



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

| | | | |
|-------------------------------|---|------------------------|---------|
| Laboratory Name : | MET-HEAT ENGINEERS PVT LTD, 857/2,GIDC INDUSTRIAL ESTATE,MAKARPURA, VADODARA, GUJARAT, INDIA | Page No | 1 of 27 |
| Accreditation Standard | ISO/IEC 17025:2017 | Last Amended on | - |
| Certificate Number | TC-7726 | | |
| Validity | 22/09/2023 to 21/09/2025 | | |

| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|--------------------|---------------------------|--|--|--|
| Permanent Facility | | | | |
| 1 | CHEMICAL- CORROSION TESTS | Coated Products / Panels / Raw Materials | SALT SPRAY TEST | ASTM B-117 |
| 2 | CHEMICAL- CORROSION TESTS | Coated Products / Panels / Raw Materials | SALT SPRAY TEST | ISO 9227 |
| 3 | CHEMICAL- CORROSION TESTS | Coated Products / Panels / Raw Materials | SALT SPRAY TEST NEUTRAL SALT SPRAY (NSS) | ISO 9227 |
| 4 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | ANTIMONY | ASTM E-1251 |
| 5 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | ARSENIC | ASTM E-1251 |
| 6 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | BISMUTH | ASTM E-1251 |
| 7 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | BORON | ASTM E-1251 |
| 8 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | CALCIUM | ASTM E-1251 |
| 9 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | COBALT | ASTM E-1251 |
| 10 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | COPPER | ASTM E 1251 |
| 11 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | CROMIUM | ASTM E 1251 |
| 12 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | IRON | ASTM E-1251 |
| 13 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | LEAD | ASTM E 1251 |
| 14 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | LITHIUM | ASTM E-1251 |
| 15 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | MAGNESIUM | ASTM E 1251 |
| 16 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | MANGANESE | ASTM E1251 |
| 17 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | NICKEL | ASTM E-1251 |
| 18 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | SILICON | ASTM E-1251 |



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|------|---------------------------|------------------------------|--|--|
| 19 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | STRONTIUM | ASTM E-1251 |
| 20 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | TIN | ASTM E-1251 |
| 21 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | TITANIUM | ASTM E 1251 |
| 22 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | VANADIUM | ASTM E-1251 |
| 23 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | ZINC | ASTM E 1251 |
| 24 | CHEMICAL- METALS & ALLOYS | ALUMINIUM & ITS ALLOYS | ZIRCONIUM | ASTM E-1251 |
| 25 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEEL | ARSENIC | MHEPL/WI/C-01 |
| 26 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEEL | BISMUTH | MHEPL/WI/C-01 |
| 27 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEEL | CALCIUM | MHEPL/WI/C-01 |
| 28 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEEL | TIN | MHEPL/WI/C 01 |
| 29 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEEL | ZINC | MHEPL/WI/C 01 |
| 30 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | ALUMINIUM | MHEPL/WI/C-01 |
| 31 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | ANTIMONY | MHEPL/WI/C-01 |
| 32 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | BORON | MHEPL/WI/C-01 |
| 33 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | CARBON | MHEPL/WI/C-01 |
| 34 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | CHROMIUM | MHEPL/WI/C-01 |
| 35 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | COBALT | MHEPL/WI/C-01 |
| 36 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | COPPER | MHEPL/WI/C-01 |
| 37 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | LEAD | MHEPL/WI/C-01 |



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| 38 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | MANGANESE | MHEPL/WI/C-01 |
| 39 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | MOLYBDENUM | MHEPL/WI/C-01 |
| 40 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | NICKEL | MHEPL/WI/C-01 |
| 41 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | NIObIUM | MHEPL/WI/C-01 |
| 42 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | NITROGEN | MHEPL/WI/C-01 |
| 43 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | PHOSPOROUS | MHEPL/WI/C01 |
| 44 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | SILICON | MHEPL/WI/C-01 |
| 45 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | SULPHUR | MHEPL/WI/C-01 |
| 46 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | TANTALUM | MHEPL/WI/C-01 |
| 47 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | TITANIUM | MHEPL/WI/C-01 |
| 48 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | TUNGSTEN | MHEPL/WI/C-01 |
| 49 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | VANADIUM | MHEPL/WI/C-01 |
| 50 | CHEMICAL- METALS & ALLOYS | CARBON AND ALLOY STEELS | ZIRCONIUM | MHEPL/WI/C-01 |
| 51 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | ALUMINIUM | BS EN 15079 |
| 52 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | ANTIMONY | BS EN 15079 |
| 53 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | ARSENIC | BS EN 15079 |
| 54 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | BISMUTH | BS EN 15079 |
| 55 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | CHROMIUM | BS EN 15079 |
| 56 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | COBALT | BS EN 15079 |



