Georg Fischer Waga N.V.

+GF+

The connection for all pipe diameters
Restraint - non restraint
DN50 - DN825

# MULTI/JOINT®
# 3000 Plus

# MULTI/JOINT® 3000 Plus

**In your daily work you may encounter pipe systems of various materials in the ground. You will need to connect these with new pipe materials and preferably have a restraint joint. Well known jointing methods, such as collars, flanging, welding and the use of thrust blocks can be very time consuming. Would you prefer to work fast and reduce costs? The reliable MULTI/JOINT® 3000 Plus system is your answer! Our wide range fittings allow you to quickly make a restraint connection between all pipe materials, without special tools!**

## Wide range restraint fittings up to DN825

### Unique sealing system

The MULTI/JOINT® 3000 Plus system comprises wide range fittings, flange adaptors, reduction pieces, bends, duck foot bends and end caps in the ranges DN50 - DN825. Thanks to the unique wide range sealing system all fittings can be made restraint as long as the nominal diameters are the same. All you need to know is the outside diameter of the pipe, the medium and the working pressure.

### Proven quality

The MULTI/JOINT® 3000 Plus system has a range up to 43 mm and connects pipes from 46 - 869 mm. The restraint fittings are suitable for applications in water up to 16 bar and in gas up to 8 bar. The MULTI/JOINT® system has earned its reputation for quality on the international market over the past 30 years.

### Save time and stock

The MULTI/JOINT® 3000 Plus fittings can basically be installed under all conditions and are easy to install. There is no need for special tools which saves you a lot of time during installation. Thanks to the "one size fits and grips all" principle you can also save on your stock costs.

### Fields of application

- Water transport
- Water distribution
- Gas distribution
- Waste water
- Maintenance and repair
- Industrial applications

## Your benefits

- **Peace of mind**
- **The quick, safe and simple repair solution**
- **Reduction of your stock costs thanks to the "one size fits and grips all" principle**
- **Durable and corrosion proof**
- **Suitable for all pipe materials and reusable**
- **Applicable for under and above ground use**

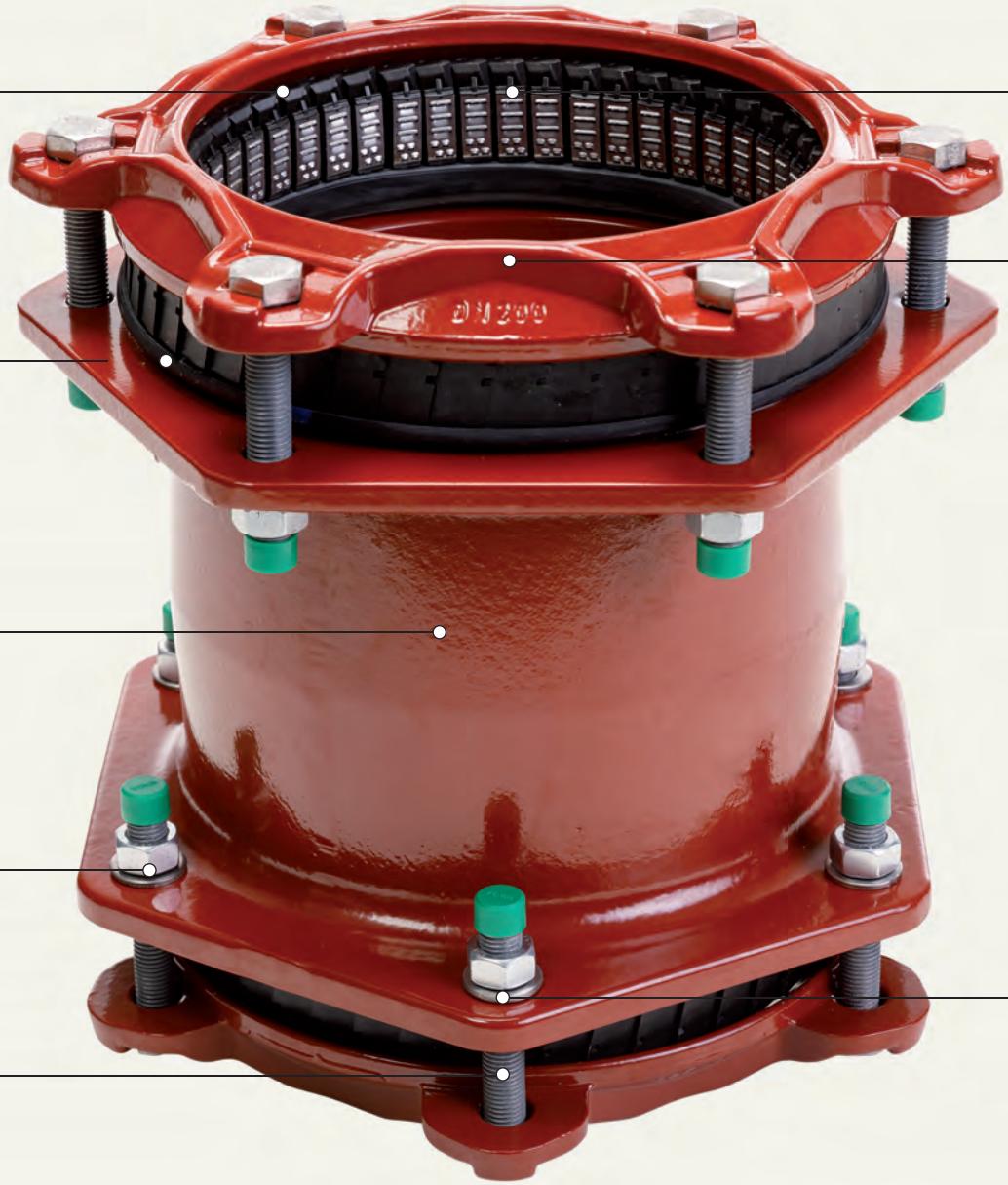
## MULTI/JOINT® 3000 Plus because:

