



6600 South Harlem Avenue
Argo, IL 60501-1930

Material Test Report

WELDBEND CORPORATION
PO Box 2388
Sulphur, LA
PO: P0249140-01

| <u>Quantity</u> | | <u>Product</u> | | | | | | | | | | <u>Heat Code</u> | | | | | <u>Heat Treatment</u> | | | | | <u>Steel Mill</u> |
|-----------------|-----------|----------------------|----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|------------------|-----------|-----------------|--------------|--------------|-----------------------|------------|------------|-------------|--|-------------------|
| 1 | | 12" Std LR 90° Elbow | | | | | | | | | | M60199 | | | | | Hot Formed | | | | | V & M STAR |
| <u>C</u> | <u>Mn</u> | <u>P</u> | <u>S</u> | <u>Si</u> | <u>Cu</u> | <u>Ni</u> | <u>Cr</u> | <u>Mo</u> | <u>V</u> | <u>Al</u> | <u>Ti</u> | <u>B</u> | <u>Cb</u> | <u>CE (IIW)</u> | <u>Tens.</u> | <u>Yield</u> | <u>Elong</u> | <u>ROA</u> | <u>BHN</u> | <u>BHN2</u> | A 234-18 WPB Dimensional Specification: B16.9 | |
| L 0.21 | 1.06 | 0.010 | 0.005 | 0.30 | 0.14 | 0.05 | 0.11 | 0.020 | 0.06 | 0.026 | 0.004 | 0.0002 | 0.000 | 0.437 | 86,500 | 50,000† | 28.80 | - | 176 | 180 | | |
| | | | | | | | | | | | | | | | | | | | | | | |

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|-----------------|-----------|---------------------|----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|------------------|-----------|-----------------|--------------|--------------|-----------------------|------------|------------|-------------|--|--------------------|
| 20 | | 6" Std LR 90° Elbow | | | | | | | | | | 733040 | | | | | Hot Formed | | | | | SILCOTUB (TENARIS) |
| <u>C</u> | <u>Mn</u> | <u>P</u> | <u>S</u> | <u>Si</u> | <u>Cu</u> | <u>Ni</u> | <u>Cr</u> | <u>Mo</u> | <u>V</u> | <u>Al</u> | <u>Ti</u> | <u>B</u> | <u>Cb</u> | <u>CE (IIW)</u> | <u>Tens.</u> | <u>Yield</u> | <u>Elong</u> | <u>ROA</u> | <u>BHN</u> | <u>BHN2</u> | A 234-18 WPB Dimensional Specification: B16.9 | |
| L 0.11 | 0.88 | 0.011 | 0.003 | 0.18 | 0.18 | 0.11 | 0.09 | 0.030 | 0.00 | 0.025 | 0.002 | - | 0.001 | 0.301 | 68,400 | 48,700 | 30.40 | - | 151 | 145 | | |
| | | | | | | | | | | | | | | | | | | | | | | |

| <u>Quantity</u> | | <u>Product</u> | | | | | | | | | | <u>Heat Code</u> | | | | | <u>Heat Treatment</u> | | | | | <u>Steel Mill</u> |
|-----------------|-----------|---------------------|----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|------------------|-----------|-----------------|--------------|--------------|-----------------------|------------|------------|-------------|--|-------------------|
| 12 | | 2" Std LR 90° Elbow | | | | | | | | | | 11804 | | | | | Hot Formed | | | | | PLYMOUTH TUBE CO. |
| <u>C</u> | <u>Mn</u> | <u>P</u> | <u>S</u> | <u>Si</u> | <u>Cu</u> | <u>Ni</u> | <u>Cr</u> | <u>Mo</u> | <u>V</u> | <u>Al</u> | <u>Ti</u> | <u>B</u> | <u>Cb</u> | <u>CE (IIW)</u> | <u>Tens.</u> | <u>Yield</u> | <u>Elong</u> | <u>ROA</u> | <u>BHN</u> | <u>BHN2</u> | A 234-18 WPB Dimensional Specification: B16.9 | |
| L 0.18 | 0.72 | 0.005 | 0.021 | 0.20 | 0.16 | 0.05 | 0.06 | 0.020 | 0.01 | 0.019 | - | - | - | 0.332 | 71,800 | 50,000† | 20.70 | - | 162 | 165 | | |

We hereby certify that the material meets the following

- All fittings and flanges meet NACE MRO-175/ISO 15156-Latest Revision.
- All fittings and flanges meet NACE MRO-103 - Latest Revision.
- All non high-yield fittings meet the requirements of ASTM A-234 WPB (AND SA-234)
- All non high-yield flanges meet the requirements of ASTM A-105 WPB (AND SA-105)
- All elbows, tees and reducers are seamless, except as noted.
- Plate for caps and welded fittings.
- Bars, Billets or Blooms for flanges and certain caps and tees.
- MTR only valid with QR code linking to traceability.weldbend.com

† This indicates that the reported yield is capped at 50,000 psi.
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Richard Purpura

Richard Purpura
Quality Assurance Department
5/18/2024



Scan For Online Report

We hereby certify that the material meets the following:

- ISO 9001:2015 CERTIFIED MANUFACTURER
- Test Results herein are correct as contained in test records retained by the company in accordance with PED Annex 1, Paragraph 4.3 of 2014/68/EU
- No Weld Repair Performed. No Lead Content. No Mercury Content.
- Knowingly making false, fictitious, or fraudulent statements on a MTR may result in legal liability.
- Material has been manufactured/supplied and tested in accordance with the most current version of the Weldbend Quality System Program
- MTR issued in accordance with EN 10204 paragraph 3.1
- L denotes ladle chemistry, P denotes product chemistry.

Generated by sryan@weldbend.com

Cert #389744