

Responsive

AquaFast

Couplings & Flange Adaptors

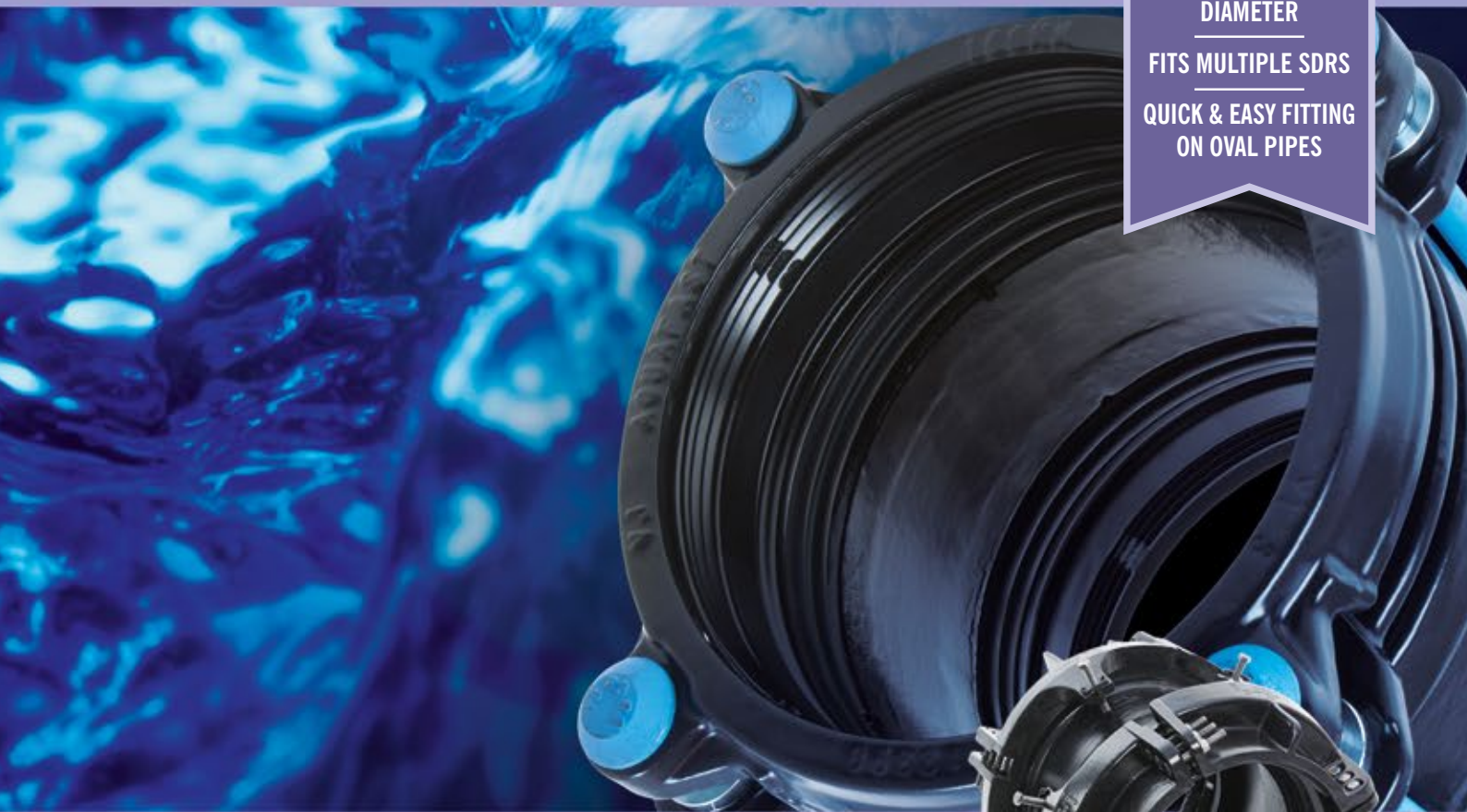
For Polyethylene & PVC Connections

**NEW
LARGER
SIZE**

NOW AVAILABLE IN
355MM TO 450MM
DIAMETER

FITS MULTIPLE SDRS

QUICK & EASY FITTING
ON OVAL PIPES



PIONEERS IN PIPE SOLUTIONS

CRANE

BUILDING SERVICES & UTILITIES



Designed & Engineered to Simplify Polyethylene & PVC Pipe Connections

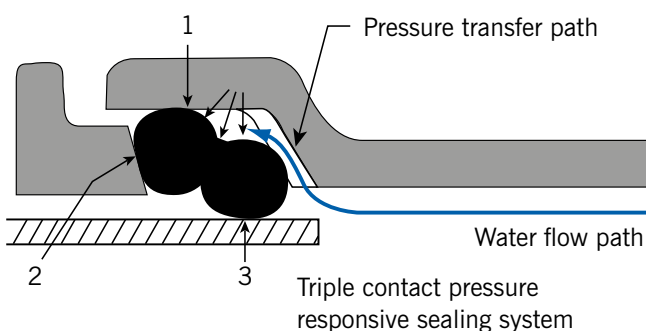
Effortless Installation

AquaFast's unique pressure sealing system offers a simple and reliable solution for connecting Polyethylene & PVC pipe. With a visual indicator confirming correct fitment and no special skills or tools required, installing AquaFast is effortless and quicker than other systems. In addition, an enhanced gripping mechanism ensures fittings slide easily into position during installation and provide full end load restraint in service negating the need for thrust blocks to prevent pipe pull out.



On-the-spot Repairs

From start to finish, AquaFast offers benefits to the installer. Supplied fully assembled and with an improved design that delays gripper engagement, AquaFast slides effortlessly over coiled and oval pipe making it easy for installers to correctly position the product in narrow trench conditions. Needing no specialist equipment, simply a "rag and a spanner", AquaFast can be installed in all-weather conditions and this, coupled with a design that does not need a support liner, means the product is ideal for on-the-spot connections in both new lay and repair / maintenance work.



Note: All water contact materials approved for use with potable water by WRAS.

Simple Jointing

Using only a standard spanner to tighten fewer bolts (only two per fitting up to 125mm) until the visual indicator confirms correct fitment AquaFast provides operatives with simple means of joining PE pipes. The metal-to-metal positive stop indicating mobilisation of the gripper and gasket sealing mechanisms removes the need for a torque wrench and prevents over tightening of the bolts while ensuring optimum assembly to every time.

