# Talbot Service Connections

# **Straps and Ferrules for Mains to Service Pipe Connections**

#### **Benefits**

- Available in a range of self tapping ferrule straps and flat boss straps to suit mains pipe from 32mm.
- Ferrules are available <sup>1</sup>/<sub>2</sub> to 2 " 20mm to 63mm outlets
- Design and selection of materials gives high strength for reliable installation and light weight for easy handling
- Quick and efficient installation onto all common pipe materials in virtually any trench condition, wet or dry
- Prolonged life of fitting due to the high quality corrosion resistant materials used









The Talbot range of Self Tapping Ferrule Straps, Swivel Ferrules and Flat Boss Straps can be used to connect PE pipes to almost any type and size of mains pipe material from 32<sub>mm</sub> in diameter.

- Straps are available up to 315<sub>mm</sub> in diameter as standard with larger sizes available on request.
- Ferrules can be inserted directly into suitable mains pipe of any size as long as both wall section and wall strength allow.



#### **Technical data**

Pressures: Working: 16 bar Test: 24 bar The pressures stated above apply with water temperatures up to 20°C

Temperature: Up to 40°C

For further information relating to operating temperatures please contact our customer service department at the telephone number shown below.

Sizes:

Mains pipe: From 32mm Stems: 1/2" - 2"

Outlets: 20mm(1/2") - 63mm(2")

Materials:

Metals: Aluminium Bronze (BS1400 AB1) (BS EN 1982 Grade CC331G)

> Gunmetal (BS1400 LG2) (BS EN 1982 Grade CC491K) DZR Brass (CZ132M BS2874) (BS EN 12164 Grade CW602N)

Plastics: Acetal or Polypropylene
Fasteners: Stainless steel (A4 or A2)
Seals: Nitrile or EPDM

# Technical help

For further technical data, product specifications and general information please contact our Customer Service Department at the telephone number shown below.

Tel: +44 (0)1675 437 900 e-mail: wwinfo@tyco-valves.com

# **General application**

Talbot straps and ferrules can be used to take service pipe connections from mains of 1" (32mm) to 12" (315mm) using ferrule outlets of 20mm (1/2") to 63mm (2") for PE pipe. Talbot straps are simply clamped onto the pipe needing no specialised equipment to fit so can be installed easily in wet and congested trench conditions, offering many benefits over welded systems.

All fittings are WRAS listed with the exception of recent additions which may have been submitted but not yet tested.

#### Range

- Plastic Self Tapping Ferrule Straps (page 2)
- Gunmetal Self Tapping Ferrule Straps (page 2)
- Bronze Self Tapping Ferrule Straps (page 2)
- Swivel Ferrules (page 4)
- Flat Boss Straps (page 6)

# Safety

As with all industrial products it is important to take adequate safety precautions such as the use of adequate protective clothing like gloves, overalls, eye protection and safety footwear during installation, use and maintenance of these products.

Fax: +44 (0)1675 437 909 www.tycowaterworks.com

#### **Talbot Plastic Self Tapping Ferrule Straps**

The Talbot all Plastic Self Tapping Ferrule Strap is a design that combines tried and tested technology with revolutionary design concepts. Suitable for use on PVC or PE pipe, the Talbot Plastic Self Tapping Ferrule Strap is lightweight and can be used in any situation in place of a welded or traditional gunmetal strap.

A unique wedge system is used to

ferrule with a self contained cutter, so eliminating the need for drilling machines. This specially designed cutter greatly reduces the risk of bursting the main or creating a swarf

connection. This also significantly

The strap incorporates an integral

and robust

blockage whilst cutting.

secure a leak-free

reduces installation time.

# **Benefits**

#### Quick and simple to install

Using a unique securing system requiring no special tools the strap is quickly and easily secured to the main, consistently providing a robust and leak free connection even in wet and congested trench conditions

#### Plastic construction

Design and selection of materials gives high strength for reliable installation and operation and light weight for easy handling

# No special equipment or controlled conditions needed

The Talbot Plastic Self Tapping Ferrule Strap enables connections to be made to almost any type and size of PE or PVC mains, making it a viable alternative to electrofusion.









