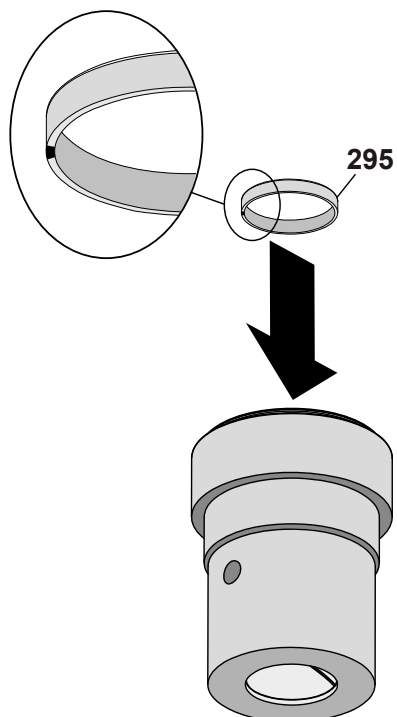


8-d

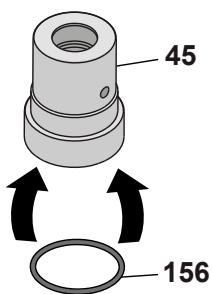


(BBYQ)

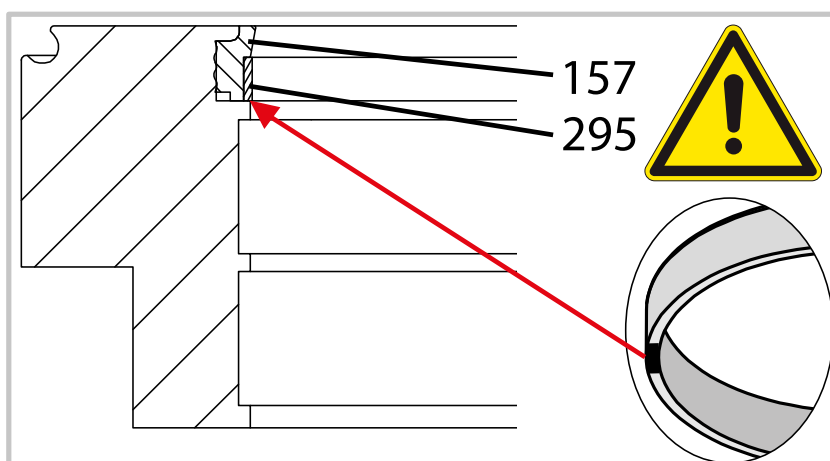
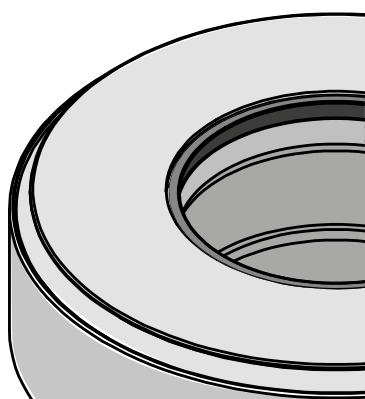
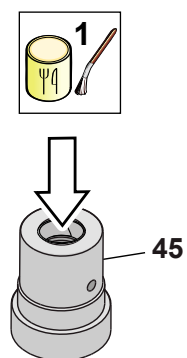
9-d

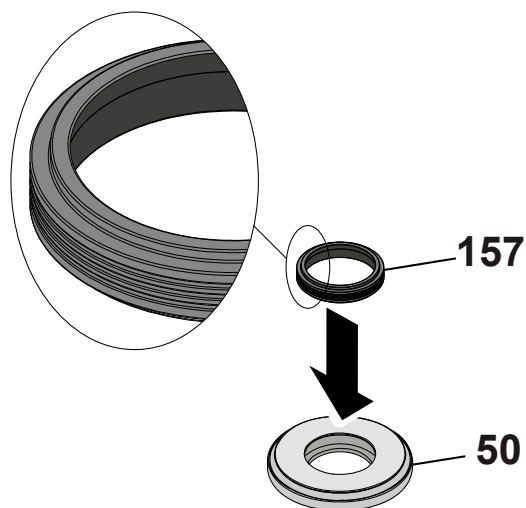
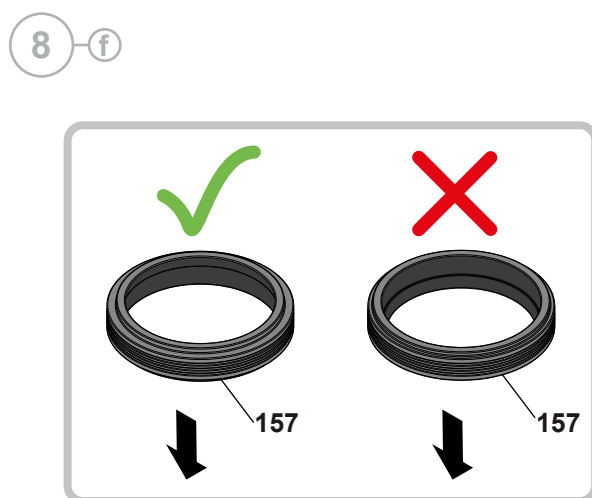
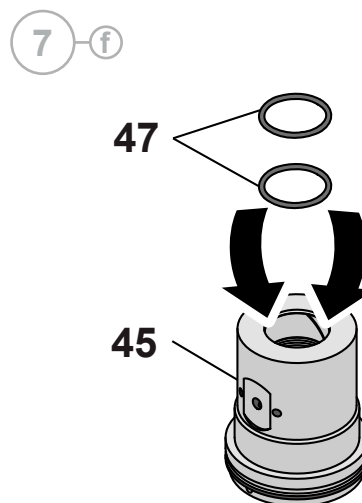
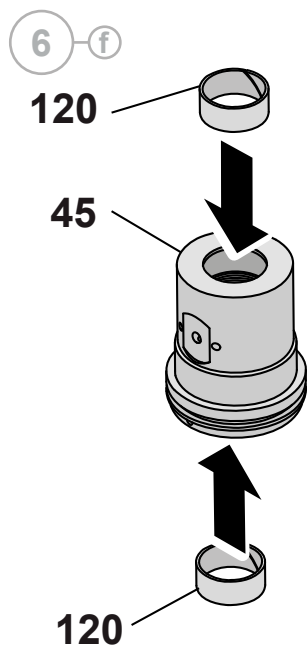


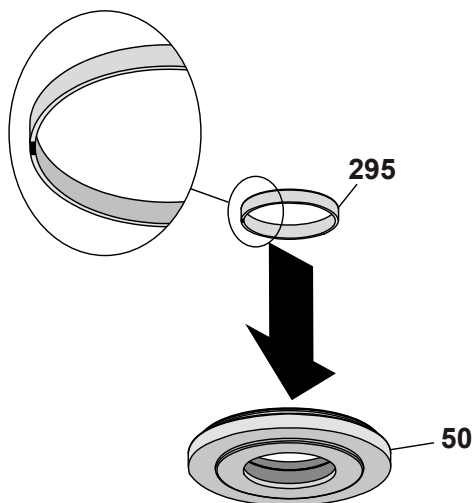
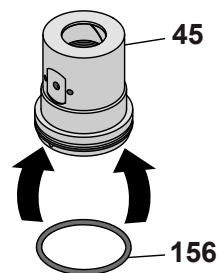
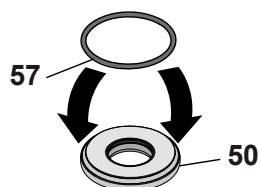
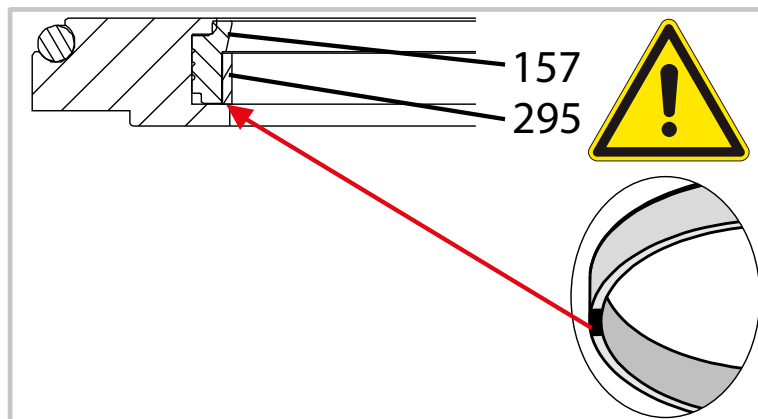
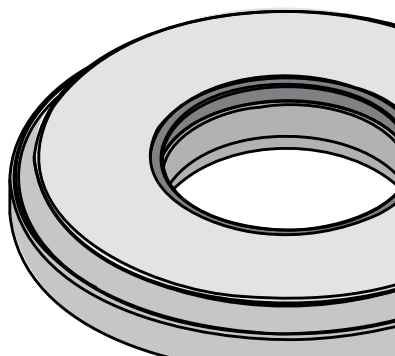
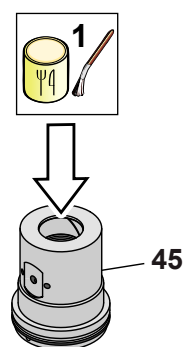
10-d



11-d

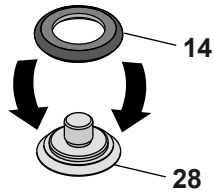


(BBYQ Speciale)

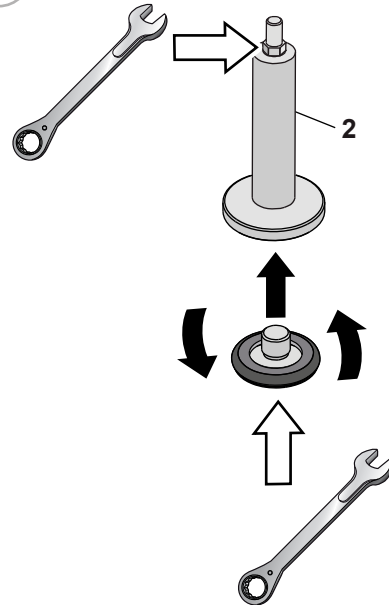
(BBYQ Speciale)**9** - f**10** - f**11** - f**12** - f

(P.T.F.E.)

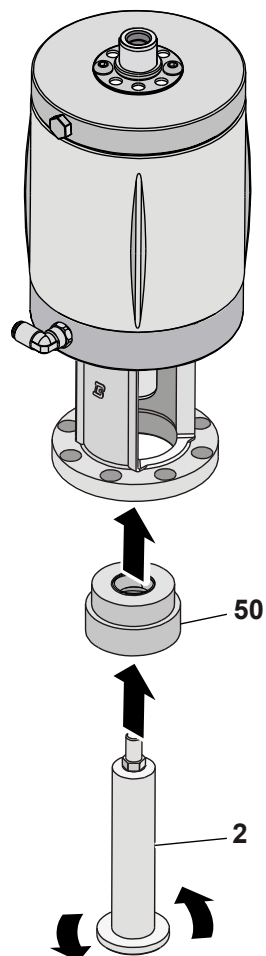
13-e



14-e

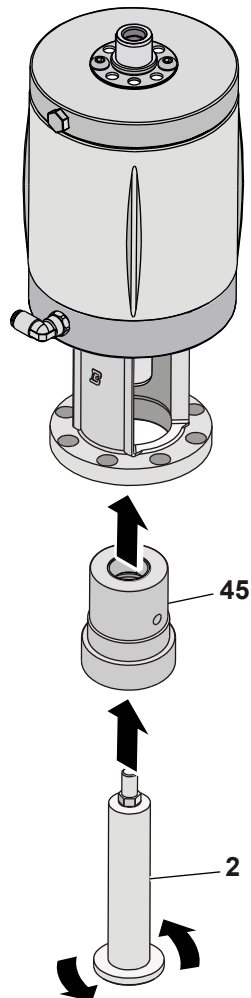


15



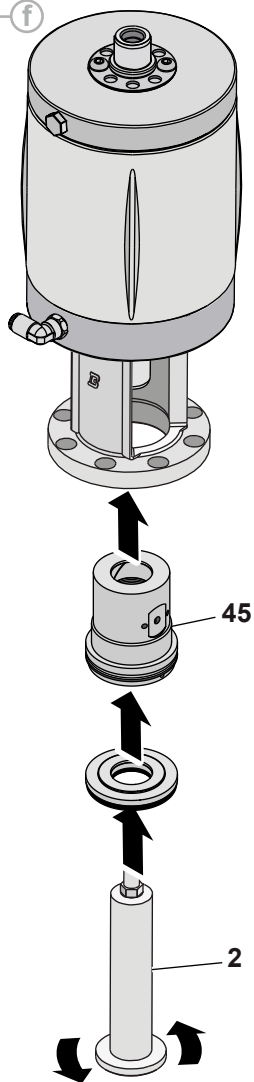
(BBYQ)

(15-d)

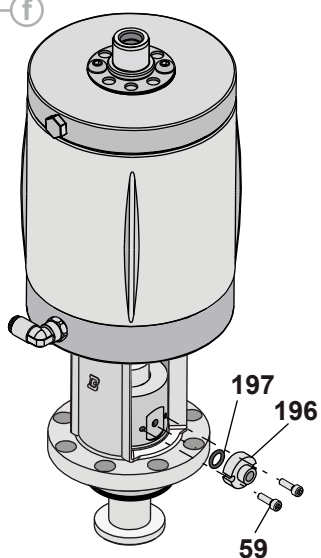


(BBYQ Speciale)

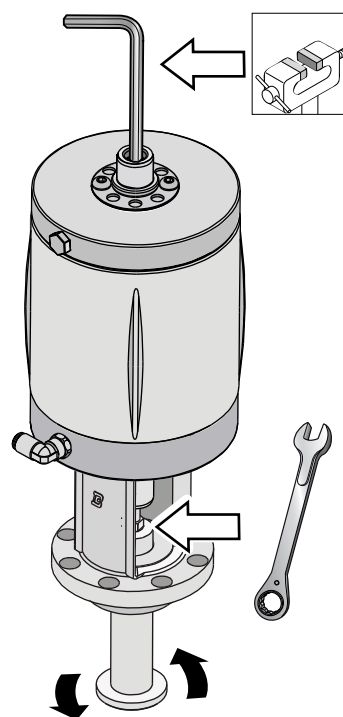
(15-f)

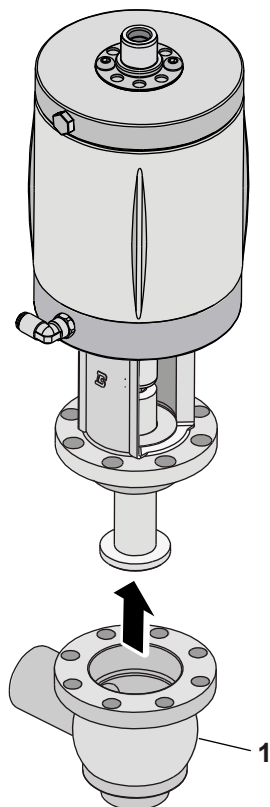
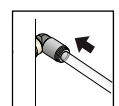
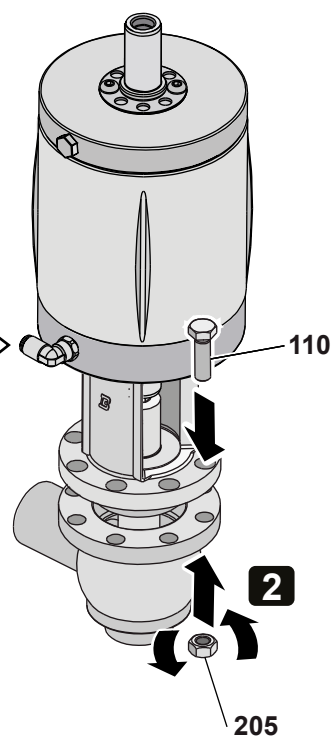
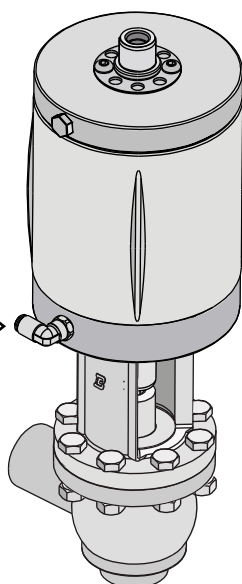
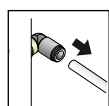


(16-f)



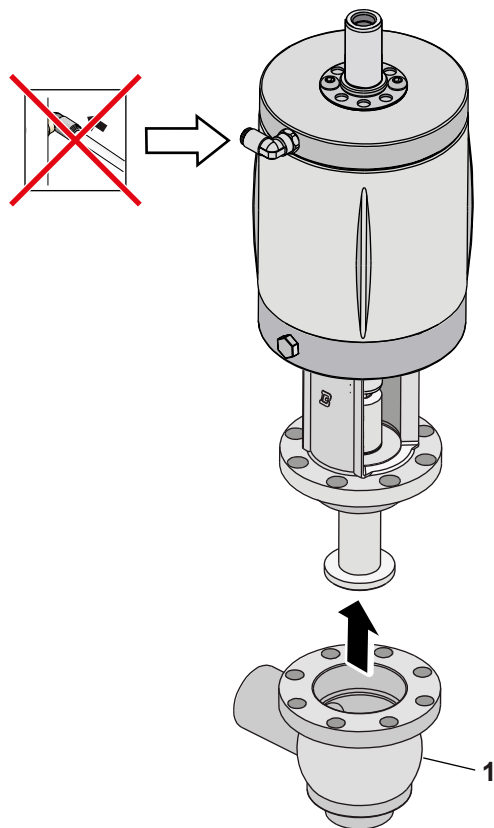
(17)



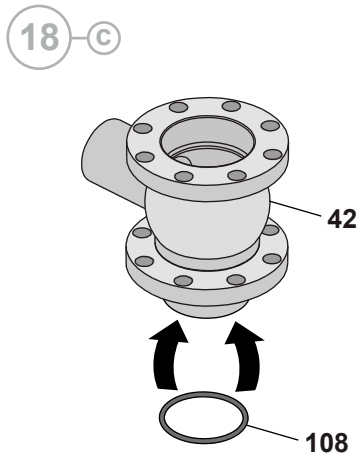
(Normalmente chiusa)**18** a**19** a**1****20** a

(Normalmente aperta o doppio effetto)

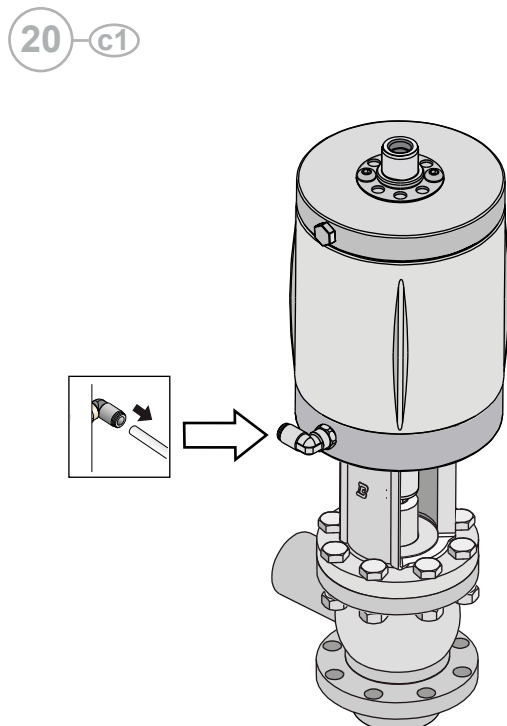
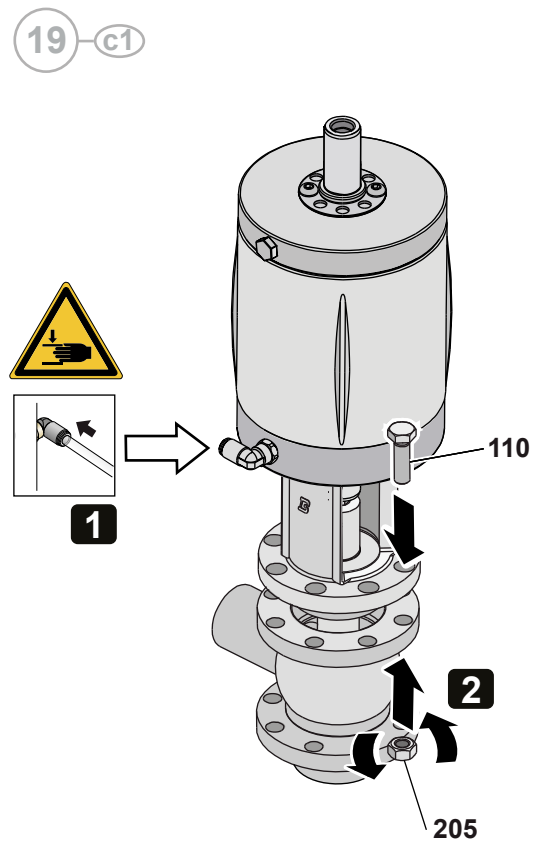
18-b



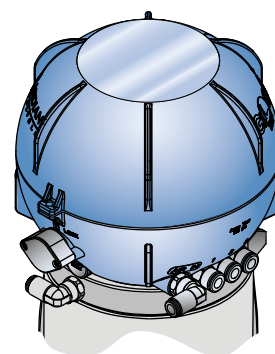
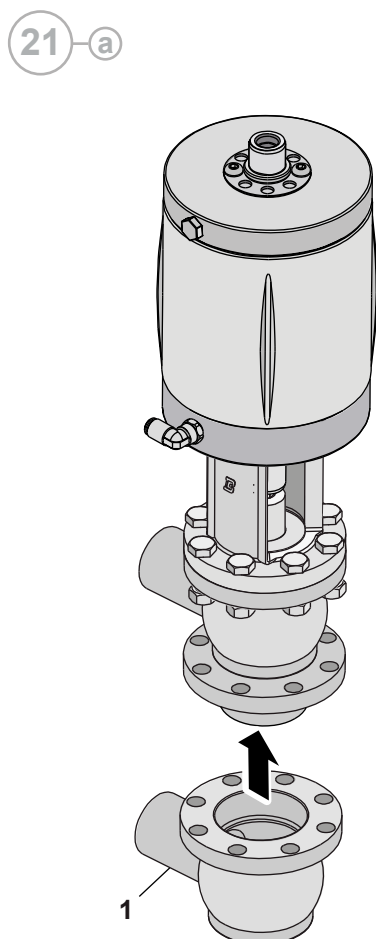
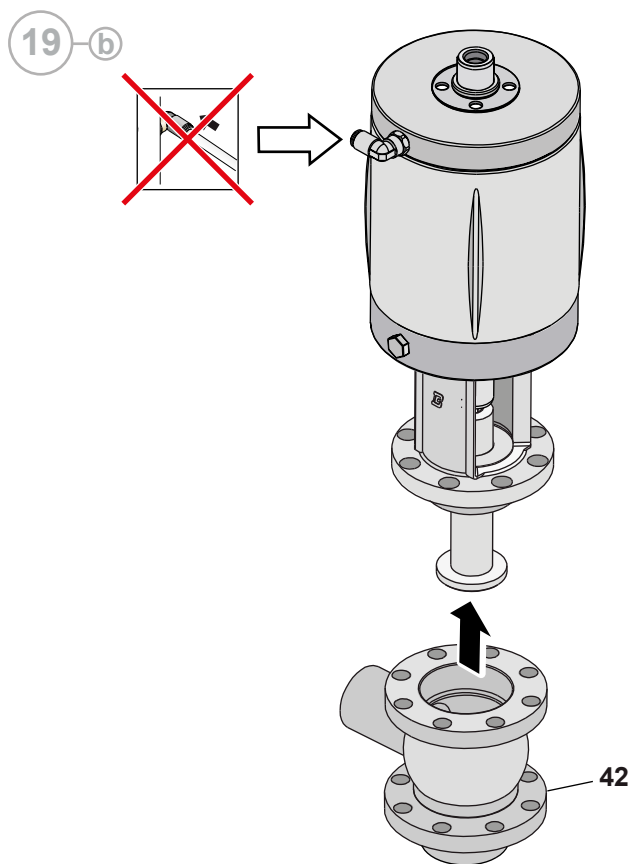
(M8)



(Normalmente chiusa)



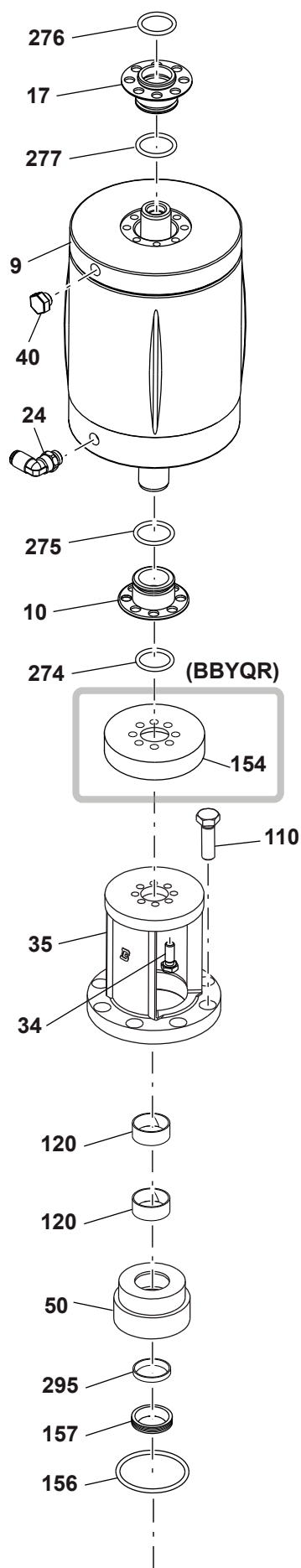
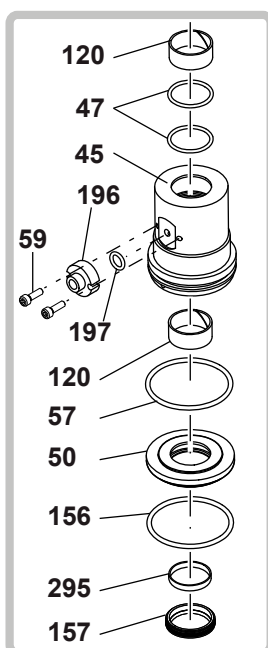
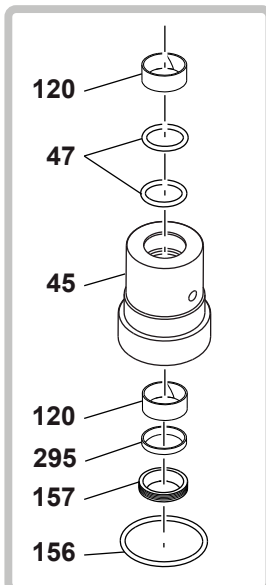
(Normalmente aperta o doppio effetto)



[M GIOTTO]

10.7 Valvola Pneumatica BBZQ - BBYQ cilindro 108-156 Deviatrice

N°	DESCRIZIONE
1	Corpo inferiore
9	Cilindro
10	Boccola
14	Anello di tenuta
17	Boccola
23	Perno
24	Raccordo aria
28	Dado otturatore
30	Doppio otturatore
33	Morsetto
34	Vite
35	Assemblaggio
40	Tappo
42	Corpo superiore
50	Disco portatenuta
57	Anello di tenuta
59	Vite
77	Dado membrana
108	Anello di tenuta
120	Boccola
128	Membrana
154	Distanziatore
156	Anello di tenuta
157	Anello di tenuta
196	Collegamento vapore
197	Anello di tenuta
212	Stelo doppio otturatore
274	Anello di tenuta
275	Anello di tenuta
276	Anello di tenuta
277	Anello di tenuta
286	Raccordo aria
295	Boccola

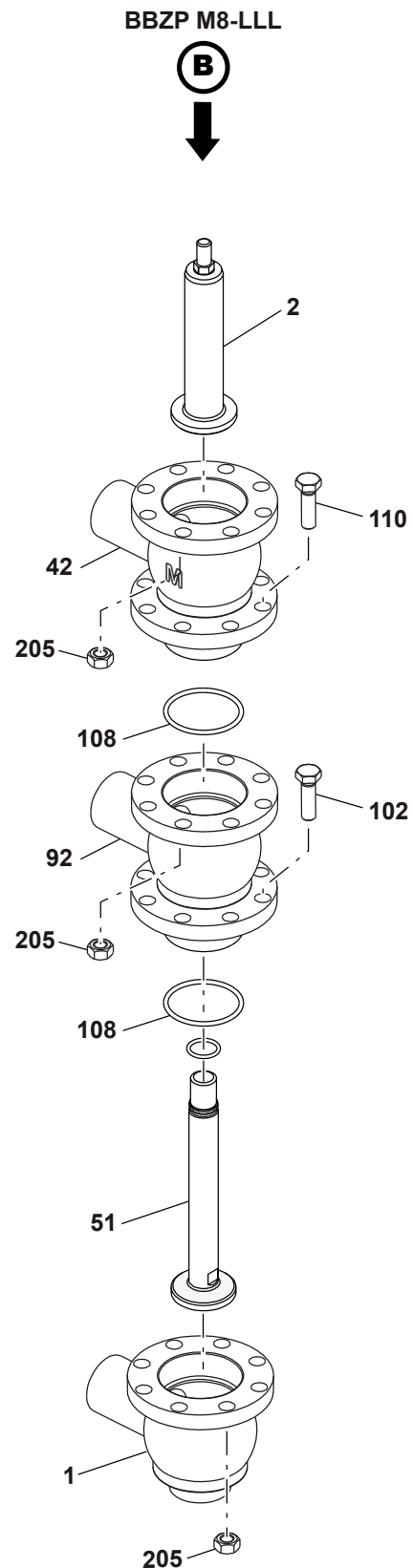
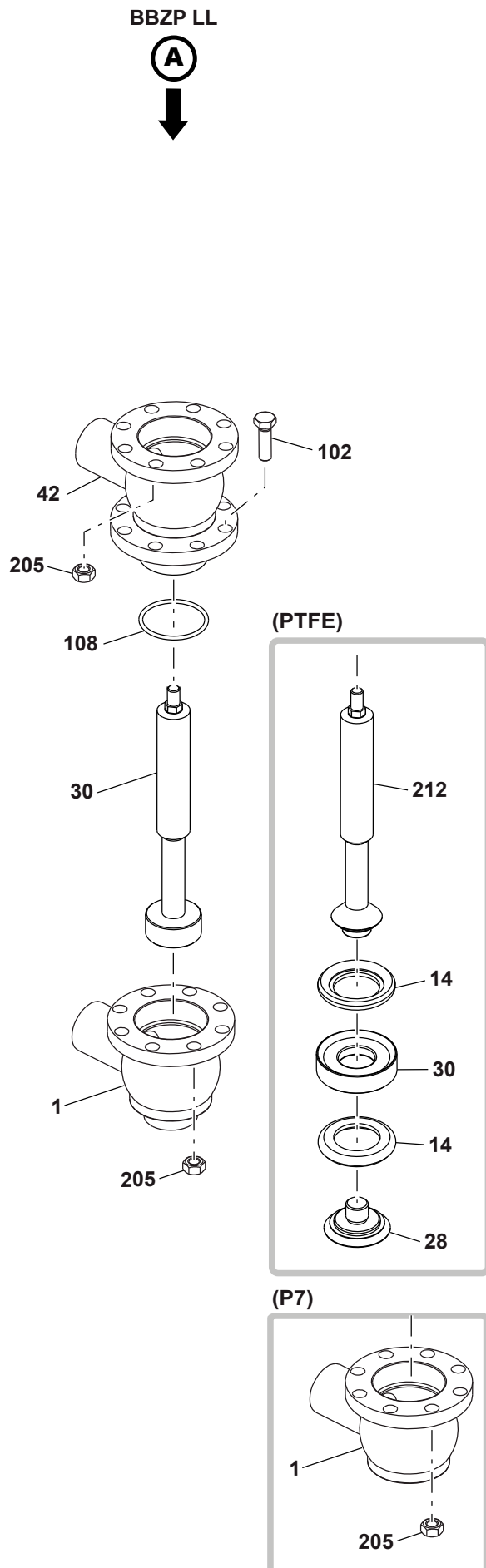
**(BBYQ Speciale)****(BBYQ)**

BBZP LL



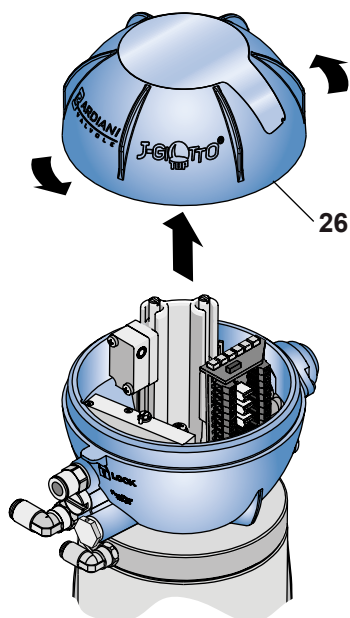
BBZP M8-LLL



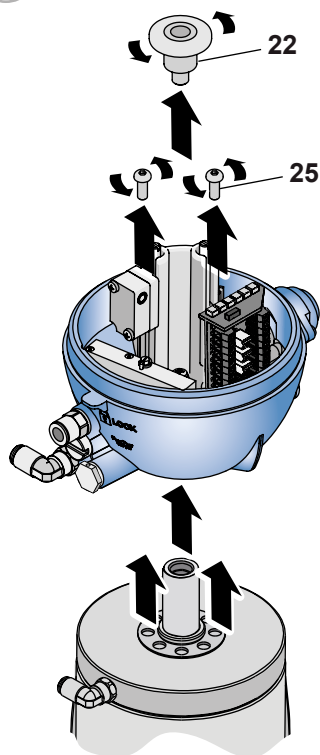


10.8 Smontaggio della BBZQ - BBYQ cilindro 108-156 Deviatrice

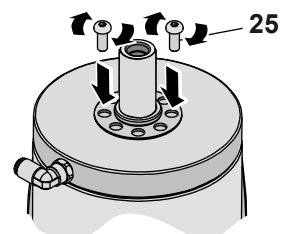
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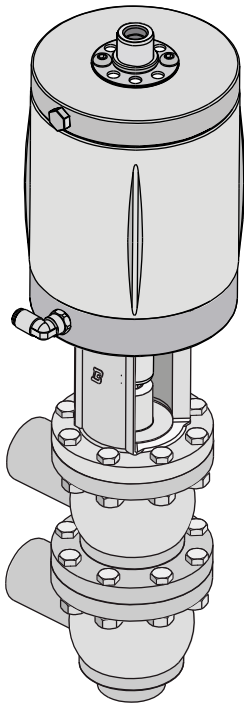
2



3

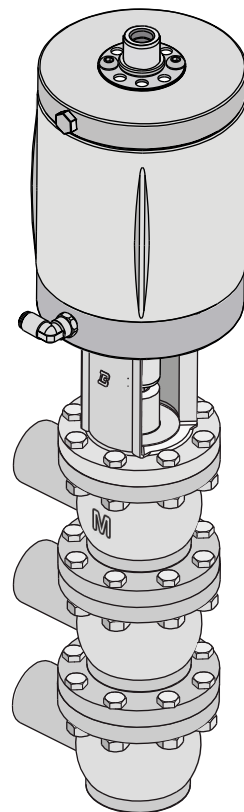


a



[A S BBZQ-LL-108-156]

b

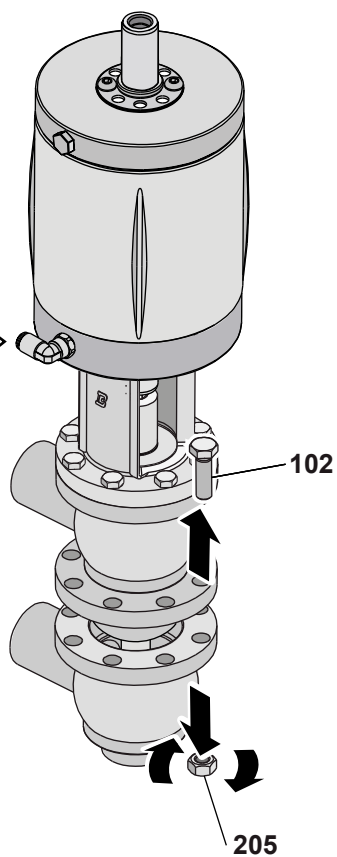
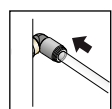


[B S BBZQ-M8-LLL108-156]

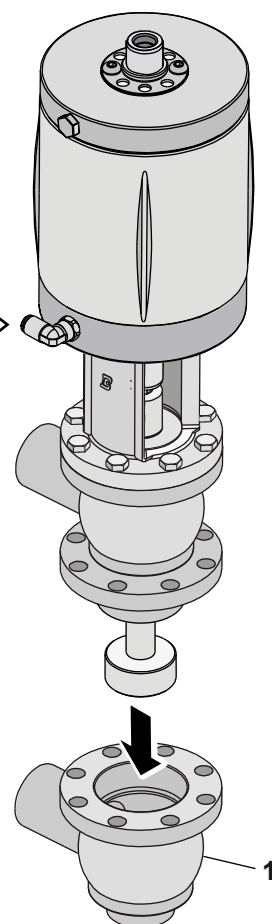
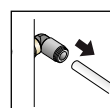
A Smontaggio BBZQ - BBYQ LL - BBZQ P7 - BBYQ P7

(Normalmente chiusa)

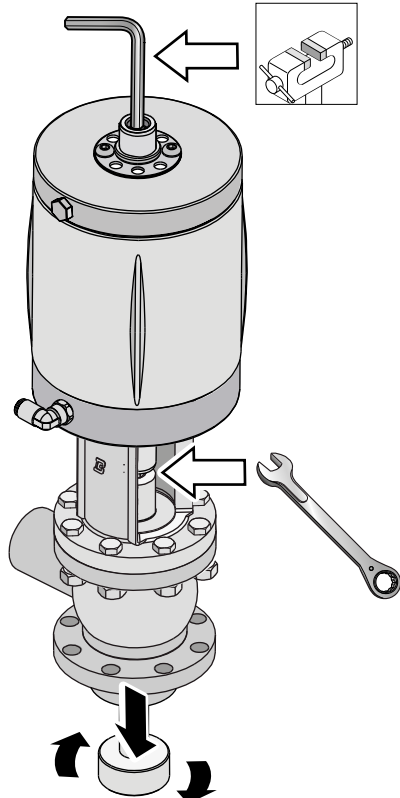
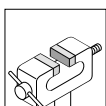
1 a1



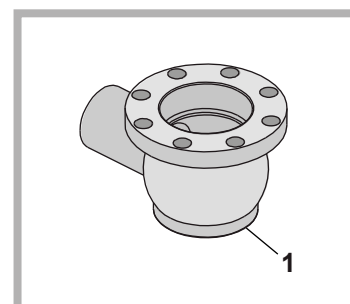
2 a1



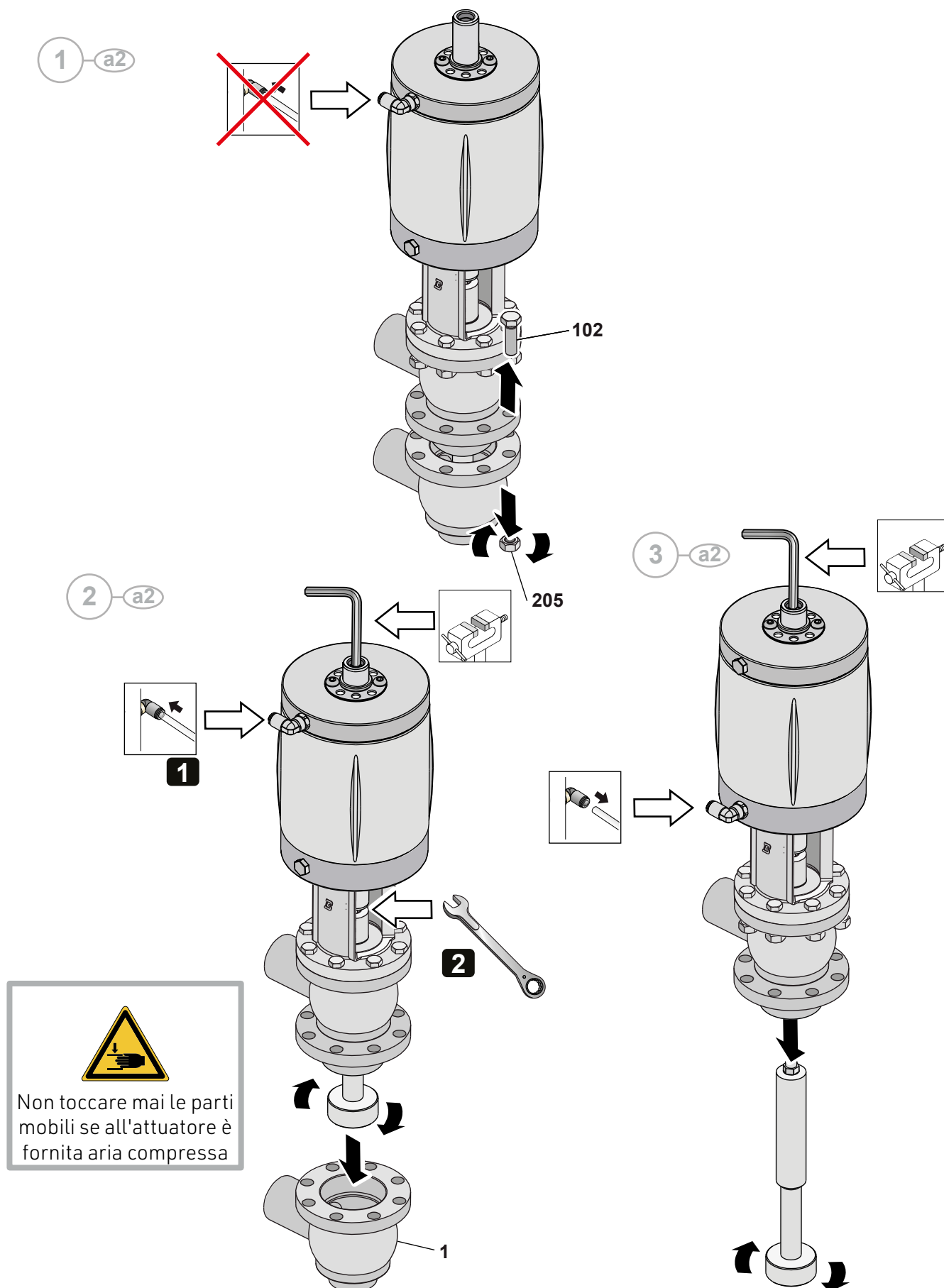
3 a1

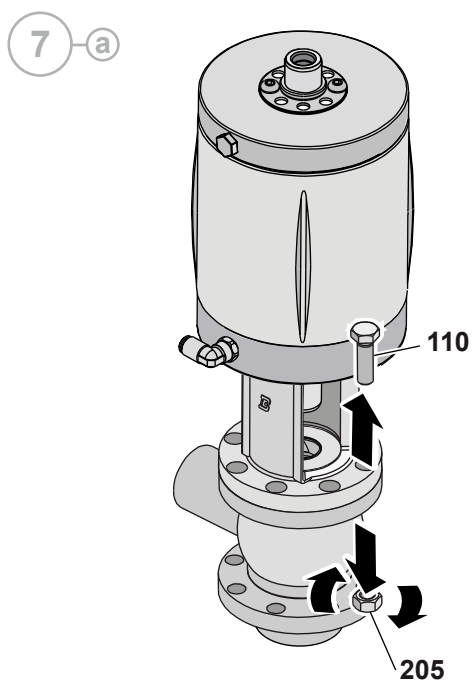
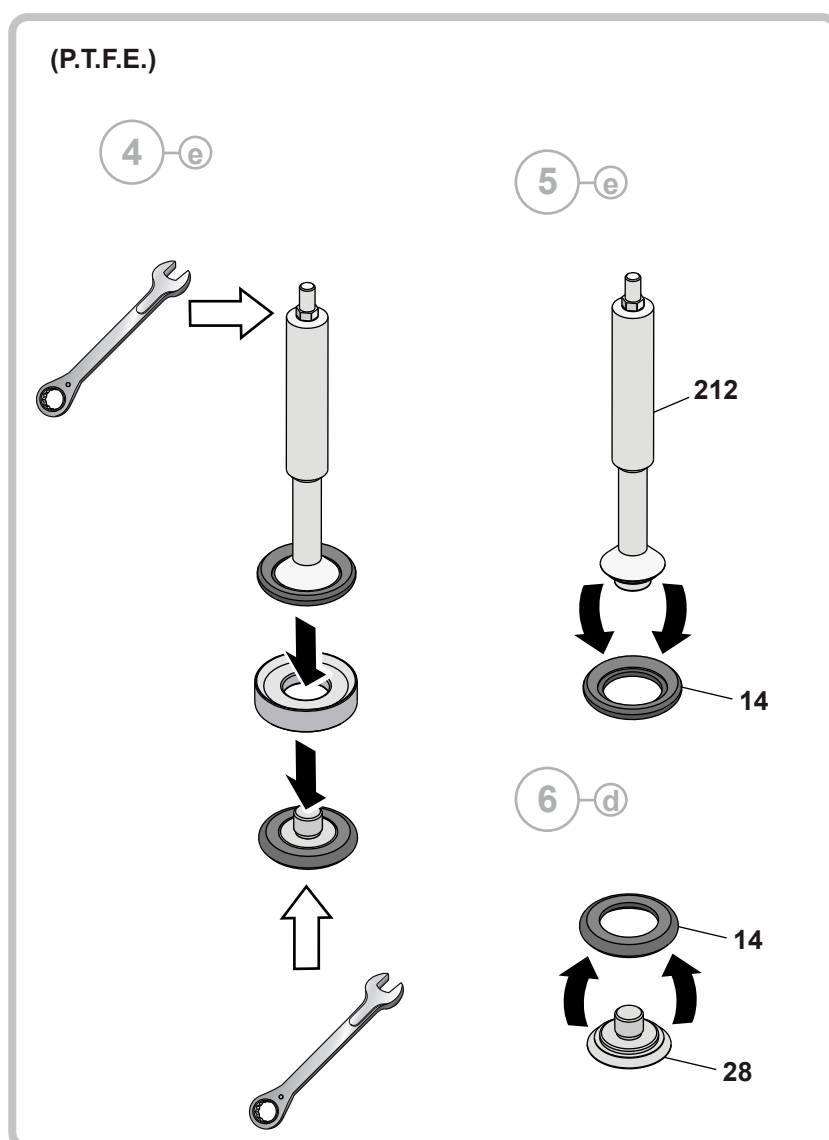


P7

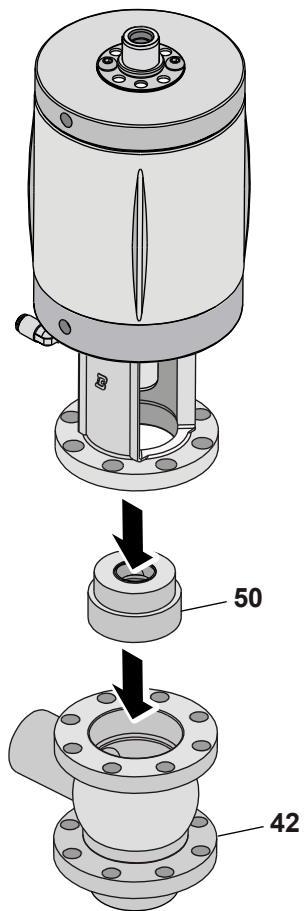


(Normalmente aperta o doppio effetto)



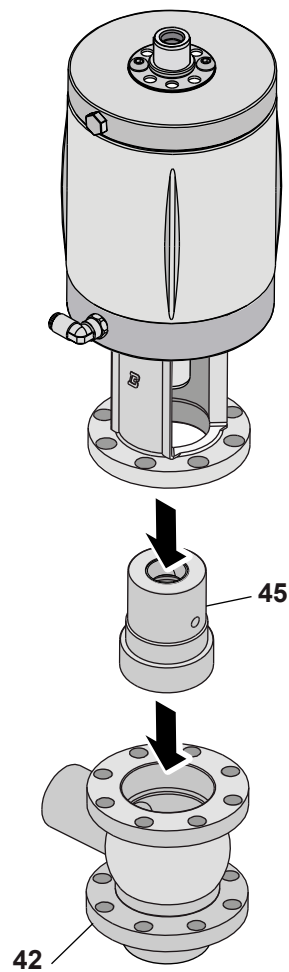


8 a



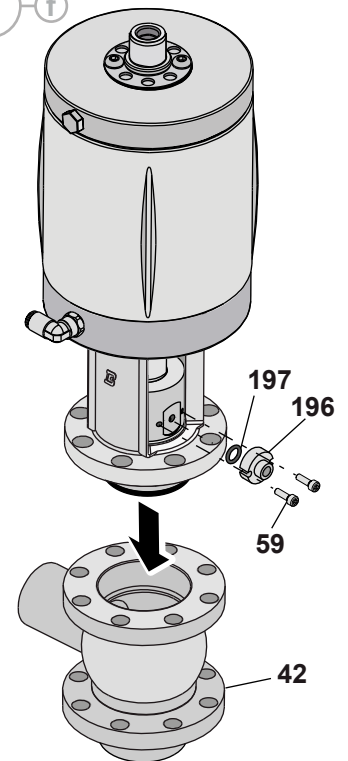
(BBYQ)

8 d

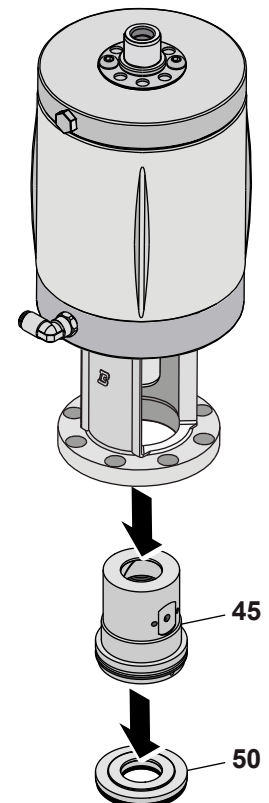


(BBYQ Speciale)

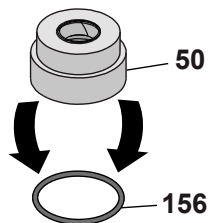
8 f



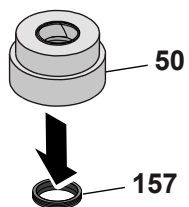
9 f



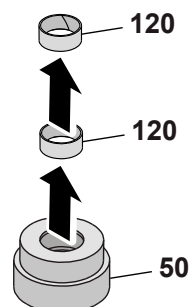
10-a



11-a

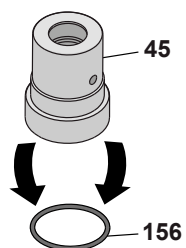


12-a

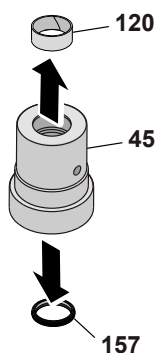


(BBYQ)

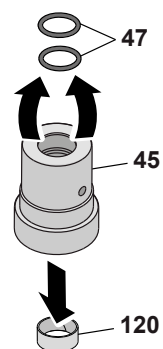
10-d



11-d

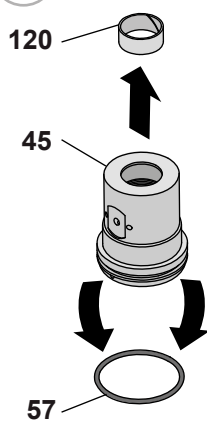


12-d

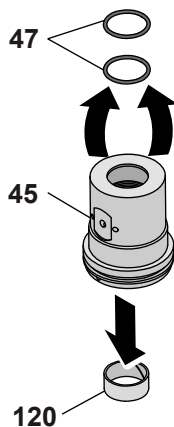


(BBYQ Speciale)

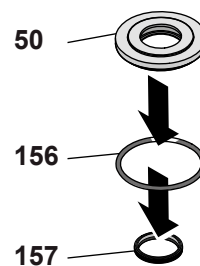
10-f



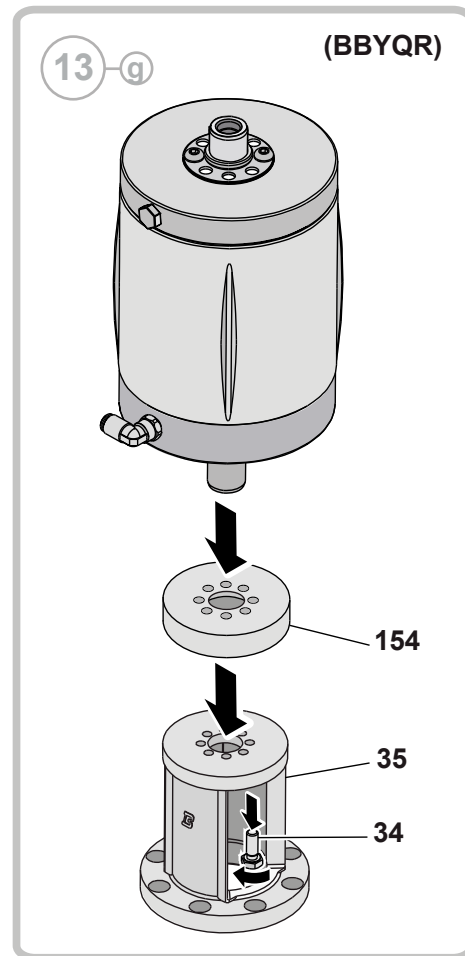
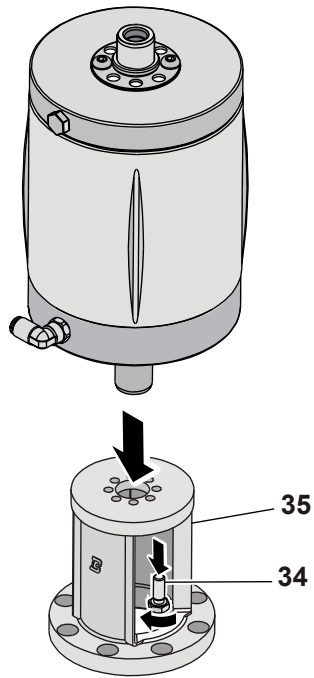
11-f



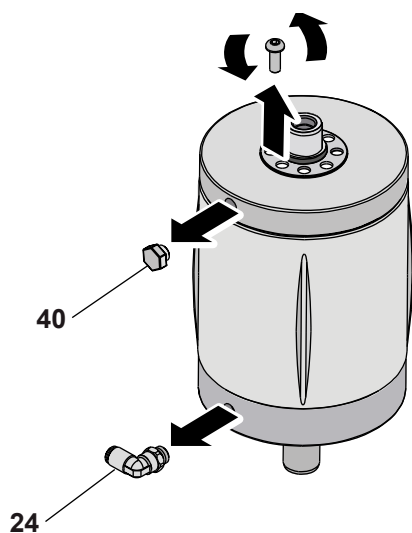
12-f



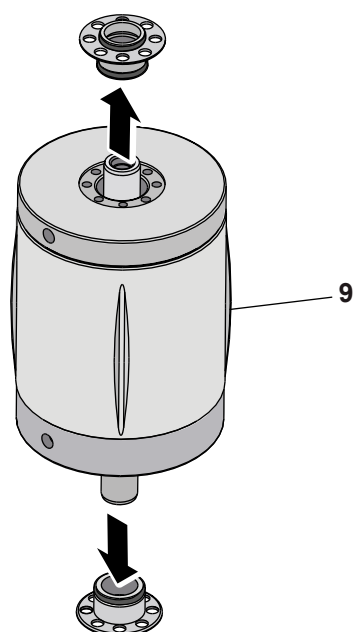
13-a



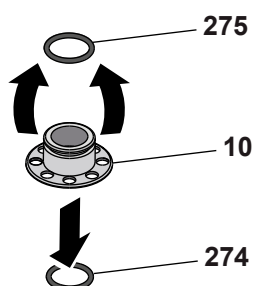
14-a



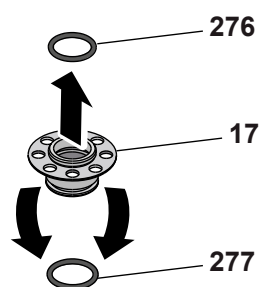
15-a



16



17

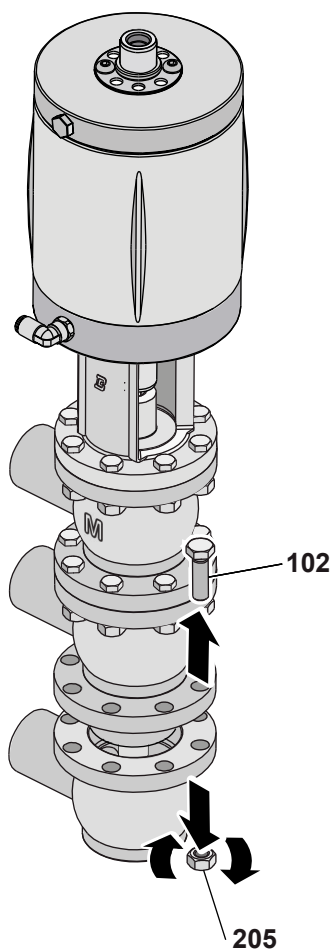


[M D BBZQ-108-156]

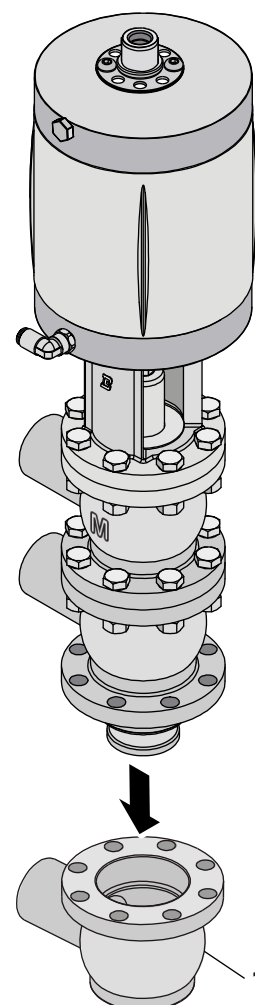
B Smontaggio BBZQ - BBYQ M8-LLL

(Normalmente chiusa)

