

# **impress**<sup>®</sup>

## **LARGE BORE**

140mm & 168mm



**25 BAR  
PRESSURE RATING\***

**ibec**  
SMARTER INDUSTRY SOLUTIONS

**316L STAINLESS STEEL PRESS SYSTEM**



**316L  
STAINLESS STEEL  
PRESS SYSTEM**



# impress®

## LARGE BORE

140mm & 168mm

Impress Large Bore 316L Stainless Steel Pipe System is an advanced pipe system used in large buildings, high-rise, industry and mining for the conveying of fluids and gasses. Offering quick & easy installation, 10% increase in bore sizes & corresponding flow rate increases plus the advantages of stainless steel, Impress is the designers & installers choice for potable & non-potable water, fire services – hydrant & sprinkler, gas & bio-gas, fuel oils and other services.

### COST SAVINGS

- » More than 10 x quicker than conventional welding
- » Labour savings
- » Quick & easy to install
- » No consumables
- » Press fit technology
- » Connection consistency

### INSTALLATION ADVANTAGES

- » Light Weight
- » Simple tools - user friendly
- » No welding or hot work permits
- » Extensive range of fittings
- » Built in - situ
- » OH&S friendly
- » Environmentally friendly

### WATERMARK & GAS APPROVAL, MULTIPLE INTERNATIONAL APPROVALS

- » AS5200.053 | AS3688 2016 | AS4041 2006 | AS1940
- » Watermark certificate No: 23234
- » Gas approval certificate No: 4058

### TECHNICAL ADVANTAGES

- » Quality 316L Stainless Steel
- » Range of O-Rings for special applications
- » Vast temperature range -20°C to 200°C
- » Technical support & training

### PRESSURE RATINGS

- » **16 Bar/25 Bar + \***
- \*Systems operating above 16 bar require safety control measures installed in the system; please refer to Technical Department.

### MULTIPLE APPLICATIONS

- » High rise water lines
- » High rise services
- » Hydrocarbons
- » Hot & cold water
- » Fire service, hydrant & sprinkler
- » Compressed air
- » Gases
- » Bio-gas
- » Chemicals
- » Diesel fuel
- » Conduits

### SELECT THE 'O'RING THAT IS SUITABLE FOR YOUR APPLICATION

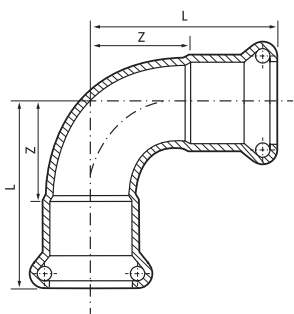
» PLEASE NOTE: For O-ring recommendations on non-standard applications please refer to Technical Department.

'O' RING	APPLICATIONS	MARKING	TEMPERATURE RANGE
EPDM BLACK	WATER & OTHER		-30°C TO 120°C
FKM (VITON)	INDUSTRIAL & OTHER	<b>HT</b>	-20°C TO 200°C
HNBR YELLOW	NATURAL GAS/ OTHER GASES	<b>G</b>	-20°C TO 70°C



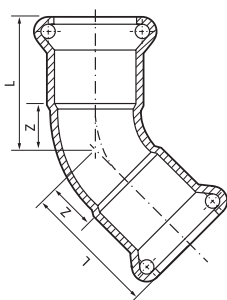
## TUBE

CODE	DESCRIPTION
IMSSTUBE140	Impress Stainless Steel Tube 316L 140mm x 2mm - 6mtr Length
IMSSTUBE168	Impress Stainless Steel Tube 316L 168mm x 2mm - 6mtr Length



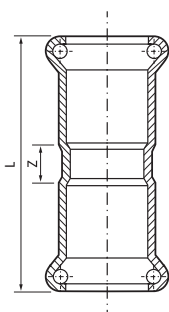
## ELBOW 90 FEMALE / FEMALE

CODE	DESCRIPTION
IMSE140	Impress 316L Stainless Steel F/F 90deg Elbow 140mm. L = 314mm, Z = 216mm
IMSE168	Impress 316L Stainless Steel F/F 90deg Elbow 168mm. L = 378mm, Z = 260mm



