

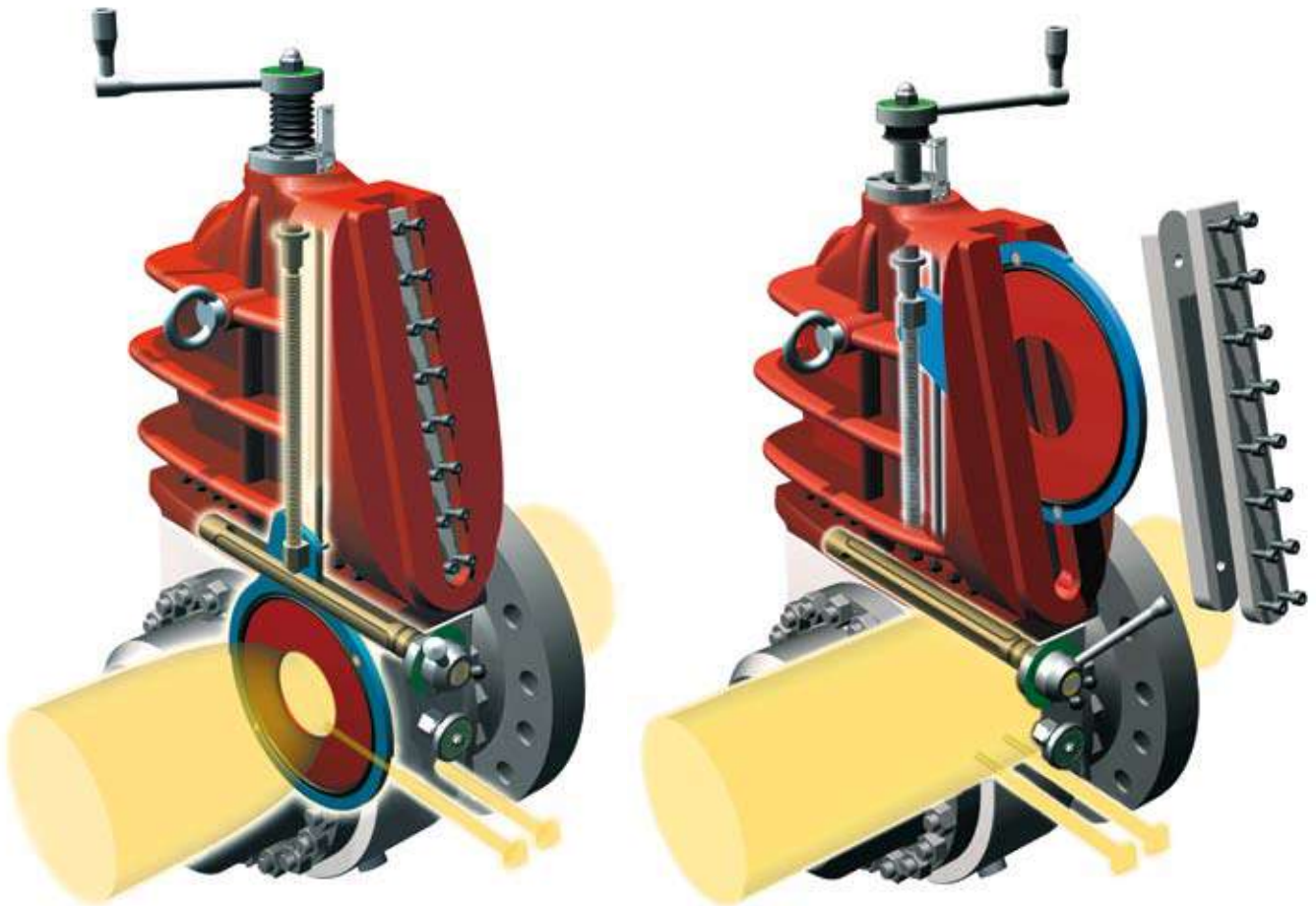


## **Fiomaster**

Pressurized Orifice Fittings

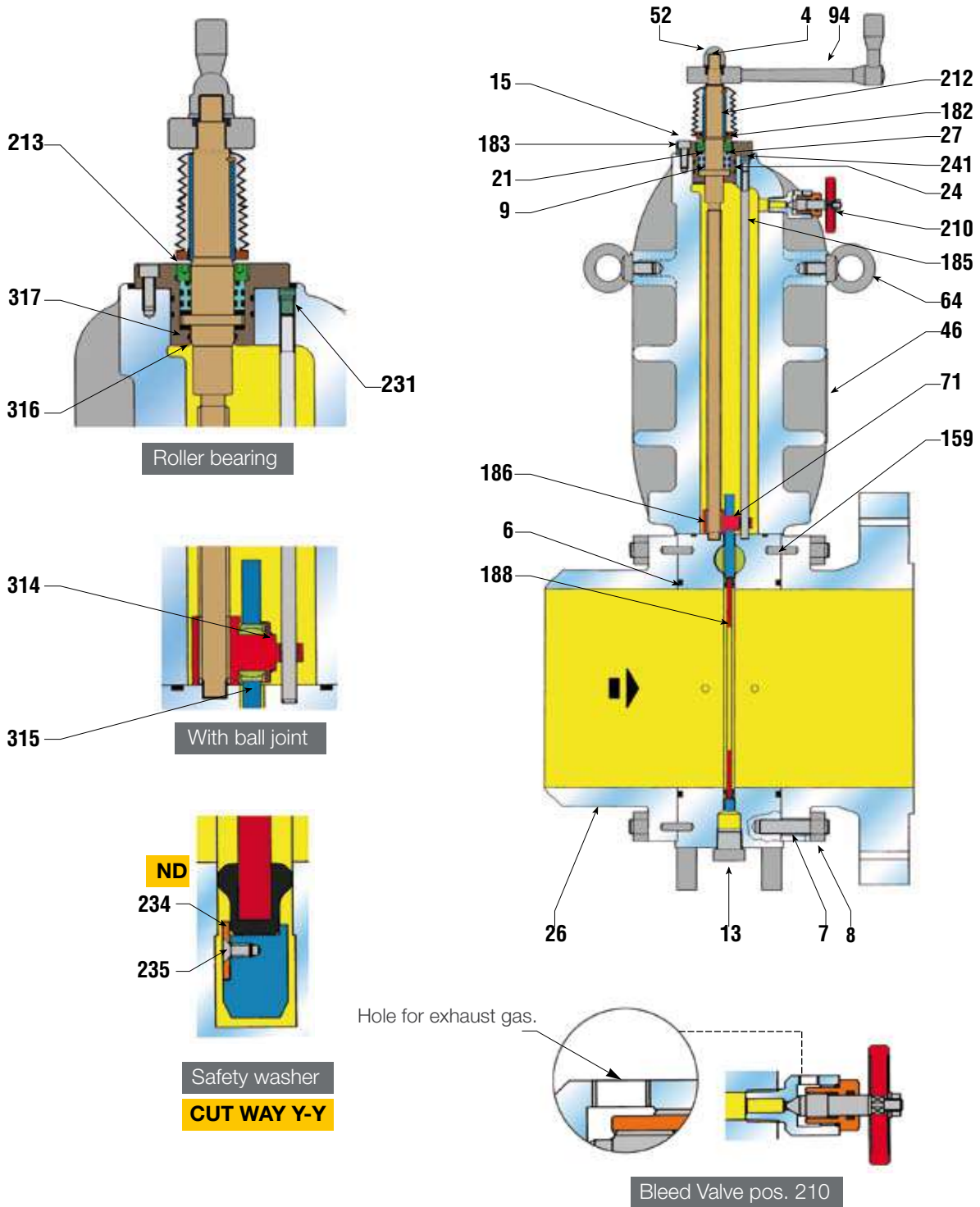
**OPERATING  
INSTRUCTION**

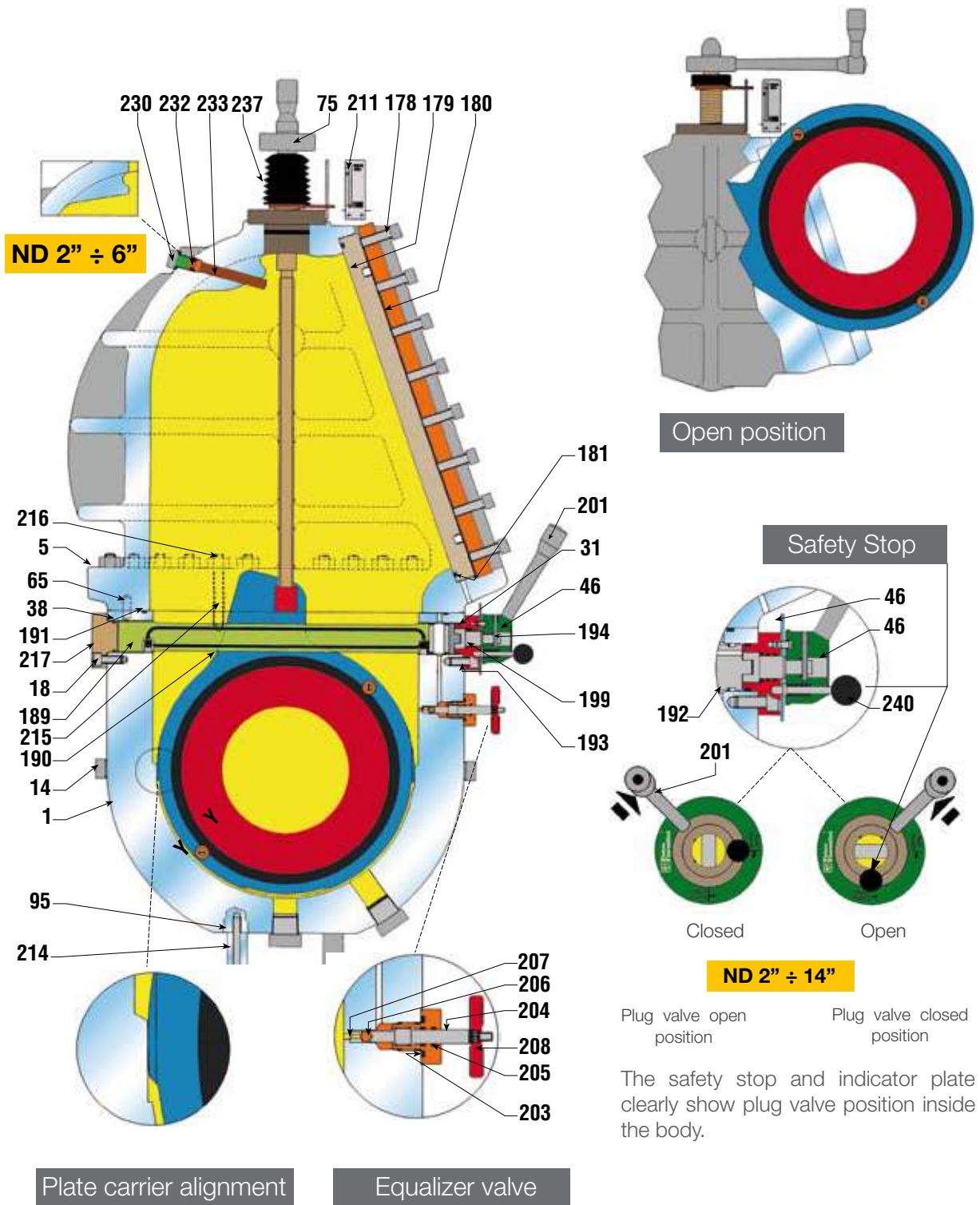
All the component parts of the **Pietro Fiorentini** pressurized orifice fittings have been designed to guarantee full efficiency even after a lengthy working time. Precision machining carried out on appropriately equipped CNC machines and strict quality control guarantee the constancy and the high quality of the product.

**Fig. 930**

### Reference standards

All Pietro Fiorentini "**FIOMASTER**" pressurized orifice fittings are designed and manufactured to current **ISO 5167/ API/AGA 14.3** standards.