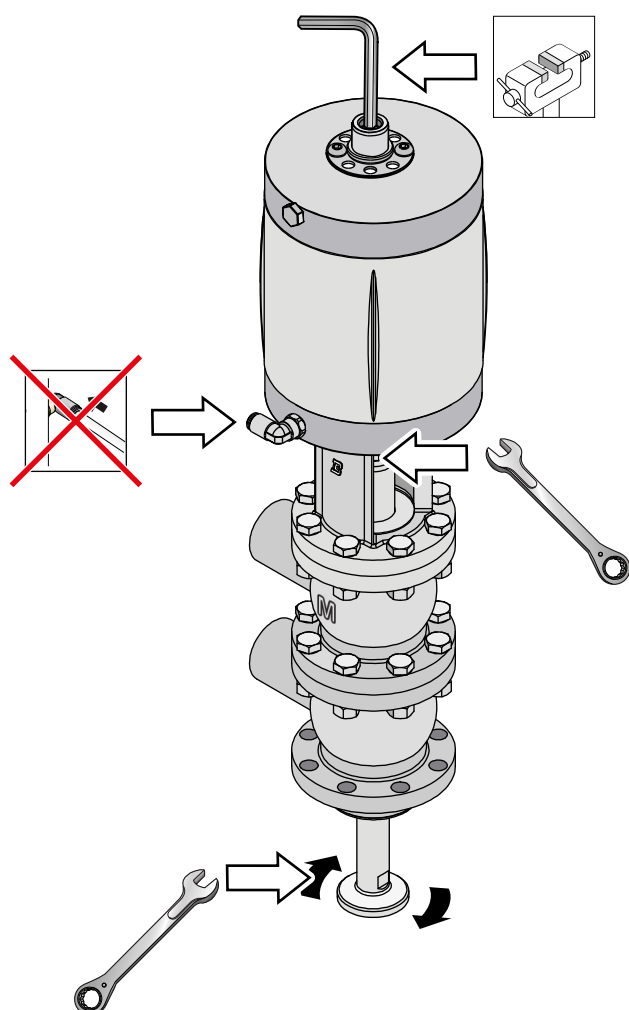
1 - b1



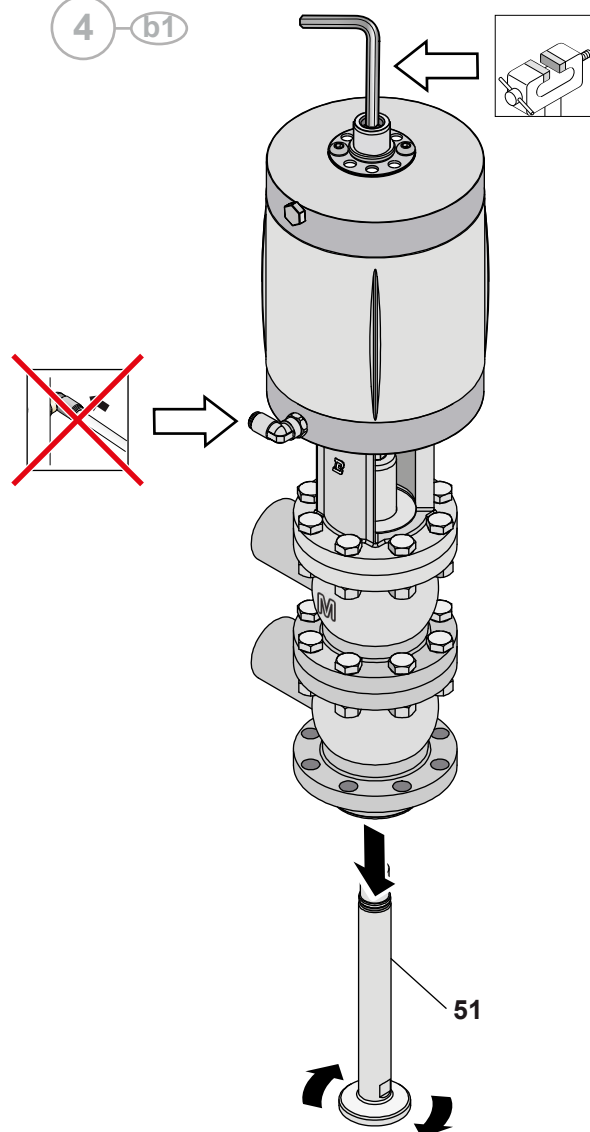
2 - b1



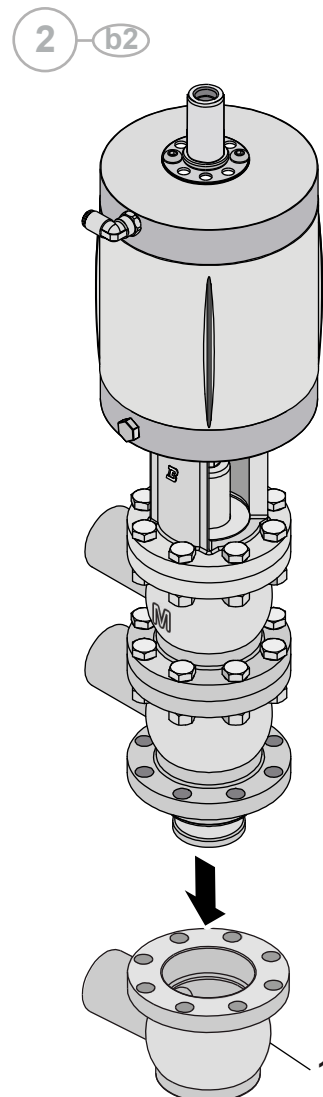
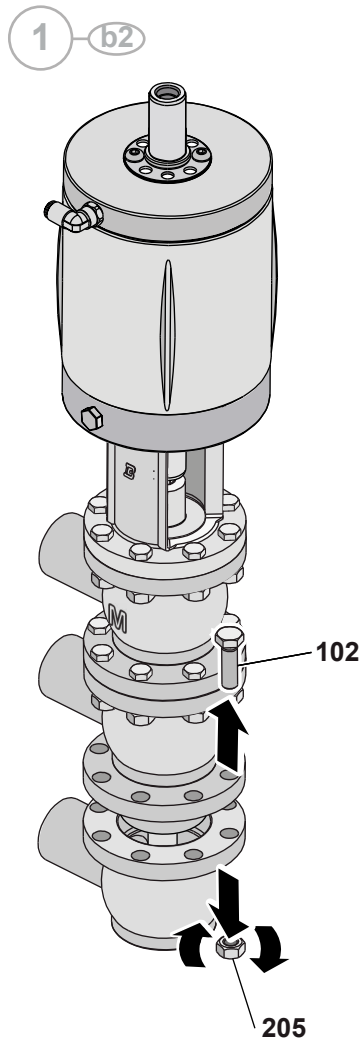
3 b1

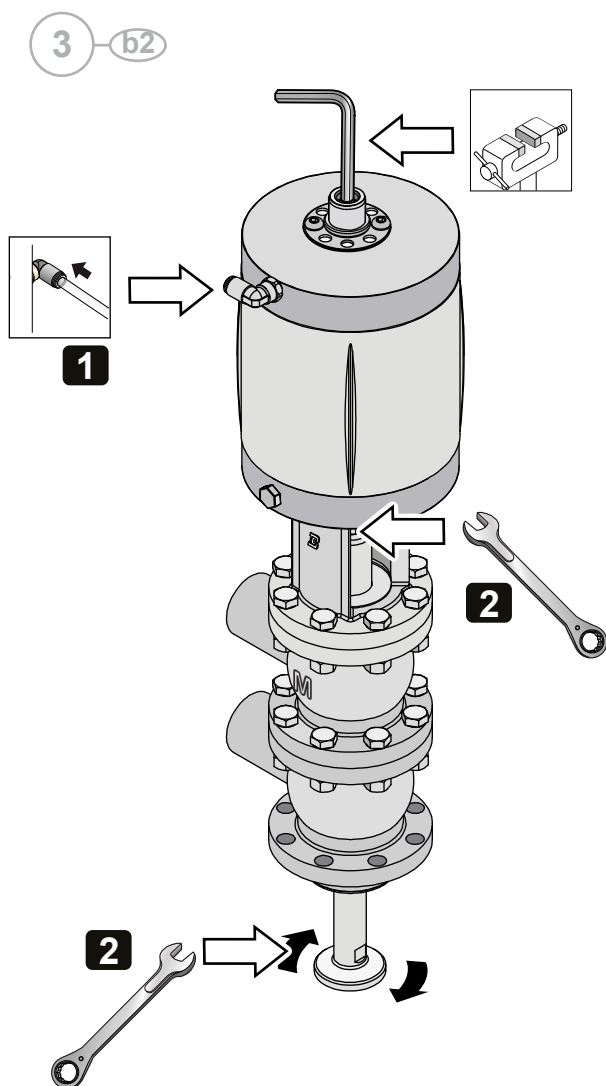


4 b1



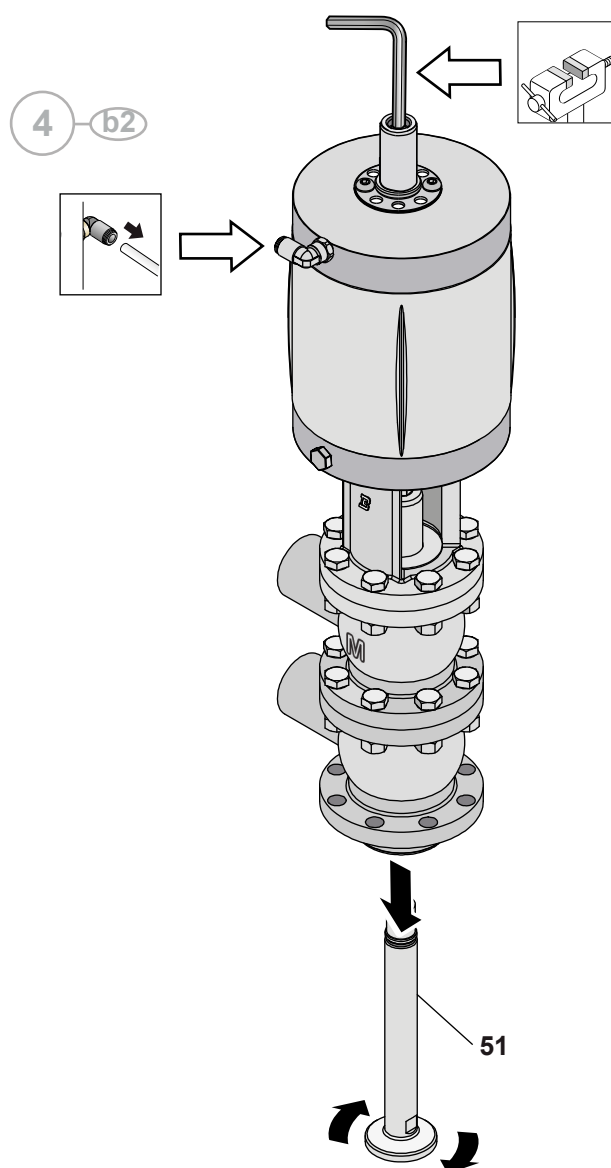
(Normalmente aperta o doppio effetto)

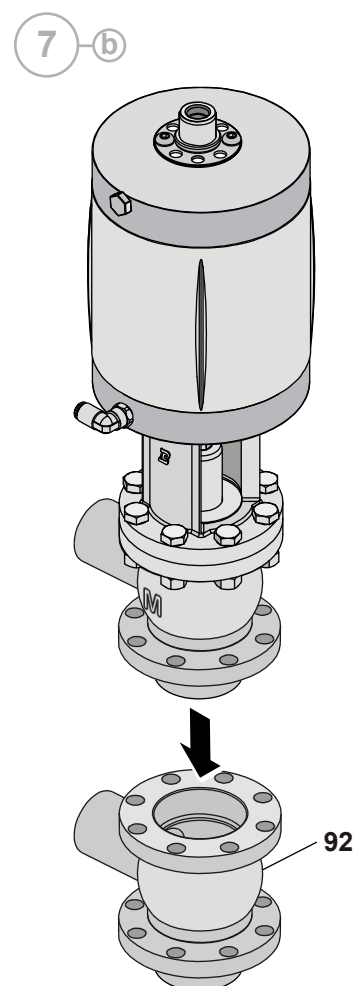
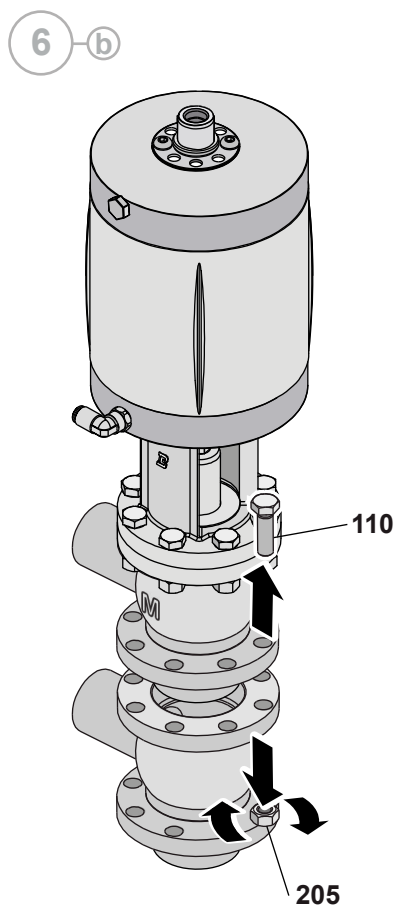
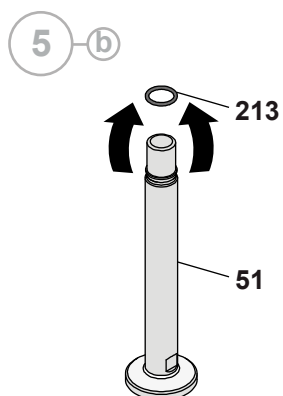






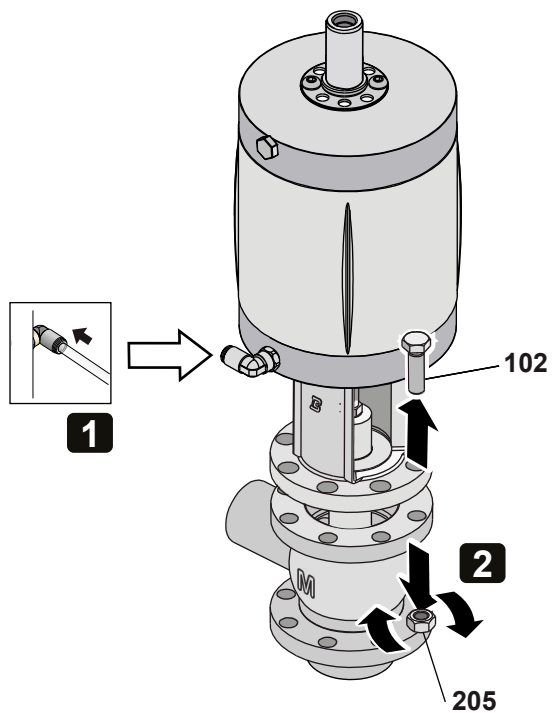
Non toccare mai le parti mobili se all'attuatore è fornita aria compressa





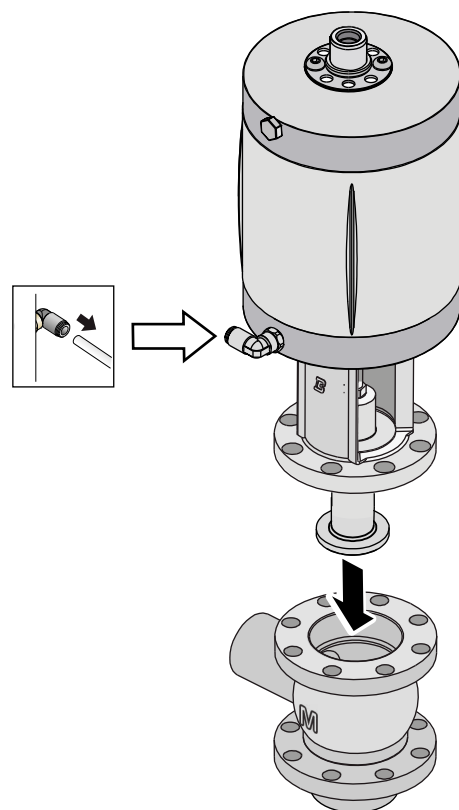
(Normalmente chiusa)

8 b1



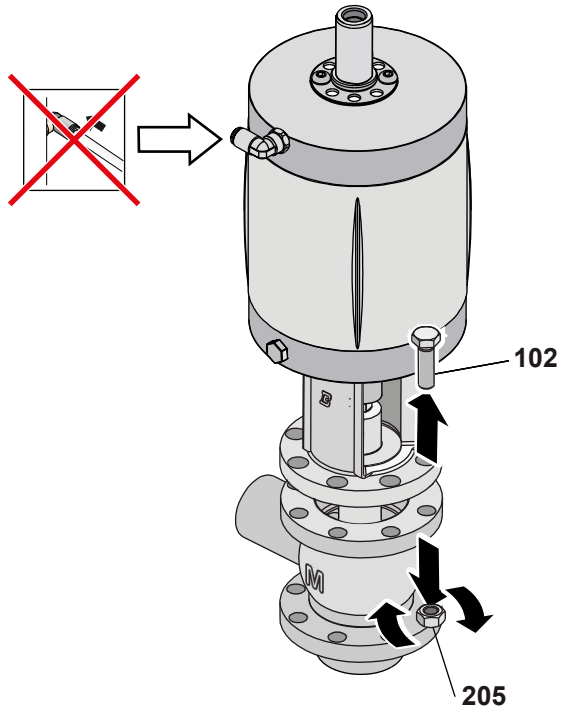
Non toccare mai le parti mobili se all'attuatore è fornita aria compressa

9 b1

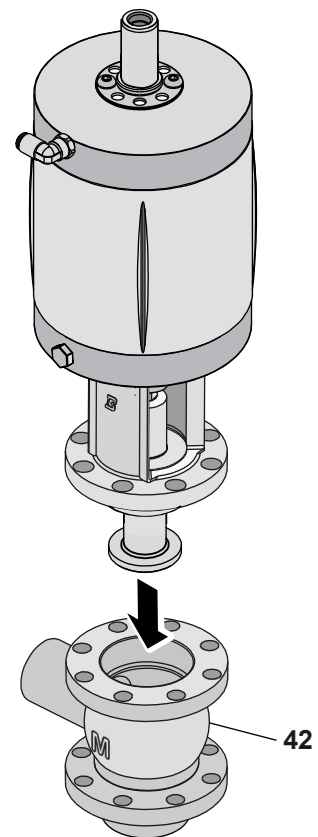


(Normalmente aperta o doppio effetto)

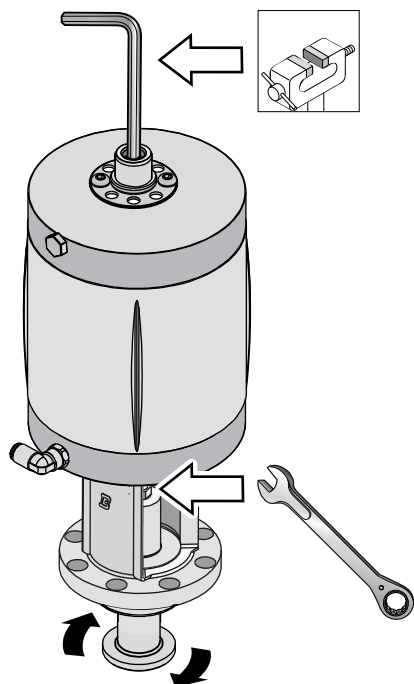
8 b2



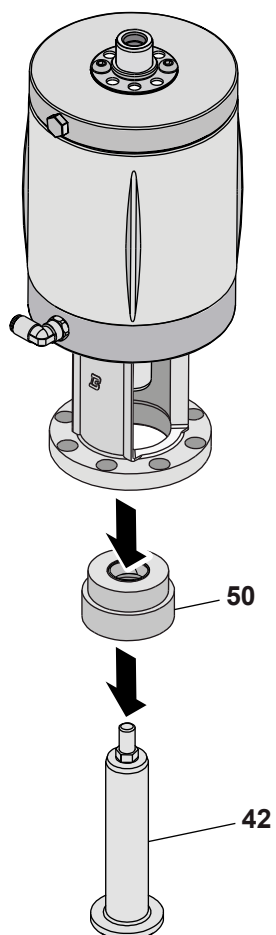
9 b2



10-b

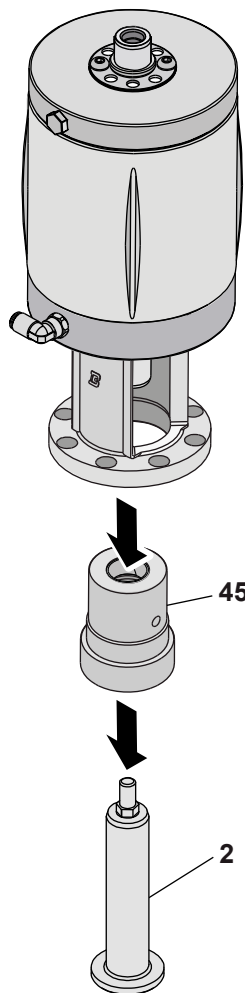


11-b



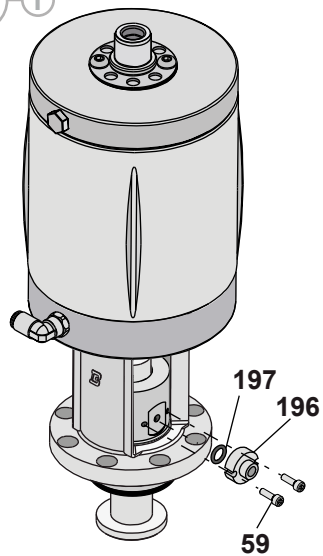
(BBYQ)

11-c

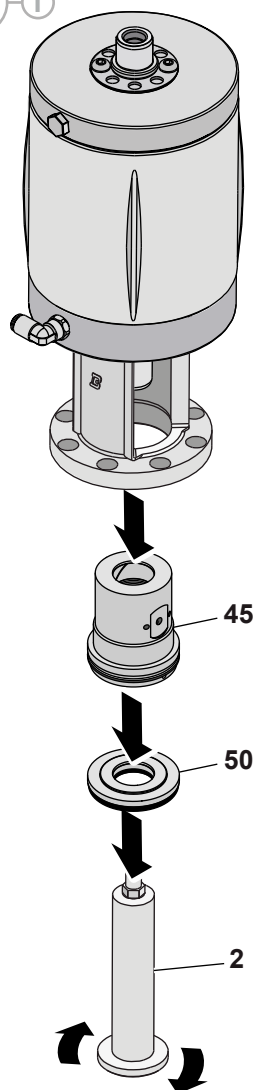


(BBYQ Speciale)

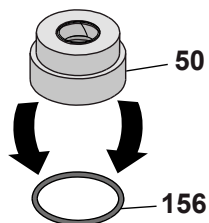
11-f



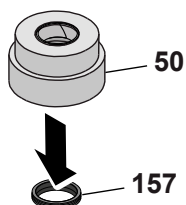
12-f



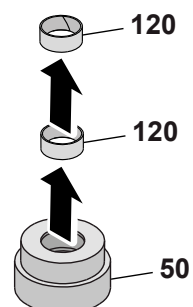
13-b



14-b

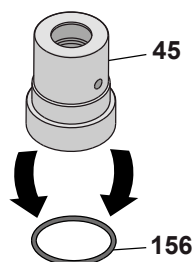


15-b

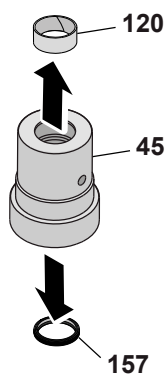


(BBYQ)

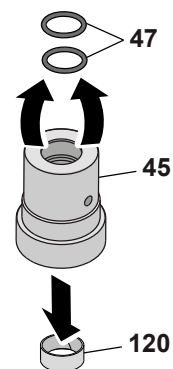
13-d



14-d

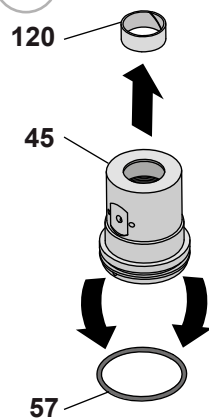


15-d

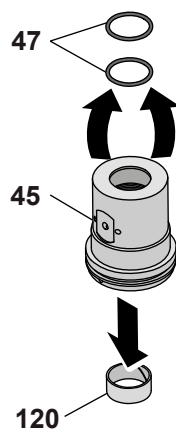


(BBYQ Speciale)

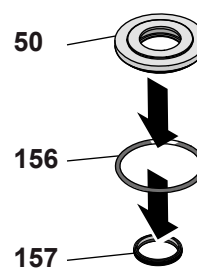
13-f



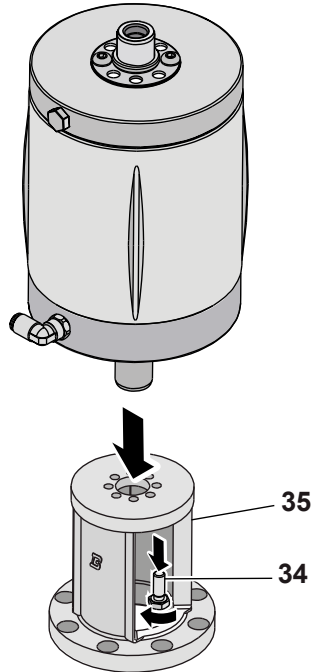
14-f



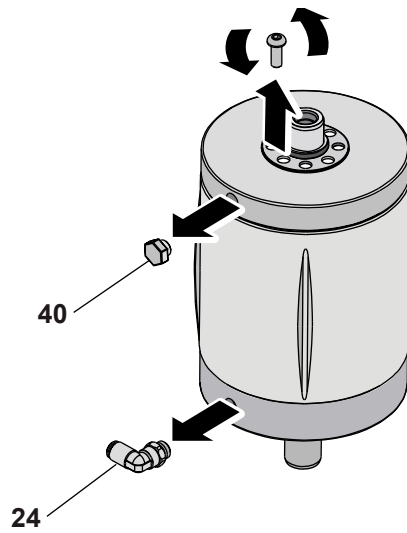
15-f



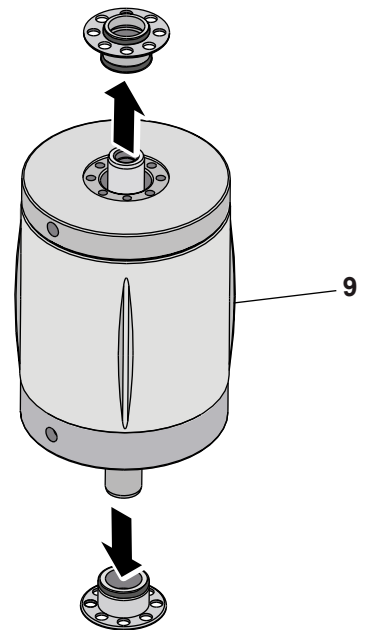
16-b



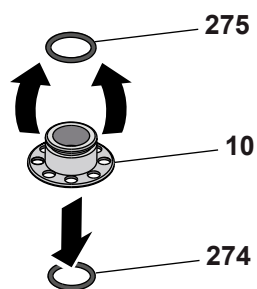
17-b



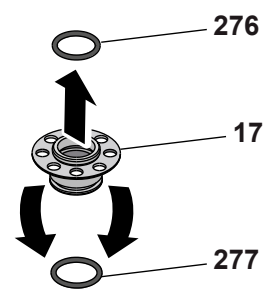
18-b



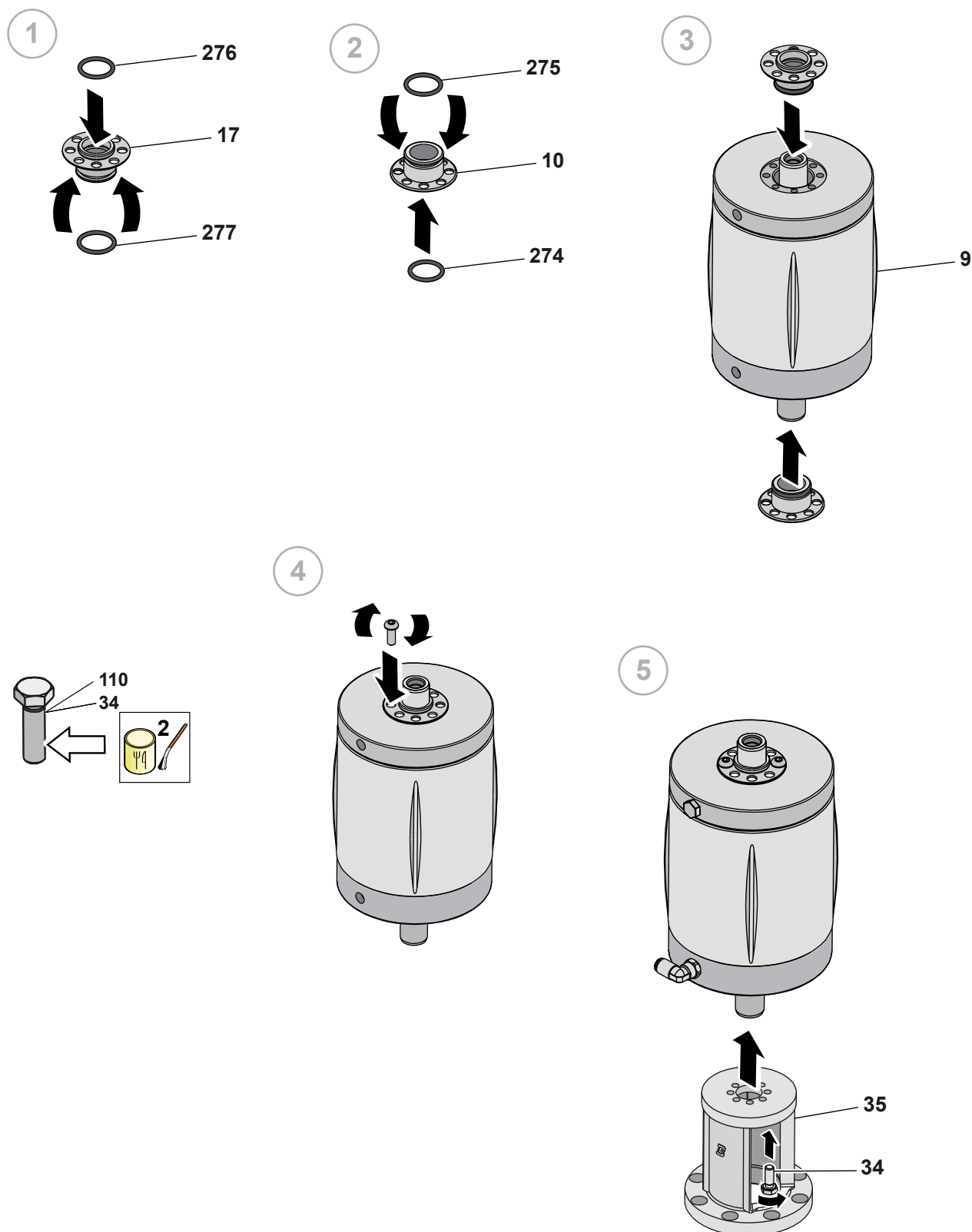
19-b



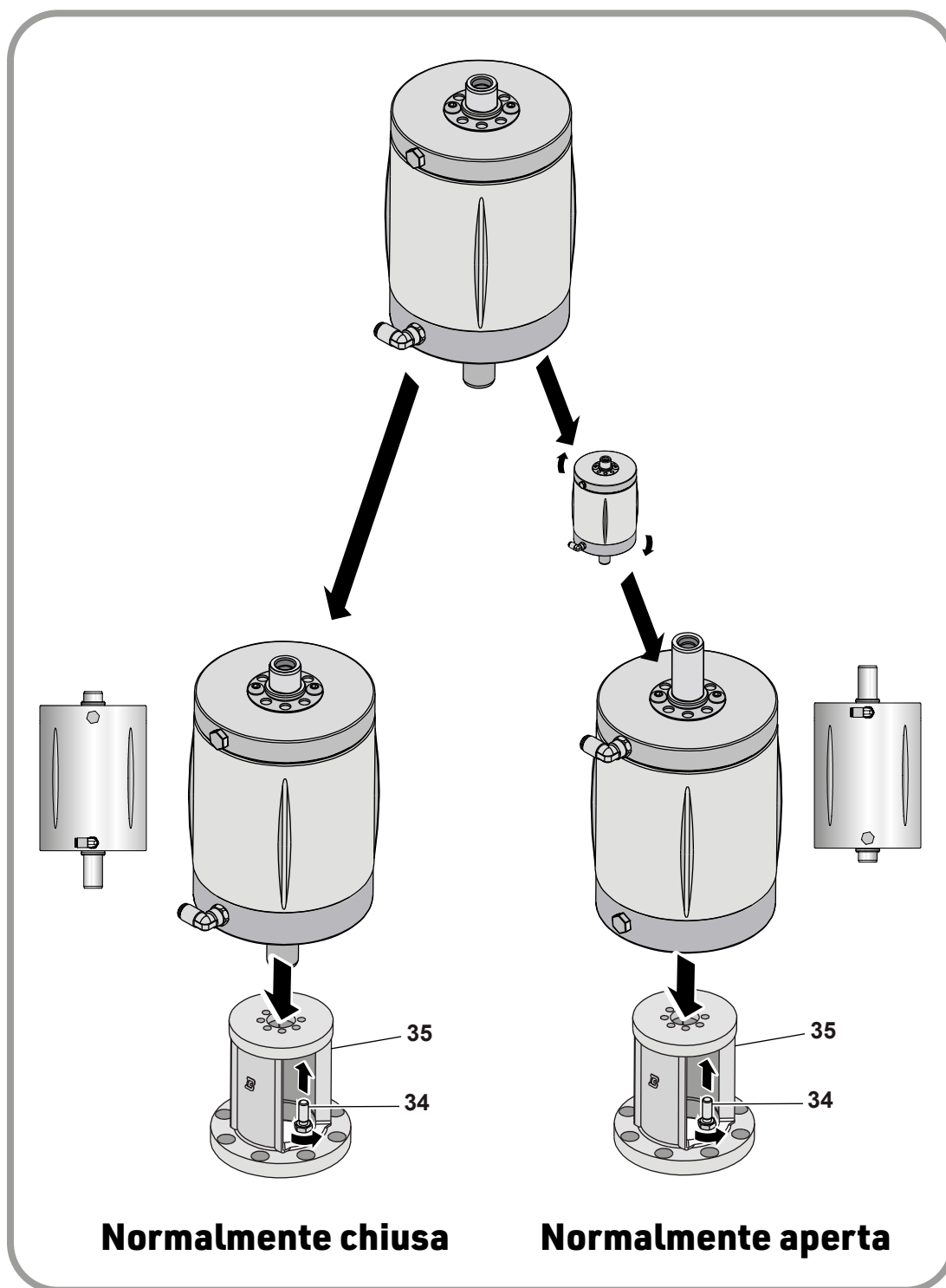
20-b

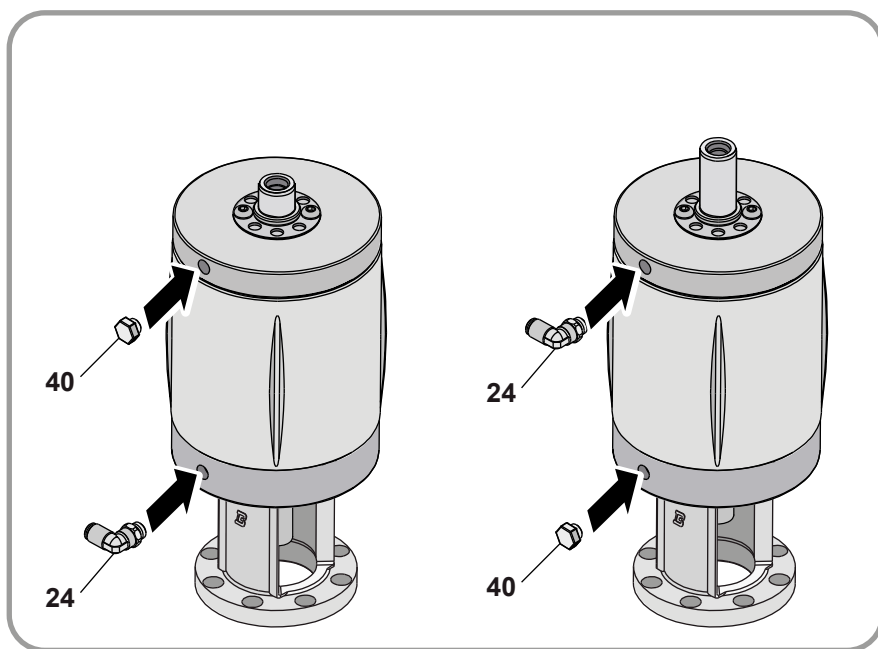


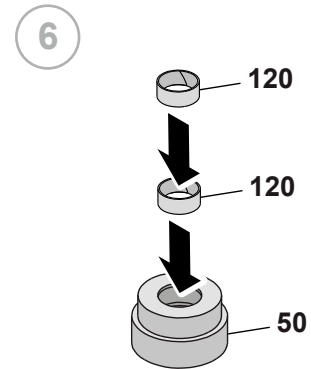
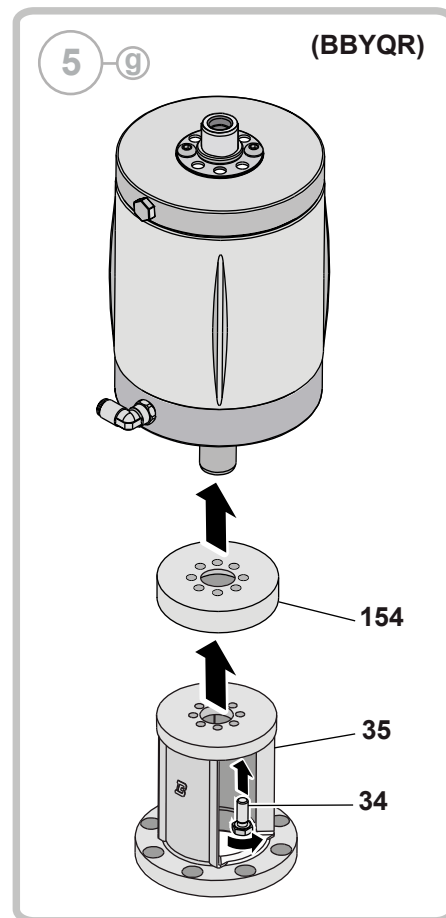
10.9 Montaggio della BBZQ - BBYQ cilindro 108-156 Deviatrice



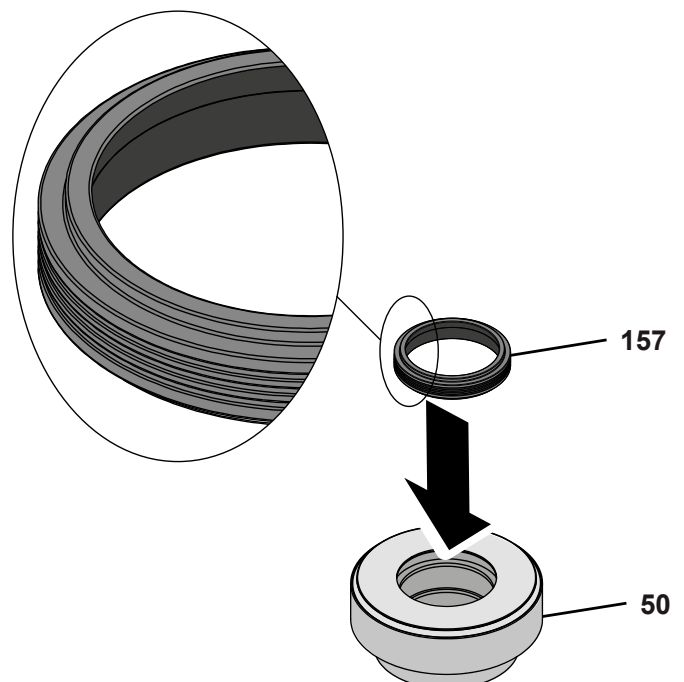
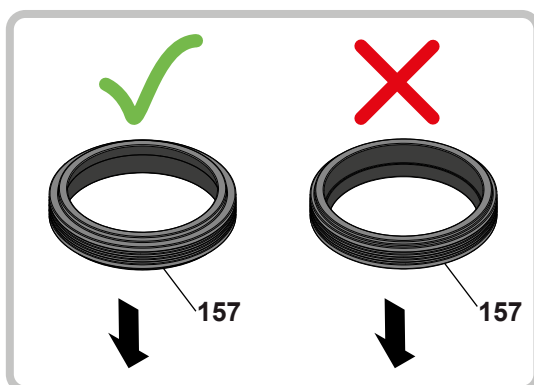
10.9.1 Impostazione valvola Normalmente Aperta o Normalmente Chiusa



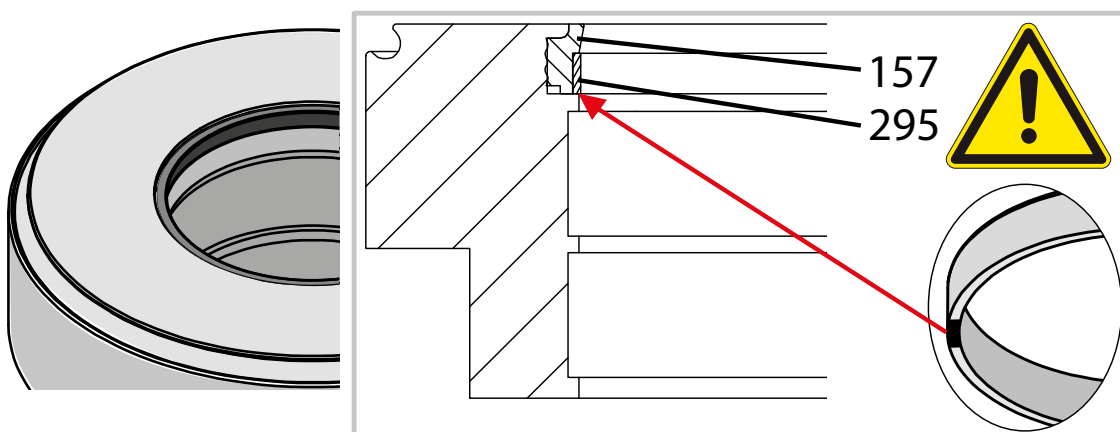
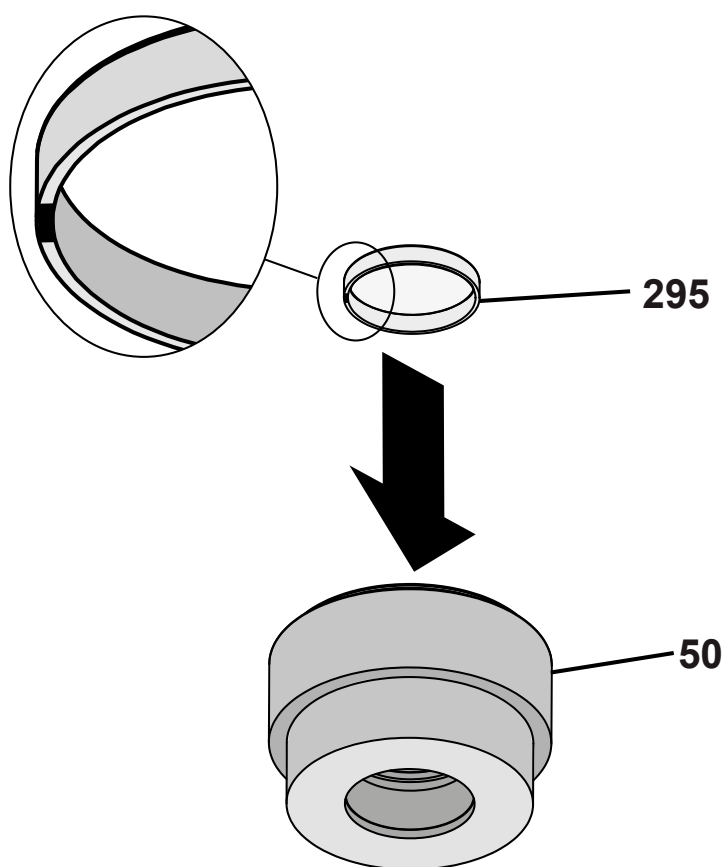




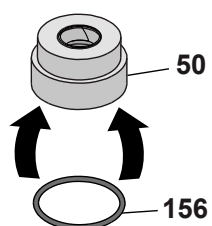
7



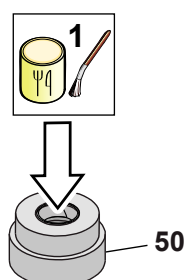
8



9

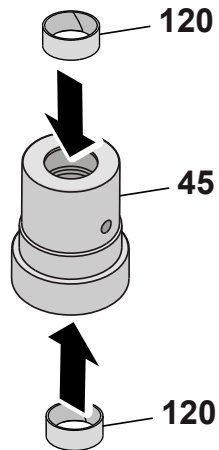


10

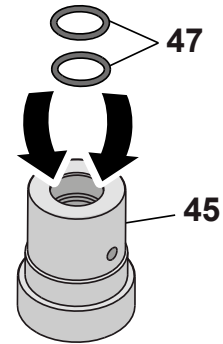


(BBYQ)

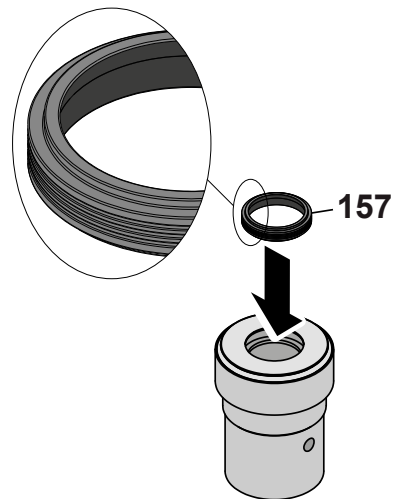
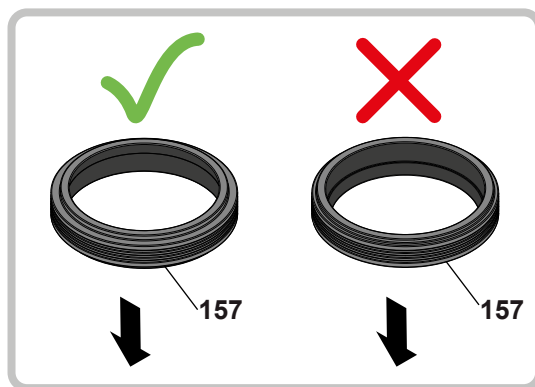
6-d



7-d

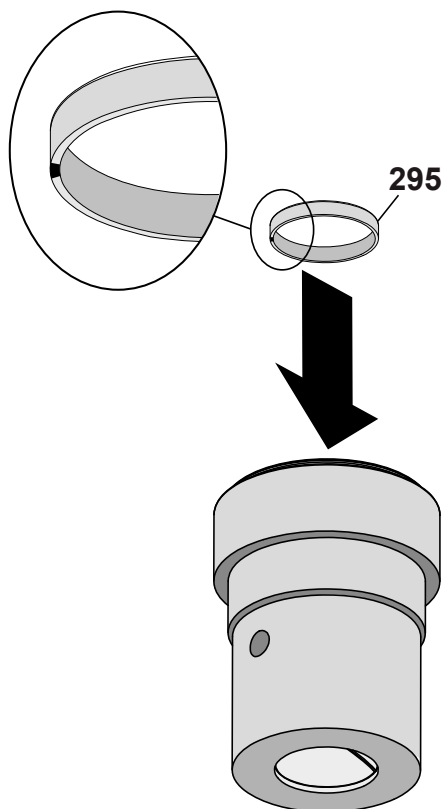


8-d

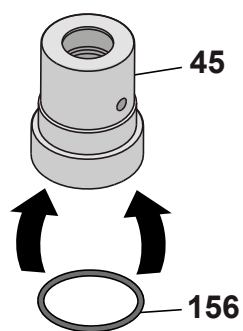


(BBYQ)

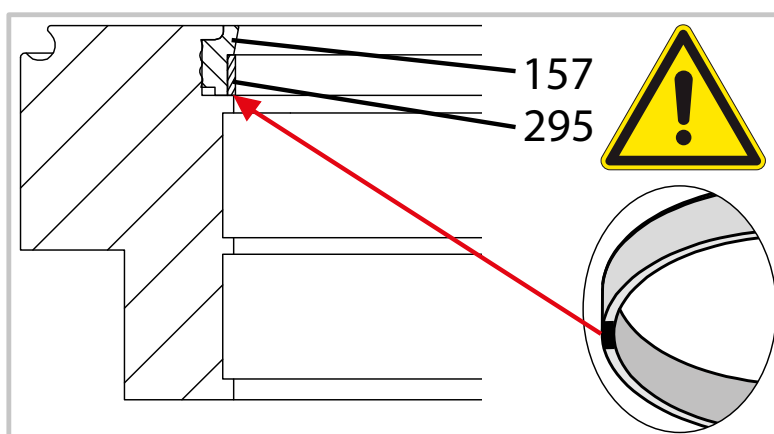
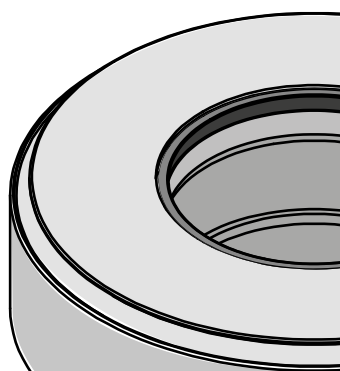
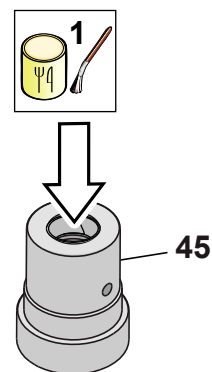
9-d

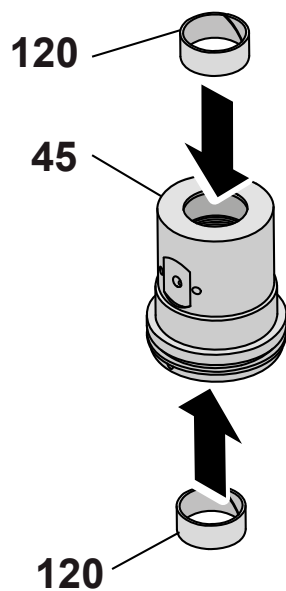
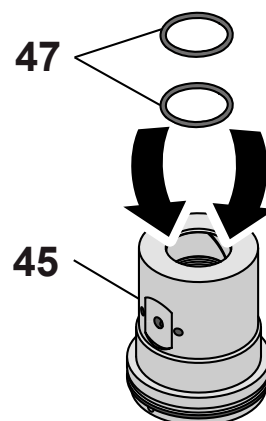
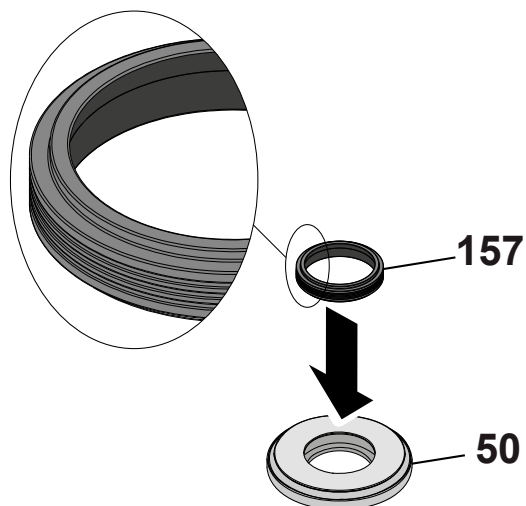
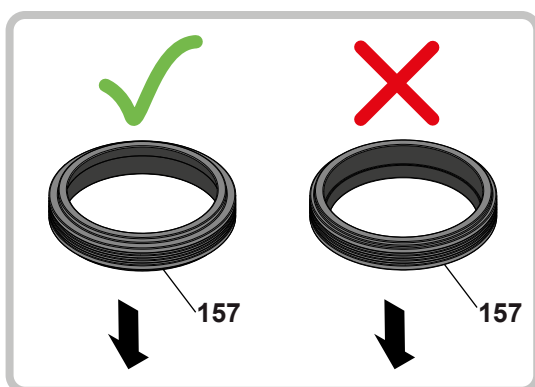


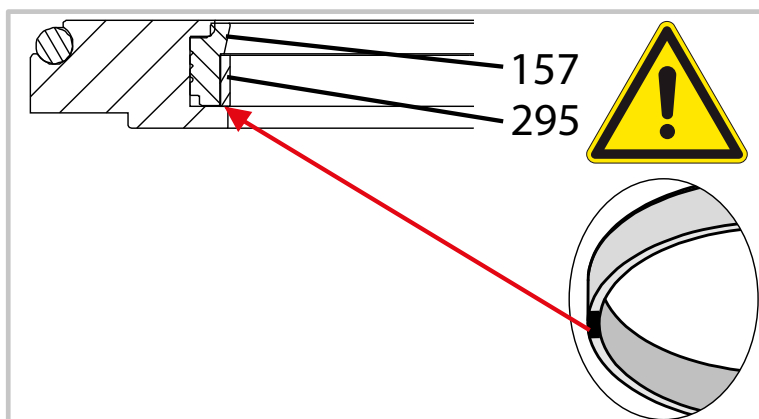
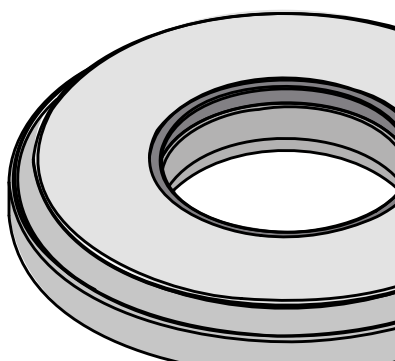
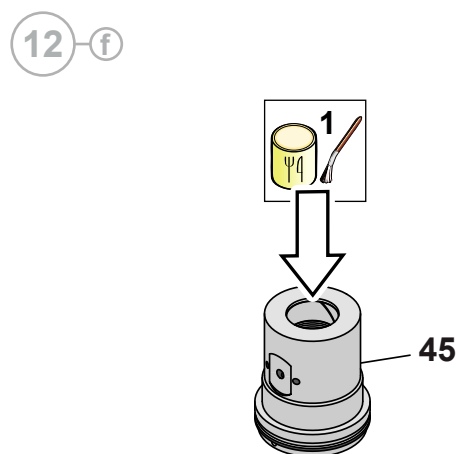
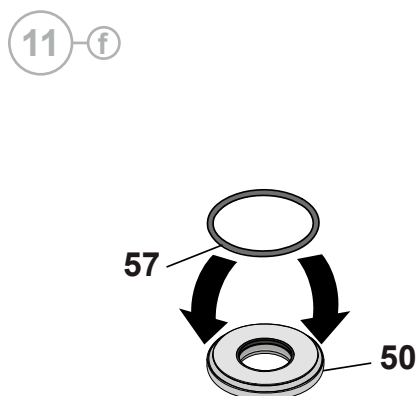
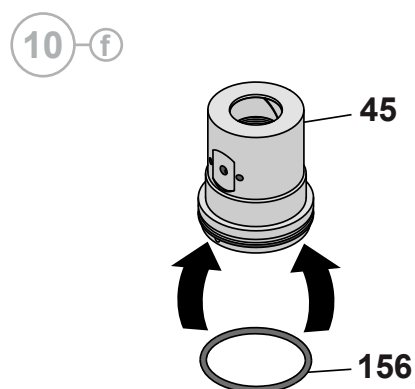
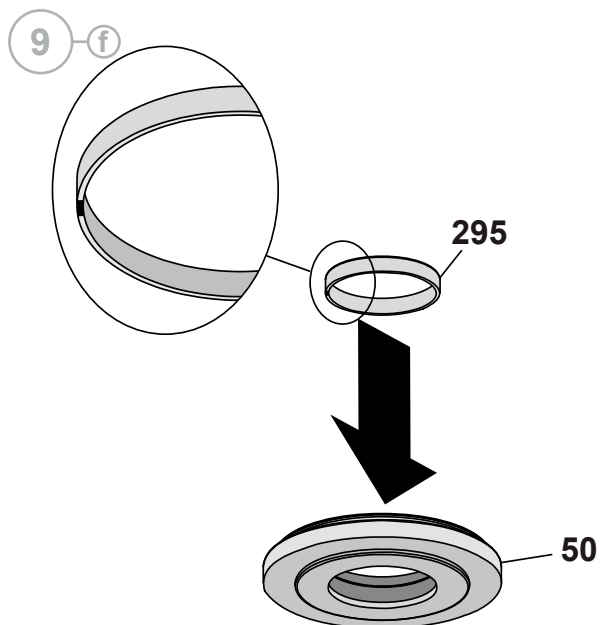
10-d



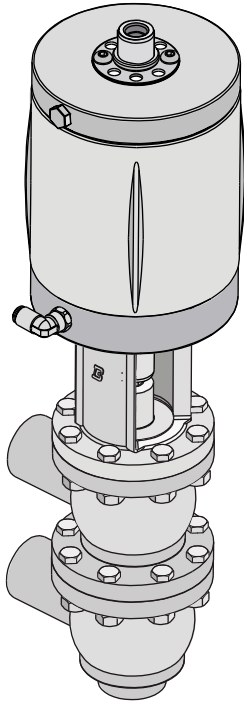
11-d



(BBYQ Speciale)**6** f**7** f**8** f

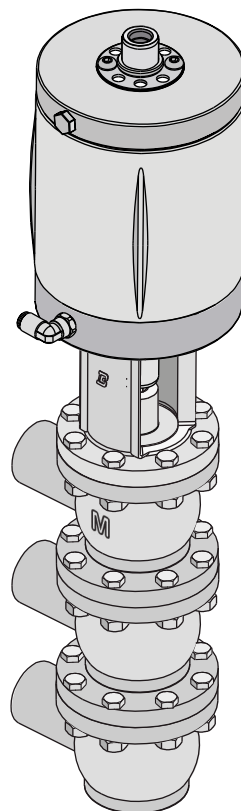
(BBYQ Speciale)

a



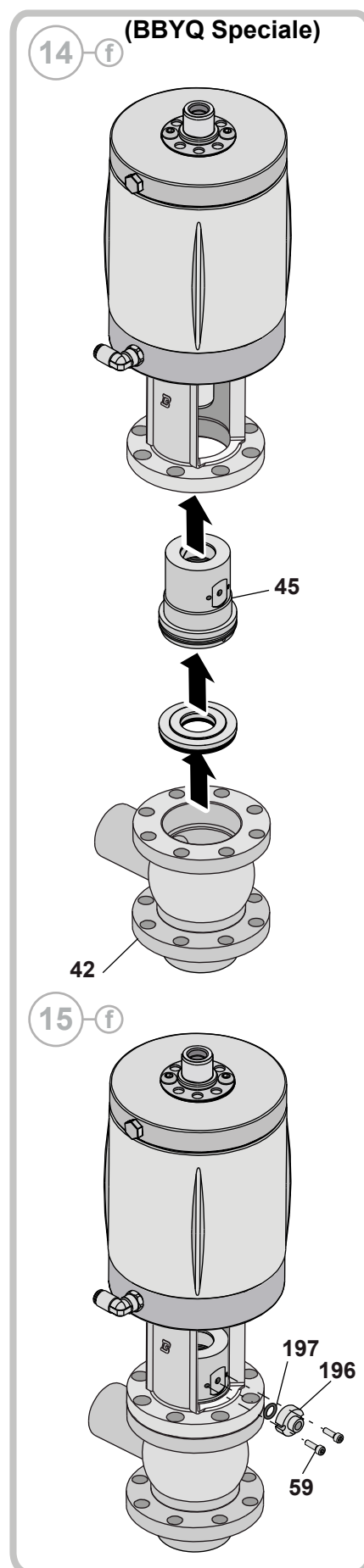
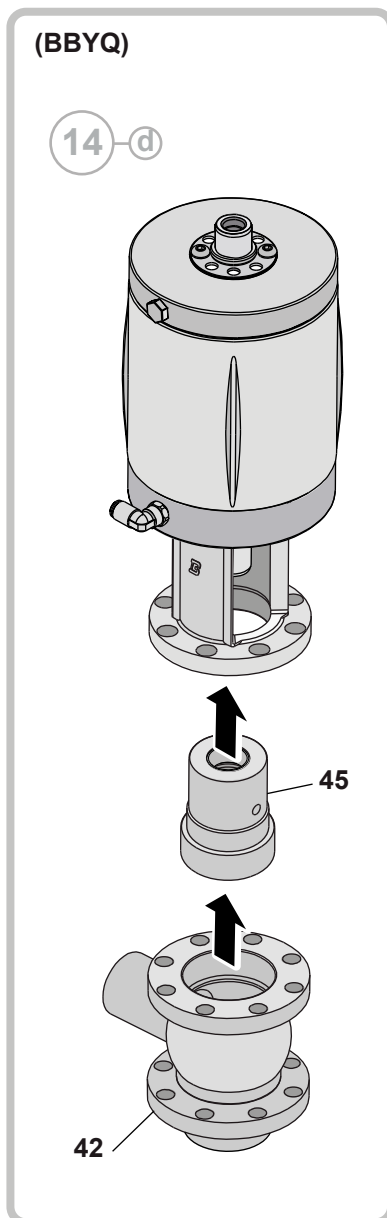
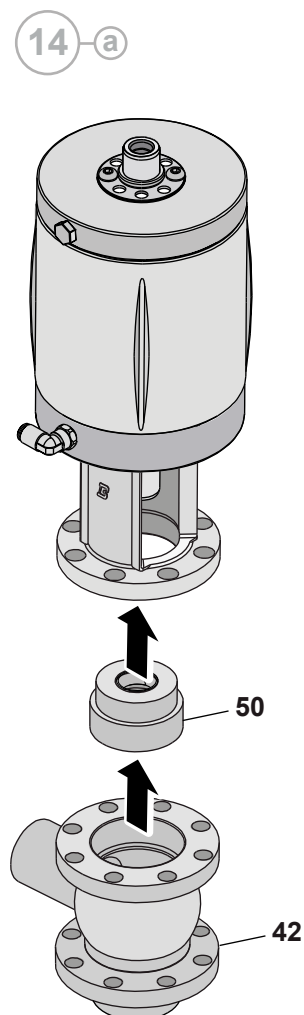
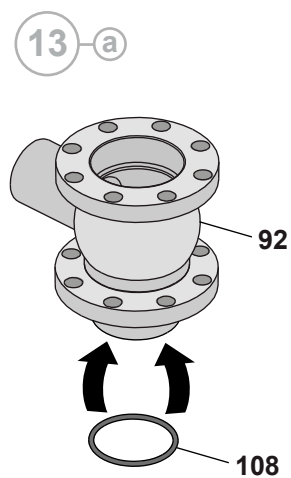
[A M BBZQ-LL108-156]

b

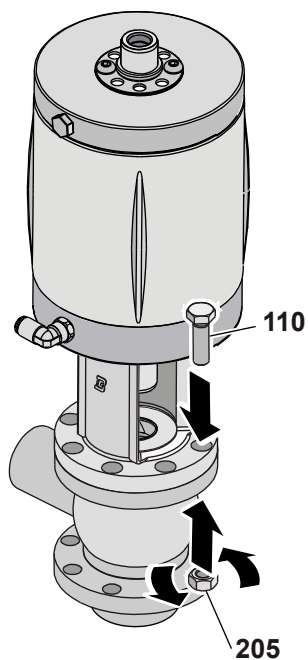


[B M BBZQ-M8-LLL108-156]

A Montaggio BBZQ - BBYQ LL - BBZQ P7 - BBYQ P7

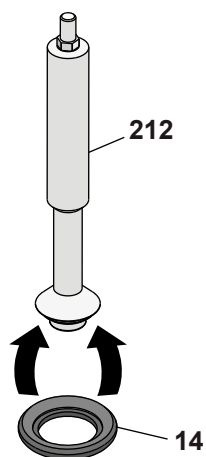


16-a

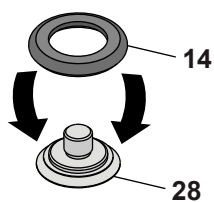


(P.T.F.E.)

