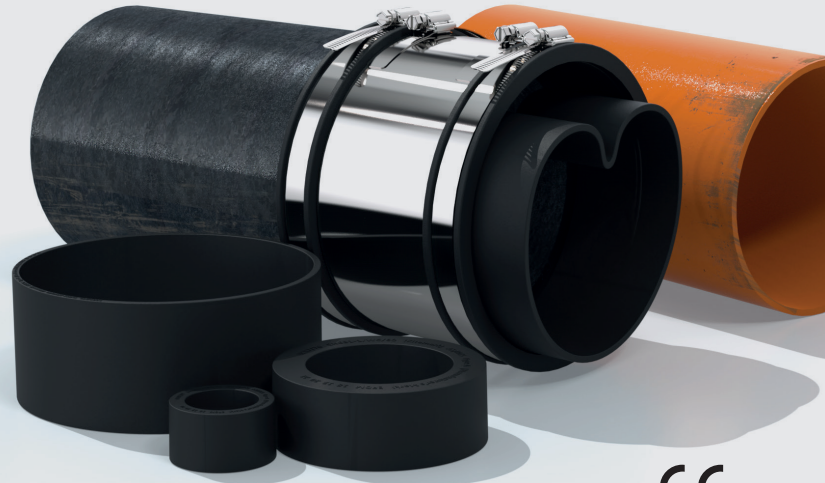


# Bushes

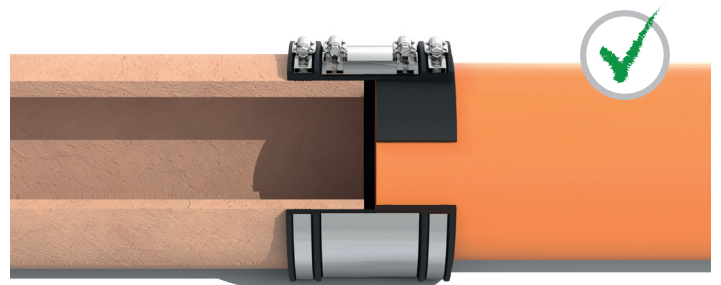
- Bushes are used when outside diameters of the pipes to be connected are significantly different
- Can be manufactured to suit specific site and application requirements
- Provide a high performance seal on low pressure pipes
- Versatility in application enables the bush to be used when an increase in pipe outside diameter is needed
- Manufactured to meet the WIS 4-41-01 standard
- Conform to BS EN 681-1:1996



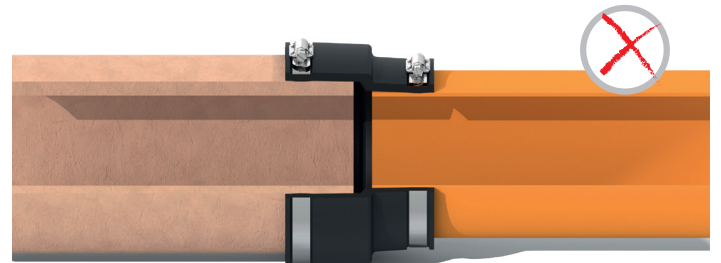
Bushes are used as an additional component part of either Shear Banded Couplings or Lateral Connection Saddles. The purpose of a bush is to increase the outside diameter of a pipe to be connected if the pipe is too small for the coupling being used or the saddle being used.

Fernco Bushes are simple rings of EPDM rubber that are available in various diameters and at various thicknesses. Bushes are used as an additional component part of either Shear Banded Couplings or Lateral Connection Saddles. The purpose of a bush is to increase the outside diameter of a pipe to be connected if the pipe is too small for the coupling being used or the saddle being used. The bush will simply fill the void between the outside of the pipe and the inside of the coupling.

Conformance with WIS 4-41-01 on adopted pipe lines



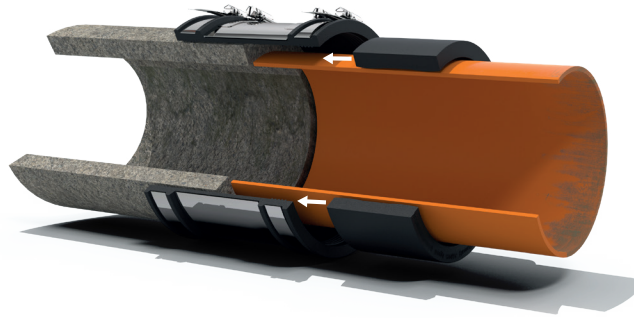
None conformance with WIS 4-41-01 on adopted pipe lines



## Compliance with WIS 4-41-01

On unadopted drainage pipelines a suitable Adaptor Coupling could be used when two pipes to be connected have significantly different outside diameters. When connecting adopted drainage pipelines, water companies specify, under WIS 4-41-01, that a Shear Banded Coupling must be used to protect pipe alignment against vertical shear loads and therefore a Shear Banded Coupling and Bush should be used.