#### **Talbot Bronze Self Tapping Ferrule Straps**

Talbot Bronze Self Tapping Ferrule Straps for PE, PVC and AC pipe incorporate an integral ferrule with a self contained cutter, eliminating the need for drilling machines. Straps are made from aluminium bronze or gunmetal or a combination of aluminium bronze or gunmetal and plastic making the product durable and corrosion resistant. The strap also uses a specially designed cutter, which tests show greatly reduces the risk of bursting a PVC main or creating a swarf blockage whilst cutting. Aluminium bronze straps have the added benefit of reduced weight.

### No Special Squipment or Controlled Conditions Needed

The fitting has an integral cutter and requires only a spanner and standard ferrule key to install and carry out the drilling operation, dry or underpressure and in wet and congested trench conditions making it a viable alternative to electrofusion

# Integral Cutter

The integral cutter is designed to greatly reduce the risk of fracturing PVC pipe during the drilling procedure. Its design also reduces the chance of swarf blockage whilst tapping by retaining the polyethylene/PVC slug. The cutter also provides a shut off facility once the tapping has been made

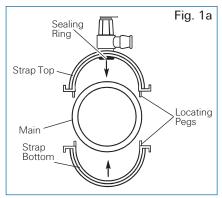


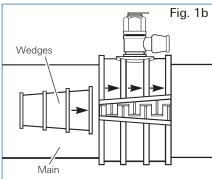


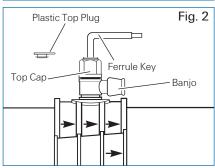
The materials used in Talbot Straps are WRAS listed. For further technical data, product specifications and general information please contact our Customer Service Department at the telephone number shown on the back of this data sheet

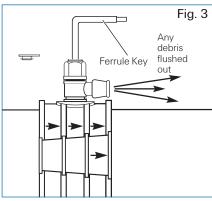
# **Installation Instructions For Self Tapping Ferrule Straps**

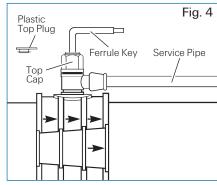
# **Plastic Straps**











# Instructions

The design of Talbot Straps make them very simple to use. For easy, trouble free installation the steps detailed below should be followed.

After selecting the correctly sized strap for the main, check that the cutter is retracted up into the stem and does not protrude through the bottom of the strap.

1. For the **bronze strap**, fit the top half of the strap on the main ensuring that the sealing ring is correctly positioned between the main and the underside of the strap boss (see Fig. 1).

Locate the bottom half of the strap below the top half and, using the two nuts and bolts provided, bolt the two halves together and tighten evenly. Make sure that the strap sits squarely on the main and then tighten each nut a further two and a half turns, a torque setting of approximately 10 lb/ft (13.6 Nm)

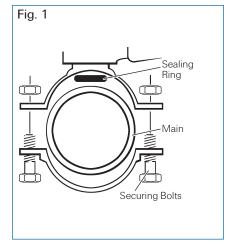
2. For the **plastic strap**, position the bottom half of the strap under the main and 'snap' it into position. The strap is designed to be retained on the main and will not need to be held in position.

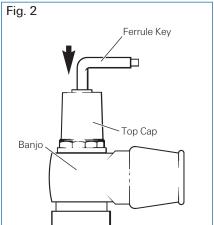
Fit the strap top, ensuring that the locating pegs, top and bottom are aligned and interlocked (See Fig. 1b). Before securing both halves of the strap around the main with the two wedges ensure that the directional arrows on both the strap top and locking wedges point in the same direction. Slide both wedges into position on either side of the strap (See Fig. 1b) then, using a soft faced mallet, secure them in place.

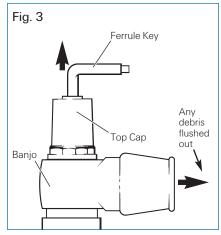
# The tapping procedure for both types of Self Tapping Ferrule Strap is as follows:

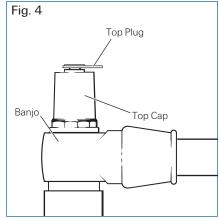
- 3. Remove the plastic top plug and using the ferrule key, screw down the self tapping cutter/plug until it 'bottoms' on the seat (see Fig. 2). Do not over-tighten, a torque of no more than 10 Nm, 7.4 lb/ft is needed.
- 4. Wind the cutter/plug back to allow a small amount of water to go to waste to flush out any debris (see Fig. 3).
- Wind the cutter/plug back down onto its seat to seal off the connection (do not overtighten).
- 6. Connect the service pipe to the banjo.
- 7. Ensure the top cap is tightened down on to the banjo (hand tight plus a ½ turn, 15 Nm 11 lb/ft) then wind the cutter/plug back to seal in the top cap (do not overtighten, a torque of no more than 6 Nm, 4.4 lb/ft is needed).
- 8. Replace the plastic top plug.