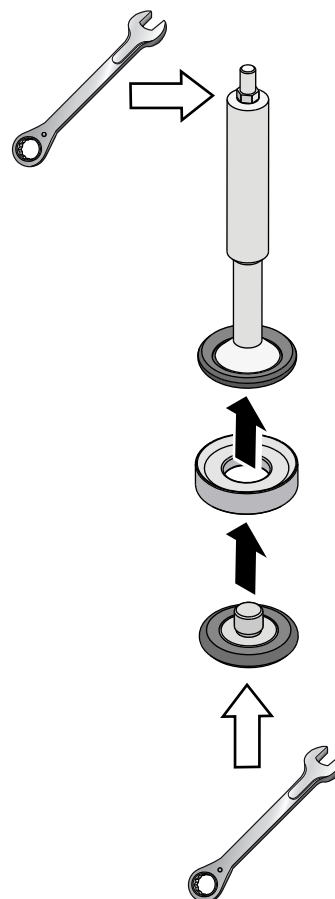
17-e



18-d

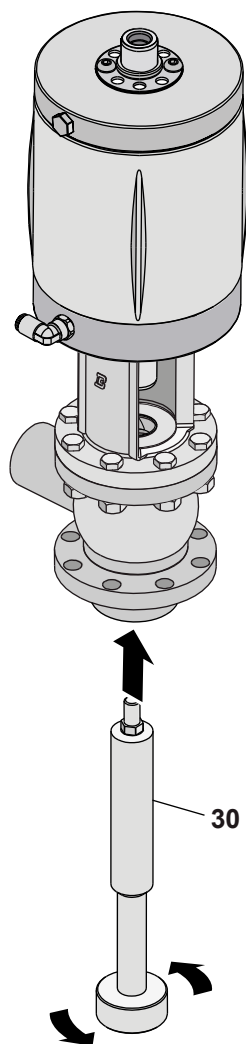


19-e

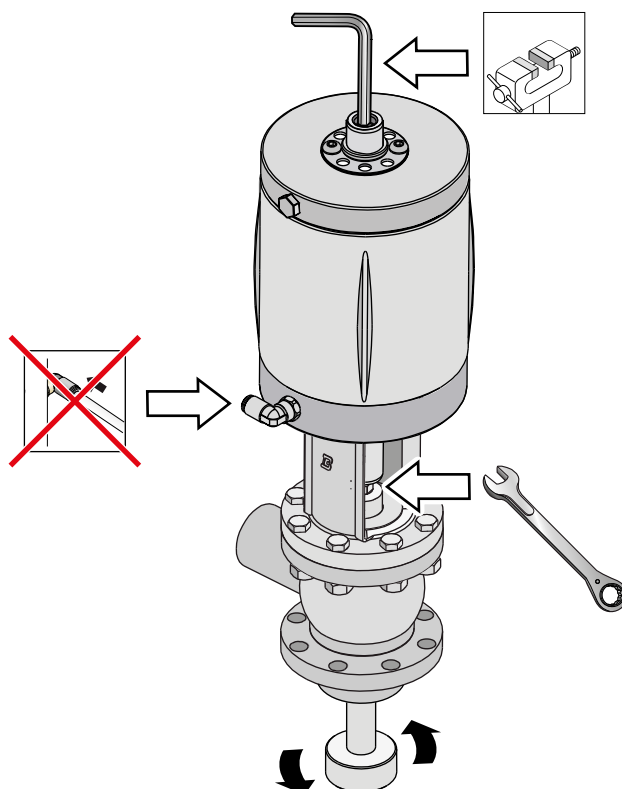


(Normalmente chiusa)

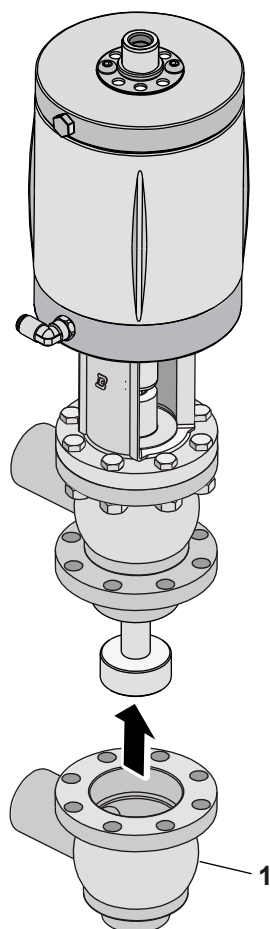
20 a1



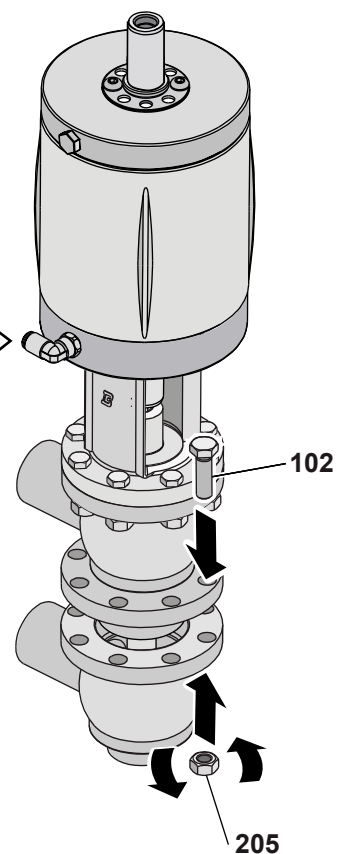
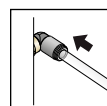
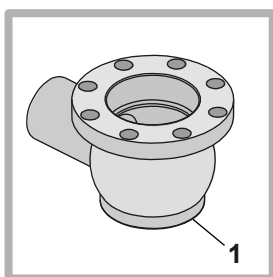
21 a1



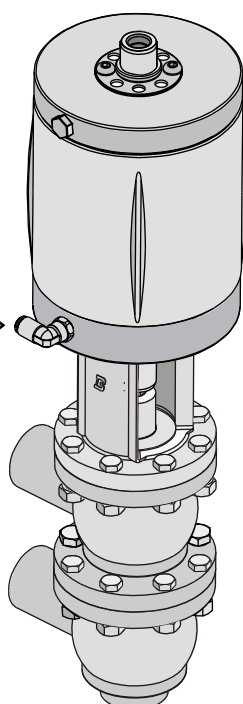
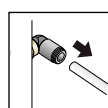
22 a1



23 a1

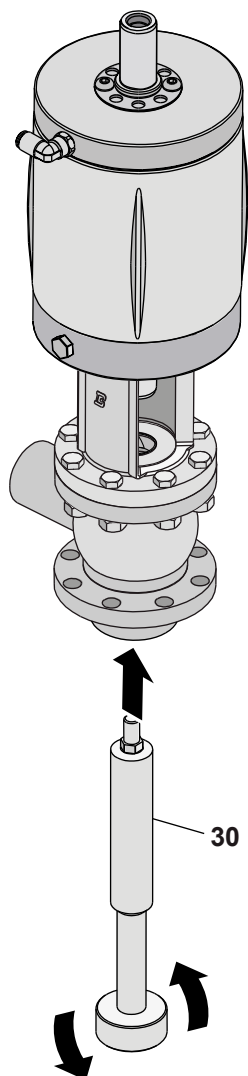
**P7**

24 a1

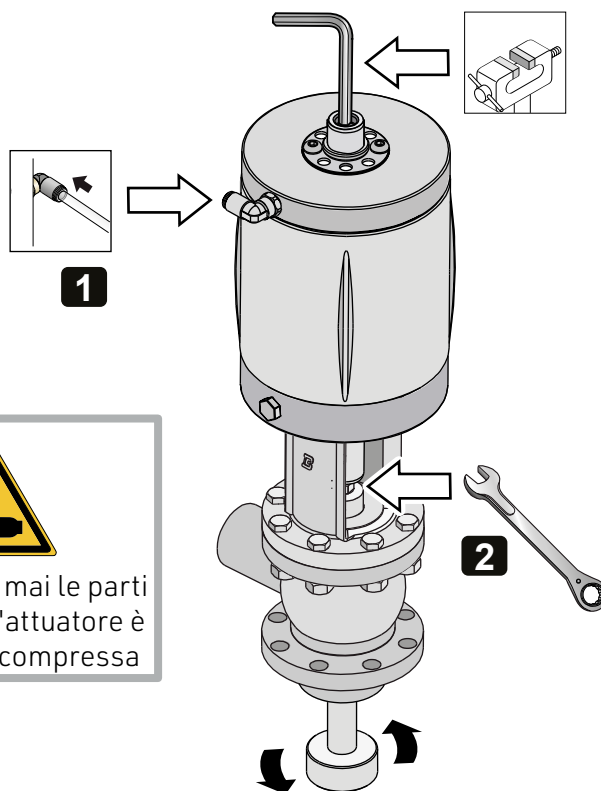


(Normalmente aperta o doppio effetto)

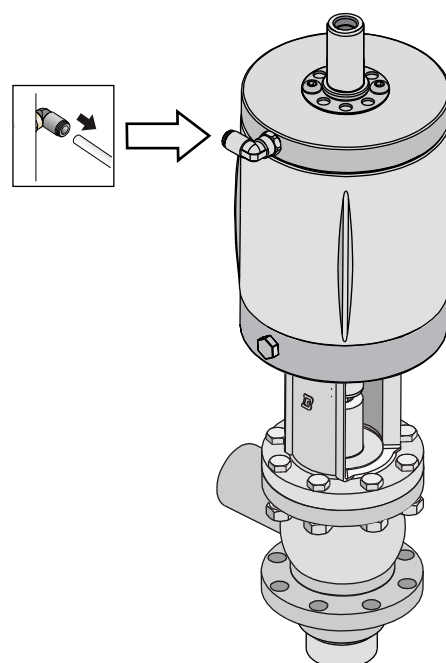
20 a2



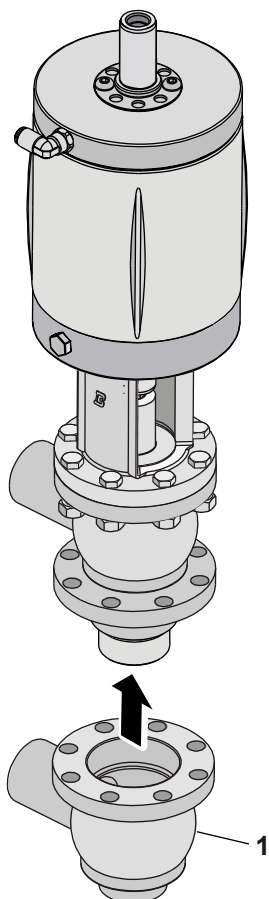
21 a2



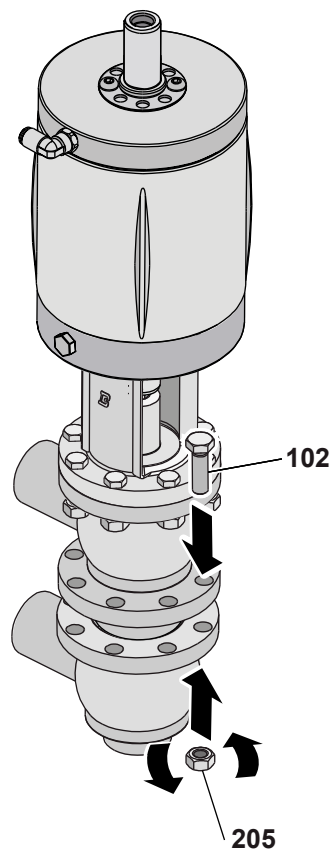
22 a2



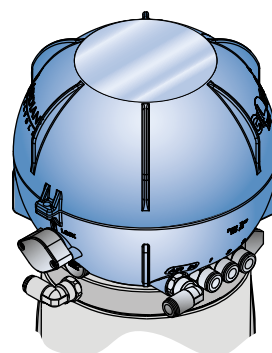
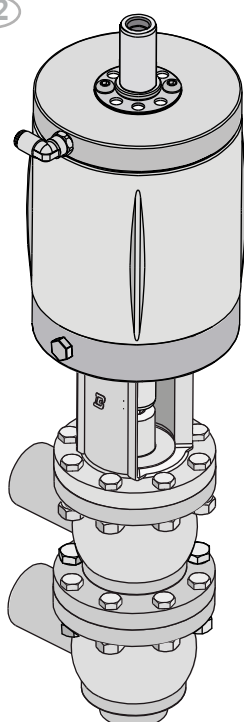
23 a2



24 a2



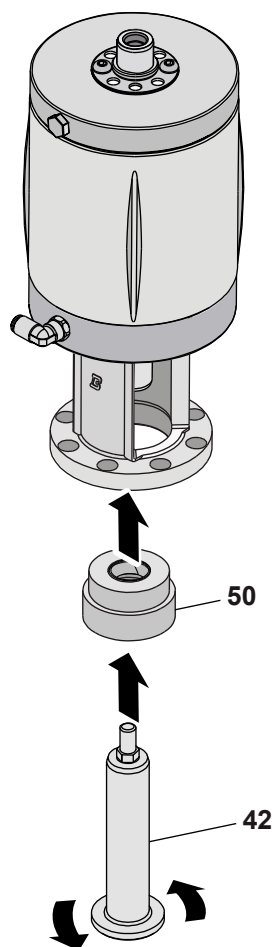
25 a2



[M GIOTTO]

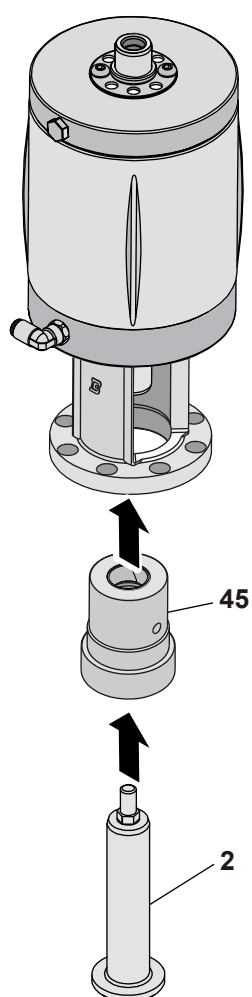
B Montaggio BBZQ - BBYQ M8-LLL

13-b



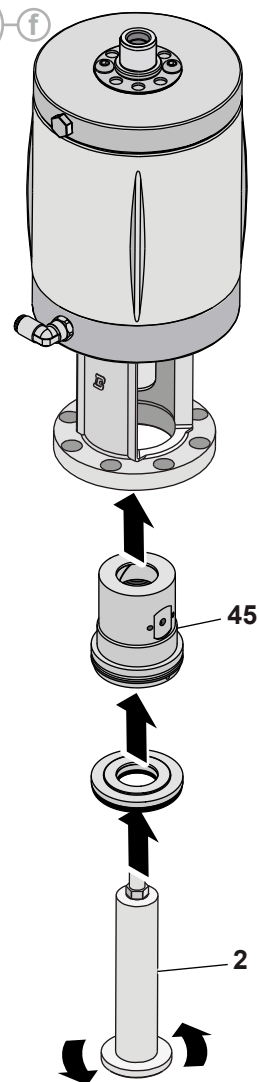
(BBYQ)

13-d

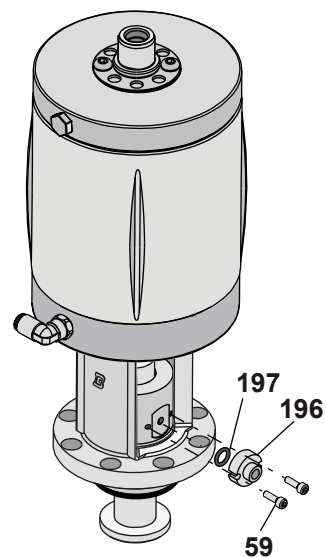


(BBYQ Speciale)

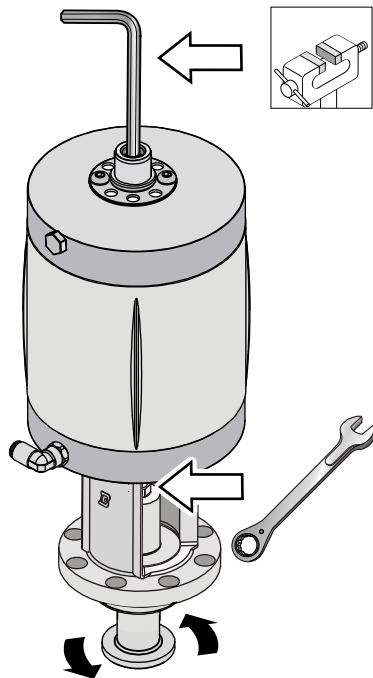
13-f



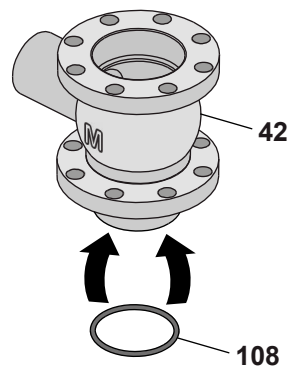
14-f



15-b

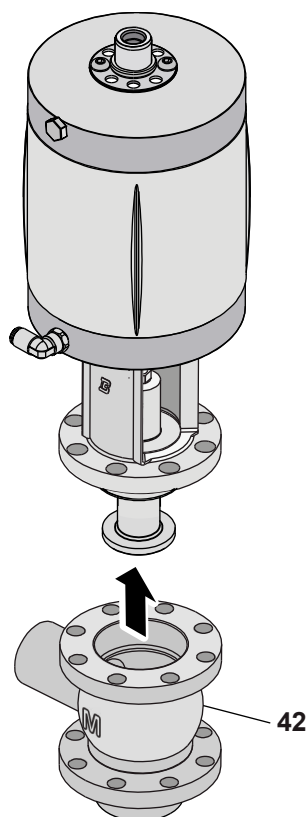


16-b

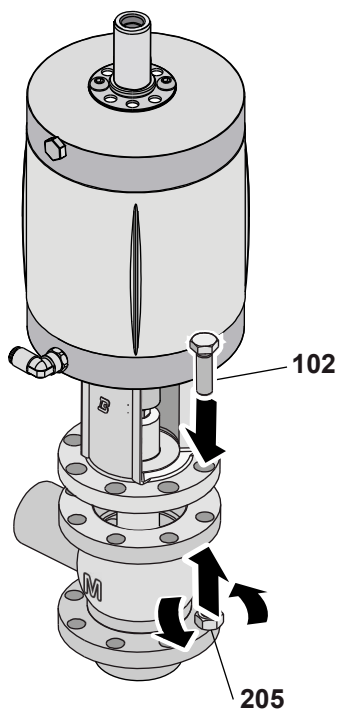
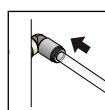


(Normalmente chiusa)

17 b1

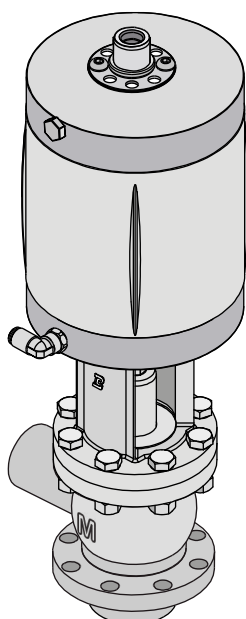
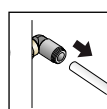


18 b1



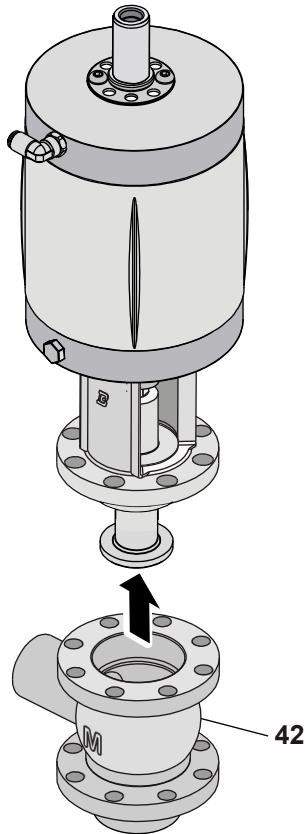
Non toccare mai le parti
mobili se all'attuatore è
fornita aria compressa

19 b1

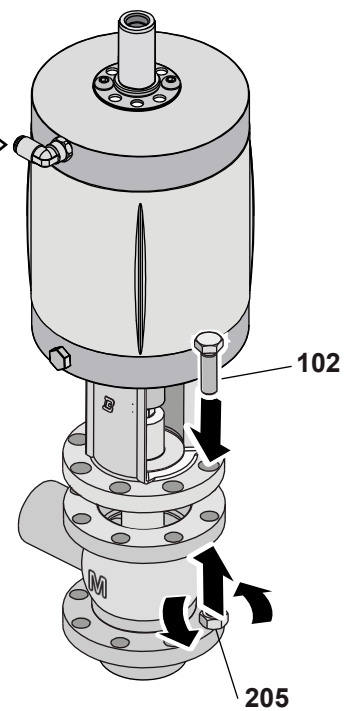
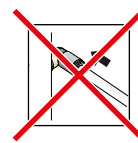


(Normalmente aperta o doppio effetto)

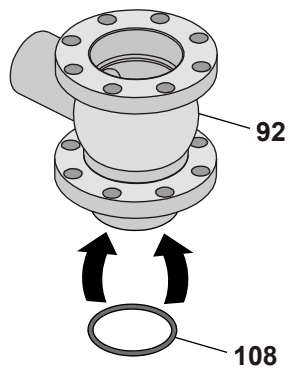
17 b2



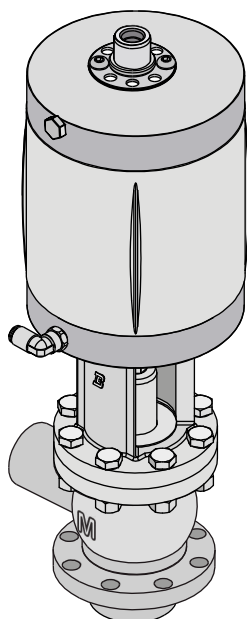
18 b2



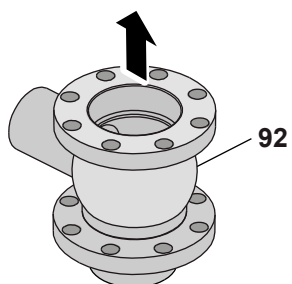
20-b



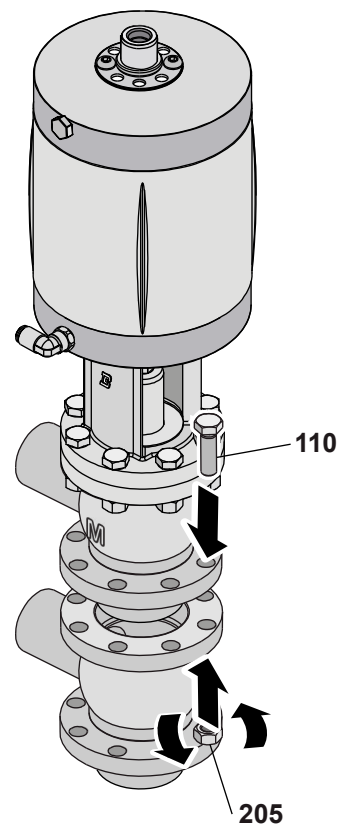
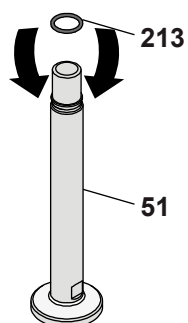
21-b



22-b

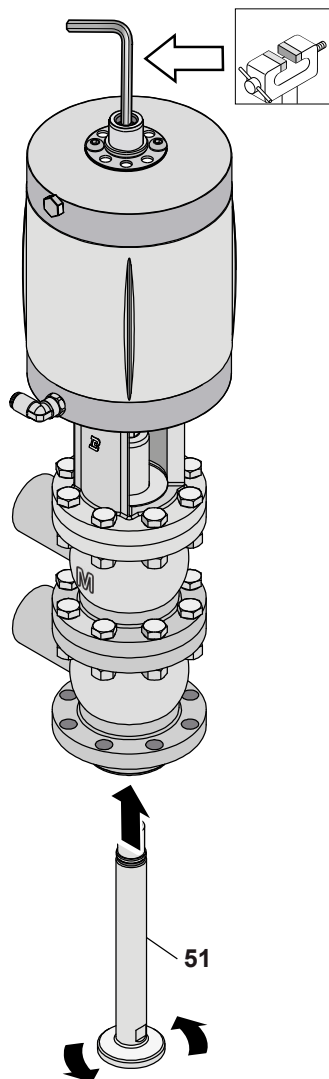


23-b

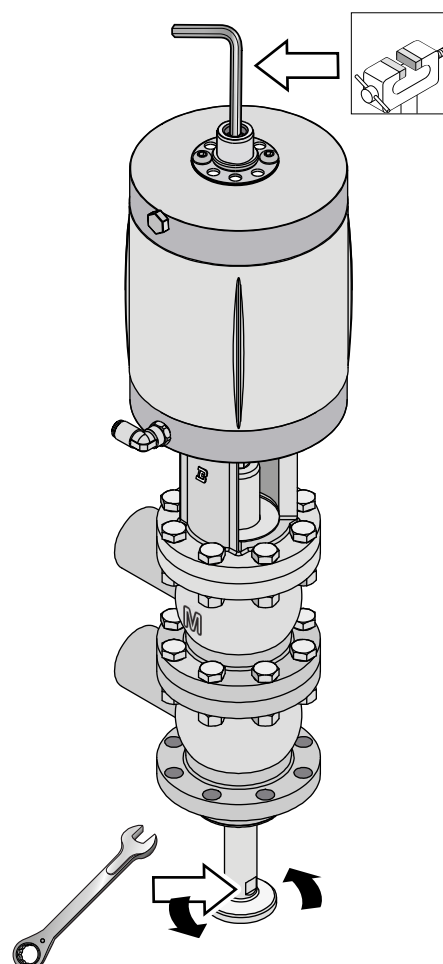


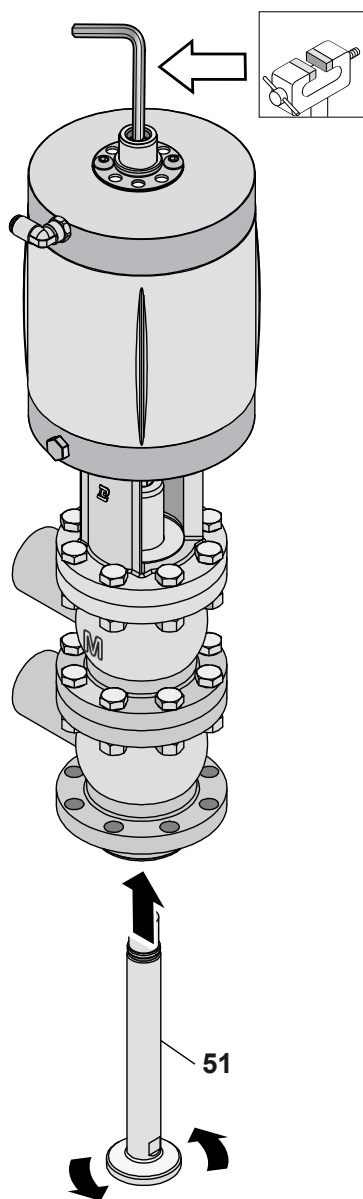
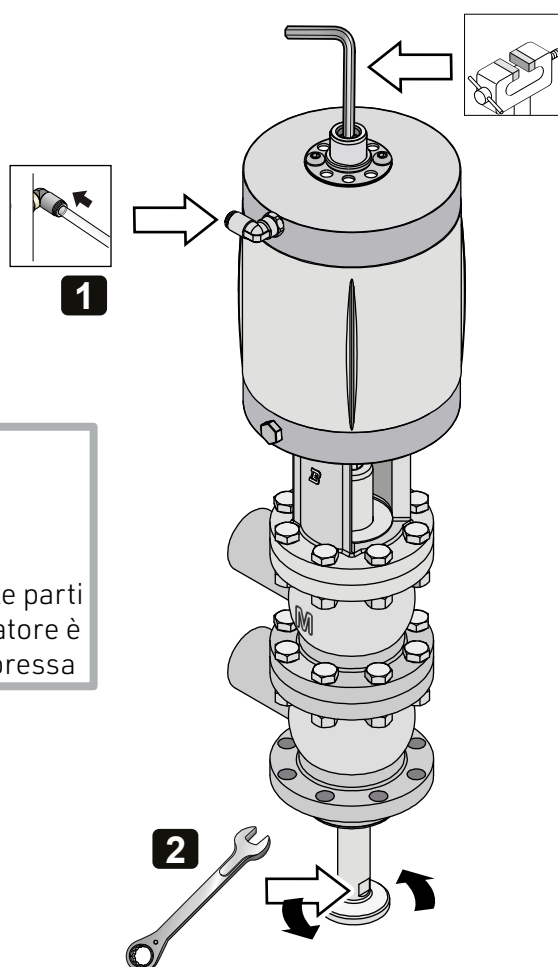
(Normalmente chiusa)

24 b1



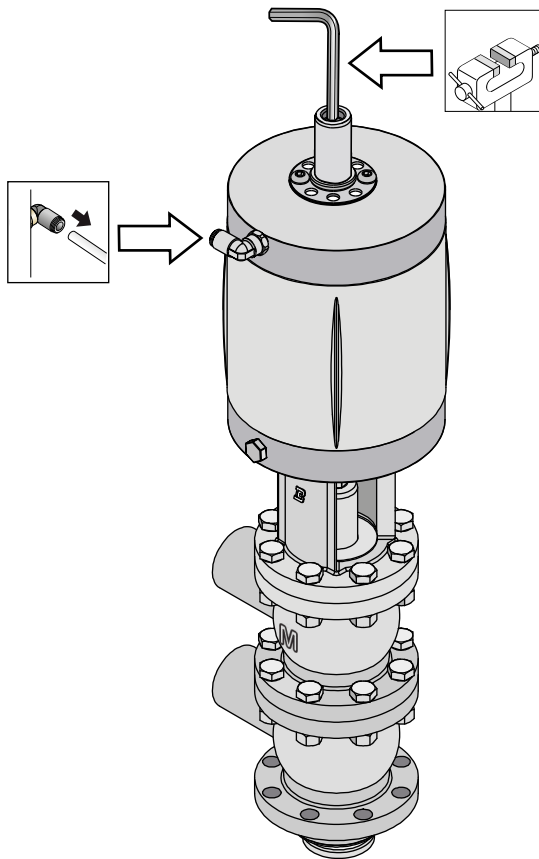
25 b1



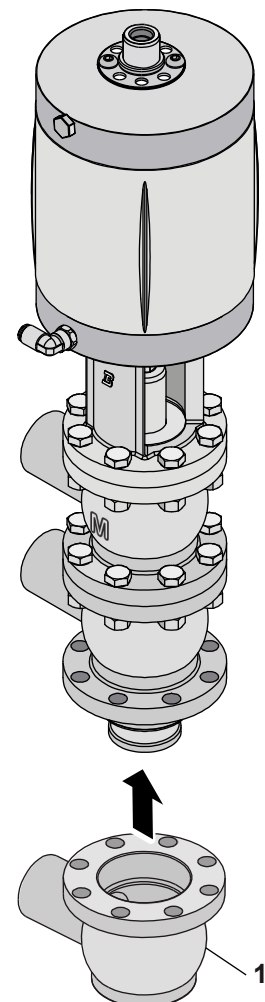
(Normalmente aperta o doppio effetto)**24** **b2****25** **b2**

Non toccare mai le parti
mobili se all'attuatore è
fornita aria compressa

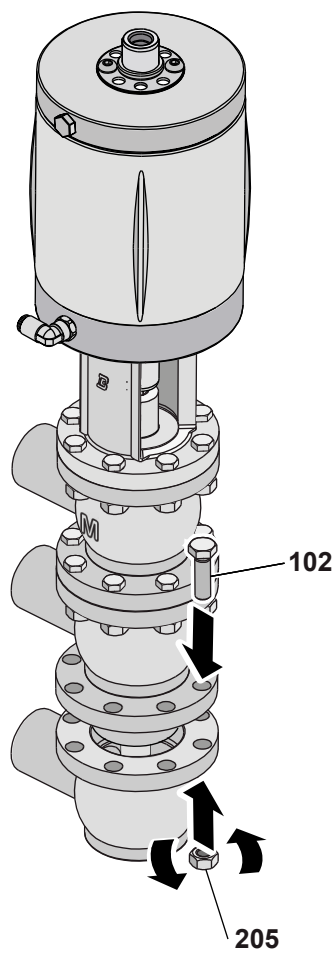
26-b2



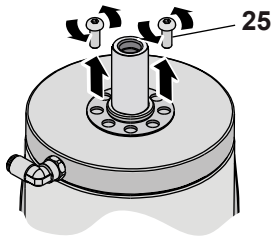
27-b



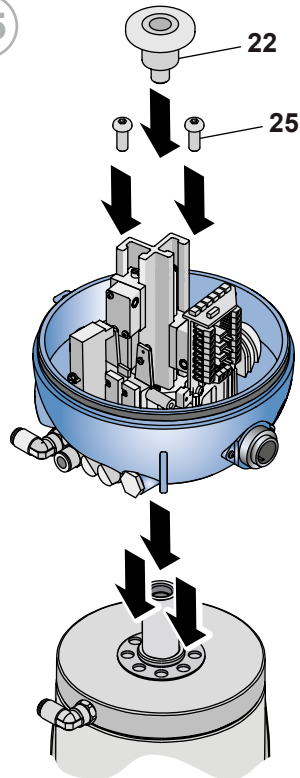
28 b



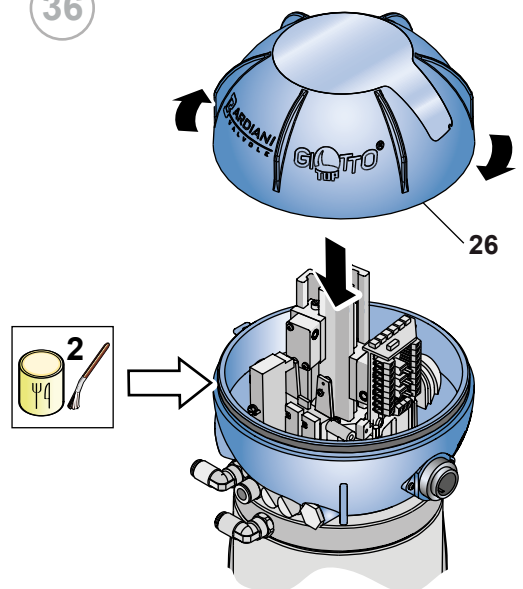
34



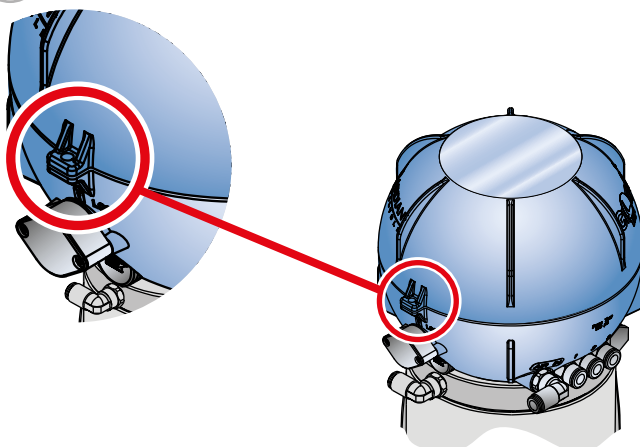
35



36

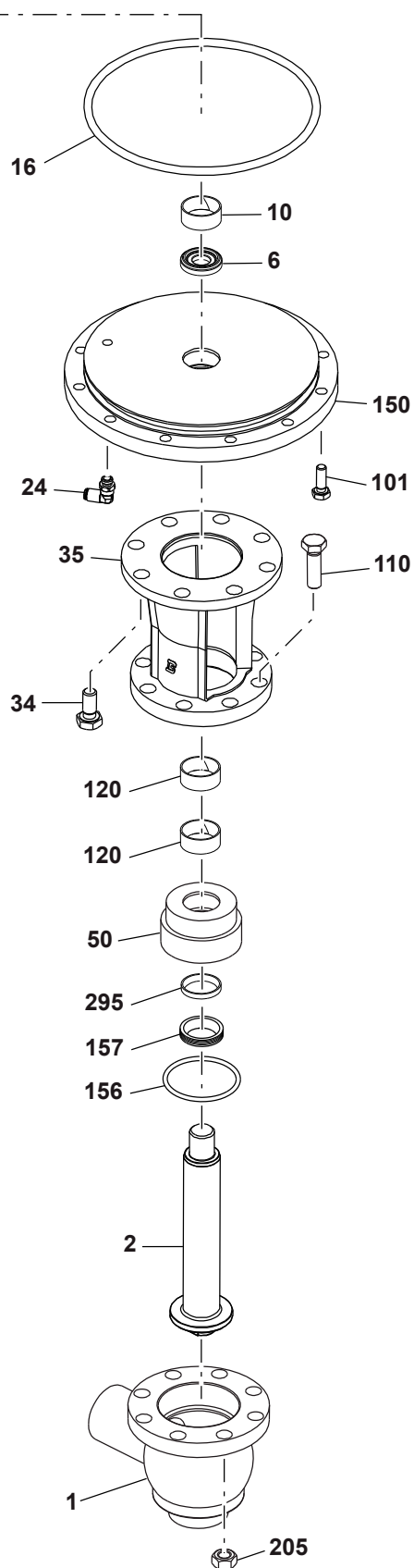
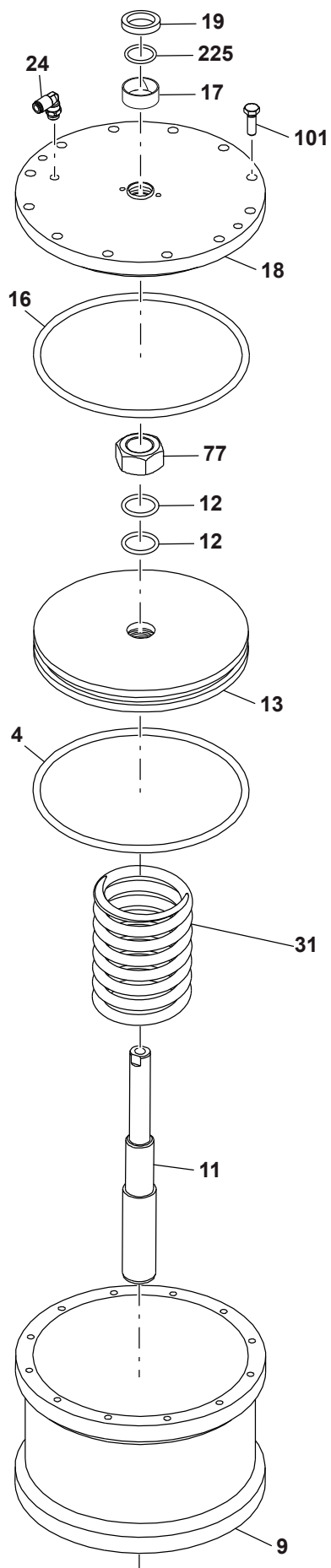


37

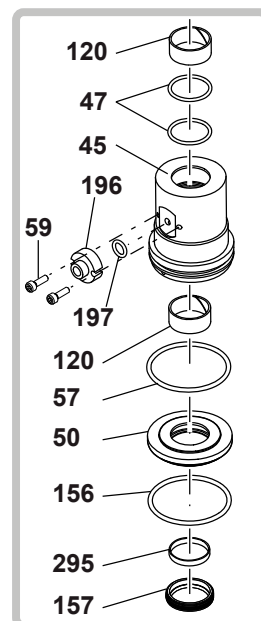


10.10 Valvola Pneumatica BBZQ - BBYQ cilindro 207-360

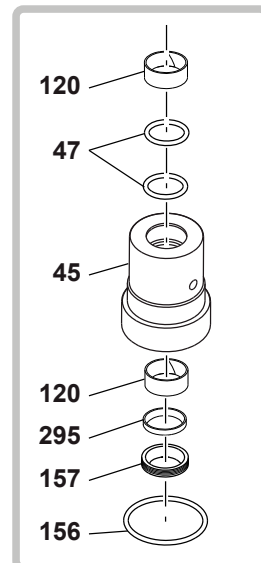
N°	DESCRIZIONE
1	Corpo inferiore
2	Otturatore
4	Anello di tenuta
6	Anello di tenuta
9	Cilindro
10	Boccola
11	Perno
12	Anello di tenuta
13	Pistone
16	Anello di tenuta
17	Boccola
18	Tampone
19	Anello di tenuta
24	Raccordo aria
31	Molla
34	Vite
35	Assemblaggio
45	Barriera vapore
47	Anello di tenuta
50	Disco portatenuta
57	Anello di tenuta
59	Vite
77	Dado
101	Vite
110	Vite
120	Boccola
150	Tampone inferiore
156	Anello di tenuta
157	Anello di tenuta
196	Collegamento vapore
197	Anello di tenuta
205	Dado
225	Anello di tenuta
295	Boccola



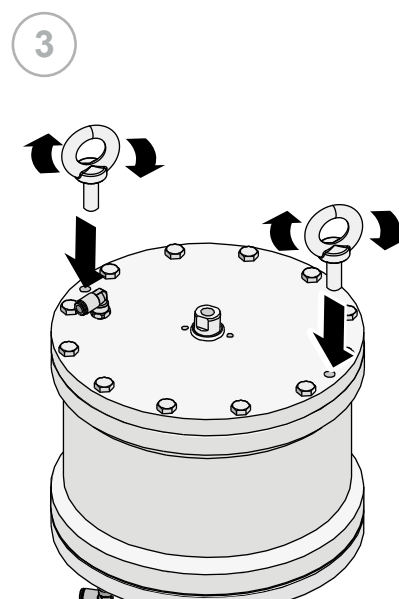
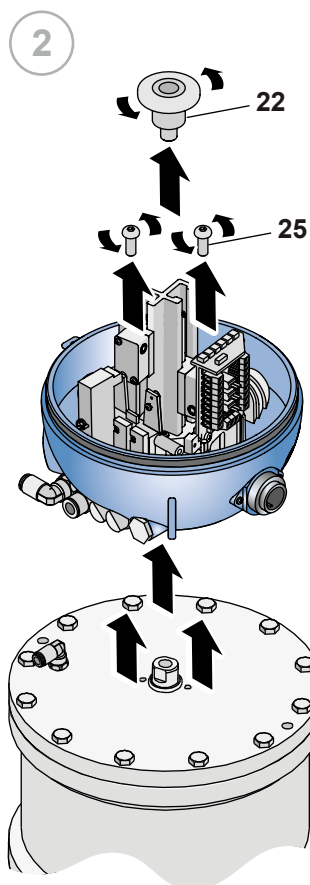
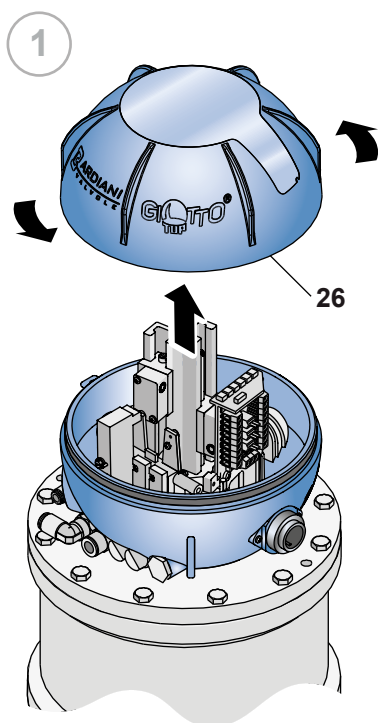
(BBYQ Speciale)



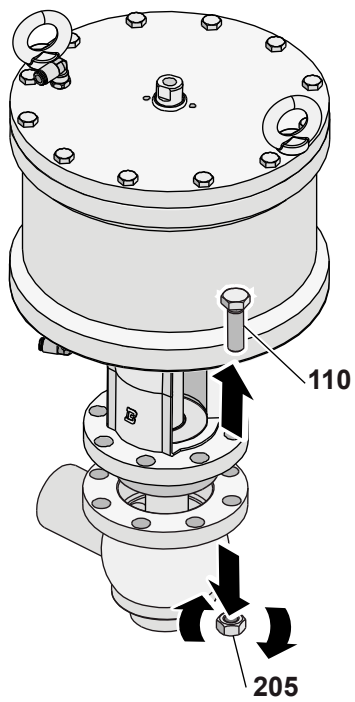
(BBYQ)



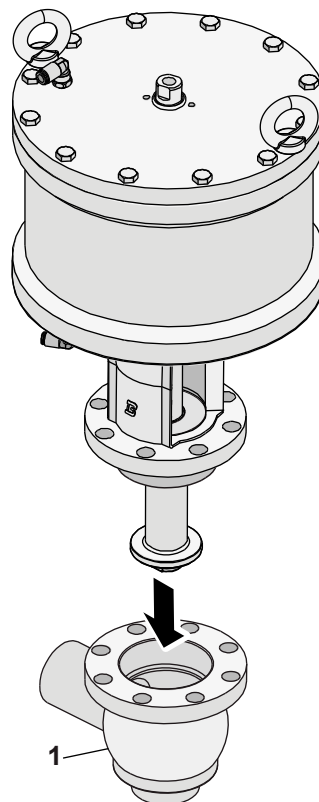
10.11 Smontaggio della BBZQ - BBYQ cilindro 207-360



4

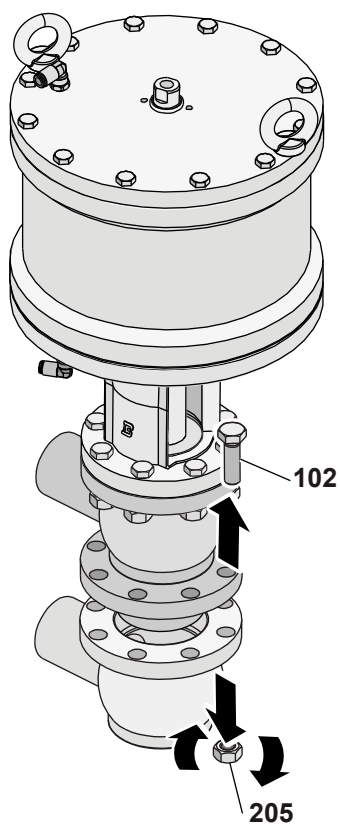


5

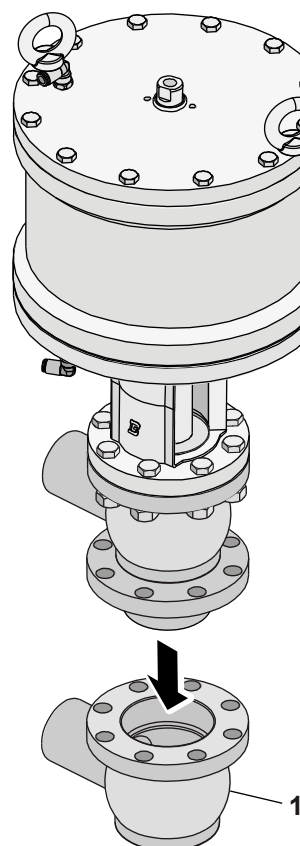


(M8)

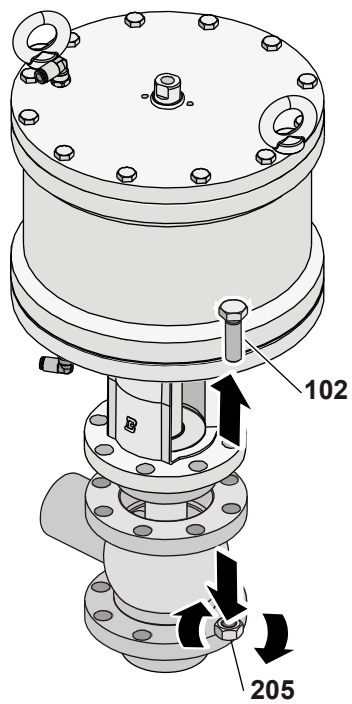
6 a



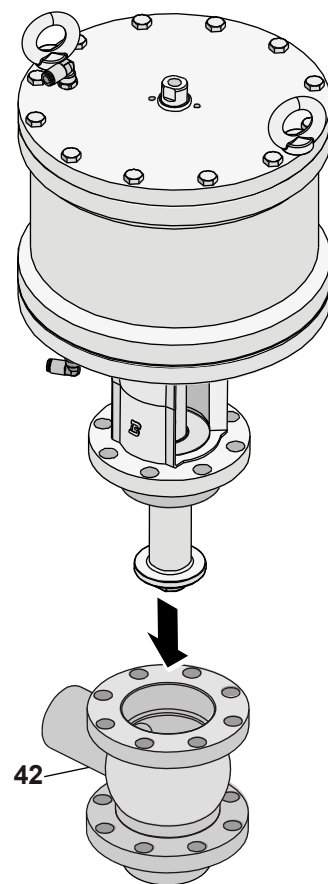
7 a



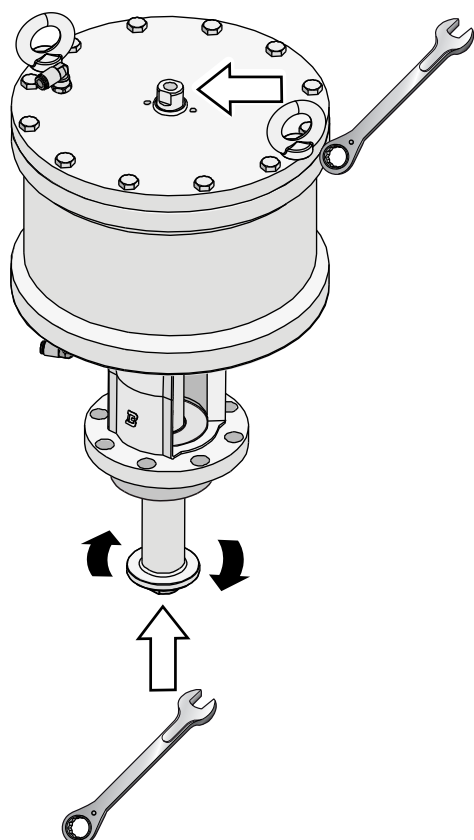
8 a



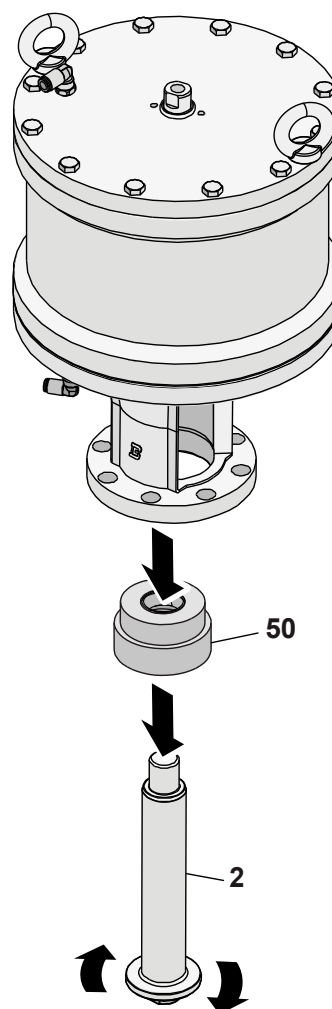
9 a

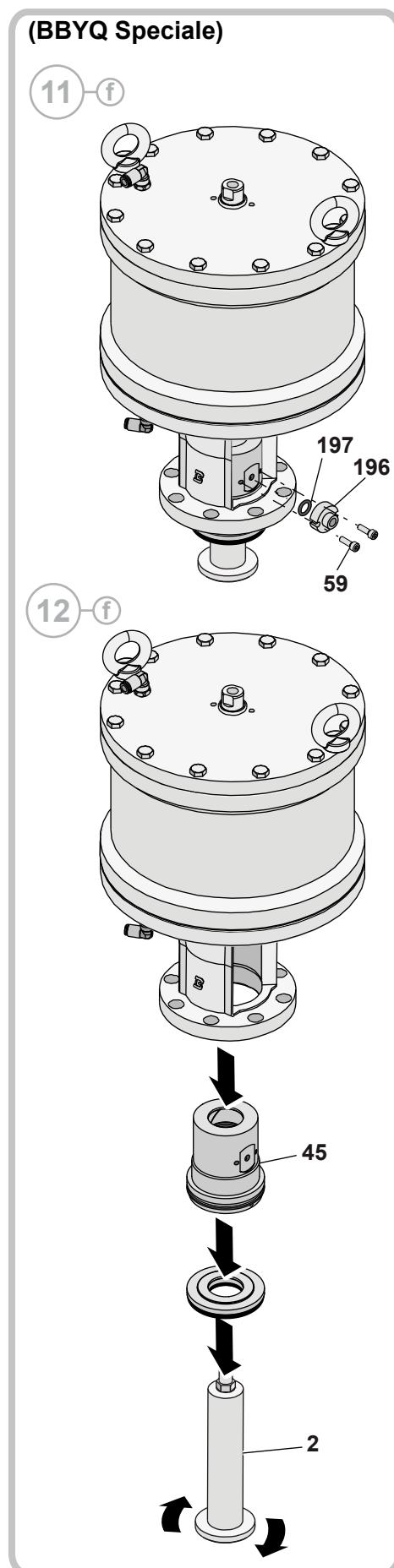
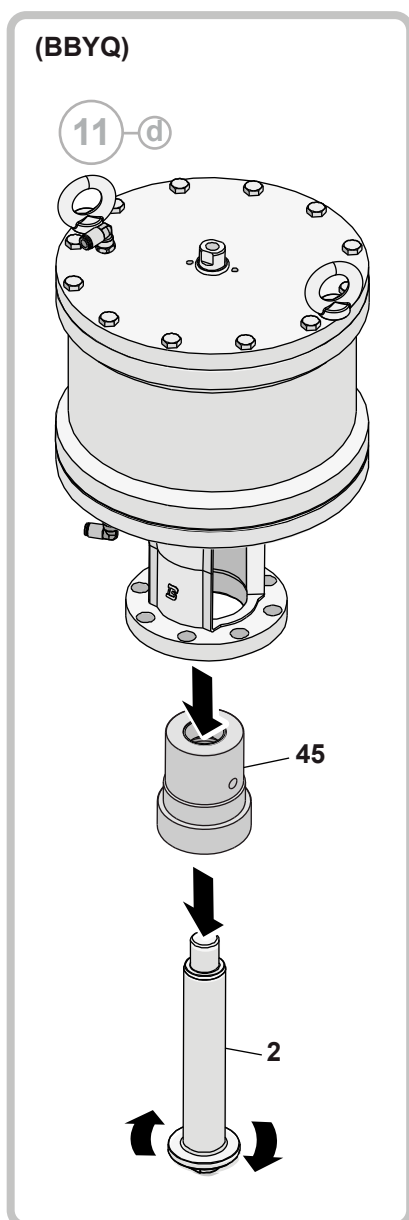


10

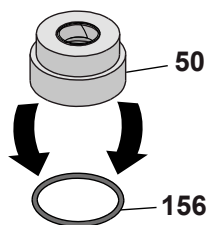


11

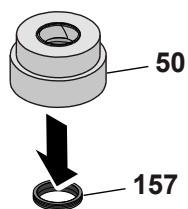




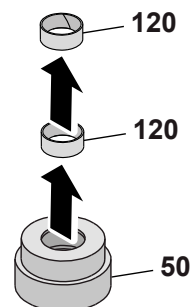
13



14

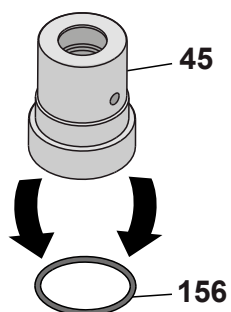


15

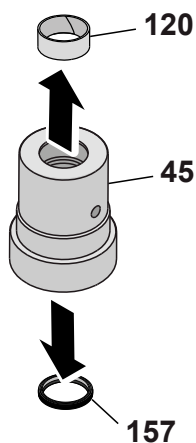


(BBYQ)

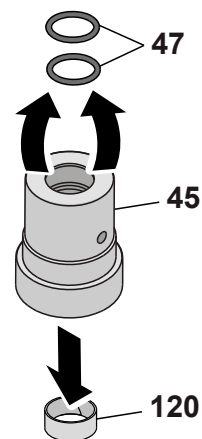
13-d



14-d

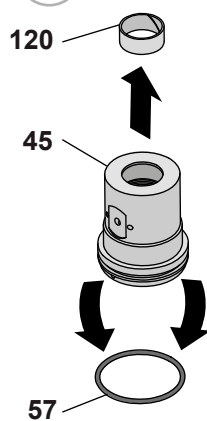


15-d

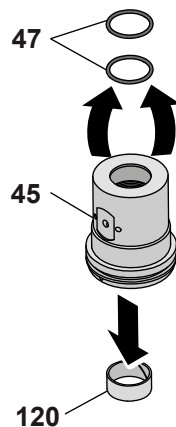


(BBYQ Speciale)

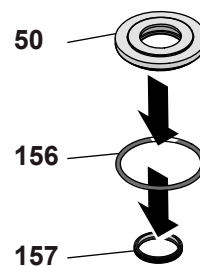
13-f



14-f

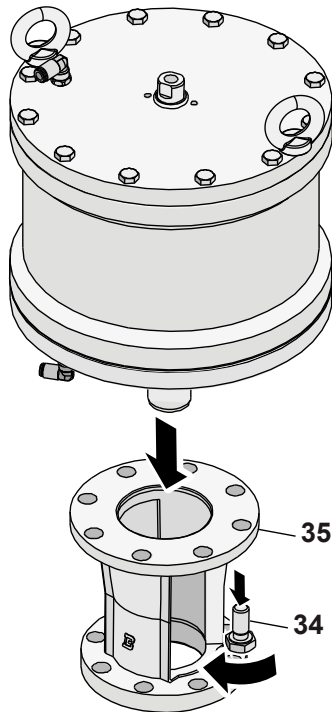


15-f

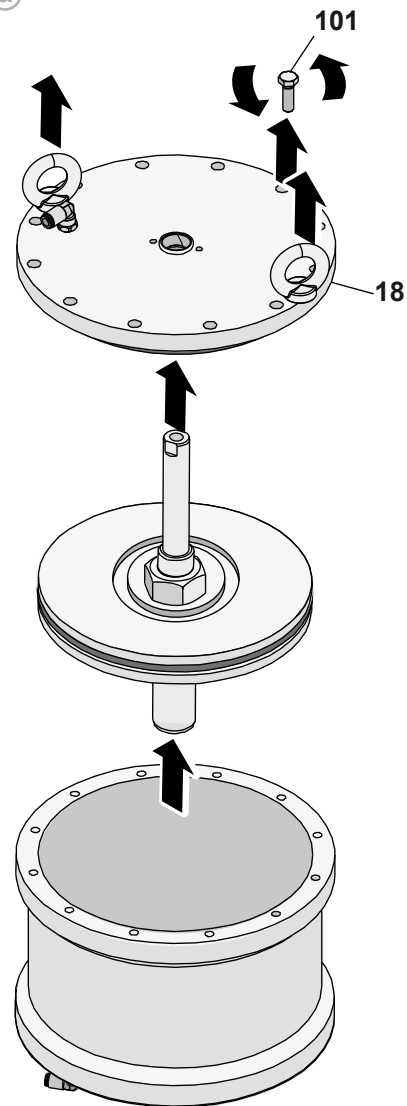


(Doppio effetto)

