

# >B< Oyster



## >B< Oyster Technical Brochure

10 to 54 mm

## Contents

<b>1</b>	<b>General Information</b> .....	<b>1</b>
1.1	Quality and approvals .....	1
1.2	Materials .....	1
1.3	Threads .....	1
1.4	Potential equalization .....	2
1.5	Processing .....	2
<b>2</b>	<b>Areas of application</b> .....	<b>2</b>
<b>3</b>	<b>Assembly instructions</b> .....	<b>4</b>
<b>4</b>	<b>&gt;B&lt; Oyster expansion coupler</b> .....	<b>5</b>
<b>5</b>	<b>Additional important installation instructions</b> .....	<b>6</b>
<b>6</b>	<b>Designs and dimensions</b> .....	<b>6</b>

## 1. General

With the innovative connection technology, >B< Oyster is a high-quality transition coupling made of nickel-plated red brass or yellow brass, every installation is now faster, cleaner and more economical, this saves you time and money.

>B< Oyster can be used for copper, stainless steel and carbon steel pipes.

It's that simple: Slide the transition coupling onto the pipe, using the >B< Oyster pliers, dimple the tube with the projections facing outwards, screw on the >B< Oyster and tighten - done!

>B< Oyster can be used for a wide variety of media with the capability to be removed and reused if necessary.

\* >B< Oyster fittings are available to suit Ø10mm pipe – please inquire with Conex Banninger for further information

### 1.1 Quality and approvals

Our decades of experience in connection technology and the application of the requirements of ISO 9001 guarantee a consistently high quality standard.

Our >B< Oyster Fittings have been tested according to various European standards such as DVGW, SVGW, and KIWA. This fundamentally confirms the reliability and durability of the connection.

>B< Oyster Fittings made of red brass are DVGW-tested and therefore certified for use in drinking water installations (type examination certificate DW-8511BN0505).

### 1.2 Materials

>B< Oyster fittings made of red brass (Y3270, Y4243G) are manufactured from CuSn5Zn5Pb2-C (material number CC499K-DW according to DIN EN 1982).

The material we use is low in lead and nickel, meets the requirements of the “List of Materials Suitable for Drinking Water Hygiene” published by the German Federal Environment Agency and can therefore be used for all drinking water without restriction.

The alloy offers the greatest possible protection against a wide variety of types of corrosion, but especially against dezincification and stress corrosion cracking.

>B< Oyster fittings made of brass-plated (Y8243V & Y8243G) are manufactured from CuZn40Pb2 (material number CW617N-DW according to DIN EN 12164).

CuZn40Pb2 does not achieve the high resistance of red brass to aqueous media but is very well suited for most of the applications intended here, such as heating systems.

The sealing elements (O-rings) in our >B< Oyster fittings are made from EPDM elastomer (ethylene propylene diene monomer).

EPDM has very good resistance to ageing, ozone and chemicals, as well as high elasticity and good cold and heat behaviour.

The sealing elements we use also comply with the specifications of the elastomer guideline of the Federal Environment Agency and have been tested in accordance with DVGW test basis W270 for use in drinking water.

### 1.3 Threads

The threads on >B< Oyster fittings comply with DIN EN ISO 228 (cylindrical external threads) and are therefore compatible with the internal threads commonly used in pipe installations. The same type of thread in the component to be screwed on is a prerequisite for the proper functioning of the transition fitting.



## 1.4 Potential equalisation

>B< Oyster transition couplings are not to be used as earthing conductors for electrical installations due to their special design, in accordance with DIN VDE 0100 Earthing conductors for electrical installations.

DIN VDE 0100 regulates protective measures for rooms with baths and shower trays. It requires that all conductive parts such as metal shower trays and baths, metal odour traps and metallic conductive pipe systems be conductively connected to each other.

It also states that the connection must be made with a protective conductor either to the equipotential bonding bar of the main equipotential bonding of electrical installations or to the circuit distributor or to a continuously conductive water pipe with a conductive connection to the main equipotential bonding. Drinking water installations manufactured with >B< Oyster transition couplings must be connected to the potential equalisation system in accordance with the applicable VDE standards and the measures described above.

The installer of the electrical system is always responsible and accountable for the standard-compliant execution of the potential equalisation system.