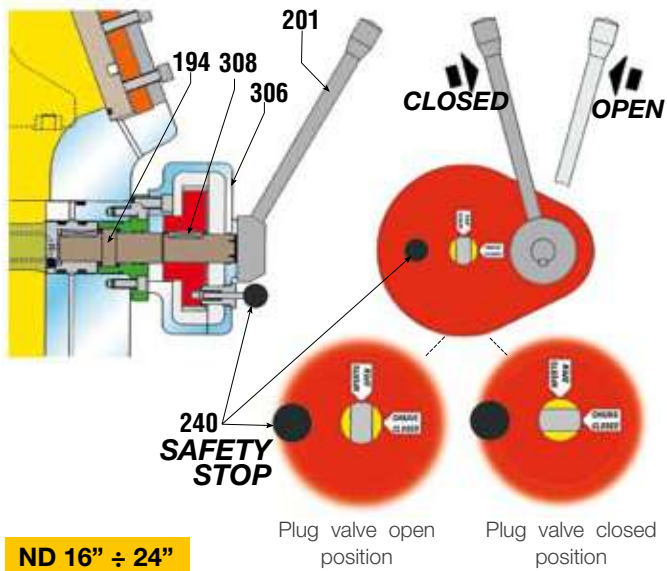




Plug valve open position

Plug valve closed position

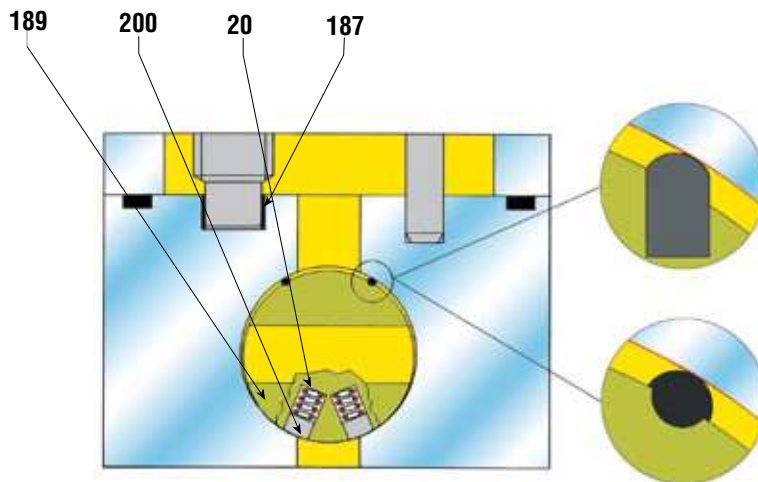
The safety stop and indicator plate clearly show plug valve position inside the body.



The indicator plate clearly shows plug valve position inside the body

**ND 16" ÷ 24"**

Gear operated



**ND 18" ÷ 24"**

PTFE insert

**ND 2" ÷ 16"**

Vulcanized rubber

Closed position plug low pressure spring energized.

