

SERVICE MAINTENANCE

- After the level gauge is first put into service, or after change of glasses, once the level gauge has reached its normal operating temperature and pressure, carefully compress the glass joints by following up the tightening bolts working at opposite sides alternately. **THIS MUST BE REPEATED SEVERAL TIMES WITHIN THE FIRST HOURS**, and in case any sign of leaks should appear.
- If perfect sealing cannot be obtained in this way, it will be necessary to replace the joints and eventually the glass too.

DISMANTLING

- Shut off the cocks and remove the level gauge body from the cocks.
- Loosen and take out the tightening bolts and remove all component pieces.
- Clean the sealing and cushion surface very carefully, making sure that they are clean of any remnants of joints.
- Smear the threads with a thin layer of graphitised grease

REASSEMBLING

- Fit in new glasses with new joints (never re-use joints which have already been in service!).
- Reassemble all the other components in the right sequence and tighten the bolts thoroughly.
- Never grip the level gauge body in a vice during the reassembling, but put it on a plane surface.
- Never use adhesive or hermetic mastics. Remember that all surfaces must be perfectly clean.

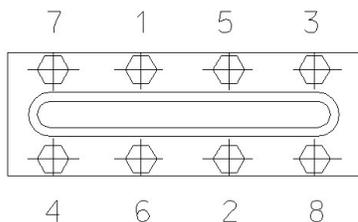
SPARE PARTS

- When ordering spare parts, please state:
 - o type and size of the level gauge
 - o item number of the spare part, as shown in the above list
 - o construction material
- As regards reflex glasses and their joints, remember that each level gauge is fitted with one reflex glasses type "B" (section 34x17 mm) the size of which suits the gauge body.

Note: The models shown are typical examples for the maintenance of our level gauges.

Sequenza di serraggio dadi
Tightening torque

SEQUENZA SERRAGGIO DADI



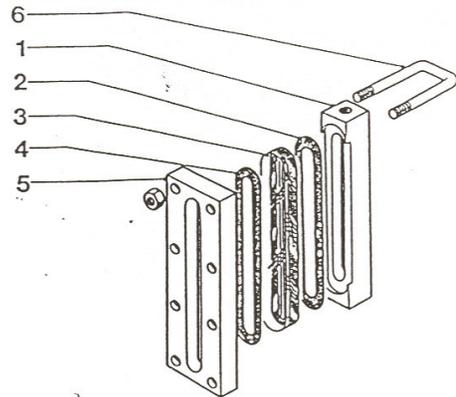
KLINGER LEVEL GAUGES REFLEX TYPE

1. Centre piece
2. Sealing joint
3. Reflex glass
4. Cushion joint
5. Cover plate
6. Bolt with nuts

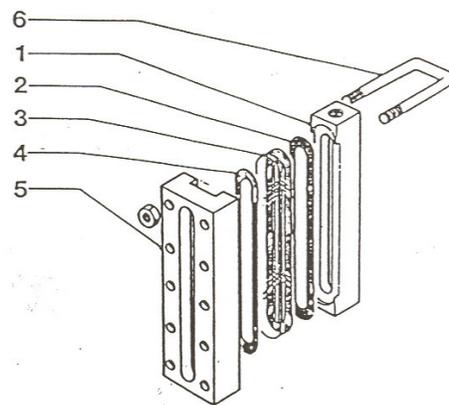
Standard ends:

