OPERATING MANUAL

Marshall Stability Load Frame
MS-86 and MS-86F

INTRODUCTION:

The MS-86 Marshall Stability Load Frame has a 10,000lbf (44.5kN) capacity and loading rate is fixed at 2in (50.8mm) per minute specified for Marshall testing. The loading rate is maintained at ±1% by the 3/4hp DC motor and controller.

A 6.75in (171.5mm) diameter lower platen is included and the load frames have a vertical clearance of 37.3in (947mm) and horizontal clearance of 11.9in (302mm). Cross-head heights are quickly and accurately changed using the self-centering adjusting nuts. Cabinet construction is 14-gauge steel with a durable enamel finish. The 1.25in (31.8mm) diameter vertical threaded rods are plated for corrosion resistance. Malleable boots protect the precision loading screws from dust and dirt.

FEATURES:

- 10,000lbf (44.5kN) capacity
- Built for Marshall Testing with fixed 2in (50.8mm) per minute loading rate
- Consistent loading rate maintained at ±1% by the 3/4hp DC motor and controller
- Easily changeable cross heads with self-centering adjusting nuts
- Flexible boots protect precision loading screws from debris

Included Items:

- MS-86 Marshall Stability Load Frame
- 6.75in (171.5mm) diameter lower platen

UNPACKING & SET UP:

1. After inspecting your MS-86 for shipping damage, remove it from the pallet.
2. Set cross bar to appropriate height.
3. Install component set
   3.1 Load Ring and Dial Indicator
   Or
   3.2 Digital readout box, load cell, LVT.
   The MSA-860 Digital Component Set displays asphalt load and flow measurements, transfers ASC11 file-formatted data, and must be connected to a user supplied PC.

MS-86 shown with MSA-860D, MS-26 and HMA-94

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OPERATING INSTRUCTIONS:

1. Please read and understand all safety and operating instructions for the Gilson MS-86 Marshall Load Frame before placing it into service.

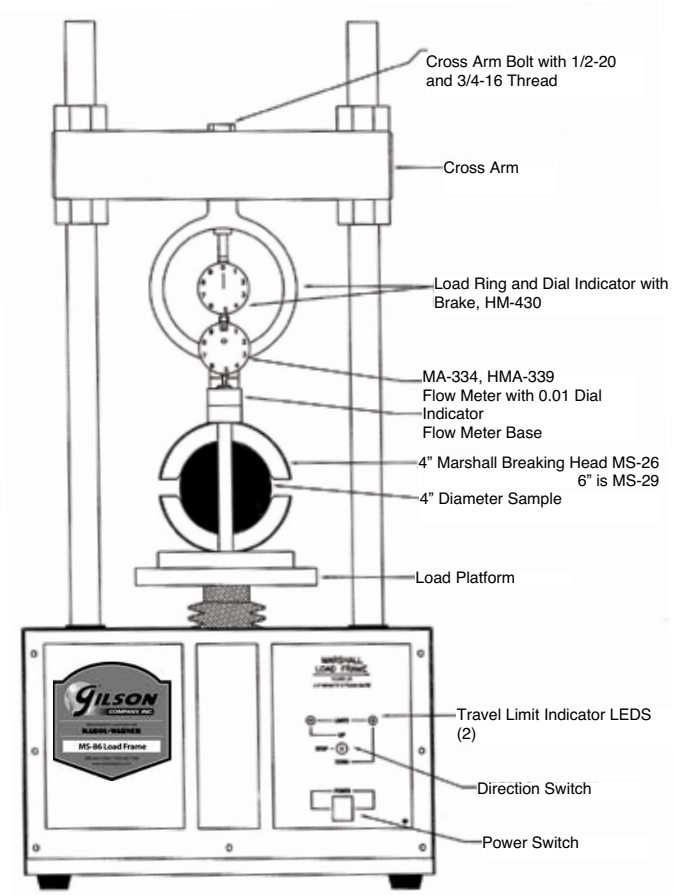
2. The controls are located on the front right side of the panel. The main power switch has an indicator light to show when power is on.

3. The three position toggle switch controls the platen direction of travel; up, off (in the center position), and down. The switch has a built-in hesitation to prevent damage to the motor when reversing direction.

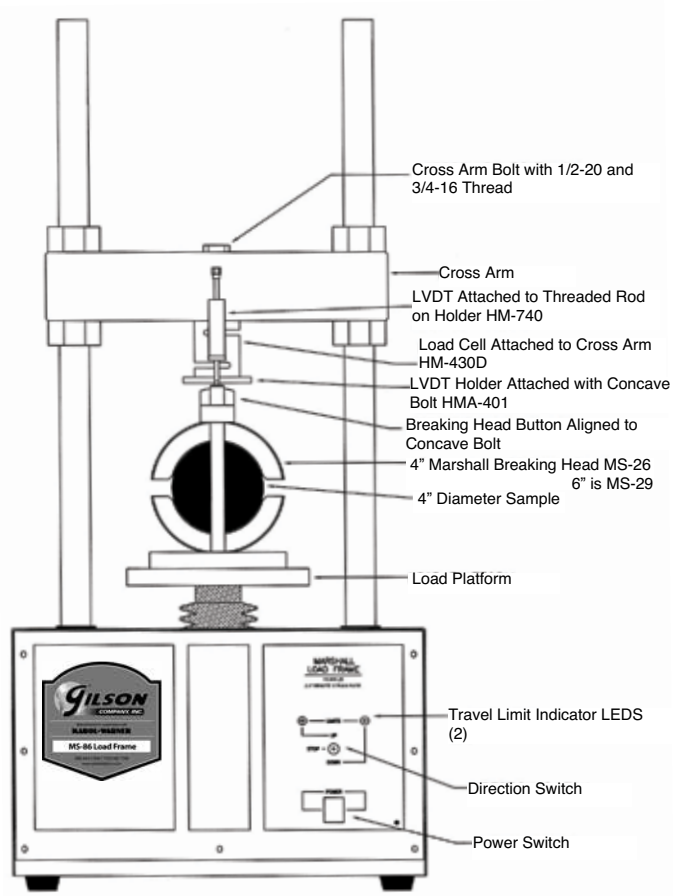
4. The red limit lights indicate the maximum travel limits of the platen. The platen can travel 3.0 inches (76.2 mm).

5. The machine does not stop automatically when the stability load is reached. You must use the toggle switch to stop the test.

6. Refer to ASTM D1559 or AASHTO T-245 for instructions on performing the Marshall test.



MS-86 Marshall Load Frame with Load Ring and Flow Meter



MS-86 Marshall Load Frame with Load Cell and LVDT