Transitional Connections

AquaFast couplings & flange adaptors are available from 63mm to 315mm OD. Designed to work on both Polyethylene pipe in both PE80 and PE100 material SDR 11, 17/17.6 without a support liner, they can also be used to connect metric PVC pipe, so AquaFast is ideal for PE/PVC transitional connections.

AquaFast Coupling



AquaFast Flange Adaptor

Pipe Materials



AquaFast Couplings & Flange Adaptors

Product Design Benefits

Simple to Install

- Captive, non-rotating bolts across whole range requiring a single spanner to install.
- Increased bore dimensions and inclusion of resistors to prevent early engagement of gripper ensures AquaFast slides easily over pipe.

Positive Stop

- Correct installation confirmed through visual indication with metal to metal contact between three components (end ring, intermediate ring and sleeve / flange adaptor body).

Efficient Gasket Sealing Technology

- Double 'O' ring gasket provides localised high pressure contact points generating efficient seal on pipe surface.
- EPDM (water quality approved) gaskets.

Flexible Flange Drilling

- As standard the flange adaptors are multi drilled to accommodate BS EN 1092-1 PN10 & 16.

Corrosion Protection

- Metal components are coated with Rilsan Nylon 11, which is WRAS approved for use with potable water, and offers long term corrosion protection impact abrasion resistance
- The nuts & bolts are Sheraplex coated to WIS 4-52-03, which does not gall when re-used and provides long term corrosion protection.

Unique Progressive Sealing and Gripping Mechanism

- Patented gasket and gripper design delivers low pressure / load to outside of pipe at initial bolt up eliminating the need for support liner.
- Water transfer path uses internal pressure to increase gasket compression at contact points.
- As system pressure increases the initial gripper engagement with the pipe is enhanced through progressive gripping.