# **Gunmetal Straps**









Service Connections for Rigid and PE Pipes **Talbot Straps and Ferrules** 

#### **Talbot Swivel Ferrules**

The Talbot Swivel Ferrule provides a quick, permanent, leak free service connection, consisting of a stem with an inner plug for valve isolation and a 360° swivel outlet at 90° to the stem. The ferrule outlet provides a direct connection to the service line from  $\frac{1}{2}$ " to 2" nominal bore diameter (20mm to 63mm PE pipe OD) via an integral joint in the ferrule banjo so no adaptor is needed. The ferrule will provide service connections dry or underpressure directly into cast iron, ductile iron and steel mains. Asbestos cement and PVC mains can also be tapped via a Talbot Flat Boss Strap. (See page 6)

#### **Notes**

Ferrules should not be inserted directly into PVC or AC mains. The walls of these pipes are not strong enough to hold the stem. The manufacturers of ductile iron and steel mains pipe should be consulted for their specific recommendations regarding tapping directly into these pipe materials. Typically it is advised that the nominal diameter of the tapping should not exceed 1/4 of the nominal diameter of the main for direct ferrule insertion without a strap or 1/3 of the nominal diameter when a strap is used. For tappings larger than this a Tapping Tee should be used. (for further information



on the UPE range of Tapping Tees please refer to the separate data sheet: *Underpressure Tees* (reference number TUPE007)

# Quick and simple to install

Quick, permanent, leak free connection provided by a tried and tested design

#### Extensive range

A range has been developed which enables the user to make connections to almost any type of mains and service pipe, either underpressure or dry

#### Robust and long lasting

Talbot ferrules can provide years of service in even the most aggressive soil and water conditions

#### Reliable and leak free

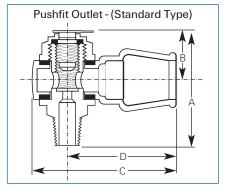
Specifically designed to operate at pressures up to 16 bar (240 psi) subject to the ratings of pipe and strap if used

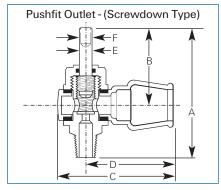


Standar	Standard Pattern Swivel Ferrule Dimensions													
DN (stem/banjo)	<sup>1</sup> /2" x 20	mm ( <sup>1</sup> /2")	2") <sup>3</sup> /4" x 25mm ( <sup>3</sup> /4")		1" x 32mm (1")		1 <sup>1</sup> /4" x 40mm (1 <sup>1</sup> /4")		1 <sup>1</sup> /2" x 50mm (1 <sup>1</sup> /2")		2" x 63mm (2")		1 <sup>1</sup> /2" x 2"63mm (2")	
Banjo Type	Plastic	GM	Plastic	GM	Plastic	GM	Plastic	GM	Plastic	GM	Plastic	GM	Plastic	GM
A (mm)	86	86	82	82	94	94	107	107	106	106	120	120	106	106
B (mm)	38	38	38	38	44	44	50	50	50	50	48	48	50	50
C (mm)	97	76	102	95	115	118	144	144	173	166	201	192	201	192
D (mm)	73	54	78	74	88	90	110	110	131	131	152	152	152	152

Screwd	Screwdown Pattern Swivel Ferrule Dimensions														
DN (stem/banjo)	<sup>1</sup> /2" x 20	mm ( <sup>1</sup> /2")	<sup>3</sup> /4" x 25 <sub>mm</sub> ( <sup>3</sup> /4")		1" x 32mm (1")		1 <sup>1</sup> /4" x 40mm (1 <sup>1</sup> /4")		1 <sup>1</sup> /2" x 50mm (1 <sup>1</sup> /2")		2" x 63mm (2")		1 <sup>1</sup> /2" x 2"63mm (2")		
Banjo Type	Plastic	GM	Plastic	GM	Plastic	GM	Plastic	GM	Plastic	GM	Plastic	GM	Plastic	GM	
A (mm) Open	108	108	105	105	116	116	150	150	151	151	168	168	151	151	
A (mm) Close	92	92	90	90	97	97	123	123	130	130	137	137	130	130	
B (mm) Open	58	58	58	58	65	65	92	92	93	93	100	100	93	93	
B (mm) Close	42	42	42	42	46	46	65	65	72	72	70	70	72	72	
C (mm)	97	76	83	83	107	107	144	144	173	166	201	192	201	192	
D (mm)	54	54	61	61	79	79	110	110	131	131	152	152	152	152	
E (mm)	11	11	11	11	16	16	20	20	22	22	25	25	25	25	
F (mm)	10	10	10	10	10	10	13	13	17	17	19	19	19	19	