## 1.5 Processing

>B< Oyster can be used with

- Copper pipes in accordance with DIN EN 1057 and DVGW test basis GW 392
- Stainless steel pipes series 1 and 2 in accordance with DIN EN 10312 and DVGW test basis GW 541
- Carbon steel pipes in accordance with DIN EN 10305-3.

Use with pipes that have an external metallic coating (chrome plating, nickel plating or equivalent) is possible, provided that this coating is homogeneous and free of defects.

When using >B< Oyster, it is generally important to ensure that the outer surface of the pipe in the area of the sealing surface of the fitting does not have any damage in the form of scratches, notches or similar. Organic coatings such as paint are not suitable as sealing surfaces.

When using the product, first observe the application parameters specified in Chapter 2. Further details can be found on the following pages of this brochure.

Additional information is also always available in our technical

catalogue 1.0 "General Installation Instructions". Further details can be found on the following pages of this brochure. Additional information can also always be found in our technical catalogue 1.0 "General Installation Instructions".

## 2. Areas of application

Application	Medium	Pipe type			Pressure (Bar)	Temperature (°C)
		Copper	Stainless steel	Carbon steel		
Drinking water installations DIN EN 806 and DIN 1988	Drinking water in accordance with the Drinking Water Directive	✓	✓		10	95
Hot water heating systems DIN EN 12828	Heating water VDI 2035-1	✓	✓	✓ <sup>b</sup>	10	95
Water-based room cooling systems	Water and water-glycol mixtures Mixing ratio max. 50/50%	✓	✓	✓ <sup>b</sup>	10	-10
Rainwater utilisation systems DIN 1989	Rainwater from cisterns	✓	✓		10	30
Oil-free compressed air	Compressed air classes 1 - 3 according to ISO 8573-1	✓	✓	✓ <sup>b</sup>	10	25
Industrial and process water	Treated, softened, partially and fully desalinated water with $6.5 \leq \text{pH} \leq 9.5$	✓ <sup>a, c</sup>	✓ <sup>a</sup>		10	95

a) Only >B< Oyster fittings made of red brass (Y4243G, Y3270) can be used

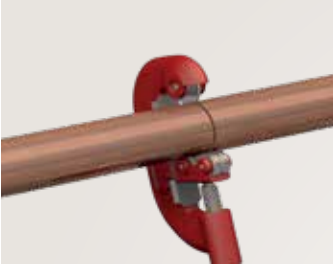
b) The use of the >B< Oyster red brass expansion coupler (Y3270) in conjunction with carbon steel pipes cannot be recommended due to design-specific circumstances.

c) We recommend that our technical advisory service carry out an individual assessment.



## 3. Assembly instructions

### 3.1 Cutting pipes to length



- Use a rotary tube cutter.
- Ensure that the tube is cut square.
- Check the tube has retained its shape and is damage free.

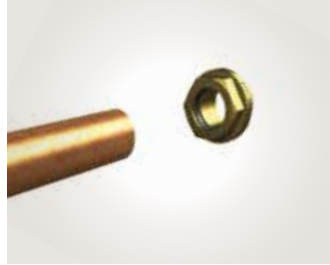
### 3.2 Deburring and calibrating



- Deburr the tube both internally and externally.
- Where possible angle the tube downwards to prevent filings entering the tube.
- Make sure the internal and external surfaces of the tube ends are smooth and free from burrs or sharp edges.

**Caution:** Please ensure that the tube surface is free from any deep scores or scratches.

### 3.3 Checking & sliding on the fitting



- Check the fittings is the correct size for the tube.
- Check the O-rings are present, undamaged, and correctly seated.

### 3.4 Applying dimples



- Insert the >B< Oyster plies to the stop and dimple the tube with the projections facing outwards.
- The >B< Oyster pliers for dimensions 10 to 54 mm must be adjusted with the upper jaw to the respective pipe diameter (10-28 mm or 35-54 mm).

**Caution:** Secure attachment points can only be created when the jaws are completely closed.

### 3.5 Tighten connection by hand



- Screw the transition coupling into the appropriate internal thread up to the stop point and tighten by hand.

### 3.6 Completing the connection



- Tighten the transition coupling firmly with an open-ended spanner.