- screwed for end tube
- "screwed 1/2" NPT female

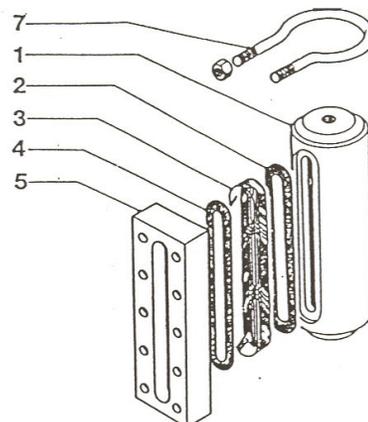
Mod.: R 100 – R 160



Mod.: R 250



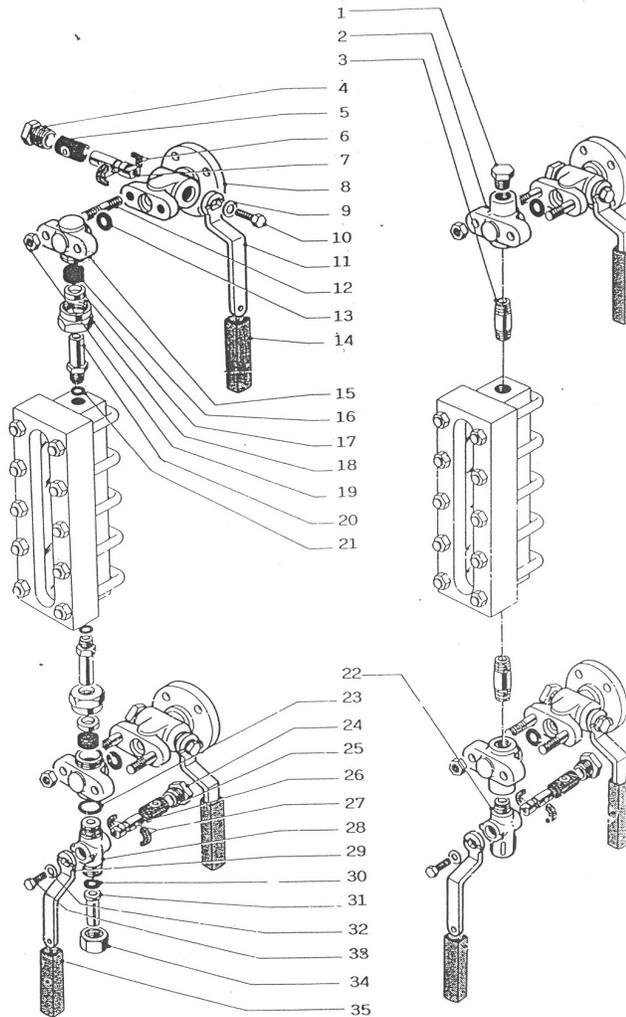
Mod. : UOR





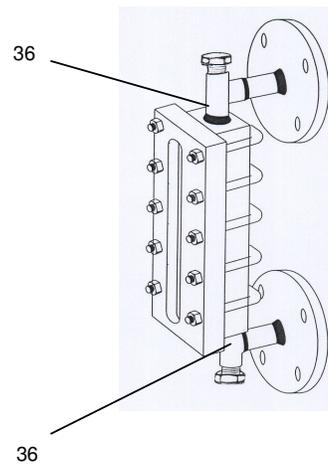
**KLINGER LEVEL GAUGE
COCKS TYPE D AND DG AND TEE**

- 1 NPT vent plug
- 2 NPT head
- 3 NPT nipple
- 4 AB 18 tightening nut
- 5 AB 18/2 packing sleeve
- 6 AB 18 split ring
- 7 AB 18 cock plug
- 8 Top and bottom cock b
- 9 Handle washer
- 10 Handle screw
- 11 AB 18 handle
- 12 Stud
- 13 Head joint
- 14 Heat insulation cover
- 15 Stuffing box head
- 16 KU 16 packing ring
- 17 Stuffing box ring
- 18 Stuffing box nut
- 19 Stud nut
- 20 End tube
- 21 Tube joint ring
- 22 NPT dram cock body
- 23 Dram cock joint
- 24 AB 12 tughtening nut
- 25 AB 12/2 packing sleeve
- 26 AB 12 cock plug
- 27 AB 12 split ring cock body
- 28 Dram cock body
- 29 AB 12 handle
- 30 Tube joint ring
- 31 Union tailpipe
- 32 Handle washer
- 33 Handle screw
- 34 Union nut
- 35 Heat insulation cover
- 36 Nipple tee



TYPE D

TYPE DG



TYPE TEE

SERVICE MAINTENANCE

- After the cocks are first put into service or after change of packing service, OPEN THE COCKS and tightening nuts to compress the packing sleeve firmly around the plug, ensuring that the handle can still be moved without undue effort being required. Compress the stuffing box by means of the stuffing box nuts and the head joints by means of the nuts of the studs.
- When the cocks have attained their normal working pressure and temperature repeat aforesaid operations whilst the cocks are still under pressure.

DISMANTLING

- Isolate line
- Remove the gauge by unscrewing the nuts from the studs
Unscrew tightening nut
- Unscrew handle securing screw, remove washer and handle
- Tap top of plug with a wooden drift until it is clear of the cock body
- Screw the tightening nut back into cock body to clear the threads of any particles which may be remaining from the old packing sleeve, then remove it again
- Remove the split ring from the plug and slip *off* the old packing sleeve. Examine the plug and inside the cock body for scoring sign of damage, corrosion etc.
- Clean all component pieces very carefully.

REASSEMBLING

- Insert plug into a new packing sleeve. Replace split ring and push the packing sleeve up towards it, to hold it in position.
- Insert plug (together with packing sleeve, eyelets and split ring) into the bottom of the cock body ensuring that the ridge of the packing sleeve enters the corresponding groove in the cock body. Push in plug and packing sleeve together using a wooden drift if necessary until the tightening nut can be engaged with the thread inside the cock body.
- Replace handle on the plug and tighten handle securing screw with the washer in place. Handle has a mark for indicating position of the passage through the plug. Handle can be removed from cock without damages whilst under pressure.

SPARE PARTS

- When ordering spare parts please state:
 - type of cock (top-bottom or dram)
 - item number of the spare parts as shown in the above list
 - construction material
- As regards sealing elements, a complete set for 1 level gauge consists of:
 - 2 packing sleeves type AH 18/2 (item 5)
 - 1 packing sleeve TYPE AH 12/2 (item 25)
 - 2 head joints
 - 2 packing rings type KU 16 (item 16) for cocks type D only.



INDICATORI DI LIVELLO KLINGER

KLINGER LEVEL GAUGE

ISTRUZIONI ED IMMAGAZZINAMENTO MATERIALI

1. Immagazzinare in luogo asciutto per evitare l'ossidazione delle parti metalliche.
2. Proteggere da urti per evitare la rottura dei cristalli.

NOTA IMPORTANTE

L'imballo ed il materiale devono essere periodicamente controllati durante i lunghi periodi di immagazzinamento (almeno ogni 3 mesi), per verificare l'integrità, mantenendo adeguata documentazione delle citate attività di controllo.

STORE INSTRUCTION

Store the goods in dry place in order to avoid the oxidation of metallic elements.

Protect the goods against pushes in order to avoid the breakage of the glass.

IMPORTANT NOTE

The package and the material have to be periodically checked during long storage (at least every three months), to verify its integrity, keeping suitable documentation if above activities.



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