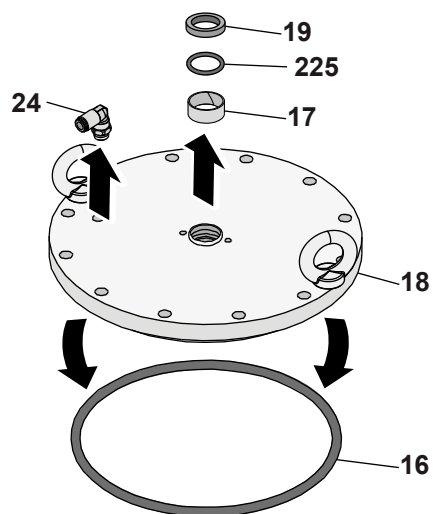
16-a

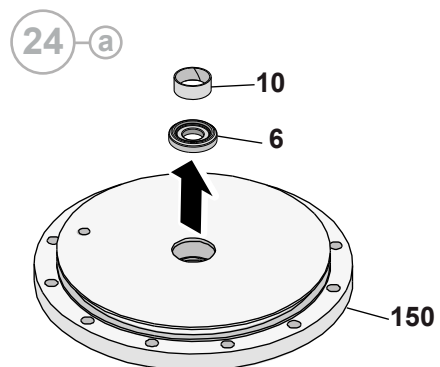
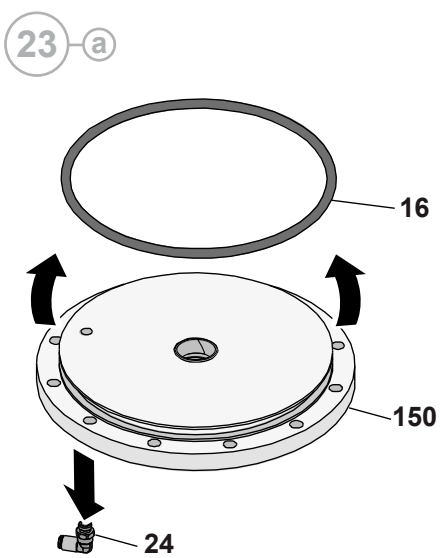
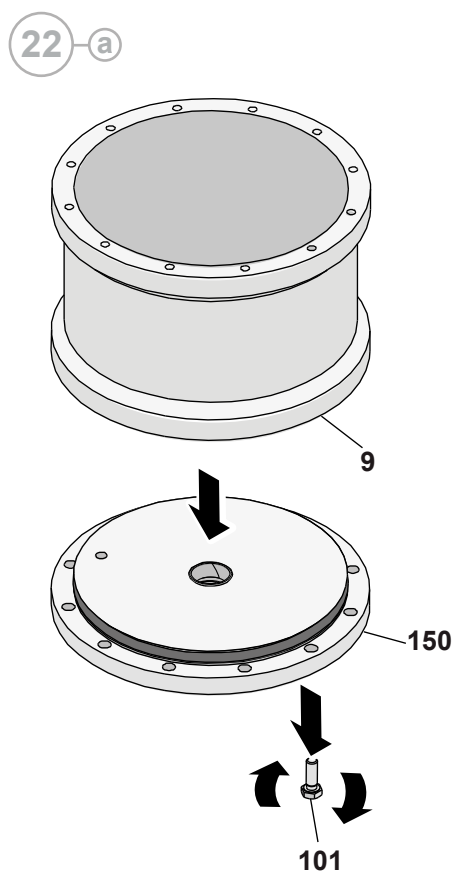
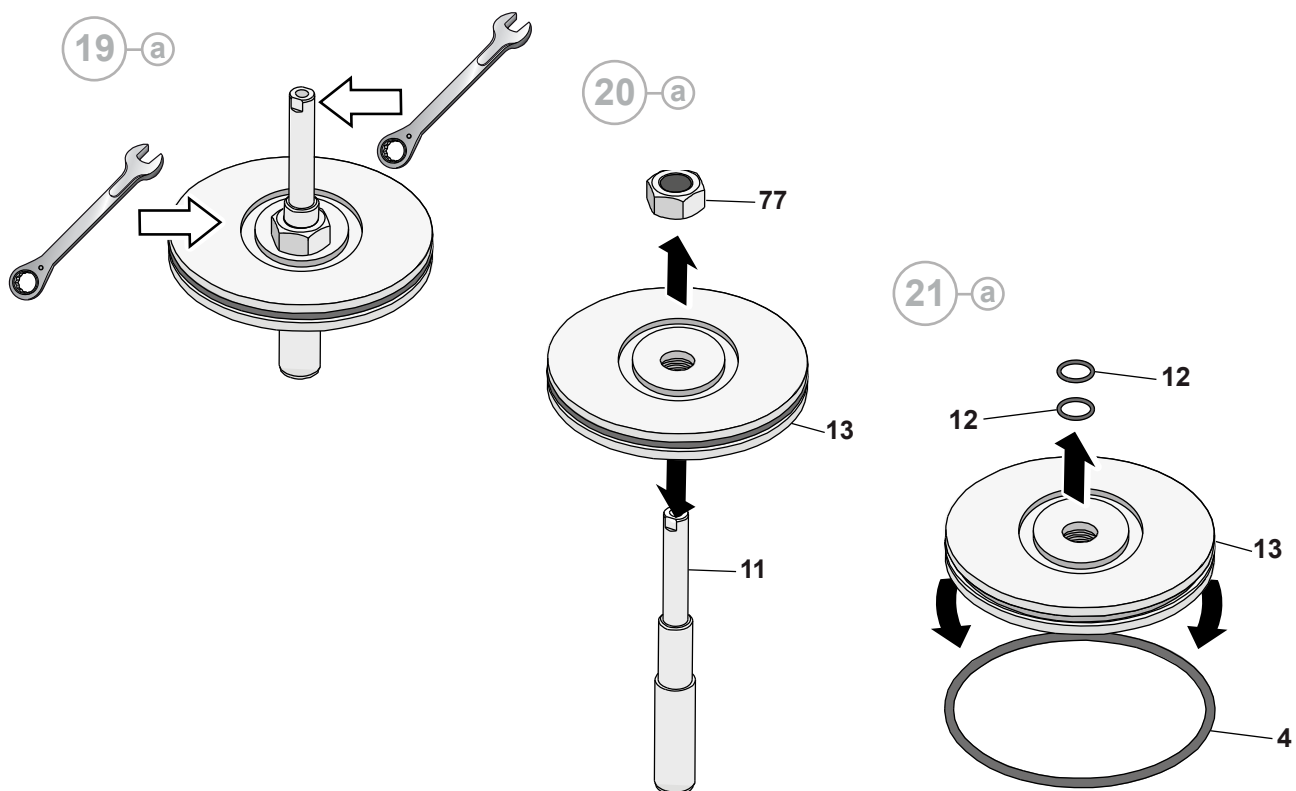


17-a



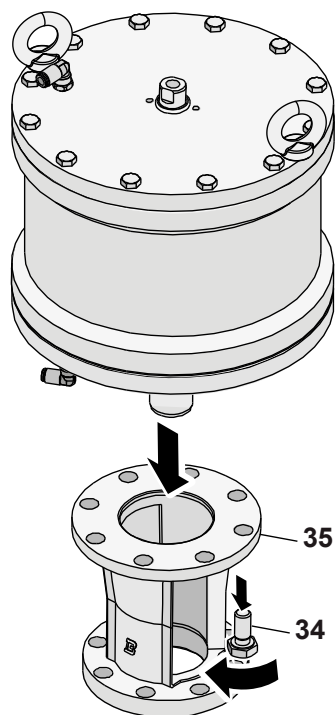
18-a



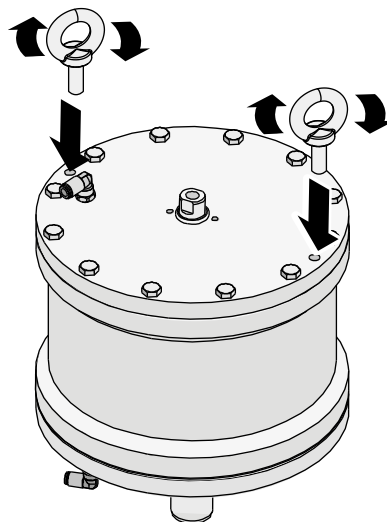


(Normalmente chiusa)

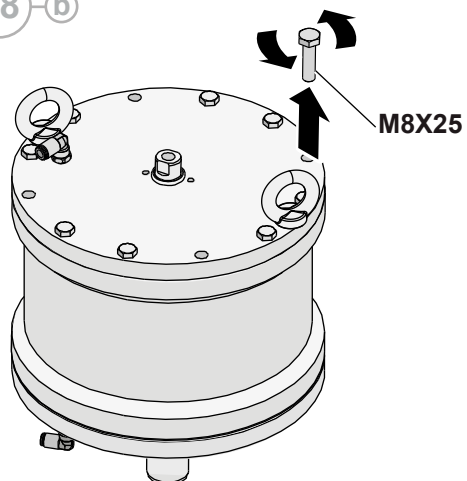
16-b



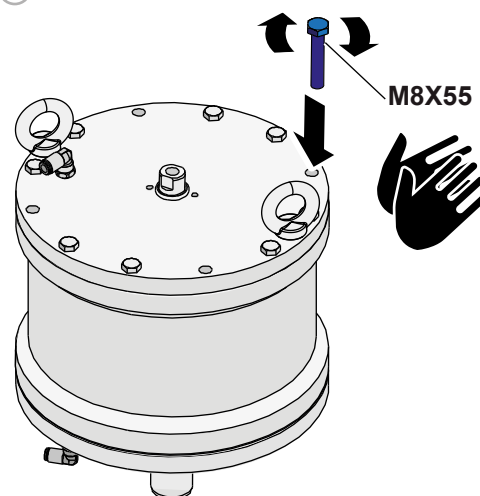
17-b



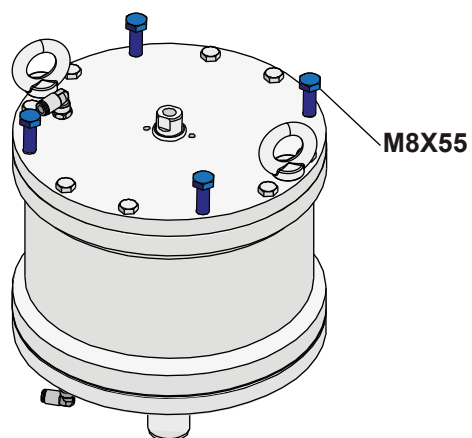
18-b



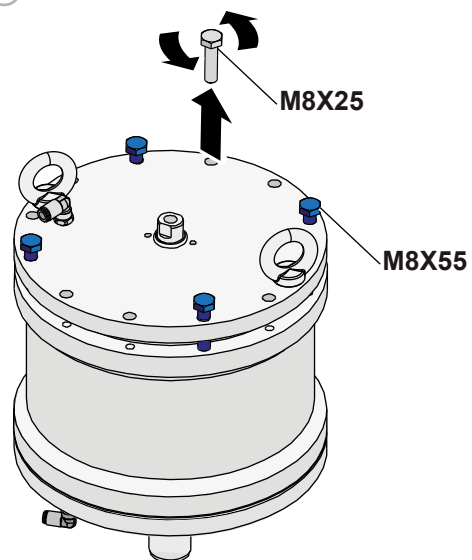
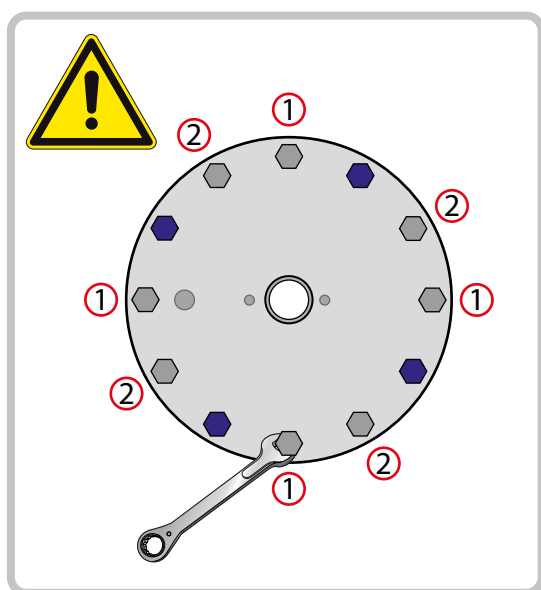
19-b



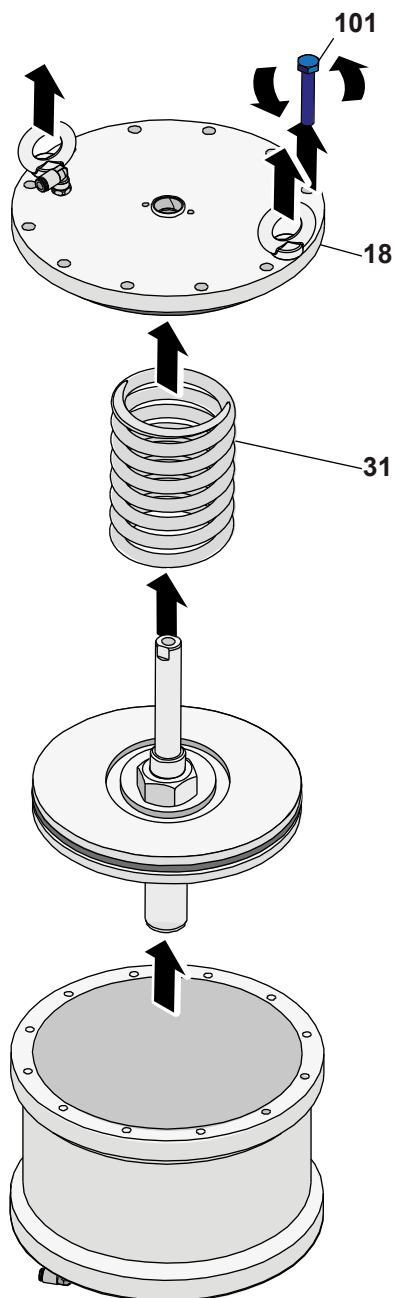
20 ^(b)



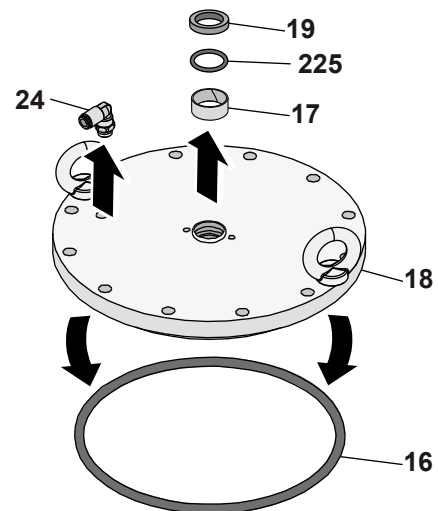
21 ^(b)



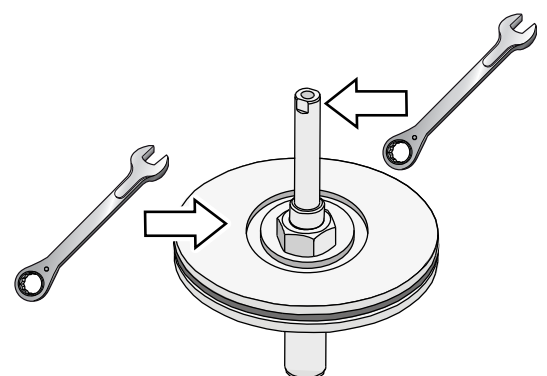
22-b



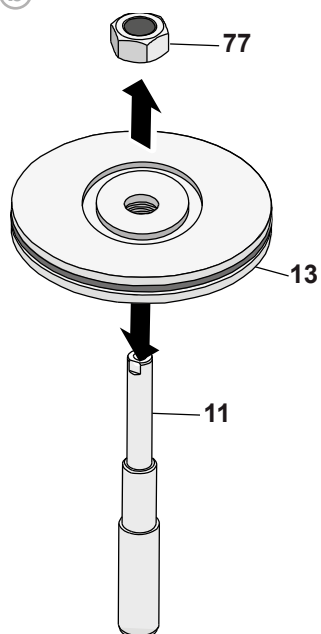
23-b



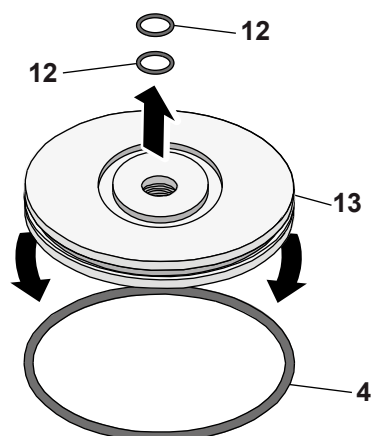
24-b



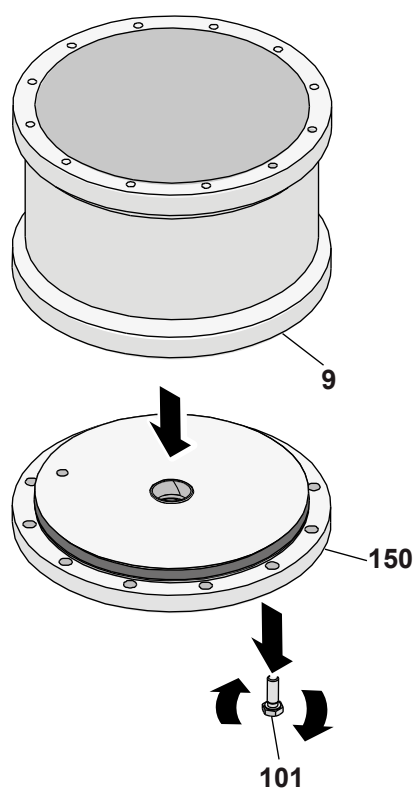
(25) b



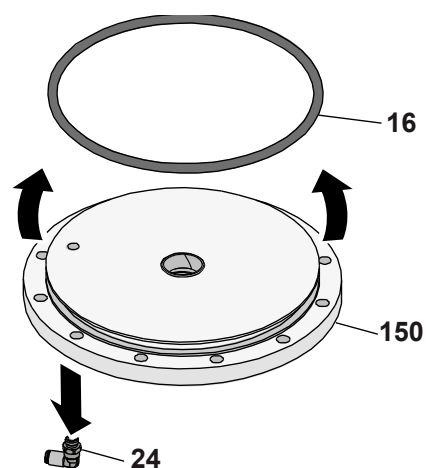
(26) b



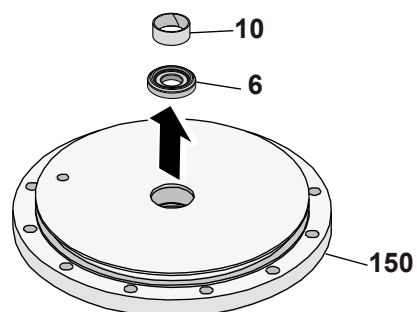
(27) b



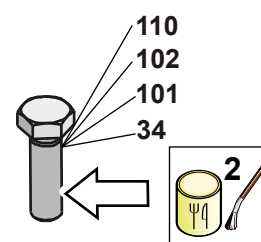
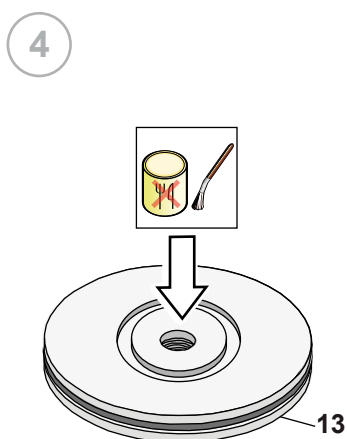
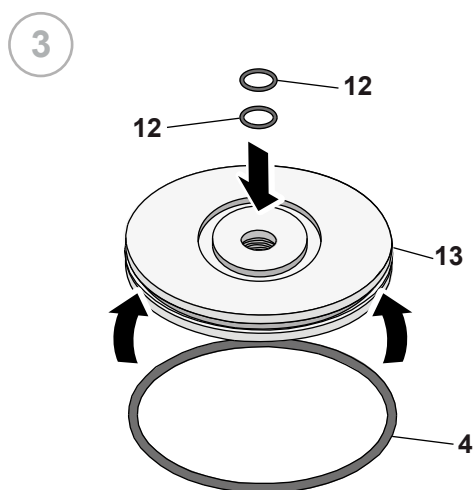
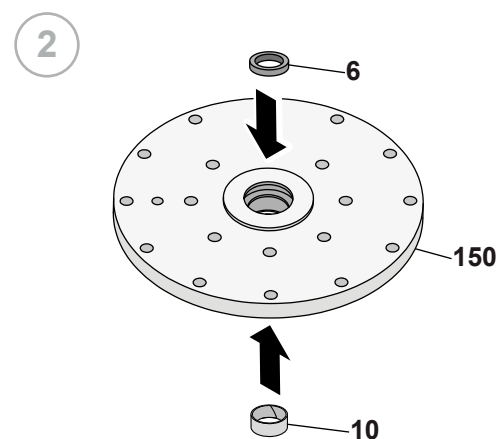
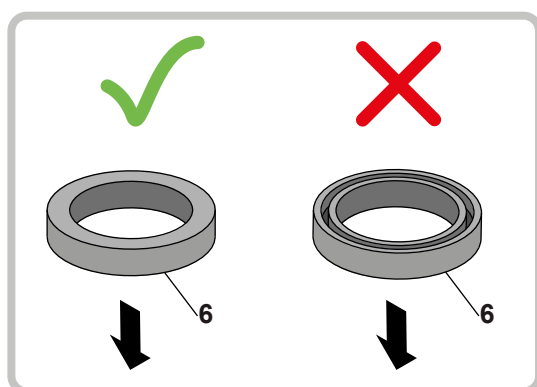
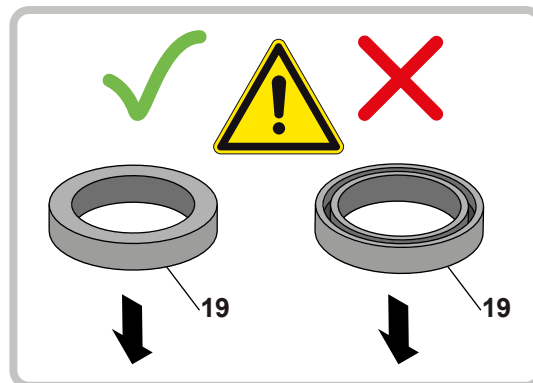
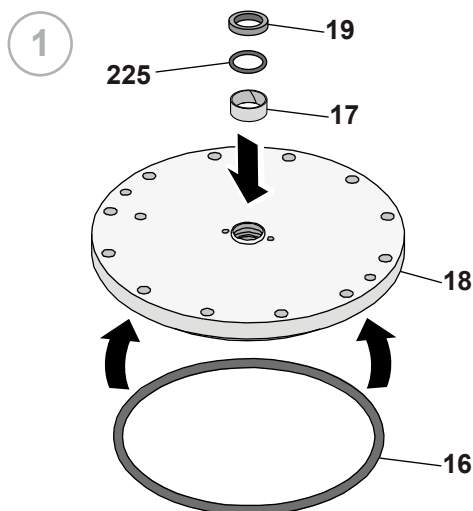
(28) b

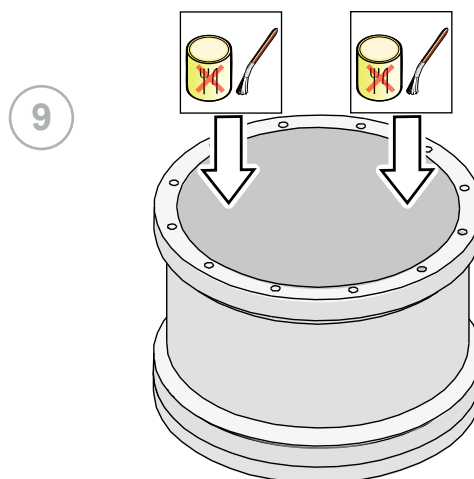
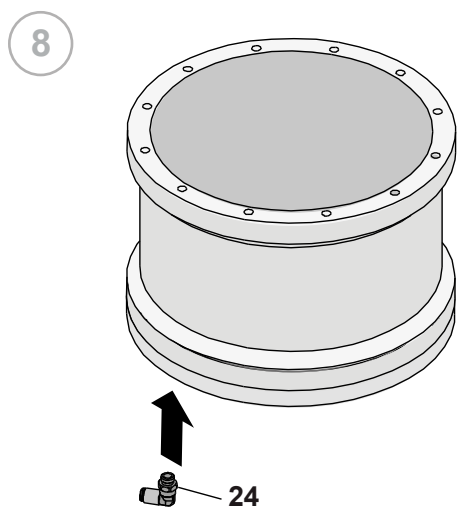
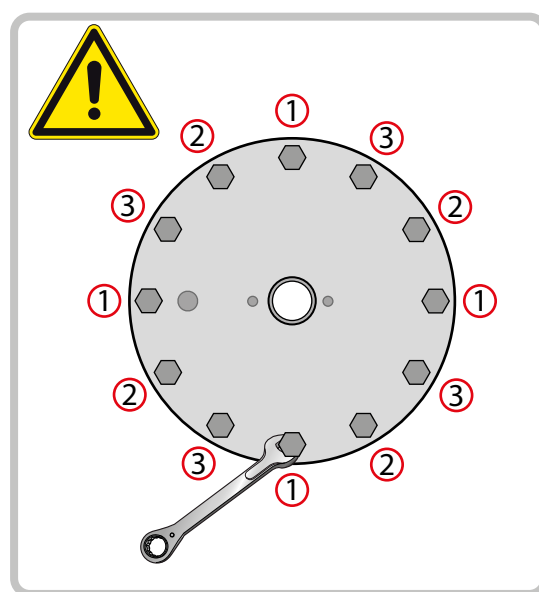
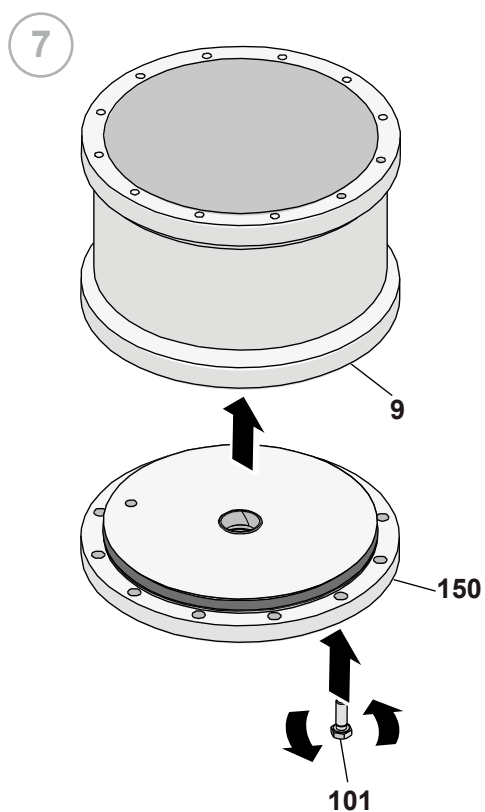
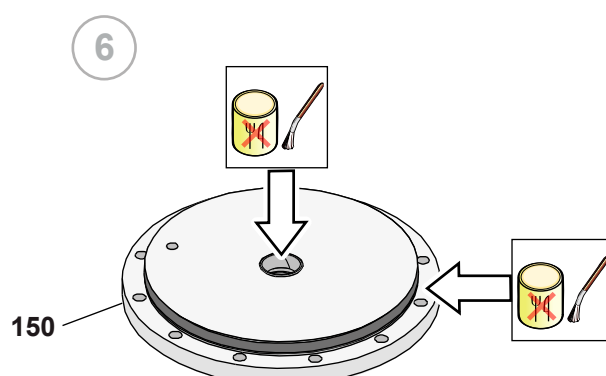
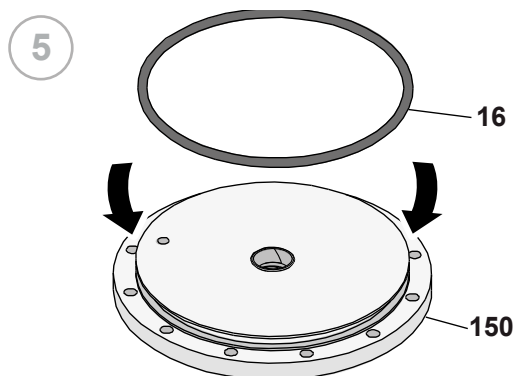


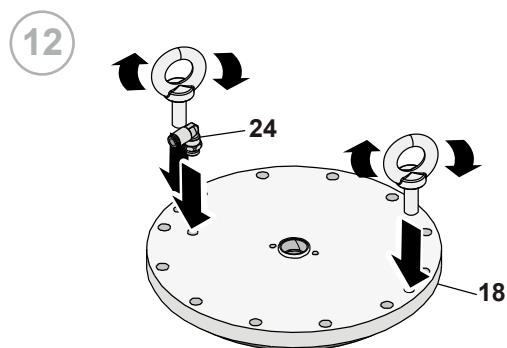
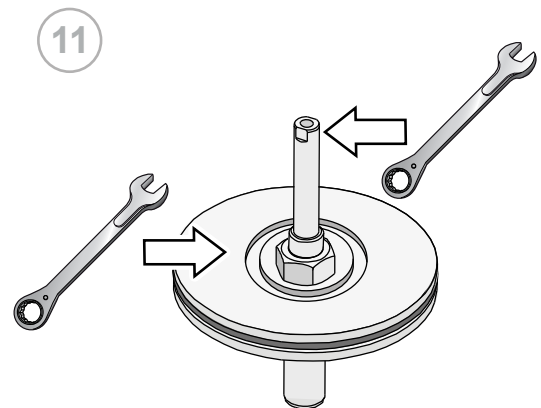
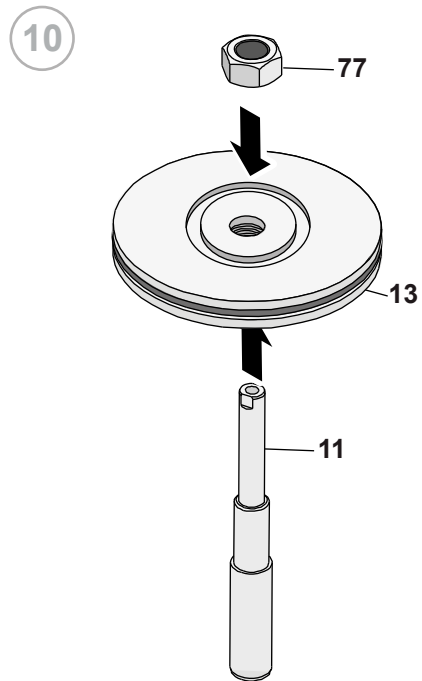
(29) b



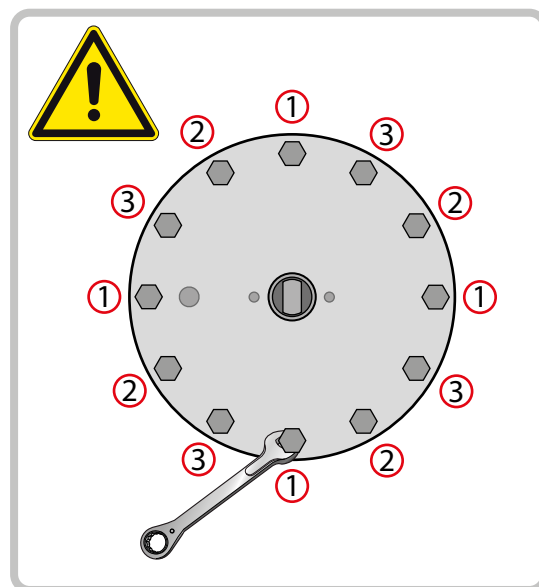
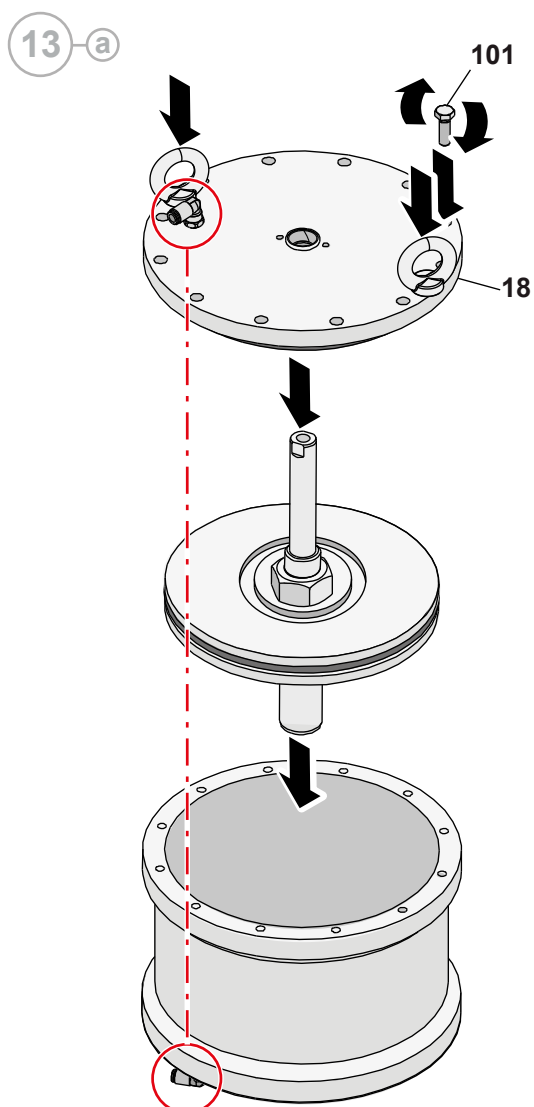
10.12 Montaggio della BBZQ - BBYQ cilindro 207-360



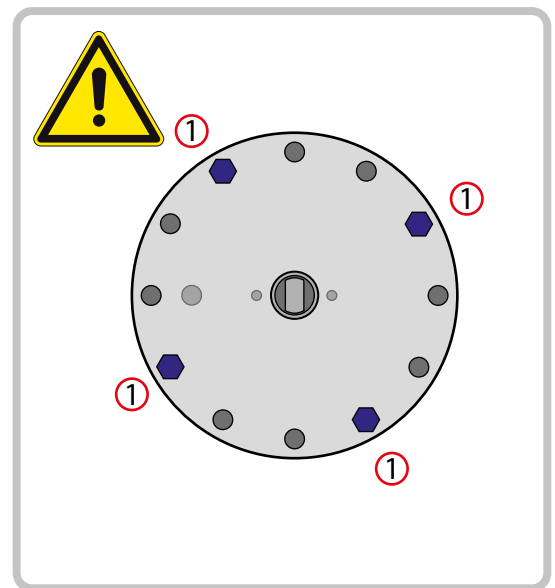
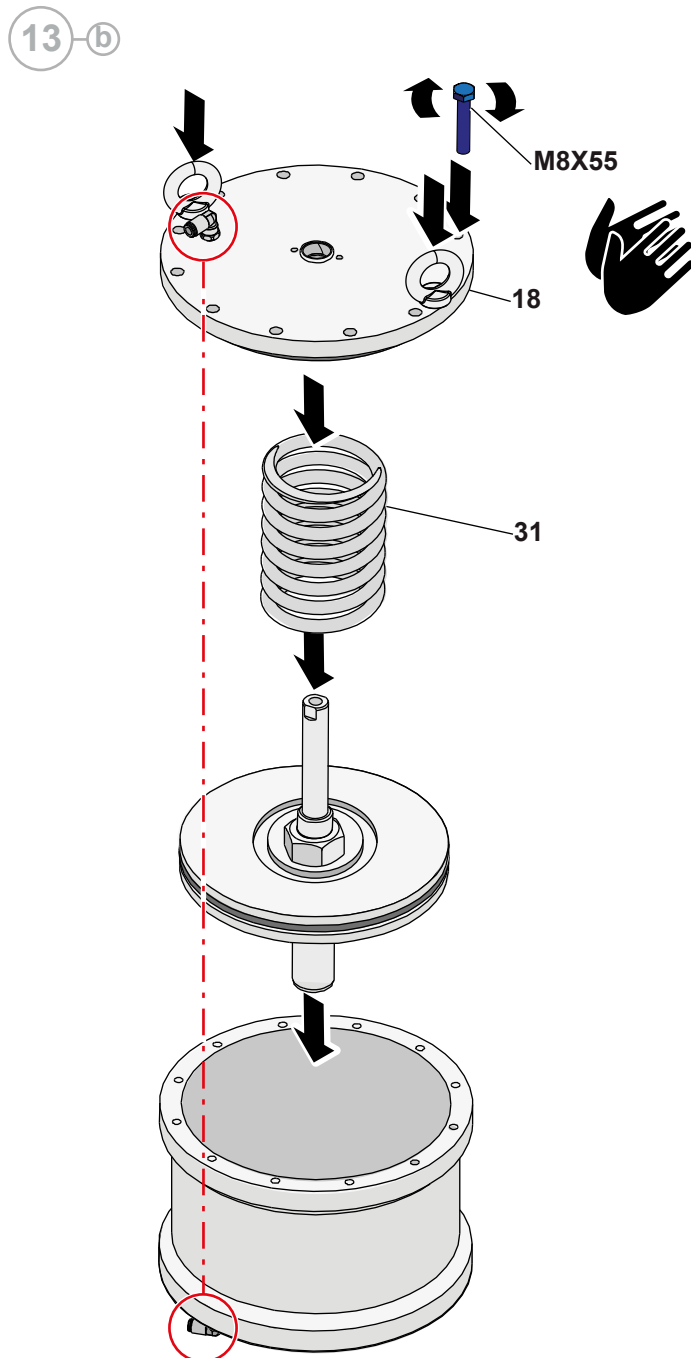




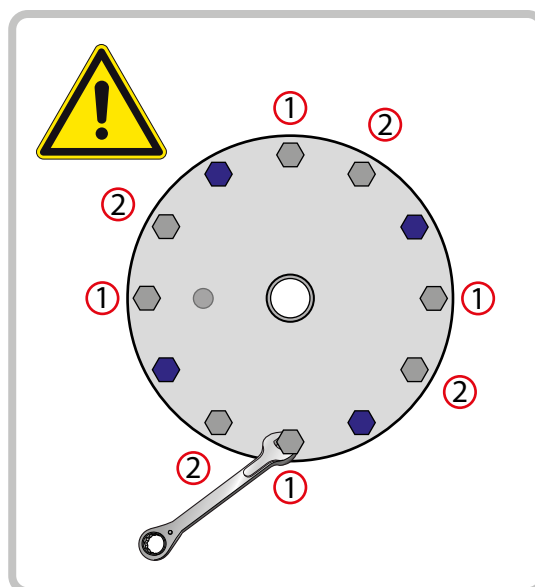
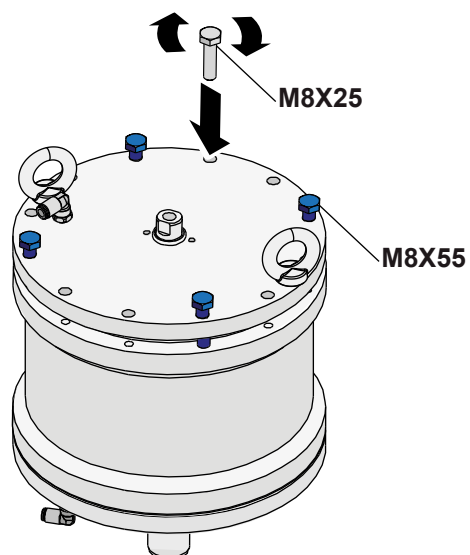
(Doppio
effetto)



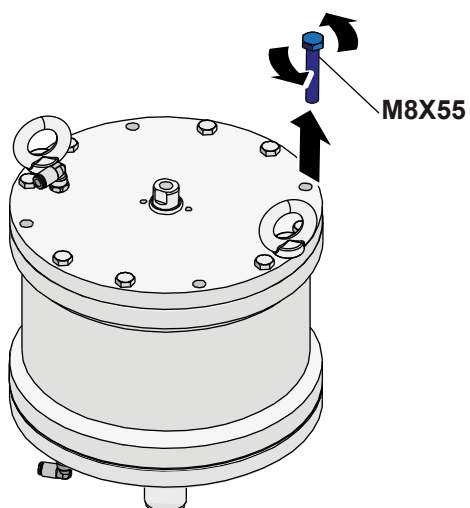
(Normalmente chiusa)



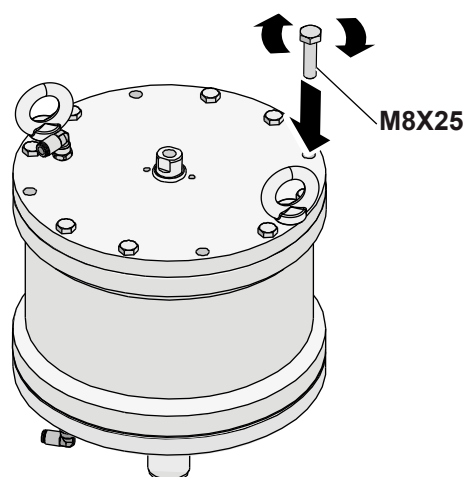
14-b



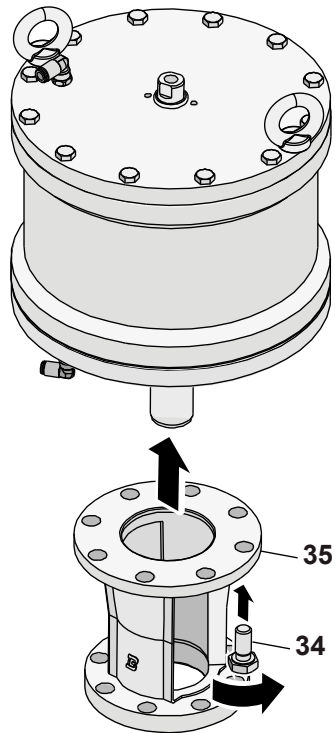
15-b



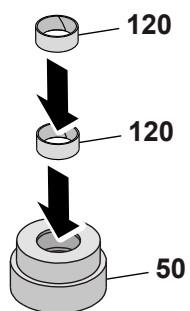
16-b



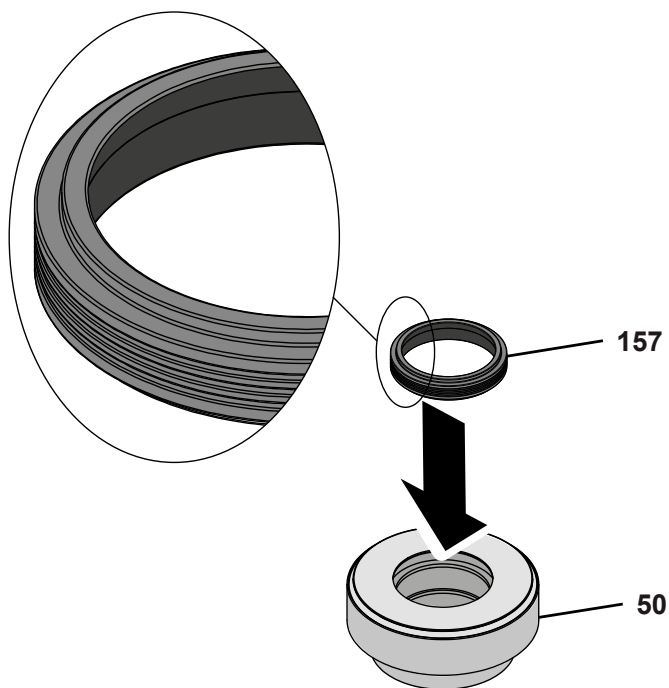
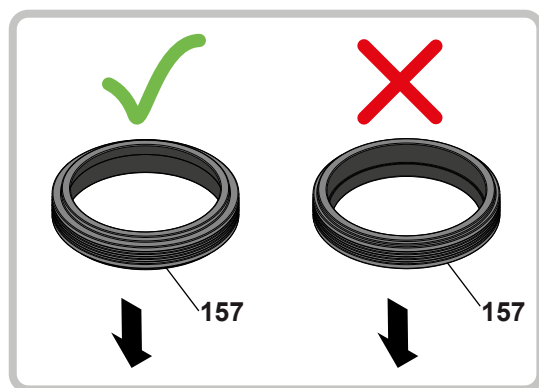
17



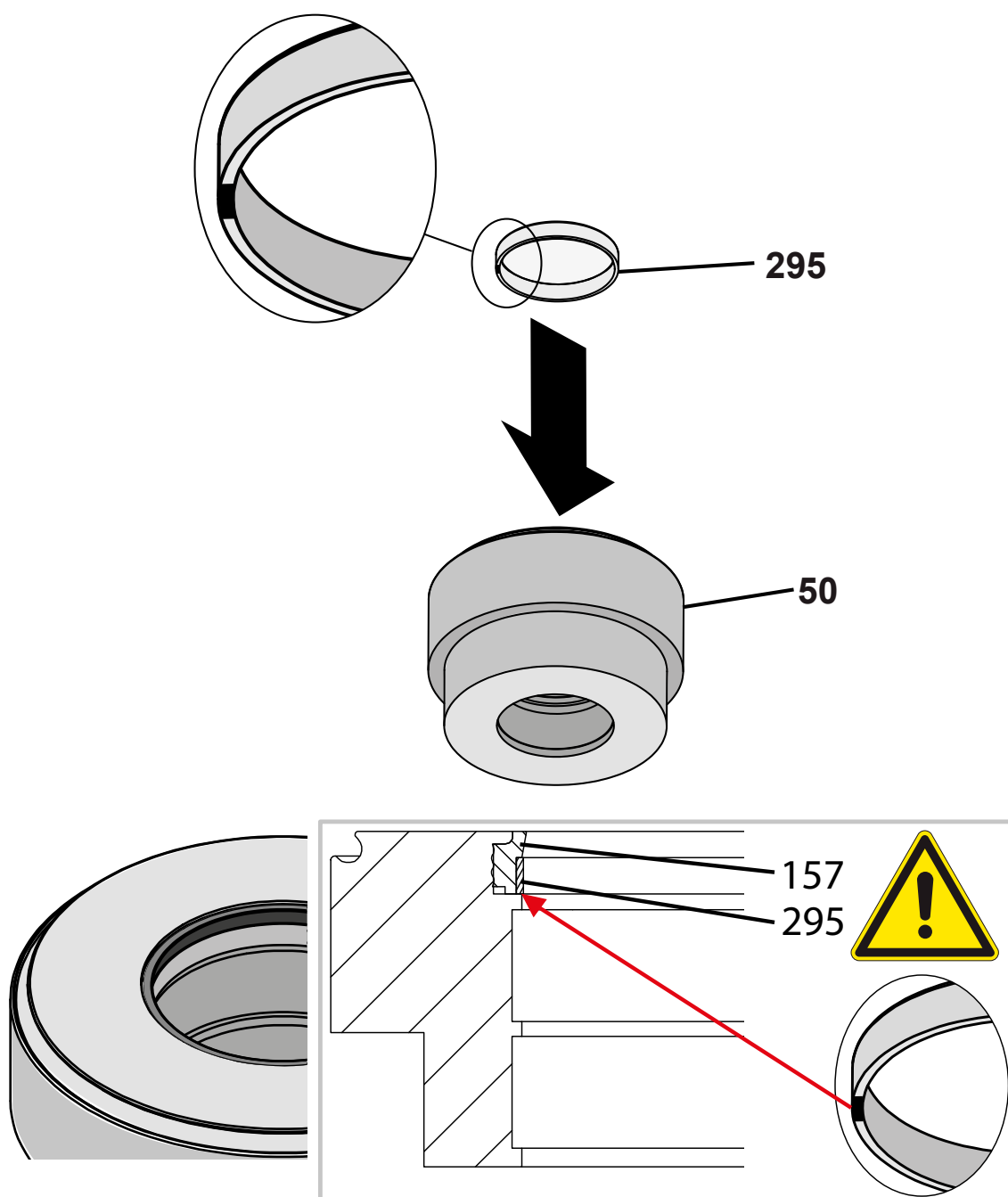
18



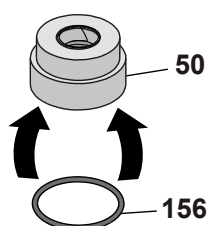
19



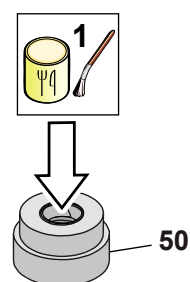
20



21

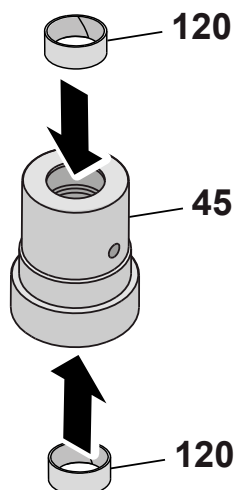


22

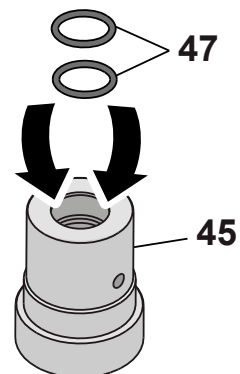


(BBYQ)

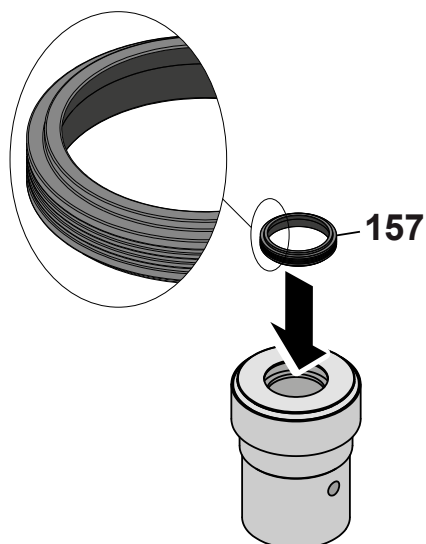
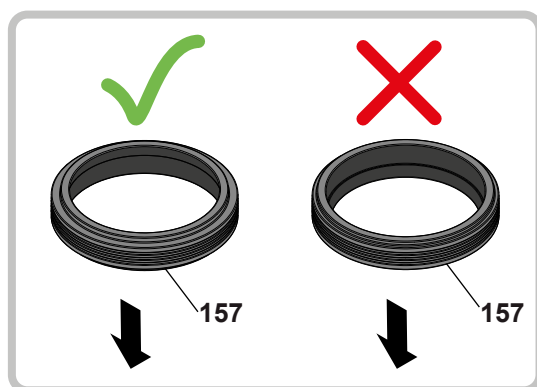
(18) d



(19) d

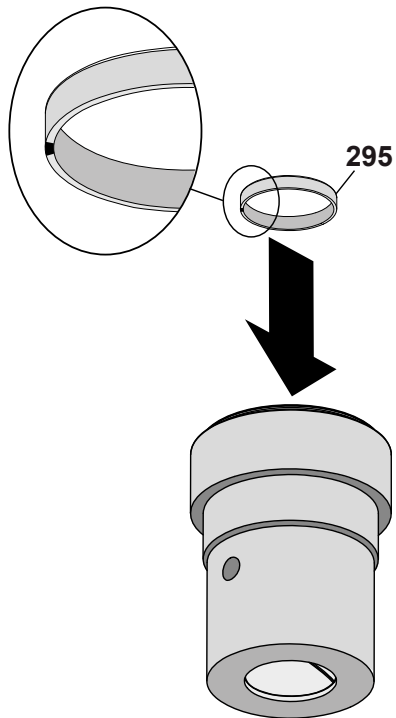


(20) d

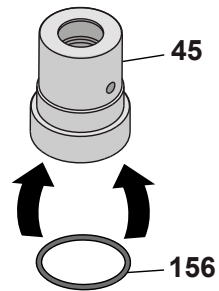


(BBYQ)

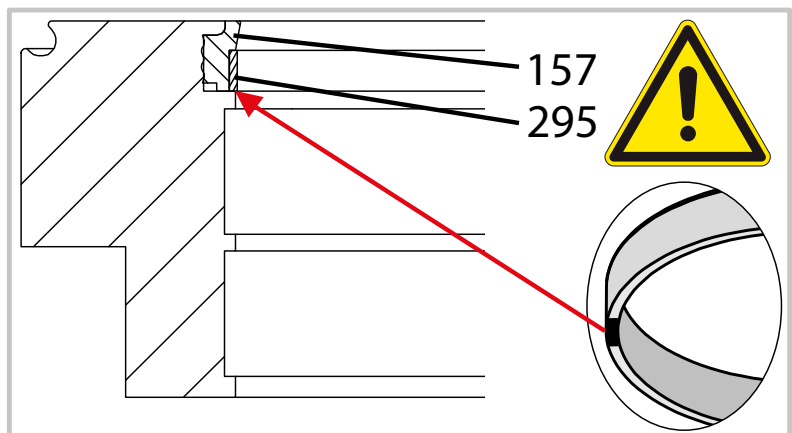
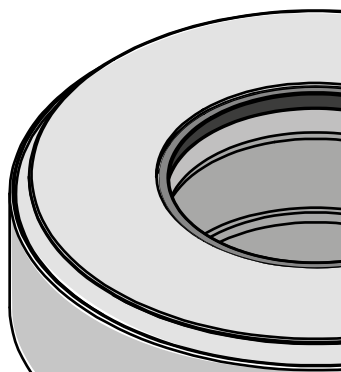
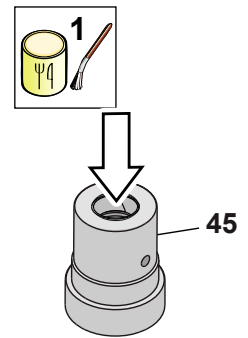
21-d

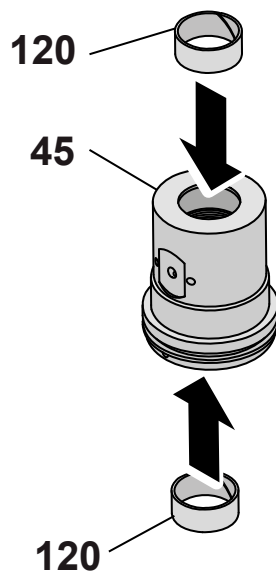
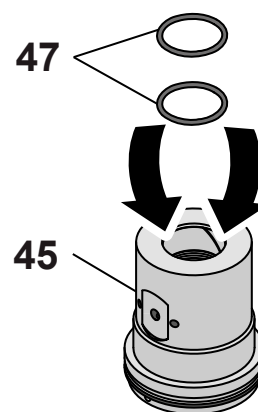
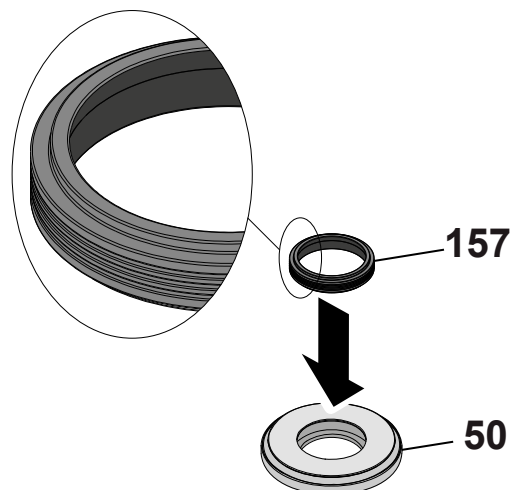
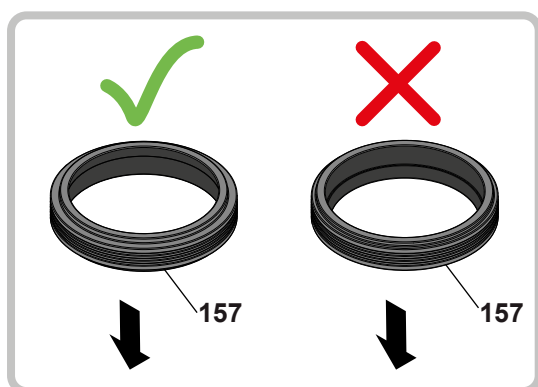


22-d



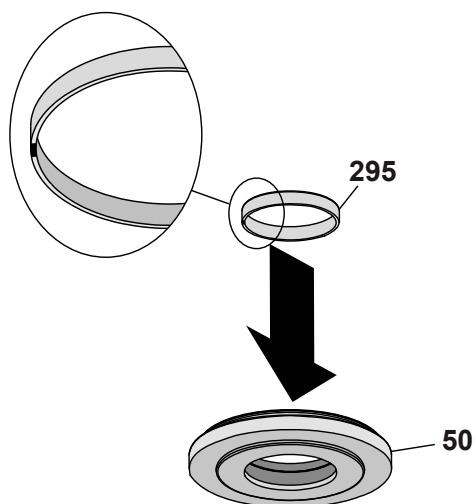
23-d



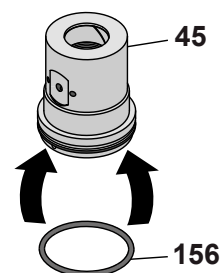
(BBYQ Speciale)**18** f**19** f**20** f

(BBYQ Speciale)

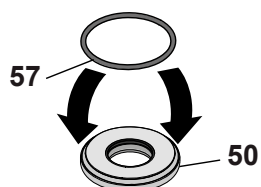
(21) f



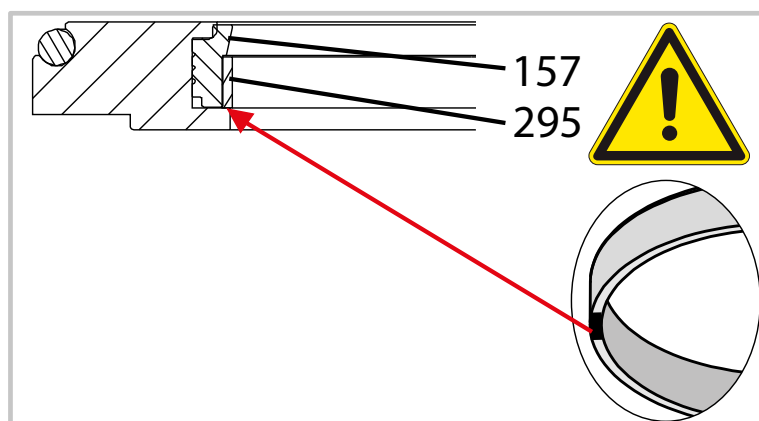
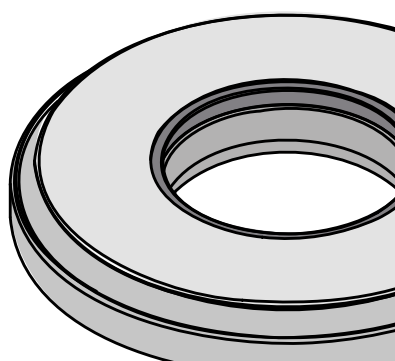
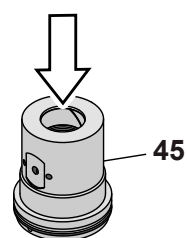
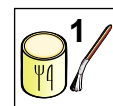
(22) f

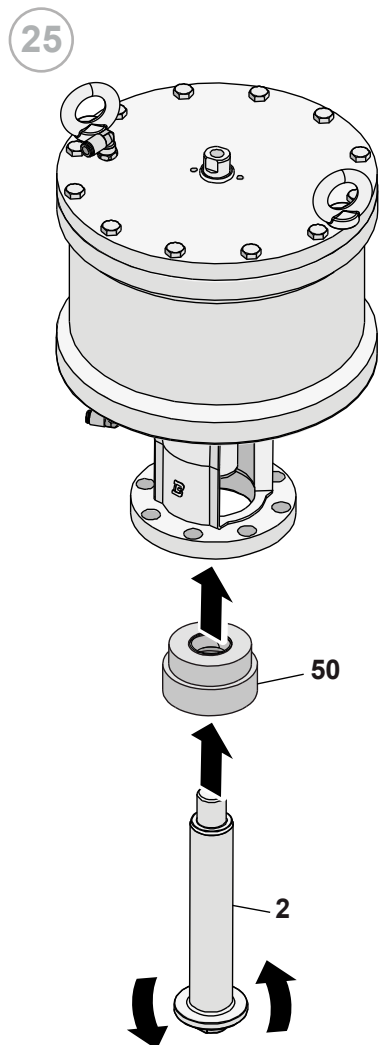


(23) f

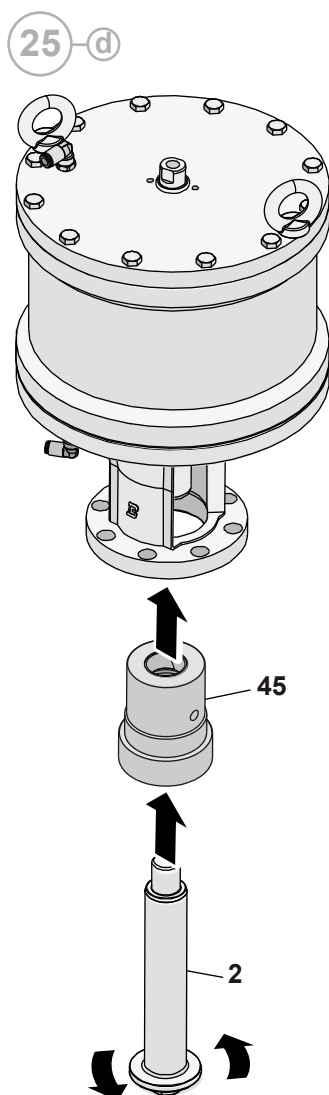


(24) f

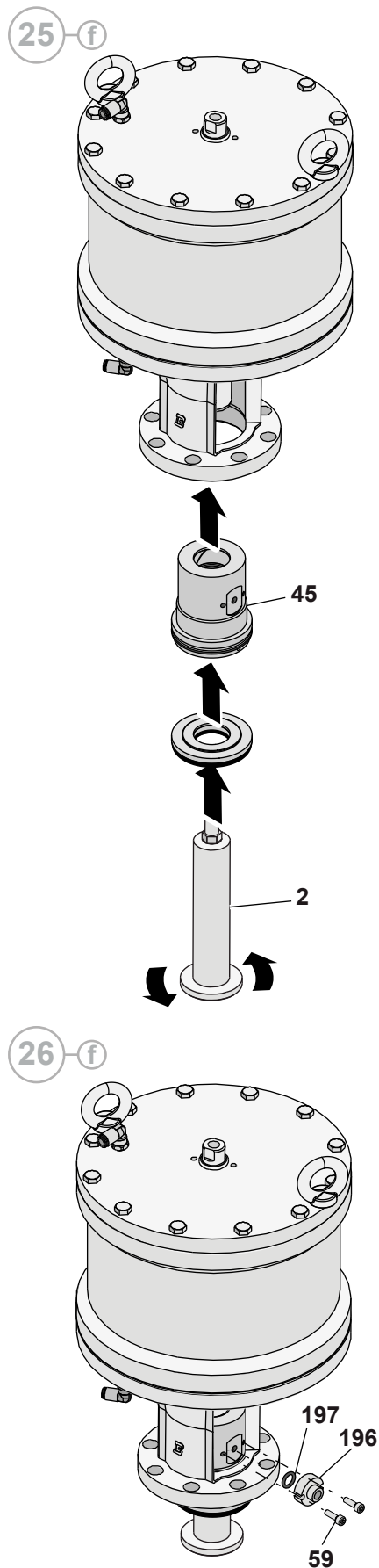




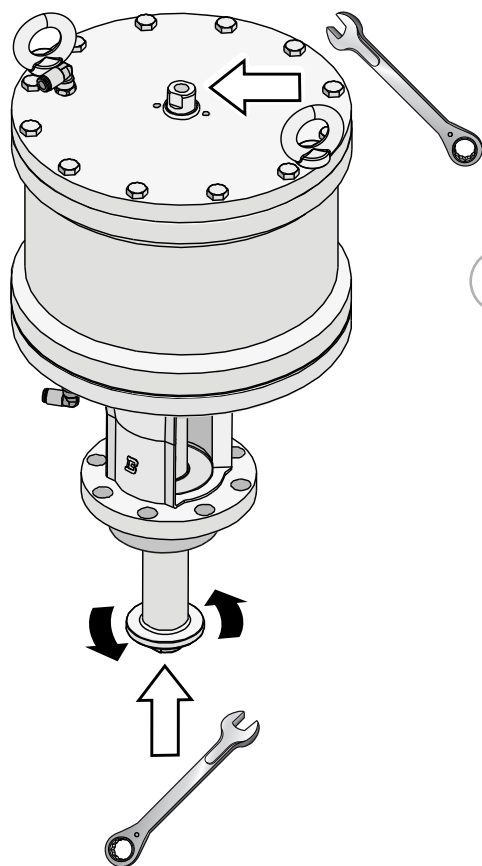
(BBYQ)