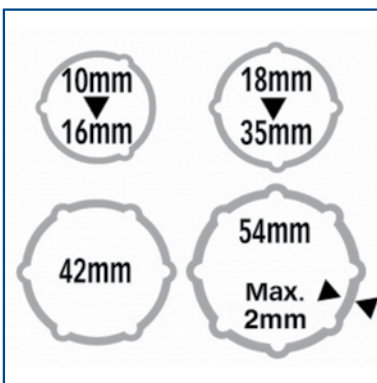
### Demounting



- After turning off the water supply undo fitting using a spanner



- Undo until fitting comes apart



Number of dimples for different pipe dimensions

10 - 16 mm ..... 3 attachment points

18 - 35 mm ..... 4 attachment points

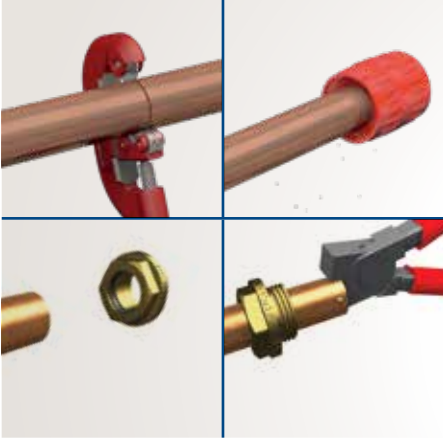
42 mm ..... 6 attachment points

54 mm ..... 8 attachment points

Depending on the pipe diameter, press the attachment points radially into the pipe at equal intervals.

## 4. >B< Oyster expansion coupler

### 4.1 - 4.4 Preparations



- First carry out steps 3.1 to 3.4 as described in the previous chapter for both pipe ends to be connected to the expansion coupler.

### 4.5 Connect the expansion coupler by hand

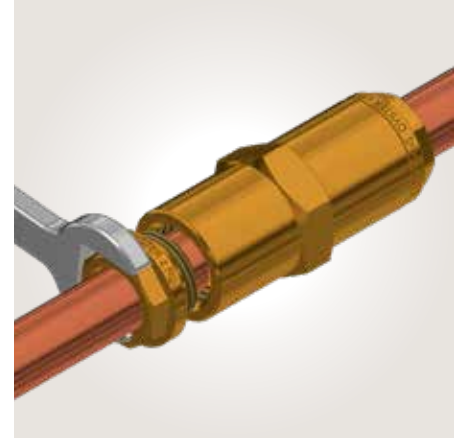


- Screw the two transition couplings to the >B< Oyster expansion coupler by hand.

**Caution:** In addition to longitudinal expansion, the possible shortening of the pipe (e.g. during cooling) must also be taken into account.

The required length between the stop point and the transition coupling must be planned for by means of a so-called preload.

### 4.6 Completing the connection



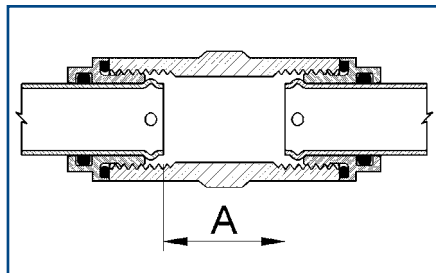
- Tighten the connection and expansion coupler with a spanner.



The >B< Oyster expansion coupler can be used to professionally compensate for linear expansion in pipes.

The >B< Oyster expansion coupler is therefore a particularly cost-effective alternative to bellows or expansion joints.

Details on expansion coefficients and thermally induced length changes of various pipe types can be found in our technical catalogue 1.0 "General Installation Instructions".



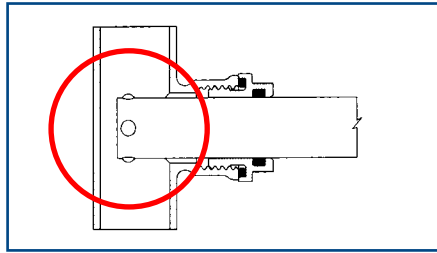
Maximum possible expansion absorption A (see table on the right) of the >B< Oyster expansion coupler

Fitting Customs	Dimension	
	Pipe mm	A mm
1/2"	12	40
1/2"	15	34
3/4"	18	40
3/4"	22	30
1"	22	35
1"	28	28
1 1/4"	35	24
1 1/2"	42	21
2"	54	23

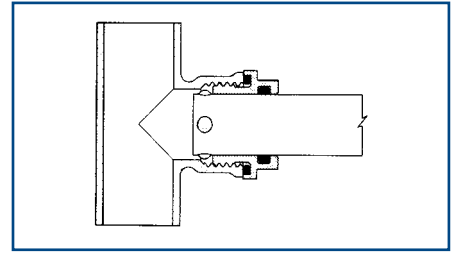
## 5. Additional important installation instructions

During final assembly, ensure that the attachment points are in contact with the transition coupling.

