



Hybrid III 50th Percentile Male

HIII-50M (Model 78051-218-R99)



The Hybrid III 50th Percentile Male ATD was developed by General Motors Corporation under NHTSA contract beginning in 1973. This development program was undertaken to improve the impact response of the test dummy to more closely approximate that of humans, based upon the biomechanical data available.

Having nearly thirty years of test and evaluation history behind it, the Hybrid III 50th Percentile Male ATD can accommodate a wide range of instrumentation and transducers. Optional equipment is available from, literally, the head to the feet, making this device one of the most versatile test devices for compliance testing, research and development, or aerospace applications. It is the test device of choice for FMVSS 208 testing.

The Hybrid III 50th Percentile Male ATD is specified under Title 49, CFR Part 572, Subpart E.

The calibration tests performed prior to shipment include:

- Head Drop
- Neck Flexion and Extension
- Thorax Impact
- Knee Impact and Knee Slider
- Hip Joint Range of Motion
- Foot Compression

Standard equipment included in the base price of this device:

- Chest Deflection Potentiometer
- Knee Slider Potentiometers
- Accelerometer mounts for head, chest and pelvis*
- Structural replacements for all load cells.

*User must specify the accelerometer manufacturer and type at the time of order placement

WEIGHTS:	Pounds (lbs.)	Kilograms
Head	10.0	4.54
Neck	3.4	1.54
Upper Torso	37.9	17.19
Lower Torso	50.8	23.04
Upper Arm	4.4	2.00
Lower Arm	3.75	1.70
Hand	1.25	0.57
Upper Leg	13.2	5.99
Lower Leg & Foot	12.0	5.44
Total Weight	171.3	77.70

DIMENSIONS:	Inches	Centimeters
Head Circumference	22.5	57.15
Head Breadth	6.1	15.49
Head Depth	7.7	19.56
Buttock to Knee Pivot	23.3	59.2
Knee Pivot Height	19.4	49.3
Hip Pivot From Backline	5.40	13.7
Hip Pivot Height	3.40	8.6
Sitting Height	34.8	88.4

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Creating the New Standard in ATDs

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