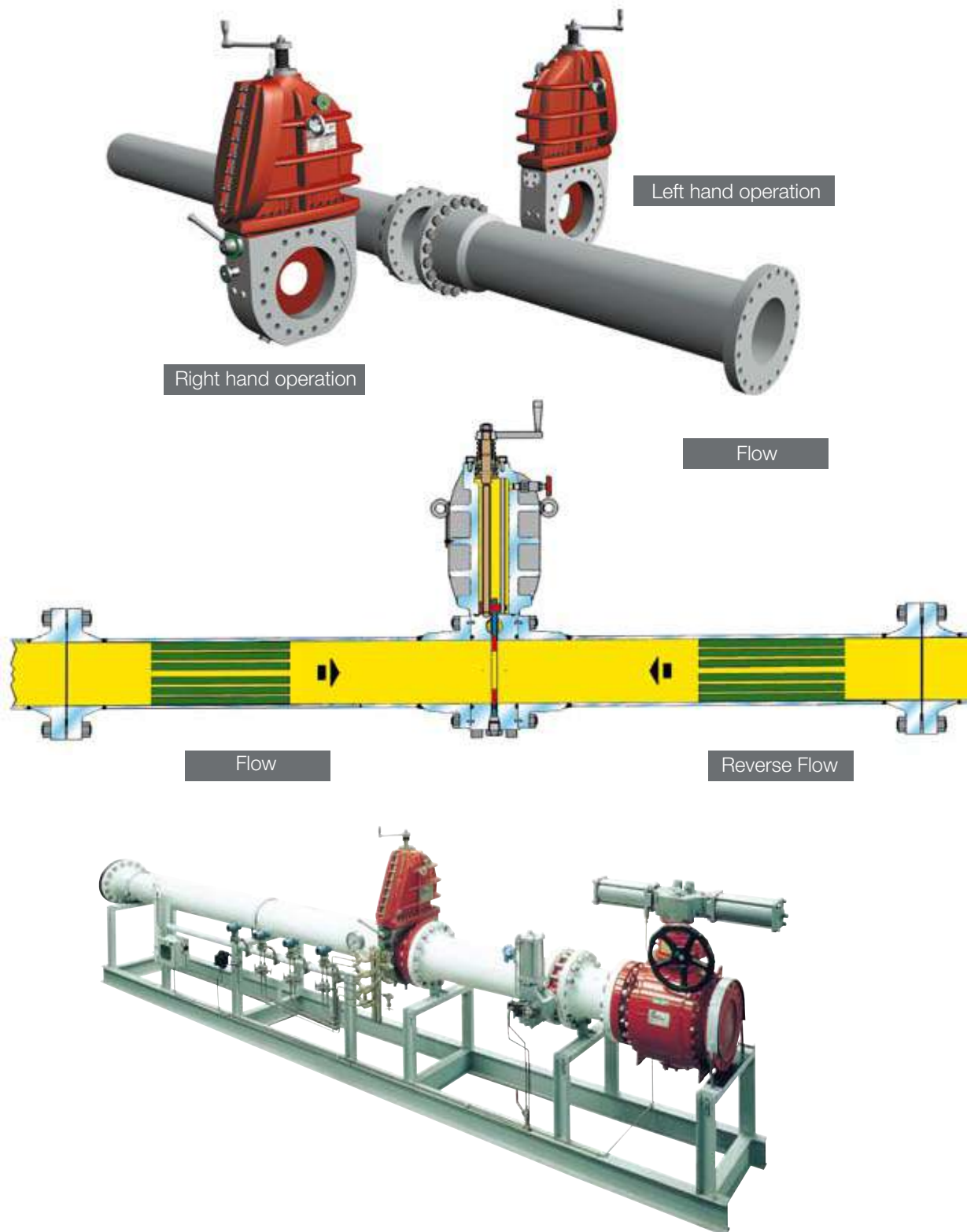


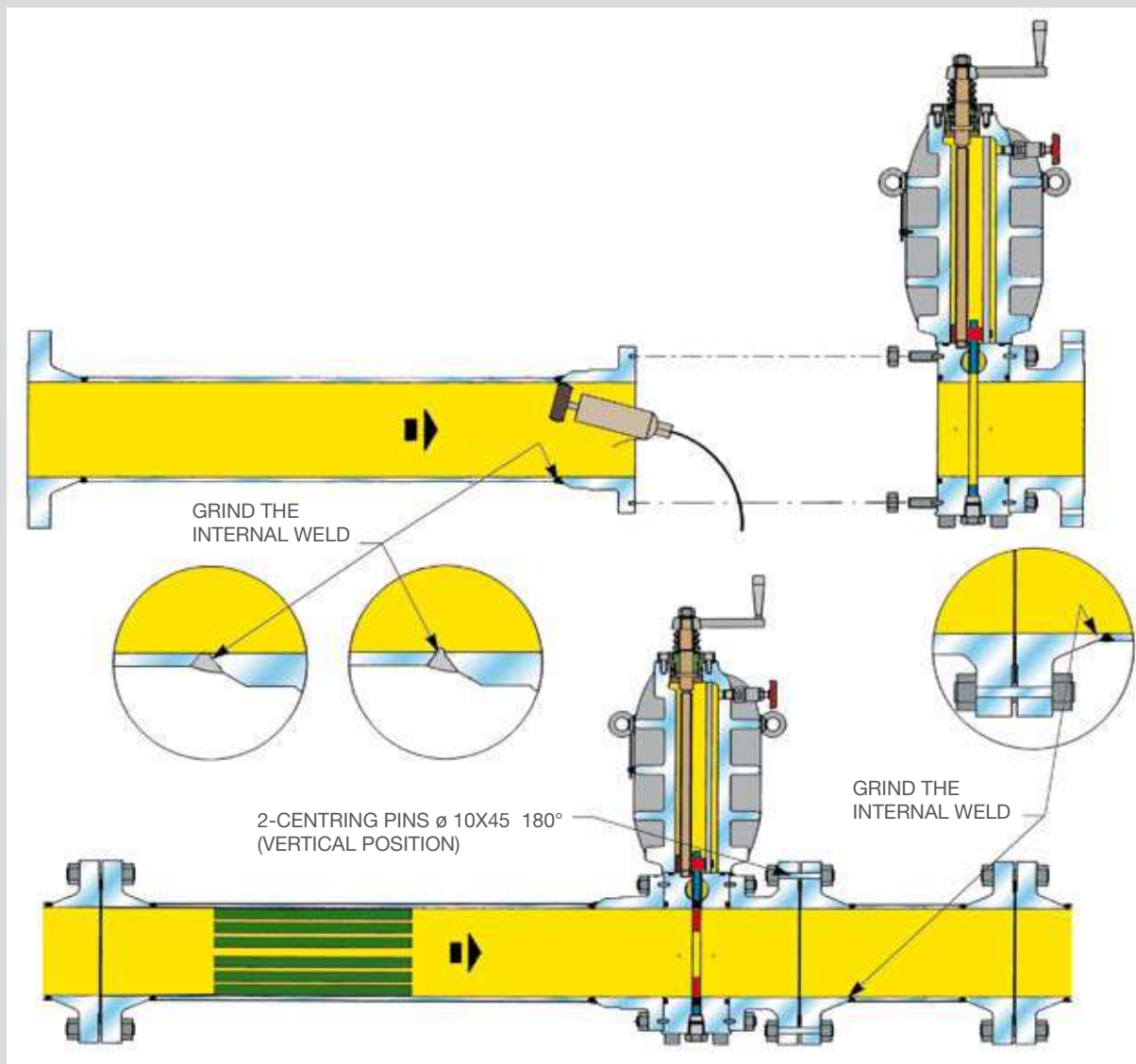
Costruction materials

POS.	DESCRIPTION	MATERIALS	NOTES	POS.	DESCRIPTION	MATERIALS	NOTES
1	BODY	ASTM A350-LF2	1	190	PLATE HOLDER	ASTM A203-B	1-3
4	STEM	AISI 410		191	O RING	BUNA-N	
5	BONNET	ASTM A216-WCB		192	O RING	BUNA-N/PTFE	
6	O RING	BUNA-N		193	BONNET	AISI 410	
7	STUD BOLT	ASTM A193-B7	2	194	STEM	AISI 410+Cr	
8	NUT	ASTM A194-2H	2	199	O RING	BUNA-N	
9	THRUST BEARING	CS-DRY BEARING		200	THRUST PLATE	PTFE	
13	DRAIN PLUG	AISI 316		201	WRENCH HEAD	AISI 316+410	
14	PLUG	AISI 316		203	O RING	BUNA-N	
15	CAP SCREW	AISI 316		204	STEM	AISI 420	
18	CAP SCREW	AISI 316		205	O RING	BUNA-N	
20	SPRING	AISI 302		206	BALL	AISI 316	
21	O RING	BUNA-N		207	SEAT	DEVLON	
24	O RING	BUNA-N		208	EQUALIZER VALVE	AISI 410	
