Notes to Designers:

Narrow Gap Improved-Electroslag Welding (NGI-ESW) is permitted in the AWS code. However, CVN testing of the heat-affected zone is currently not covered in AWS and is supplemented by Special Provision. This detail needs to be incorporated into projects that include the NGI-ESW Special Provision. Consult with the Steel Specialist to determine if these details and the Special Provisions should be included in the contract documents.

Figure R3

CVN Impact Test Specimen for Testing the Heat-Affected Zone at the 1/4 Thickness Location

Notes:

1. ALL DIMENSIONS IN MM (INCHES)
2. WELD METAL CVN SPECIMENS ARE LOCATED AT MID-THICKNESS.
3. BASE CVN SPECIMENS ARE LOCATED AT 1/4 THICKNESS.

PERMISSIBLE VARIATIONS

ADJACENT SIDES SHALL BE AT:

- 90° ± 10 MIN.
- ± 0.25MM (± 0.001")
- ± 2.0 MM (± 0.039")
- ± 1°
- ± 0.025MM (± 0.001")
- ± 0, -2.5 MM (± 0.100")
- 45° ± 1°
- 45° ± 1°

FINISH REQUIREMENTS:

ON OTHER TWO SURFACES

± 0.25MM (± 0.001")

ON OTHER TWO SURFACES

± 0.25MM (± 0.001")

* FIVE TEST SPECIMENS ON ONE SIDE OF THE JOINT, LOCATION OF FIVE TEST SPECIMENS ON THE OTHER SIDE OF THE JOINT SIMILAR.

Figure R2

WPS Qualification or Pretest for NOI-ESW

Notes:

1. ALL DIMENSIONS IN MM (INCHES)
2. WELD METAL CVN SPECIMENS ARE LOCATED AT MID-THICKNESS.
3. BASE CVN SPECIMENS ARE LOCATED AT 1/4 THICKNESS.

Base Metal Base Metal

Notes:

When using this drawing, please note:

- DISCARD
- SIDE BEND
- REDUCED SECTION TENSION
- IMPACT BLOCK FROM TEST PLATE (FIG. R2
- SEE FIG. R3
- SEE AWS D1.5 FIG. 5.13
- BASE METAL BASE METAL

- PREFERRED DIRECTION OF ROLLING
- MACROETCH
- REFER TO FIGURE R3
- IMPACT BLOCK
- 250MM (10") MIN.
- 690MM (27") MIN.

- CVN IMPACT TEST SPECIMEN FOR TESTING THE HEAT-AFFECTED ZONE AT THE 1/4 THICKNESS LOCATION

- WELD METAL CVN SPECIMENS ARE LOCATED AT MID-THICKNESS.
- BASE CVN SPECIMENS ARE LOCATED AT 1/4 THICKNESS.

- IMPACT BLOCK FROM TEST PLATE (FIG. R2
- SEE FIG. R3
- SEE AWS D1.5 FIG. 5.13
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