**Incorrect**

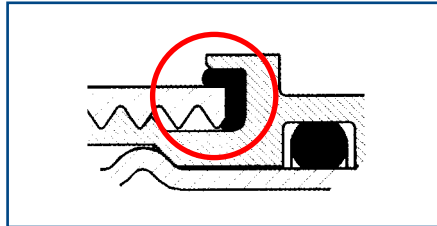


**Correct**

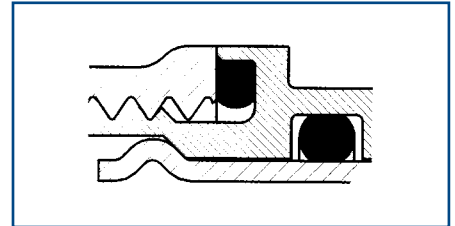


There must be contact between the transition coupling and its counterpart on the metallic end faces.

**Incorrect – O-ring is deformed!**



**Correct – O-ring seals correctly**



Selection guide for >B< Oyster pliers

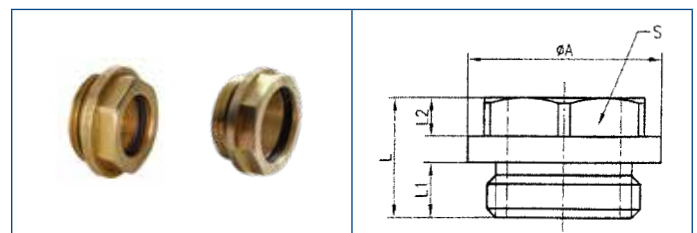
Copper pipes  
Carbon steel pipes  
Stainless steel pipes      10 - 54 mm

Copper pipes  
Carbon steel pipes      10 - 28 mm



## 6. Designs and dimensions

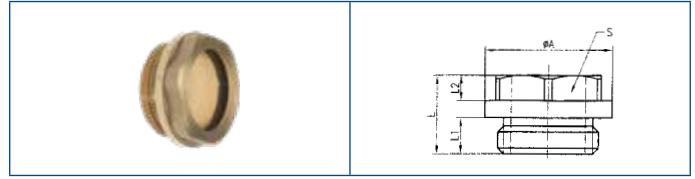
### Y4243G Transition coupling made of gunmetal, thread G ISO 228



Item number	Dimensions	A	L	L1	L2	S
Y4243G01203000	12 x 3/8"	22.7	15	6	5.25	19
Y4243G01204000	12 x 1/2"	26.7	16.2	7.5	5.25	19
Y4243G01504000	15 x 1/2"	26.7	16.2	7.5	5.25	22
Y4243G01806000	18 x 3/4"	32.7	17.2	7.5	6.25	26
Y4243G02206000	22 x 3/4"	32.9	17.2	7.5	6.25	30
Y4243G02208000	22 x 1"	39.7	19.2	9.5	6.5	30
Y4243G02808000	28 x 1"	39.7	19.5	9.5	6.5	36
Y4243G03510000	35 x 1 1/4"	47.8	20.2	9.5	6.5	43
Y4243G04212000	42 x 1 1/2"	54.8	20.6	9.5	7.8	51
Y4243G05416000	54 x 2"	67.8	21.5	9.5	8.5	63

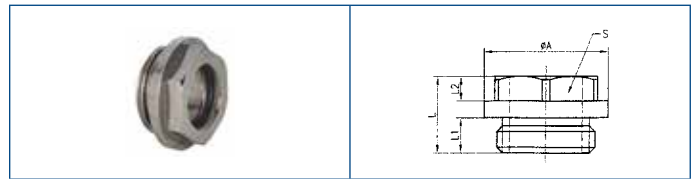
\*All above measurements are in mm unless stated differently.

