

**AVK UNIVERSAL COUPLINGS****SERIES 601, 602 & 603**

This installation and maintenance instruction will not replace adequate training and correct craftsmanship and AVK will not be held responsible for any accidents arising from incorrect installation.

All of the following procedures must be carried out with due regard to relevant road traffic act guidelines as well as health and safety precautions.

1. All of the series 60X mechanical fittings are supplied as an assembled unit ready for use. Dismantling of the parts is unnecessary.
2. Examine fitting before assembling to ensure that no damage has occurred during handling.
3. Check that the sealing range indicated on the label of the fitting is compatible with the actual pipe diameter.
4. When assembling Supa flanged adaptors, check that the nominal flange size and pressure ratings are compatible with the valve.
5. Check that the sealing element supplied is suitable for the medium conveyed in the main.
6. Examine pipe ends to which the fitting is to be assembled, ensuring that they are round and square and free from dents, bulges and score marks.
7. When assembling to a steel pipe which has longitudinal seam welds, the weld seam must be removed by grinding. Care should be taken to ensure that the pipe surface profile is maintained.
8. Both pipe ends must be cleaned by wire brushing, to remove all rust, scale or debris etc.
9. Align both pipe ends maintaining the correct level and concentricity, whilst leaving sufficient gap between pipe ends to allow installation of the fitting.
10. To provide indication that the fitting has been assembled central over the pipe ends, mark both pipe ends at a distance equal to half the overall length of the fitting + half the setting gap.

**Distance of mark from each pipe end**

$$\frac{\text{Overall length of fitting} - \text{Setting gap}}{2}$$

Example:

6011330004100:

Overall length = 170 mm (body/seals/gland rings)

Setting gap = 20 mm (see below)

$$\text{Distance of mark from each pipe end} = \frac{170 - 20}{2} = 75 \text{ mm}$$

11. Recommended gap settings  
DN 40 to DN 200 - maximum setting gap = 20 mm  
DN 250 to DN 400 - maximum setting gap = 37 mm
12. Lubricate sealing area on each pipe end thoroughly with an approved lubricant then slide coupling onto the fixed pipe end.
13. Slide free pipe end into coupling, ensuring that the markings on both pipe ends line up with the ends of the fitting.
14. Bolt tightening can now commence, using a torque spanner capable of 40/50 Nm.
15. Tighten diametrically opposed bolts as indicated on label, to ensure that the sealing element is loaded evenly. It is essential that all bolts are torqued evenly as indicated on the label (40/50 Nm).
16. On completion of the bolt tightening, the radial gap between the pipe and the inside diameter of the gland ring should be even all around the fitting. Some evidence of rubber extruding between the pipe and gland ring might be evident.

**Notes**

- These couplings will not provide end restraint, this must be proved by other means, especially when using the stepped type coupling.
- External loading action on the fittings might have serious effects upon its performance such as weights of pipelines, spool pieces, back fill etc. All pipes should be supported independently on each side of the fitting.
- It is advisable to replace all stainless steel fasteners in the event of having to reposition the fitting.