



# Series 6401

## Zetco WaterMarked Ball Valve Female x TOF PE DZR Brass Lever Handle

### DESCRIPTION

A DZR brass ball valve WaterMark approved to AS 4796 (Licence WM-022133), featuring a female connection plus patented TOF PE connection WaterMarked to AS/NZS 4129 (Licence WM-022080). The TOF PE connection makes this valve ideal for use with polyethylene pipes in potable water installations, while the DZR brass handle offers superior resilience in harsh environments.

### FEATURES

<b>Design</b>	<p>Forged dezincification resistant brass body, nut and lever handle</p> <p>Stainless steel 316 grade ball for superior resilience</p> <p>PTFE ball seals for smooth, reliable operation</p> <p>Blow-out proof stem to prevent leakage</p>
<b>Production</b>	<p>Manufactured in Italy under ISO 9001 Quality Management System</p> <p>All valves are pressure tested during production</p>
<b>Technical</b>	<p>Female ISO 7/1 Rp threaded connection</p> <p>EN 1254-3 compression connection for polyethylene pipes (PE)</p> <p>Suitable for use with PE pipes complying with AS/NZS 4130</p> <p>Flow capacity: Full bore</p> <p>Flow control: on/off only, not intended for throttling</p> <p>Temperature range: -20°C to 60°C</p> <p>Max. pressure: 1600 kPa</p> <p>Must be installed according to accompanying instructions (see p. 4)</p>
<b>Options &amp; Variants</b>	<p>Size range: 20mm x PE25 &amp; 25mm x PE32</p> <p>Handle options: Recycled water lilac, lockable, hand wheel</p> <p>Series 6402 Male x TOF PE ball valve</p> <p>TOF PE fittings for connecting PE pipes to other systems</p> <p>Series 6610 Torque wrench (see p. 3)</p>



AUSTRALIAN PATENT  
NUMBER 2012241556



**WaterMark**

IAPMO WM-022133  
AS 4796



**WaterMark**

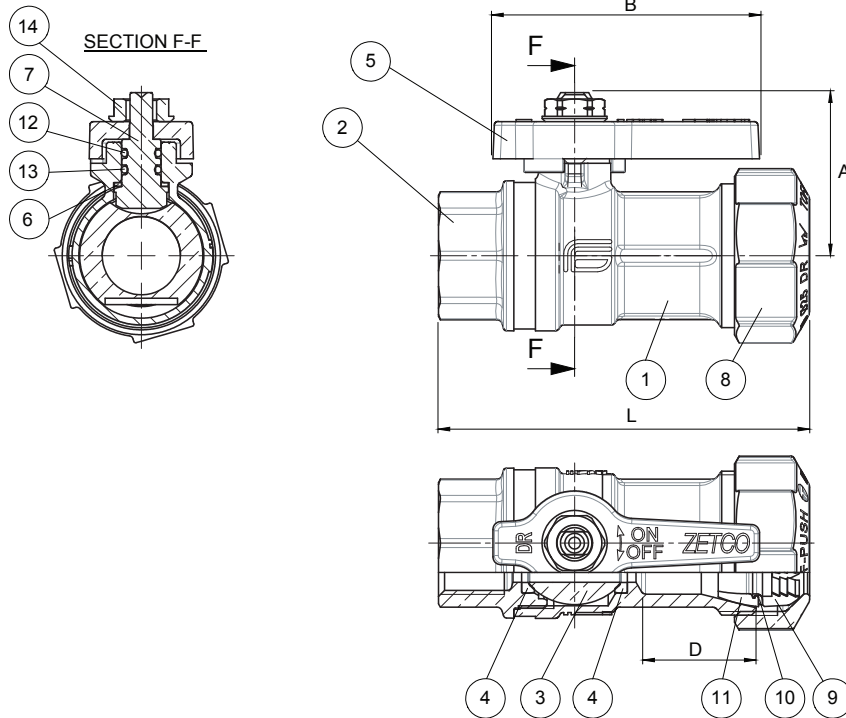
IAPMO WM-022080  
AS/NZ 4129

# Series 6401

Zetco WaterMarked Ball Valve  
Female x TOF PE DZR Brass Lever Handle



## DESCRIPTION



PARTS MATERIALS		
POS.	PART	MATERIAL
1	BODY	DZR BRASS
2	END ADAPTER	DZR BRASS
3	BALL	STAINLESS STEEL 316
4	SEAL	PTFE
5	HANDLE	DZR BRASS
6	THRUST WASHER	PTFE
7	STEM	DZR BRASS
8	NUT	DZR BRASS
9	COMPRESSION RING	ACETAL RESIN
10	REINFORCING RING	ACETAL RESIN
11	RUBBER GASKET	NBR
12	UPPER O-RING	HNBR
13	LOWER O-RING	EPDM PEROX
14	NUT	DZR BRASS

DIMENSIONS (mm)						
Prod. Code	Size	A	B	L	D	Wgt Kg
6401001	20xPE25	42	68	95	29	0.425
6401003	25xPE32	46	68	108	30	0.59

Must be installed according to accompanying instructions, shown on page 4 and also for download at [www.zetco.com.au](http://www.zetco.com.au)



## Series 6610

### Zetco TOF PE Torque Wrench & Tools

#### DESCRIPTION

A quality torque wrench handle supplied with specially designed wrenching tools to enable easy and accurate tightening of PE25, PE32, PE50 and PE63 TOF PE nuts. Achieving the correct torque on the TOF PE nuts is essential for ensuring that the connection meets the standards required by AS/NZS 4129.

