



EXPECT
EASY INSTALLATION

Expect... **AVR**



COMPLETE RANGE OF HIGH QUALITY COUPLINGS AND FLANGE ADAPTORS

AVK offers a wide range of universal and dedicated couplings, flange adaptors and end caps designed for easy installation. The excellent corrosion protection and rubber quality ensure durable solutions.

Excellent corrosion protection

AVK products meet the GSK requirements and conform to other international standards of effective corrosion protection. By virtue of our membership of GSK (Gütegemeinschaft Schwerer Korrosionsschutz), our entire coating process complies with RAL-GZ 662 guidelines and is being monitored and approved twice a year by the independent testing institute MPA-Hannover.

Automatic monitoring of time, temperature, coating thickness etc. ensures maximum durability of the coating.

State-of-the-art rubber technology

The rubber for the gaskets is developed and produced by AVK GUMMI A/S with the use of highly advanced technologies.

The EPDM rubber composition is designed to minimise the building of biofilm in order to prevent the rubber from forming breeding ground for bacteria. The compound is also resistant to ozone and water treatment chemicals such as sodiumhypochlorite solutions.

Furthermore, AVK's EPDM rubber has a unique compression set, meaning the ability to regain original shape. Even after many years of service where the rubber has been compressed numerous times, it will regain its original shape and ensure a tight sealing.



SUPA ONE®

NON-TENSILE UNIVERSAL COUPLINGS



Supa One™ universal straight couplings and flange adaptors are very easy to install with only one bolt to be tightened in each end of the coupling and with the possibility of using a standard power tool. They are designed in ductile iron according to EN 545 to ensure sturdiness and durability.

Easy mounting

The bracket section can rotate 360° for adjustable bolt orientation during installation. This ensures full access to tightening the bolts, even when space is limited at the installation site.

The design of the spherical nuts allows them to rotate slightly and ensures a precise fit. Furthermore, the design enables the use of a standard power tool to maximum 150 Nm, and the tool will not be pushed off by the rod end during tightening, which is often the case for traditional designs. There is no need for re-tightening of bolts.

The couplings are designed with a lifting eye on the sleeve enabling easy and ergonomically safe handling.

High-quality materials

- Bracket of ductile iron 450-10 with high strength, durability and elongation properties
- Gasket of drinking water approved EPDM rubber with a gasket bridge of stainless steel keeping the gasket in place
- Bolts of stainless steel A2 and nuts of A4 with anti-friction coating to prevent galling
- 250 µm fusion bonded epoxy coating in compliance with DIN 3476 part 1 and EN 14901, GSK approved

Flexibility during installation

Supa One™ couplings are suitable for ductile iron, steel, PVC and PE pipes and provide the possibility of connecting two different pipe materials.

The couplings enable $\pm 4^\circ$ deflection in both ends (in total 8°), and the large insertion depth tolerances allow the pipe to be cut slightly angled. This gives a simple installation without need for precise adjustment.



"The Supa One™ coupling is very easy to install. Tightening with a standard power tool and torque wrench to 150 Nm works very well." - Kaare Mortensen A/S, Norwegian construction company.



Straight coupling



Flange adaptor



SUPA MAXI™

TENSILE UNIVERSAL COUPLINGS



Supa Maxi™ comprises a complete range of large tolerance universal and tensile straight couplings, step couplings, flange adaptors, end caps and transition couplings according to EN 14525 for water, wastewater and gas applications. Furthermore, a range of gate valves for water and wastewater applications.

Supa Maxi™ sets a new standard with its unique features:

- Fully universal and tensile on all pipe materials
- Patented SupaGrip™ sealing support system with flexible bracket
- PN16 for water (WP -0,9 to 16 bar), PN10 for gas
- $\pm 4^\circ$ (8° in total) angular deflection on each side, even at minimum pipe size
- Permanent protection caps protect during handling and installation
- Bolts are tightened on the bolt head from the sleeve side
- No re-tightening of bolts needed
- Lifting eye on sizes with a weight exceeding 10 kilos (DN100-800)
- Fusion bonded epoxy coating in compliance with DIN 3476 part 1 and EN 14901, GSK approved
- Gasket of EPDM rubber approved for drinking water/NBR approved for gas
- Temperature range -10°C to $+70^\circ\text{C}$
- The gate valve provides extra safety when repairing old pipes. With a built-in gate valve it is easy to shut-off the water in case of further repair or replacement of the pipeline at a later stage.



