

* REFER TO
NOTE 3.

DETAIL

- 1 INSPECTION AND TESTING
INSPECTION AND TESTING OF THE MATERIAL SHALL BE
CARRIED OUT IN ACCORDANCE WITH AS3678
- 2 DATA SHEETS & MATERIAL TEST CERTIFICATES ARE TO BE
SUPPLIED WITH ALL FLANGES
- 3 GASKET FACE SURFACE TO BE MACHINED TO EN1092-1:2007 AS
FOLLOWS:

* ROUGHNESS AVERAGE R_a IS THE ARITHMETIC AVERAGE OF THE ABSOLUTE VALUES OF THE ROUGHNESS PROFILE ORDINATES

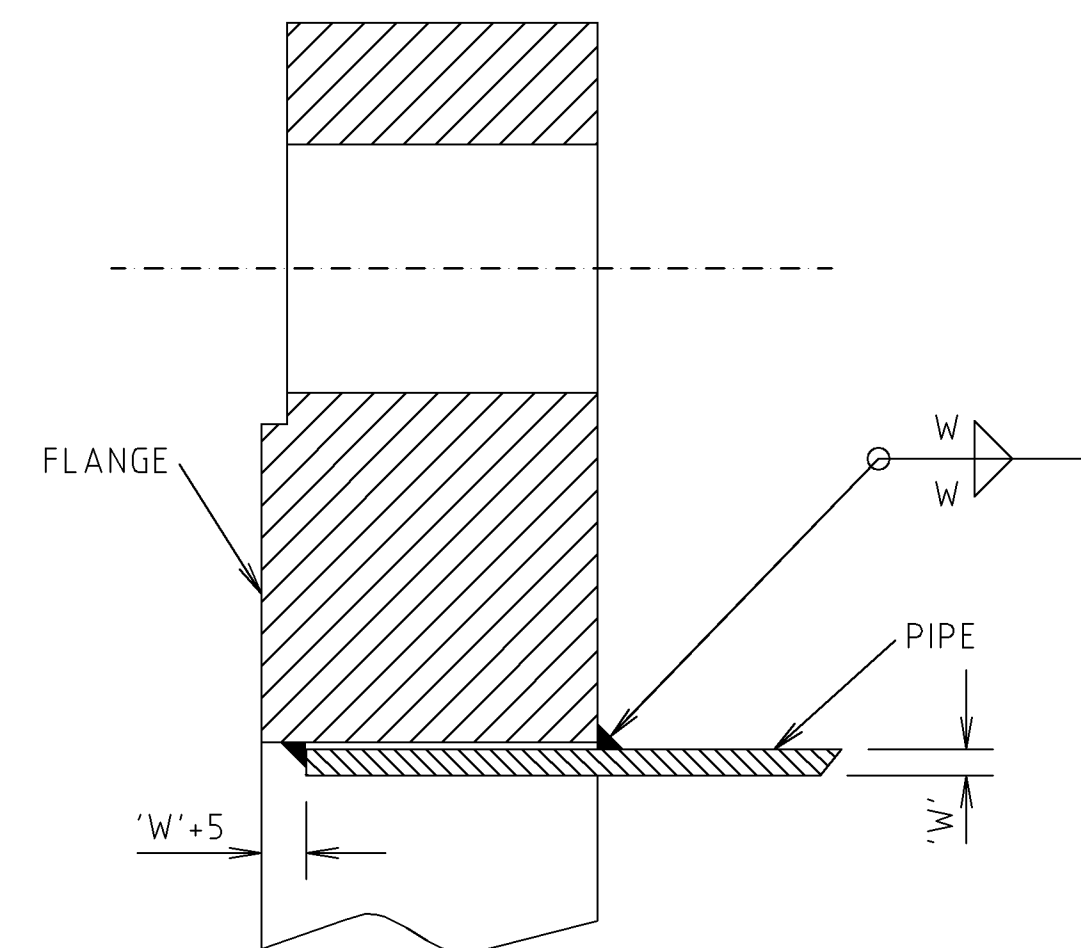
MEAN ROUGHNESS DEPTH R_z IS THE ARITHMETIC MEAN VALUE OF THE SINGLE ROUGHNESS DEPTHS R_{zi} OF CONSECUTIVE SAMPLING LENGTHS.