## ELBOW 45 FEMALE/FEMALE

CODE	DESCRIPTION
IMS45E140	Impress 316L Stainless Steel F/F 45deg Elbow 140mm. L = 204mm, Z = 105mm
IMS45E168	Impress 316L Stainless Steel F/F 45deg Elbow 168mm. L = 245mm, Z = 126mm



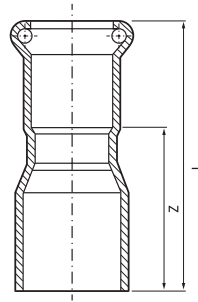
## COUPLING

CODE	DESCRIPTION
IMSC140	Impress 316L Stainless Steel Coupling 140mm. L = 323mm, Z = 110mm
IMSC168	Impress 316L Stainless Steel Coupling 168mm. L = 365mm, Z = 110mm

Fittings supplied standard with EPDM O Rings. When ordering HT or GAS please add to part number.

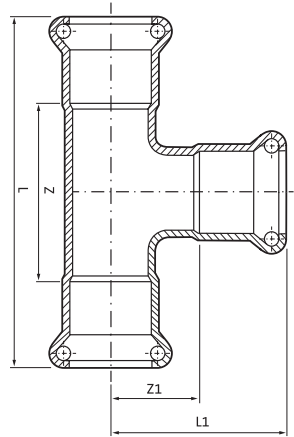
## REDUCING COUPLING

CODE	DESCRIPTION
IMSRC14076	Impress 316L Stainless Steel Reducing Coupling 140mm x 76mm. L = 340mm, Z = 282mm
IMSRC14089	Impress 316L Stainless Steel Reducing Coupling 140mm x 89mm. L = 340mm, Z = 282mm
IMSRC140108	Impress 316L Stainless Steel Reducing Coupling 140mm x 108mm. L = 340mm, Z = 265mm
IMSRC16876	Impress 316L Stainless Steel Reducing Coupling 168mm x 76mm. L = 380mm, Z = 321mm
IMSRC16889	Impress 316L Stainless Steel Reducing Coupling 168mm x 89mm. L = 380mm, Z = 321mm
IMSRC168108	Impress 316L Stainless Steel Reducing Coupling 168mm x 108mm. L = 360mm, Z = 289mm
IMSRC168140	Impress 316L Stainless Steel Reducing Coupling 168mm x 140mm. L = 422mm, Z = 324mm



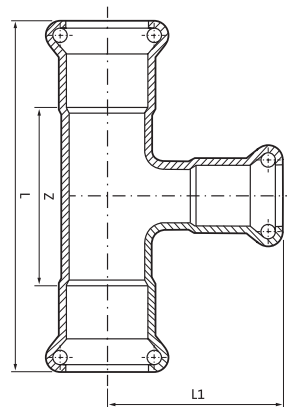
## TEE

CODE	DESCRIPTION
IMST140	Impress 316L Stainless Steel Tee 140mm. L = 394mm, Z = 198mm, L1 = 205mm, Z1 = 107mm
IMST168	Impress 316L Stainless Steel Tee 168mm. L = 514mm, Z = 278mm, L1 = 270mm, Z1 = 152mm

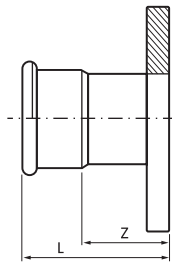


## REDUCING TEE

CODE	DESCRIPTION
IMSRT14076	Impress 316L Stainless Steel Reducing Tee 140mm x 76mm. L = 394mm, Z = 190mm, L1 = 200mm
IMSRT14089	Impress 316L Stainless Steel Reducing Tee 140mm x 89mm. L = 394mm, Z = 190mm, L1 = 200mm
IMSRT140108	Impress 316L Stainless Steel Reducing Tee 140mm x 108mm. L = 394mm, Z = 190mm, L1 = 200mm
IMSRT16876	Impress 316L Stainless Steel Reducing Tee 168mm x 76mm. L = 514mm, Z = 260mm, L1 = 260mm
IMSRT16889	Impress 316L Stainless Steel Reducing Tee 168mm x 89mm. L = 514mm, Z = 260mm, L1 = 260mm
IMSRT168108	Impress 316L Stainless Steel Reducing Tee 168mm x 108mm. L = 514mm, Z = 260mm, L1 = 260mm
IMSRC168140	Impress 316L Stainless Steel Reducing Tee 168mm x 140mm. L = 514mm, Z = 260mm, L1 = 260mm

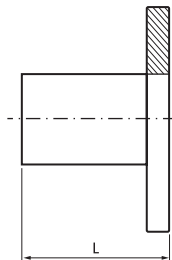


Fittings supplied standard with EPDM O Rings. When ordering HT or GAS please add to part number.