26	TAIL PIECE	ASTM A350 LFZ		210	BLEED VALVE	AISI 410	
27	SLEEVE	BRONZO-BZ		211	INDICATOR	AISI 316	
31	THRUST PLATE	PTFE		212	INDICATOR BUSHING	BRONZO-BZ	
38	O RING	BUNA-N		213	INDICATOR NUT	AISI 410	
46	NAME PLATE	INOX		214	CAP SCREW	ISO 898/1-8.8	2
52	NUT	ISO 898/1-6S	2	215	STUD BOLT	ASTM A193-B7	2
64	EYEBOLT	STEEL	2	216	NUT	ASTM A194-2H	2
65	PIN	AISI 4140	2	217	BONNET	AISI 410	
71	RETAINING RING	STEEL		230	PLUG	STEEL	
75	WASHER	ASTM A283-GrC	2	231	O RING	BUNA-N	
94	HANDWHEEL	AISI 316+410		232	BUSHING	ASTM A105	
95	SUPPORT LEGS	AISI 1035	2	233	SHAFT	BRONZO-BZ	
159	PIN	AISI 4140	2	234	WASHER	AISI 316	
178	SCREW	AISI 316		235	SCREW	AISI 316	
179	BONNET	P.355 NH (EN 10028-3)	1-3	237	PROTECTOR	RUBBER	
180	CLAMP	AISI 1035	1	240	SAFETY STOP	AISI 316	