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| 57 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | LEAD | BS EN 15079 |
| 58 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | MANGANESE | BS EN 15079 |
| 59 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | NICKEL | BS EN 15079 |
| 60 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | PHOSPHORUS | BS EN 15079 |
| 61 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | SILICON | BS EN-15079 |
| 62 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | SULPHUR | BS EN 15079 |
| 63 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | TIN | BS EN 15079 |
| 64 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | ZINC | BS EN -15079 |
| 65 | CHEMICAL- METALS & ALLOYS | COPPER & ITS ALLOYS | CADMIUM | BS-15079 |
| 66 | CHEMICAL- METALS & ALLOYS | COPPER AND ITS ALLOYS | IRON | BS EN 15079 |
| 67 | CHEMICAL- METALS & ALLOYS | COPPER BASE METALS AND ALLOYS | PMI BY XRF METHOD(Fe,Cu,Zn,Pb,Sn,Ni) | ASTM E-1476 (Ra-2014) |
| 68 | CHEMICAL- METALS & ALLOYS | Fe BASE METALS AND ALLOYS | PMI BY XRF METHOD(Ti,Co,Cr,Ni,V,Mo,Cu,W ,Nb) | ASTM E-1476 (Ra-2014) |
| 69 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | ALUMINIUM | MHEPL/WI/C-01 |
| 70 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | BORON | MHEPL/WI/CL-01 |
| 71 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | CARBON | MHEPL/WI/C-01 |
| 72 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | COBALT | MHEPL/WI/C-01 |
| 73 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | COPPER | MHEPL/WI/C 01 |
| 74 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | CROMIUM | MHEPL/WI/C-01 |



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| 75 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | IRON | MHEPL/WI/C-01 |
| 76 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | MANAGANESE | MHEPL/WI/C-01 |
| 77 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | MOLYBDENUM | MHEPL/WI/C-01 |
| 78 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | NIOBIUM | MHEPL/WI/C-01 |
| 79 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | PHOSPHOROUS | MHEPL/WI/C-01 |
| 80 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | SILICON | MHEPL/WI/C-01 |
| 81 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | SULPHUR | MHEPL/WI/C-01 |
| 82 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | TITANIUM | MHEPL/WI/C-01 |
| 83 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | TUNGSTEN | MHEPL/WI/C-01 |
| 84 | CHEMICAL- METALS & ALLOYS | NICKEL & ITS ALLOYS | VANADIUM | MHEPL/WI/C-01 |
| 85 | CHEMICAL- METALS & ALLOYS | NICKEL BASE METALS AND AALOYS | PMI BY XRF METHOD(Nb,Fe,Ni,Mo,W,Cu,Co, Cr,V,Ti) | ASTM E 1476 (Ra-2014) |
| 86 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | ALUMINIUM | MHEPL/WI/C-01 |
| 87 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | BORON | MHEPL/WI/C-01 |
| 88 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | CALCIUM | MHEPL/WI/C-01: |
| 89 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | CARBON | MHEPL/WI/C-01 |
| 90 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | CHROMIUM | MHEPL/WI/C-01 |
| 91 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | COBALT | MHEPL/WI/C-01 |
| 92 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | COPPER | MHEPL/WI/C-01 |



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| 93 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | MANGANESE | MHEPL/WI/C-01 |
| 94 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | MOLYBDENUM | MHEPL/WI/C-01 |
| 95 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | NICKEL | MHEPL/WI/C-01 |
| 96 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | NIObIUM | MHEPL/WI/C-01 |
| 97 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | NITROGEN | MHEPL/WI/C-01 |
| 98 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | PHOSPHOROUS | MHEPL/WI/C-01 |
| 99 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | SILICON | MHEPL/WI/C-01 |
| 100 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | SULPHUR | MHEPL/WI/C-01 |
| 101 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | TANTALUM | MHEPL/WI/C-01 |
| 102 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | TIN | MHEPL/WI/C-01 |
| 103 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | TITANIUM | MHEPL/WI/C-01 |
| 104 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | TUNGSTEN | MHEPL/WI/C-01 |
| 105 | CHEMICAL- METALS & ALLOYS | STAINLESS STEEL | VANADIUM | MHEPL/WI/C-01 |
| 106 | CHEMICAL- METALS & ALLOYS | TOOL STEEL | CARBON | MHEPL/WI/C-01 |
| 107 | CHEMICAL- METALS & ALLOYS | TOOL STEEL | COBALT | MHEPL/WI/C-01 |
| 108 | CHEMICAL- METALS & ALLOYS | TOOL STEEL | CROMIUM | MHEPL/WI/C-01 |
| 109 | CHEMICAL- METALS & ALLOYS | TOOL STEEL | MANGANESE | MHEPL/WI/C-02 |
| 110 | CHEMICAL- METALS & ALLOYS | TOOL STEEL | MOLYBDENUM | MHEPL/WI/C-01 |
| 111 | CHEMICAL- METALS & ALLOYS | TOOL STEEL | PHOSPHOROUS | MHEPL/WI/C-01 |