# Bushes: supporting watertight connections



## Bushes with Shear Banded Couplings

When connecting two pipes with a Shear Banded Coupling there is a maximum tolerance of how much difference there can be between the outside diameters of the two pipes to be connected. This maximum tolerance can be anywhere between 4mm and 12mm depending on the size and type of the Shear Banded Coupling (technical datasheets provide this information for specific sizes/types).

If two pipes outside diameters differ more than the maximum tolerance of the coupling to be used, for example connecting Clay to Plastic within the same nominal size, then a bush should be used to fill the gap on the Plastic pipe side.



## Bushes with Lateral Connection Saddles

We manufacture a range of Saddles that connect DN150/DN200 lateral (or branch) pipes into concrete/clay main surface water/sewer water drainage. Each of these saddles have been designed to connect the thickest walled pipe material, Clay. When connecting any other material, then a bush should also be used to increase the outside diameter of the pipe so that it falls within the saddles tightening range.

# Moulded Bushes



Product Code	BCXX/XXX
Description	Fernco Bush
Size Range	11 - 265mm
Material	EPDM
Temperature Range	-50°C to 80°C constant, 100°C intermittent
Standards	WIS 4-41-01 BS EN 681-1:1996 BS EN 295-1:2013

Product Code	Pipe OD Min/Max (mm)	Bush Thickness (mm)	Pipe OD Increase (mm)	Bush OD Min/Max (mm)
BC19/17	11 - 16	19	38	49 - 54
BC17/21	15 - 20	17	34	49 - 54
BC14/26	20 - 25	14	28	48 - 53
BC09/37	30 - 37	9	18	48 - 55
BC06/43	35 - 40	6	12	47 - 52
BC23/65	55 - 65	23	46	101 - 111
BC17/76	65 - 76	17	34	99 - 110
BC08/95	85 - 95	8	16	101 - 111
BC27/65	55 - 65	27	54	109 - 119
BC12/95	85 - 95	12	24	109 - 119
BC06/102	92 - 102	6	12	104 - 114
BC08/105	95 - 105	8	16	111 - 121
BC20/105	95 - 105	20	40	135 - 145
BC08/115	105 - 115	8	16	121 - 131
BC15/115	105 - 115	15	30	135 - 145
BC07/132	122 - 132	7	14	136 - 146
BC12/125	115 - 125	12	24	139 - 149
BC19/132	122 - 132	19	38	160 - 170
BC08/160	150 - 160	8	16	166 - 176
BC06/178	168 - 178	6	12	180 - 190
BC12/166	156 - 166	12	24	180 - 190
BC16/164	154 - 164	16	32	186 - 196
BC26/168	158 - 168	26	52	210 - 220
BC08/170	160 - 170	8	16	176 - 186
BC08/180	170 - 180	8	16	186 - 196
BC08/200M	190 - 200	8	16	206 - 216
BC33/205	195 - 205	33	66	261 - 271
BC08/265	255 - 265	8	16	271 - 281
BC16/250	240 - 250	16	32	272 - 282

# Bespoke Bushes

Fernco bushes can be jointed to bespoke sizes in 6 different thicknesses to exact customer requirements:

**4mm, 8mm, 12mm, 16mm, 24mm and 32mm**

Bush Thickness (mm)	Pipe OD Min (mm)	Pipe OD Max (mm)	Pipe OD Increase (mm)
4	160	no max	8
8	160	no max	16
12	220	no max	24
16	220	no max	32
24	250	no max	48
32	280	no max	64