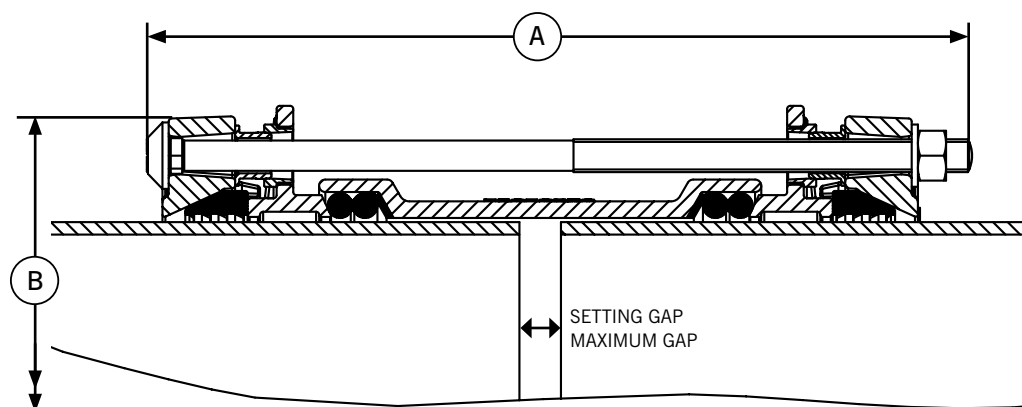
Customer Benefits

- Ideal for pumped sewage line as no support liner is required meaning a clear unrestricted bore. Additionally, Rilsan abrasion resistance coating accommodates any solids any solids in sewage.
- 50 years design life expectancy is assured through "Accelerated Aging Testing" that simulates lifecycle of the product and Rilsan Nylon coating to metal works for corrosion protections as well as Sheraplex coated bolts to WIS 4-52-03.
- Rough on site handling accommodated by Rilsan coating.
- Simple onsite installation as the product comes pre-assembled hence easily slides over the round pipe. The resistor ensures gripper remains fully contained in housing until bolt up is complete.
- Reduced number of bolts ensures the product can be always orientated to facilitate easy access for bolt up.
- Minimal damage to pipe as progressive gripping system only penetrates sufficiently to mobilise and load forces from internal pressure and other loads in PE Pipe.
- All water contact materials approved for use with potable water (WRAS).
- Fully restrained fitting, designed to meet the performance requirements of WIS4-24-01 Type 2 and ISO17885.



AquaFast Couplings

Specifications



Coupling

Pipe OD	Bolt Size No.-Dia x Length	Dimensions (mm)		Setting Gap (mm)	Max Gap (mm)	Weight (kg)
		A max	B dia			
63	2-M12 x 250	257	144	20	30	4.2
75	2-M12 x 250	257	156	20	30	4.7
90	2-M12 x 250	257	171	20	30	5.3
110	2-M12 x 250	257	192	20	30	6.4
125	2-M12 x 250	257	207	20	30	7.1
140	4-M12 x 250	257	221	20	30	8.4
160	4-M12 x 250	257	241	20	30	9.2
180	4-M12 x 375	382	272	30	50	18.0
200	4-M12 x 375	382	292	30	50	20.4
225	4-M16 x 385	395	328	30	50	24.8
250	6-M16 x 385	395	352	30	50	31.5
280	6-M16 x 385	395	382	30	50	33.6
315	6-M16 x 385	395	417	30	50	38.7

Materials & Relevant Standards

Centre Sleeve, End Ring and Flange Adaptor Body

Ductile iron to BS EN 1563 Symbol EN-GJS-450-10

Gripper Ring

Ductile iron to BS EN 1563 Symbol EN-GJS-450-10

Intermediate Ring

Ductile iron to BS EN 1563 Symbol EN-GJS-450-10

Bolts

BS EN ISO 898-1 Property class 8.8

Stainless Steel option - BS EN ISO3506-1 Grade A2

Property Class 70 (Stainless steel available as special order)

Nuts

Steel to BS EN20898-2 Property Class 8

Stainless Steel option - BS EN ISO3506-2 Grade A4

Property Class 80 (Stainless steel available as special order)

Washers

BS 1449:Part 2 Grade 304S15

Gasket (EPDM)

BS EN 681-1 Type WA/BS 6920 hardness to 70 IRHD

Resisters

Free cutting Mild Steel (Grade Y15) Zn3 Zinc coated

Coatings

Centre sleeve, end ring, flange adaptor body and intermediate ring:

Rilsan Nylon 11

Gripper: Cathaporetic coating

Bolts, nuts: Sheraplex to WIS 4-52-03

Pressure Rating

Working 16 bar

Test 24 bar

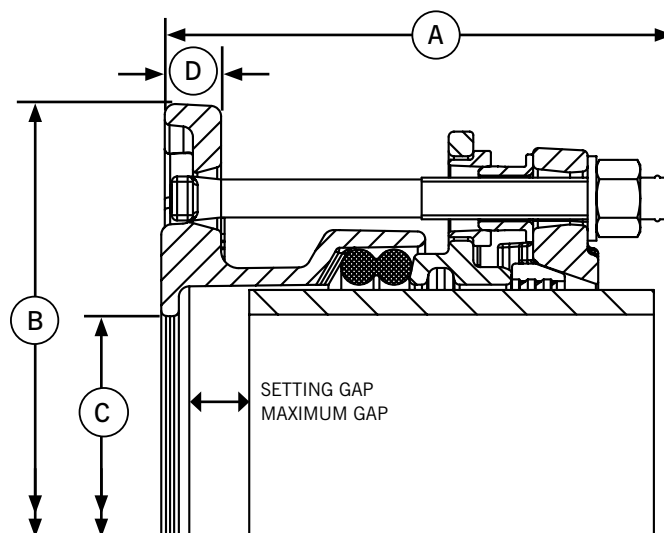
Approvals

All water contact materials approved for use with potable water by WRAS.

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AquaFast Flange Adaptors

Specifications



Flange Adaptor

Pipe OD	Flange Drillings	Tee Bolt Size No.-Dia x Length	Dimensions (mm)		Bore C (mm)	Flange Thickness D (mm)	Setting Gap (mm)	Max Gap (mm)	Weight (kg)
			A max	B dia					
63	50/65 PN10,16	2-M12 x 135	144	185	50	17	20	25	4.4
75	65/80 PN10,16	2-M12 x 135	144	200	65	17	20	25	4.8
75	60 PN10,16	2-M12 x 135	144	200	65	17	20	25	4.9
90	65/80 PN10,16	2-M12 x 135	144	200	80	17	20	25	5.0
110	100 PN10,16	2-M12 x 135	144	229	100	17	20	25	6.1
125	100/125 PN10,16	2-M12 x 135	144	250	100	17	20	25	7.2
140	125 PN10,16	4-M12 x 135	144	250	125	17	20	25	7.4
160	150 PN10,16	4-M12 x 135	144	285	150	17	20	25	8.5
180	150 PN10,16	4-M12 x 190	199	285	150	17	25	35	12.4
200	200 PN10,16	4-M12 x 190	200	343	190	18	25	35	15.4
225	200 PN10,16	4-M16 x 195	205	343	190	18	25	35	16.9
250	250 PN10,16	6-M16 x 195	207	406	240	20	25	35	22.5
280	250 PN10,16	6-M16 x 195	207	406	270	20	25	35	22.1
315	300 PN10,16	6-M16 x 195	208	483	300	21.5	25	35	28.2

All flange drilled to BS EN 1092-1 (formerly BS 4504) /BS EN ISO 7005 PN10 and PN16

Materials & Relevant Standards

Centre Sleeve, End Ring and Flange Adaptor Body

Ductile iron to BS EN 1563 Symbol EN-GJS-450-10

Gripper Ring

Ductile iron to BS EN 1563 Symbol EN-GJS-450-10

Intermediate Ring

Ductile iron to BS EN 1563 Symbol EN-GJS-450-10

Bolts

BS EN ISO 898-1 Property class 8.8

Stainless Steel option - BS EN ISO3506-1 Grade A2

Property Class 70 (Stainless steel available as special order)

Nuts

Steel to BS EN20898-2 Grade 8

Stainless Steel option - BS EN ISO3506-2 Grade A4

Property Class 80 (Stainless steel available as special order)

Washers

BS 1449:Part 2 Grade 304S15

Gasket (EPDM)

BS EN 681-1 Type WA/BS 6920 hardness to 70 IRHD

Resisters

Free cutting Mild Steel (Grade Y15) Zn3 Zinc coated

Coatings

Centre sleeve, end ring, flange adaptor body and intermediate ring:

Rilsan Nylon 11

Gripper: Cathaphoretic coating

Bolts, nuts: Sheraplex to WIS 4-52-03

Pressure Rating

Working 16 bar

Test 24 bar

Approvals

All water contact materials approved for use with potable water by WRAS.

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France - Villiers Adam City

Making Drinking Water Systems More Reliable

AquaFast Flange Adapters

Project

Viking Johnsons AquaFast product has been selected to provide a bespoke solution for SETHA bobingy. AquaFast products have been selected due to their progressive sealing system and reusable benefits for pressure tests.

