



WILLIAM JOHNSTON

& COMPANY LIMITED

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FASTENERS AND FLANGE GASKET SETS FOR THE WATER, GAS AND MUNICIPAL INDUSTRIES.

The William Johnston & Company Limited range of flange bolt sets is extensive and can be tailored to suit customer's exact needs. William Johnston & Company Limited offer complete flange gasket sets consisting of a gasket and the appropriate number of fasteners for the size of flange. These flange gasket sets are supplied bagged and clearly labelled enabling the correct gasket with the correct size and number of bolts, nuts, and washers to be selected every time a connection is to be made.

Benefits

- Factory applied protection
- All bolts, nuts and washers are fully coated, no exposed or unprotected metal areas.
- Exceptional long-term corrosion protection Meets the standards of WIS 4:52:03.
- Flange gasket sets provide the correct gasket and correct grade, quantity, size and finish of bolts, nuts, and washers, ensuring correct fitment every time.
- Extensive stocks of standard Flange Bolt Sets are available providing short lead times and high levels of customer service.
- Non-standard materials, coatings and sizes are available on request
- GIS F7 and GIS E55 compliant kits are made to order for the gas utilities sector.



Disclaimer

Please note, failure to select the correct materials or products we supply ("the Products") may result in damage to plant, equipment or property. In some instances, it may cause death or personal injury. We are not designers and do not give advice about design related matters concerning the Products. We can help and assist with the technical specifications for the Products. In specific applications, particularly where critical conditions exist, we will try to assist you within the limitations of the services that we offer. All information supplied by us is intended as technical co-operation outlining the specifications of the different Products which we supply. To the extent permitted in law, no warranty is given in respect of any information supplied by us. The customer must satisfy themselves as to the suitability of the Products for their intended application and use. The correct fitting of Products is the responsibility of the customer. Your statutory rights remain unaffected. Save in respect of death, personal injury or fraud, our entire liability to you, however arising from the supply of Products shall be limited to the £10M indemnity amount provided by our insurers.

Gaskets

WRAS APPROVED

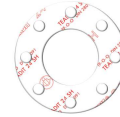
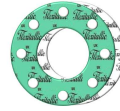
EPDM – 70 Shore A

Steel Rubber Gasket- EPDM

Aramid Fibre BS7531 Grade Y

Aramid Fibre BS7531 Grade X – Dielectric isolation

Expanded PTFE



William Johnston & Company Limited range of fasteners has been developed to meet the requirements of the U.K. water utilities sector. Our WIS 4-52-03 range of “blue” bolts offers a protective coating offering a substantial sacrificial protection layer and a barrier layer. These layers combine to withstand exposure to the most extreme environments. We also offer Galvanised and Zinc Plated corrosion coatings alongside Stainless Steel bolts, nuts and washers.

