



# Hybrid III 3-Year-Old Child

HIII-3C (Model 210-0000)



The Hybrid III 3-Year-Old Child was originally designed in 1992 as a collaboration between the SAE Biomechanics Committee and the National Highway Transport Safety Administration (NHTSA). This ATD was designed to allow frontal loading in both sitting and standing postures and was upgraded in 1997 for the evaluation of “Out of Position” (OOP) airbag aggressiveness testing. Size and weight specifications for the Hybrid III 3-Year-Old are based on child anthropometry studies.

The head is constructed of a fiberglass skull with a molded vinyl head and cap skin and a segmented neck made of molded rubber for human-like flexion and extension. The torso is composed of a steel thoracic spine weldment with three damped, spring steel rib assemblies and a chest potentiometer. The Torso flesh is molded urethane with nylon netting reinforcement. The pelvis assembly consists of an aluminum weldment with a flexible molded rubber spine and a mounting configuration for a six-channel load cell between the lumbar spine and pelvis. The limbs are steel and aluminum bones molded into urethane.

*The Hybrid III 3-Year-Old Child ATD is specified under Title 49 CFR Part 572, Subpart P*

### The calibration tests performed prior to shipment include:

- Head Drop
- Neck Flexion and Extension
- Thorax Impact
- Torso Flexion

### Standard equipment included in the base price of this device:

- Chest Deflection Potentiometer
- Accelerometer mounts for head, chest , sternum, thoracic spine 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	DIMENSIONS:	Inches	Centimeters
Head	6.00	2.72	Head Circumference	20.00	50.80
Neck	1.74	0.79	Head Breadth	5.35	13.59
Upper Torso w/ Jacket	15.43	7.00	Head Depth	6.89	17.50
Upper Arm	0.97	0.44	Buttock to Knee Length	11.51	29.24
Lower Arm w/ Hand	1.01	0.46	Knee Pivot Height	9.81	24.92
Upper Leg	2.21	1.00	Hip Pivot From Backline	2.44	6.20
Lower Leg	1.34	0.61	Hip Pivot Height	1.55	3.94
Foot	0.68	0.31	<b>Sitting Height</b>	<b>21.50</b>	<b>54.61</b>
<b>Total Weight</b>	<b>35.65</b>	<b>16.17</b>			

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*Creating the New Standard in ATDs*

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