Client

SEDIF

Contractor

SETHA Bobingy (Sade)

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NEW

Large Diameter
AquaFast
355mm to 450mm Diameter

A REAL TIME SAVER FOR POLYETHYLENE PIPE CONNECTIONS

Large Diameter
AquaFast can reduce
your inventory by

75%



Overview

Designed for simplified & dependable trench installation every time.

Simple to Install

AquaFast Large Diameter is quick and easy to install providing an alternative solution to electrofusion and butt fusion for all weather and trench conditions. It is a simple fit and forget installation designed with the minimum number of bolts and without the need for an internal liner or expensive trench equipment.

Quality

Patents are pending on this innovative product designed and manufactured under quality systems to BS EN ISO 9001 and the requirements of UK & European Water Regulations.

Reduced Stock Holding

And now just 10 sizes will cover a range of multiple SDR's offering a significant reduction in traditional stockholding and allowing distributors and water utilities opportunity to have stock to cover all eventualities with off-the-shelf availability.

Innovative Design ideal for Oval Pipes



Viking Johnson has built in a high tolerance for AquaFast to fit with oval pipes and negating the need to utilise expensive and time consuming re-rounding tools.

Fully Corrosion Protected

WRAS approved black Rilsan Nylon 11 coating provides excellent corrosion and damage resistance to impact, abrasion, weathering and chemicals.

Resists Pull-out

Improved gripping mechanism offers end load restraint, resisting pipe pull out, allowing the coupling and flange adaptor to be suitable for use in climatic regions where temperatures range from -20°C up to 60°C. AquaFast has been designed to meet the performance requirements of BS EN 12842, WIS 4-24-01 Type 2 and ISO 17855 (supersedes ISO 14236.2)



Pipe Material

AquaFast Large Diameter Couplings & Flange Adaptors 355mm to 450mm

Product Design Benefits

Innovative Gripping

An enhanced gripping mechanism offers Type 2 end load restraint, resisting pipe pull out.

Corrosion Protection



All cast components are fully coated in Black Rilsan Nylon 11 which has excellent resistance to impact, abrasion, weathering and chemicals as well as good thermal stability and flexibility to accommodate for rough site handling.

Positive Stop

Correct installation confirmed through visual indication with metal to metal contact between the clamp bands.

Centralisation Feature

Centralisation bolts are available around the product allowing accurate fitment during installation.

Customer Benefits

- Coupling can be used for repair - no internal restriction ideal for Sewage applications.
- Suitable for connecting pipes in wet/submerged conditions and above ground applications.
- No requirement for a support liner, torque wrench or any other specialist equipment on site.
- Easy to centralise on the pipe.
- Reduced stockholding - One product can connect one nominal pipe size with common SDRs (11 & 17/17.6).
- 50 years design life expectancy.
- Reusability - No spares required for multiple installations.
- Saves time and effort as Contractor only has to identify PE pipe nominal size to select correct fitting.
- Fittings comes fully assembled.
- Minimal number of bolts to tighten.



- NO SPECIALIST INSTALLATION TOOLING REQUIRED - NOT EVEN A TORQUE WRENCH
- MINIMAL NUMBER OF BOLTS TO TIGHTEN
- NO INTERNAL LINER REQUIRED
- ONE SIZE FITS MULTIPLE PIPE SDR'S (SDR 11, 17 & 17.6)
- EXTENDED NEW RANGE 355MM TO 450MM DIAMETER
- COUPLINGS AND FLANGE ADAPTORS
- QUICK & EASY FITTING ON OVAL PIPES

GRIPPING INNOVATION

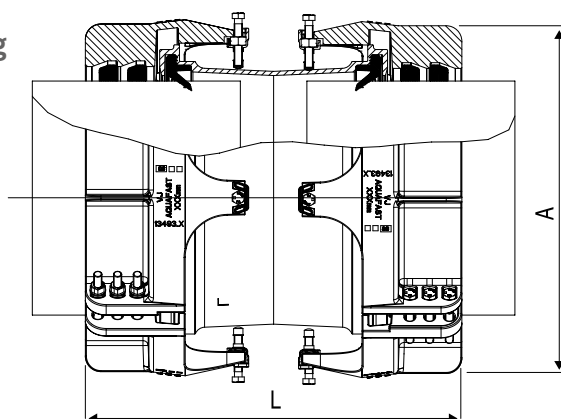
For Polyethylene Connections
355mm to 450mm Diameter