Other combinations of stem and banjo are available on request, please contact the Talbot Customer Service Team on the number shown on the back of this data sheet the Talbot Customer Service Team on the number shown on the back of this data sheet the Talbot Customer Service Team on the number shown on the back of this data sheet the Talbot Customer Service Team on the number shown on the back of this data sheet the Talbot Customer Service Team on the number shown on the back of this data sheet the Talbot Customer Service Team on the number shown on the back of this data sheet the Talbot Customer Service Team on the number shown on the back of this data sheet the Talbot Customer Service Team on the number shown on the back of this data sheet the Talbot Customer Service Team on the number shown on the back of this data sheet the Talbot Customer Service Team on the number shown on the back of this data sheet the Talbot Customer Service Team on the number shown on the number







Service Connections for Rigid and PE Pipes **Talbot Straps and Ferrules** 

Gunmetal Standard Swivel

Ferrule

# **Swivel Ferrule Technical Specification**

# Standard Pattern Swivel Ferrule

#### General

The ferrules shall be designed with a Pushfit outlet for PE pipe.

All ferrules shall be designed as a main stem with a  $360^{\circ}$  swivel outlet at  $90^{\circ}$  with control of water flow via a threaded inner plug. The inlet shall be a male taper thread to BS 21 (ISO 7/1).

The ferrule shall be designed for use underground and to handle potable water at temperatures of up to 40°C.

The ferrule shall work at pressures up to 16 bar (240 psi) without leakage.

#### **Description of Design**

The design of the ferrule will permit service pipe installations via conventional drilling and tapping machines, underpressure or dry, with or without service saddles. The design of the ferrule shall further permit use with conventional drilling machines mounted onto the ferrule/strap assembly to drill the main via the ferrule stem, dry or underpressure.

#### Construction

The ferrule stem, banjo, inner plug and top cap shall be manufactured of gunmetal/bronze to BS 1400 LG2 or acetal thermoplastic polymer in the case of \$1/2" to 1" only, (a plastic banjo to be available for \$1^1/4" to 2" outlets.) The banjo washers and the \$1^1/4"\$ to 2" top cap washer shall be manufactured in EPDM rubber to BS 2494. The \$1/2"\$ to 1" top cap washer shall be manufactured in Polypropylene or Nitrile Rubber and shall provide the seal between the outer body and ferrule stem. The ingress of dirt will be prevented by a plastic top plug. The Pushfit joint for PE pipe shall consist of the following:

- Grip Ring
- 'O' Ring
- Nose Cone Liner:

In order to meet the requirements of the WRAS it is necessary to use a liner or insert with metric MDPE service pipe to BS6572 and BS 6730. The liner is not an integral part of the Pushfit joint and for polyethylene pipe other than MDPE, use of the liner is optional. If a liner is not used the joint will still substantially exceed most international performance requirements.







# Screwdown Pattern Swivel Ferrule

#### General

The ferrules shall be designed with a pushfit outlet for PE pipe.

All ferrules shall be designed as a main stem with a 360° swivel outlet at 90° with control of water flow via a threaded inner plug. The inlet shall be a male taper thread to BS 21, ISO 7/1.

The ferrule shall be designed for use underground and to handle potable water at temperatures of up to 40°C.

The ferrule shall be capable of working at pressures up to 16 bar (240 psi) without leakage. The ferrule shall be easily 'shut off' by means of a spindle extending from the top cap.

#### **Description of Design**

The design of the ferrule shall permit service pipe installation via conventional drilling and tapping machines dry or underpressure, with or without service saddles. The design of the ferrule shall further permit use with conventional drilling machines which mount onto the ferrule / strap assembly to drill the main via the ferrule stem waterway, dry or underpressure.