**Y8243G**  
**Transition coupling made of Yellow Brass,**  
**thread G ISO 228**



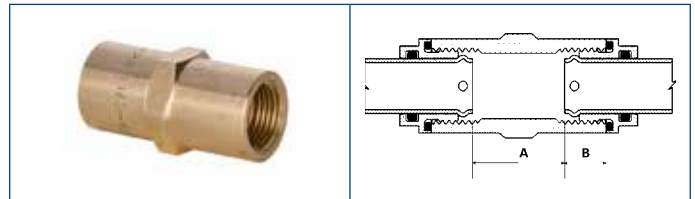
Item number	Dimensions	A	L	L1	L2	S
Y8243G01504000	15 x 1/2"	26.65	16.2	7.5	5.25	22
Y8243G02206000	22 x 3/4"	32.875	17.2	7.5	6.25	30
Y8243G02808000	28 x 1"	39.65	19.45	9.5	6.25	36

**Y8243V**  
**Transition coupling made of brass, nickel-plated,**  
**thread G ISO 228**



Item number	Dimensions	A	L	L1	L2	S
Y8243V01203000	12 x 3/8"	22.5	14.7	6	5.25	19
Y8243V01204000	12 x 1/2"	26.7	16.2	7.5	5.25	19
Y8243V01504000	15 x 1/2"	26.7	16.2	7.5	5.25	22
Y8243V01806000	18 x 3/4"	32.5	17.2	7.5	6.25	26
Y8243V02206000	22 x 3/4"	32.9	17.2	7.5	6.25	30

**Y3270**  
**Expansion coupler housing made of red brass**  
**with internal thread G ISO 228**



Item number	Dimensions	L
Y3270 00400000	1/2"	60
Y3270 00600000	3/4"	60
Y3270 00800000	1"	60
Y3270 01000000	1 1/4"	60
Y3270 01200000	1 1/2"	60
Y3270 01600000	2"	60

**Y77266**  
**>B< Oyster pliers (Ratchet)**



Item number	Dimensions
Y77266S0000000	10 - 54

**Y77267**  
**>B< Oyster pliers (Standard)**



Item number	Dimensions
Y77267S0000000	10 - 28mm

\*All above measurements are in mm unless stated differently.

›B‹ Press

›B‹ Press Gas

›B‹ Press Solar

›B‹ Press XL

›B‹ Press Carbon

›B‹ Press Inox

›B‹ Steel

›B‹ MaxiPro

›B‹ ACR

**K65**

‹A› Press Inox

›B‹ Push

›B‹ Sonic

›B‹ Oyster

›B‹ Flex

Triflow Solder Ring

Delcop End Feed

Delbraze

Medical Gas

Valves

Conex Compression

Series 3000

Series 4000

Series 5000

Series 8000

OEM Solutions



**United Kingdom**  
Conex Universal Limited

**Germany**  
IBP GmbH

**Spain**  
IBP Atcosa SL

**France**  
Conex Bänninger SRL

**Italy**  
IBP Bänninger Italia srl

**Poland Sales, Marketing and Logistics**  
IBP Instalittings Sp z.o.o.

**USA**  
IBP Group LLC

**China**  
IBP China

Tel: +44 (0)121 557 2831 | Fax: +44 (0)121 557 0185 | Email: [salesuk@ibpgroup.com](mailto:salesuk@ibpgroup.com) | Website: [www.conexbanninger.com](http://www.conexbanninger.com)

The content of this publication is for general information only. It is the user's responsibility to determine suitability of any product, product data and specifications, for the purpose intended and reference should be made to our Technical Department if clarification is required – [technical@ibpgroup.com](mailto:technical@ibpgroup.com). All products must be installed in accordance with our installation instructions. In the interests of technical development we reserve the right to change specification, design and materials without notice.

Conex Bänninger products are approved by numerous Standards Authorities and Certification Bodies. This is a representation of the full range from Conex Universal Ltd. Patents and trademarks are registered in numerous countries. Details on registered and pending patents protecting our products is available at public patent registers or can be requested from [legal@ibpgroup.com](mailto:legal@ibpgroup.com). All documents, images and technical data are © of Conex Universal Limited. E&OA.

More information online at: [www.conexbanninger.com](http://www.conexbanninger.com)