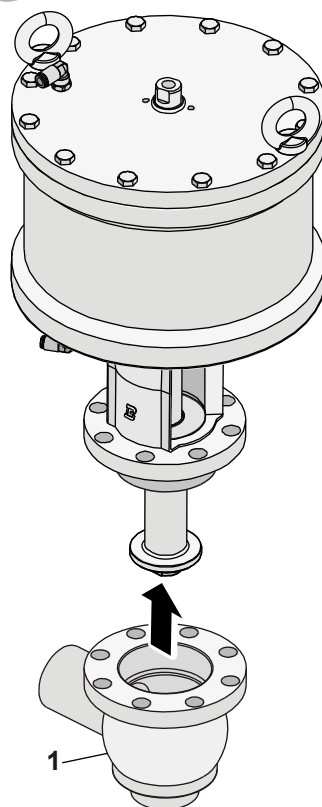
(BBYQ Speciale)



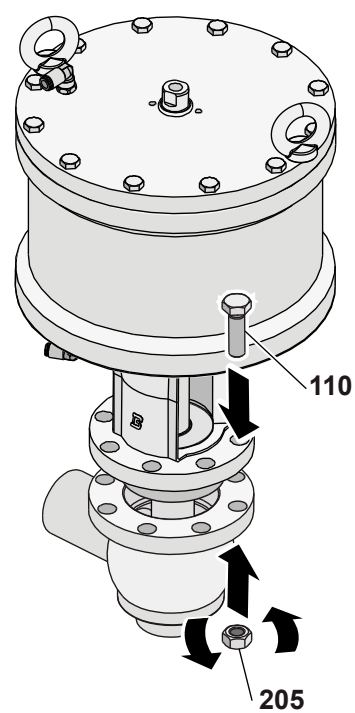
27



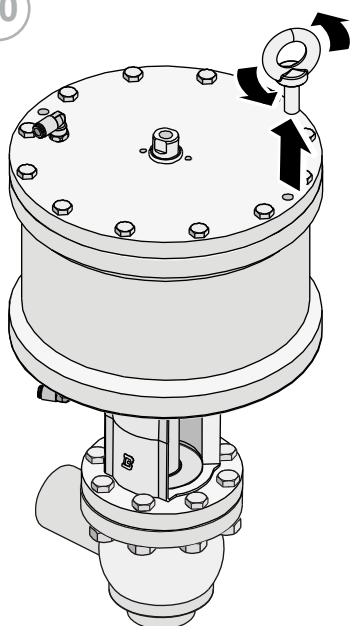
28



29

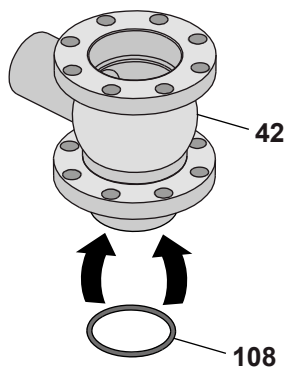


30

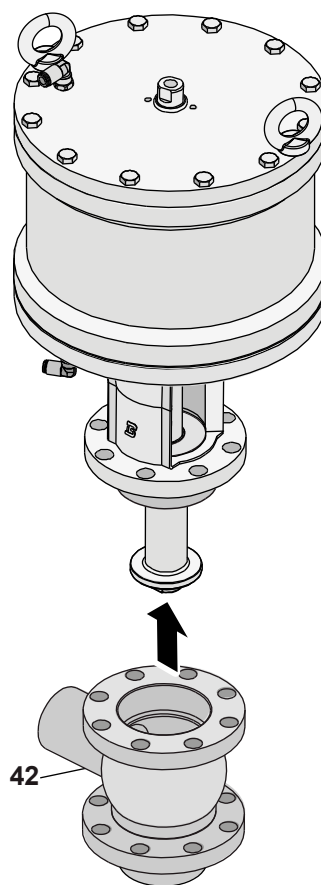


(M8)

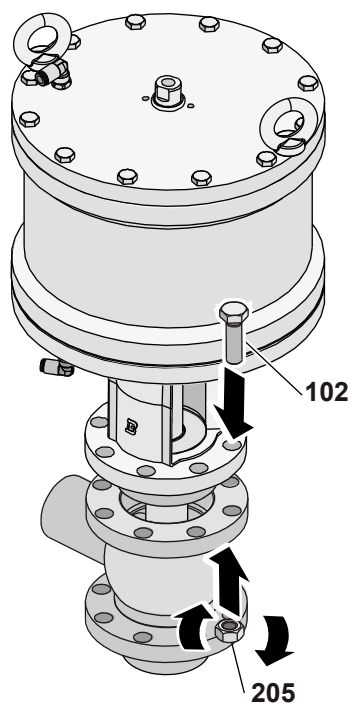
28 a



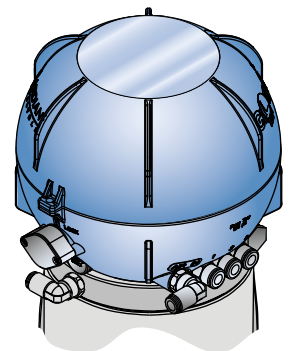
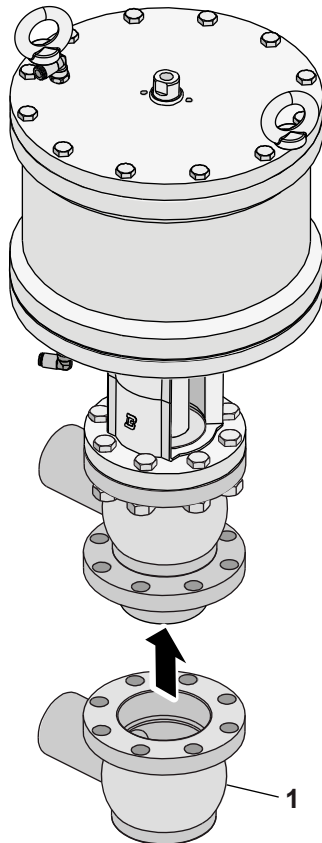
29 a



30 a



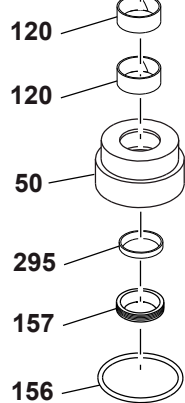
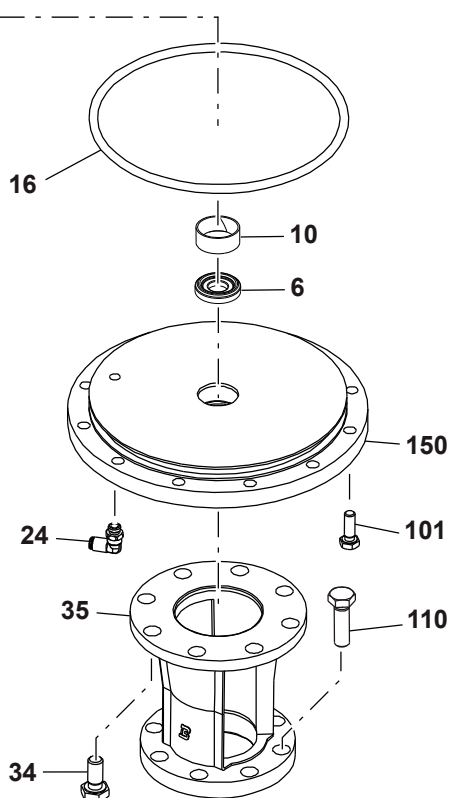
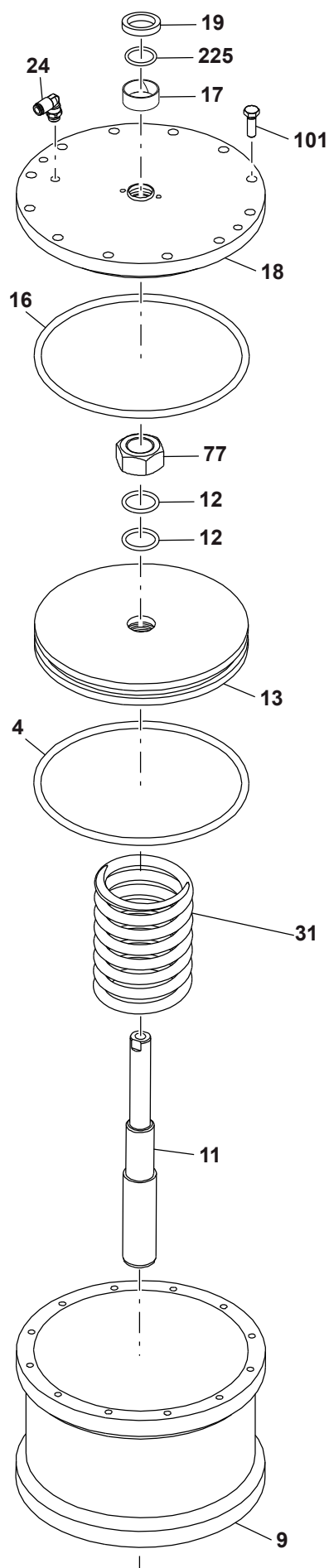
31 a



[M GIOTTO CYL.207]

10.13 Valvola Pneumatica BBZQ - BBYQ cilindro 207-360 Deviatrice

N°	DESCRIZIONE
1	Corpo inferiore
4	Anello di tenuta
6	Anello di tenuta
9	Cilindro
10	Boccola
11	Perno
12	Anello di tenuta
13	Pistone
16	Anello di tenuta
17	Boccola
18	Tampone
19	Anello di tenuta
24	Raccordo aria
30	Doppio otturatore
31	Molla
34	Vite
35	Assemblaggio
42	Corpo superiore
45	Barriera vapore
47	Anello di tenuta
50	Disco portatenuta
57	Anello di tenuta
59	Vite
77	Dado
101	Vite
102	Vite
108	Anello di tenuta
110	Vite
120	Boccola
150	Tampone inferiore
156	Anello di tenuta
157	Anello di tenuta
196	Collegamento vapore
197	Anello di tenuta
205	Dado
225	Anello di tenuta
295	Boccola

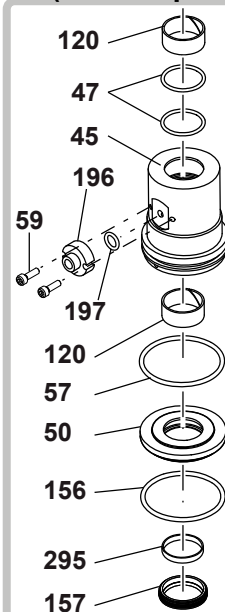


BBZP LL

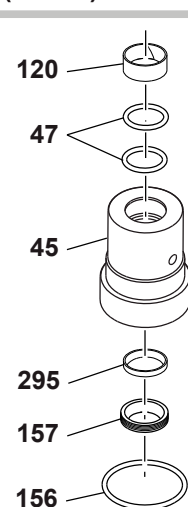
(A)



(BBYQ Speciale)



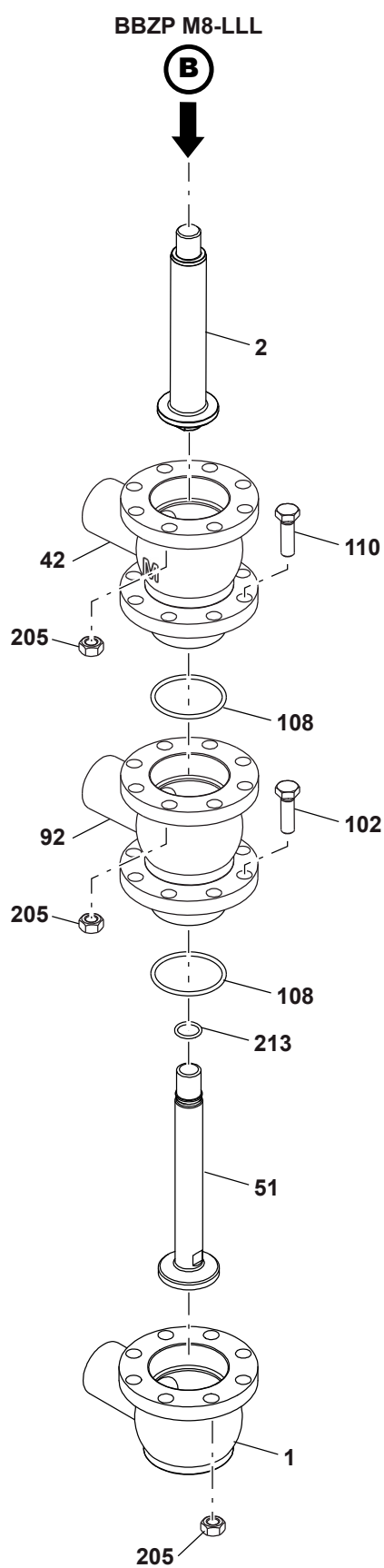
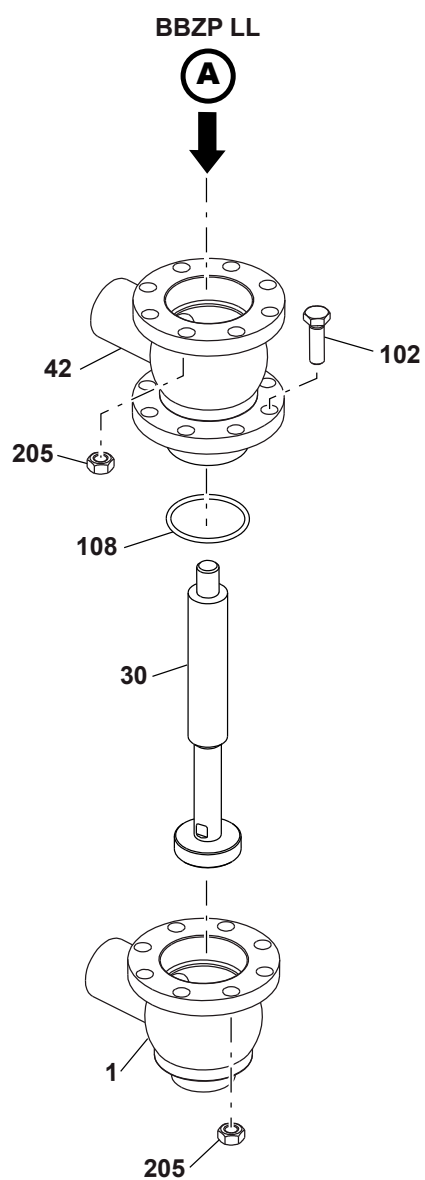
(BBYQ)

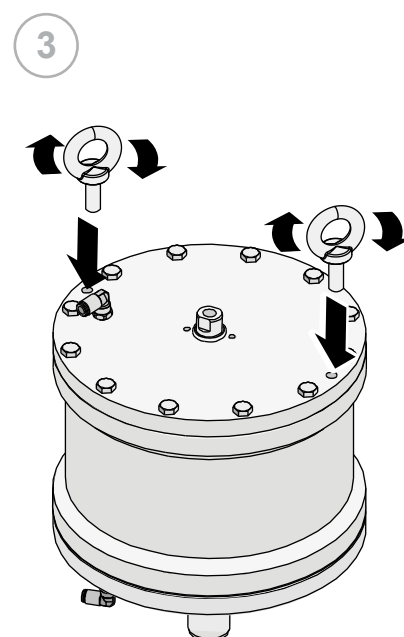
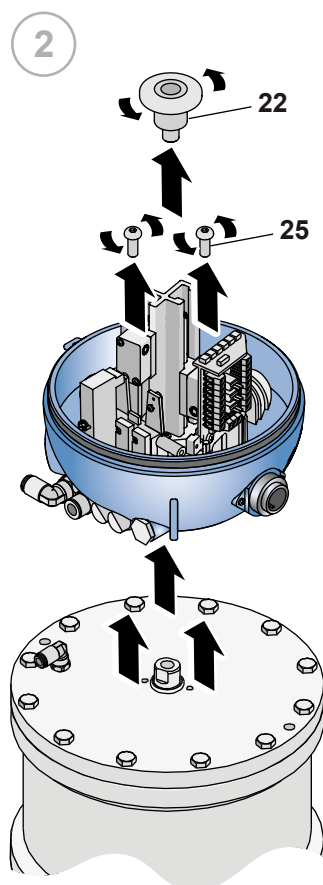
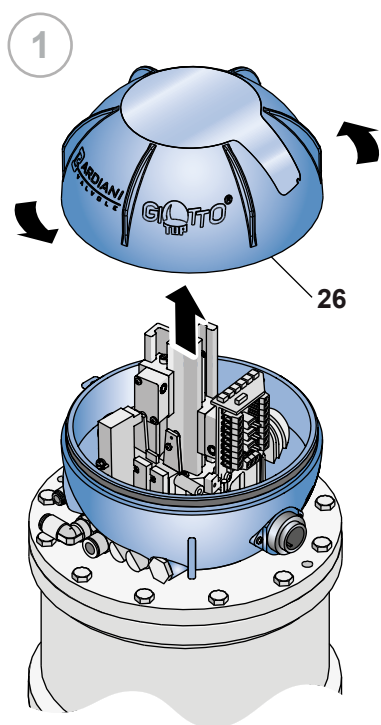


BBZP M8-LLL

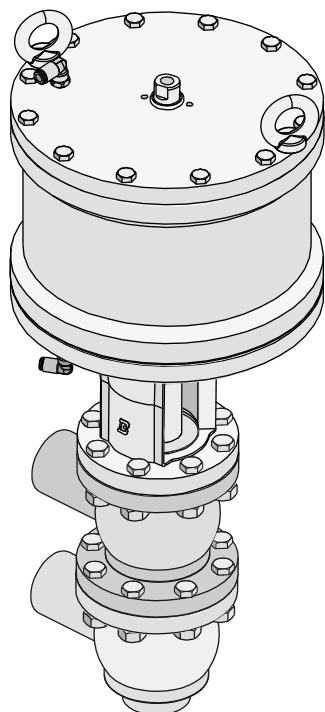
(B)





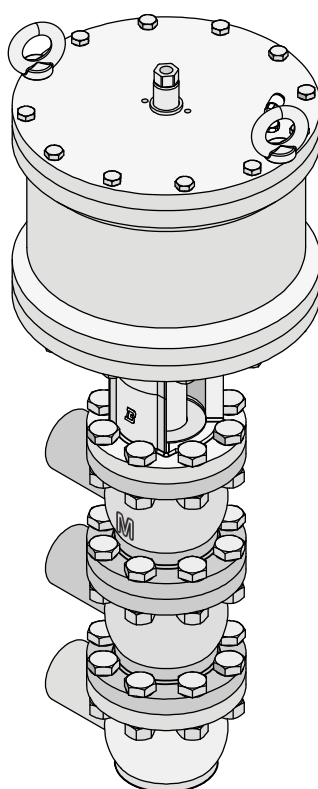


a



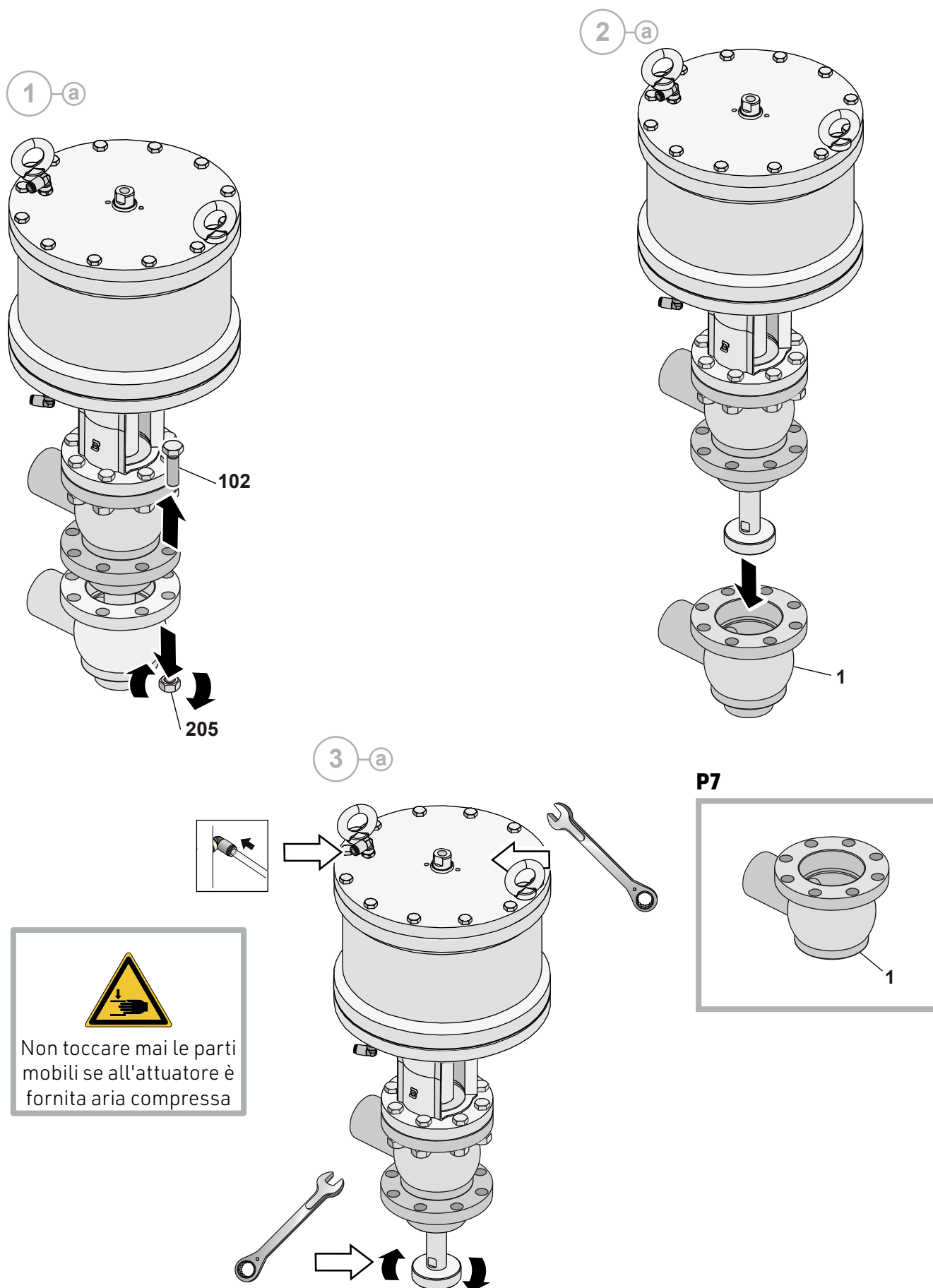
[A S BBZQ LL-207-360]

b

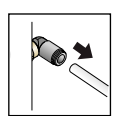


[B S BBZQ-M8-LLL-207-360]

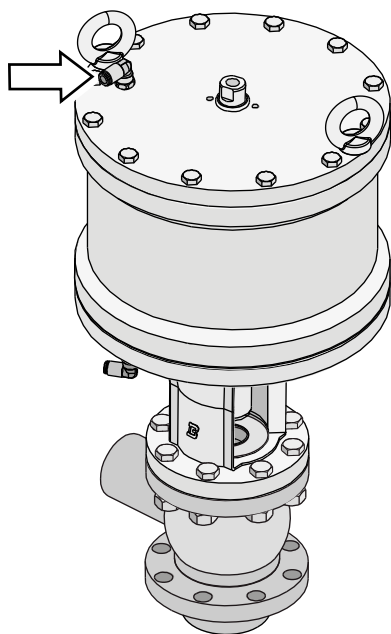
10.14 Smontaggio della BBZQ - BBYQ cilindro 207-360 Deviatrice



4-a

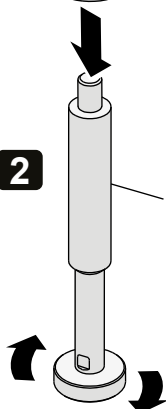


1

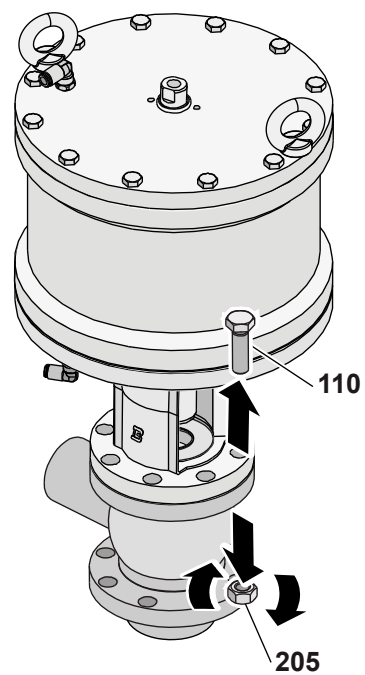


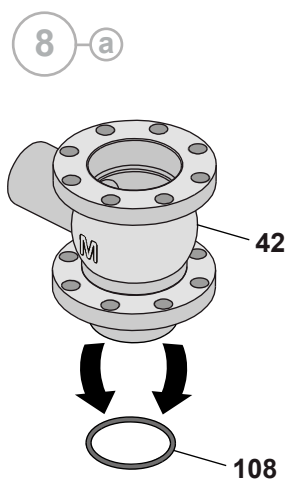
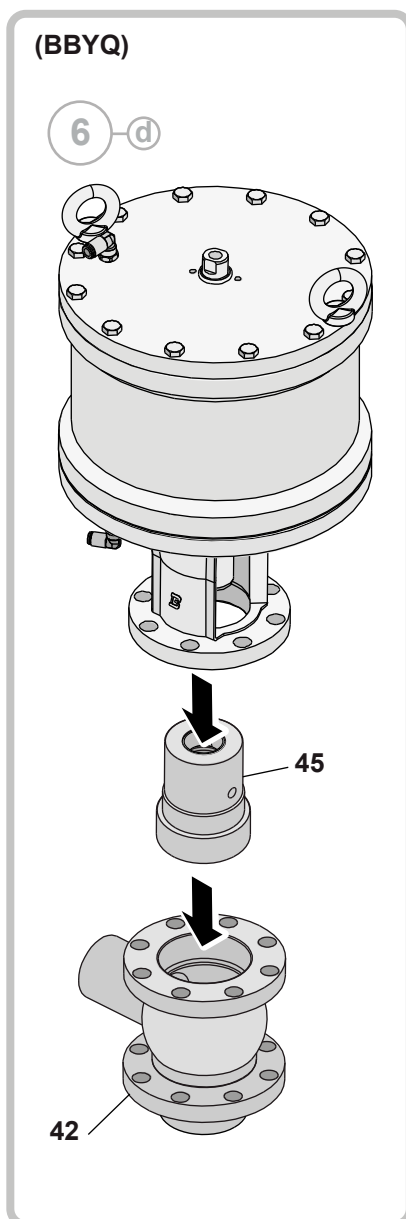
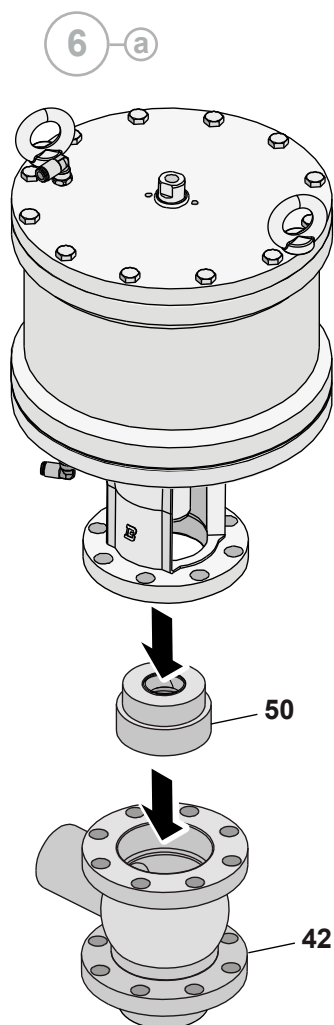
2

30

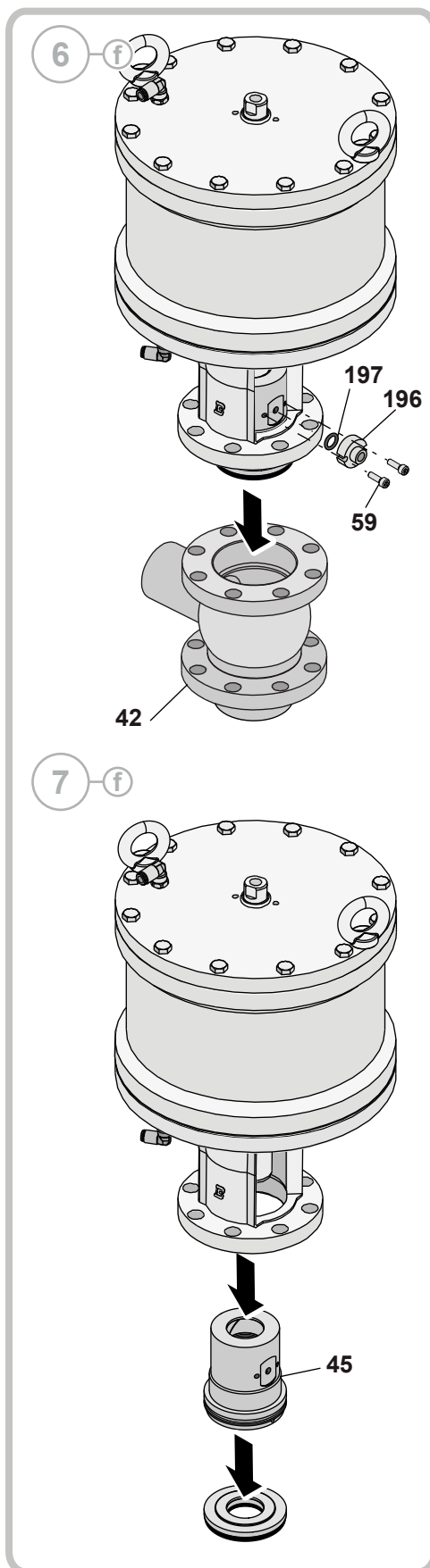


5-a

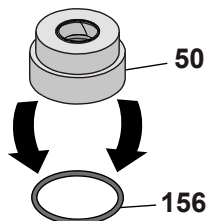




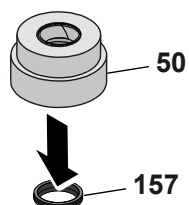
(BBYQ Speciale)



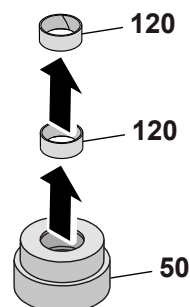
9-a



10-a

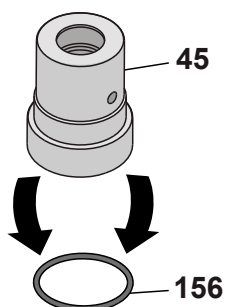


11-a

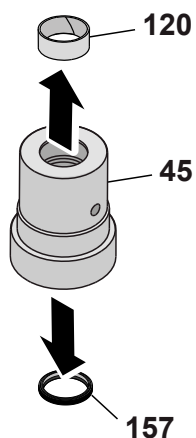


(BBYQ)

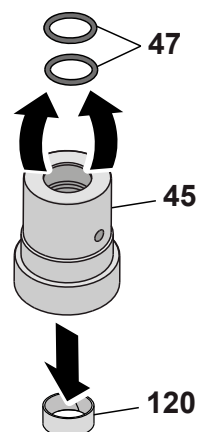
9-d



10-d

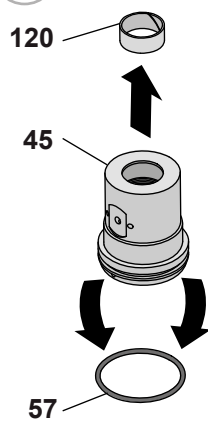


11-d

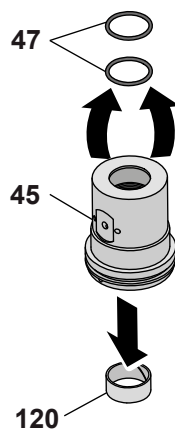


(BBYQ Speciale)

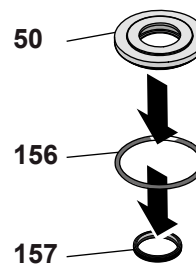
9-f

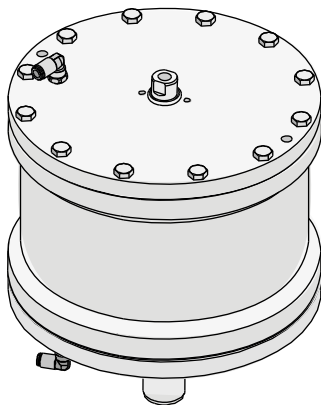


10-f

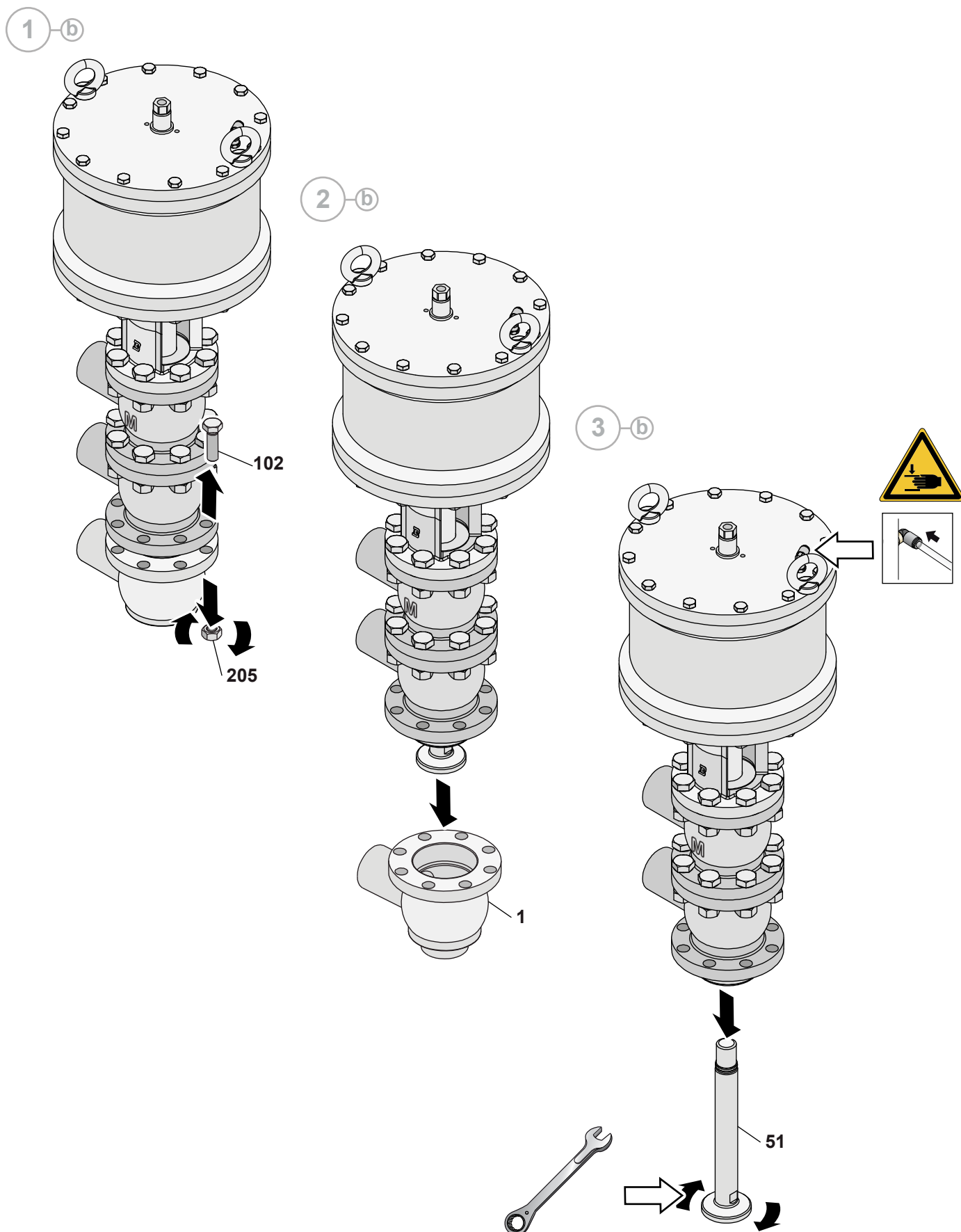


11-f

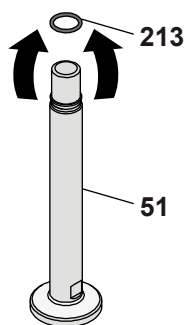




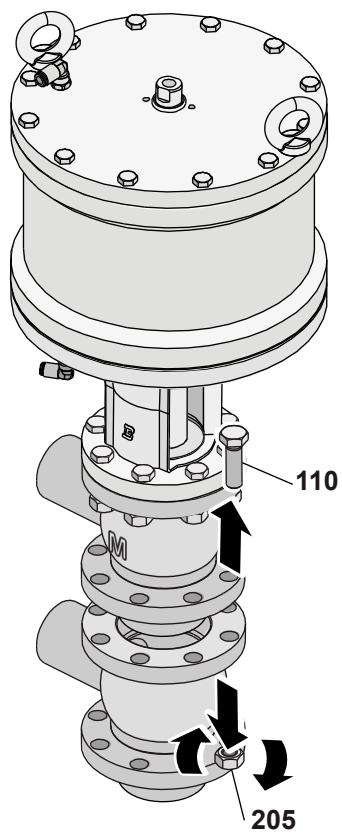
[A S CYL 207-360]

A Smontaggio BBZQ-BBYQ Cilindro 207-360

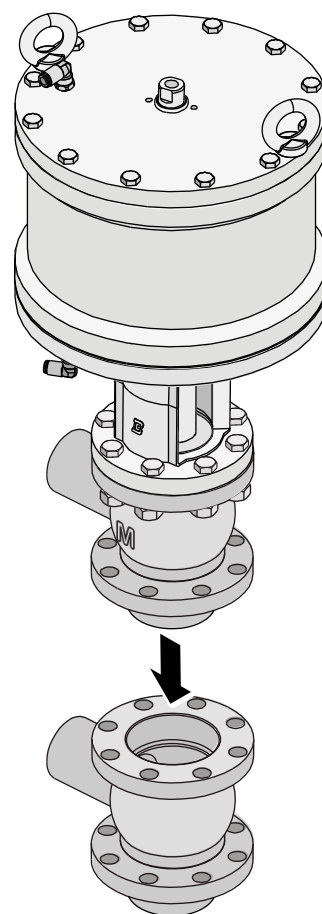
4-b



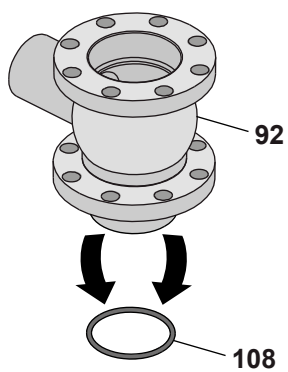
5-b



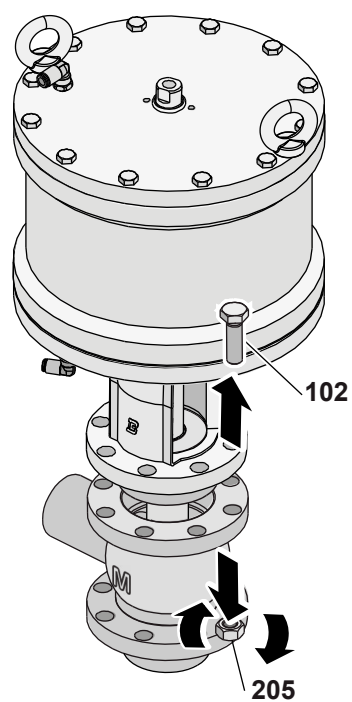
6-b



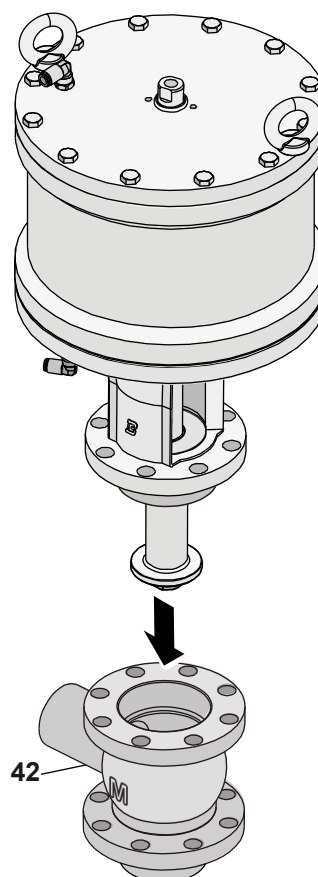
7-b



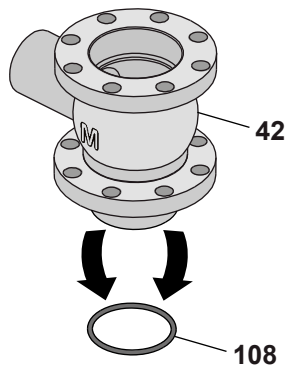
8-b



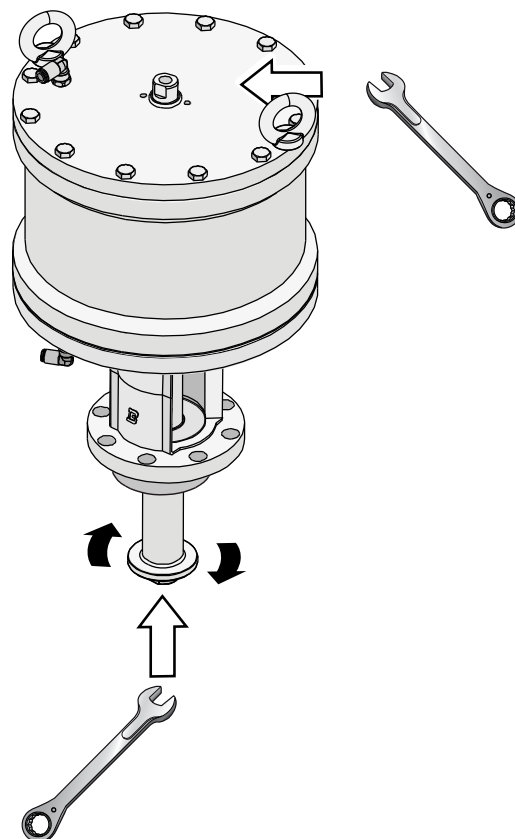
9-b



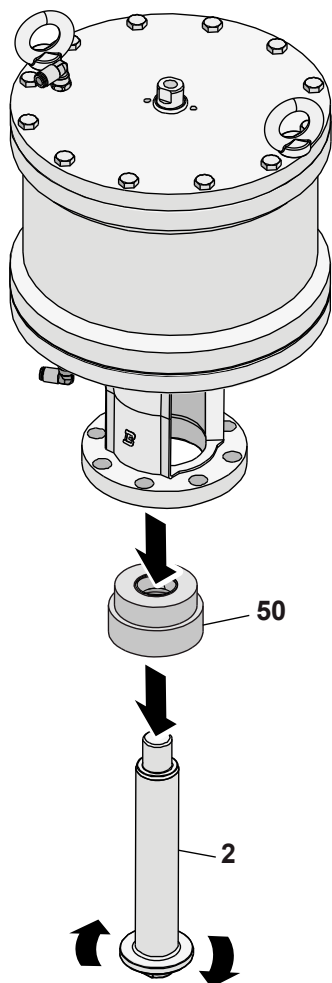
10-b



11-b

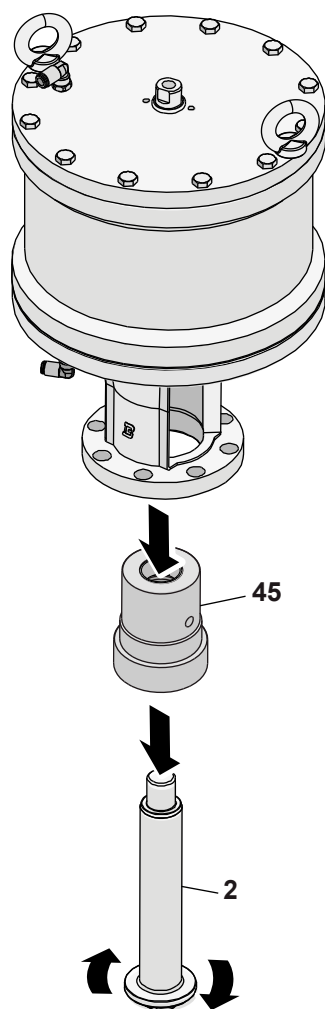


12-b



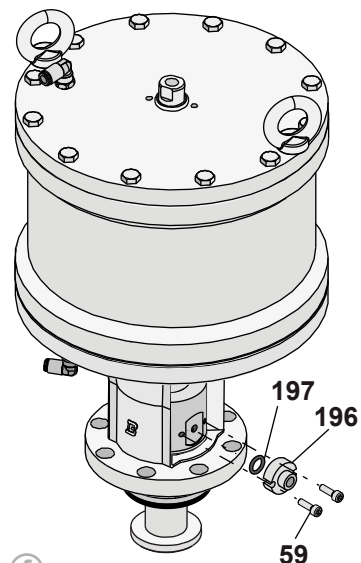
(BBYQ)

12-d

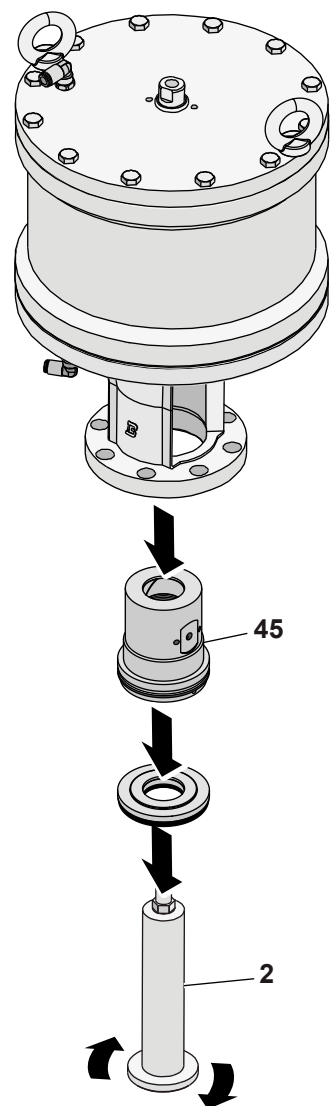


(BBYQ Speciale)

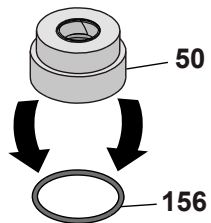
12-f



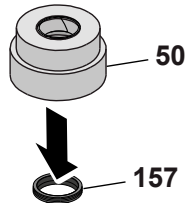
13-f



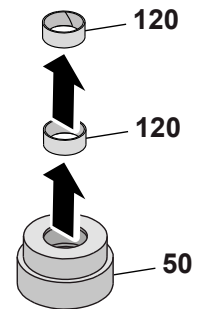
14-b



15-b

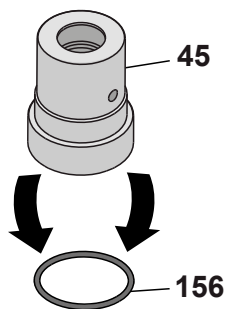


16-b

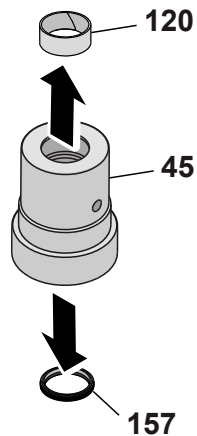


(BBYQ)

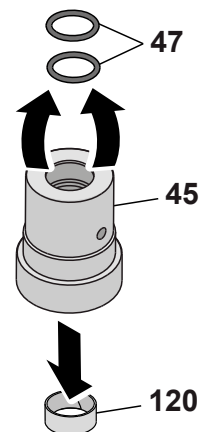
14-d



15-d

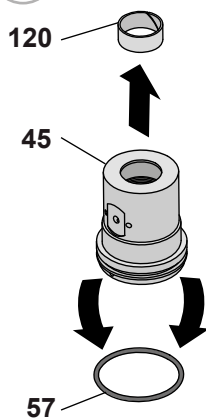


16-d

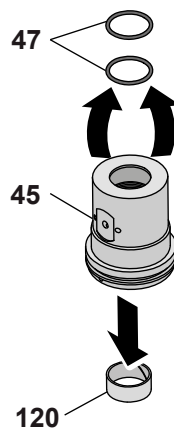


(BBYQ Speciale)

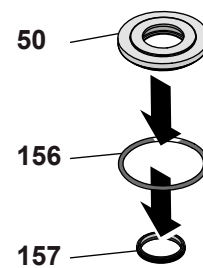
14-f



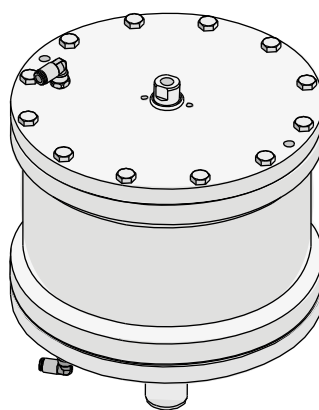
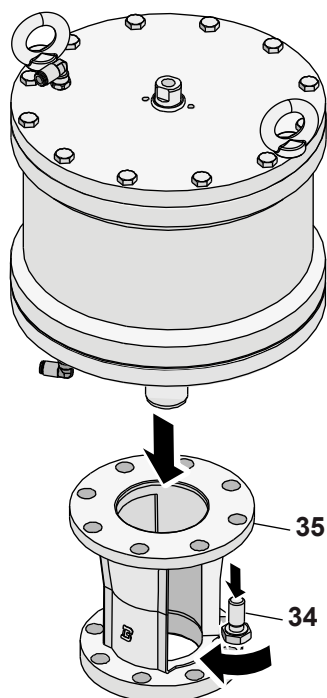
15-f



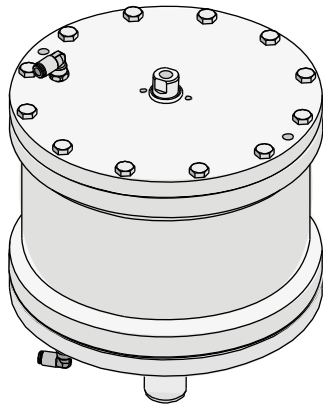
16-f



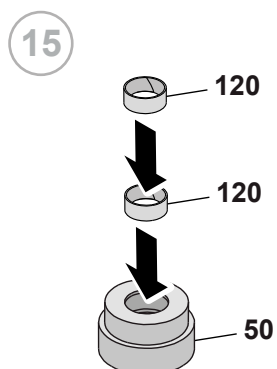
17-b

**[A S CYL 207-360]**

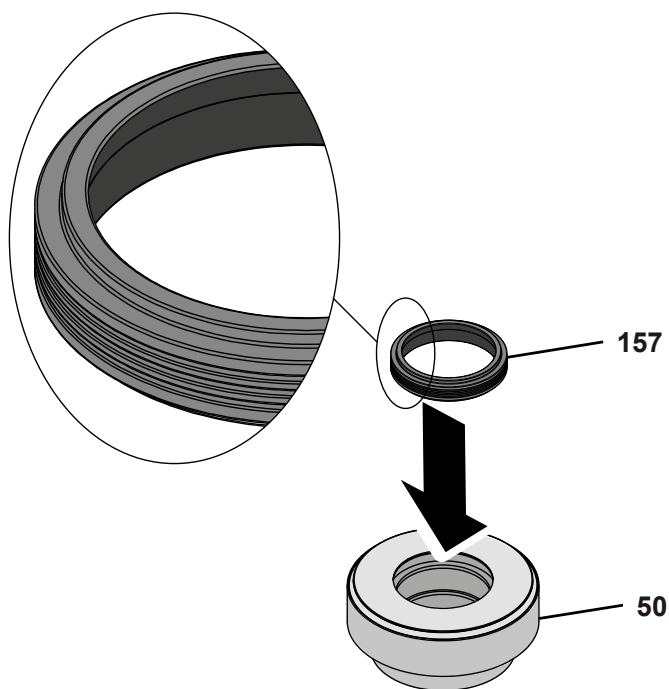
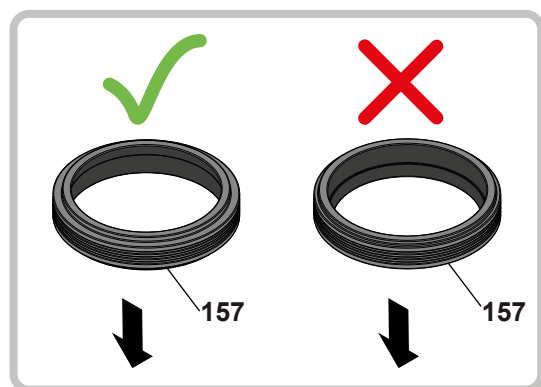
B Smontaggio BBZQ M8-LLL Cilindro 207-360



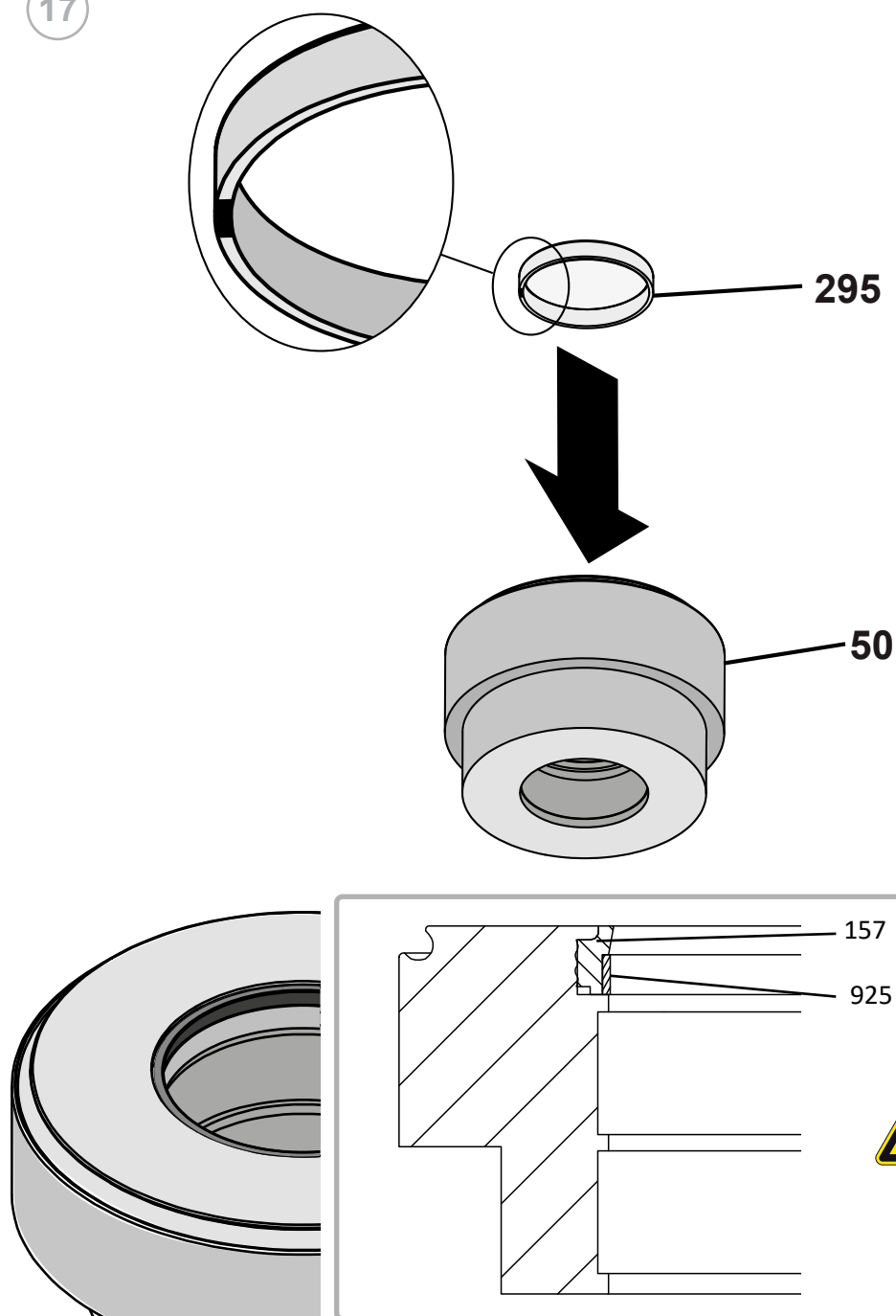
[A M CYL 207-360]



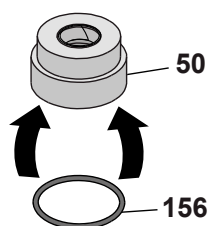
16



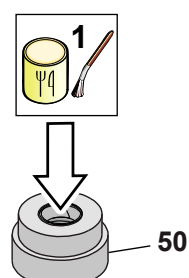
17



18

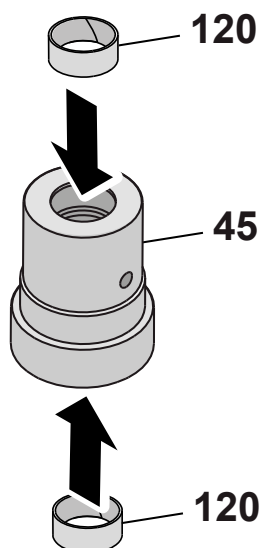


19

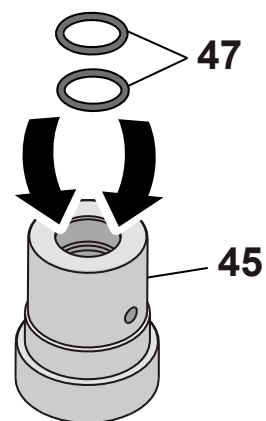


(BBYQ)

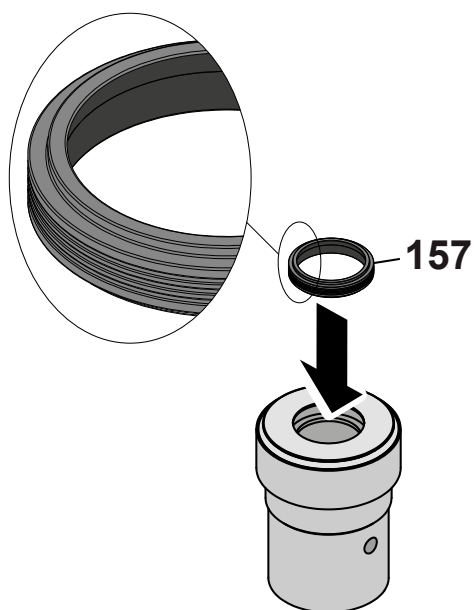
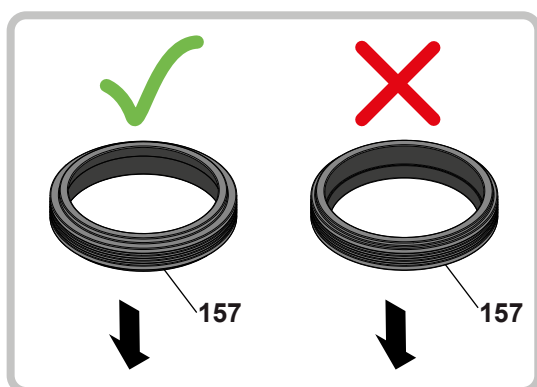
15-d