- the MULTI/JOINT® 3000 Plus fittings have **easily accessible misaligned bolts**. Installers can easily assess the correctness of their own installation in the trench
- the MULTI/JOINT® 3000 Plus fittings have **an angularity of ± 8° per socket end**; for a coupling this means a total of maximum 16° angularity
- **the technical life expectancy** of all MULTI/JOINT® 3000 Plus products **is 50 years**
- the MULTI/JOINT® 3000 Plus has been **a proven quality connection for more than 30 years**
- the MULTI/JOINT® 3000 Plus has **an internationally proven track record**
- To work clean, safe and durable all MULTI/JOINT® 3000 Plus fittings **come with a hygiene protection** to prevent them from being contaminated or damaged

# Unique sealing system

## A reliable connection

When the quality standard is high, you need a reliable connection. The MULTI/JOINT® 3000 Plus system meets the demands and is suitable for applications in water and gas. The uniqueness of the system lies in the sealing which consists of a flexible ring (Uni/Fleks ring or Uni/Fiks ring) which consists of plastic segments and a rubber sealing ring (EPDM or NBR). The Uni/Fiks version is supplied with metal grippers which make the MULTI/JOINT® 3000 Plus restraint on all types of pipe materials.



**Uni/Fiks ring**

**Varioseal:**
rubber gasket
(EPDM or NBR)

**Body:**
ductile cast iron GGG45 EN-GJS-450-10
with Resicoat® epoxy powder coating
type RT 9000 R4

**Nuts:**
stainless steel A2 (AISI 304)
galvanised and passivated
or stainless steel A4 (AISI 316)
galvanised and passivated

**Bolts:**
stainless steel A2 (AISI 304) Lubo coated
or stainless steel A4 (AISI 316) Lubo coated

**Uni/Fikser:**

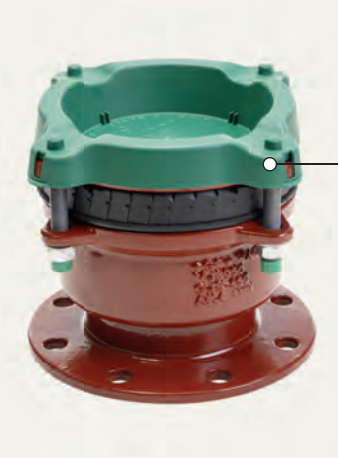
stainless steel A4 (AISI 316)