181	O RING	BUNA-N		241	PLUG	AISI 316	
182	BUSHING RETAINER	AISI 304		244	FLOW DIRECTION	AISI 316	
183	UPPER BUSHING	AISI 410		306	GEAR BOX	STEEL	
185	DRIVE BAR	AISI 316		308	KEY	AISI 4140	
186	LEAD SCREW	BRONZO-BZ		314	BUSHING RETAINER	AISI 410	
187	THRUST BEARING	CS-DRY BEARING		315	BALL JOINT	STEEL	
188	ORIFICE PLATE	AISI 316+BUNA-N		316	O RING	BUNA-N	
189	PLUG VALVE	AISI 410+BUNA-N		317	ROLLER BEARING	STEEL	

**NOTE:**

- 1 Electroless Nickel plated.    2 Alternative ISO Fe 510.    3 Alternative ISO Fe 510    CS Carbon steel    DRY BEARING





Disassemble the end of the orifice fittings and weld it on the measuring branch.

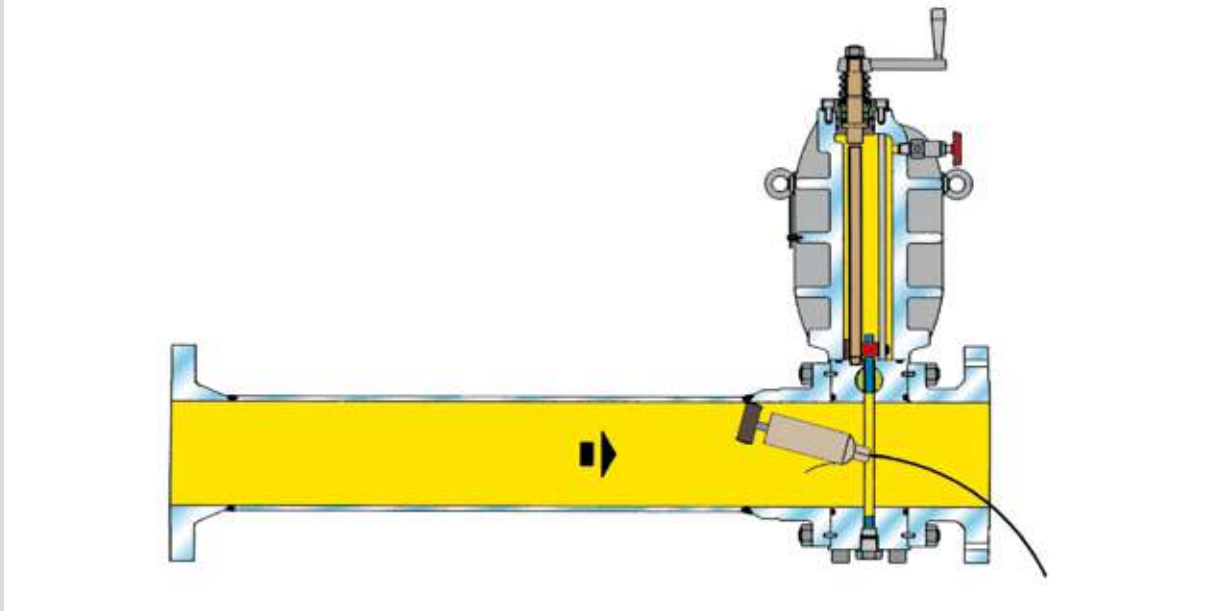
Carefully grind the inside surface of the pipe so as to respect the tolerances laid down in ISO/API/AGA14.3 standards.