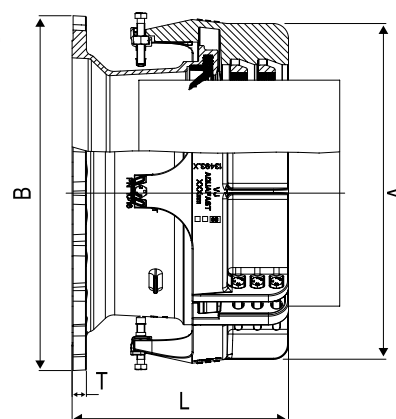
AquaFast Large Diameter Couplings & Flange Adaptors 355mm to 450mm

Specifications

Coupling



Flange Adaptor



Couplings (Suitable for pipe SDR's 11, 17 & 17.6)

Nominal Size	Working Pressure (water) bar	Bolts size No dia x length	Insertion Depth (mm)	Setting gap (based on nominal insertion depth)	Outer Dimensions (mm)			Weight (kg)
					Clamp band outer diameter (A)		Length (L)	
			Nom		Installed	Uninstalled		
355	16	24-M16 x 120	241	210	540	571	692	213.3
400	16	24-M16 x 120	247	210	585	618	704	231.3
450	16	24-M16 x 120	255	210	635	670	720	253.3

Flange Adaptors (Suitable for pipe SDR's 11, 17 & 17.6)

Nominal Size	Flange Drilling	Working Pressure (water) bar	Bolts size No dia x length	Insertion Depth (mm)			Setting gap (based on nominal insertion depth)	Outer Dimensions (mm)					Weight (kg)
				Min	Nom	Max		Clamp Band Outer Diameter (A)		Length (L)	Flange Outer Diameter (B)	Flange Thickness (T)	
								Installed	Uninstalled				
355	300 PN10,16	16	12-M16 x 120	284	304	324	197	540	571	501	455	22.5	122.2
355	350 PN10,16	16	12-M16 x 120	284	304	324	117	540	571	421	520	23.5	120.0
400	350 PN10,16	16	12-M16 x 120	289	309	329	183	585	618	492	520	23.5	134.4
400	400 PN10,16	16	12-M16 x 120	290	310	330	117	585	618	427	580	25	132.0
450	400 PN10,16	16	12-M16 x 120	298	318	338	109	635	670	427	580	25	142.9
450	450 PN10,16	16	12-M16 x 120	298	318	338	117	635	670	435	640	27	147.2
450	500 PN10,16	16	12-M16 x 120	298	318	338	117	635	670	435	715	28.5	155.4

AquaFast couplings and flange adaptors are also available in sizes 63mm to 315mm for PE & PVC pipe connections - see website for details.

Materials & Relevant Standards

Flange adaptor body, centre sleeve, clamp bands and gripper ring

Ductile iron to BS EN 1563
Symbol EN-GJS-450-10

Bolts

Stainless Steel BS EN ISO3506-1
Grade A2-70

Nuts

Stainless Steel BS EN ISO3506-2
Grade A4-80

Washers

Stainless Steel to BS1449:
Part 2:1983 Grade 304S15

Gasket

EPDM Grade 'E'
to BS EN 681-1:1996
Type WA WRAS listed

Approvals

All water contact materials approved for use with potable water (WRAS)
Environment Management system accredited to ISO 14001

Coatings

Cast/Metal Components (Flange adaptor body, centre sleeve and clamp bands) are coated in Rilsan Nylon 11 to WIS 4-52-01 (Part 1)
Cast/Metal Components (Gripper Ring) - Electrophoretic coating
Bolts - Gleitmo Coated (Dry Film Lubricant)
Nuts - Geomet Coated

Technical Parameters

- Maximum working pressure 16bar
- Maximum test pressure 24bar
- Meet the performance requirements of BS EN 12842, WIS 4-24-01 (Type 2) and ISO 17885
- Suitable for PE80 and PE100
- PE pipe thickness SDR 11 & 17/17.6
- Operating Temperature Range (-20°C to 60°C)