Gate valve



Straight coupling



Flange adaptor



Step coupling



End cap



Transition coupling

Before tightening



After tightening



The patented SupaGrip™ sealing support system features a flexible bracket, and combined with the unique grip design, SupaGrip™ provides superior tightness and tensile resistance on all pipe dimensions and materials.

Flexible bracket with rigid metal backup

SupaGrip™ provides full support and backup of the gasket, even on minimum pipe size within the tolerance range and when used on oval pipes.

The flexible bracket is designed to contract and follow the external pipe diameter. As a result, it serves as a solid backup for the gasket and enables full deflection up to 1.5 x PN test pressure.

When tightening the bolts, the bracket segments and bolts move inwards, securing that the gasket tightens around the pipe and that the grip segments grip into the pipe surface.

Tensile on all pipe materials

Optimum grip and tensile abilities on all pipe materials are secured by means of two different metal grip segments - brass for PE/PVC/GRP pipes and hardened stainless steel for cast iron, ductile iron, steel, stainless steel, and

AC pipes (up to and including DN700). The couplings are designed and approved according to EN 14525.

The grip segments are mounted with pins on the bracket segments to provide maximum durability. The high quality materials safeguard that the sealing does not loose compression over time, and that the coupling stays tensile.



Also tight on oval pipes



DN800 is designed with dedicated grip segments for plastic pipes and metal/AC pipes

OPTIMISE HANDLING AND INSTALLATION

AVK Supa Maxi™ couplings and adaptors offer maximum flexibility, facilitating a secure, fast and easy installation even under difficult conditions.

Reduce time spent on installation

The couplings enable $\pm 4^\circ$ deflection on each side (in total 8°) up to a maximum pressure of PN16.

The large insertion depth tolerances allow the pipe to be cut slightly angled. This gives a simple installation without need for precise adjustment.

All items with a weight exceeding 10 kilos are designed with a lifting eye on the sleeve enabling easy and ergonomically safe handling.





Optimised bolt design

The bolt design is optimised for fast and simple assembly. The bolts are tightened from the sleeve side to ease assembly when space in the trench is limited, and the threads are protected by the permanent protection cap.

The nuts are encaptured in the bracket and covered by a protection cap to ensure that they will not fall off when loosening the bolts. Re-tightening of bolts is not necessary due to the all metal SupaGrip™ sealing support system. The bolts and nuts are anti-friction coated to prevent galling.

Permanent protection cap

During handling the centre piece of the protection cap covers the sharp grip segments and prevents dirt from settling inside the coupling. When the centre piece is removed the coupling is ready for installation.

High quality materials

The couplings are designed with sleeves of ductile iron and brackets of cast steel with epoxy coating in compliance with DIN 3476 part 1 and EN 14901, GSK approved.

The gaskets of EPDM rubber are approved by NF and DVGW for drinking water applications and the gaskets of NBR rubber are approved by DVGW and Gastec.

The bolts and washers are of stainless steel A2 as standard and optionally of A4. The nuts are of acid-resistant stainless steel A4.

The grip segments are of RG5 bronze and hardened stainless steel, mounted with pins of polyamide.

The permanent protection caps of recyclable PE are black for water and wastewater applications and yellow for gas applications.



SUPA PLUS™ TENSILE COUPLINGS DEDICATED FOR PE AND uPVC PIPES



AVK Supa Plus™ is a range of high quality tensile gate valves, couplings, flange adaptors and end caps in DN40-300 dedicated for PE and uPVC pipes. The Supa Plus™ range is a strong supplement to AVK's renowned Supa® and Supa Maxi™ range and is suitable for water and wastewater applications.