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| 112 | CHEMICAL- METALS & ALLOYS | TOOL STEEL | SILICON | MHEPL/WI/C-01 |
| 113 | CHEMICAL- METALS & ALLOYS | TOOL STEEL | SULPHUR | MHEPL/WI/C-01 |
| 114 | CHEMICAL- METALS & ALLOYS | TOOL STEEL | TUNGSTEN | MHEPL/WI/C-01 |
| 115 | CHEMICAL- METALS & ALLOYS | TOOL STEEL | VANADIUM | MHEPL/WI/C-01 |
| 116 | CHEMICAL- PAINTS & SURFACE COATING | ZINC COATED ARTICLE | ADHESION TEST | IS-2629(Ra-2021) |
| 117 | CHEMICAL- PAINTS & SURFACE COATING | ZINC COATED ARTICLE | ZINC COATING THICKNESS | IS-3203(Ra-2021) |
| 118 | CHEMICAL- PAINTS & SURFACE COATING | ZINC COATED ARTICLES | MASS OF ZINC COATING | IS-6745(Ra-2021) |
| 119 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | BOLTS | PROOF LOAD TEST | ASME SA-370 |
| 120 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | BOLTS | PROOF LOAD TEST | ASTM A-370 |
| 121 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | BOLTS | PROOF LOAD TEST | IS-1367(PART-3) |
| 122 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | BOLTS | PROOF LOAD TEST | ISO-898-1 |
| 123 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | BOLTS | WEDGE LOAD TEST | ASME SA-370 |
| 124 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | BOLTS | WEDGE LOAD TEST | ASTM A-370 |
| 125 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | BOLTS | WEDGE LOAD TEST | IS-1367(PART-3) |
| 126 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | BOLTS/STUDS | FULL SIZE BREAKING TEST | ASME SA-370 |



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| 127 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | BOLTS/STUDS | FULL SIZE BREAKING TEST | ASTM A-370 |
| 128 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | BOLTS/STUDS | FULL SIZE BREAKING TEST | IS-1367(PART-3) |
| 129 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | REDUCTION IN AREA | API-1104 |
| 130 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | REDUCTION IN AREA | ASME SA-370 |
| 131 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | REDUCTION IN AREA | ASME SECTION-IX |
| 132 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | REDUCTION IN AREA | EN-15614-1-2017 A1 |
| 133 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | REDUCTION IN AREA | IBR REG 1950 ADN |
| 134 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | REDUCTION IN AREA | IS-1608(PART-1) |
| 135 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | REDUCTION IN AREA | ISO-4136(E) |
| 136 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | REDUCTION IN AREA | ISO-5178(E) |
| 137 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | REDUCTION IN AREA | ISO-6892-2 |
| 138 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | TENSILE STRENGTH | API-1104 |
| 139 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | TENSILE STRENGTH | EN-15614-1 A1-2017(E) |
| 140 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | TENSILE STRENGTH | ISO-4136(E) |



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| 141 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ,ALLOYS & PRODUCTS | TENSILE STRENGTH | ISO-6892-2 |
| 142 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | API-1104 |
| 143 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | ASME SA-370 |
| 144 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | ASME SECTION-IX |
| 145 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | ASTM A-370 |
| 146 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | ASTM E-8 |
| 147 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | ASTM E-8M |
| 148 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | EN-15614-1-A1-20 |
| 149 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | IBR REG 1950 ADN |
| 150 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | IS-1608(PART-1) |
| 151 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | ISO-4136(E) |
| 152 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | ISO-5178(E) |
| 153 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS ALLOYS AND PRODUCTS | PROOF STRENGTH | ISO-6892-2 |
| 154 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS & PRODUCTS | REDUCTION IN AREA | ASTM E-8M |