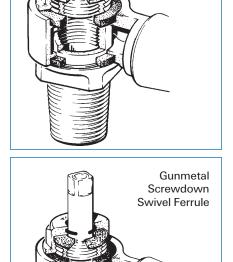
# Construction

The ferrule stem, banjo, threaded spindle and top cap shall be manufactured of gunmetal/bronze to BS 1400 LG2. The banjo washers and the 1½ to 2" top cap washer shall be manufactured in EPDM rubber to BS 2494. The ½ to 1" top cap washer shall be manufactured in Polypropylene or Nitrile Rubber and shall provide the sealing between the outer body and ferrule stem.

The Pushfit joint for PE pipe shall consist of the following:

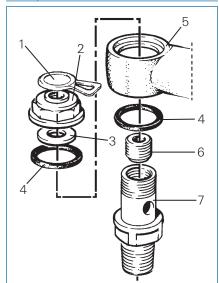
- Grip Ring
- 'O' Ring
- Nose Cone Liner:

In order to meet the requirements of the WRAS it is necessary to use a liner or insert with metric MDPE service pipe to BS6572 and BS 6730. The liner is not an integral part of the Pushfit joint and for polyethylene pipe other than MDPE, use of the liner is optional. If a liner is not used the joint will still substantially exceed most international performance requirements.



# **Parts List - Swivel Ferrules**

ltem	Description
1	Top plug
2	Top Cap
3	Top Cap Washer
4	Banjo Washer
5	Banjo
6	Inner plug
6a	Spindle inner plug (Screwdown Ferule only, not illustrated)
7	Stem

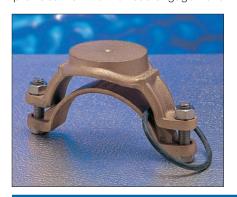


All materials used in the Talbot Swivel Ferrule are WRAS listed and have been selected to give the best possible overall performance.

#### **Talbot Flat Boss Straps**

Talbot flat boss straps are designed for making service connections into PVC, asbestos cement, cast iron, ductile iron and steel mains. A ferrule can then be inserted into the main via the strap boss using drilling and tapping equipment whilst the main is pressurised or dry.

The Talbot flat boss strap range provides maximum thread engagement



into the boss of the strap and tappings from 1/2" to 2" can be made into most flat boss straps. Alternatively the strap can be pre-drilled and tapped and fitted with a ferrule prior to delivery for use on asbestos cement and PVC mains. The wall of the pipe is then simply drilled using under pressure drilling equipment.

Talbot solid flat boss straps can also be used as blanking straps for sealing existing holes in mains after removal of a ferrule. Talbot flat boss straps are made from corrosion resistant materials to give years of trouble free service.

Note: flat boss straps can be supplied with a <sup>3</sup>/8" hole through the boss to help the drilling and tapping process.

#### Quick and simple to install

Quick, permanent, leak free connection provided by a tried and tested design

#### Extensive range

A range has been developed which enables the user to make connections to almost any type of mains pipe, either underpressure or dry

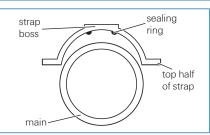
#### Robust and long lasting

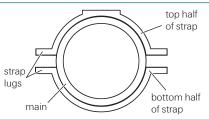
Straps made from gunmetal are immune to corrosion and so give years of trouble free service

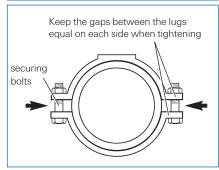
#### Reliable and leak free

Provides maximum thread engagement for leak free connections suitable for a working pressure up to 16 bar (240 psi).

#### Flat Boss Strap Assembly Instructions







For easy trouble free installation the steps detailed below should be followed:

- 1. Select the correct size and type of strap for the main.
- 2. Place the sealing ring in the groove in the underside of the strap boss (many straps are supplied with the sealing ring pre-bonded into position making assembly even easier) and position the upper half of the strap on the main ensuring that the sealing ring remains snug in the groove
- 3. Locate the bottom of the strap under the main below the top half of the strap.
- 4. Using the two nuts and bolts provided bolt the two halves together ensuring the bolts point upwards. Finger tighten the bolts evenly, keeping the gaps between the lugs equal on each side.
- $5. \ Check that the strap sits squarely on the main then hand tighten each nut. Tighten each nut a further two and a half turns or to a torque setting of approximately 10 lb/ft (13.6Nm).$

The strap is now secured to the main.