16-d

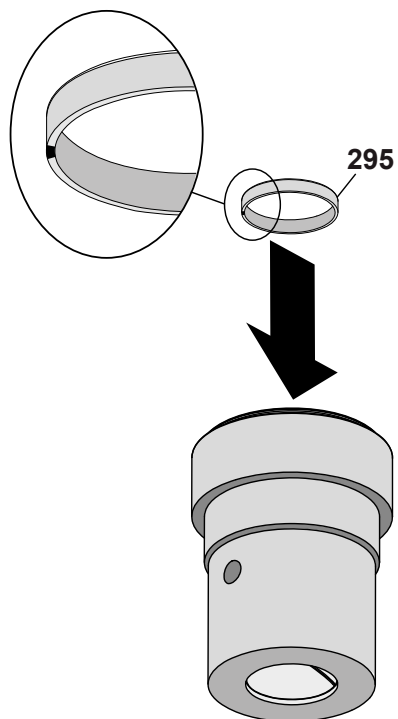


17-d

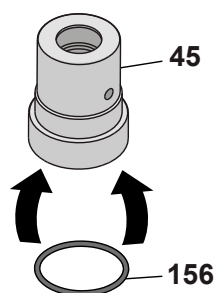


(BBYQ)

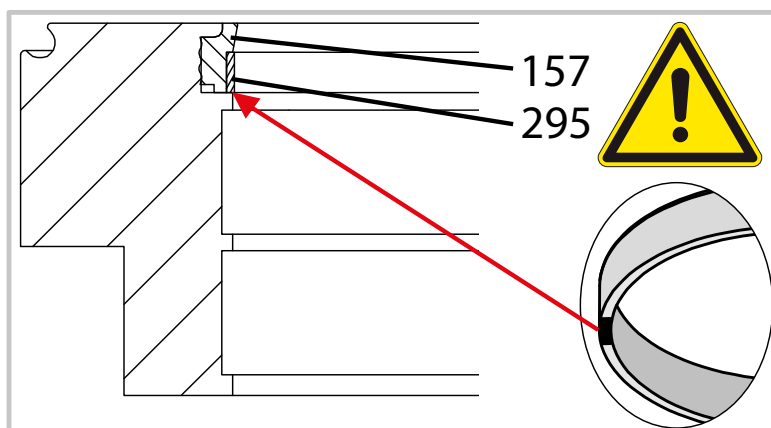
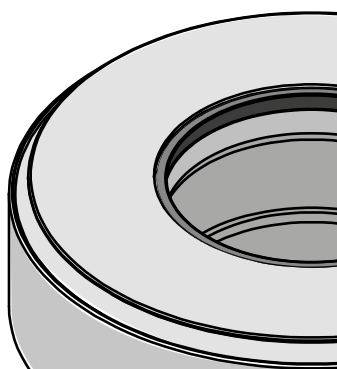
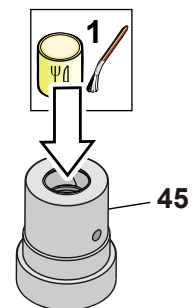
19-d

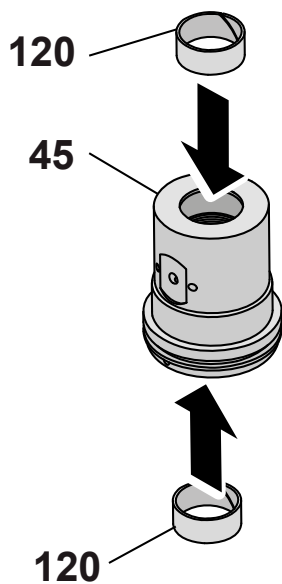
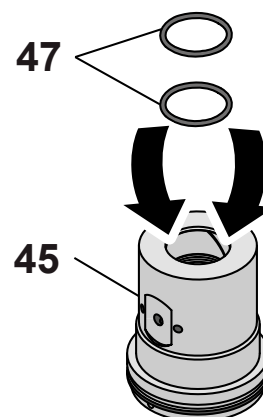
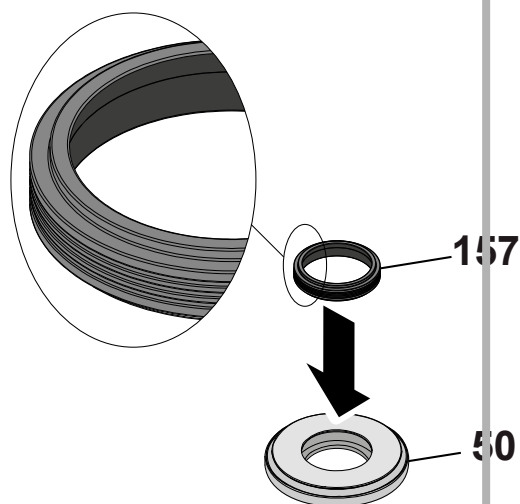
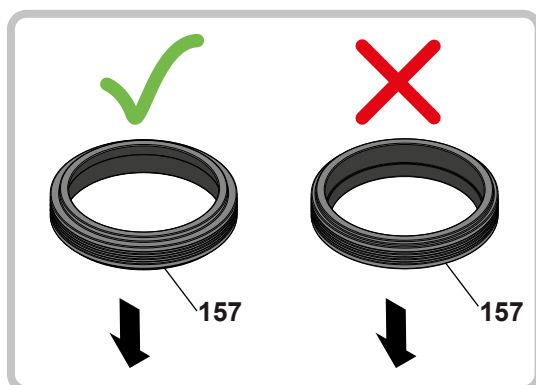


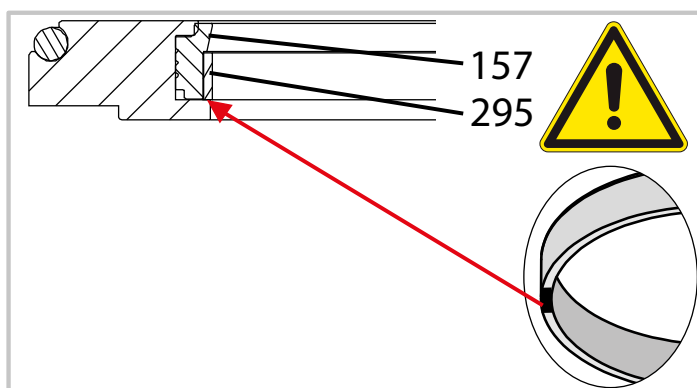
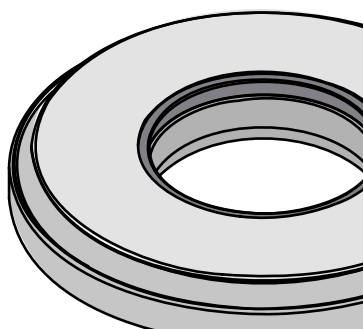
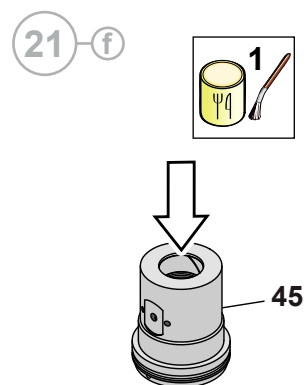
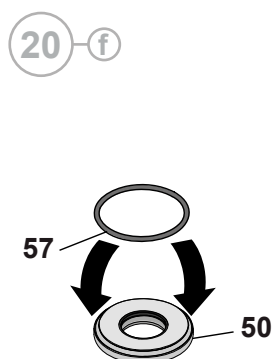
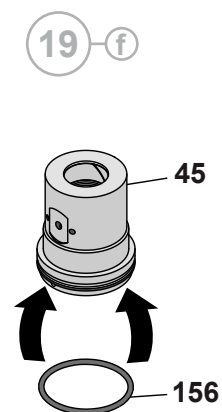
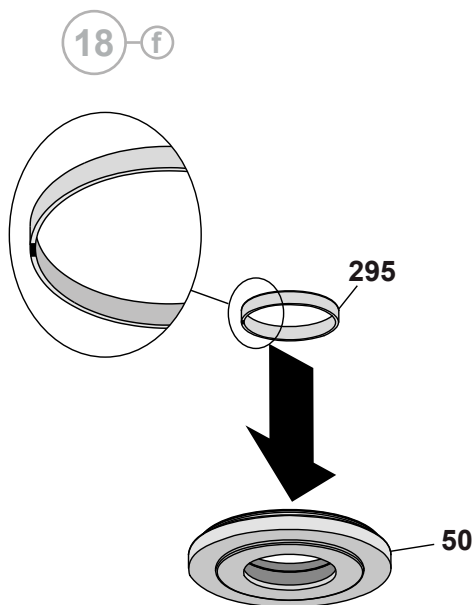
20-d



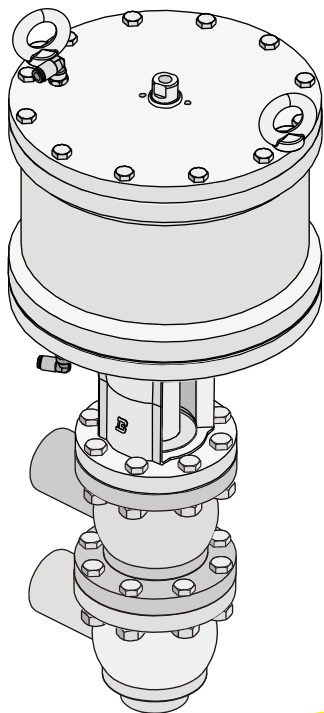
21-d



(BBYQ Speciale)**15** f**16** f**17** f

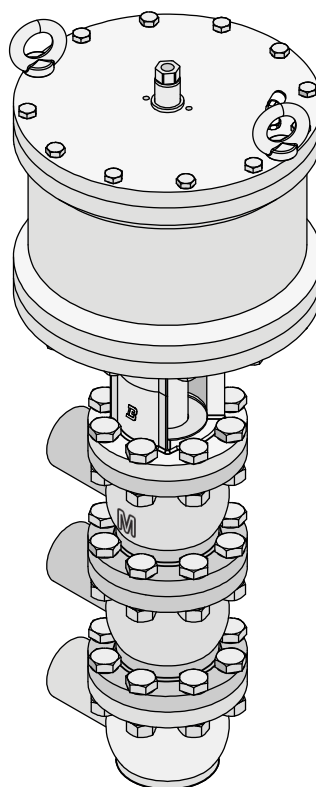
(BBYQ Speciale)

a

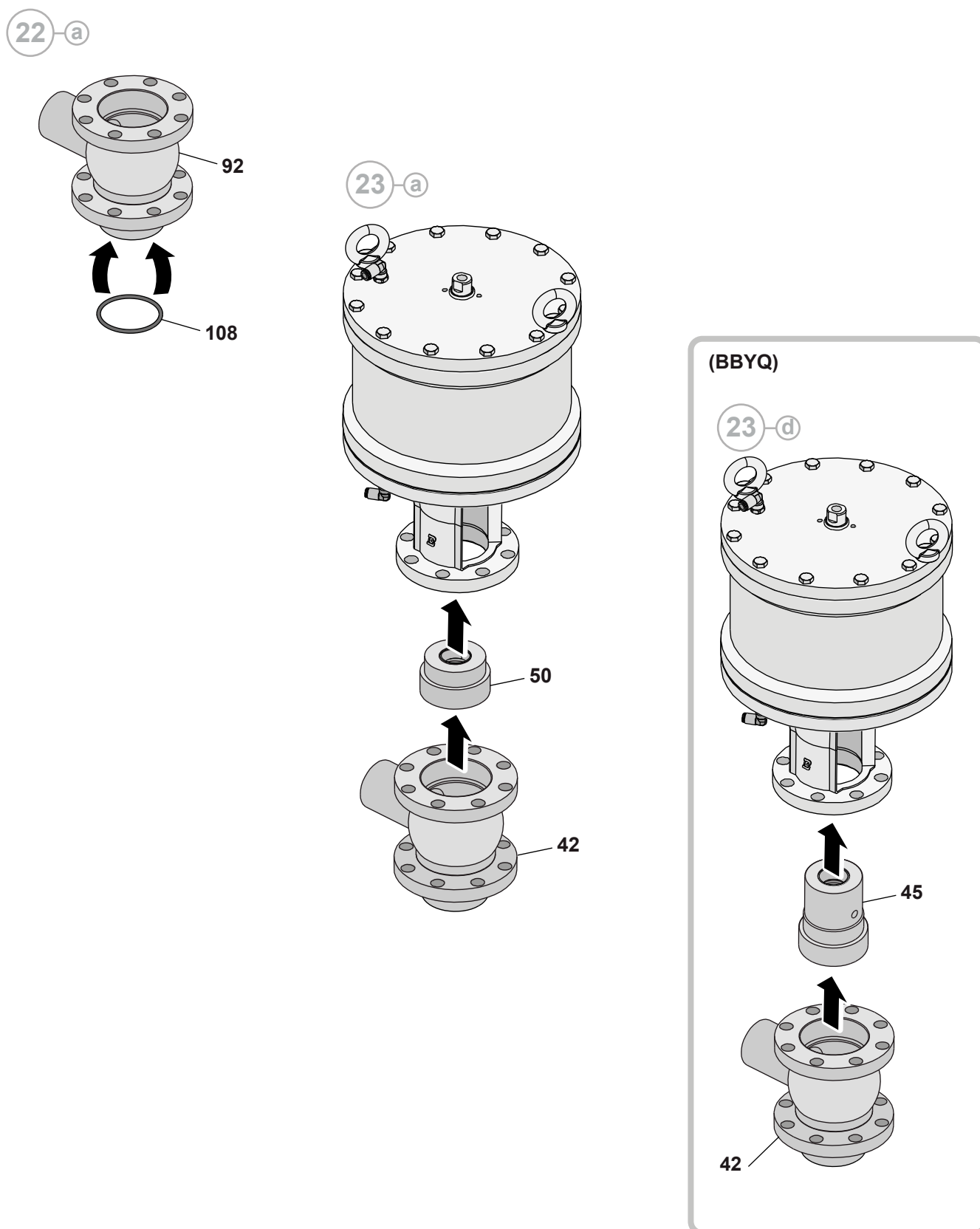


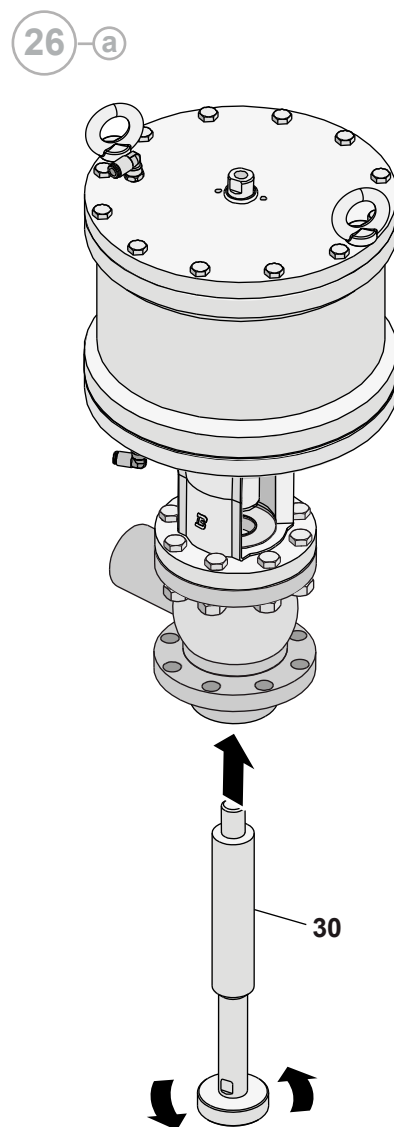
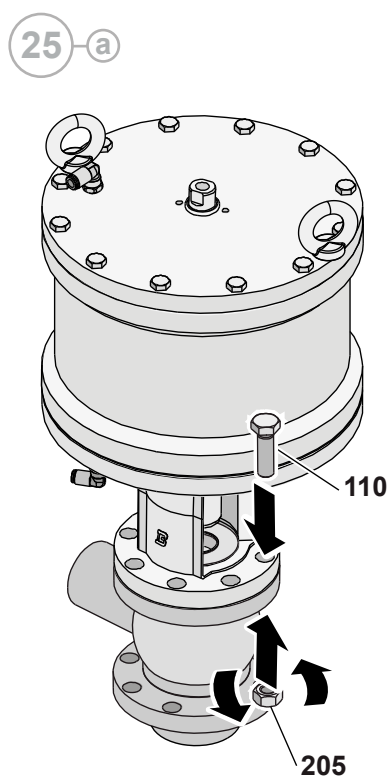
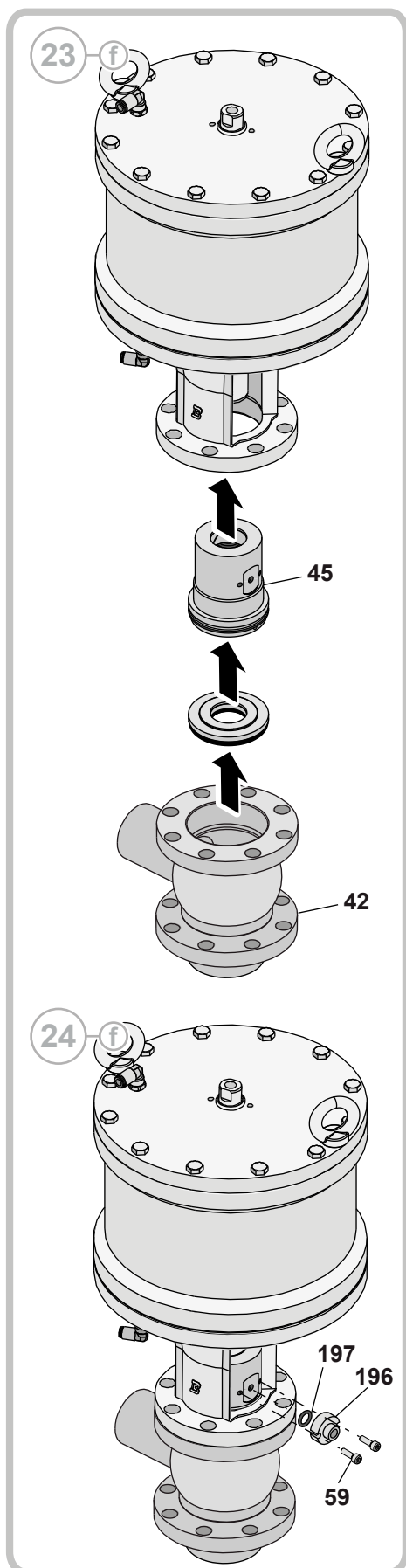
**[A M D BBZQ-
LL-207-360]**

b

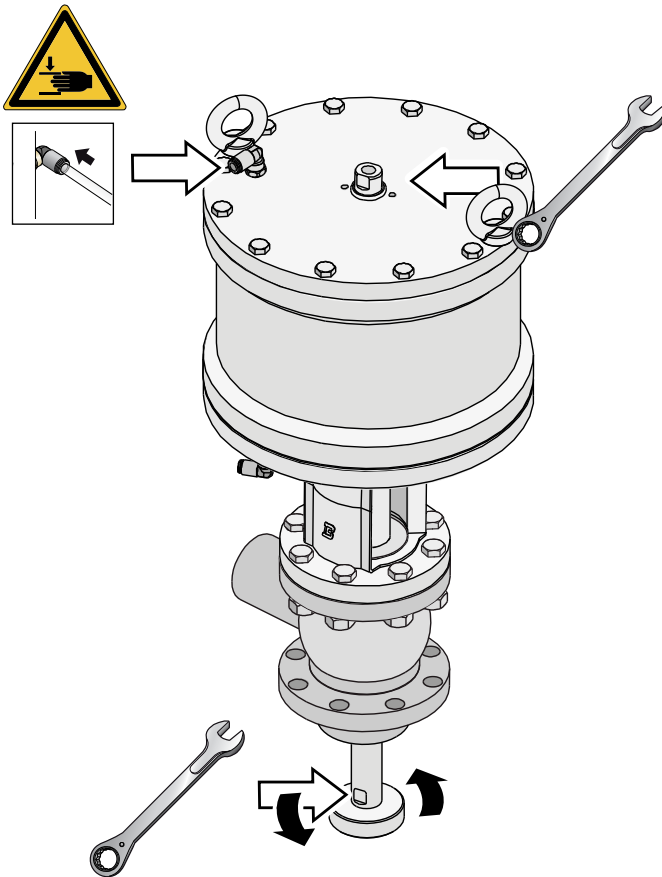


[B M BBZQ-M8LLL-207-360]

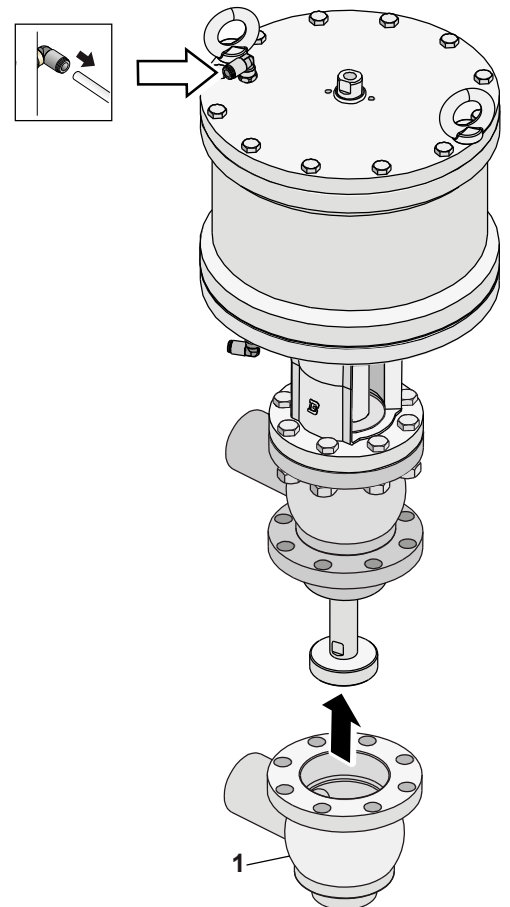
10.15 Montaggio della BBZQ - BBYQ cilindro 207-360 Deviatrice

(BBYQ Speciale)

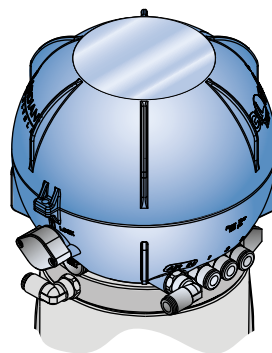
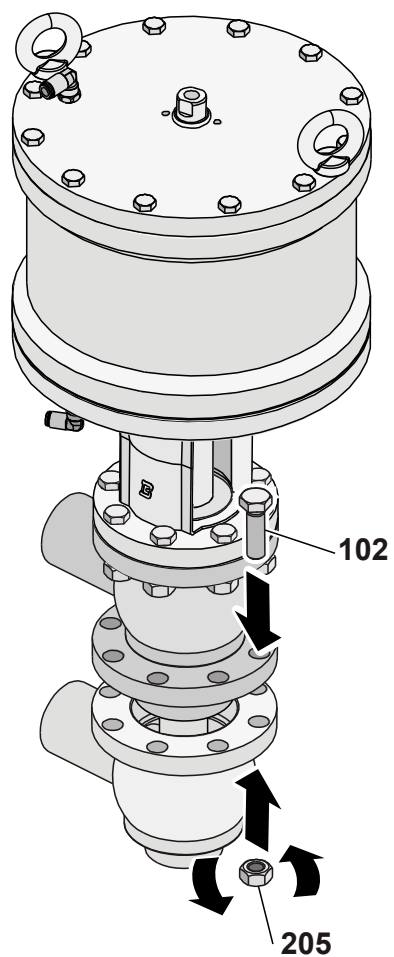
27-a



28-a

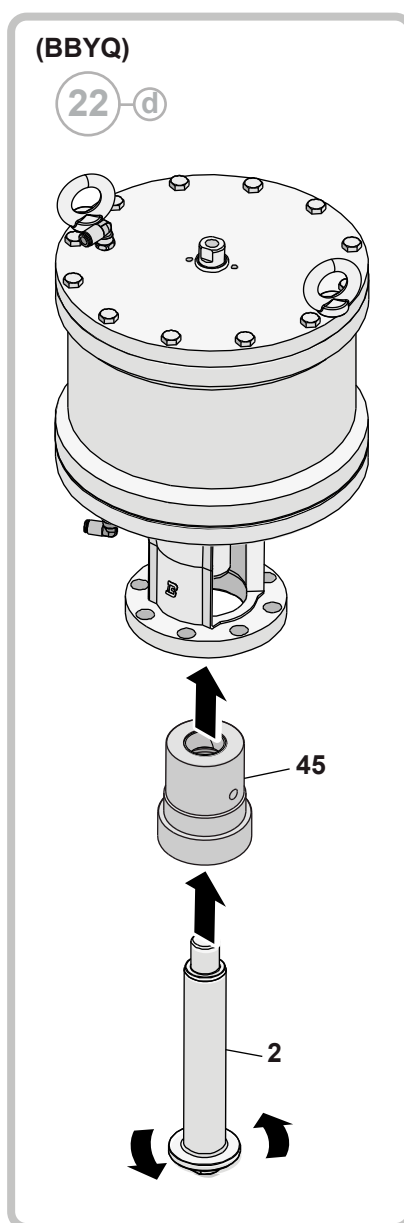
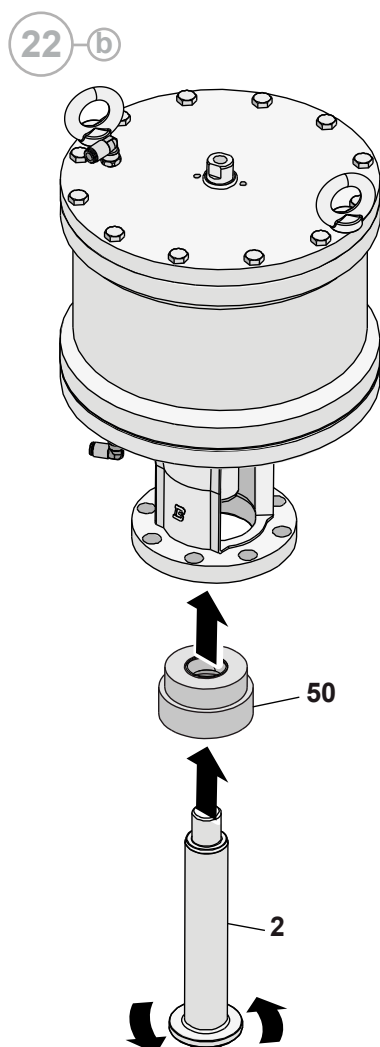


29 a

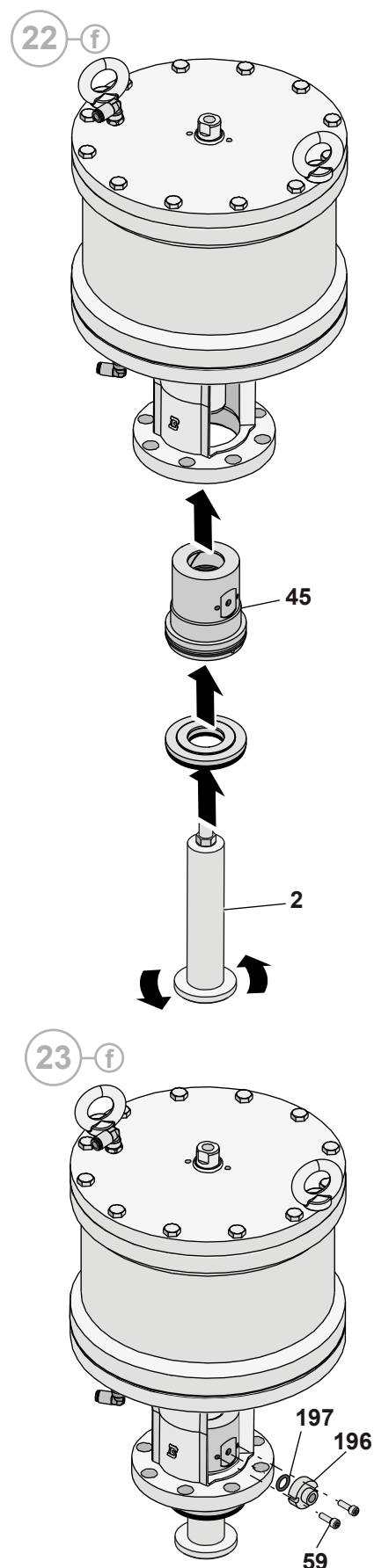


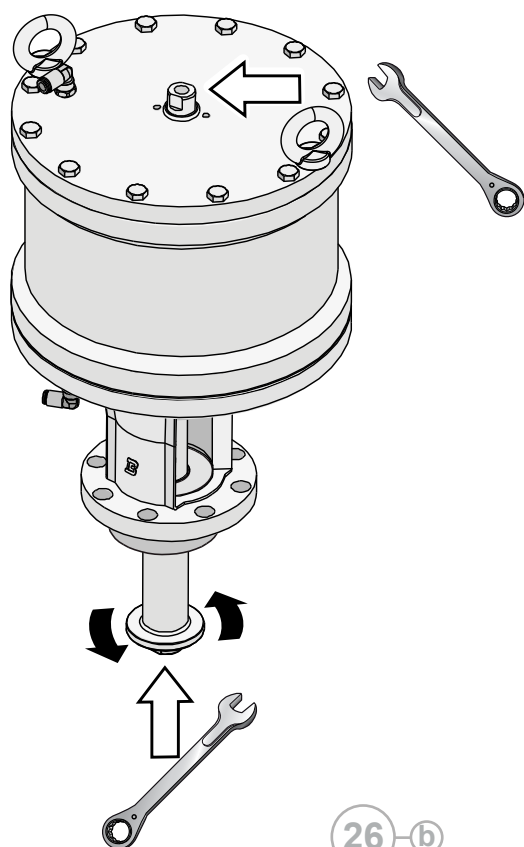
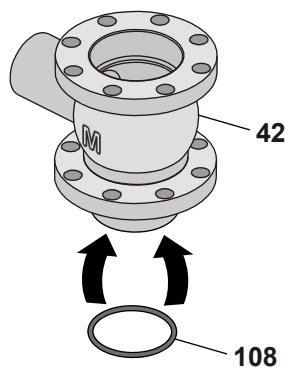
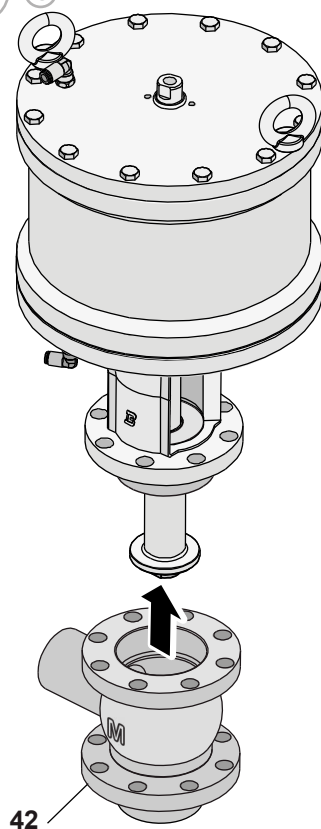
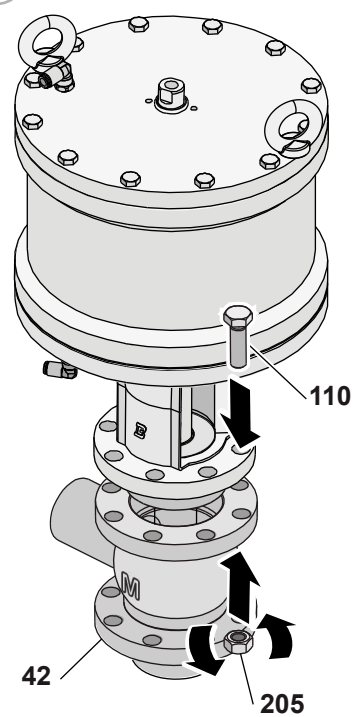
[M GIOTTO CYL.207]

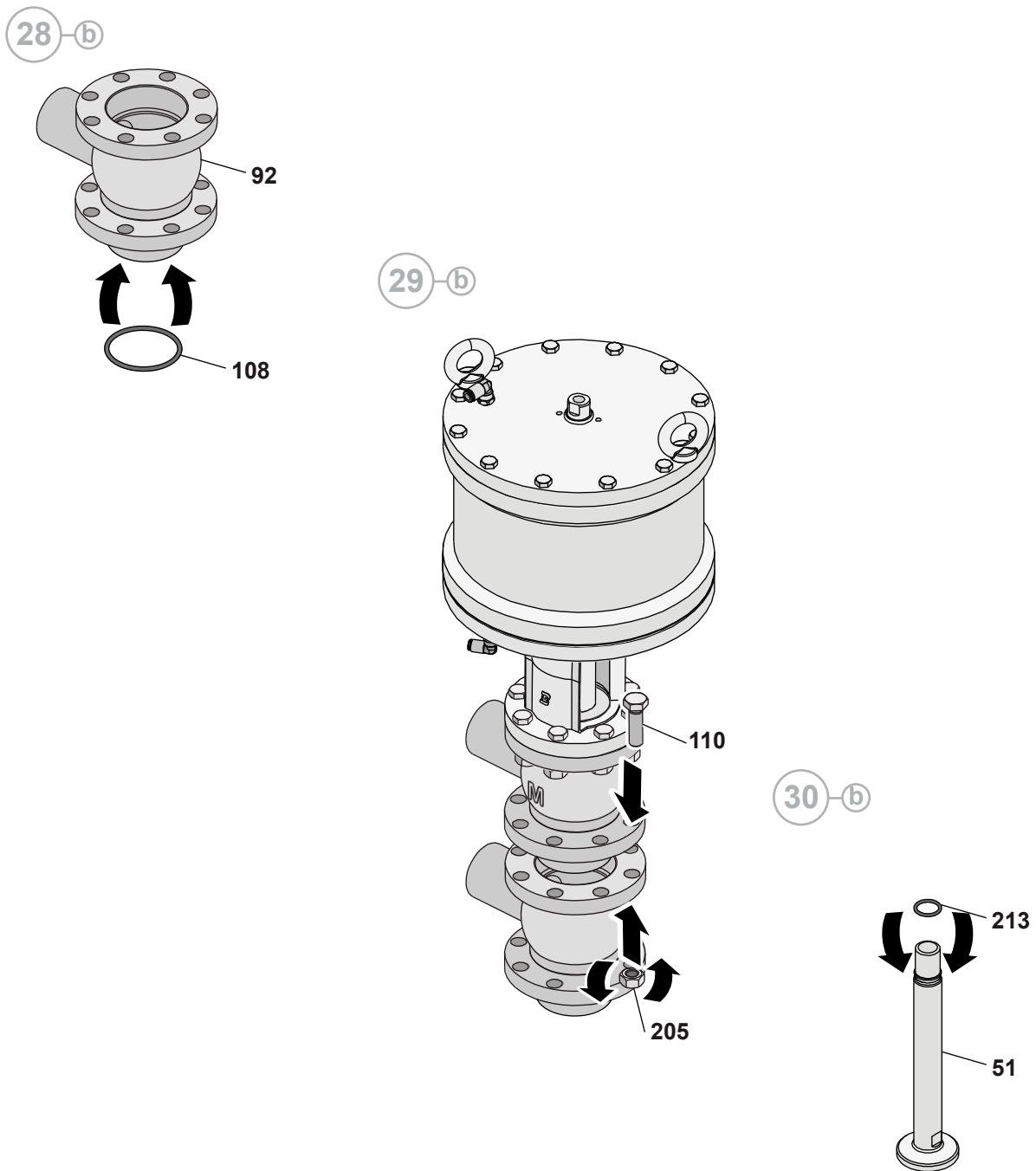
A Montaggio Della BBZQ-BBYQ Cilindro 207-360 Deviatrice



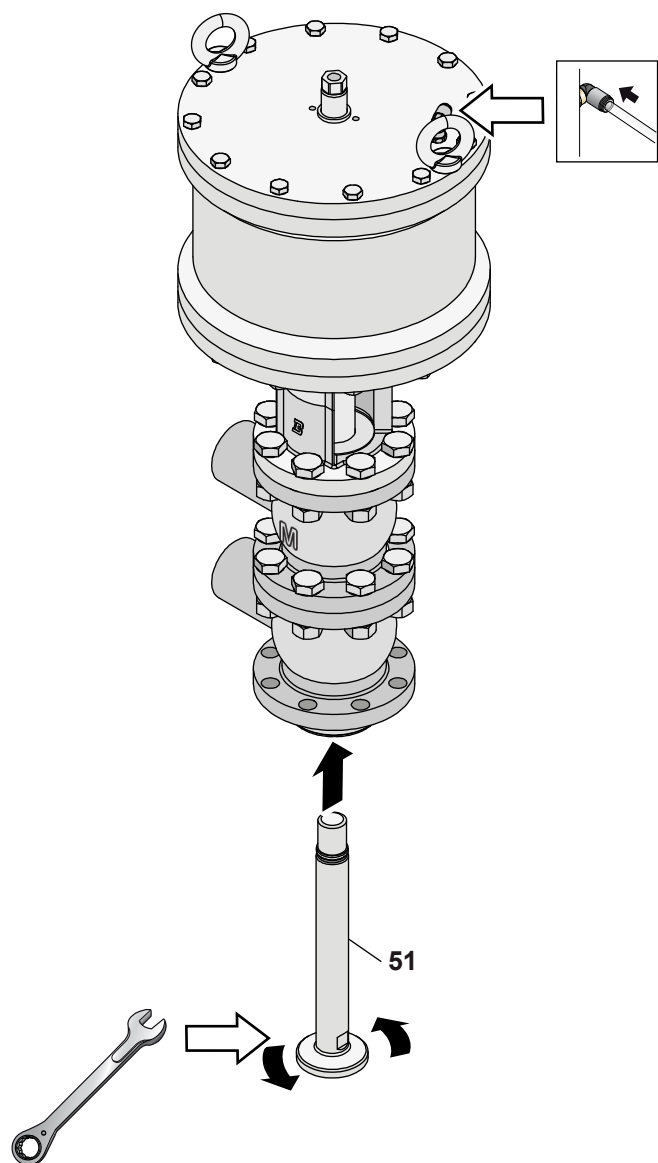
(BBYQ Speciale)



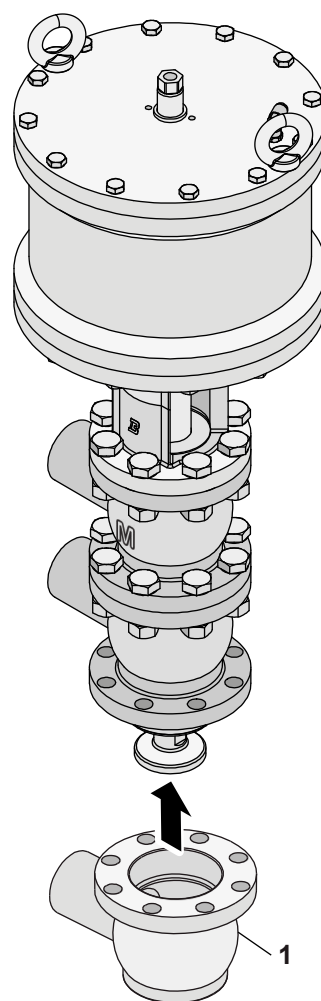
24 - b**25** - b**26** - b**27** - b



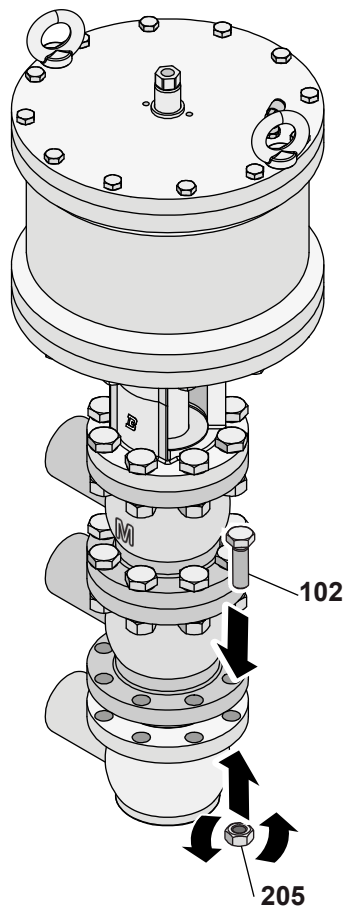
31-b

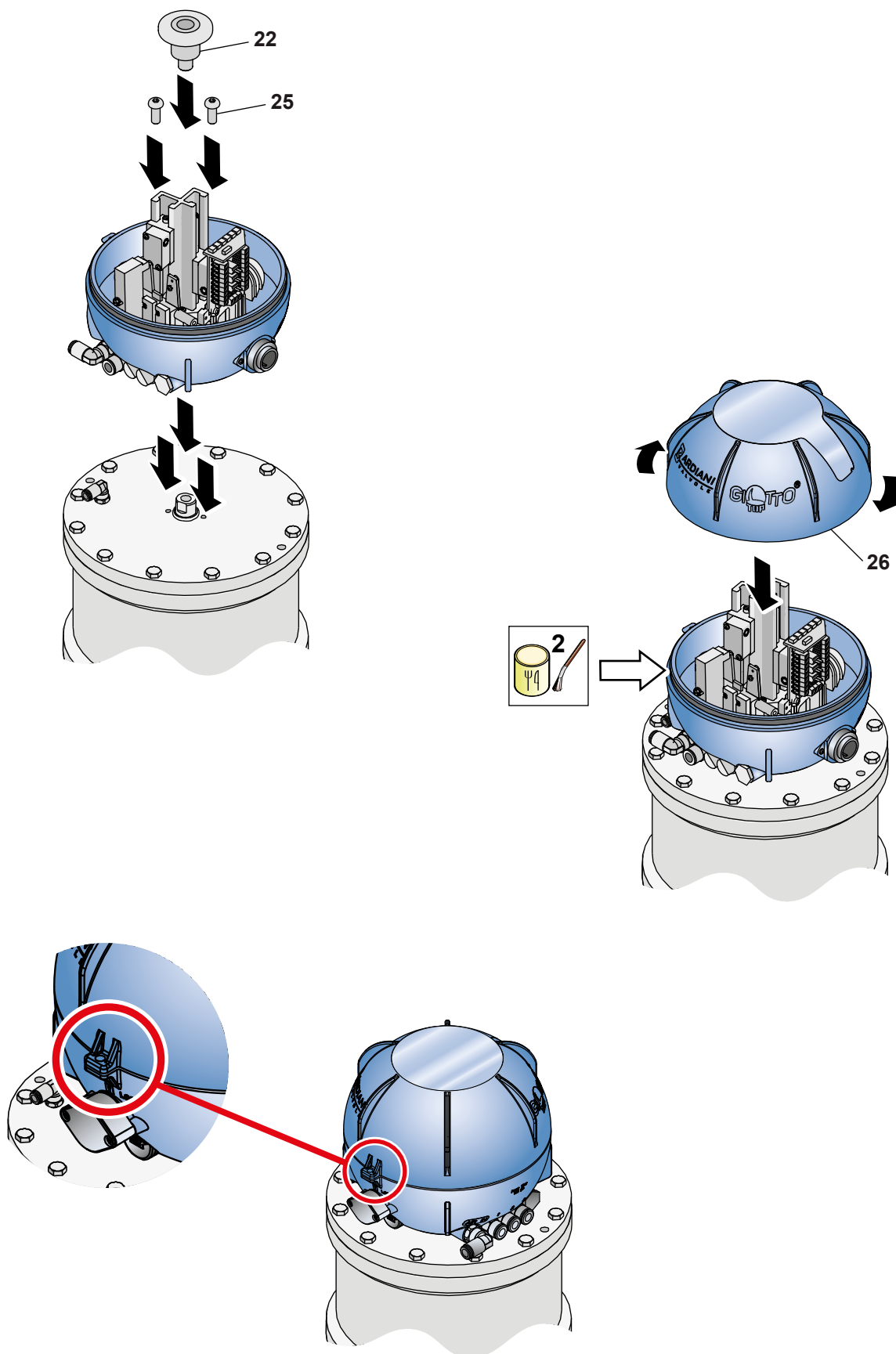


32-b



33 b

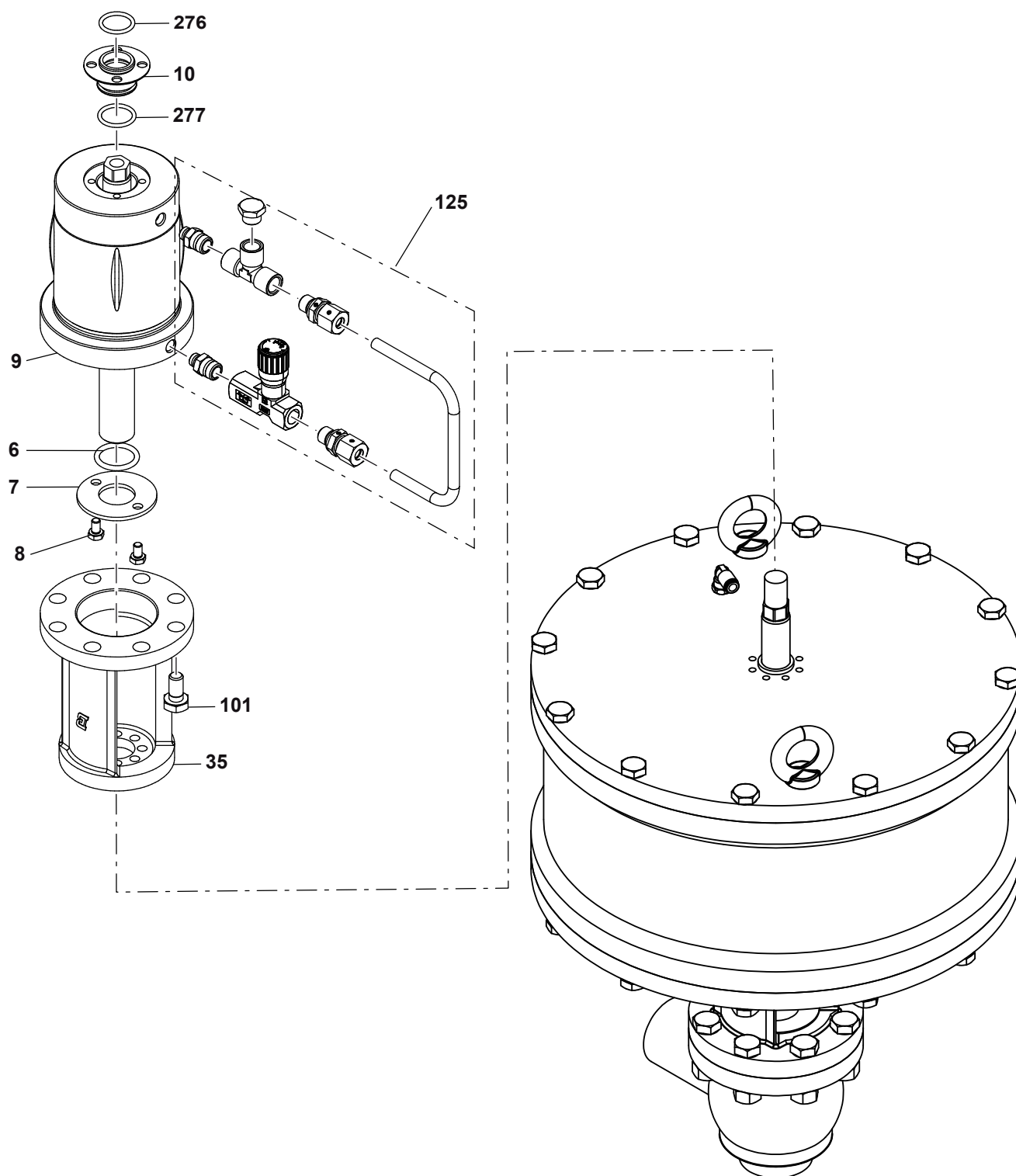




B Montaggio Della BBZQ-BBYQ Cilindro 207-360 M8-LLL

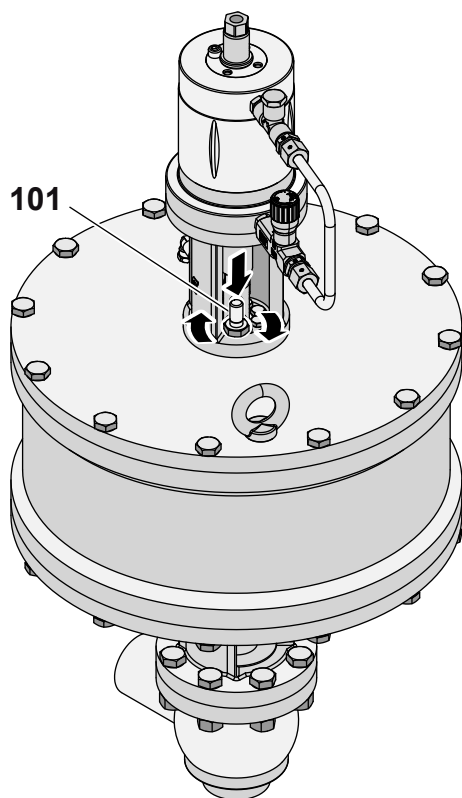
10.16 Smorzatore idraulico per cil. 207-360

N°	DESCRIZIONE
6	Anello di tenuta
7	Rondella
8	Vite
9	Cilindro
10	Boccola
35	Assemblaggio
125	Gruppo smorzatore
276	Anello di tenuta
277	Anello di tenuta

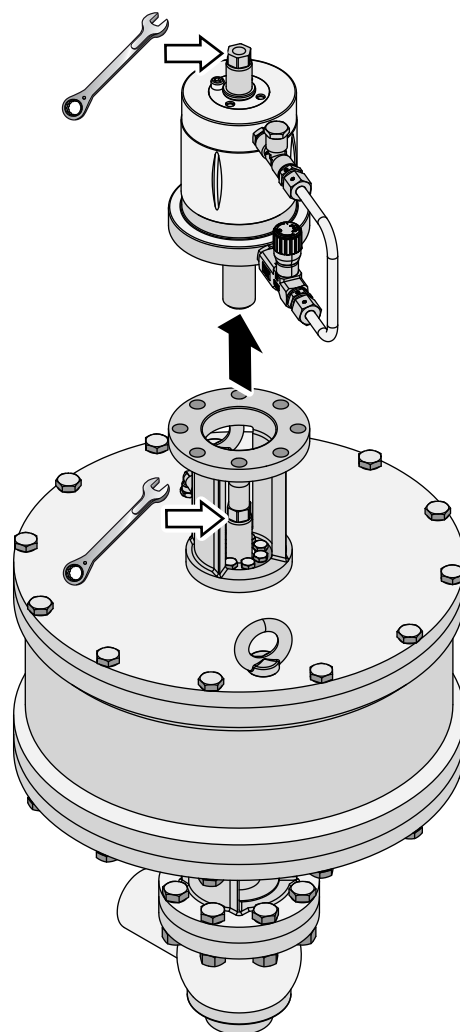


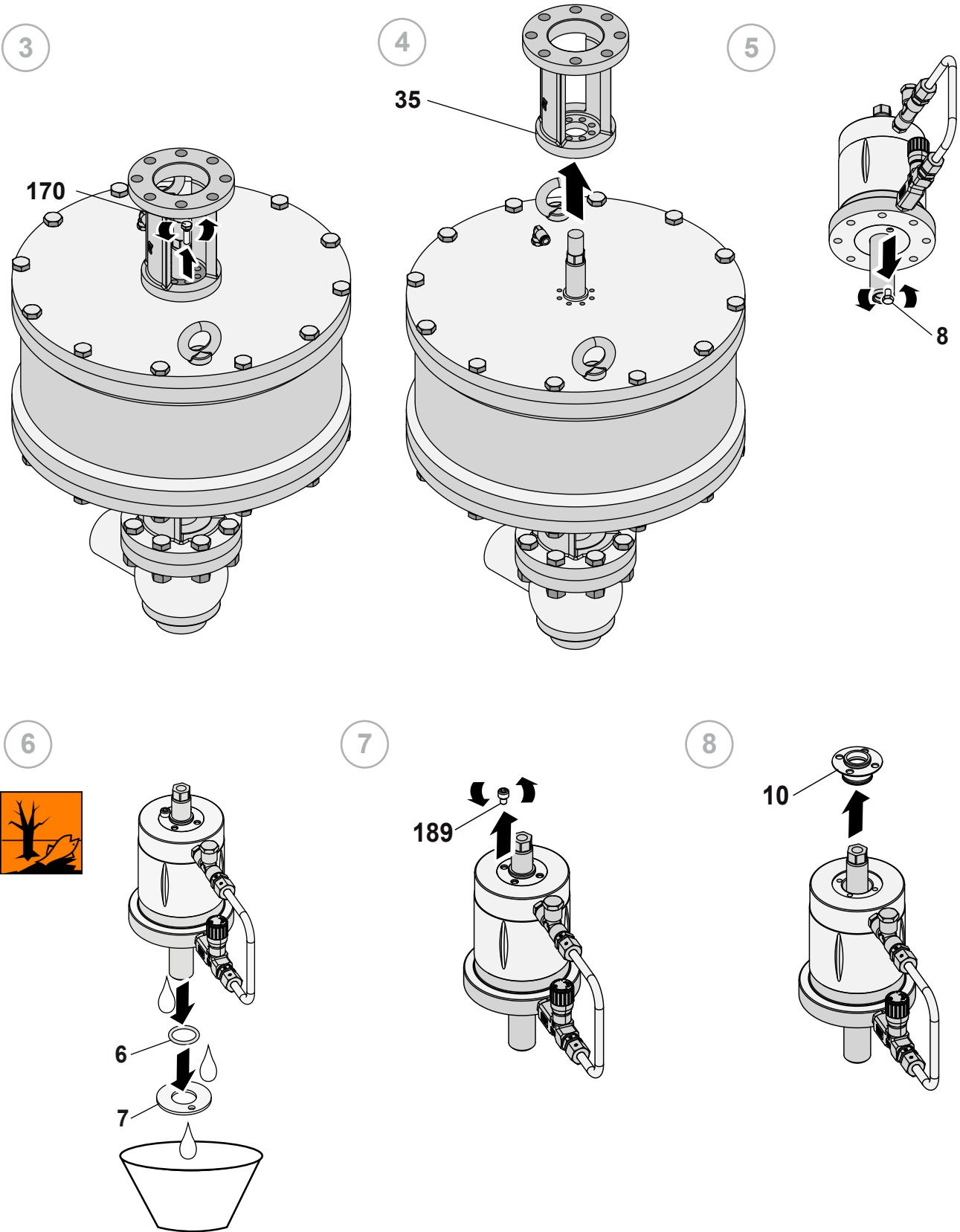
10.17 Smontaggio smorzatore

1

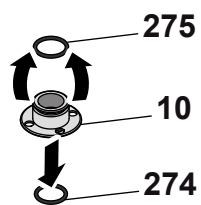


2

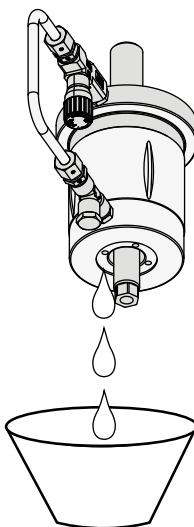




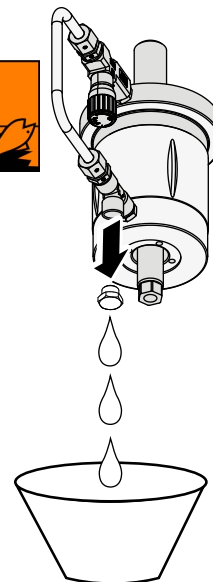
9



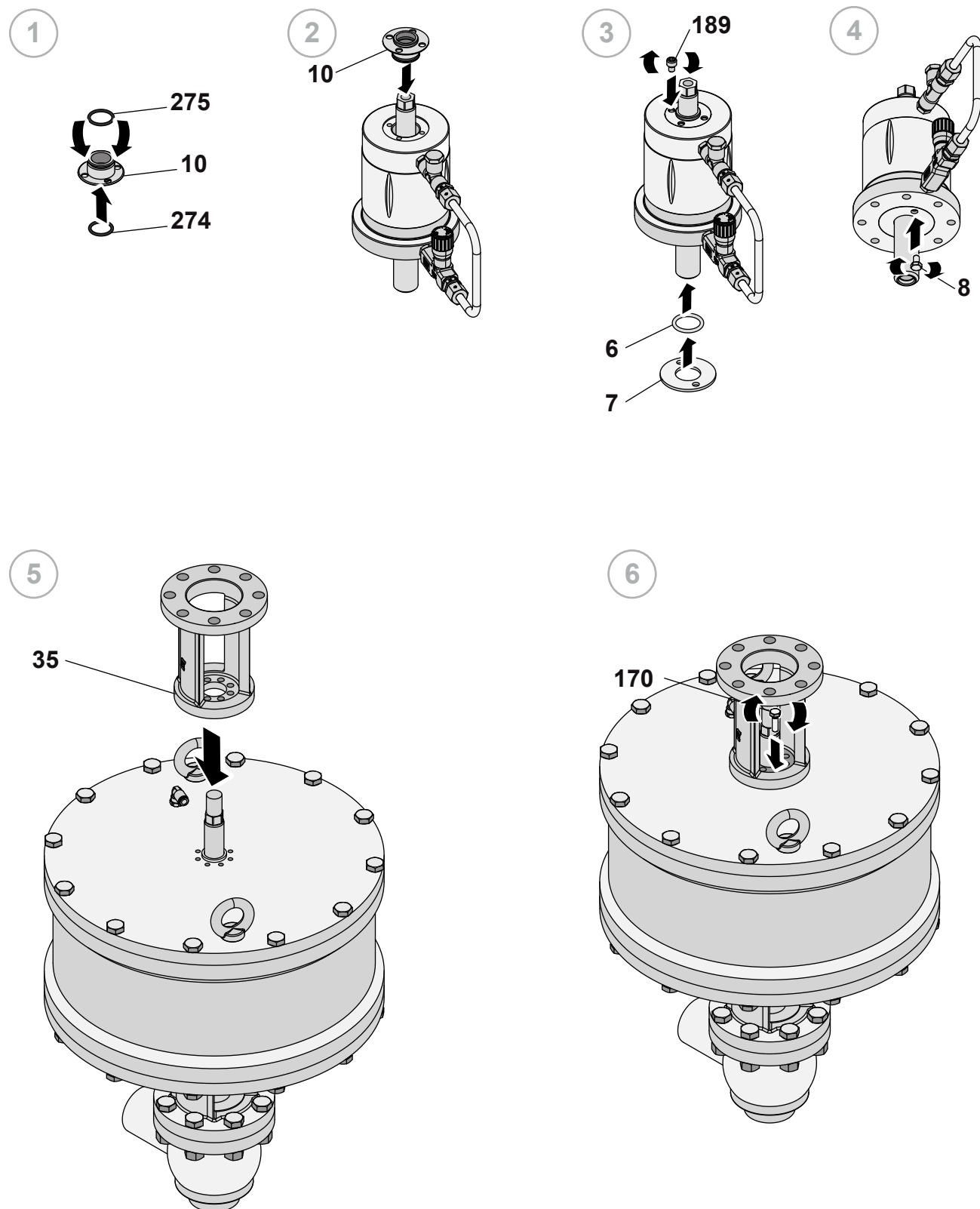
10



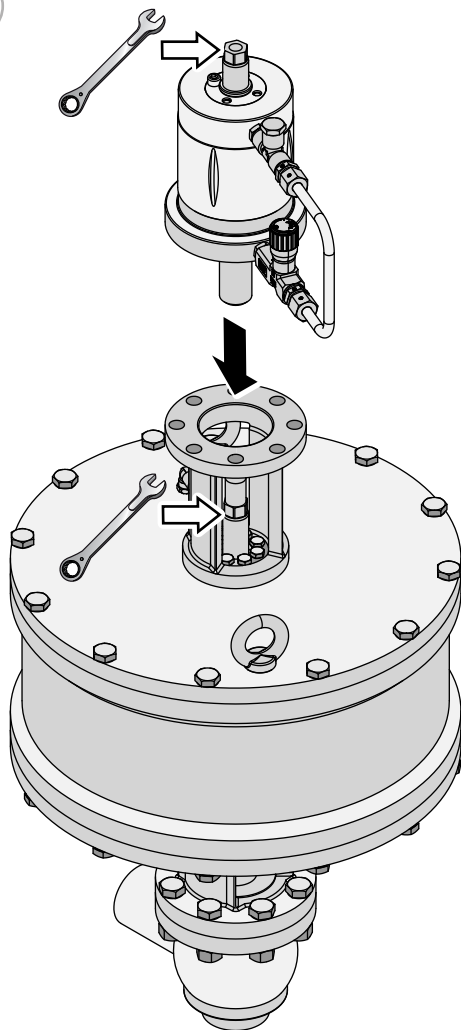
11



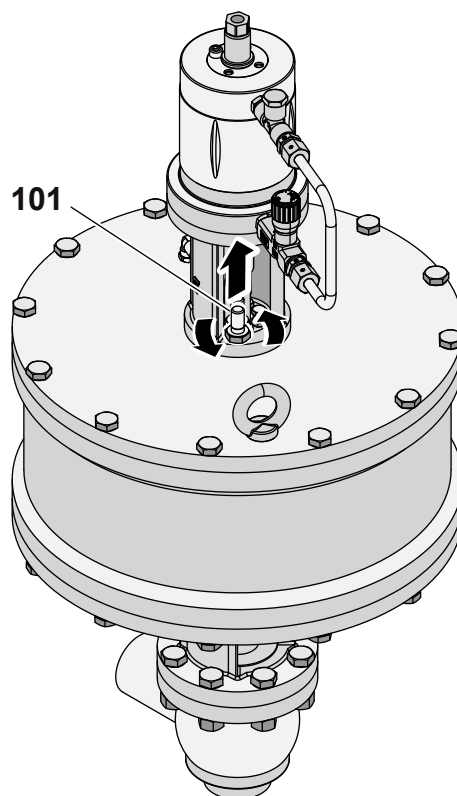
10.18 Montaggio smorzatore



7

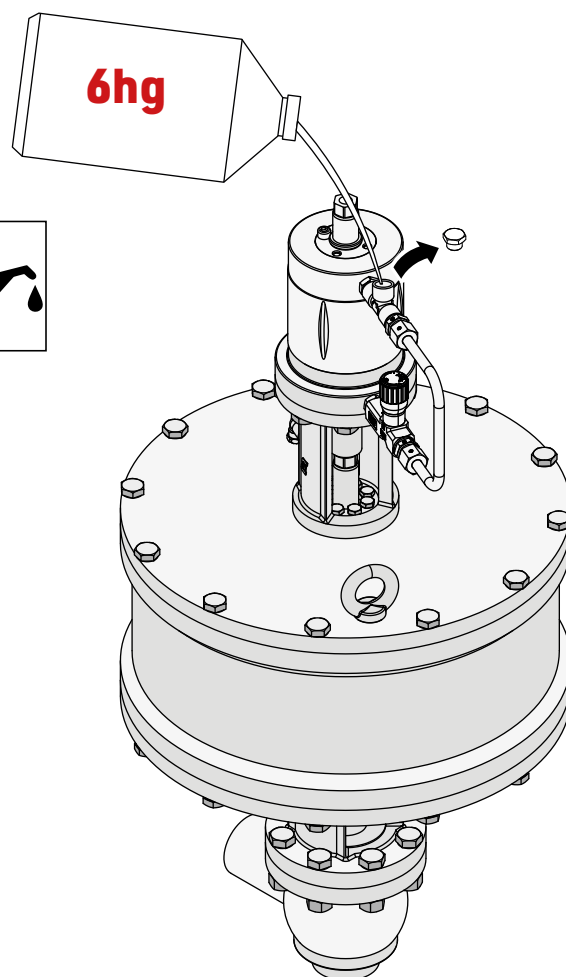
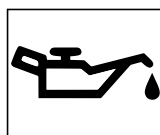