Supa Plus™ couplings offer a great flexibility and are very easy to mount due to the combined compression gasket which enables a large angular deflection and makes it easy to insert the pipes.

- The combined gasket of drinking water approved EPDM rubber with tensile grip segments of RG5 bronze enables $\pm 3.5^\circ$ angular deflection on each side (total 7°)
- The design with external bolts prevents corrosion between sleeve and bolts.
- The M16 bolts of stainless steel A2 and the nuts of acid-resistant stainless steel A4 are anti-friction coated to offer easy tightening and to prevent galling.

- The compression type gasket makes it easy to insert the pipe, even in large dimensions.
- Sleeve and bracket of ductile iron with epoxy coating in compliance with DIN 3476 part 1, EN 14901, and AVK guidelines.
- The couplings are delivered with tape securing the bolts during transport and handling. A mounting instruction is printed on the tape.



Gate valve



Straight coupling



Flange adaptor



End cap

SUPA[®] NON-TENSILE UNIVERSAL COUPLINGS



The AVK Supa[®] universal straight couplings, step couplings and flange adaptors are suitable for uPVC, cast iron, ductile iron, steel and AC pipes. The couplings range from DN40 to 400 and are suitable for water and wastewater applications.

With its wide tolerance span and $\pm 4^\circ$ angular deflection on each side the AVK Supa[®] range is a very flexible coupling system used for the assembly of pipes of almost any kind of pipe material and for repair of old piping systems.

- $\pm 4^\circ$ angular deflection on each side (total 8°).
- Drinking water approved EPDM gasket with moulded ribs absorbs minor imperfections in the pipe.
- The design with loose bolts prevents corrosion between sleeve and bolts.
- The bolts and the nuts are anti-friction coated to offer easy tightening and to prevent galling.
- Ductile iron with epoxy coating in compliance with DIN 3476 part 1, EN 14901, and AVK guidelines.



Straight coupling



Step coupling



Flange adaptor

COMBI-FLANGES TENSILE AND NON-TENSILE DEDICATED ADAPTORS



AVK's combi-flange system comprises tensile combi-flanges for PE, PVC and ductile iron pipes in DN50-300 as well as non-tensile combi-flanges for PVC, ductile iron and steel pipes in DN50-600. The combi-flanges are suitable for water and wastewater applications.

Large pipe deflection possible

Combi-flanges are typically used for connecting two pipes with a flanged valve in between, and often the pipes are positioned out of level.

The barrel shaped rubber sealing allows for a significant pipe deflection of up to $\pm 3.5^\circ$ even in the tensile executions. Consequently, combi-flanges provide great flexibility without compromising with tightness.

Flexible positioning of the pipe

It is possible to retract the pipe end up to 50 mm from the combi-flange gasket face, as long as it is positioned within the buffer zone. The large buffer zone makes it easy to install the

combi-flange, as there is no need for accurate adjustments.

It also allows easy pipe chamfering, which means that a pipe cut unevenly or out of angle does not cause any problems, as long as it stays within the buffer zone. The buffer zone is clearly marked on the sealings.

No horizontal pipe movement

The combi-flange sealing features a narrow compression zone which secures fast compression when tightening the bolts. The rubber sealing will always tighten around the pipe before the tensile ring grips into the pipe surface, which prevents longitudinal movement.

A lot of great features

- Up to $\pm 3.5^\circ$ deflection of the pipe is possible even in tensile executions.
- The design features a flexible positioning and chamfering of the pipe.
- The pipe will not move inwards during installation which helps securing a tight connection.
- The EPDM rubber sealings are approved for drinking water applications and are resistant to water treatment chemicals.
- The flanges are coated with epoxy coating in compliance with DIN 3476 part 1, EN 14901, and AVK guidelines.



FABRICATED NON-TENSILE COUPLINGS AND FLANGE ADAPTORS



AVK's range of fabricated fittings comprises non-tensile straight couplings, step couplings and flange adaptors in DN350-2000. The range is suitable for ductile and grey cast iron, steel, uPVC and GRP pipes for water and wastewater applications up to 25 bar.