X-ray control of the weld will be more practical and manageable.



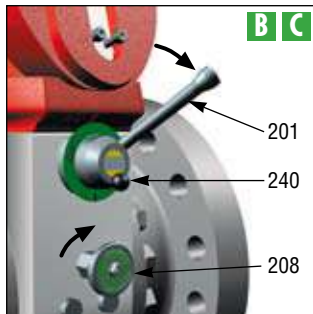
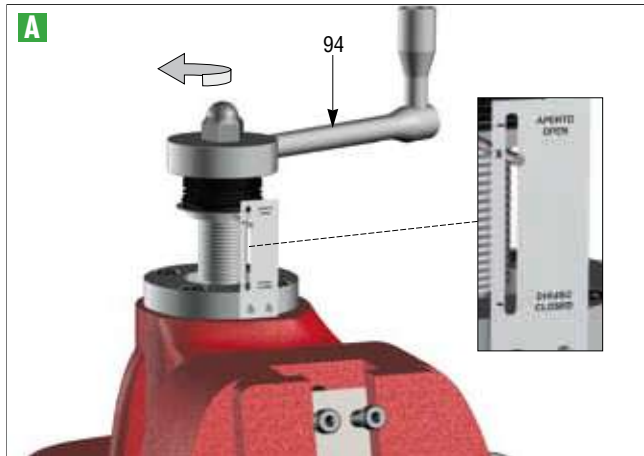
## How Pietro Fiorentini builds the measuring branch

## Fiomaster

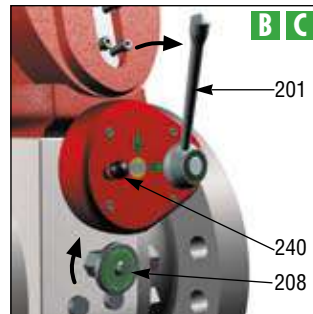


The diameter and depth of the gauge of the orifice fittings do not facilitate the internal grinding of the weld. For this reason, the orifice fittings is not welded mounted on the measuring branch. This protects the inside of the orifice fittings from any burr, slag or deposit, etc. when grinding the inside of the welding.

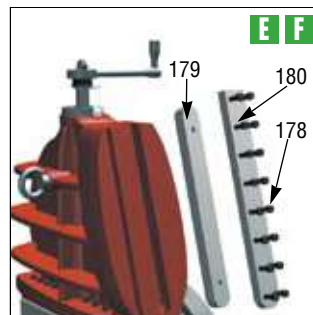
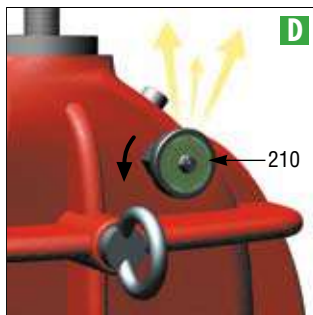
**Each metering line can be customized upon customer specification requirement.**



ND 2'' ÷ 14''



ND 16'' ÷ 24''

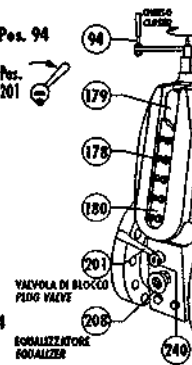


Bleed completely internal pressure.

