AVK HIGH PRESSURE COUPLING
INSTALLATION, OPERATION & MAINTENANCE MANUAL

Instruction for use

Thank you for selecting an AVK product. With correct use, the product is guaranteed to deliver a long and reliable service. This manual has been prepared to assist you with the installation, operation and maintenance of the valve to the maximum efficiency. For ease of reference, it has been divided into sections covering all aspects of use, and it is in the users best interests to read it and ensure that it is fully understood.

Health and Safety

It is always recommended that wherever work is being carried out on a valve that the valve is fully depressurised prior to carrying it out, and for the convenience draining of the line may be beneficial.

It is essential that the user of the valve is aware of the weight of the components and/or assembles that must be handled and manipulated during installation and maintenance. It is the users responsibility to ensure that safe working practices are followed at all times.

Whenever AVK products are installed, operated, or maintained, it is essential that the staff that undertake these operations be adequately trained. The hazards of pressurised liquids and gases can be severe, and it is the responsibility of the users to ensure that trained, competent staff undertake these duties. This manual has been designed to assist, but it can never fully replace quality training in the workplace. AVK technical staff will always be available to answer any questions relating to specific problems that may not be covered by this manual.

AVK products are designed and manufactured to be fit for purpose, and to a high and reliable standard. This provides a safe product with minimum risk to health when used correctly for the purpose for which it was designed. However, this assumes that the equipment is used and maintained in accordance with the manual, and the user is advised to study this manual, and to make it available to all staff that may need to refer to it.

AVK cannot be held responsible for any incidents arising from incorrect installation, operation or maintenance. The responsibility for this must rest wholly with the user.

Initial Preparation

Clean the pipe surface free of scale and grit over the applicable length of the coupling and extending 100mm beyond. The mechanical ability of the coupling in sealing against the pipe surface is reliant on the cleanliness of the pipe surface.

OVALITY CHECK
***Ensure that the pipe OD and ovality are within the specified. tolerances of the coupling (±3.0 mm). The High Pressure Coupling IS a DEDICATED OD Coupling and therefore its ability to cater for irregularity and ovality in the pipe OD is limited**.

1. Reference Marks

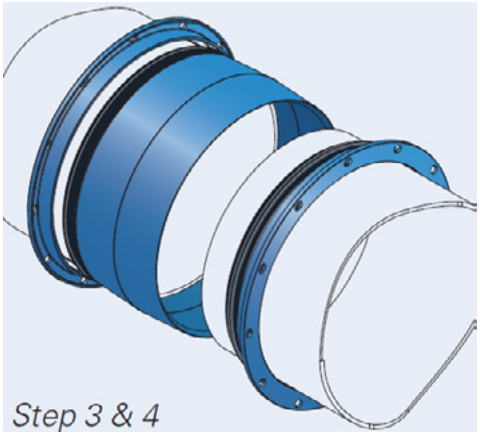
Place reference marks on the pipe ends to ensure the coupling can be located centrally between the pipes being joined. Allow for the recommended pipe gap (between 20mm to 60mm) required between pipes.

2. Lubrication

Lubricate the coupling gaskets well with a lubricant approved for use with potable water. Commonly used anti-bacterial pipe jointing lube is a suitable product for this purpose. The Nitrile Rubber gaskets can sometimes be a tight fit on the pipe surface and the lubricant will substantially assist this process as well as enable the gaskets to flow and seal onto the pipe much more efficiently.

3. Dismantle

Dismantle the coupling and slide the end flanges onto the two pipes being joined followed by the lubricated gaskets, paying attention to the orientation of the gaskets (flat thick face towards the flange and flat lip towards the barrel).

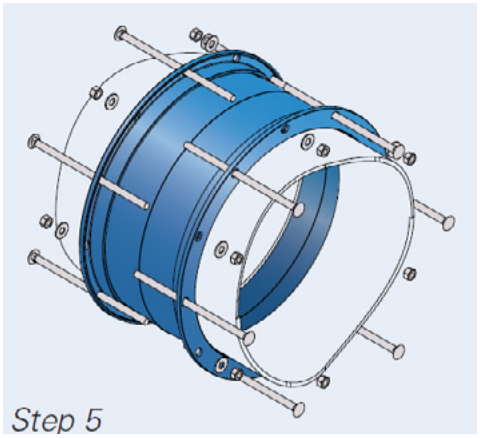


4. Insertion

Slide the centre sleeve onto the established pipe and insert the other pipe into the sleeve to a recommended pipe gap of between 20mm to 60mm. A gap is recommended in order to avoid the build up of longitudinal stresses within the two pipes as a result of thermal expansion.

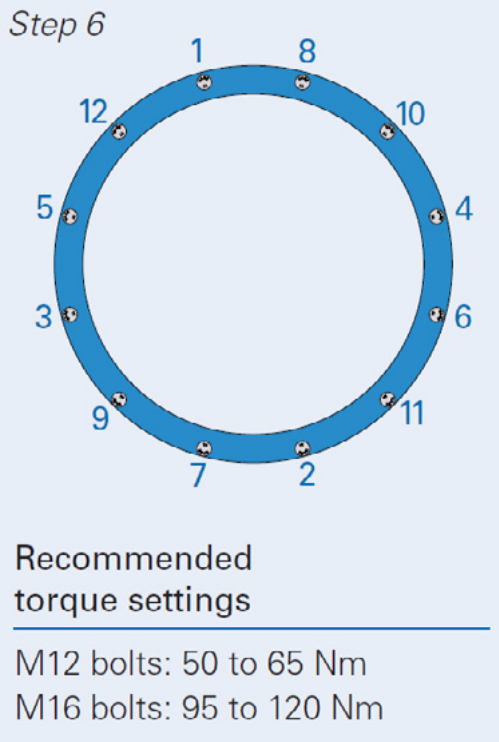
5. Alignment

Bring flanges, gaskets and sleeve into contact and align the coupling centrally over the pipe gap, assisted by the pipe markings (see Step 1). Insert the bolts between the flanges and consecutively alternate between bolt heads and nuts on each flange face (see diagram below).



6. Tightening

Commence tightening nuts in small increments in a diametric pattern (see diagram below). It is very important for the success of the installation that the coupling be tightened in small increments at each bolt, making sure that the two flanges are drawn-in uniformly and that the coupling remains centred and aligned on the pipe. Use a torque wrench to achieve the final recommended torque indicated below.



7. Re-tension

It is VERY IMPORTANT that the bolts be re-tensioned after 30 minutes using the torque wrench in order to compensate for relaxation in the rubber gasket.

7. Final Check

Upon completion, visually check that the end flanges are centred and aligned on the pipe and that the rubber gaskets have uniformly extruded into the gap between pipe and flange rim.