



---

## PILE POINTS FOR STEEL H-PILES

### GENERAL

- Piles points for steel H-piles shall meet the requirement of [Article 4167.02](#) of the Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction.
- When required by the plans, pile points for steel H-piles shall be cast-in-one-piece meeting requirements of ASTM A 27 Class I, Grade 65-35, or ASTM A 148 Grade 80-50. Pile points shall be provided with sufficient flange and continuous web vertical back-ups to assure proper alignment and fitting to the piles. The pile points shall provide full bearing for the piles and shall be attached to the piles to insure full transmission of the driving energy to the points.
- Pile points shall have identification markings such as heat number and model number, (for easy traceability to a mill test report)
- Shop welding of pile points to Steel H-Piles shall be performed by AWS Certified Welders.
- Field welding of steel pile points shall be performed by certified welders and shall conform to the requirements of [IM 558](#), Structural Field Welding & Inspection.
- The Iowa DOT may specify, by a note on the plans, when pile points are required and may specifically require certain pile points based on driving conditions of the piles.
- Grade 65 – 35 represents tensile and yield respectively. Grade 65-35 is heat treated and mechanically tested.
- If post weld heat treatment is required, Class 1 shall be furnished.
- All castings of Grade 65-35 shall be heat treated.
- Heat treatment is performed at the time of casting and it should be performed after castings have been allowed to cool from pouring temperature to below the transformation range.
- The grade and the class shall be identified on the Mill Test Reports.

### MANUFACTURER APPROVAL

The manufacturer shall submit detailed drawings of pile points showing material, weight, and dimensions of model numbers to the Office of Materials for approval by the engineer. The model numbers on the drawings must be physically identifiable on pile points furnished for projects. The manufacturer shall submit a recommended fastening procedure.

## **ACCEPTANCE**

Acceptance shall be based on a certificate of compliance from an approved manufacturer / supplier listed in [Appendix A](#). The certificate of compliance from the manufacturer shall include: The grade, the class, heat number, model number, number of pile points furnished. The supplier of material shall provide project documentation including; manufacturer's name, heat number, model, number of pieces, contractor's name, project number and proof of traceability of the furnished pile points to certified mill test reports. The material supplier, shall also certify that:

The materials itemized in this shipment are certified to meet the Iowa Department of Transportation applicable specification requirements and is melted and manufactured in the USA.

\_\_\_\_\_  
(Authorized signature and date)

An authorized company representative shall sign the certification statement.

One copy of the certified bill of materials or invoice shall accompany each shipment and shall remain at the delivery point for the project inspector, or shall be forwarded directly to the Project Engineer. In addition, one copy shall be forwarded to the District Materials Engineer with project responsibility, and one copy to the Office of Materials in Ames, Iowa.

Acceptance may also be based upon a Pile Point Identification Report ([Appendix B](#)) completed by the Project Inspector. Copies of the certified mill test report for each Heat No. listed on the report shall be included with the report. One copy shall be forwarded to the District Materials Engineer with project responsibility.

## **WELDING PILE POINTS TO H-STEEL PILES**

See [IM 558](#) for welding requirements.

## **MONITOR INSPECTIONS & SAMPLING**

Monitor inspections and sampling shall be performed by the Office of Materials and / or the District Materials Engineer to verify compliance with specifications.