#### **Notes**

- Talbot recommend the use of a strap on ductile iron pipes below 12" (300mm) in diameter
  as the wall thickness is generally less than that of cast iron pipes and insufficient to tap
  directly without risking the threads stripping.
- Always ensure that the correct type and size of strap is used for the main.
- Always use a strap on asbestos cement, PVC and PE mains.
- Always have the strap pre-drilled by Talbot if the service valve size is known. This will make
  the tapping of the connection easier on site.
- Always take care when fitting the strap and ensure that the 'O' ring or sealing ring is correctly in place under the boss of the strap.
- Never over tighten the bolts on the strap. This can cause damage to the lugs or leaks to occur due to distortions in the pipe.
- Never attempt to cut the same size thread into existing, pre-drilled and tapped straps.
   Cutting the new thread will damage the old one.

#### **Flat Boss Strap Technical Specification**

#### General

The flat boss strap shall be of single band design, shaped to the pipe diameter to which it is to be fitted

All straps shall be in two parts, top and bottom, bolted at both sides.

All straps shall be fitted with a rubber sealing gasket.

All straps shall be available undrilled,

pre-drilled with a <sup>3</sup>/<sub>8</sub>" hole or drilled and tapped for tapered internal pipe threads in accordance with ISO 7/1 and BS 21.

Straps shall be capable of withstanding a working pressure up to 16 bar (240 psi) without leaking.

#### Description of Design

The design of the strap shall be suitable for use with PVC, AC, Steel, DI and CI mains.

The design shall be suitable for use with conventional drilling and tapping machines that mount onto the strap assembly.

The design shall be suitable for use with standard pattern 360° swivel ferrules.

#### Construction

The Straps will be manufactured from Gunmetal Bronze to BS1400 grade LG2 (BS EN 1982 grade CC491K)

#### **Range Information**

The following tables are intended to act as a general guideline only. For further, more detailed information on the Talbot range of straps and ferrules, please contact the Talbot Customer Service Department at the telephone number shown below.

# Gunmetal and Acetal Swivel Ferrules - Screwdown and Standard Types

Inlet Size	Outlet Size													
	20mm/ <sup>1</sup> /2"	25mm/ <sup>3</sup> /4"	32mm/1"	50mm/1 <sup>1</sup> /2"	63mm/2"									
1/2"	✓	✓	-	-	-									
3/4"	✓	✓	✓	-	-									
1″	-	-	✓	-	-									
1 <sup>1</sup> /2"	-	-	-	✓*	✓*									
2"	-	-	-	-	✓*									

- All sizes of Talbot ferrule are available in both standard and screwdown configurations and are all supplied with Talbot
  Pushfit for PE outlets
- $\bullet~20\text{mm}/1/2\text{"},25\text{mm}/3/4\text{"}$  and 32mm/1" banjos are available in gunmetal or acetal
- 50mm/1 1/2" and 63mm/2" banjos are available only in gunmetal





Gunmetal		

Size of strap	-	Type of Pipe	)	Stem Size							
Tolerance	PE	PVC	AC	20 <sub>mm</sub> (1/2")	25 <sub>mm</sub> ( <sup>3</sup> /4")	32mm (1")					
32mm - 33.7mm	✓	✓	-	✓	✓	-					
48.1mm-50.4mm	✓	✓	-	✓	✓	-					
60.2mm - 64.2mm	✓	✓	-	✓	✓	-					
73mm - 76mm	✓	✓	-	✓	✓	✓					
88mm - 92mm	✓	✓	-	✓	✓	✓					
96mm - 101mm	-	-	✓	✓	✓	-					
110mm - 118mm	✓	✓	-	✓	✓	✓					
122mm - 130mm	✓	-	✓	✓	✓	✓					
138mm - 146mm	✓	✓	-	✓	✓	✓					
155mm - 163mm	✓	✓	✓	✓	✓	✓					
165mm - 173mm	-	✓	-	✓	✓	✓					
177mm - 185mm	✓	-	✓	✓	✓	✓					
195mm - 203mm	✓	✓	-	✓	✓	✓					
217mm - 225mm	✓	✓	-	✓	✓	✓					
238mm - 246mm	-	-	✓	✓	✓	-					
250mm - 258mm	✓	-	-	✓	✓	✓					
268mm - 276mm	-	✓	✓	✓	✓	✓					
276mm - 284mm	✓	-	-	✓	✓	✓					
294mm - 302mm	-	-	✓	✓	✓	-					
315mm - 316mm	✓	-	-	✓	✓	✓					
322mm - 330mm	-	✓	-	✓	✓	✓					



 When tapping AC or Plastic Pipes, the wall thickness of the pipe must be considered. Reference should be made to the Talbot Customer Service Team in the following instancies:

#### AC pipes:

If the wall thickness is likely to exceed 18mm at the point of tapping. This may occur on pipes over  $6^{\prime\prime}/150$ mm diameter.