AVK fabricated couplings and adaptors are designed to facilitate the joining of pipe of matching or differing outside diameter (OD) or for fitting flanged equipment into pipeline systems.

The AVK fabricated fittings range is highly versatile where any pipe OD or flange variant can be accommodated within the range.

Increased coating thickness and a range of fastener options including A2 and A4 stainless steel are available for more aggressive installation environments. All materials are certified as suitable for use with potable water.



Super Hydro
universal straight coupling



Step coupling



Flange adaptor



REPICO® TENSILE AND NON-TENSILE UNIVERSAL COUPLINGS



AVK's range of Repico® couplings in stainless steel 316 comprises tensile "Grip" couplings for all metal pipe materials up to DN400, and non-tensile "Slip" couplings for all pipe materials up to DN2000. Repico® couplings are suitable for water and wastewater applications.

Ease of use

Repico® couplings offer a fast and simple installation thanks to the design with very few bolts. Only a torque wrench is needed, and the bolt tightening can be done in few minutes.

The couplings offer 2°-5° angular deflection depending on pipe size: DN15-50 allow 5°, DN65-175 allow 4° and couplings from DN200 allow 2° angular deflection.

The bolts are anti-friction coated to offer easy tightening and to prevent galling. Furthermore, the light-weight and compact design makes handling easy and requires only very limited space for installation.

Progressive sealing and anchoring

Repico® couplings offer progressive sealing, which means that when the internal pressure increases, it also increases the pressure on the sealing lips, and they are thus pressed against the pipe.

The tensile Grip couplings also offer progressive anchoring, which means that when the internal pressure increases, the support ring is pushed outwards forcing the grip ring to grip deeper into the pipe surface.



Slip type, standard



Slip type, two locks

DISMANTLING JOINTS UNIVERSAL FOR ALL PIPE MATERIALS



AVK dismantling joints provide easy installation and disassembly of flanged pipework and equipment and compensate for axial displacement of the pipe during installation and dismantling. The range is available in DN40-2600 in PN10/16 and up to DN1200 in PN25.

The dismantling joint compensates for axial displacement of the pipe during installation and dismantling, as the telescopic action between the inner and outer flange body allows for longitudinal adjustment.

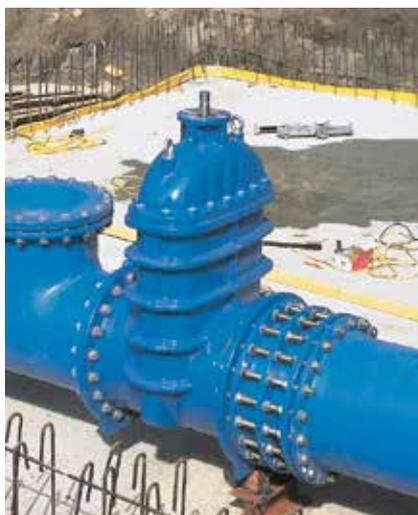
AVK dismantling joints are available in ductile iron in two ranges;

- with 8.8 galvanized tie rods in all bolt holes, fusion bonded epoxy coating in DN40-1600 and up to DN2600 with 2-pack epoxy coating
- with A2 tie rods in all bolt holes or in every other bolt hole, GSK approved epoxy coating, available in DN40-1200.

Additionally, variants in mild steel are available in two designs; with a reduced number of tie-rods for a cost-effective installation/dismantling, and a design similar to the ductile iron variant. The axial adjustment of 40-80 mm offers a high level of flexibility in the installation and removal of flanged equipment for either maintenance or replacement.