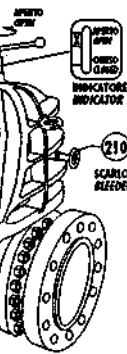


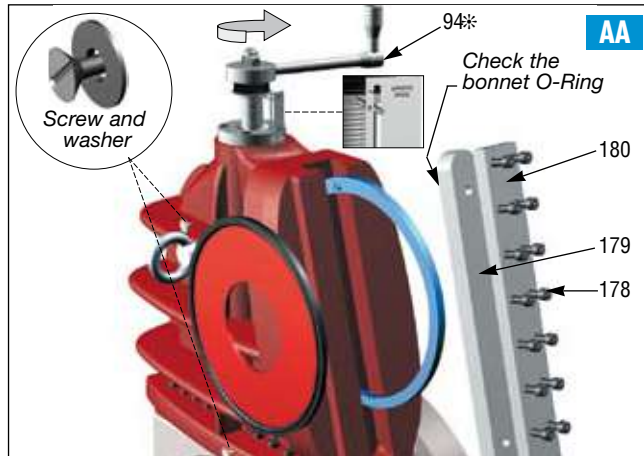
PER SMONTARE L'ORIFIZIO TO REMOVE ORIFICE PLATE **FIOMASTER** MANOVRE

- A** RUOTARE IN X (INDICATORE) ROTATE TO X (INDICATOR) Pos. 94
- B** CHIUSO Pos. 240 RUOTARE IN CHIUSO Pos. 201
- C** CHIUDERE CLOSE Pos. 208
- D** APRIRE OPEN Pos. 210
- E** SVITARE LOOSEN Pos. 178
- F** LEVARE REMOVE Pos. 180-179
- G** RUOTARE IN APERTO ROTATE TO OPEN Pos. 94



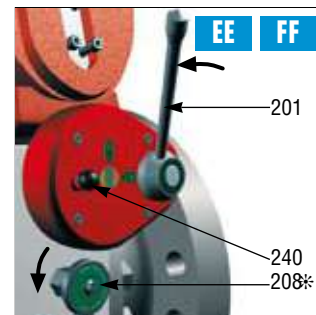
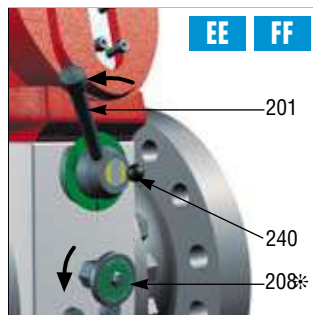
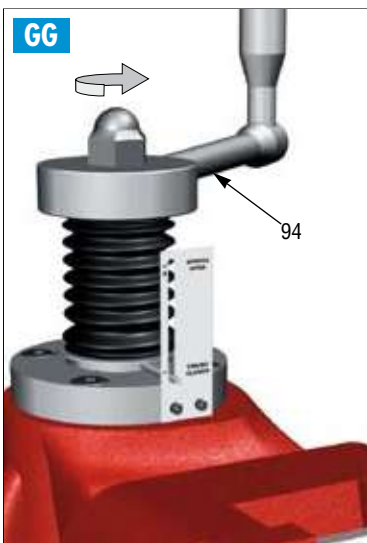
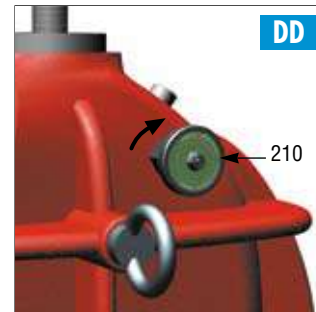
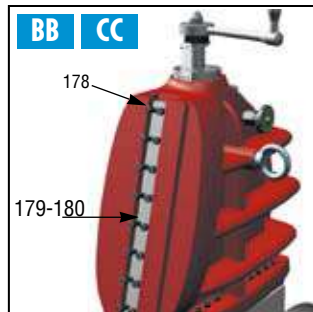
**ARCUGNANO  
VICENZA  
ITALY**
**MASTER** PER MONTARE L'ORIFIZIO  
OPERATION TO REPLACE ORIFICE PLATE

- 
- AA** RUOTARE IN X (INDICATORE) ROTATE TO X (INDICATOR) Pos. 94
  - BB** MONTARE REPLACE Pos. 179-180
  - CC** AVVITARE (20 Nm) max TIGHTEN Pos. 178
  - DD** CHIUDERE CLOSE Pos. 210
  - EE** APRIRE OPEN Pos. 208
  - FF** TIRARE Pos. RUOTARE IN APERTO Pos. PULL 240 ROTATE TO OPEN 201
  - GG** RUOTARE IN CHIUSO ROTATE TO CLOSED Pos. 94



\* Do not rotate plate holder onto plug valve

NOTE: Cover the bonnet opening with a protective sheet before assembling the screw and washer.



\* Open and wait for few minutes.

**ND 2" ÷ 14"**

**ND 16" ÷ 24"**



Ball valves



Pressure regulators



Pressure reducing stations



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