8



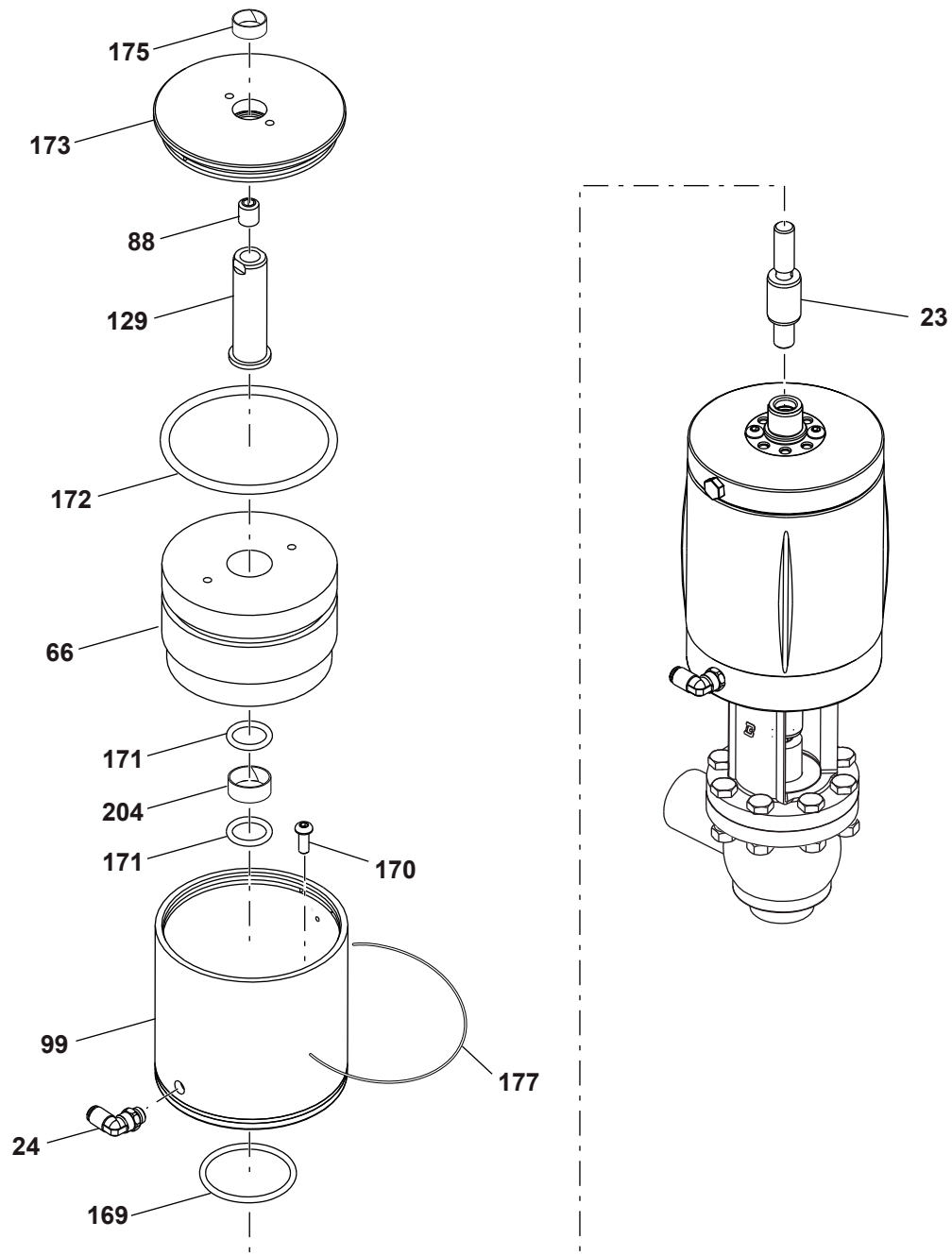
101

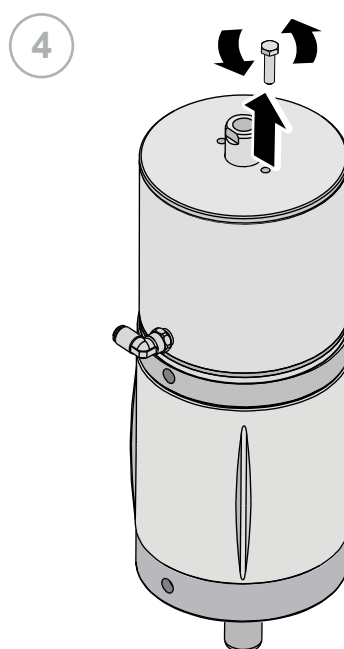
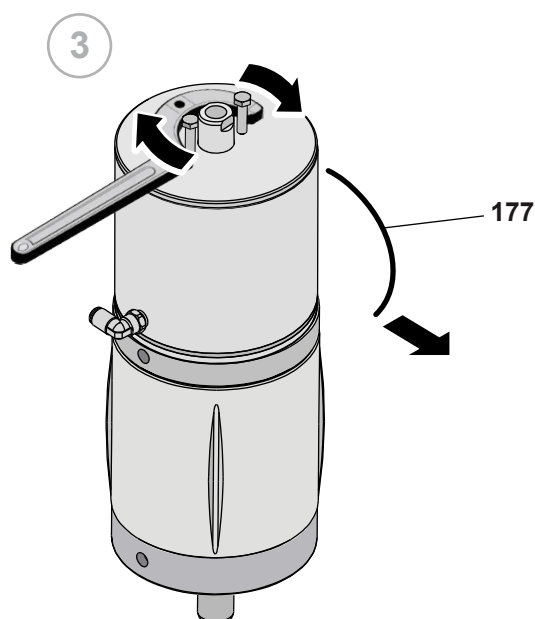
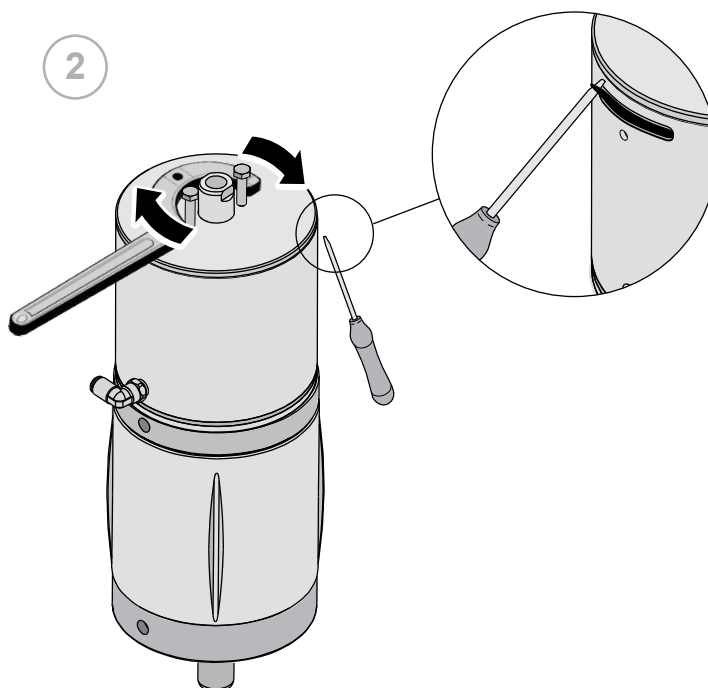
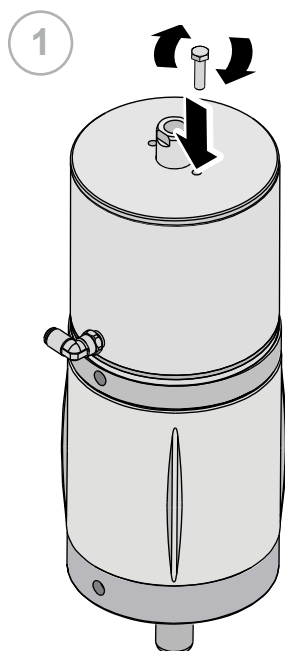
9

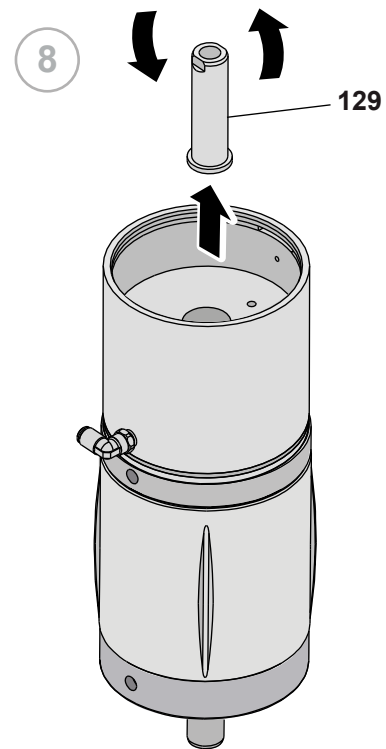
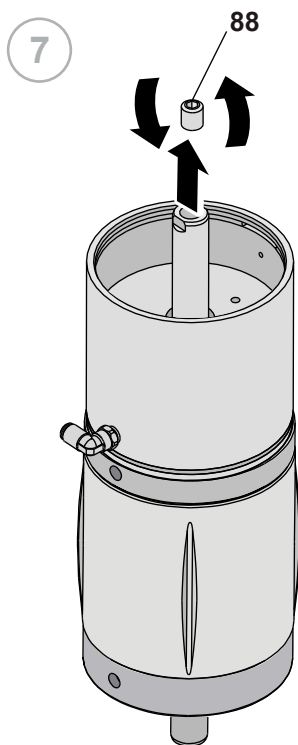
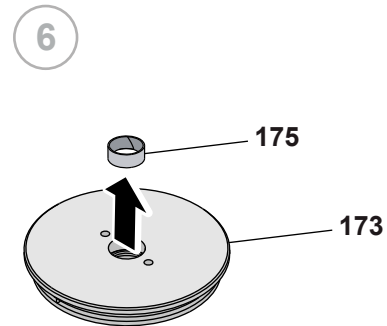
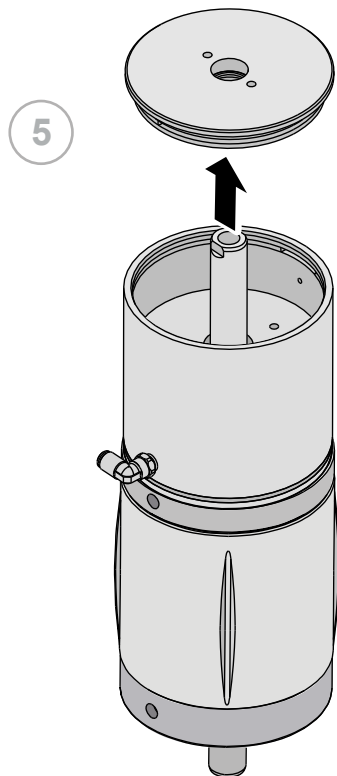


10.19 Valvole pneumatiche BBZU

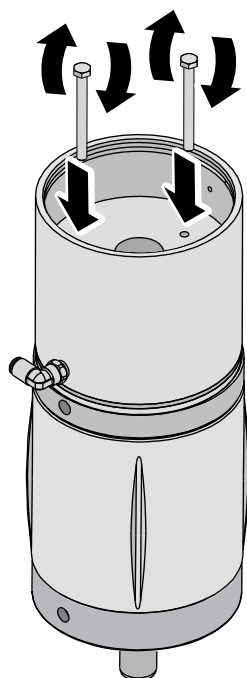
N°	DESCRIZIONE
23	Perno superiore
24	Raccordo aria
66	Pistone
88	Grano
99	Cilindro
129	Perno
169	Anello di tenuta
170	Vite
171	Anello di tenuta
172	Anello di tenuta
173	Tampone
175	Boccola
177	Filo elastico
204	Boccola



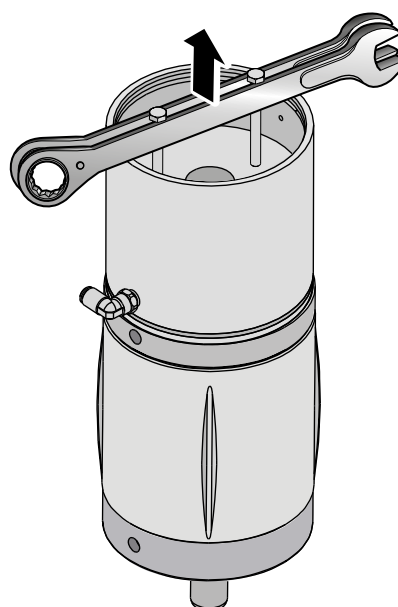
10.20 Smontaggio della BBZU



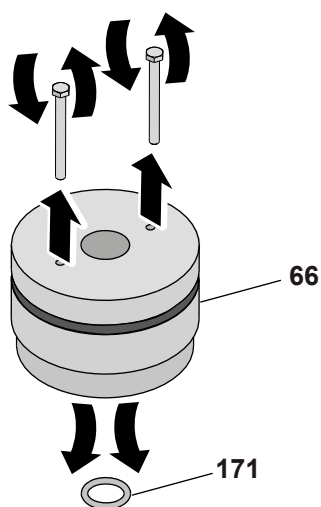
9



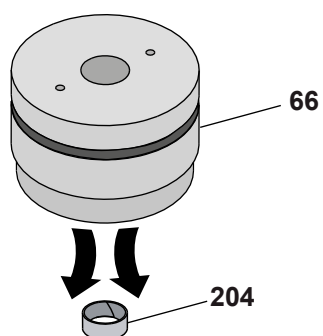
10



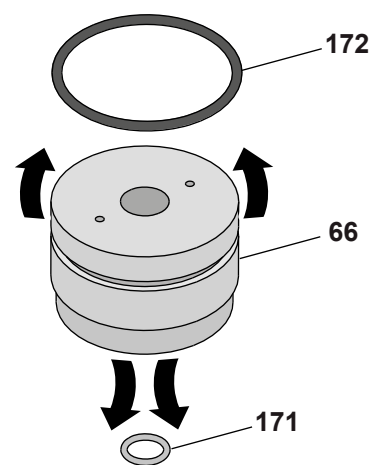
11

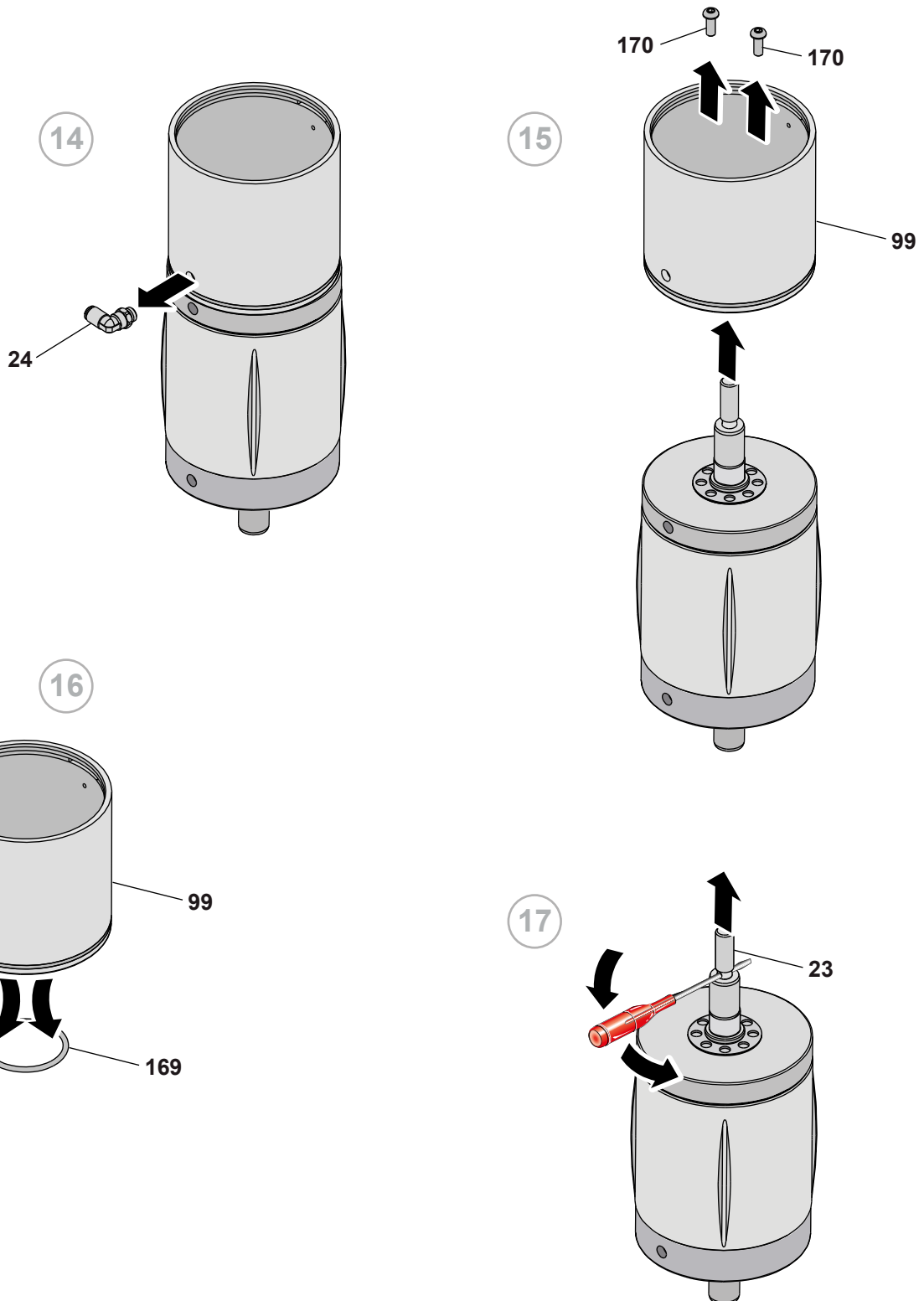


12

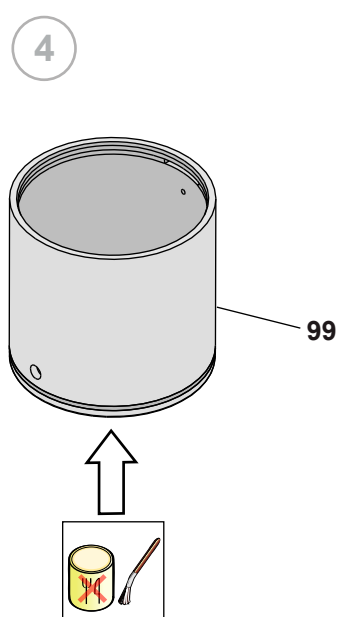
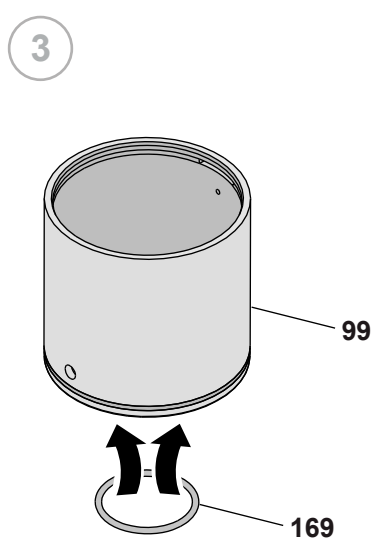
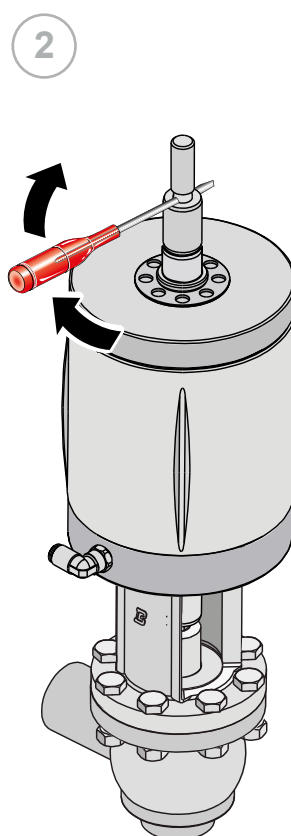
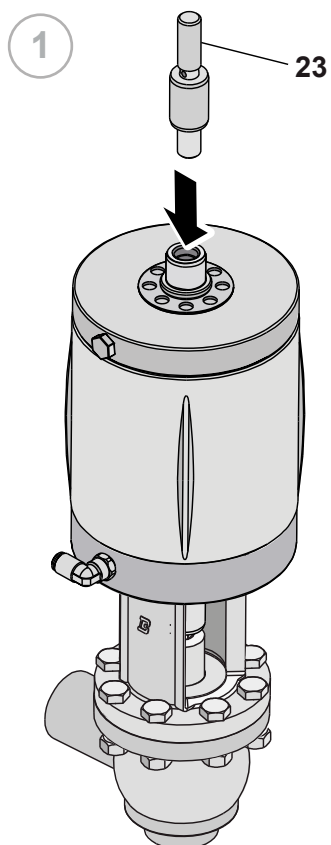


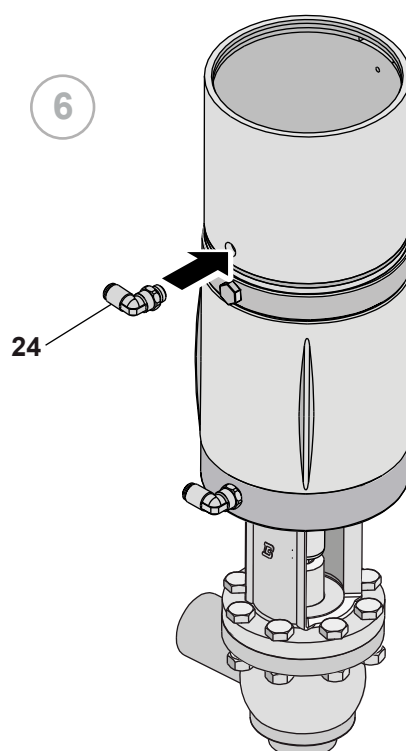
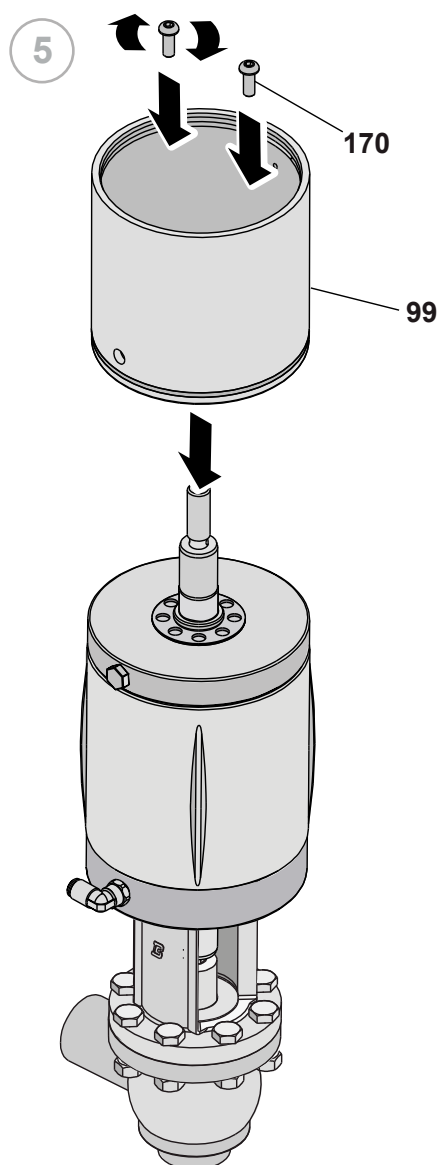
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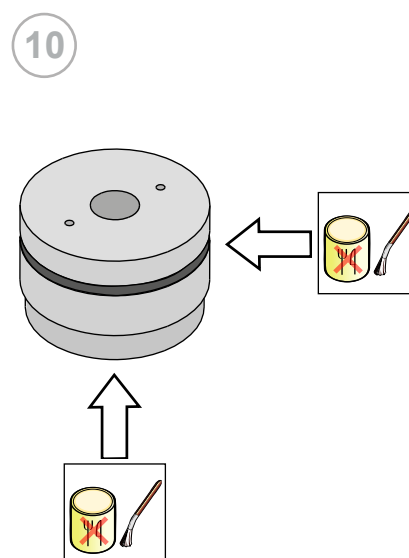
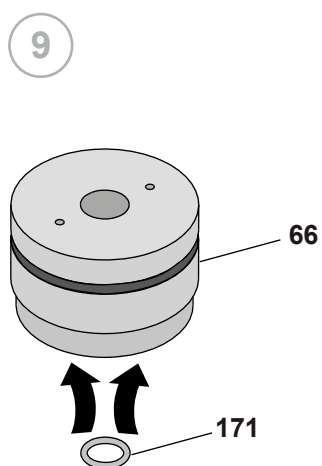
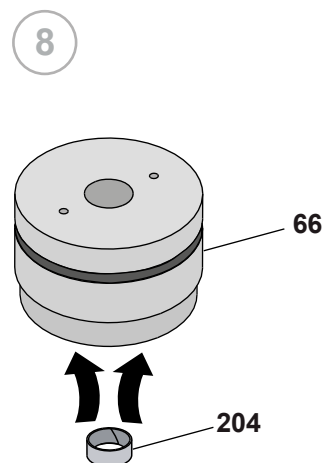
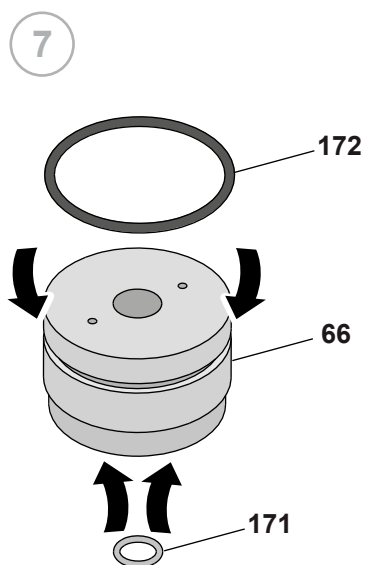


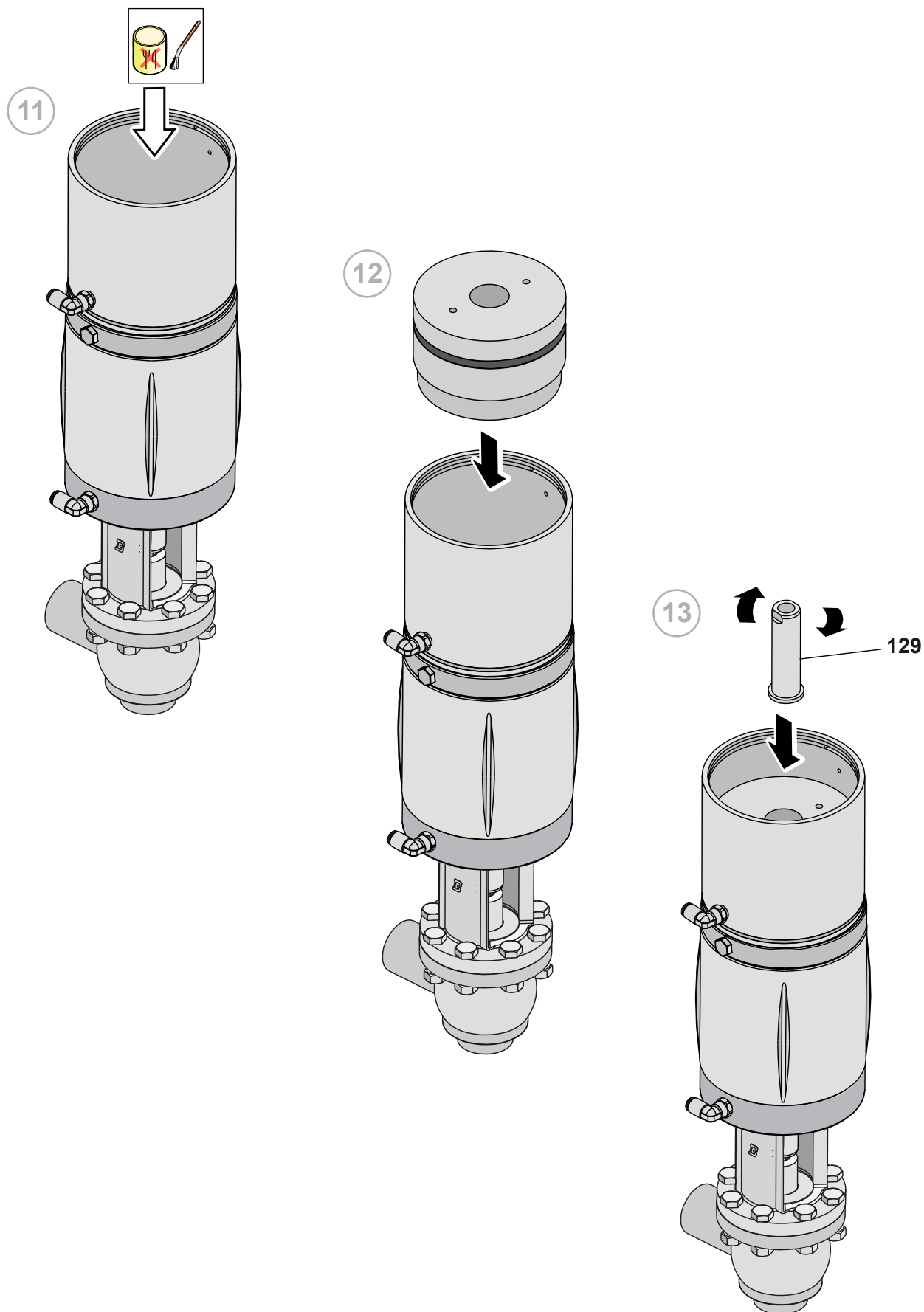


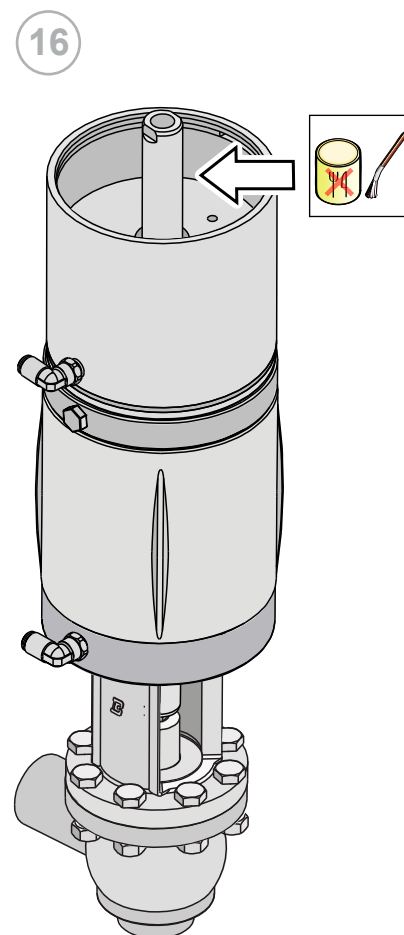
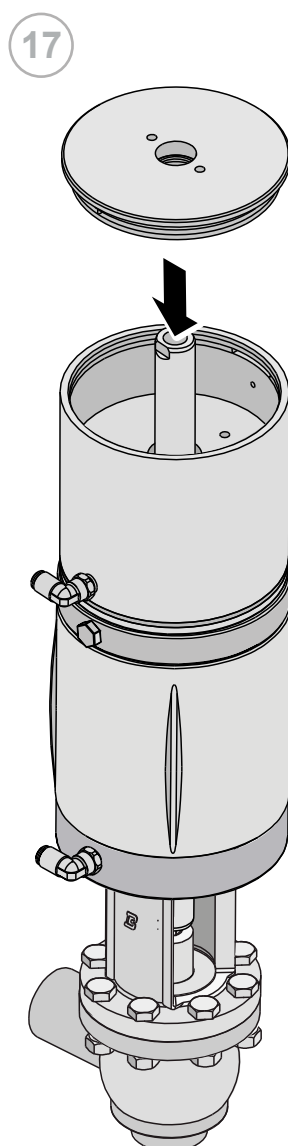
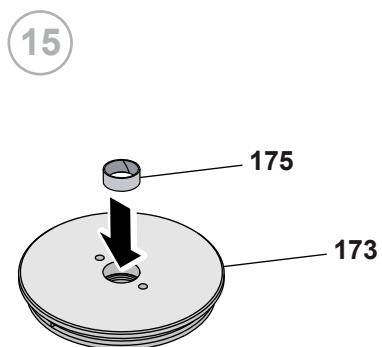
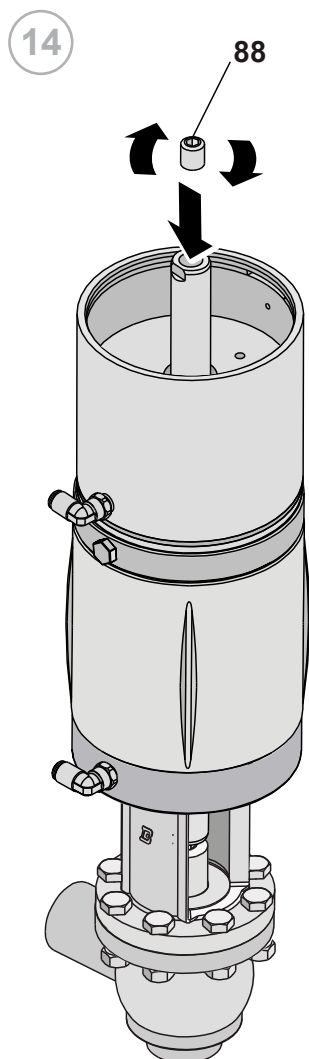
10.21 Montaggio della BBZU



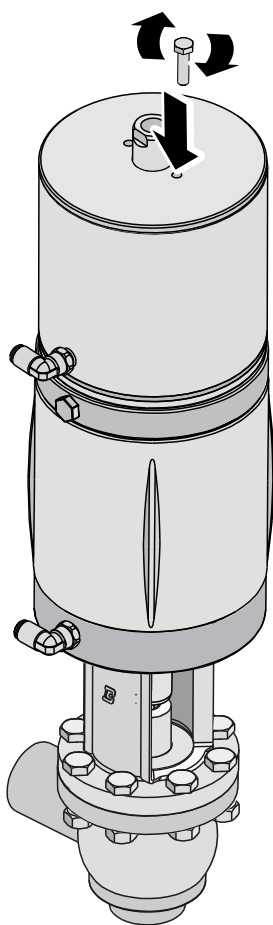




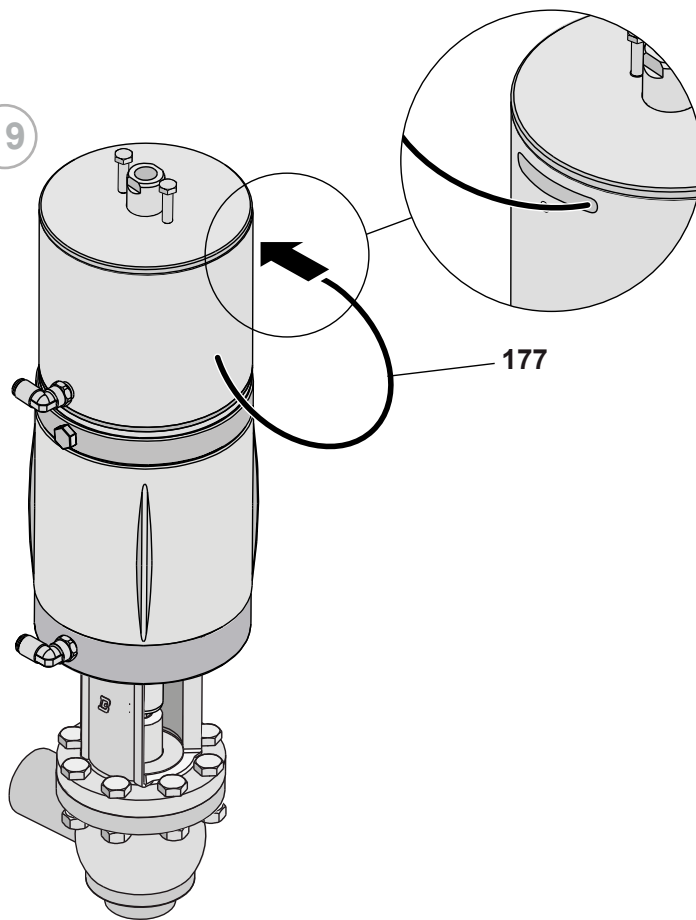




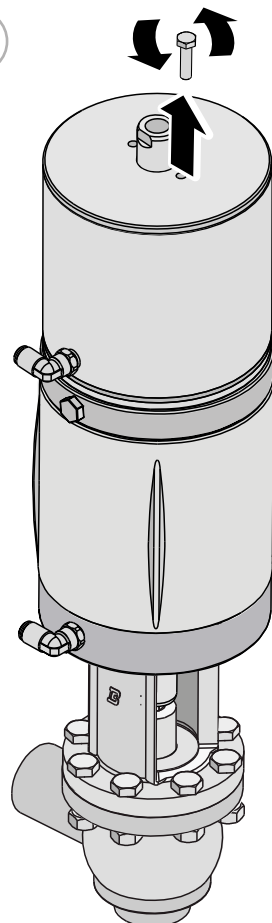
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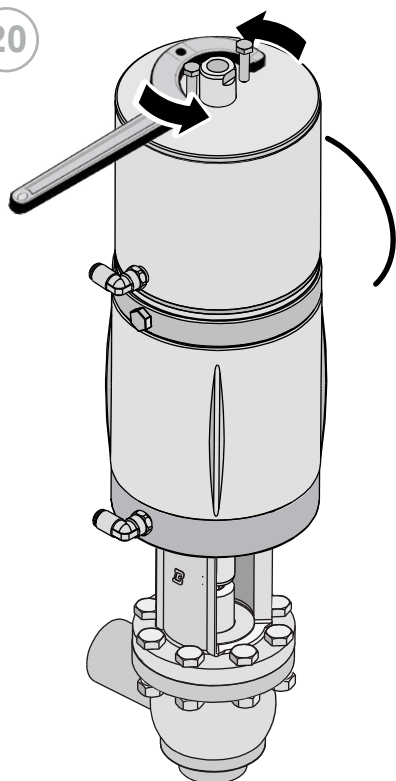
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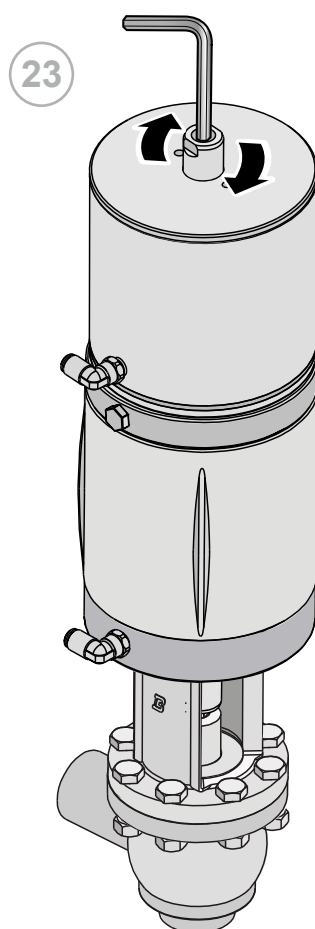
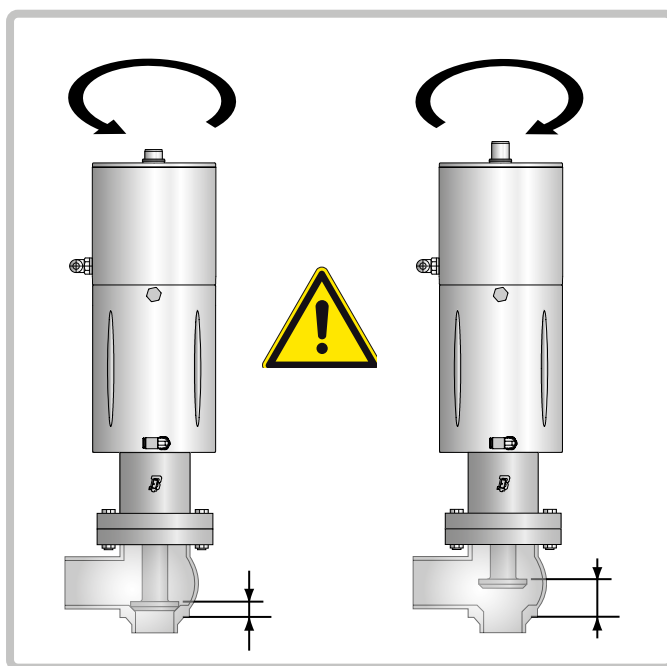
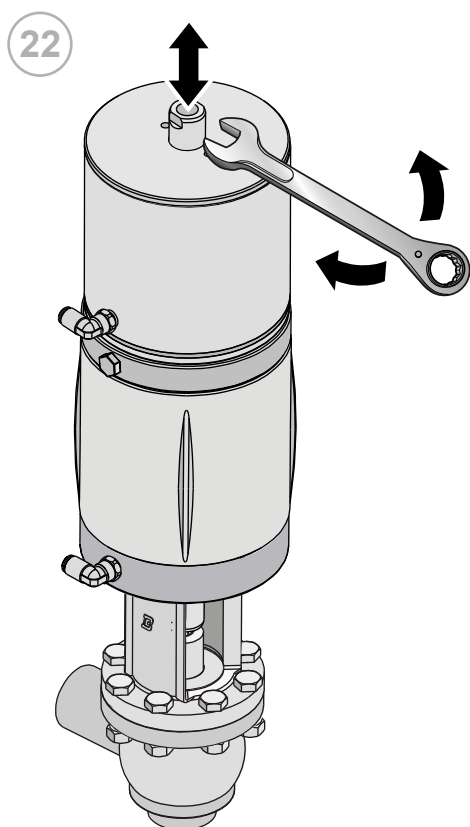


21



20





11 Allegati



EC Declaration of Conformity

EC DECLARATION OF CONFORMITY OF THE MACHINERY

(EC) 2006/42, Annex. II, p. 1 A

BARDIANI VALVOLE S.p.A.

Via G. di Vittorio 50/52 – 43045 Forno di Taro (Pr) – Italia

Declares

under its own responsibility that the machine:

Type:	Pneumatic valve
Model:	#####
Serial number:	#####
Function:	Fluid handling
Year of construction:	####
Reference	#####

complies with all relevant provisions of the following EC directives:

(EC) 2006/42 MACHINERY

and also comply with the following EC Regulations:

(EC) 2023/2006 and subsequent amendments and additions with regard on good manufacturing practices of materials and articles intended to come into contact with food

and the following harmonized standards, rules and / or technical specifications applied:

EN ISO 12100:2010

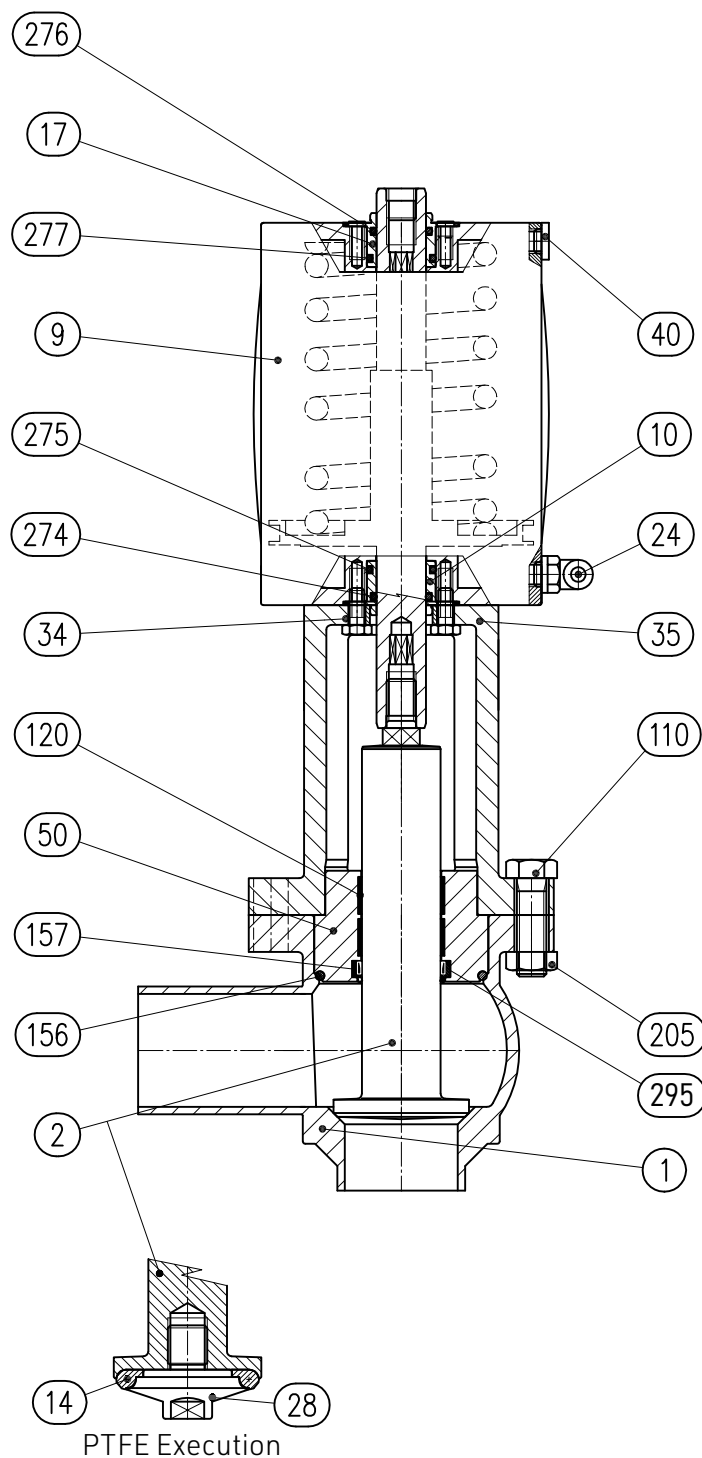
REGULATION (EC) 1935/2004 and subsequent amendments and additions with regard to steel and elastomers in contact with the product

Fornovo di Taro
##.##.####

Legal Representative

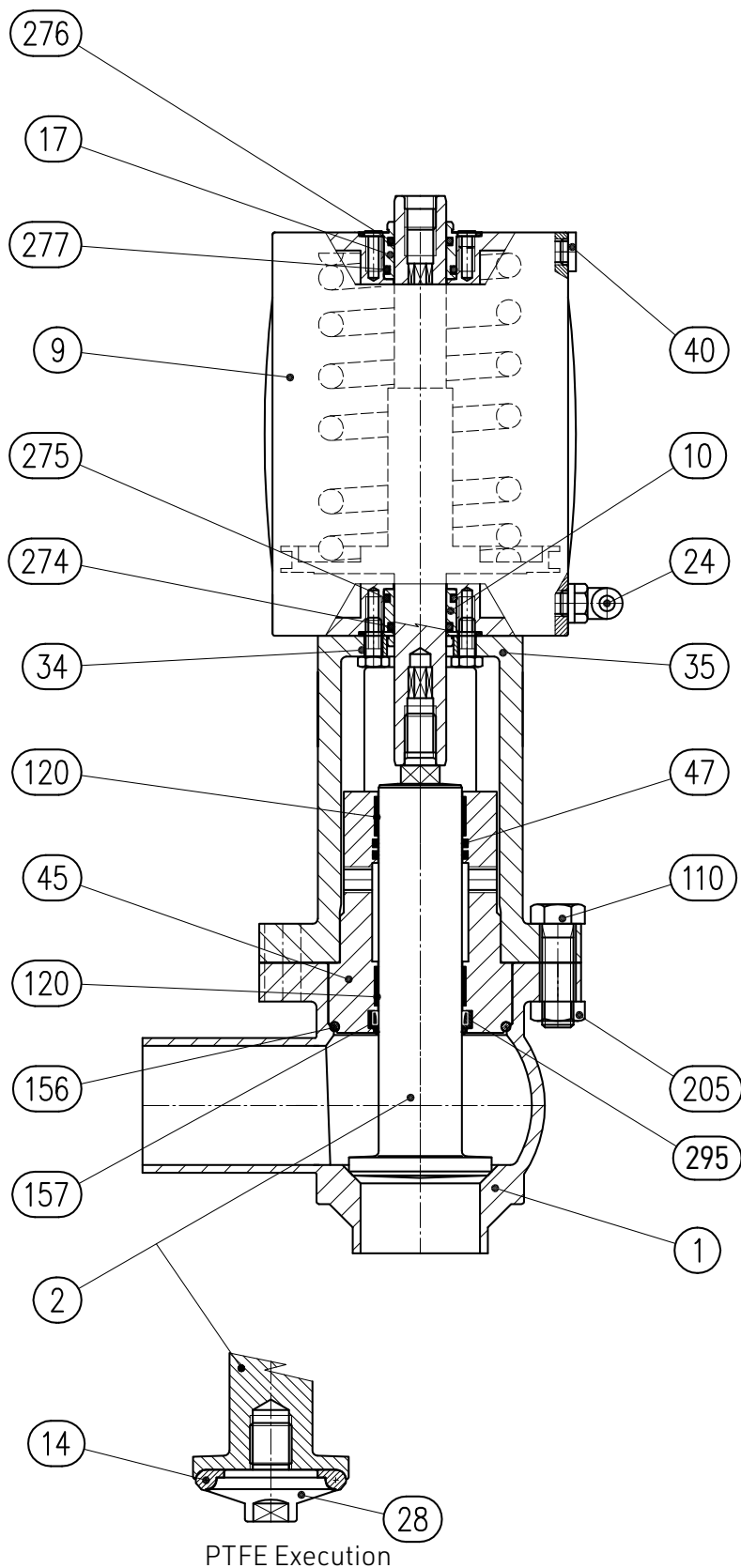
BARDIANI VALVOLE S.p.A.
Via G. di Vittorio 50/52
43045 Forno di Taro (Pr) ITALY
Reg. Impr. Parma, C.F.- P.I.V.A. n. 01511810341
R.E.A. Parma n. 159144 • Cap. Soc. € 1.186.800 i.v.

12 Schema 2D BBZQ cilindro 108-156

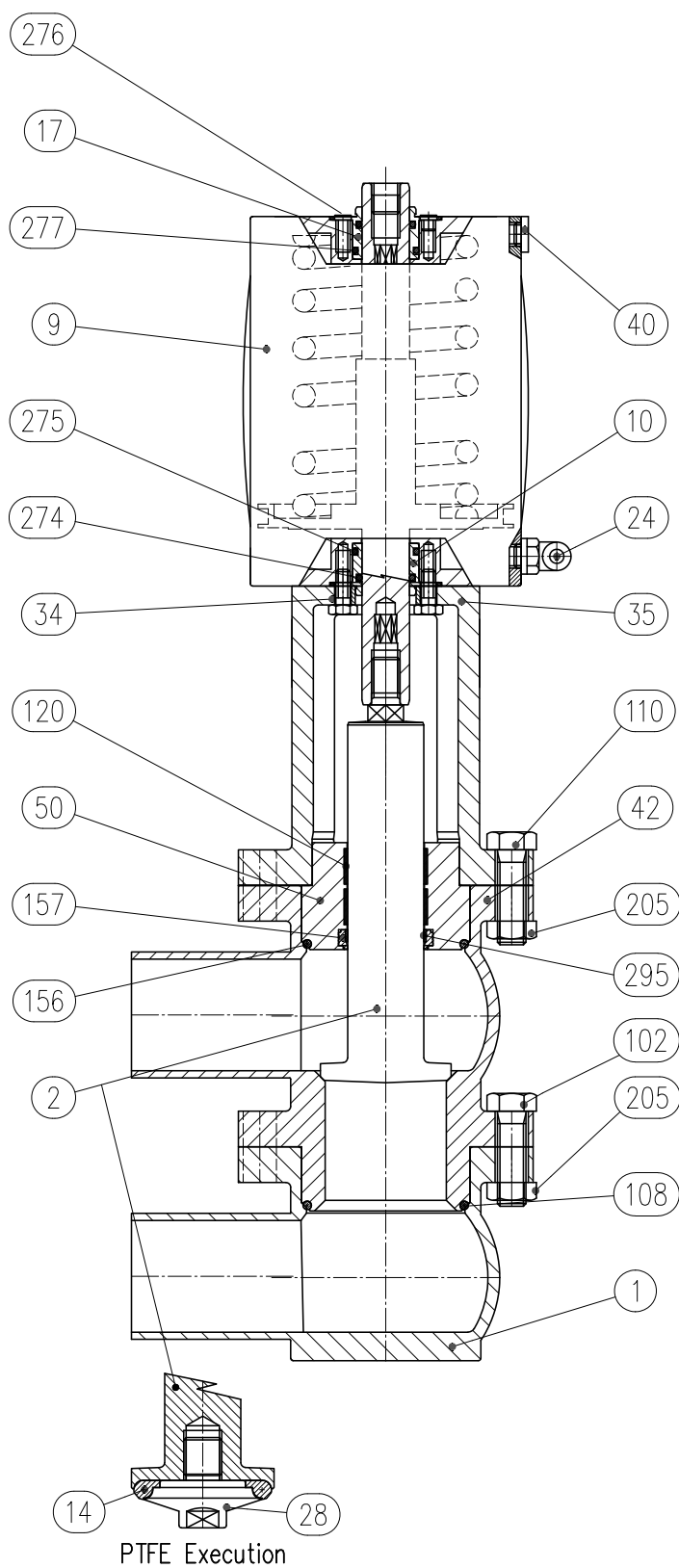


[BBZQ-108-156]

13 Schema 2D BBYQ cilindro 108-156

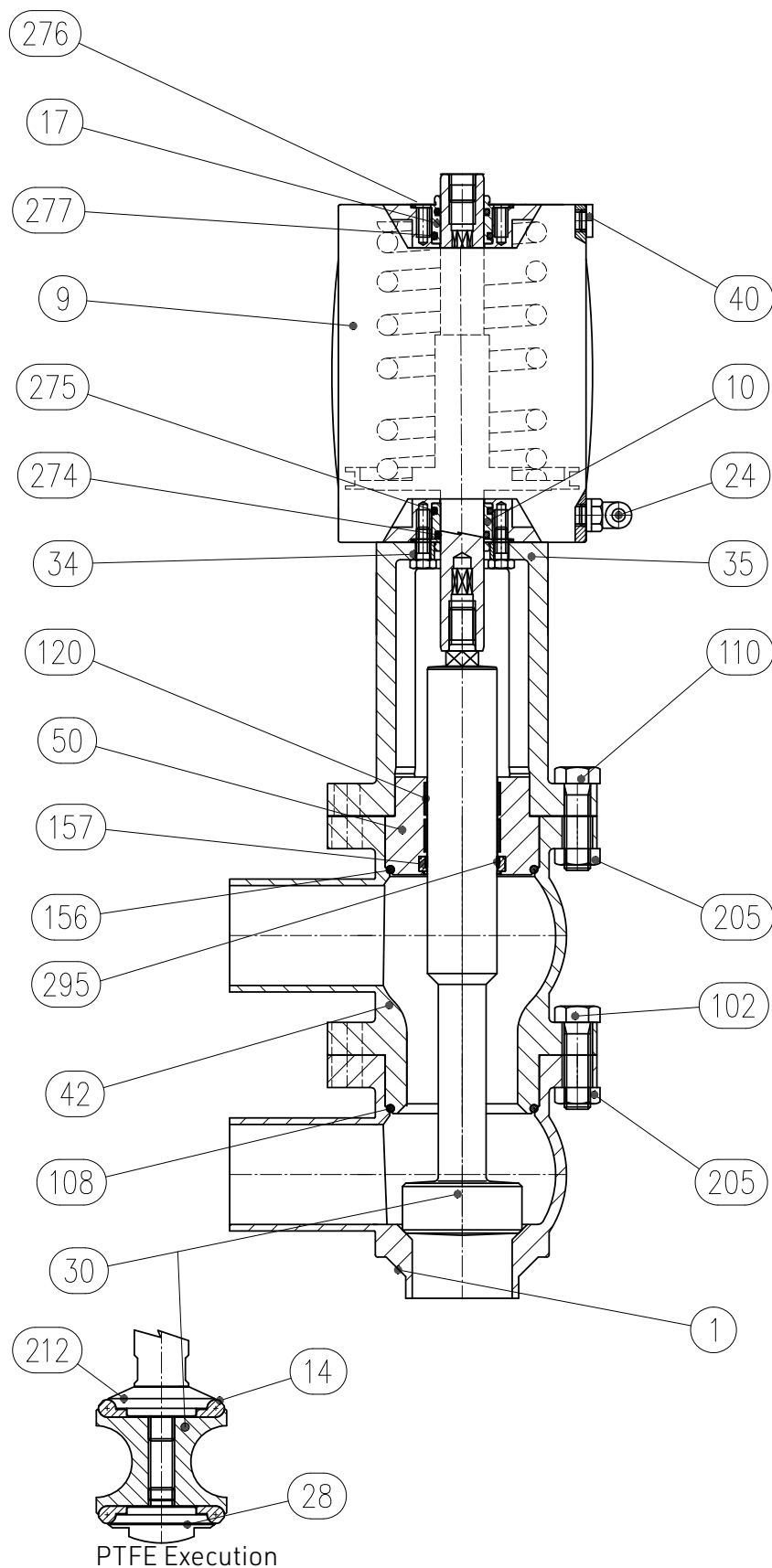
**[BBZQ-108-156]**

14 Schema 2d BBZQ M8 cilindro 108-156

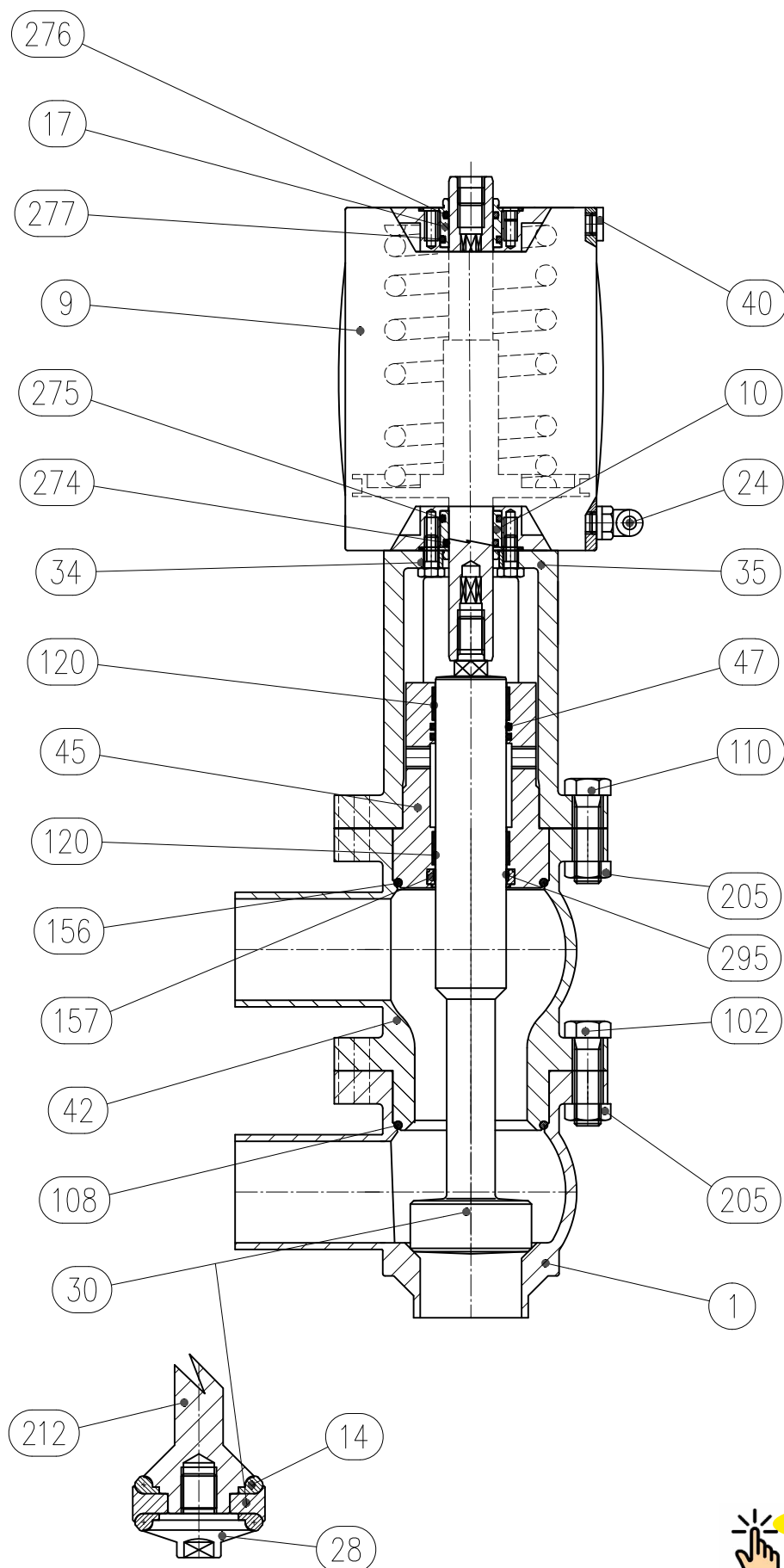


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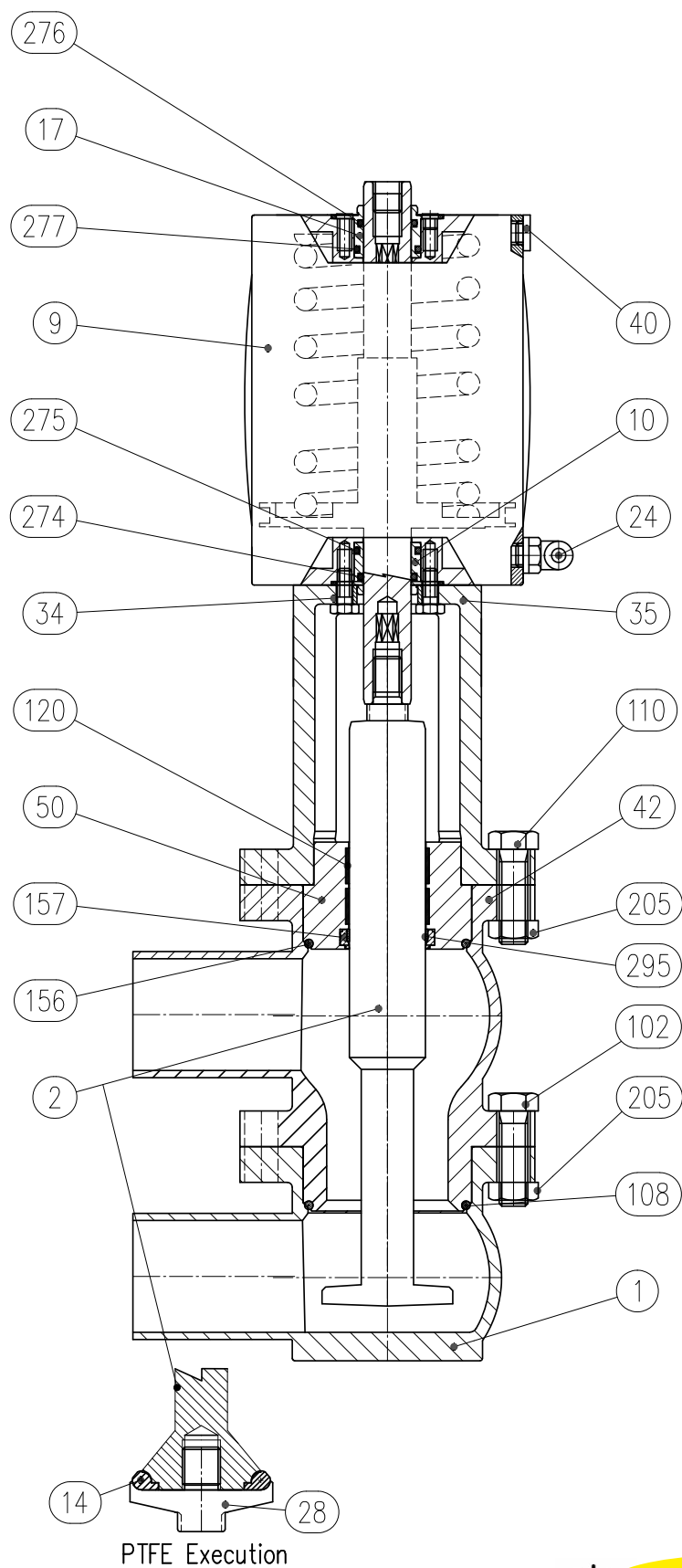
15 Schema 2D BBZQ cilindro 108-156 Deviatrice