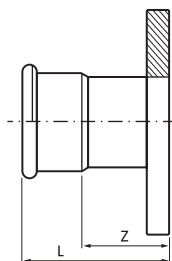
## FLANGE TABLE D/E

CODE	DESCRIPTION
IMSFDE140	Impress 316L Stainless Steel Flange D/E 140mm x 5". L = 182mm, Z = 75mm
IMSFDE168	Impress 316L Stainless Steel Flange D/E 168mm x 6". L = 212mm, Z = 85mm



## STEM FLANGE TABLE D/E

CODE	DESCRIPTION
IMSSFDE140	Impress 316L Stainless Steel Stem Flange D/E 140mm x 5". L = 200mm
IMSSFDE168	Impress 316L Stainless Steel Stem Flange D/E 168mm x 6". L = 250mm

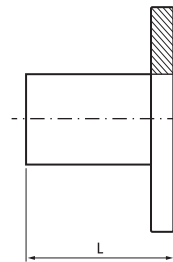


## FLANGE ANSI 150

CODE	DESCRIPTION
IMSFANSI140HT	Impress 316L Stainless Steel Flange ANSI 150 140mm x 5". L = 182mm, Z = 75mm
IMSFANSI168HT	Impress 316L Stainless Steel Flange ANSI 150 168mm x 6". L = 212mm, Z = 85mm

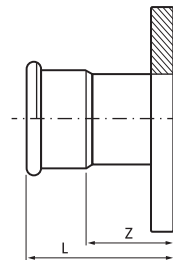
## STEM FLANGE ANSI 150

CODE	DESCRIPTION
IMSSFANSI140	Impress 316L Stainless Steel Stem Flange ANSI 150 140mm x 5". L = 200mm
IMSSFANSI168	Impress 316L Stainless Steel Stem Flange ANSI 150 168mm x 6". L = 250mm



## FLANGE PN16

CODE	DESCRIPTION
IMSFPN16140HT	Impress 316L Stainless Steel Flange PN16 140mm x 5". L = 182mm, Z = 75mm
IMSFPN16168HT	Impress 316L Stainless Steel Flange PN16 168mm x 6". L = 212mm, Z = 85mm



## FABRICATION SERVICE

Ibex Australia provide custom fabrication services for non-standard requirements.

- » Special Flanges
- » M&F Fittings
- » Manifolds
- » Adaptor Fittings



## ZINC SCL

CODE	DESCRIPTION
SCL140	Zinc Plated Clip 140mm (140-144) M10 Rubber Lined
SCL168	Zinc Plated Clip 168mm (165-169) M10 Rubber Lined



## ZINC SCL-2

CODE	DESCRIPTION
SCL140-2	Zinc Plated Clip 140mm M10 Rubber Lined - 2 bolt
SCL168-2	Zinc Plated Clip 168mm M10 Rubber Lined - 2 bolt



## STAINLESS STEEL SSCL

CODE	DESCRIPTION
SSCL140	Stainless Steel 316 Nut Clip M10, 140mm
SSCL140M12	Stainless Steel 316 Nut Clip M12, 140mm
SSCL168	Stainless Steel 316 Nut Clip M10, 168mm
SSCL168M12	Stainless Steel 316 Nut Clip M12, 168mm



## STAINLESS STEEL SSSCL

CODE	DESCRIPTION
SSSCL140	Stainless Steel 316 Two Piece Channel Clip 140mm
SSSCL168	Stainless Steel 316 Two Piece Channel Clip 168mm



## ZINC TWO PIECE CHANNEL CLIP

CODE	DESCRIPTION
SCLE5-140	Zinc Plated Two Piece Channel Clip 140mm
SCLE5-168	Zinc Plated Two Piece Channel Clip 168mm
SCLE5-PVCRROLL	PVC Strip Insert 20M Roll