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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|------|---|---------------------------------------|--|--|
| 155 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | ELONGATION | ASTM A-370 |
| 156 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | REDUCTION IN AREA | ASTM A-370 |
| 157 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | REDUCTION IN AREA | ASTM E-8 |
| 158 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | TENSILE STRENGTH | ASME SECTION-IX |
| 159 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | TENSILE STRENGTH | ASME SA-370 |
| 160 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | TENSILE STRENGTH | ASTM A-370 |
| 161 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | TENSILE STRENGTH | ASTM E-8 |
| 162 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | TENSILE STRENGTH | ASTM -E8M |
| 163 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | TENSILE STRENGTH | IBR REG 1950 ADN |
| 164 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | TENSILE STRENGTH | IS-1608(PART-1) |
| 165 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | TENSILE STRENGTH | ISO-6892-2 |
| 166 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | API-1104 |
| 167 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | ASME SA-370 |
| 168 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | ASME SECTION-IX |



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| 169 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | ASTM A-370 |
| 170 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | ASTM E-8 |
| 171 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | ASTM E-8M |
| 172 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | EN-15614-1-A1-2017(E) |
| 173 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | IBR REG 1950 ADN |
| 174 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | IS-1608(PART-1) |
| 175 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | ISO-4136(E) |
| 176 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | ISO-5178(E) |
| 177 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | FERROUS MATERIALS,ALLOYS AND PRODUCTS | YIELD STRENGTH | ISO-6892-2 |
| 178 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | AWS D1.1 |
| 179 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS PIPES/TUBES | FLATTENING TEST | ASME SA-370 |
| 180 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS TUBE S/PIPES | FLATTENING TEST | ASME SA-530 |
| 181 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS TUBES/PIPES | FLATTENING TEST | API-5L |
| 182 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS TUBES/PIPES | FLATTENING TEST | ASTM A-1016 |



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| 183 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS TUBES/PIPES | FLATTENING TEST | ASTM A-370 |
| 184 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS TUBES/PIPES | FLATTENING TEST | ASTM A-450 |
| 185 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS TUBES/PIPES | FLATTENING TEST | ASTM A-530M |
| 186 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS TUBES/PIPES | FLATTENING TEST | ASTM A-999 |
| 187 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS TUBES/PIPES | FLATTENING TEST | ASTM B-111 |
| 188 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS TUBES/PIPES | FLATTENING TEST | BS EN ISO 8492(E) |
| 189 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS TUBES/PIPES | FLATTENING TEST | IS-1239(PART-1) (Ra-2019) |
| 190 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS TUBES/PIPES | FLATTENING TEST | ASTM A-530 |
| 191 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | API-1104 |
| 192 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | API-1104 |
| 193 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | ASME E-190 |
| 194 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | Metallic materials | BEND TEST | ASME SA-370 |
| 195 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | ASME SECTION-IX |
| 196 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | Metallic materials | BEND TEST | ASTM A-370 |



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|------|---|------------------------------|--|--|
| 197 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | ASTM E-190 |
| 198 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | Metallic materials | BEND TEST | ASTM E-290 |
| 199 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | AWS D1.1 |
| 200 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | IBR REG 1950 ADN |
| 201 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | IBR REG 1950 ADN |
| 202 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | Metallic materials | BEND TEST | IS-1239(PART-1) (Ra-2019) |
| 203 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | Metallic materials | BEND TEST | IS-1599 |
| 204 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | Metallic materials | BEND TEST | IS-1786(Ra-2018) |
| 205 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | Metallic materials | BEND TEST | IS-2329(Ra-2022) |
| 206 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | IS-3600(PART-5) |
| 207 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | ISO-5173-02 |
| 208 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST | ISO-5173-02 |
| 209 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | Metallic materials | BEND TEST | ISO-7438(E) |
| 210 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BEND TEST(CLOSE BEND TEST) | IS-1599 |



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|------|---|------------------------------|--|--|
| 211 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BRINELL HARDNESS TEST 10 mm diameter /3000 kg load | IS-1500(Part-1) |
| 212 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BRINELL HARDNESS TEST 10 mm diameter/3000kg load | ASTM E-10 |
| 213 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BRINELL HARDNESS TEST 2.5 mm diameter ball/ 187.5kg load | ASTM E-10 |
| 214 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | BRINELL HARDNESS TEST 2.5mm diameter /187.5 kg load | IS-1500(Part-1) |
| 215 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | CHARPY V NOTCH IMPACT TEST AT PLUS 70 DEGREE TO MINUS 196 DEGREE CENTIGRADE | ASME SA-370 |
| 216 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | CHARPY V NOTCH IMPACT TEST AT PLUS 70 DEGREE TO MINUS 196 DEGREE CENTIGRADE | ASTM A-370 |
| 217 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | CHARPY V NOTCH IMPACT TEST AT PLUS 70 DEGREE TO MINUS 196 DEGREE CENTIGRADE | ASTM E-23 |
| 218 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | CHARPY V NOTCH IMPACT TEST AT PLUS 70 DEGREE TO MINUS 196 DEGREE CENTIGRADE | EN-ISO-9016 |
| 219 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | CHARPY V NOTCH IMPACT TEST AT PLUS 70 DEGREE TO MINUS 196 DEGREE CENTIGRADE | IS-1757(PART-1) |
| 220 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | CHARPY V NOTCH IMPACT TEST AT PLUS 70 DEGREE TO MINUS 196 DEGREE CENTIGRADE | ISO-148-1 |
| 221 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | DRIFT EXPANSION TEST | ASME SA-370 |
| 222 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | DRIFT EXPANSION TEST | ASTM A-1016 |
| 223 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | DRIFT EXPANSION TEST | ASTM A-370 |
| 224 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | DRIFT EXPANSION TEST | ASTM B-111a |



