

HEAT TREATMENT



BM2402 HORIZONTAL FURNACE

Size Capacity (inches) : 48x48x72

Weight Capacity : 6,000 lb

Quench Capability : 12 bar, 70 F/min

Process Range : 900F - 2100F





BM2401 HORIZONTAL FURNACE

Size Capacity (inches) : 36x36x48
 Weight Capacity : 3,000 lb
 Quench Capability : 6 bar, 70 F/min
 Process Range : 900F - 2100F



BM2409 NITREX GAS NITRIDING & FNC

Size Capacity (inches) : 98x61x61
 Weight Capacity : 12,000 lb
 Diffusion Depth : 2-12 thou (50-300 Micron)
 Process Range : 750°F - 1250°F



BM2422 VERTICAL FURNACE

Size Capacity (inches) : 90x60x60
 Weight Capacity : 20,000 lb
 Quench Capability : 12 bar, 50 F/min



BM2407 LARGE TEMPER FURNACE

Size Capacity (inches) : 98x61x61
 Weight Capacity : 12,000 lb
 Process Range : 750°F - 1250°F



BM2403/ BM2404 TEMPER FURNACE

Size Capacity (inches) : 36x36x48
 Weight Capacity : 3,000 lb
 Process Range : 750°F - 1250°F

BM2405/ BM2406 TEMPER FURNACE

Size Capacity (inches) : 48x48x72
 Weight Capacity : 6,000 lb
 Process Range : 750°F - 1250°F



CASTOOL METALLURGICAL LABORATORY (CML)



NOTCHED BAR IMPACT TESTING OF METALLIC MATERIALS (V-NOTCH)

Equipment : Tinius Olsen Impact tester
Method : ISO Standard 148-2 & ASTM E23,
NIST Certified

Capability : Absorbed Energy Level of 6.3 J
(4.6 ft-lbf) to 148.4 J (109.4 ft-lbf)



SAMPLE PREPARATION

Equipment : Buehler Sectioning, Mounting, Grinding, Automatic Polishing and Etching

Method : ASTM E3, ASTM E407

Capability : Versatility and Reproducible Results, Consistent Quality and Precision



METALS IDENTIFICATION, GRADE VERIFICATION AND SORTING

Equipment : Hitachi PMI-Master Smart Spectrometer

Method : ASTM E415

Capability : Steel, Aluminum, Copper and Nickel Based Alloys



MICRO INDENTATION HARDNESS OF MATERIALS

Equipment : Struers DuraScan Microhardness Tester

Method : ASTM E384

Capability : Micro Vickers for Nitride and Other Surface Treatment Analysis



HARDNESS EXAMINATION OF METALLIC MATERIALS

Equipment : Wilson Superficial Hardness Testing & Mitutoyo Rockwell Hardness Tester Digital HR-320

Method : ASTM E18

Capability : Rockwell and Superficial Hardness Scales

METALLOGRAPHIC ANALYSIS

Equipment : VHX Keyence Digital Microscope & Leica Inverted Optical Microscope

Method : ASTM E3

Capability : High Resolution Imaging
Advanced 2D/3D Measurements
Multi-Angle Observation
Artificial Intelligence Image Analysis
Integration, Failure & Fracture Analysis

