

ULTRASONIC PERFORMANCE AREAS

EXAMINE 24 SINGLE SIDE WELDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
-Mtl type not more than 10 each SS, Fe, DM																									
Stainless Steel (SS)																									
Ferritic (Fe)																									
Dissimilar Metal/BI-Metallic (DM)																									
-1/2 thick & 1/2 thin wall, 3 or less of one Thickness*																									
- 1/3 ea. Small/Medium/Large, 3 or less of one Diameter*																									
*Select from the following: Small diameter >1.5 to 4" nominal pipe size Medium diameter >4 to 12" nominal pipe size Large diameter >12 nominal pipe size Thick wall joints; schedule 60 or greater Thin wall joints, schedule 40 and less																									
-The 24 welds shall include a minimum of 5 each of the following angels: 0°, 45°, 60°,70°																									
-An additional 24 calibrations shall be Performed using the same Parameters as above:																									
ANGLE																									
MATERIAL																									
THICKNESS																									
DIAMETER																									
NOTES: (1) Welds with dual side access may be used for single side access provided access to one side is blocked. (2) The individual must demonstrate the ability to detect, size and identify flaws such as slag, lack of fusion, porosity, lack of penetration and cracks. Must also be able to identify and discriminate geometric reflectors. (3) Scans shall include axial and circumferential directions.																									

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EXAMINE 18 DOUBLE SIDE WELDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
-Mtl type not more than 8 each SS, Fe, DM																									
Stainless Steel (SS)																									
Ferritic (Fe)																									
Dissimilar Metal/BI-Metallic (DM)																									
-1/2 thick & 1/2 thin wall, 3 or less of one Thickness*																									
- 1/3 ea. Small/Medium/Large, 3 or less of one Diameter*																									
*Select from the following: Small diameter >1.5 to 4" nominal pipe size Medium diameter >4 to 12" nominal pipe size Large diameter >12 nominal pipe size Thick wall joints; schedule 60 or greater Thin wall joints, schedule 40 and less																									
-The 18 welds shall include a minimum of 4 each of the following angels: 0°, 45°, 60°,70°																									
-An additional 18 calibrations shall be Performed using the same Parameters as above:																									
ANGLE																									
MATERIAL																									
THICKNESS																									
DIAMETER																									
NOTES:																									
(1) The individual must demonstrate the ability to detect, size and identify flaws such as slag, lack of fusion, porosity, lack of penetration and cracks. Must also be able to identify and discriminate geometric reflectors.																									
(2) Scans shall include axial and circumferential directions.																									

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Vessel		
At Least 1 each	<2	≥2
Head to Shell*		
Scan at least 3 Ft.		
Shell Welds*		
Scan at least 3 Ft.		
Nozzle to Shell*		
Scan at least 90°		
Nozzle Inner Radius*		
At Least 2 Components		
At Least 6 Calibrations		
Required		
*Above exams shall use multiple angle beams and skew in accordance with procedure.		

Bolting		
At least 2 of one of the following		
Bore Probe		
Zero Wave		

Straight Beam		
At least 2 each A-Scan		
Lamination		
Depth of Weld Flaw		
Water / Solid Level		

Material Thickness Measurements		
Flow Accelerated Corrosion		
	½D	½A
Elbows at Least 10 Comp		
“T”joints at least 6 comp		
Straight pipe at least 6 comp		
Thickness measurements other than FAC		
At least 25 each	<¼”	≥¼”
Digital (D)	A-Scan (A)	