

Q10 ATD Suit with Grid Markings

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> Humanetics offers a Q10 dummy suit with grid markings that allow for comparisons between simulations and physical tests in order to monitor belt and suit interaction in more detail.

Q10 Grid Suit

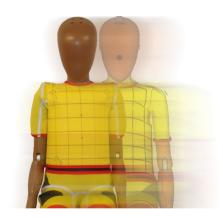
To facilitate comparisons between FE model simulations and Q dummy hardware tests a special suit with grid markings was developed for the Q10 dummy. The grid is applied to the Cordura top layer and will not affect the dummy performance. An identical grid pattern is offered on the FE model allowing for greater comparison of belt slip during both simulations and physical tests.

In FE modeling the interference between the suit and the belt is quite important. Normally belt position is difficult to validate as there is no direct measurement means of where the belt sits on the dummy. The grid pattern will now allow for these measurements.

Apart from the grid, the suit has additional modifications in the horizontal zipper (a small band of red tape is used instead of a wider band of black tape as on the original suit), red tape to the neck, arm, and femur ends instead of white



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tape in these regions. The changes in the zipper area avoid interference with the zipper's black band and the belt. These additional changes also give a better view on how the suit moves with respect to the dummy.

Highlights

- 50mm grid on chest with circular markers
- FE model with identical suit available in future releases for correlations
- Red tape on neck, sleeves, abdomen zipper and shorts
- Abdomen zipper covered more extensively

*Note: The grid suit is recommended for development work on child restraint systems. It is not prescribed nor used in regulatory or consumer rating programs. It is not included with the Q10 dummy and should be ordered as a separate item under part number 010-8000-GS.

*The Q10 V1.5 FE model incorporating the grid markings will be available in the Fourth quarter of 2015. Customers who want to use the grid pattern in an earlier stage can contact Humanetics for an individual grid file.

In view of the success of the Q10 suit with grid, Humanetics also has a Q6 version available. Other Q dummies may follow in the future.

Suit Options	
(010-8000)	Standard Q10 Suit included w/ATD
010-8000-GS	Grid Marked Q10 Suit (Optional)
033-8000-GS	Grid Marked Q6 Suit (Optional)

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