OUTER DIAMETER μm		CENTRE BORE DIAMETER μm		SPOT FACING
R _a MAX	R _z MAX	R _a MAX	R _z MAX	
25	160	25	160	
				YES*

*REFER TO NOTE 5

6 WELD INSPECTION AS PER EN13445 5 GROUP 1,2,3 & 4

8 FLANGE JOINTS SHALL BE SQUARE TO PIPE WITHIN 0.25° OR 2mm WHICHEVER IS THE LESSER AND THE LAYBACK SHALL BE WITHIN THE RANGE OF 0 - 0.75° (LAYBACK AS PER AS1579 IS "THE ANGULAR DISTORTION OF A FLANGE FROM ITS ORIGINAL PLANE DUE TO WELDING THE FLANGE ONTO A PIPE OF FITTING")



FLANGE TO PIPE WELD DETAIL

FLANGE MATERIAL:	AS3678 Gr250
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BOLT DIMENSIONAL SPECIFICATION	AS1110 1
NUT DIMENSIONAL SPECIFICATION	AS1112 1
BOLT & NUT MECHANICAL PROPERTIES	AS4291.1.2000 - GRADE 8.8 (HOT-DIP GALVANISED)
WASHER TOLERANCES & MECHANICAL PROPERTIES	AS1237
GALVANISING	AS1214
FLANGE BOLTING PROCEDURE	WATER CORP. DS 38-03

SPECIFICATION.	EN1591 & EN13445
GASKET TYPE.	NON-METALLIC FLAT
GASKET MATERIAL.	NON-ASBESTOS COMPRESSED FIBRE

GASKET PROPERTIES:	
"E ₀ "	500 MPa
"K ₁ "	20
"m"	1.6
"g _c OR P _{QR} "	0.9
"Q _{0 min} "	35 MPa
"Q _{max} "	70 MPa
"Q _{smin} "	10 MPa
"Q _{smax} "	120 MPa

PN25 FLANGE DIMENSIONS (TYPE 1 - "SLIP ON")

DN	MATING DIMENSIONS						‘B ₁ ’	‘C ₁ ’	‘d ₁ ’	‘f ₁ ’	APPROX WEIGHT (KG)	PIPE THICKNESS	MIN. REQUIRED BOLT - UP TORQUE (Nm)					
	‘D’	‘K’	‘L’	BOLTING														
				NUMBER	SIZE													
900	1185	±1.5	1090	48	28	M45	920	+3 ₀	86	+2 ₀	1030	5	0 ₋₁	280	7	2380		
1000	1320		+5 ₀	1210	56	28	M52		1022		95	+3 ₋₁		1140	5	390	8	3300
1200	1530		1420	56	32	M52	1225		116		1350	5		570	9	4000		
1400	1755		+7 ₀	1640	62	36	M56		1428		133	1560		5	803	11	5010	

* IF ONLY FRONT FACE IS MACHINED TOLERANCE TO BE $+7_0$.

B	03/2010		REDRAWN IN AUTOCAD	AC	GC	MC	DESIGN SURVEY NONE	VERTICAL DATUM NONE	DES. CALC D. HEATON	NORTH POINT	<div>HATCH</div>	RECOMMENDED 01/12/2009	<div>WATER CORPORATION</div>	MECHANICAL STANDARD DRAWING			ORIGINAL SHEET SIZE	
							COORDINATE SYS NONE	DES. CHD M. GALLARD	ENGINEERING CONSULTANT			MECHANICAL DESIGN STANDARD DS 38-03						
							ASCON SURVEY NONE	DES. REF	DRN L. ZUIDEMA		APPROVED 01/12/2009			FILE	PLAN	CAD	ISSUE	
ISSUE	DATE	GRID	REVISION	DRN	REC	APPD			Q.C. CHD M. KEATING		S.W.EVANS			PROJECT	JZ39-91-4		B	A1
										PROJECT MECHANICAL ENGINEER							MF	