#### Plastic pipes:

If the wall thickness is likely to exceed 19mm at the point of tapping. This may occur on some SDR ratings of plastic pipes over 200mm in diameter.

- 20mm (<sup>1</sup>/<sub>2</sub>"), 25mm (<sup>3</sup>/<sub>4</sub>") and 32mm (1") banjos are available in gunmetal or acetal, please specify when ordering
- Cutters are not available for use in 1" stems for AC pipe

Plastic Self	Tappi	ng Ferrule	Straps
Size	PE	Metric PVC	Imperial PVC
63mm	✓	✓	-
90mm	✓	✓	-
110mm	✓	✓	-
125mm	✓	-	-
160mm	✓	✓	-
180mm	✓	-	-
2" (60mm OD)	-	-	✓
3" (89mm OD)	-	-	✓
4" (114mm OD)	-	-	✓

Unless otherwise stated all plastic Self Tapping Ferrule Straps are supplied with either 20, 25, or 32<sub>mm</sub> acetal Talbot Pushfit banjos for PE pipe. Please specify your requirements when ordering.



Gunmetal Fla	t Bos	s Stra	aps									
Size of strap			Type	of Pipe				Size	e of Tap	ping		
Tolerance	CI	DI	PE	PVC	Steel	AC	No tapping	1/2"	3/4"	1″	1 <sup>1</sup> /2"	2″
32mm - 33.7mm	-	-	✓	✓	✓	-	✓	✓	✓	-	-	-
48.1mm-50.4mm	-	-	✓	✓	✓	-	✓	✓	✓	-	-	-
60.2mm - 64.2mm	-	-	✓	✓	✓	-	✓	✓	✓	-	-	-
73mm - 76mm	-	-	✓	✓	-	-	✓	✓	✓	✓	-	-
88mm - 92mm	-	-	✓	✓	✓	-	✓	✓	✓	✓	✓	-
96mm - 101mm	-	✓	-	-	-	✓	✓	✓	✓	✓	✓	-
110mm - 118mm	-	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓
122mm - 130mm	-	✓	✓	-	-	✓	✓	✓	✓	✓	✓	✓
138mm - 146mm	-	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓
155mm - 183mm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
165mm - 173mm	-	✓	✓	✓	-	-	✓	✓	✓	✓	✓	✓
177mm - 185mm	-	-	✓	✓	-	✓	✓	✓	✓	✓	✓	✓
195mm - 203mm	-	-	✓	✓	-	-	✓	✓	✓	✓	✓	✓
217mm - 225mm	-	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓
229mm - 237mm	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓
238mm - 246mm	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓
250mm - 258mm	-	-	✓	✓	-	-	✓	✓	✓	✓	✓	✓
259mm - 267mm	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓
268mm - 276mm	-	✓	-	✓	-	-	✓	✓	✓	✓	✓	✓
322mm - 330mm	-	-	✓	✓	✓	-	✓	✓	✓	✓	✓	✓

- Straps are supplied thin pattern as standard. Thick pattern alternatives available to order.
- Flat boss straps over 300<sub>mm</sub> can be made to order
- Flat boss straps can be supplied with a <sup>3</sup>/<sub>8</sub>" hole through the boss to help in the drilling and tapping process.
- The size of the strap boss may restrict the size of the maximum allowed tapping. See the above table for further details.