Design with minimised number of tie-rods
Steel



SUPA ONE™, SUPA MAXI™, SUPA PLUS™ AND SUPA® COUPLINGS, ADAPTORS, END CAPS AND VALVES



Series 651/00
Supa One™ straight coupling
Universal for ductile iron, steel, PVC and PE pipes
DN80-200
PN16
Ductile iron



Series 653/00
Supa One™ flange adaptor
Universal for ductile iron, steel, PVC and PE pipes
DN80-200
PN16
Ductile iron



Series 636
Supa Maxi™ gate valve
Universal and tensile for all pipes
Ductile iron
DN80-300
PN16

Options:
• Supa Maxi™/PE end



Series 631
Supa Maxi™ straight coupling
Universal and tensile for all pipes
Ductile iron
DN50-800
PN16

Options:
• step coupling



Series 633
Supa Maxi™ flange adaptor
Universal and tensile for all pipes
Universal drilling
Ductile iron
DN40-800
PN10/16



Series 634
Supa Maxi™ end cap
Universal and tensile for all pipes
Ductile iron
DN50-400
PN16



Series 635
Supa Maxi™ transition coupling with PN10 or PN16 pipe end
Universal and tensile for all pipes
Ductile iron
DN50-300
PN10/16



Series 01/70
Supa Plus™ gate valve
Tensile for PE and uPVC pipes
Ductile iron
DN40-300
PN16

Options:
• duplex stem



Series 621/10
Supa Plus™ straight coupling
Tensile for PE and uPVC pipes
Ductile iron
DN32-300
PN16

Options:
• flange adaptor



Series 624/10
Supa Plus™ end cap
Tensile for PE and uPVC pipes
Ductile iron
DN40-300
PN16



Series 601
Supa® straight coupling
universal for uPVC, AC, steel, cast iron and ductile iron pipes
Ductile iron
DN40-400
PN16

Options:
• step coupling



Series 603
Supa® flange adaptor
universal for uPVC, AC, steel, cast iron and ductile iron pipes
Universal drilling
Ductile iron
DN40-400
PN10/16

COMBI-FLANGES, FABRICATED COUPLINGS & ADAPTORS AND DISMANTLING JOINTS



Series 05
Combi-flange for ductile iron pipes
Tensile
Ductile iron/EPDM
DN50-300
PN10/16

Options:
• Non-tensile



Series 05
Combi-flange for PE and PVC pipes
Tensile
Ductile iron/EPDM
DN 50-300
PN 10/16

Options:
• Non-tensile for PVC



Series 05
Combi-flange for uPVC, steel or ductile iron pipes
Non-tensile
DN400-600 (uPVC and ductile)
DN50-300 (steel)
PN10/16
Ductile iron



Series 05
Combi-flange sealing for uPVC, steel or ductile iron pipes
Non-tensile
DN400-600 (uPVC and ductile)
DN50-300 (steel)
SBR rubber



Series 05
Support bush for PE pipes
Suitable for Supa Maxi™, Supa Plus™ and combi-flanges
DN50-600
PN6.3/10/16
Stainless steel



Series 745/01
Repico® grip coupling
Universal and tensile for all metal pipes
NBR or EPDM sealing
DN15-400
Stainless steel AISI 316

Options:
• for medium pressure up to DN200
• for PE/PVC pipes



Series 745/20
Repico® slip coupling
Universal and non-tensile for all pipes
NBR or EPDM sealing
DN15-600
Stainless steel AISI 316

Options:
• 2 locks up to DN1000



Series 258
Fabricated dedicated straight coupling for AC, steel, cast iron or ductile iron pipes
DN350-2000
PN8 to 25
Steel

Options:
• step coupling



Series 8004
Super Hydro fabricated universal straight coupling
Twin bolt design
Carbon steel
DN400-2000

Options:
• flange adaptor



Series 260
Fabricated flange adaptor for AC, steel, cast iron and ductile iron pipes
Steel
DN350-2000
PN10/16/25