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|------|---|------------------------------|--|--|
| 225 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | DRIFT EXPANSION TEST | BS-EN-ISO-8493 |
| 226 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | DRIFT EXPANSION TEST | IS-2335(Ra-2022) |
| 227 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | ASME SECTION-IX |
| 228 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | API-1104 |
| 229 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | ASME SA-370 |
| 230 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | ASME SECTION-IX |
| 231 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | ASTM B-557 |
| 232 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | ASTM E-8 |
| 233 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | ASTM E-8M |
| 234 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | AWS B 4.0 |
| 235 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | AWS D1.1 |
| 236 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | BS-EN-10002-1 |
| 237 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | EN-15614-1-2017 A1(E) |
| 238 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | IBR REG 1950 ADN |



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|------|---|------------------------------|--|--|
| 239 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | IS-1608(PART-1) |
| 240 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | IS-2825(Ra-2022) |
| 241 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | IS-3600(PART-2) |
| 242 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | ISO/EN 4136(E) |
| 243 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | ISO-4136(E) |
| 244 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | ISO-5178(E) |
| 245 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ELONGATION | ISO-6892-2 |
| 246 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | FLAIRING TEST | ASTM A-370 |
| 247 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | FLARING TEST | ASME SA-370 |
| 248 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | FLARING TEST | ASTM A-1016 |
| 249 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | FLARING TEST | ASTM B-111a |
| 250 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | FLARING TEST | BS-EN-ISO-8493 |
| 251 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | FLARING TEST | IS-2335(Ra-2022) |
| 252 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | FLATTENING TEST | ASME SA-450 |



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| 253 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | FLATTENING TEST | IS-2328 |
| 254 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | FLATTENING TEST | IS-3589(Ra-2022) |
| 255 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | HIGH TEMPERATURE TENSILE STRENGTH | ASTM E-21 |
| 256 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | HIGH TEMPERATURE TENSILE STRENGTH | ISO-6892-2 |
| 257 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | HIGH TEMPERATURE TENSION TEST % ELONGATION | ISO-6892-2 |
| 258 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | HIGH TEMPERATURE TENSION TEST % REDUCTION AREA | ISO-6892-2 |
| 259 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | HIGH TEMPERATURE TENSION TEST,% ELONGATION | ASTM E-21 |
| 260 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | HIGH TEMPERATURE TENSION TEST,% REDUCTION AREA | ASTM E-21 |
| 261 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | HIGH TEMPERATURE TENSION TEST,YIELD STRENGTH | ASTM E-21 |
| 262 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | IZOD IMPACT TEST | IBR REG 1950 ADN |
| 263 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | IZOD IMPACT TEST | IS-1598(Ra-2020) |
| 264 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | MICROINDENTATION HARDNESS TEST HV 0.1 | ASTM E-384 |
| 265 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | MICROINDENTATION HARDNESS TEST HV 0.3 | ASTM E-384 |
| 266 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | MICROINDENTATION HARDNESS TEST HV 0.5 | ASTM E-384 |



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| 267 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | MICROINDENTATION HARDNESS TEST HV 1 | ASTM E-384 |
| 268 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | NOMINAL MASS MEASUREMENT | IS-1786(Ra-2018) |
| 269 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | PROOF STRENGTH | API-1104 |
| 270 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | PROOF STRENGTH | ASME SEC-IX |
| 271 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | PROOF STRENGTH | AWS B4.0 |
| 272 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | PROOF STRENGTH | AWS D1.1 |
| 273 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | PROOF STRENGTH | IBR REG 1950 ADN |
| 274 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | PROOF STRENGTH | IS-2825(Ra-2022) |
| 275 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | PROOF STRENGTH | IS-3600(PART-2) |
| 276 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | PROOF STRENGTH | ISO-4136(E) |
| 277 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | PROOF STRENGTH | ISO-5178(E) |
| 278 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | PULL OUT TEST/PUSH OUT TEST BREAKING LOAD AND LOCATION OF FRACTURE | ASME SECTION -VIII DIVISION-1 |
| 279 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REBEND TEST | IS-1786(Ra-2018) |
| 280 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA | API-1104 |



