



DISMANTLING JOINTS DN50-2200 INSTALLATION, OPERATION & MAINTENANCE MANUAL

Instruction for use

Thank you for selecting an AVK product. With correct use, it will give long and reliable service. This manual has been prepared to assist you install, operate and maintain 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 assemblies 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.

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Storage

- Protection against weather should be provided. Ideally, valves should be kept indoors with the actual valve temperature always higher than the dew point.
- If outdoor storage is unavoidable the valves should then be supported off the ground and protected by a weatherproof cover, from dust-laden damp or saline conditions and at an ambient temperature.
- If long term storage is envisaged, then it may be considered prudent to have a AVK engineer inspect the valve prior to installation.

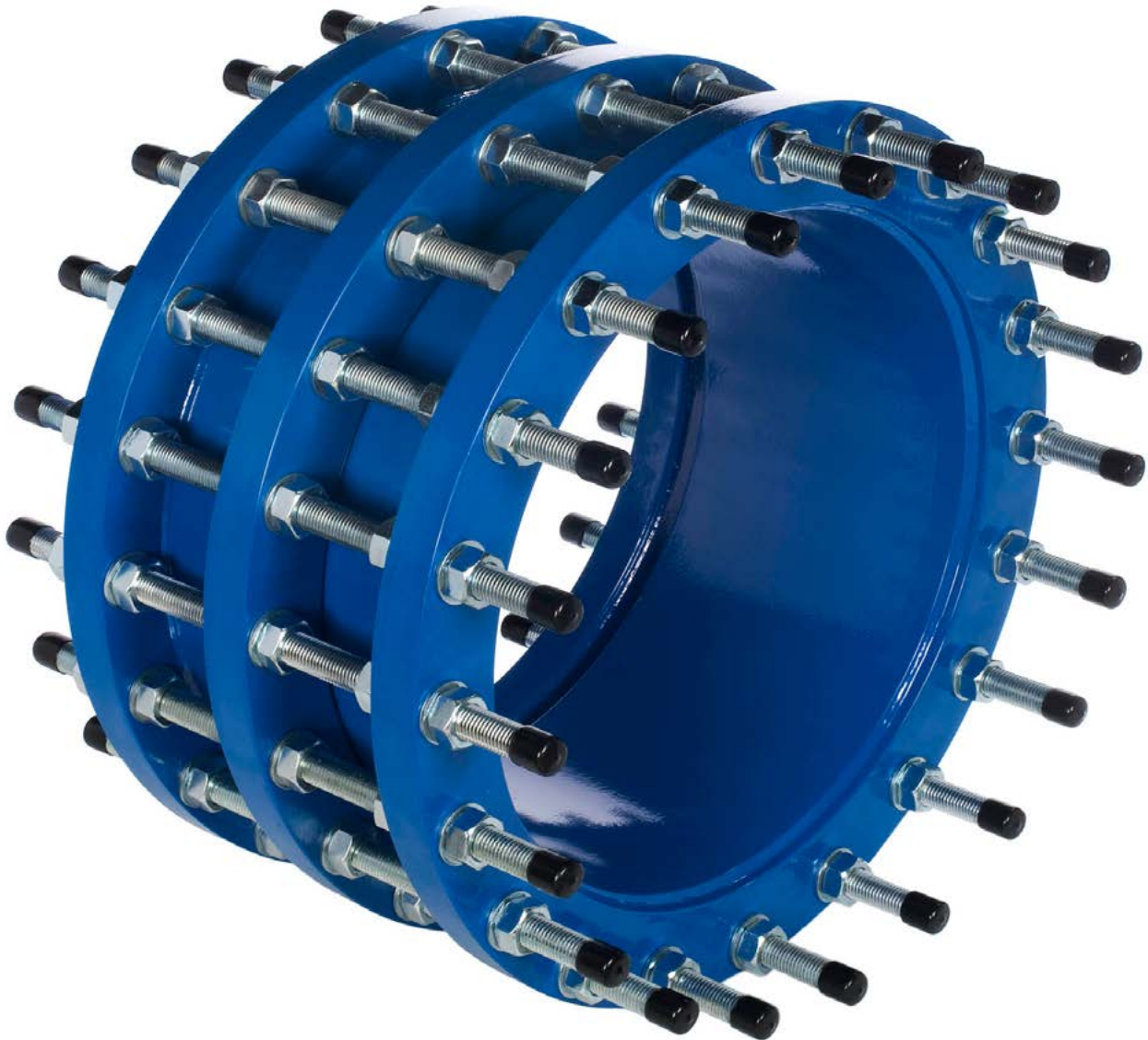
Handling

A basic consideration in handling protected valves should be to avoid damaging the coating protection and valves should never be thrown or dropped. Valves whose size requires handling by crane or lift truck should be slung or rigged carefully to avoid damage to exposed valve parts.