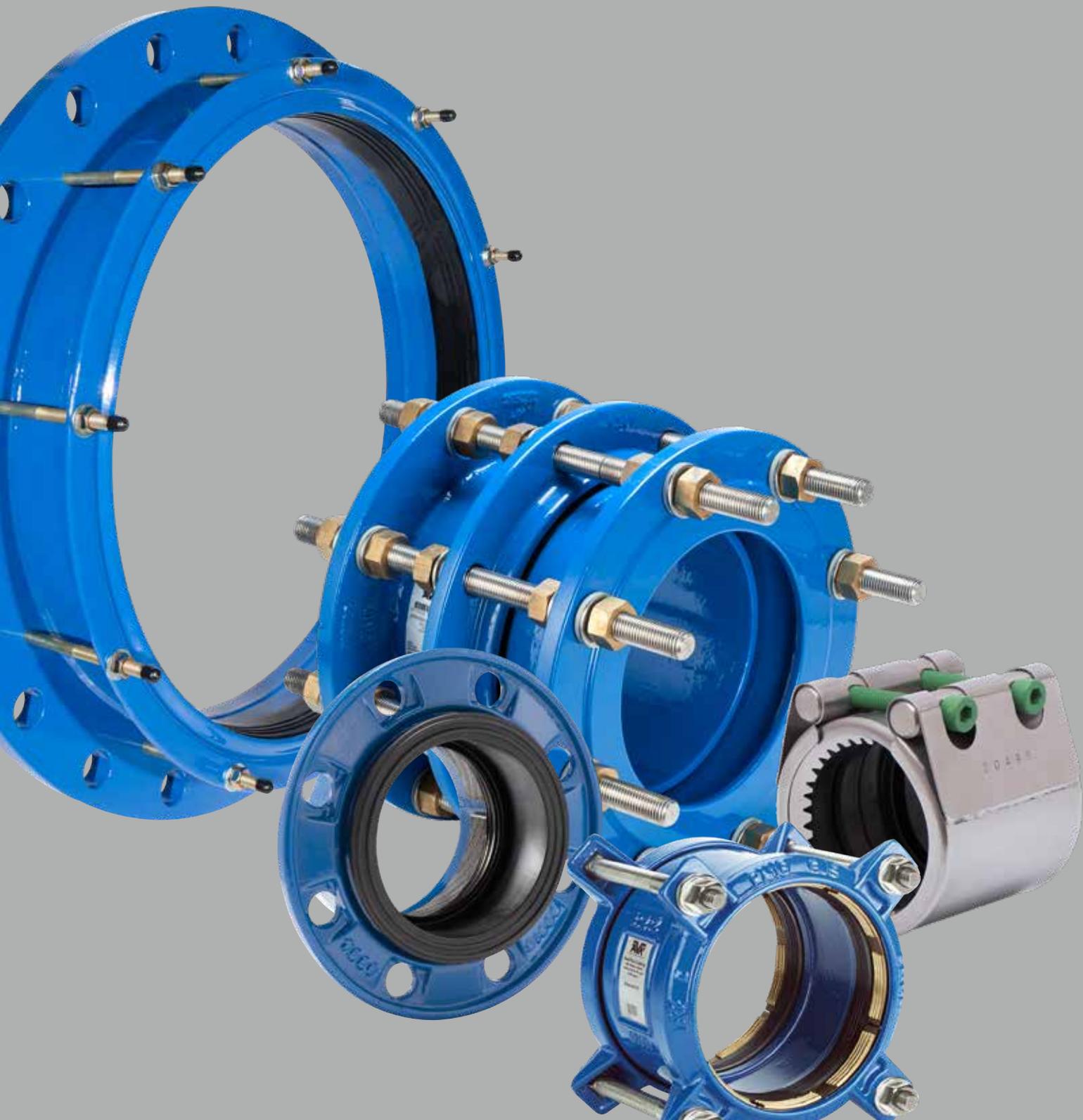


Series 265
Fabricated dismantling joint with reduced number of tie rods
Steel or ductile iron
DN40-1200
PN10/16/25



Series 873 or 265/910
Dismantling joint with centre flange
Ductile iron
DN40-2600
PN10/16/25

Options:
• with tie rods in every other bolt hole



AVK International A/S

Bizonvej 1
Skovby
8464 Galten
Denmark

Tel.: +45 8754 2100
www.avkvalves.eu

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