#### FEATURES

<b>Design</b>	<ul style="list-style-type: none"> <li>Rotate dial to required torque and lock into place</li> <li>Solid 14x18mm head socket</li> <li>Easily interchangeable tools</li> <li>Each tool designed to exactly fit two sizes of TOF PE nuts</li> <li>Handle supplied in protective plastic case</li> </ul>
<b>Production</b>	Manufactured in Taiwan under ISO 9001 Quality Management System
<b>Technical</b>	<ul style="list-style-type: none"> <li>Torque range: 19Nm to 110Nm</li> <li>Accuracy: CW <math>\pm</math> 4% , CCW <math>\pm</math> 6%</li> <li>Refer to accompanying instructions for required torque (see p. 4)</li> </ul>
<b>Options</b>	With PE25/PE32 tool only or PE25/PE32 & PE50/PE63 tools

#### ORDERING INFORMATION

Prod. Code	Product Description
6610003	Torque wrench handle with PE25/PE32 tool only
6610007	Torque wrench handle with PE25/PE32 and PE50/PE63 tools

# TOF PE Connection

Installation Instructions



Australian Patent No. 2012 241 556



WaterMark  
IAPMO WM-022080  
AS/NZS 4129

## TOF PE Connection

### IMPORTANT INSTALLATION INSTRUCTIONS

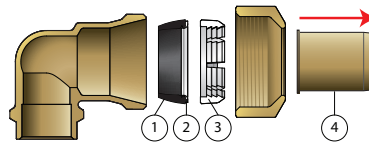
Follow each step carefully

INSTALLATION INSTRUCTION SHEET

#### STEP 1

Remove the brass nut and check that the internal components are present and in the correct position inside the valve or fitting:

1. Black rubber gasket
2. White reinforcing ring inside the wide rim of black gasket
3. White grab ring with solid end against black gasket
4. Bushing sleeve removed (PE40 to PE63 only)



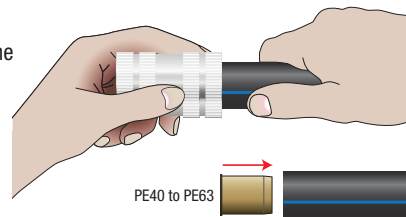
#### STEP 2

Zetco Valves recommends the use of PE100 PN16 polyethylene pipes complying with AS/NZS 4130.

Cut pipe square and de-burr edges.

Chamfer the external edge of the pipe with an appropriate tool to prevent damage to the gasket.

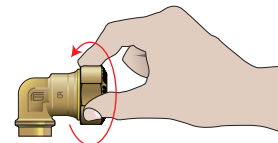
For PE40 to PE63 only, insert bushing sleeve fully into pipe.



#### STEP 3

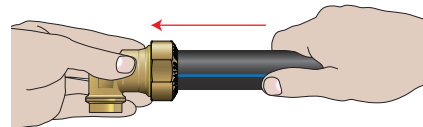
Secure the internal components by hand-fastening the nut.

To ensure easy insertion of the pipe, fasten nut loosely with a single turn and do not over-tighten.



#### STEP 4

Push the pipe through the internal components, fully into the valve or fitting.

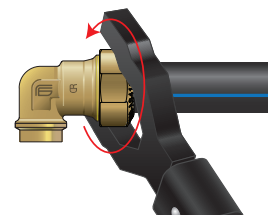


#### STEP 5

To comply with the pull-out requirement of the AS/NZS 4129 standard, we recommend using only PE100 PN16 polyethylene pipes and fastening the TOF nut securely with a ZETCO torque wrench at the following torque value:

PE Pipe Size	25mm	32mm	40mm	50mm	63mm
Torque	20Nm	25Nm	60Nm	100Nm	100Nm

with bushing sleeve



#### IMPORTANT WARNING

##### REMOVE THE NUT AND INTERNAL COMPONENTS

before brazing or soldering to prevent heat damage.

Only PTFE sealing tape or an approved thread sealant such as Loxeal® should be used with threaded connections.

TEMP./PRESSURE	
Application	Water
Max. Temp.	60°C
Max. Pressure	1600kPa

Disclaimer: Zetco Valves Pty Ltd will not accept responsibility for damage caused by failure to follow the instructions & warnings provided. The most recent version of these instructions and additional technical information can be obtained at [www.zetco.com.au](http://www.zetco.com.au)

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Also available for download at [www.zetco.com.au](http://www.zetco.com.au)