## TUBE CLAMPS - SHPC

CODE	DESCRIPTION
SHPC140	Hydraulic Tube Clamp 140mm
SHPC168	Hydraulic Tube Clamp 168mm



## TOOL PRESSING EQUIPMENT - PRESSTOOLS

CODE	DESCRIPTION
SPT-B-401PT	Impress Stainless Steel Press Tool ACO401, 2 x 18V Battery, 240V Charger & Tool Box
SPT-B-403PTB	Impress Stainless Steel Press Tool ACO403 Bluetooth, 2 x 18V Battery, 240V Charger & Tool Box
SPT-401HP140	Impress Stainless Steel Collar 401 140mm in Tool Box M-Profile
SPT-401HP168	Impress Stainless Steel Collar 401 168mm in Tool Box M-Profile



## HIRE TOOLS

CODE	DESCRIPTION
HWK SPT-B-401PT	Weekly Hire of Tubepress Stainless Steel Press Tool ACO401, 2x Battery, 3.0Ah Li Ion 18V, Charger 240V in tool box
HWK SPT-401HP140	Weekly Hire of Tubepress Stainless Steel High Pressure Collar 401 140mm in Tool Box
HWK SPT-401HP168	Weekly Hire of Tubepress Stainless Steel High Pressure Collar 401 168mm in Tool Box



## IMPRESS 140mm - 168mm PRESS PROCEDURE

1

Cut and deburr tube

2

Ensure fitting O ring is in position and not damaged

3

Witness mark the insertion depth on the tube

4



Assemble fitting onto tube to full depth, correlate with witness mark

5



Lubricate press collar

6



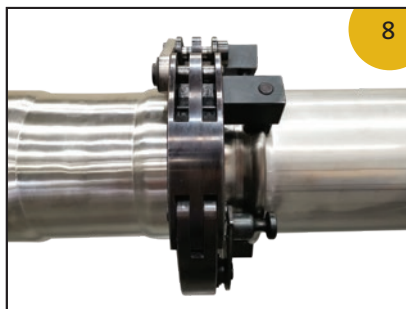
Position collar on fitting at position 1

7



Attach press-tool, check full insertion and press

8



Detach press-tool and move press collar to position 2

9



Attach press-tool and press

## SPACE REQUIREMENTS

- » Minimum distance between fittings: 60mm.
- » Area around tube for pressing: 150mm recommended, 100mm minimum if clipped to flat surface.

## THERMAL EXPANSION

Impress expands and contracts depending on medium, temperature difference, etc. The installation must allow for sufficient expansion movement. Generally this movement can be absorbed on changes of direction, elbows, or by the use of expansion bellows, etc.

### Impress thermal expansion formula

$$\Delta l = \frac{a l \Delta T}{1000}$$

$\Delta l$  = Thermal Expansion (mm)  
 $a$  = 16.5 Coefficient of Expansion (20°C to 100°C)  
 $l$  = Pipe Length (M)  
 $\Delta T$  = Temperature Variation (C° or K)

## SUPPORT SPACINGS

140mm & 168mm 4 metres maximum.

Pipe clips shall be designed to withstand anticipated stresses and loads and supported from structural members. Fire piping shall be secured to restrict movement during its normal life and upon operation.

Pipe clips are to be used on tube only, not fittings. Allowance is to be made for thermal expansion and contraction.

## TRADING TERMS

Whilst due care and revision has been taken in preparation of this manual, Ibex Australia takes no liability for accuracy of information contained here in.

As a part of a process of continual improvement, Ibex Australia reserves the right to upgrade or modify the components from this description in this manual at any time without notice.

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All sales are subjected to the company's Terms and Conditions of Sale. E&OE.

## OTHER IBEX PRODUCTS

**Tubepress**® 40 Bar 15mm-108mm 316L Stainless Steel Pressfit System.

**impress** Standard pressure 15mm-108mm 316L Stainless Steel Pressfit System.

**EX-PRESS** Standard pressure 15mm-108mm 304L Stainless Steel Pressfit System.

**VES-LOK**® Stainless Steel Compression Fittings.

Stainless Steel Threaded Fittings, Valves & Camlocks.

**impress**<sup>®</sup>



**ibex**

SMARTER INDUSTRY SOLUTIONS

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