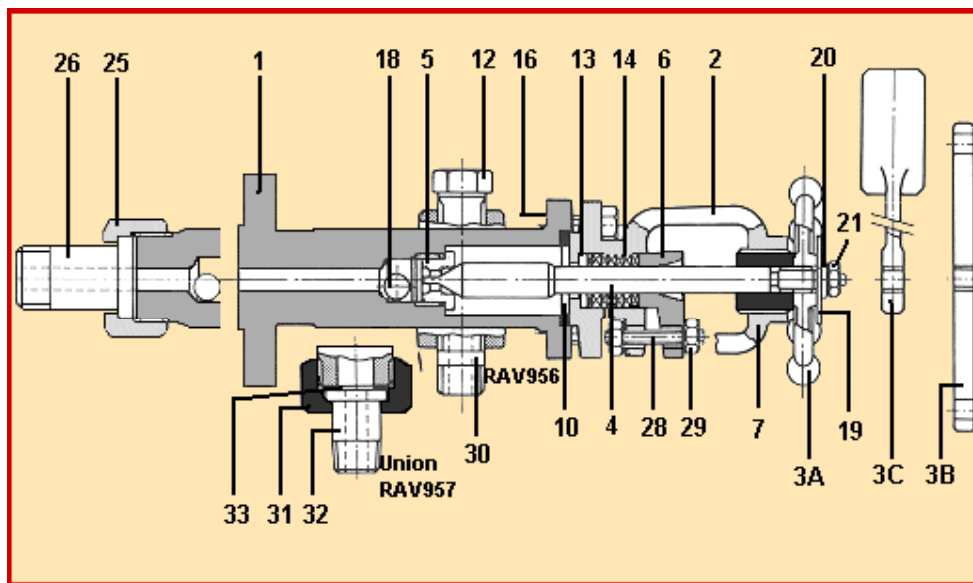




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INSTALLATION AND SERVICE GUIDE
KLINGER Level gauge valves
RAV 956 & RAV 957 (Outside screwed)



1 COMMISSIONING

During the commissioning period the spindle gland and sealing joints could settle and it is essential therefore to follow up all clamping nuts to maintain the leaktight seal.

2 MAINTENANCE INSTRUCTIONS

2.1 Any leaks which appear during service should immediately be stopped by following up at the appropriate point, i.e. bonnet nuts, union nuts and spindle gland.

2.2 The spindle on a RAV valve has a splined end. With double ended (3B) or Weighted levers (3C), the lever can be removed and repositioned to allow for wear.

Item	Part list	Item	Part list
1	Valve body	16	Bolt
2	Bonnet	18	Ball-check
3A	Handwheel (plain closing)	19	Plate name
3B	Double-ended lever (90° operation)	20	Washer
3C	Weighted lever (168° operation)	21	Nut
4	Spindle	25	Union nut
5	Valve seat	26	Union tailpipe
6	Gland	28	Stud
7	Bonnet flange	29	Nut
10	Bonnet joint ring	30	Nipple
12	Taper plug	31	Union nut
13	Bottom ring	32	Union tailpipe
14	Gland packing	33	Joint ring

Further information

For further information, please send an E-mail to the following address: instruments@tc-fluidcontrol.com
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2.3 Removing gauge

956 - As this valve is connected to the gauge with a nipple it is necessary to remove the valves and gauge from the vessel :

- With valves in the open position drain vessel to a level below that of bottom connection. (See also 4.2)
- Relieve vessel and gauge of internal pressure.
- Unscrew valves from gauge (standard R.H. thread).
- When re-assembling unit, follow gauge commissioning procedure to bring the gauge and valves back into service.

957 - This type of valve has a union nipple connection to gauge and therefore the gauge can be detached without removing valves from vessel :

- Close top and bottom gauge valves, ensuring leak-tight seal.
- Relieve gauge of internal pressure by means of drain cock or plug.
- Release union nuts (part 31) and slide gauge from between valves.
- Re-assemble using new joint ring (part 33) following gauge commissioning procedure to bring the gauge and valves back into service.

2.4 Repacking spindle gland

- With valves in the open position drain vessel to a level below that of bottom connection (see also 4.2).
- Relieve vessel and gauge of internal pressure.
- Close valve fully.
- Remove handle (part 3).
- Remove gland nuts and studs (part 29,28) and slide gland (part 6) up spindle.
- Remove all the old packing, ensuring retention of bottom ring (part 13).
- Insert new gland packing and re-assemble.
- Follow gauge commissioning procedure to bring the gauge and valves back into service.

2.5 Dismantling and Assembling valve

- With valves in the open position drain vessel to a level below that of the bottom connection (see also 4.2).
- Relieve vessel and gauge of internal pressure.
- Unscrew bonnet clamp bolts (part 16).
- Remove top assembly. This allows easy access to valve seat and spindle for examination and replacement if necessary.
- To re-assemble, clean joint faces and renew joint ring (part 10).
- Check that the spindle is in the fully open position, to avoid damage to spindle or seat.
- Replace top assembly and tighten bonnet clamp bolts to 30 lbs. ft (40 Nm) for stainless steel valves and 30 lbs.ft. (40 Nm) for carbon steel valves.
- Follow gauge commissioning procedure to bring the gauge and valves back into service.

3 REFURBISHING

No refurbishing should be necessary other than the repacking of spindle gland.

4 IMPORTANT INSTRUCTIONS

- 4.1 Use only original KLINGER replacement parts,
- 4.2 If primary isolation valves are fitted it is not necessary to drain the vessel or relieve it of internal pressure. With RAV valves in the open position close isolating valves and relieve gauge and cocks of internal pressure. Then continue as for standard procedure.
- 4.3 The RAV valve is suitable for ANSI 1500lbs rating up to 400°C in single start thread form only.
i.e. : plain closing patterns 956/1 and 957/1.

5 SPARES

When ordering spares, please quote :

- valve material.
- type number of valve
- part number
- part description, e.g. Carbon Steel 956/2, part 33, joint ring.

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