**[BBZQ-108-156 DEV]**

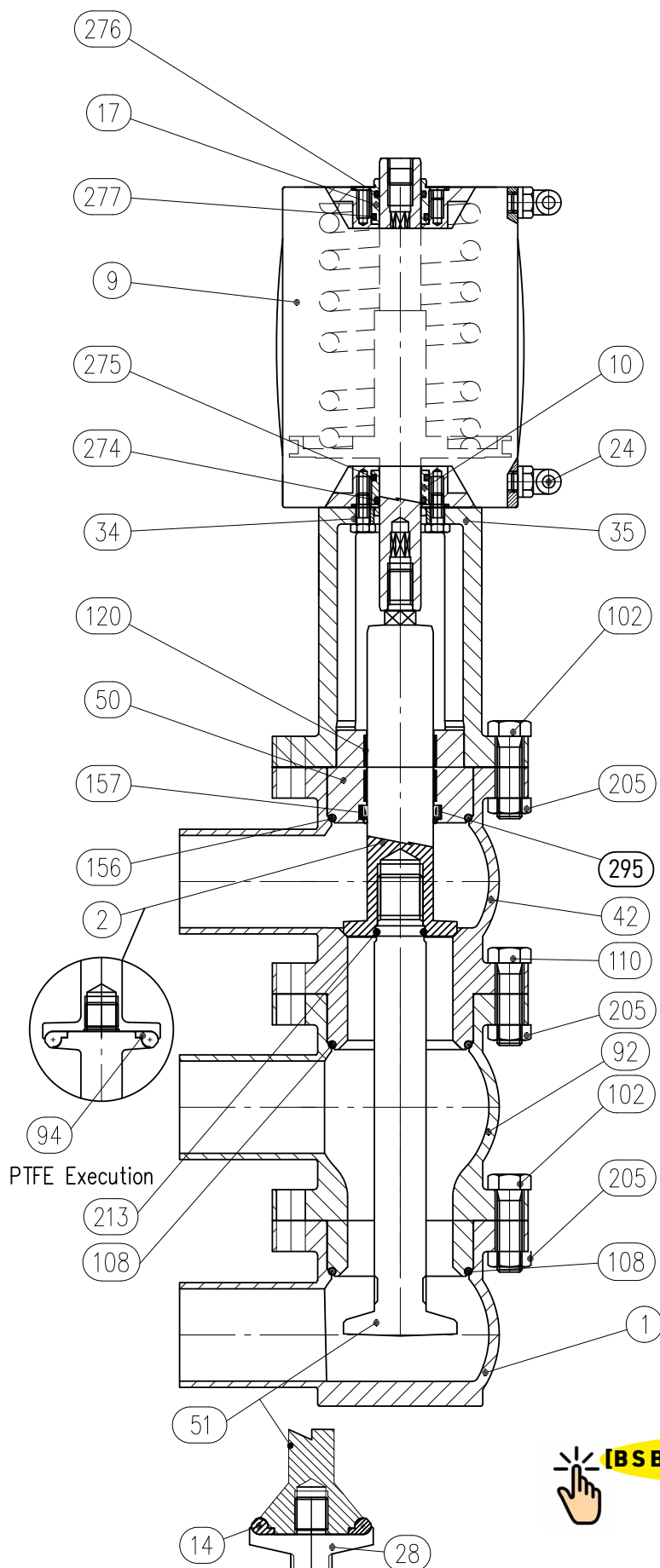
16 Schema 2D BBYQ cilindro 108-156 Deviatrice

**[BBZQ-108-156 DEV]**

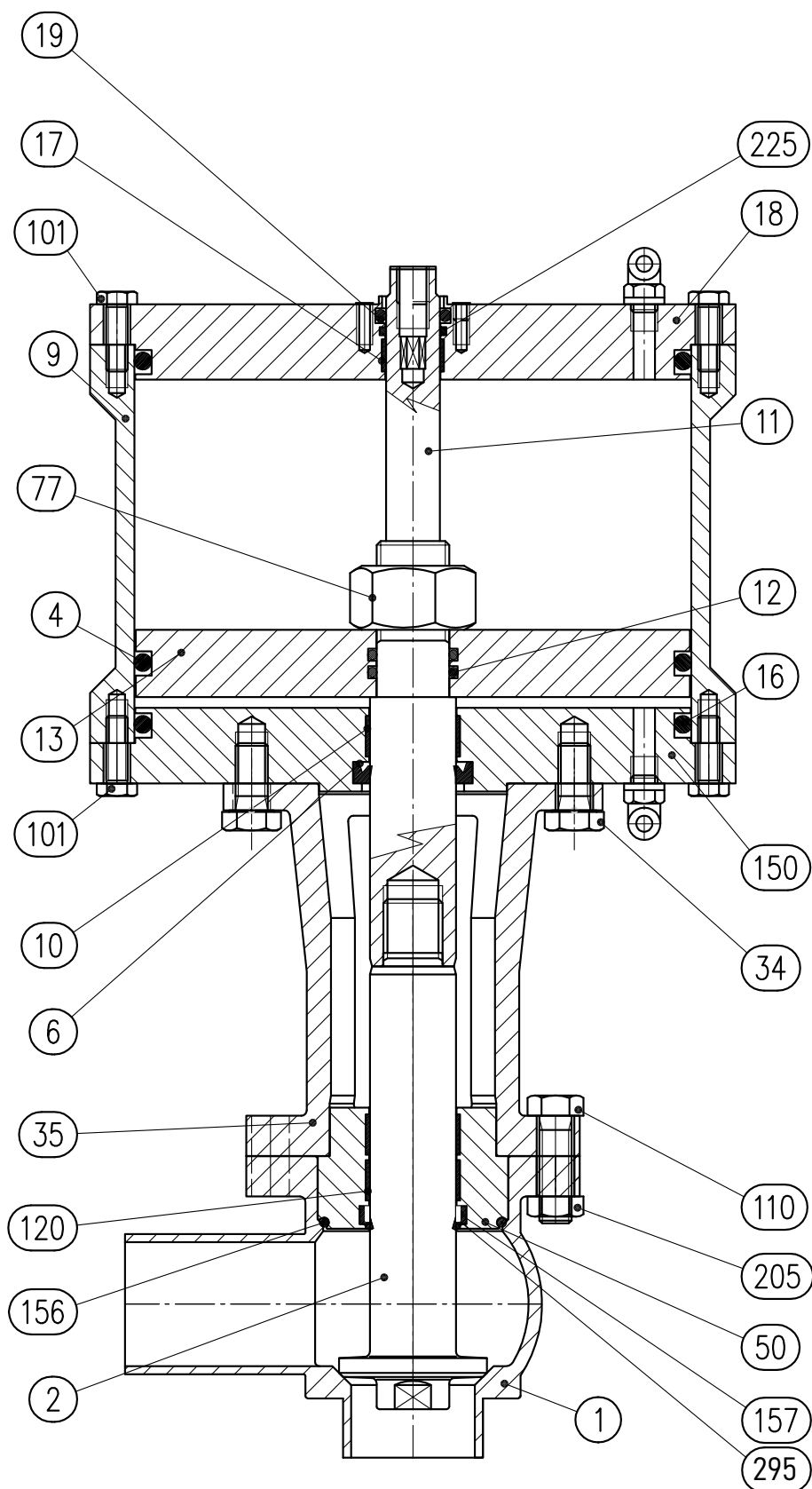
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**[BBZQ-108-156 DEV]**

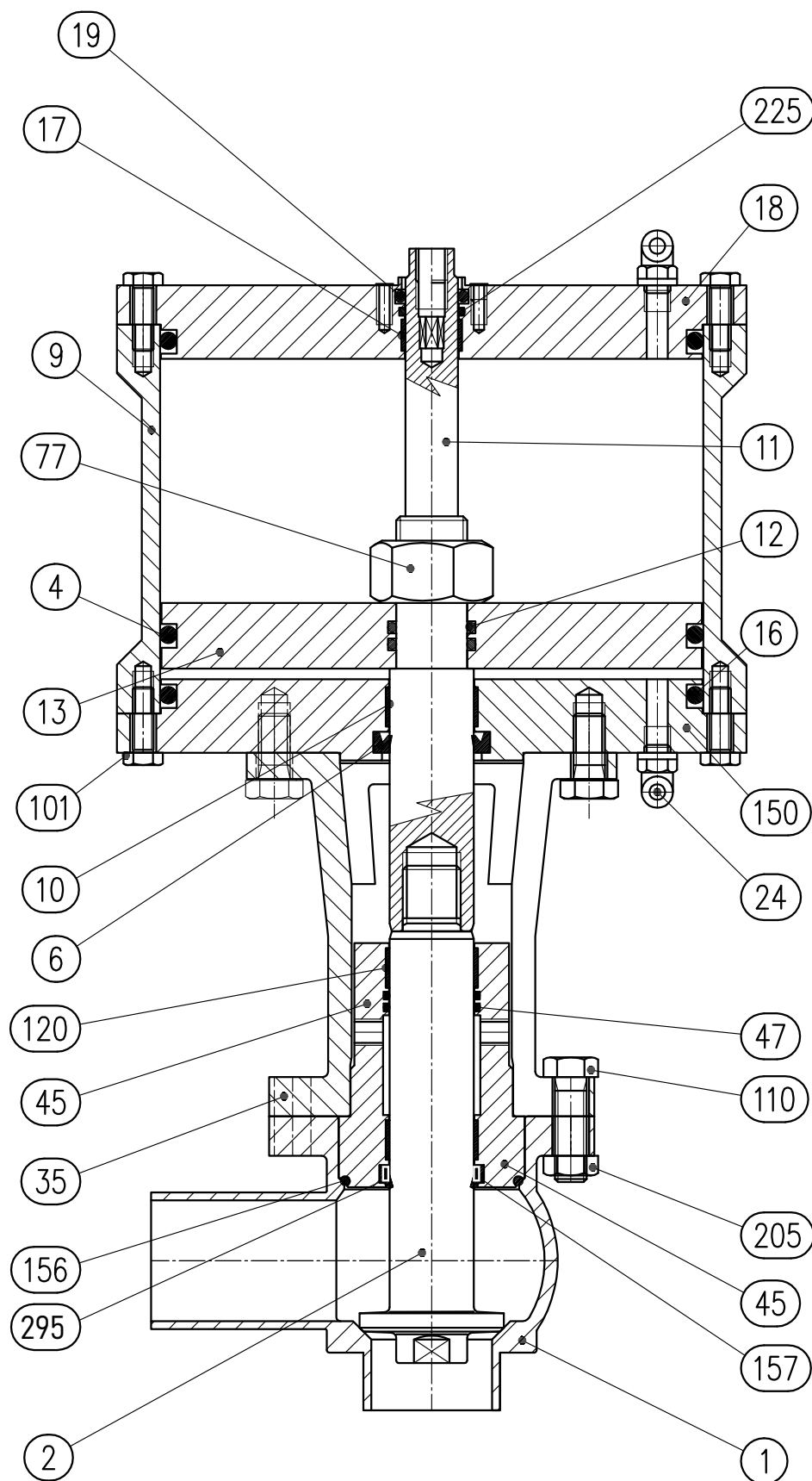
18 Schema 2D BBZQ cilindro 108-156 Deviatrice M8



19 Schema 2D BBZQ cilindro 207-360

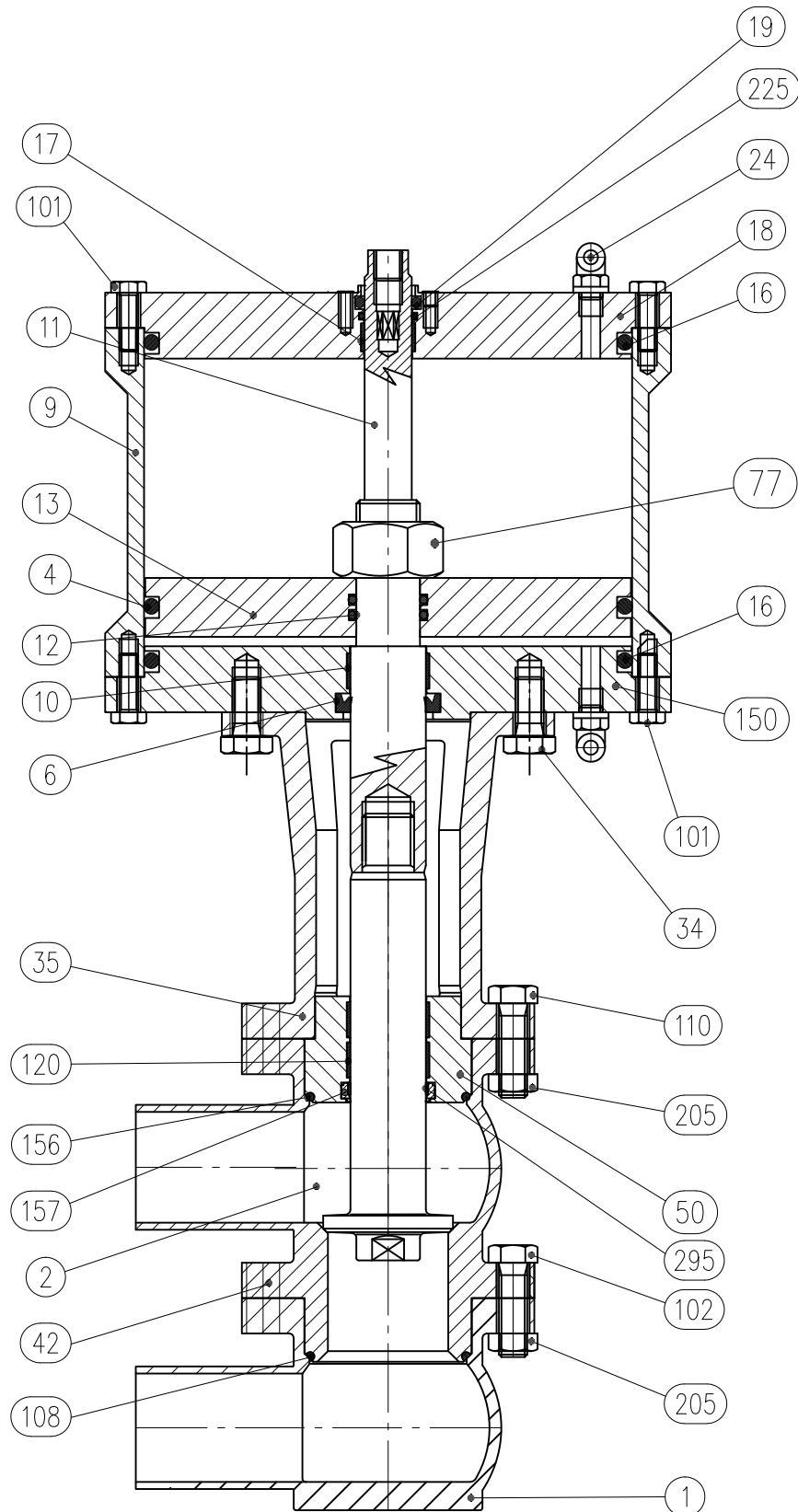
**[S BBZQ-207-360]**

20 Schema 2D BBYQ cilindro 207-360



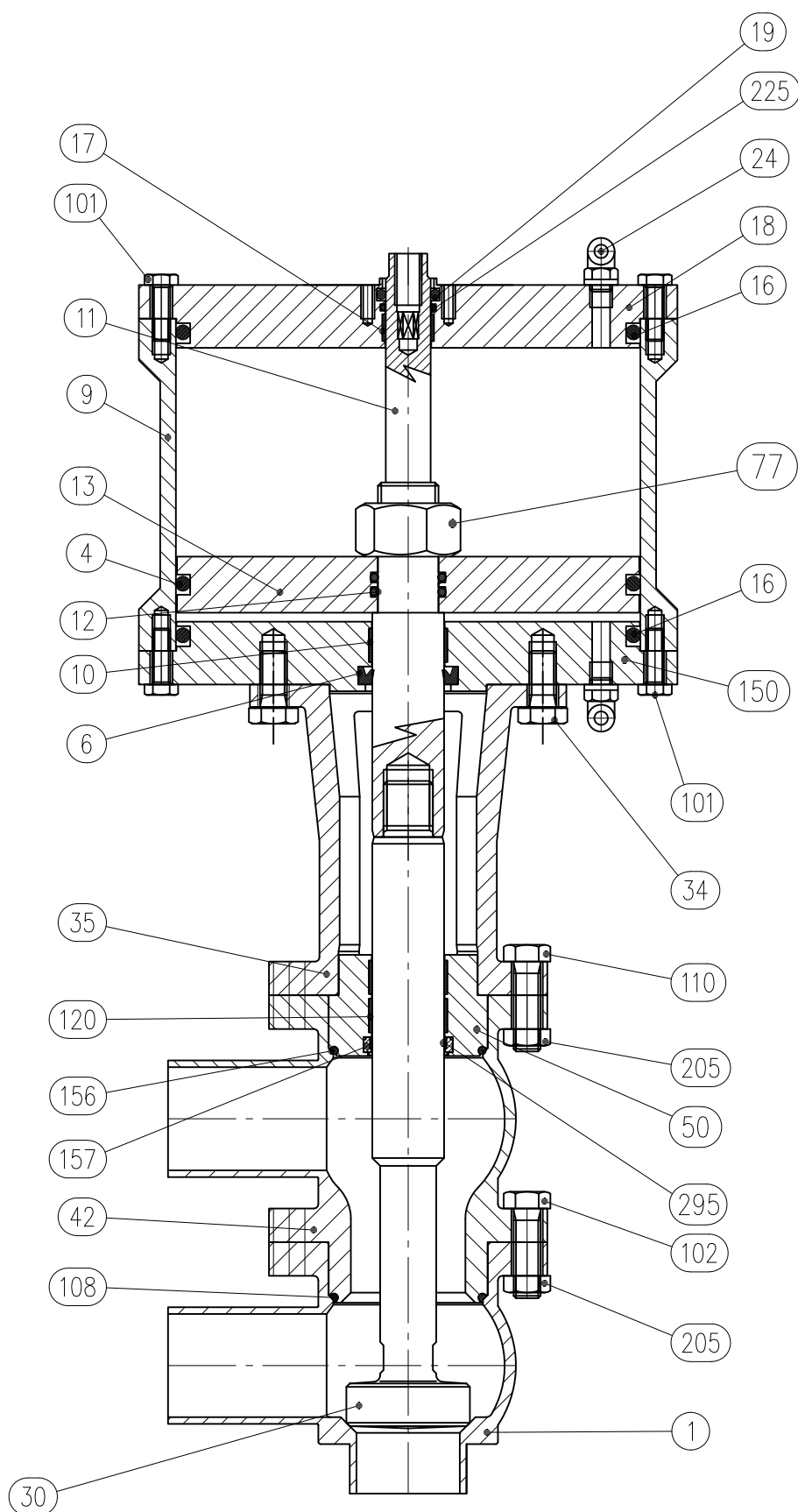
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21 Schema 2D BBZQ M8 cilindro 207-360



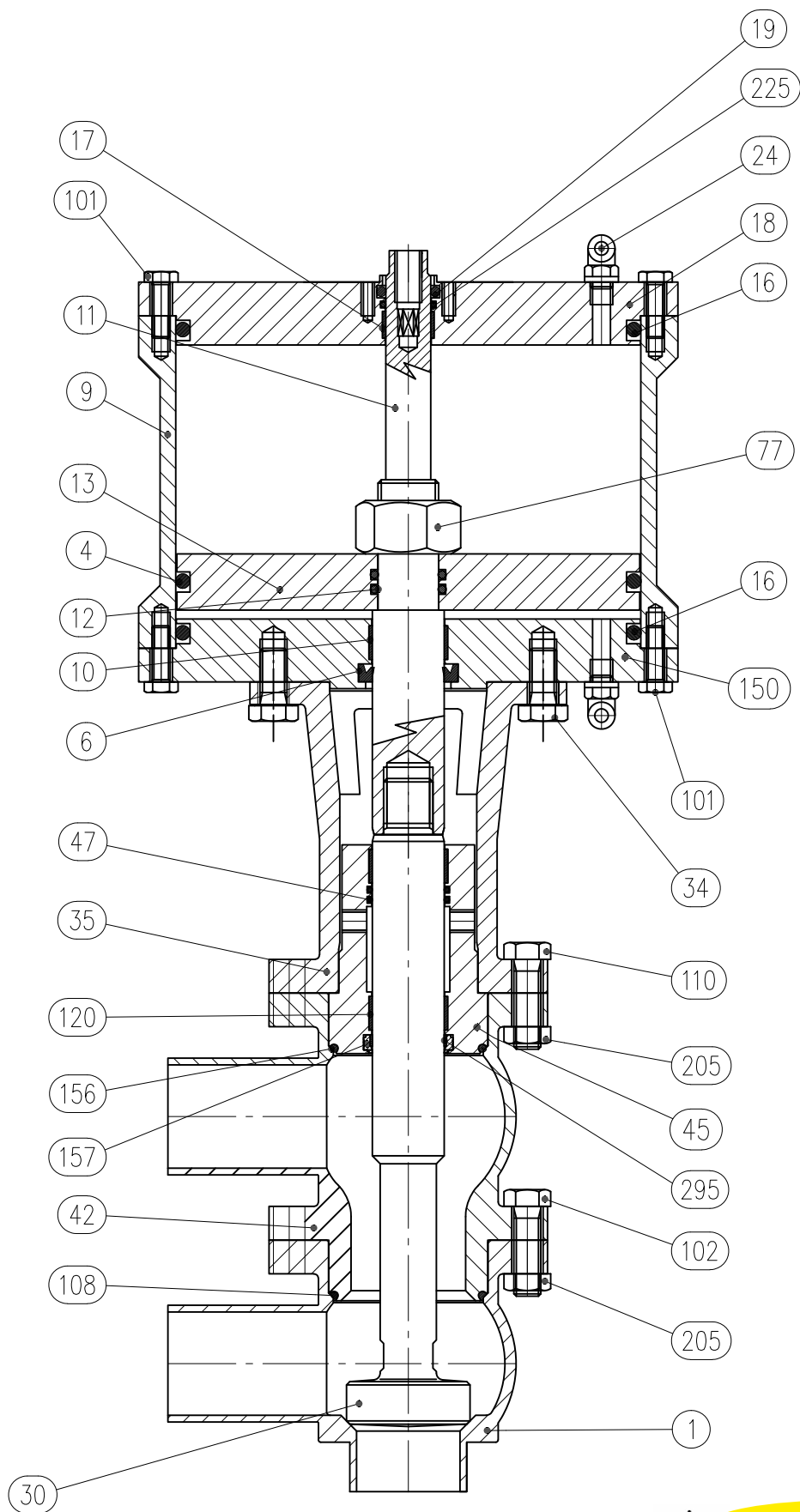
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22 Schema 2D BBZQ cilindro 207-360 Deviatrice



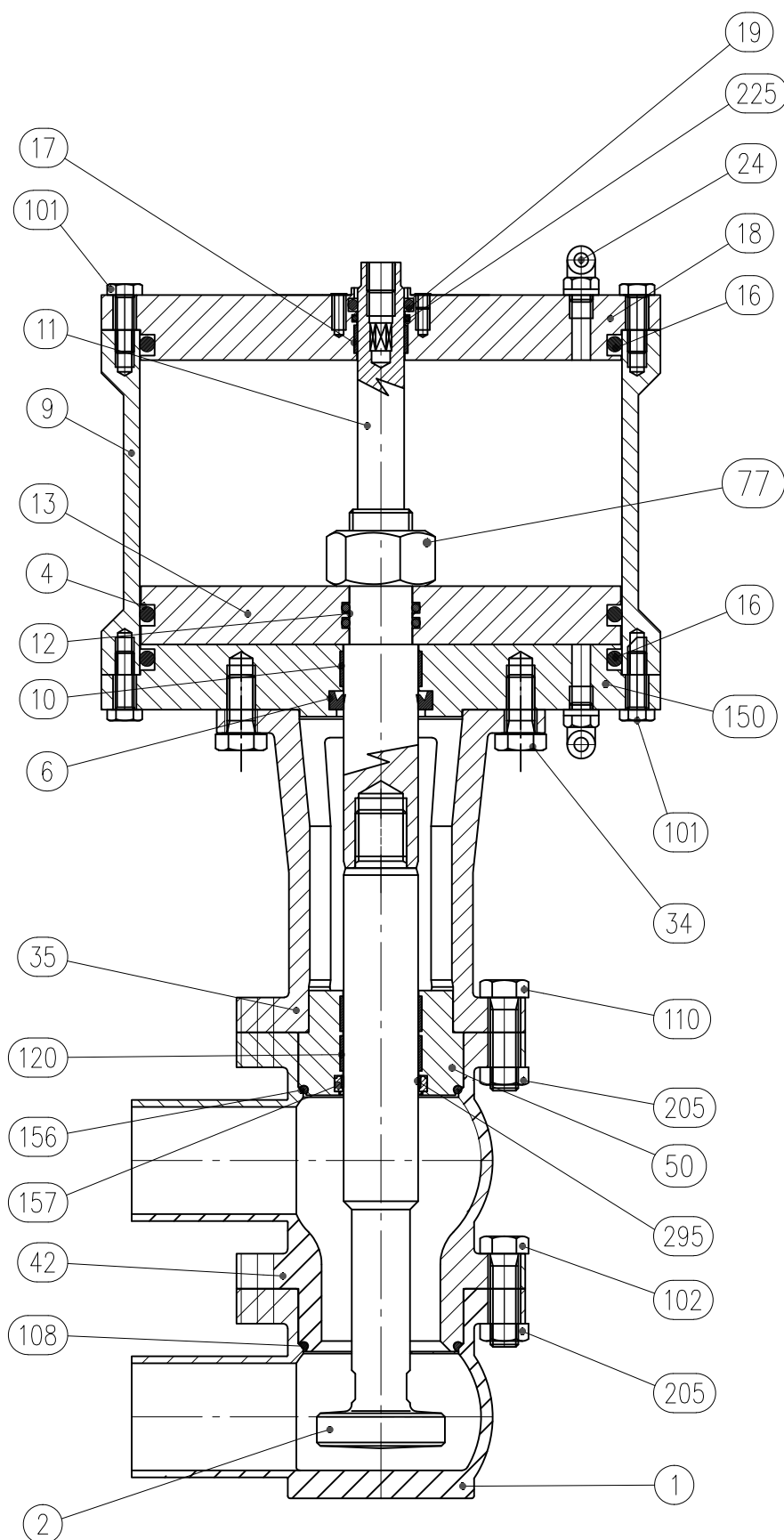
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23 Schema 2D BBYQ cilindro 207-360 Deviatrice



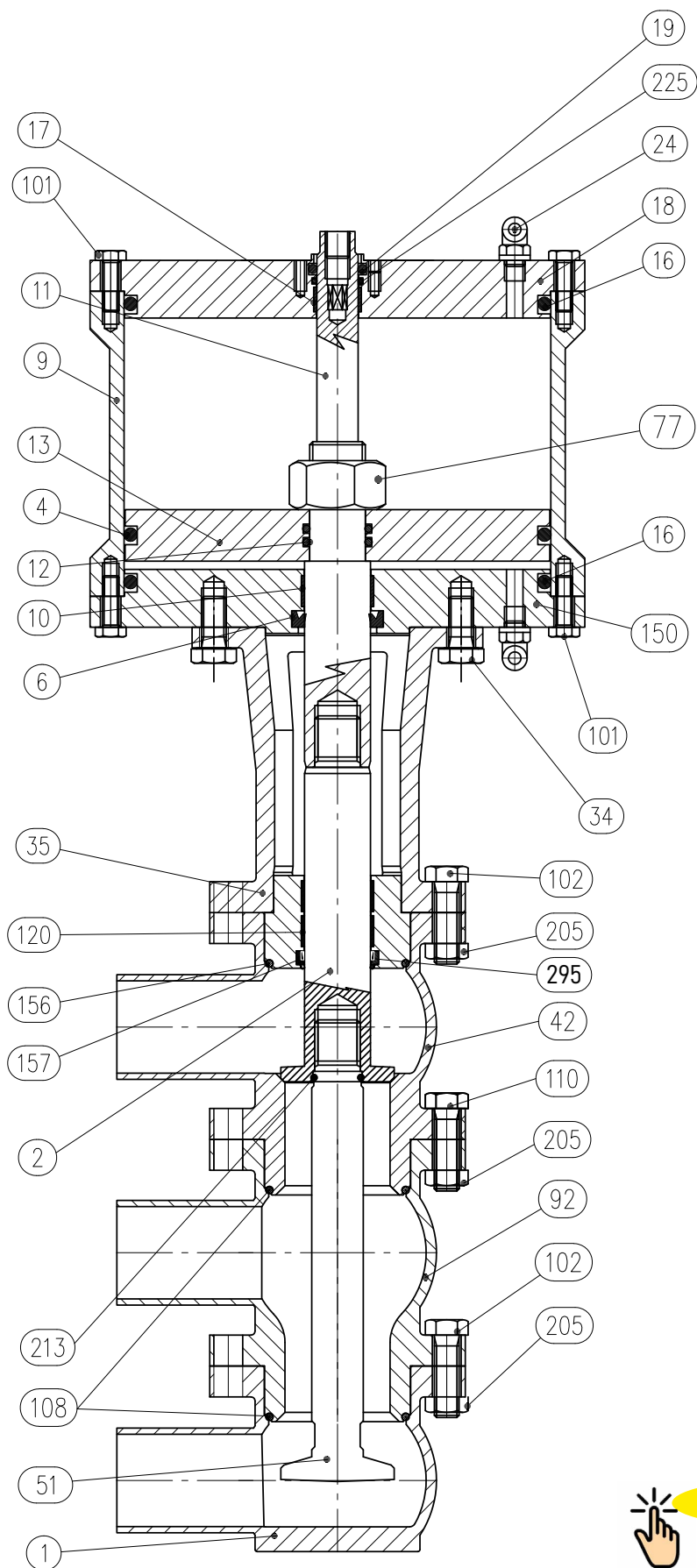
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24 Schema 2D BBZQ P7 cilindro 207-360 Deviatrice



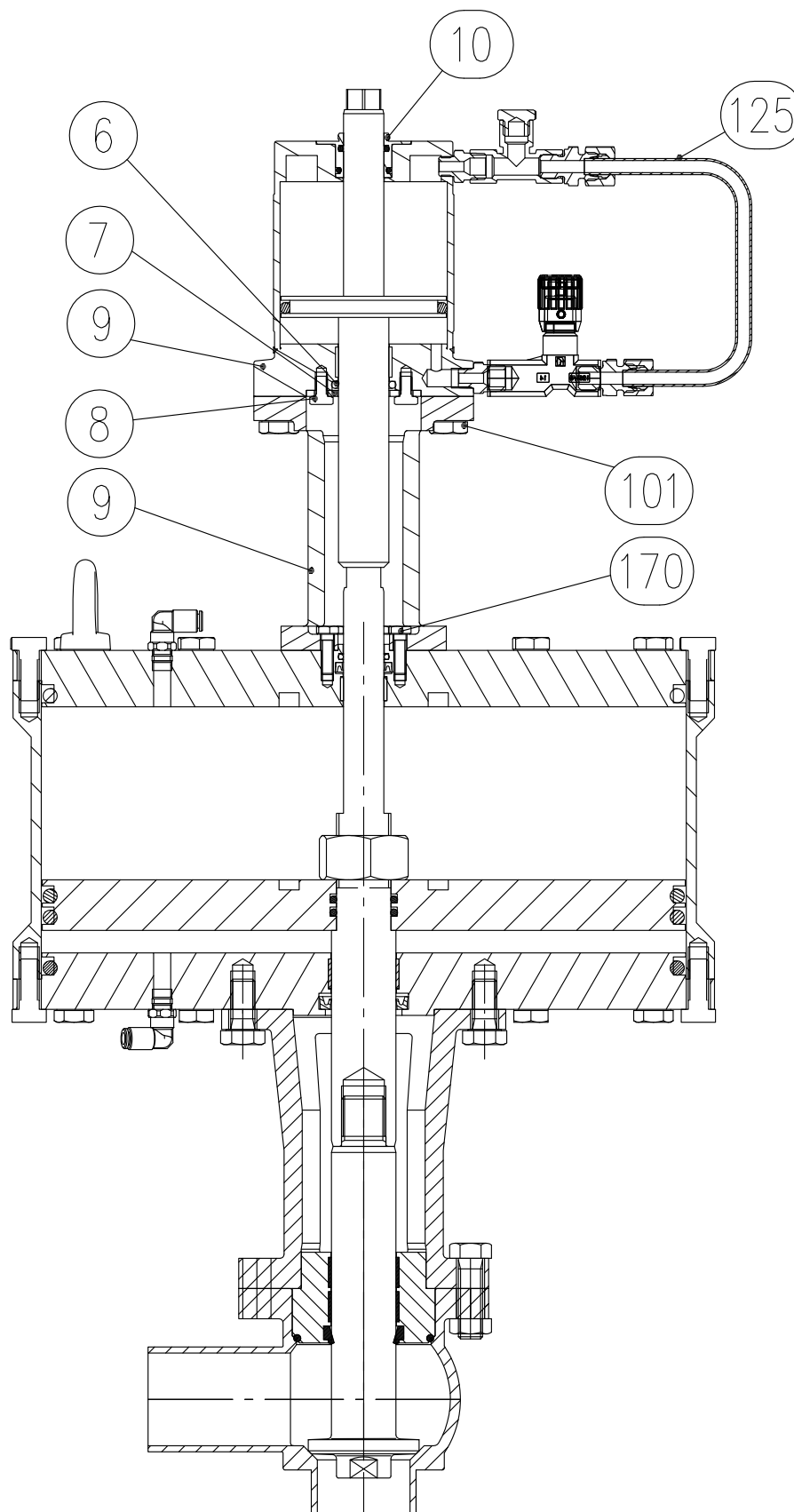
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25 Schema 2D BBZQ cilindro 207-360 Deviatrice M8

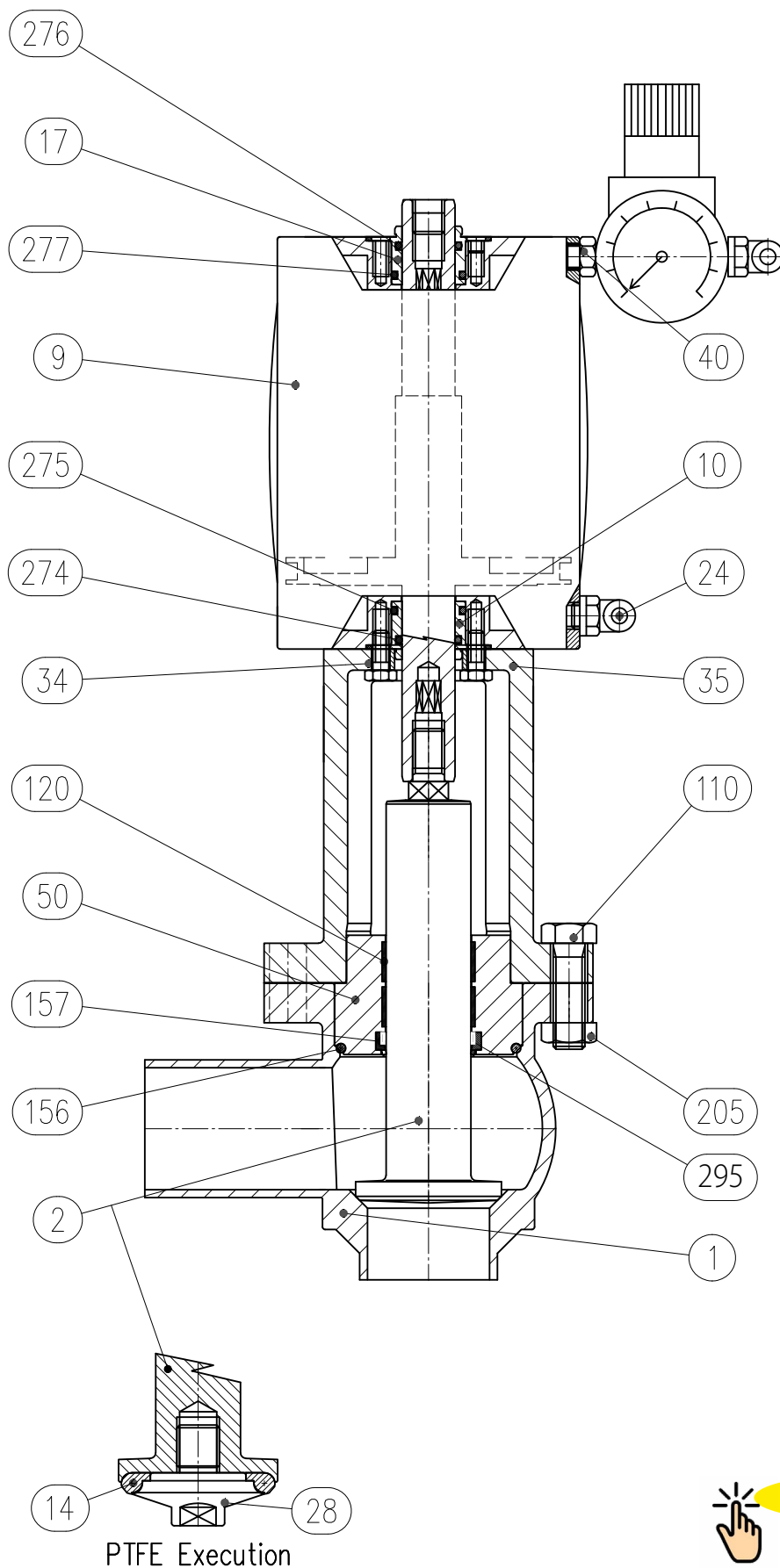


[BBZQ-207-360 DEV]

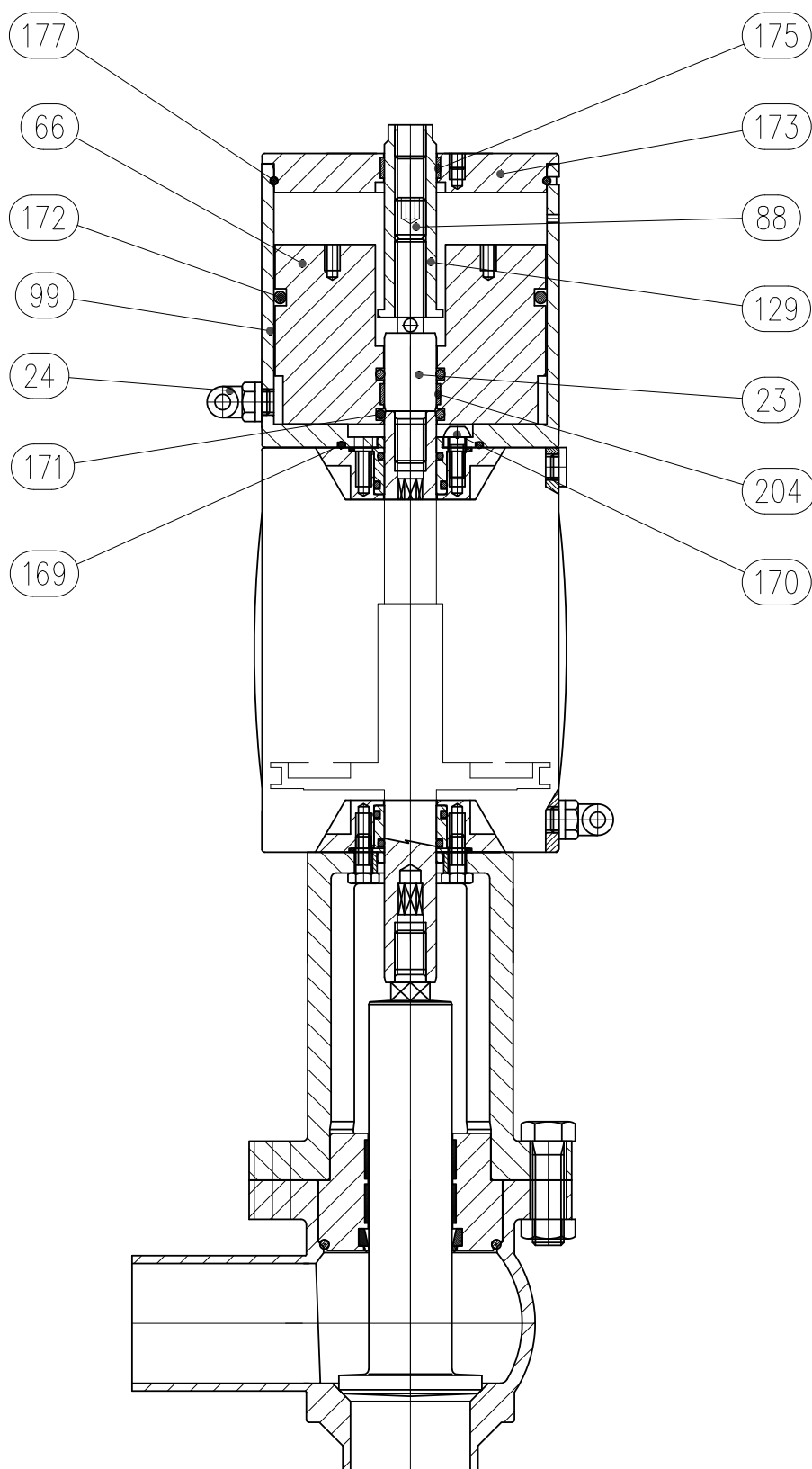
26 Schema 2D BBZQ cilindro 207-360 con Smorzatore

**[SMORZ BBZQ-207-360]**

27 Schema 2D BBZQ cilindro 108-156 Con Regolatore

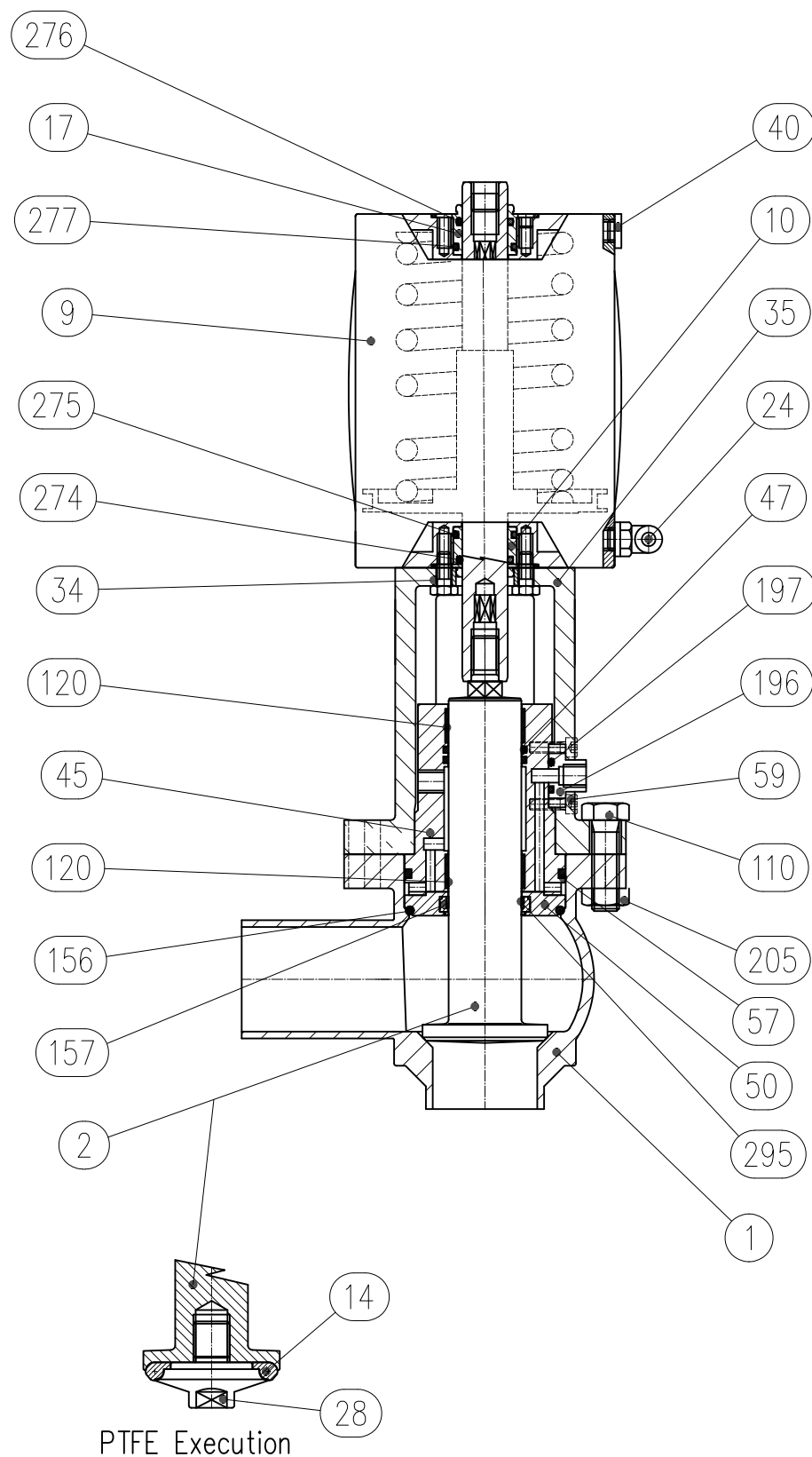


28 Schema 2D BBZU cilindro 108-156



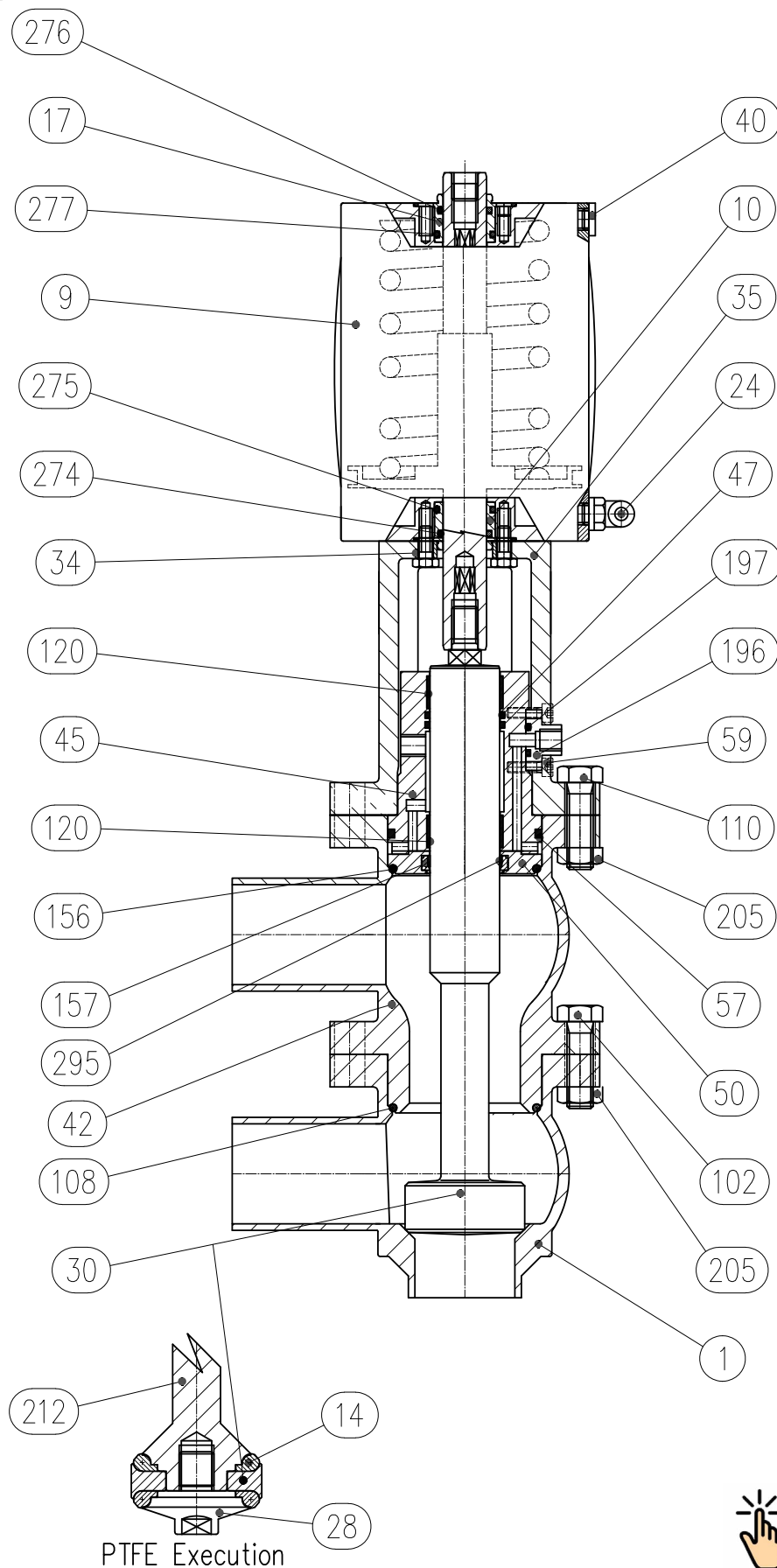
[BBZU]

29 Schema 2D BBYQ cilindro 108-156 SPECIALE



[BBZQ-108-156]

30 Schema 2D BBYQ cilindro 108-156 Deviatrice SPECIALE



31 Garanzia

1. DURATA

Bardiani Valvole S.p.A. dichiara che i propri Prodotti sono fabbricati in conformità alle specifiche tecniche dichiarate nei "Manuali di Istruzione, Uso e Manutenzione" e sono conformi alle direttive espressamente indicate nei presenti manuali.

Bardiani Valvole S.p.A. garantisce i propri Prodotti da eventuali vizi e/o difetti di progettazione e/o costruzione e/o di materiale per 12 (dodici) mesi dalla data di consegna degli stessi.

I vizi e/o difetti dei Prodotti devono essere denunciati in modo dettagliato per iscritto, con lettera raccomandata o fax o qualsiasi altro mezzo che comprova l'avvenuta ricezione, a Bardiani Valvole S.p.A. entro 8 (otto) giorni dalla loro scoperta, con allegazione di idonea documentazione comprovante la loro esistenza.

La prestazione eseguita in garanzia non comporta un prolungamento del periodo di garanzia oltre il termine di 12 (dodici) mesi, termine che è da ritenersi tassativo.

2. CONTENUTO DELLA GARANZIA

Fermi ed impregiudicati i diritti eventualmente riconosciuti all'Acquirente da disposizioni imperative della legge applicabile, la presente garanzia è da intendersi limitata, a discrezione di Bardiani Valvole S.p.A., alla riparazione e/o sostituzione del Prodotto e/o delle parti di Prodotto e/o dei suoi componenti riconosciuto/i difettoso/i per vizi di progettazione e/o costruzione e/o di materiale.

- Nel caso di riparazione e/o sostituzione del Prodotto e/o di una sua parte e/o di un suo componente, quanto reso diventa di proprietà di Bardiani Valvole S.p.A. e le relative spese di spedizione sono a carico di Bardiani Valvole S.p.A..
- In nessun caso, Bardiani Valvole S.p.A. sarà obbligata a risarcire danni immateriali e/o indiretti e in alcun modo sarà responsabile per danni e/o perdite consequenziali quali, a mero titolo esemplificativo, danni per perdite di attività, di contratti, di opportunità, di tempo, di produzione, di profitti, di avviamento, danni di immagine, ecc..
- Nessun rivenditore e/o distributore e/o concessionario e/o agente e/o rappresentante e/o dipendente e/o incaricato di Bardiani Valvole S.p.A. è autorizzato ad effettuare alcuna modifica e/o integrazione e/o estensione della presente garanzia.

3. ESCLUSIONI DELLA GARANZIA

Sono espressamente esclusi dalla presente garanzia gli elastomeri.

La presente garanzia è esclusa ai vizi di progettazione qualora il Prodotto sia realizzato da Bardiani Valvole S.p.A. sulla base di progetti e/o specifiche tecniche e/o indicazioni tecniche fornite dall'Acquirente.

L'applicazione della presente garanzia è altresì esclusa:

- ai vizi e/o difetti derivanti da un trasporto del Prodotto non corretto e/o non idoneo e/o improprio;
- ai vizi e/o difetti derivanti da installazione del Prodotto non in conformità a quanto indicato nel "Manuale di Istruzioni, Uso e Manutenzione" o comunque derivanti da installazione non corretta e/o non idonea e/o impropria;
- ai vizi e/o difetti dovuti a utilizzo e/o di manutenzione e/o di conservazione dei Prodotti in modo non conforme alle prescrizioni contenute nel "Manuale di istruzioni, Uso e Manutenzione" e/o non corretti e/o non idonei e/o impropri;
- ai vizi e/o difetti imputabili alla normale usura del Prodotto e/o sue parti e/o sue componenti;
- ai vizi e/o difetti del Prodotto e/o di sue parti e/o di sue componenti se sono stati eseguiti interventi e/o riparazioni e/o modificazioni da parte di personale non autorizzato da Bardiani Valvole S.p.A. e/o non professionalmente qualificato;
- ai vizi e/o difetti del Prodotto e/o sue parti e/o sue componenti imputabili a cadute e/o urti e/o ammassamenti e/o abusi e/o manomissioni e/o rotture e/o incidenti e/o altri eventi imputabili a negligenza e/o imprudenza e/o incuria dell'Acquirente ed in genere dovuti a cause non imputabili a difetti di progettazione e/o costruzione e/o di materiale;
- ai vizi e/o difetti del Prodotto e/o sue parti e/o sue componenti cagionati da altri eventi al di fuori della sfera di controllo di Bardiani Valvole S.p.A. oppure determinati da forza maggiore o da caso fortuito.

32 Raccomandazioni

- 1.** E' obbligatoria la consultazione del "Manuale di Istruzioni, Uso e Manutenzione" prima di procedere all'installazione, all'utilizzo e alla manutenzione dei Prodotti. Tutte le informazioni, le indicazioni, le specifiche e le notizie tecniche qui riportate sono basate su dati di prove che Bardiani Valvole S.p.A. ritiene attendibili, ma che non sono riferibili ad ogni possibile utilizzo del Prodotto.
- 2.** Le raffigurazioni e i disegni, tutti di valore generale, indicativo e non vincolante, possono non corrispondere alle reali condizioni dei Prodotti.
- 3.** Dal momento che le condizioni di uso e applicazione del Prodotto ed il suo utilizzo sono al di fuori del controllo di Bardiani Valvole S.p.A., l'Acquirente deve preventivamente accertare la sua idoneità all'uso al quale intende destinarlo e assume ogni conseguente rischio e responsabilità che ne deriva dall'uso stesso.
- 4.** Si raccomanda all'Acquirente di consultare sempre i collaboratori tecnici-commerciali di Bardiani Valvole S.p.A. per richiedere informazioni specifiche in merito alle caratteristiche tecniche dei Prodotti.
- 5.** Quanto riportato nel presente Manuale si riferisce a prodotti di standard di Bardiani Valvole S.p.A. e non può in nessun caso costituire un riferimento di base per prodotti realizzati su specifiche richieste.
- 6.** Bardiani Valvole S.p.A. si riserva il diritto, senza obbligo alcuno di comunicazione, di modificare e/o integrare e/o aggiornare, in qualsiasi momento, i dati e/o le informazioni e/o le notizie tecniche relative ai Prodotti. Si invita alla consultazione del sito Internet www.bardiani.com nel quale è pubblicata l'ultima versione aggiornata del "Manuale di Istruzioni, Uso e Manutenzione".
- 7.** Il contenuto e la durata della garanzia dei prodotti di Bardiani Valvole S.p.A. sono disciplinati nella relativa sezione del "Manuale di Istruzioni, Uso e Manutenzione" che costituisce parte integrante dei prodotti medesimi.
- 8.** In nessun caso Bardiani Valvole S.p.A. sarà responsabile per danni immateriali, indiretti e consequenziali quali, a mero titolo di esempio, danni o perdite di attività, di contratti, di opportunità, di tempo, di produzione, di profitti, di avviamento, di immagine ecc..

NOTE

Bardiani Valvole S.p.A.
via G. di Vittorio, 50/52 - 43045 Fornovo di Taro (PR) - Italy
tel. +39 0525 400044 - fax +39 0525 3408
bardiani@bardiani.com - www.bardiani.com