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|------|---|------------------------------|--|--|
| 281 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA | ASME SECTION-IX |
| 282 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA | AWS B 4.0 |
| 283 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA | AWS D1.1 |
| 284 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA | IBR REGU 1950 ADN |
| 285 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA | IS-2825(Ra-2022) |
| 286 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA | IS-3600(PART-2) |
| 287 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA | ISO-4136(E) |
| 288 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA | ISO-5178(E) |
| 289 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA | ASTM B-557 |
| 290 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA FOR THROUGH THICKNESS TENSION TEST | EN-10164(E) |
| 291 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA FOR THROUGH THICKNESS TENSION TEST | ISO-7778(E) |
| 292 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | REDUCTION IN AREA FOR THROUGH THICKNESS TENSION TEST | SA-770 |
| 293 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ROCKWELL HARDNESS TEST HRB | ASTM E-18 |
| 294 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ROCKWELL HARDNESS TEST HRB | IS-1586(PART-1) |



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| 295 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ROCKWELL HARDNESS TEST HRC | ASTM E-18 |
| 296 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | ROCKWELL HARDNESS TEST HRC | IS-1586(PART-1) |
| 297 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | TENSILE STRENGTH | API-1104 |
| 298 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | TENSILE STRENGTH | ASME SECTION-IX |
| 299 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | TENSILE STRENGTH | AWS B 4.0 |
| 300 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | TENSILE STRENGTH | AWS D1.1 |
| 301 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | TENSILE STRENGTH | IBR REGU 1950 ADN |
| 302 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | TENSILE STRENGTH | IS-2825(Ra-2022) |
| 303 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | TENSILE STRENGTH | IS-3600(PART-2) |
| 304 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | TENSILE STRENGTH | ISO-4136(E) |
| 305 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | TENSILE STRENGTH | ISO-5178(E) |
| 306 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | VICKERS HARDNESS TEST HV-10 | ASTM E-92 |
| 307 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | VICKERS HARDNESS TEST HV-10 | IS-1501 PART-1 |
| 308 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | VICKERS HARDNESS TEST HV-10 | ISO-9015-1 |



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| 309 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | VICKERS HARDNESS TEST HV-5 | ASTM E-92 |
| 310 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | VICKERS HARDNESS TEST HV-5 | IS-1501(PART-1) |
| 311 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | VICKERS HARDNESS TEST HV-5 | ISO-9015-1 |
| 312 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | YIELD STRENGTH | API-1104 |
| 313 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | YIELD STRENGTH | ASME SECTION-IX |
| 314 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | YIELD STRENGTH | AWS B4.0 |
| 315 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | YIELD STRENGTH | AWS D1.1 |
| 316 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | YIELD STRENGTH | IBR REG 1950 ADN |
| 317 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | YIELD STRENGTH | IS-2825(Ra-2022) |
| 318 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | YIELD STRENGTH | IS-3600(PART-2) |
| 319 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | YIELD STRENGTH | ISO-4136(E) |
| 320 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | METALLIC MATERIALS | YIELD STRENGTH | ISO-5178(E) |
| 321 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | NON FERROUS METALS | TENSILE STRENGTH | ASTM B-557 |
| 322 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | NON FERROUS METALS AND ALLOYS | PROOF STRENGTH | ASTM B-557 |



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| 323 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | NON FERROUS METALS AND ALLOYS | YIELD STRENGTH | ASTM B-557 |
| 324 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | NUTS | PROOF LOAD TEST | ASME SA-370 |
| 325 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | NUTS | PROOF LOAD TEST | ASTM A-370 |
| 326 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | NUTS | PROOF LOAD TEST | IS-1367(PART-6) |
| 327 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WASHER/SPRING WASHER | PERMANENT LOAD TEST | IS-3063(Ra-2021) |
| 328 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WASHER/SPRING WASHER | PERMANENT SET TEST | IS-3063(Ra-2021) |
| 329 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WASHER/SPRING WASHER | TWIST TEST | IS-3063(Ra-2021) |
| 330 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDED ITEMS | FRACTURE TEST | ASME SECTION-IX |
| 331 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDED ITEMS | FRACTURE TEST | AWS D1.1 |
| 332 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDED ITEMS | FRACTURE TEST | BS-EN-ISO-9017(E) |
| 333 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDED ITEMS | FRACTURE TEST | EN-1320 |
| 334 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDED ITEMS | FRACTURE TEST | IBR REG 1950 ADN |
| 335 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDED ITEMS | FRACTURE TEST | IS-3600(PART-8) (Ra-2013) |
| 336 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDED ITEMS | NICK BREAK TEST | AWS D1.1 |



