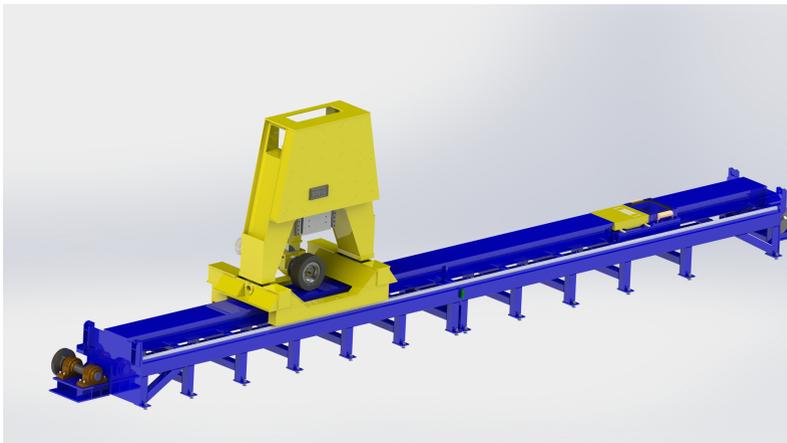




# Dynamic FootPrint Machine

TMSI's Dynamic FootPrint Machine (DFPM) is comprised of a driven tire load carriage, a track, and a sturdy machine base. The machine's overall size is up to 16.1m (length), 2.7m (width), and 4.2m (height). The tire is vertically loaded and can be subjected to drive/braking torques and various slip and camber angles. During the testing many of the tire's dynamic properties will be measured and analyzed through our hardware and software systems. As an added feature, the tire's tread motion relative to the road surface can be recorded and observed as the tire rolls over a glass plate.

With the capability of performing multiple tests with a single mounting, the DFPM significantly reduces testing costs, manpower, and capital equipment expenditures.



## High Quality Tire Measurements

- ◇◇ Force and Moment
  - Steady State
  - Transient
- ◇◇ Footprint Friction Energy
- ◇◇ Footprint Motion through Glass Plate
- ◇◇ Footprint Contact Pressure
- ◇◇ Load/Deflection Test
- ◇◇ Mu-Slip Test
- ◇◇ Low Speed Uniformity Test
- ◇◇ PRAT & CRAT Test

### Options:

- ◇◇ Pacejka's Magic Formula Implementation
- ◇◇ Plunger Test
- ◇◇ Bead Unseating Test

## Technical Specification

Model	1060	1040	840	625
Travel Length (m)	10	10	8	6
Width (mm)	600	600	600	600
Min/Max. O.D. (mm)	600/1400	600/1400	412/1200	395/1000
Max. Load (kN)	60	40	40	25
Lateral Footprint Displacement (mm)	± 30	± 30	± 30	± 30
Slip Angle, deg	± 30			
Camber Angle, deg	± 10 (600mm to 1400mm O.D.); -5 to 10 (400mm to 600mm O.D.)			
Max. Fx, kN	60	40	40	25
Max. Fy, kN	60	40	40	25
Max. Fz, kN	60	40	40	25
Max. My, Nm	±2440	±1634	±1634	±1000
Max. Mz, Nm	±4100	±2745	±2745	±1680

**Note:** Above specifications can be customized per customer request. Call our machine specialists for more information.

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**TMSI: YOUR CUSTOMIZED TIRE TEST EQUIPMENT PROVIDER !**