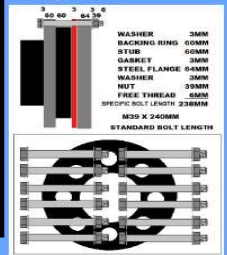
PIPE BORE	DUCTILE TO DUCTILE			STEEL	DUCTILE	PE	CAST IRON		
	PN10	PN16	PN25	PN16	TO PE	TO PE	PIPE BORE	TABLE D	TABLE E
mm	BOLT SIZE/NO	BOLT SIZE/NO	BOLT SIZE/NO	BOLT SIZE/NO	BOLT SIZE/NO	BOLT SIZE/NO	INCHES	BOLT SIZE/NO	BOLT SIZE/NO
50	M16 X 65 (4)	M16 X 65 (4)	M16 X 65 (4)	M16 X 70 (4)	M16 X 70 (4)	M16 X 90 (4)	2	M16 X 65 (4)	M16 X 70 (4)
80	M16 X 65 (8)	M16 X 65 (8)	M16 X 65 (8)	M16 X 70 (8)	M16 X 75 (8)	M16 X 90 (8)	3	M16 X 65 (4)	M16 X 70 (4)
100	M16 X 65 (8)	M16 X 65 (8)	M20 X 70 (8)	M16 X 70 (8)	M16 X 80 (8)	M16 X 100 (8)	4	M16 X 65 (4)	M16 X 75 (8)
150	M20 X 70 (8)	M20 X 70 (8)	M24 X 90 (8)	M20 X 75 (8)	M20 X 90 (8)	M20 X 120 (8)	5	M16 X 70 (8)	M16 X 75 (8)
200	M20 X 70 (8)	M20 X 70 (12)	M24 X 90 (12)	M20 X 80 (12)	M20 X 100 (12)	M20 X 120 (12)	6	M16 X 70 (8)	M20 X 80 (8)
250	M20 X 80 (12)	M24 X 90 (12)	M27 X 100 (12)	M24 X 100 (12)	M24 X 120 (12)	M24 X 150 (12)	7	M16 X 75 (8)	M20 X 90 (8)
300	M20 X 80 (12)	M24 X 90 (12)	M27 X 100 (16)	M24 X 110 (12)	M24 X 120 (12)	M24 X 150 (12)	8	M16 X 75 (8)	M20 X 90 (8)
350	M20 X 80 (16)	M24 X 90 (16)	M30 X 110 (16)	M24 X 120 (16)	M24 X 130 (16)	M24 X 160 (16)	9	M16 X 75 (8)	M20 X 90 (12)
400	M24 X 90 (16)	M27 X 100 (16)	M33 X 120 (16)	M27 X 120 (16)	M27 X 130 (16)	M27 X 160 (16)	10	M20 X 80 (8)	M20 X 90 (12)
450	M24 X 90 (20)	M27 X 100 (20)	M33 X 120 (20)	M27 X 130 (20)	M27 X 150 (20)	M27 X 190 (20)	12	M20 X 80 (12)	M22 X 90 (12)
500	M24 X 90 (20)	M30 X 110 (20)	M33 X 120 (20)	M30 X 150 (20)	M30 X 160 (20)	M30 X 200 (20)	13	M20 X 80 (12)	M22 X 90 (12)
600	M27 X 100 (20)	M33 X 120 (20)	M36 X 140 (20)	M33 X 160 (20)	M33 X 180 (20)	M33 X 240 (20)	14	M22 X 90 (12)	M22 X 100 (12)
700	M27 X 100 (24)	M33 X 130 (24)	M39 X 150 (24)	M33 X 170 (24)	M33 X 200 (24)	M33 X 260 (24)	15	M22 X 90 (12)	M22 X 100 (12)
800	M30 X 110 (24)	M36 X 140 (24)	M45 X 100 (24)	M36 X 190 (24)	M36 X 210 (24)	M36 X 280 (24)	16	M22 X 90 (12)	M22 X 100 (12)
900	M30 X 120 (28)	M36 X 140 (28)	M45 X 180 (28)	M36 X 210 (28)	M36 X 230 (28)	M36 X 310 (28)	17	M22 X 90 (12)	M22 X 110 (12)
1000	M33 X 130 (28)	M39 X 160 (28)	M52 X 200 (28)	M39 X 220 (28)	M39 X 280 (28)		18	M22 X 100 (12)	M22 X 110 (16)

BOLT GRADE
4.6 grade mild steel bolts are offered as the industry standard. We are happy to address individual applications and make recommendations regarding other bolt grades (8.8 etc.) and gasket types.

BOLT LENGTHS
The table detailing bolt lengths is given as a guide only. When working out the required length of bolts please use the formula below.

BOLT LENGTH =

ADD BOTH FLANGES thickness (remember to add the raised face or the combined thickness of PE and backing flange)
GASKET. Usually 3mm
NUT. Thickness
WASHER x 2 Thickness
FREE THREAD (3 x bolt pitch)
Example below



FIGURES SHOWN IN RED ARE THE STANDARD NUMBER OF BOLTS PER FLANGE

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EUSR Flange Jointing

We are working with renowned gasket manufacturers William Johnston & Company Limited to deliver EUSR certified Flange assembly training.

This course provides the knowledge and skills that enable operators to install networks with confidence and in accordance with recognised best practice.

It is recognised that up to 90% of mechanical flange installations are subject to the following issues:

- Incorrect installation methods – resulting in unequal loading and premature failure.
- Flange face damage – preventing the formation of a leak free seal.
- Incorrect gasket selection – resulting in environmental stress, causing premature failure.
- Overtightening of bolts – reducing hydraulic performance during natural movement of pipework in operation.
- Failure to lubricate bolts – resulting in incorrect torque loading.

Our training covers the following core elements:

- Explanation of what a flange mechanical connection is designed to achieve, compatible materials and components.
- Preferred gasket selection, and how the correct selection influences the lifetime performance of the completed flange connection.
- Equipment and ancillary component selection and use i.e. torque wrenches, spanners, bolts and lubricants.
- Providing the best methodology for preparing and assembling multi material flange assemblies, and demonstrating how poor practice can severely impact the jointing process.
- Providing the skill and knowledge to recognise material, product and equipment issues which can impact on the flange assembly process, and the correct actions and responses to take where these are identified.
- Practical testing demonstration to evidence flange connection quality where best practice and correct equipment have been utilised to create a multi material assembly.

Our training provides the knowledge, skills and solutions to address all the above issues and more, that are fundamental to achieving optimum lifetime performance. The training consists of presentations and practical sessions and can be delivered in our purpose-built training facility or on-site to suit your requirements.

Call us on **+44 (0) 1246 262080** for more information and get your teams signed up today.

William Johnston and Company Limited enjoy an enviable reputation in the U.K. as the leading gasket manufacturer and flange gasket/bolt kit supplier to the water and gas pipeline utility sectors approved to ISO 9001:2015 standard.

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