INTRODUCTION

The MTS Slow Bend Rail Weld Test System is designed for testing rail weld joints to failure in bending. EN14587-1 specifies the requirements for testing flash butt welding of rails. MTS provides a turn-key solution that includes a built-in safety enclosure along with a motor driven track assembly to allow easy insertion and removal of rail specimens. MTS Multi-Purpose Test software allows for easy report generation and test template creation to expedite testing.

SYSTEM FEATURES

- High stiffness 4-column load frame
- 3600 kN max compressive force, enough to fail standard size rail butt welds
- Large built-in safety enclosure, fits standard length rail weld assemblies (1150 mm.). Keeps the user and the system safe in the event of specimen failure
- Viewing window allows for exact specimen centering and monitoring during test
- Hydraulically driven screw assembly opens/closes the enclosure for easy specimen removal and insertion
- Utilizes standard MTS 793 controller and software for test definition and data acquisition
- Fits most standard rail sizes including 115#, 132#, 133#, 136# and 141# rail sections
- Includes Hydraulic Power Unit and all necessary cables/hoses
- Top fixture can be interchanged with a 3-point bend fixture for further testing

SYSTEM OVERVIEW

- Static stroke
  - 400 mm total axial displacement.
- Static force
  - 3600 kN compression
  - 2600 kN tension
- Max velocity
  - 1 mm/sec
- Frame footprint
  - Approximately 4 m long x .75 m deep (including safety enclosure)
  - 2.4 m system height
- System weight
  - Approximately 8600 kg
4-POINT BEND FIXTURE

- Bottom span
  - 1200 mm (per EN14587-1)
  - Adjustable from 1000 mm to 1220 mm
- Top span
  - 450 mm, non-adjustable
- Roller diameter
  - 76 mm (other sizes available upon request)