



Hybrid II 50th Percentile Male

HII-50M (Model SA-150-M002)



The Hybrid II 50th Percentile Adult Male Test Dummy was developed by General Motors in 1972 to assess lap/shoulder belt systems. The Hybrid II was the first dummy designed to achieve acceptable repeatability and good durability.

The Hybrid II mimics the size, shape, and limb ranges of motion of the 50th percentile adult male. In 1973 it became the first dummy to be specified in the Federal Motor Vehicle Safety Standard (FMVSS) 208 for compliance testing of vehicles equipped with passive restraints.

The Hybrid II 50th Percentile Adult Male is constructed of an internal superstructure (bones) made from a variety of materials, including steel, aluminum, brass, delrin, and a number of complex castings. The outer covering is made of an engineered vinyl or a combination of vinyl and foam materials. Denton ATD, Inc. manufactures the Hybrid II in accordance with the requirements of the official NHTSA approved drawing package.

The Hybrid II 50th Percentile Male ATD is specified under Title 49 CFR 572, Subpart B

The calibration tests performed prior to shipment include:

- Head Drop
- Neck Flexion
- Thorax Impact
- Abdominal Compression
- Lumbar Flexion
- Knee Impact

Standard equipment included in the base price of this device:

- Accelerometer mounts for head and chest *
- 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	11.2	5.1
Upper Torso	41.5	18.8
Lower Torso	35.9	16.3
Upper Arm	4.8	2.2
Lower Arm & Hand	4.8	2.2
Upper Leg	18.4	8.3
Lower Leg & Foot	9.7	4.4
Total Weight	164.0	74.4

DIMENSIONS:	Inches	Centimeters
Head Circumference	22.5	57.2
Head Width	6.1	15.5
Head Length	7.7	19.6
H-Point from Seat	3.9	9.9
H-Point from Seatback	4.8	12.2
Buttock to Knee Pivot	20.4	51.8
Knee Pivot Height	19.6	49.8
Sitting Height	35.7	90.7

Denton ATD, Inc. 10317 U.S. Highway 250 North, Milan, Ohio 44846-9570
 Tel (419) 625-5200 * Fax (419) 625-5335 * email: info@dentonatd.com * www.dentonatd.com

Creating the New Standard in ATDs

Revision: 06/19/06