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| 337 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDED ITEMS | NICK BREAK TEST | DIN-EN-1320 |
| 338 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDED ITEMS | NICK BREAK TEST | IBR REG 1950 ADN |
| 339 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDED ITEMS | NICK BREAK TEST | IS-2825(Ra-2022) |
| 340 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDED ITEMS | NICK BREAK TEST | IS-3600(PART-8) (Ra-2013) |
| 341 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDS AND WELDED SPECIMENS | MACRO TEST | ASME SECTION-IX |
| 342 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDS AND WELDED SPECIMENS | MACRO TEST | AWS D1.1 |
| 343 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDS AND WELDED SPECIMENS | MACRO TEST | BS-EN-ISO-9017(E) |
| 344 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDS AND WELDED SPECIMENS | MACRO TEST | DIN-EN-1321 |
| 345 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDS AND WELDED SPECIMENS | MACRO TEST | IBR REG 1950 ADN |
| 346 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDS AND WELDED SPECIMENS | MACRO TEST | IS-3600(PART-9) |
| 347 | MECHANICAL- MECHANICAL PROPERTIES OF METALS | WELDS AND WELDED SPECIMENS | MACRO TEST | ISO-17639 |
| 348 | MECHANICAL- METALLOGRAPHY TEST | METALLIC MATERIALS | % FERRITE MEASUREMENT BY FERRITSCOPE | ASTM A-800 :2020 / IS-8249 |
| 349 | MECHANICAL- METALLOGRAPHY TEST | METALLIC MATERIALS | CASE DEPTH MEASUREMENT | IS-6416(CL-8) |
| 350 | MECHANICAL- METALLOGRAPHY TEST | METALLIC MATERIALS | COATING/PLATING THICKNESS MEASUREMENT | ASTM B-487 |
| 351 | MECHANICAL- METALLOGRAPHY TEST | METALLIC MATERIALS | CREVICE CORROSION TEST | ASTM G-48 (METHOD-B)-11e1 |



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| 352 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | DECARBURIZATION DEPTH MEASUREMENT | ASTM E-1077(CL-7.2) (2021) |
| 353 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | DECARBURIZATION DEPTH MEASUREMENT | IS-1367(PART-3) |
| 354 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | DECARBURIZATION DEPTH MEASUREMENT | IS-6396(CL-9) (Ra-2018) |
| 355 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | DESIGNATION OF MICROSTRUCTURE OF GRAPHITE IN CAST IRON 1. GRAPHITE FORM,FIGURE-1 2.GRAPHITE DISTRUBUTION,FIGURE-2, 3.DIMENSION OF GRAPHITE,FIGURE-3 | IS-7754(Ra-2018) |
| 356 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | DETERMINATION OF INTER METALLIC PHASE IN DUPLEX STAINLESS STEEL | ASTM A-923 METHOD-A |
| 357 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | DETERMINATION OF INTER METALLIC PHASE IN DUPLEX STAINLESS STEEL | ASTM A-923 METHOD-C |
| 358 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | EVALUTION OF GRAPHITE IN IRON CASTINGS 1) GRAPHITE FLAKE TYPE ,PLATE-I 2) GRAPHITE FOAM TYPE,PLATE-I 3) GRAPHITE SIZE,PLATE-II | ASTM A-247 |
| 359 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | FERRITE NUMBER MEASUREMENT BY FERRITSCOPE | ASTM A-800 / ISO-8249 |
| 360 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | GRAIN SIZE MEASUREMENT | ASTM E-112 |
| 361 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | GRAIN SIZE MEASUREMENT | ASTM E-1382(97) |
| 362 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | GRAIN SIZE MEASUREMENT | IS-4748 |
| 363 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | IGC PRACTICE-A | ASTM A-262(Ra-21) |
| 364 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | IGC PRACTICE-B | ASTM A-262(Ra-21) |
| 365 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | IGC PRACTICE-C | ASTM A-262(Ra-21) |