Service Connections for Rigid and PE Pipes Talbot Straps and Ferrules

	Metric		al Cast Ir			Guide	O i i di	Steel				LID	VC	ABS	Ductile	GRP		Metric A	^
Nominal	Plastic	A C	(turned	end)				Steel							Iron			urned en	
Bore	Metric PVC MOPVC PE		p to & includ 3S78, BS48			ISO/4	1200		BS1387	BS3600 & BS3601 (pipe ends	API 5L & BS1600 (up to &	BS3505	BS3506	BS5391	BS4772 DIN28601 DIN28602	BS5480	BS486		
	Hep <sub>3</sub> 0	Class	Class	Non	Series 1	Series 2	Seri	es 3		to BS534)	including 36"NB)				DIN28603 DIN28605		Class 15	Class 20	Class 25
25mm	25	AB Only	CD Only	Standard	33.7	32.0	30.0	35.0	33.7	33.6	33.4	33.6	33.6	33.6	EN545				
1″ 32mm	32				42.4	40.0	44.5		42.4	42.3	42.2	42.3	42.3	42.3					
1.25″																			
40mm 1.5"	40	55.9	55.9 2.20	57.0 2.20	48.3 2.25	57.0	54.0		48.3	48.3	48.3	48.3	48.3	48.3	56.0 DIN28601				
50mm 2″	50	69.1 2.72	69.1 2.72		60.3	63.5			60.3	60.3	60.3	60.3	60.3	60.3	66.0 DIN28605				69.0
63mm	63	2.72	2.12																
65mm	65	82.3	82.3	82.5	76.1	70.0	73.0		76.1	76.1	76.1	75.2	75.2		82.0				
2.5" 75mm	75	3.24	3.24	3.25											DIN28605				
75111111	75																		
80mm 3″	80	95.5 3.76	95.5 3.76		88.9		82.5		88.9	88.9	88.9	88.9	88.9	88.9	98.0				96.0
90mm	90				101.6	101.6				101.6	101.6								
3.5" 100mm	100	121.9	121.9		114.3	127.0	108.0		114.3	114.3	114.3	114.3	114.3	114.3	118.0				122.0
4" 110mm	110	4.80	4.80																
			4.40.0		4007	4000		4504	4007	4007		4400							
125mm 5″	125	149.4 5.90	149.9 5.90		139.7	133.0	141.3	152.4	139.7	139.7	141.3	140.2	140.2		144.0 DIN28601/3				
140mm	140																		
150mm	150	177.3	177.3		168.3		159.0	177.8	165.1	168.3	168.3	168.3	168.3	168.3	170.0		177.0		177.0
6″ 160mm	160	6.98	6.98																
175mm	175	204.7	204.7				193.7			193.7			193.7						
7″		8.06	8.06				133.7			155.7			155.7						
180mm	180																		
200mm 8″	200	232.2 9.14	232.2 9.14		219.1					219.1	219.1	219.1	219.1	219.1	222.0	222.0	232.0	232.0	240.0
225mm	225	259.1	259.1				244.5			244.5			244.5				259.0	259.0	268.0
9″ 250mm	250	10.20 286.0	10.20 286.0		273.0					273.0	273.1	273.0	273.0		274.0	272.0	286.0	286.0	295.0
10" 280mm	280	11.26	11.26																
300mm 12"	300	333.8 13.14	345.4 13.6		323.9					323.9	323.9	323.9	323.9		326.0	324.0	334.0	345.0	356.0
315mm	315																		
350mm	350	386.6	399.3		355.6					355.6	355.6	355.6	355.6		378.0	376.0	392.0	405.0	419.0
14" 355mm	355	15.22	15.72																
		410.0	420.0																
375mm 15″	375	413.0 16.26	426.2 16.78																
400mm 16"	400	439.0 17.30	453.1 17.84		406.4					406.4	406.4	406.4	406.4		429.0	427.0	448.0	463.0	478.0
450mm	450	492.3	506.9		457.0					457.0	457.0	457.0	457.0		480.0	478.0	498.0	515.0	532.0
18" 500mm	500	19.38 545.1	19.96 560.3		508.0					508.0	508.0	508.0	508.0		(BS only) 532.0	530.0	568.0	586.0	605.0
20″ 525mm	525	21.46 571.5	22.06 587.2																
21"		22.50	23.12																
550mm 22"	550	597.9 23.54	613.7 24.16				559.0			559.0	559.0		559.0						

The above table represents a general guideline relating to some of the pipe types and sizes available. A wall chart is available showing the above information including sizes up to 2 meters. For a copy and for more detailed information please contact the Talbot Customer Service Department on the number shown below.

# **Tyco Waterworks**

Edison Road Hams Hall Distribution Park Coleshill, Birmingham B46 1AB United Kingdom

Telephone: +44 (0)1675 437 900 Facsimile: +44 (0)1675 437 909 e-mail: wwinfo@tyco-valves.com web: www.tycowaterworks.com



These fittings are designed for the conveyance of cold potable water. Save with the express written approval of Talbot, no warranty is given that the fittings are suitable for any other purpose.