

**Addendum to
SPIRA-TROL K series control valves
(IM-S24-42)
Section 4.1 and Section 4.6**

Section 4.1

Note 3: Lubrication of the bonnet fastenings:

Bonnet threads or bolts should be lubricated prior to re-assembling the bonnet to the valve, (use lubricating oil, grease, with an equivalent coefficient friction of $\mu=0.165$)

New torque values with lubrication:

The following new torque values should be used with lubricated nuts/bolts:

Table 1 (page 22)

SPIRA-TROL valve size	Torque (N m) (with oil; $\mu = 0.165$)		
	LE	KE	LEA / KEA
DN15 - DN25	30	30	30
DN32 - DN50	40	55	55
DN65 - DN80	85	85	85
DN100	70	70	70

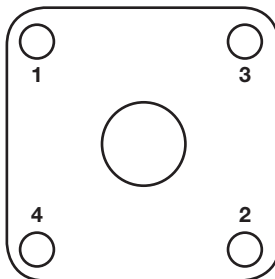
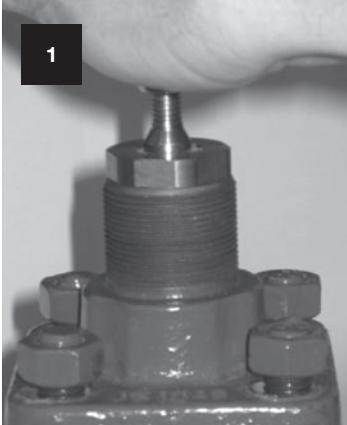


Fig. 4 Bonnet tightening sequence

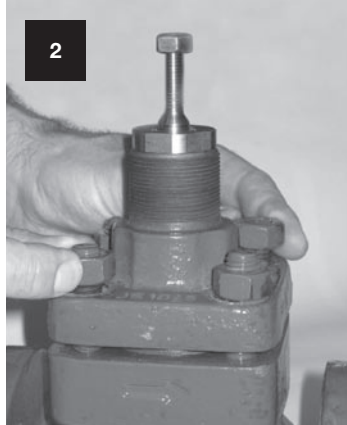
Section 4.6 Refitting the bonnet

Caution: It is essential to follow the procedures below to enable the correct reassembly of the control valve, and the subsequent test that is required to ensure that the plug moves freely inside the valve seat:

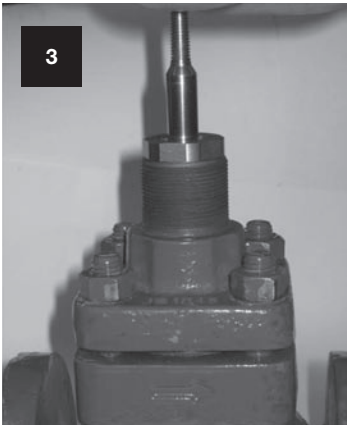
- Fit new bonnet gasket.
- Ensure the plug stem is fully extended without the upper stem threads making contact with stem seals on the top of the bonnet.
- Replace the bonnet and stem assembly to the valve body, locating the plug centrally into the seat.
- Holding the Plug in position, push the bonnet down on to the valve body.



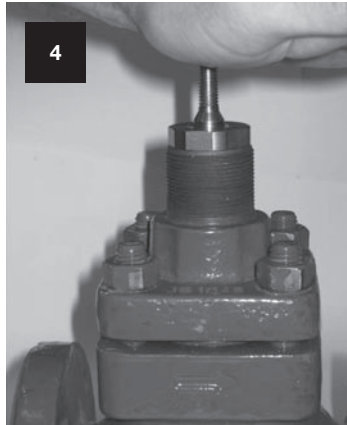
Fit bonnet nuts.



Finger tighten opposing bonnet nuts or bolts evenly in pairs.

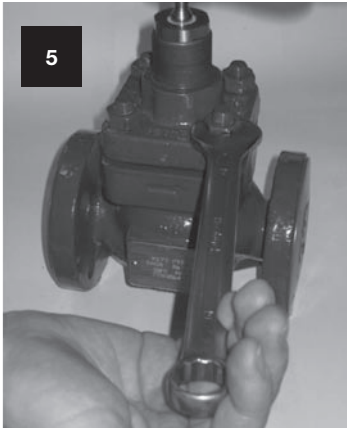


Raise the stem to the highest position.

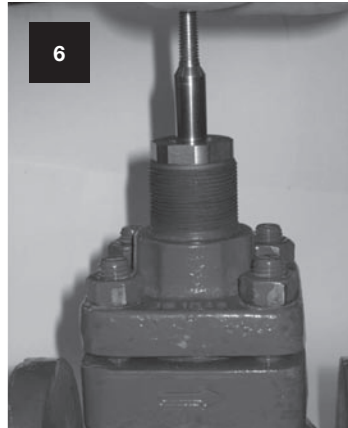


Firmly and briskly push the stem fully down.

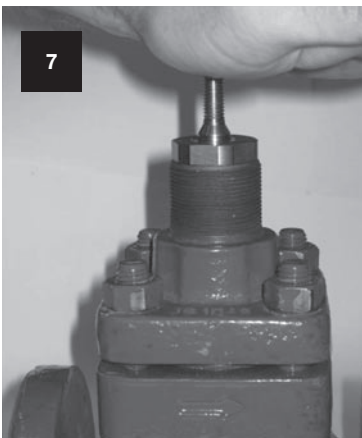
Repeat Steps 1 to 4 finger tightening bonnet nuts or bolts individually until tight.



Using a spanner lightly and evenly tighten each bolt or nut by 45°, following the sequence (Figure 4).



After each tightening sequence lift the stem fully.



Firmly and briskly push the stem fully down.

- Repeat processes 5, 6 and 7 until the bonnet nuts or bolts have an even tension.
- Continue Steps 5, 6 and 7 but use a torque wrench set at 10% of maximum required torque setting.
- Again, repeat Steps 5, 6 and 7, incrementally increasing the torque value to 20%, 40%, 60%, 80% and finally 100% of the required torque value (as specified in Table 1).
- Pull the plug off its seat, rotate by 120° and slowly push it back down into the seat checking for any signs of resistance as the plug comes into contact with the seat.
- Repeat the above Step, three more times.
- If any resistance is felt, this can indicate the plug and seat is misaligned and the process will need repeating.