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| 366 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | IGC PRACTICE-E | ASTM A-262(Ra-21) |
| 367 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | IGC TEST | IS-10461(PART-2) (Ra-2021) |
| 368 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | IGC TEST | ISO-3651-2(E) |
| 369 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | INCLUSION RATING | ASTM E-45 METHOD-A |
| 370 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | INCLUSION RATING | ASTM E-45 METHOD-D |
| 371 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | INCLUSION RATING | IS-4163(METHOD-A) |
| 372 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MACRO EXAMINATION | ASM HANDBOOK VOLUME -9 |
| 373 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MACRO EXAMINATION | ASTM E-340 |
| 374 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MACRO EXAMINATION | ASTM E-381 |
| 375 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MACRO EXAMINATION | EN-ISO-17639 |
| 376 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MAGNETIC PERMEABILITY | ASTM A-342 METHOD-3 |
| 377 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MICRO STRUCTURE EXAMINATION | ASM HANDBOOK VOLUME -9 |
| 378 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MICRO STRUCTURE EXAMINATION | ASTM E-1351(Ra-20) |
| 379 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MICRO STRUCTURE EXAMINATION | ASTM E-1558(2021) |
| 380 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MICRO STRUCTURE EXAMINATION | ASTM E-3(Ra-17) |
| 381 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MICRO STRUCTURE EXAMINATION | ASTM E-407(Ra-15) |
| 382 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MICRO STRUCTURE EXAMINATION | EN-1321 |
| 383 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MICRO STRUCTURE EXAMINATION | EN-ISO-17639 |
| 384 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MICRO STRUCTURE EXAMINATION | IS-7739(PART-2) (Ra-2018) |



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| 385 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MICRO STRUCTURE EXAMINATION | ISO-945-1(E) |
| 386 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | MICROSTRUCTURE EXAMINATION | IS-7739(PART-1) (Ra-2017) |
| 387 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | PITTING CORROSION TEST | ASTM G-48 (METHOD-A)-11e1 |
| 388 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | PITTING CORROSION TEST | ASTM G-48 (METHOD-C)-11e1 |
| 389 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | PITTING CORROSION TEST | ASTM G-48 (METHOD-D)-11e1 |
| 390 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | PITTING CORROSION TEST | ASTM G-48 (METHOD-E)-11e1 |
| 391 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | PITTING CORROSION TEST | ASTM G-48 (METHOD-F)-11e1 |
| 392 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | RESISTANCE TO HYDROGEN INDUCED CRACKING TEST(HIC TEST) | NACE TM-0284 |
| 393 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | RESTANCE TO SULFIDE STRESS CRACKING AND STRESS CORROSION CRACKING IN H2S ENVIRONMENT | NACE-TM-0177(METHOD-A) |
| 394 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | RESTANCE TO SULFIDE STRESS CRACKING AND STRESS CORROSION CRACKING IN H2S ENVIRONMENT | NACE-TM-0177(METHOD-B) |
| 395 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | STRESS CORROSION CRACKING RESISTANCE | ASTM G-36(2018) |
| 396 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | VOLUME FRACTION/PHASE CONSTITUENTS---- FOR CARBON STEEL , % OF FERRITE AND % OF PEARLITE | ASTM E-1245-03 |
| 397 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | VOLUME FRACTION/PHASE CONSTITUENTS---- FOR CAST IRON FOR, % FERRITE ,%PEARLITE ,%NODULARITY,NODULE COUNT | ASTM E-1245-3 |
| 398 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | VOLUME FRACTION/PHASE CONSTITUENTS---- FOR CAST IRON FOR, % FERRITE ,%PEARLITE,%NODULARITY,NO DULE COUNT | ASTM E-562 |



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| 399 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | VOLUME FRACTION/PHASE CONSTITUENTS-- FOR CARBON STEEL , % OF FERRITE AND % OF PEARLITE | ASTM E-562 |
| 400 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | VOLUME FRACTION/PHASE CONSTITUENTS---- FOR DUPLEX STAINLESS STEEL, % OF AUSTENITE AND % OF FERRITE | ASTM E-1245-3 |
| 401 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | VOLUME FRACTION/PHASE CONSTITUENTS ---FOR DUPLEX STAINLESS STEEL, % OF AUSTENITE AND % OF FERRITE | ASTM E-562 |
| 402 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | VOLUME FRACTION/PHASE CONSTITUENTS---- POROSITY | ASTM E-1245-03 |
| 403 | MECHANICAL-METALLOGRAPHY TEST | METALLIC MATERIALS | VOLUME FRACTION/PHASE CONSTITUENTS ---- % POROSITY | ASTM E-562 |
| 404 | MECHANICAL-METALLOGRAPHY TEST | NICKEL AND ITS ALLOYS | IGC TEST | ASTM G-28 |