

Measuring System Application

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INDUSTRY	PRODUCT	COUNTRY	PROCESS
Mechanical Handling	GV3 - V Linear Guide System	France	Measuring

Task

This French special purpose machine builder needed to measure the flatness of 8m long steel rails in a number of positions along their length. To achieve this measuring sensors were positioned and adjusted X, Z and Y directions. The longitudinal X beam was 3m long and the steel rail (not in picture) was indexed into position so effectively 8 readings were taken over the 8m length. The key requirement for the sensors was rigidity, ease of adjustment and, where the X axis is concerned, inherently good straightness.

Solution

For the X axis GV3 single edge slides mounted to the 160mm section of a strong MCS profile 80mm x 160mm x 3.2 m long. This provided low friction guidance with good rigidity for the 4 carriages carrying the Z, Y guidance systems. PSD80 units x 700mm long with screw adjustment, through a hand wheel, were used to move the sensors in the Z,Y directions. Once set to a known datum position the flatness reading of the rail was taken.

Scope of Supply

MCS profile 1 x 0-132-80160 x 3.2m profile with fitted NMEP3 guides x 3.0m. x 2. The 4 Special carriages were supplied by the customer and were fitted with SJ34CDR bearings to provide the best rigidity to cater for the offset load of the Z, Y guidance. 4 x PSD80 x 700mm long screw driven units.

Result

An easy to use manually operated fixture offering good rigidity with simple adjustment. This application demonstrates the versatility of the HepcoMotion product range and how three standard products can be put together to provide a highly efficient cost effective solution.

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