



Part 572 50th Male

HYBRID

Creating the New Standard in ATD's

Model Number: 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 manufactures the Hybrid II in accordance with the requirements of the official NHTSA approved drawing package and the specified requirements of 49 Code of Federal Regulations, Part 572, Subpart B.

This ATD can be instrumented with Femur load cells and accelerometers in the head, chest, and pelvis.

Calibration tests performed prior to shipment include:

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

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 w/hand	4.8	2.2
Upper Leg	18.4	8.3
Lower Leg w/foot	9.7	4.4
Total Weight	164	74.4

DIMENSIONS:	Inches	Centimeters
Chest Circumference	37.4	95.0
Waist Circumference	32	81.3
Hip Width	14.2	36.0
Shoulder to Shoulder	18.1	46.0
Shoulder Pivot Height	22.1	56.1
Chest Depth	9.3	23.6
Knee Pivot Height	19.6	49.8
Sitting Height	35.7	90.7