**Clamp ring:**

ductile cast iron GGG45 EN-GJS-450-10

with Resicoat® epoxy powder coating

type RT 9000 R4



**Hygiene protection**

Ensures the fitting stays

clean from production

to point of use

*(cap in the picture:*

*DN50 - DN400)*

**Washer:**

stainless steel A2 (AISI 304)

or stainless steel A4 (AISI 316)

# Easy installation

### Uni/Fleks ring

The Uni/Fleks ring is a combination of a plastic ring, consisting of plastic segments, with a thin rubber sealing (Varioseal). This rubber sealing (available both in EPDM and NBR) is a reliable solution for both water and gas applications. The Uni/Fleks ring is non restraint.

### Uni/Fiks ring

When metal grippers (Uni/Fiksers) are placed in the Uni/Fleks ring, the sealing system is restraint. The Uni/Fiks ring with the Uni/Fiksers makes a restraint connection up to an impressive 16 bar for water and 8 bar for gas, both on rigid and plastic pipes.

### Progressive sealing and gripping mechanism

The plastic segments in the ring sizes DN50 – DN125 consist of one part, made of POM. Furthermore the design of the ring enables large range coverage in outside diameters. The plastic segments in the ring sizes DN150 – DN825 consist of two parts; the wedge and the topple. The wedge is made of POM and is in contact with the pipe material. The topple, made of polyamide, ensures the integrity of the ring. This combination results in a progressive sealing and gripping mechanism. In the ring sizes DN425 – DN825 a clip has been added to fixate the ring in the body of the fitting ensuring easy installation with no interference.

### Uni/Fikser

The Uni/Fiksers ensure optimal restraint both on rigid pipe materials and on plastic pipes, without compromise.

### Easy installation and reuse

The relatively long body of the MULTI/JOINT® 3000 Plus fittings offers a large insertion depth. This large installation length makes the installation easy, as you can use this length as desired. Moreover, the fittings are supplied with a clear installation manual.

# One complete system

| Model | | | Type |
|---|---|---|---|
| | Coupling | restraint | 3007 |
| | | non restraint | 3000 |
| | Reduced coupling | restraint | 3107 |
| | | non restraint | 3100 |
| | Flange adaptor | restraint | 3057 |
| | | non restraint | 3050 |
| | Reduced flange adaptor | restraint | 3157 |
| | | non restraint | 3150 |
| | End cap blind | restraint | 3207 blind |
| | | non restraint | 3200 blind |
| | End cap ¾" - 2" threaded | restraint | 3207 ¾" - 2" threaded |
| | | non restraint | 3200 ¾" - 2" threaded |
| | PE adaptor | restraint | 3067 |
| | Spigot end | restraint | 3087 |
| | | non restraint | 3080 |
| | Reduced spigot end | restraint | 3187 |
| | | non restraint | 3180 |
| | Reduced duckfoot | restraint | 3557 |
| | | non restraint | 3550 |
| | Bend | restraint | 3407 |
| | | non restraint | 3400 |

## +Durable and reliable connections for a quick, safe and simple repair solution

Since the fittings can easily be de-installed, the system is also suitable for temporary installation after which multiple reuse is possible.

### Long life expectancy

The ductile cast iron MULTI/JOINT® 3000 Plus products are supplied with a corrosion proof Resicoat® epoxy powder coating. This combination extends the life expectancy significantly.