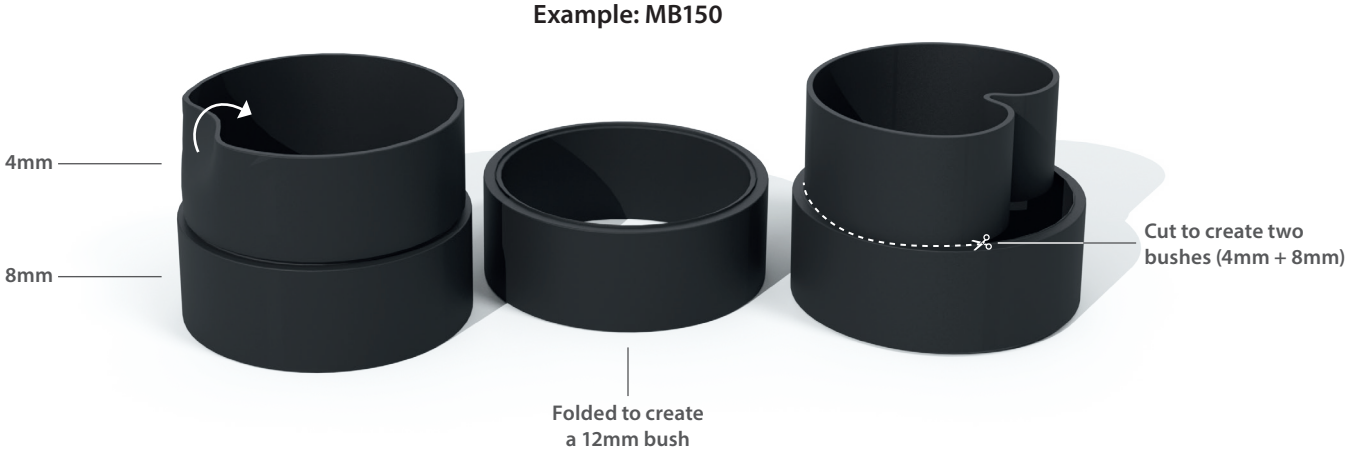


# Multibush

The Fernco Multibush is a foldable bush that adapts to three thicknesses and thus suiting multiple connection scenarios.

Available as a DN100, DN150 and DN200. Each size gives the user the ability to connect any two pipe materials of the same nominal diameter, thus reducing different configurations of stock required and improving reaction to unforeseen connection requirements.

Not only does the Multibush make connecting pipes to pipes less complex, the DN150 Multibush is also suitable for Unisaddles (FA150U and FA150B); allowing the user to connect any DN150 pipe into larger diameter main concrete drainage pipes.

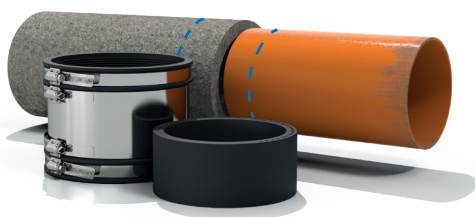


Product Code	Pipe Size	Shear Banded Coupling to be used with	Bush Thickness's (mm)	Pipe OD Increase (mm)
MB100	DN100	SC137	3, 6, 9	6, 12, 18
MB150	DN150	SC200	4, 8, 12	8, 16, 24
MB200	DN200	SC250	4, 8, 12	8, 16, 24

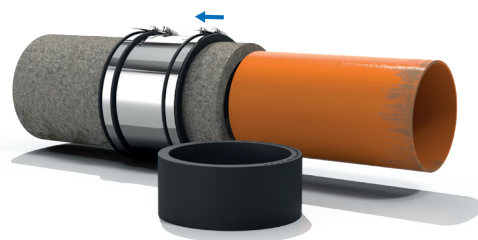




# Installation



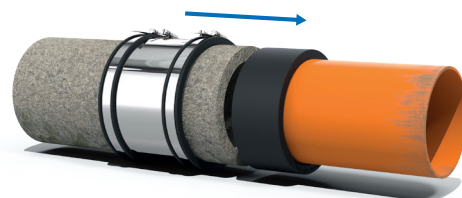
1. Mark both pipes, from the end to be connected, half the width of the coupling, less the required joint gap, which is usually 10mm.



2. Slide the coupling fully over the largest pipe.



3. Slide the bush onto the smallest pipe.



4. Position the pipes and slide the coupling over the smallest pipe and bush until the coupling face meets the mark on the largest pipe.



4. Tighten the clamp bands to the recommended torque in sequence across the width of the coupling starting with the central shear band.

Tamp the bedding under the pipe and re-tighten prior to backfilling.

# General Information

## Quality, Standards and Approvals

Fernco has been certified by the British Standards Institution (BSI) as a company of assessed capability, with a quality management system which meets the requirements of BS EN ISO 9001:2015

Fernco UK, part of a global group of companies, are the leaders in wastewater connection innovation; utilising the most advanced methods and techniques for precision-manufactured products, all of which comply with or exceed relevant British and European standards to ensure reliability and sustainability.

## Environment

Fernco operate Environmental Management Systems which are certified to ISO 14001: 2015.

## Supply

Fernco are proud members of the Builders Merchants Federation (BMF). All Fernco products are supplied through a national and global network of distribution and merchant partners. For stockist details, contact Fernco.

## Technical Support

Fernco have a team of product experts on hand to support all customers with technical support and advice.

Contact Fernco Technical Department:

Tel: +44 (0) 1226 344100

Email: [technical@fernco.co.uk](mailto:technical@fernco.co.uk)

## Enquiries

UK Sales:

Tel: +44 (0) 1226 340 888

Email: [sales@fernco.co.uk](mailto:sales@fernco.co.uk)

International Sales:

Tel: +44 (0) 1226 344 105

Email: [export.dept@fernco.co.uk](mailto:export.dept@fernco.co.uk)

