



Assets Planning and Delivery Group  
Engineering

# **DESIGN STANDARD DS 65**

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## **Pipe Fittings Standard Drawings**

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VERSION 2  
REVISION 4

NOVEMBER 2023

## FOREWORD

This publication is the third version of the Water Corporation's Pipe Fittings Standard Drawings. Design, construction and maintenance of pipelines for water supplies require the production and use of various types of fittings. Many of these fittings are fabricated from mild steel and internally cement lined.

These drawings are the Water Corporation's requirements for most standard mild steel cement lined fittings for construction in water supply, drainage and wastewater application. They also provide guidance on Water Corporation requirements with respect to pipe joints and flange welding, corrosion protection treatment, and flange bolt tightening procedures where these have not been specified in the specific project.

Fittings should only be used for the pressure ratings specified in the drawings.

Use of attached lifting lugs for handling of fittings is recommended when the fittings cannot be manually handled safely.

Compilation of these drawings relied upon contributions from various sections of the Corporation. These are gratefully acknowledged. Further comments/suggestions should be forwarded to Senior Principal Engineer, Water Conveyance, Engineering Advisory on (08) 9420 2079.

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## REVISION STATUS

The revision status of this standard is shown section by section below:

REVISION STATUS						
VER.	REV.	DATE	PLAN	REVISION DESCRIPTION	RVWD.	APRV.
3/2	E	20.10.08	<u>AY58-0-2-1</u>	Pressure rating and general notes added	FF	PF
3/2	F	04.07.19	<u>AY58-1-1-1</u>	Long and short tails added.	PV	JD
3/2	D	04.07.19	<u>AY58-1-1-2</u>	Long and short tails added.	PV	JD
3/2	F	04.07.19	<u>AY58-1-2-1</u>	Long and short tails added.	PV	JD
3/2	D	04.07.19	<u>AY58-1-2-3</u>	Long and short tails added.	PV	JD
3/2	F	04.07.19	<u>AY58-1-4-1</u>	Long and short tails added.	PV	JD
3/2	D	04.07.19	<u>AY58-1-4-3</u>	Long and short tails added.	PV	JD
3/2	G	04.07.19	<u>AY58-1-6-1</u>	Added pressed bends up to DN900	PV	JD
3/2	F	04.07.19	<u>AY58-1-7-1</u>	Added pressed bends up to DN900	PV	JD
3/2	C	19.10.10	<u>AY58-1-8-1</u>	Welding details amended	PV	SF
3/2	F	04.07.19	<u>AY58-2-1-1</u>	Long and short tails added.	PV	JD
3/2	F	04.07.19	<u>AY58-2-1-2</u>	Long and short tails added.	PV	JD
3/2	F	04.07.19	<u>AY58-2-1-3</u>	Revised notes	PV	JD
3/2	F	04.07.19	<u>AY58-2-1-4</u>	Revised notes	PV	JD
3/2	A	04.07.19	<u>AY58-2-4-1</u>	New Drawing	PV	JD
3/2	E	20.10.08	<u>AY58-3-1-1</u>	Notes and detail 1 revised and MMR added	FF	PF
3/2	J	20.10.08	<u>AY58-4-2-1</u>	Notes revised and MMR added	FF	PF
3/2	C	23.03.18	<u>AY58-4-2-2</u>	Note 1 removed	CW	CW
3/3	B	13.06.22	<u>AY58-5-2-1</u>	Weld increased and epoxy removed.	PV	JD
3/2	G	23.03.18	<u>AY58-7-1-1</u>	MMR added	CW	CW
3/2	F	20.10.08	<u>AY58-8-1-1</u>	Note 2 revised and 3 added	FF	PF
3/2	F	20.10.08	<u>AY58-8-2-1</u>	Note 2 revised and 3 added	FF	PF
<b>3/4</b>	<b>G</b>	<b>10.10.23</b>	<u><b>AY58-8-3-1</b></u>	<b>Welding of pipe into slip-on shown</b>	<b>AA</b>	<b>JD</b>
3/2	F	20.10.08	<u>AY58-8-6-1</u>	Notes revised and MMR added	FF	PF
3/2	E	20.10.08	<u>AY58-10-1-1</u>	Notes revised and MMR added	FF	PF
3/2	E	20.10.08	<u>AY58-11-1-1</u>	Notes revised and MMR added	FF	PF
3/2	G	20.10.08	<u>AY58-12-1-1</u>	Notes revised and MMR added	FF	PF
<b>3/4</b>	<b>E</b>	<b>20.10.23</b>	<u><b>AY58-12-3-1</b></u>	<b>Note 7 removed</b>	<b>JD</b>	<b>AA</b>
3/2	E	20.10.08	<u>AY58-13-1-1</u>	Notes revised and MMR added	FF	PF
3/2	F	18.11.16	<u>AY58-13-2-1</u>	300mm bands added	CW	CW
3/2	I	20.10.08	<u>AY58-15-1-1</u>	Notes revised	FF	PF
3/2	A	20.04.07	<u>AY58-15-2-1</u>	New drawing - Slip on Flange	FF	JD

REVISION STATUS						
VER.	REV.	DATE	PLAN	REVISION DESCRIPTION	RVWD.	APRV.
3/2	D	20.10.08	<del>AY58-16-1-1</del>	Note 3 revised	FF	PF
3/2	H	12.12.13	<del>AY58-17-1-1</del>	Note revised	MS	SE
<b>3/4</b>	<b>N</b>	<b>10.10.23</b>	<del>AY58-19-1-1</del>	<b>Convex over flat band sizes added. Notes revised</b>	<b>JD</b>	<b>AA</b>
3/2	C	04.07.19	<del>AY58-19-2-1</del>	Name changed and weld thickness amended	PV	JD
3/2	F	20.10.08	<del>AY58-20-1-1</del>	Figure 3 revised	FF	PF

<b>INDEX TO FITTINGS</b>		
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LONG PATTERN FOR: DN100 to DN300 – STD	FMP	AY58-8-2
DN100 to DN400 – SO	FMP	AY58-8-3
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<b>SCOUR FLANGED MATCHING PIECE</b> - STD	SFM	AY58-10-1
<b>AIR VALVE FLANGED BEND</b> STD TYPE 1 TYPE 2	AVFB.1 AVFB.2	AY58-11-1 AY58-11-1
<b>VALVE BYPASS</b> DN150 – STD	<b>VB</b>	<b>AY58-12-1</b>
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<b>WELDING BAND PIPE JOINT</b> Flat Profile  Convex Profile	WBF  WBC	AY58-13-1  AY58-13-2
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<b>INDEX TO FITTINGS</b>		
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<b>WELD TEST PROCEDURE FOR PIPE JOINTS DN900 AND LARGER</b>	-	<b>AY58-20-1</b>

**END OF DOCUMENT**