The fittings are maintenance-free and have a designed life expectancy of 50 years. This is a clear advantage; after all, you want to be able to guarantee a constant supply of water and gas to the end user and prevent renewed maintenance and repair.

| DN (mm) | Range (mm) | | |
|---|---|---|---|
| DN50 | 46 | - | 71 |
| DN65 | 63 | - | 90 |
| DN80 | 84 | - | 105 |
| DN100 | 104 | - | 132 |
| DN125 | 132 | - | 155 |
| DN150 | 154 | - | 192 |
| DN200 | 192 | - | 232 |
| DN225 | 230 | - | 268 |
| DN250 | 267 | - | 310 |
| DN300 | 315 | - | 356 |
| DN350 | 352 | - | 393 |
| DN400 | 392 | - | 433 |
| DN425 | 432 | - | 464 |
| DN450 | 450 | - | 482 |
| DN475 | 481 | - | 513 |
| DN500 | 500 | - | 532 |
| DN550 | 548 | - | 580 |
| DN600 | 605 | - | 637 |
| DN625 | 630 | - | 662 |
| DN675 | 665 | - | 697 |
| DN700 | 709 | - | 741 |
| DN800 | 799 | - | 831 |
| DN825 | 837 | - | 869 |

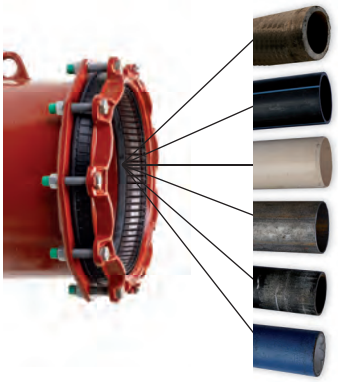
# Technical specifications

## Specifications

| | |
|---|---|
| Body | Ductile cast iron GGG45 in accordance with EN-GJS-450-10. |
| Clamp ring | Ductile cast iron GGG45 in accordance with EN-GJS-450-10. |
| Coating | Resicoat® epoxy powder coating, type RT 9000 R4, meets the requirements of for example ACS, Belgaqua, KTW, NSF Standard 61, WRAS, KIWA. Colour red (RAL 3003). Minimum layer thickness 250 micron, in accordance with the GSK-register. |
| Varioseal rubber gasket | Potable water: EPDM in accordance with EN 681-1.<br>Water and gas: NBR in accordance with EN 682. |
| Uni/Fiks and Uni/Fleks ring | POM (polyoxymethylene) and/or glass fiber filled Polyamide. |
| Uni/Fiksers | Stainless steel A4 (AISI 316). |
| Bolts and nuts | Stainless steel A2 (AISI 304) or stainless steel A4 (AISI 316). Bolts are Lubo coated, nuts are galvanised and passivated to prevent galling. |
| Washers | Stainless steel A2 (AISI 304) or stainless steel A4 (AISI 316). |
| Flanges | Drilling pattern PN10 or PN16 in accordance with EN 1092-2 or patterns in accordance with AWWA and Table D. DN450 - DN825 PN10 / PN16 drilled. |
| Working temperature | -5°C to +50°C. |
| Working pressure (PFA)* | Non restraint: up to PFA 25 bar water and up to 8 bar gas.<br>Restraint: up to PFA 16 bar water and up to 8 bar gas.<br>* For details see user manual or contact your supplier. |
| Certificates | ACS, Belgaqua, WRc, ÖVGW, SVGW, DVGW, WRAS, NSF and KIWA.<br>EN 14525: ÖVGW, SVGW and KIWA. |

## Sealing system

## Suitable for all pipe materials



AC

PE

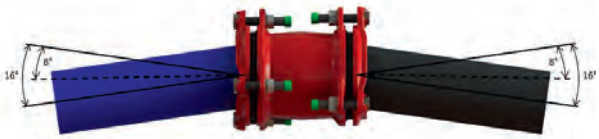
PVC

(Stainless) steel

Grey cast iron

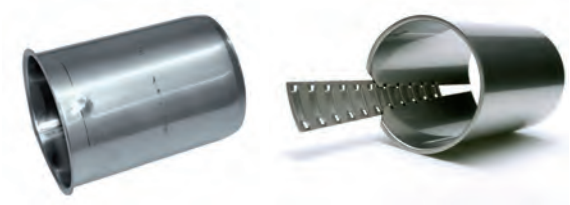
(Ductile) cast iron

## Nominal angularity*




## Insert stiffener

In case of connecting PE or PVC pipes, install an insert stiffener.



* based on the middle of the range

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