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1. Introduction

AVK Operation and Maintenance instructions for the Series 265 dismantling joint for water and sewage mains.



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2. Health and Safety Precautions

All of the following procedures must be carried out with due regard to relevant Road Traffic Act guidelines, Health and Safety and COSHH directives.

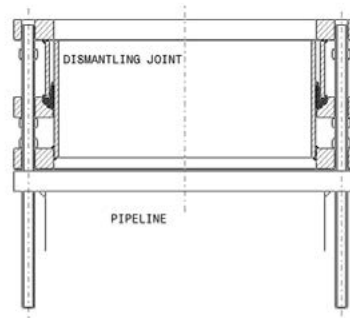
3. Installation

1. The Dismantling joints are normally supplied with tie rods as an assembled unit ready for use, dismantling of all parts is unnecessary.
2. Examine fitting before assembling to ensure that no damage has occurred during transit.
3. Check that the flange connection indicated on the label of the fitting is compatible with both the connecting flange/pipe of the valve.
4. Check that the actual working pressure of the pipeline does not exceed the PN rating of the dismantling joint.
5. Check that the gap between the connecting flanges is compatible with that of the dismantling joint (see datasheet).
6. Check that both flange connections to which the dismantling joint is to be connected to are level and in line with each other.

4. Assembly

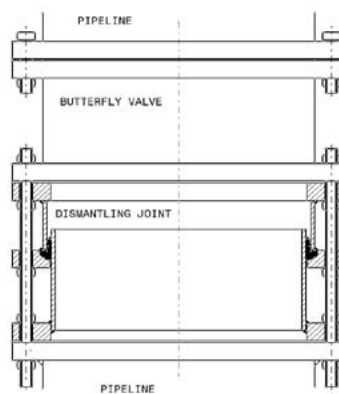
7. Remove nut/washers from the extreme ends of the fittings and loosen nuts behind flange. (See sketch 1)

Sketch 1



8. Collapse dismantling joint and push tie rods through until flush with flange that is to be mated with. (see sketch 1)
9. Assemble dismantling joint, together with gaskets/tie rods between flanges of pipeline and valve. (See sketch 2)

Sketch 2



10. Tighten up first flange joint to recommended torque.
11. Expand dismantling joint to required length and centralise tie rods, tighten the tie rods to recommended torque.

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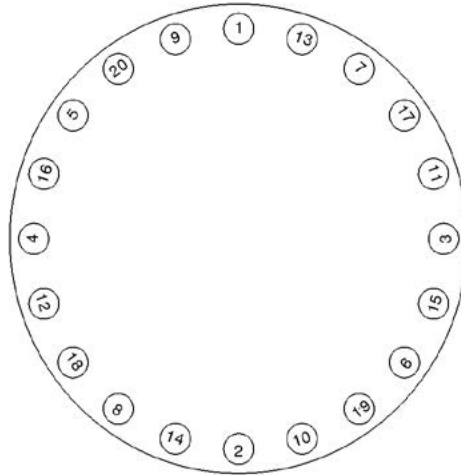
12. Tighten the gland ring nuts to the recommended torque (see table).

Note. It is essential that the nuts are tightened in the correct sequence to ensure that the compression of the sealing element is consistent around its circumference. (See sketch 3)

Example:

This is what to do on clamps

Sketch 2



Typical tightening sequence for the seal housing centre flange. (This particular example has 20 holes)

Recommended Gland seal tightening torque

Bolt Size	Initial torque NM	Mid torque NM	Final torque
M16	15	30	45
M20	20	35	55
M24	25	40	60
M27	25	40	60
M30	35	50	70
M33	35	50	70
M36	40	60	80

Tie rod sizes on various DN sizes and flanges of Dismantling Joints

DN Size	PN10	PN16	PN25
50	M16	M16	M16
80	M16	M16	M16
100	M16	M16	M16
125	M16	M16	M24
150	M16	M16	M24
200	M20	M	M24
250	M20	M20	M27
300	M20	M	M27
350	M20	M24	M30
400	M24	M2	M33
450	M24	M2	M33
500	M24	M	M33
600	M27	M3	M36
700	M27	M3	M39
800	M30	M3	M45
900		M33	

- Firstly tighten all the gland seal nuts to the initial torque shown in the above table.
- On the second pass tighten the nuts to the mid range torque.
- Tighten to the values in the table for the final torque on the third pass.

13. Pressure test.

14. Recheck all the tie rod torques on Dismantling Joints.