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AquaFast Large Diameter

DN450 Field Trials

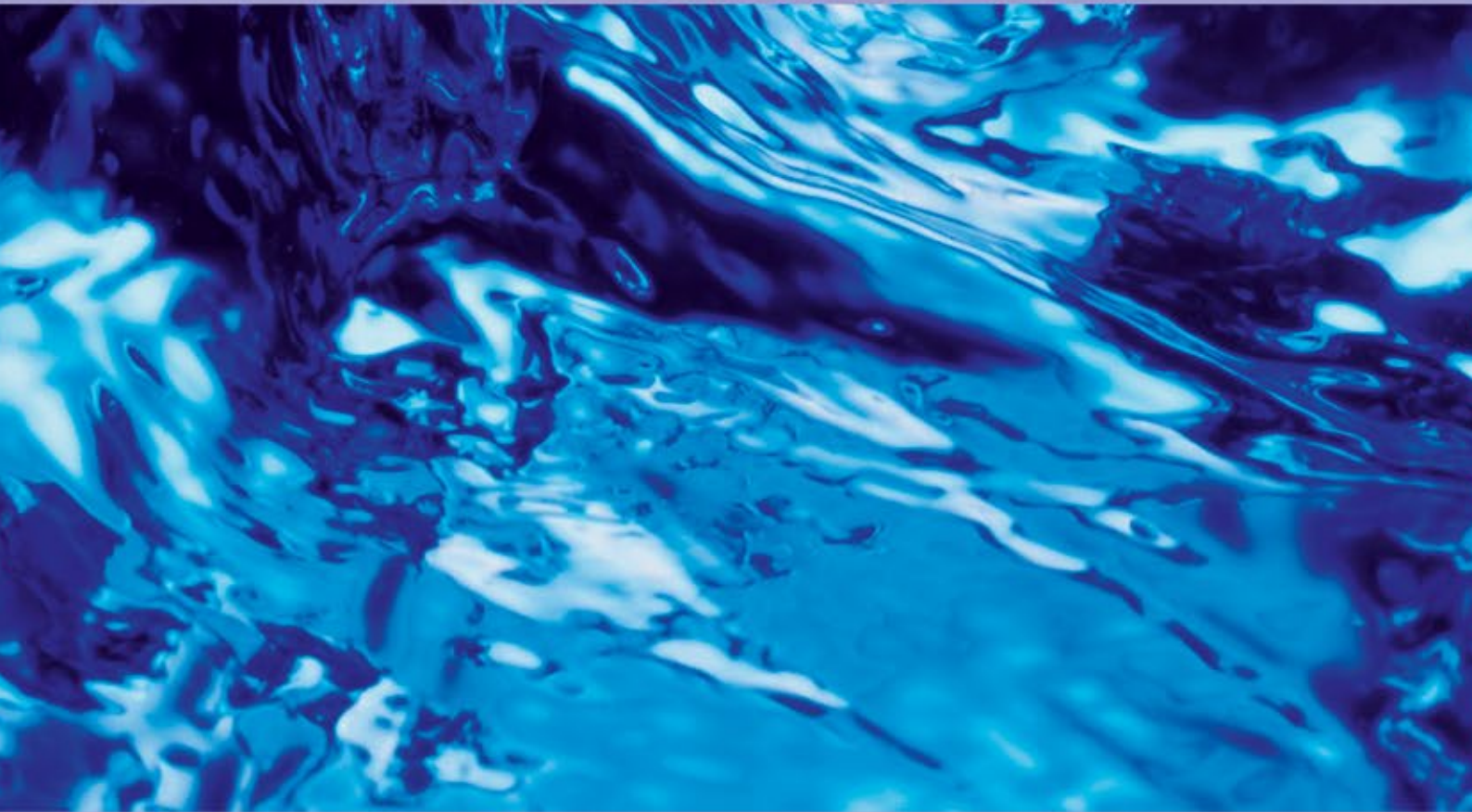


Project:

Ease of installation was confirmed at first-hand by Jason Perryman from Clancy Docwra who trialled AquaFast Large Diameter and commented positively:

"Clancy Docwra are always looking at new ways and new methods to make the job essentially quicker, easier and most importantly safer. The AquaFast is a nice 'easy to use coupling' because it does not need to be disassembled and you don't need a vast array of tools, which speeds up the installation process."





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ISO 14001 • EMS 51874



ISO 9001 • FM 00311



To visit our Video Library go to:
www.youtube.com/user/CraneBSU

- Designed and manufactured under quality management systems in accordance with BS EN ISO 9001.
- Environmental Management System accredited to ISO 14001.
- For full terms and conditions, please visit our website.

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