

# Parts Loading and Unloading for CNC Machines

<https://www.hepcotion.com/applications/parts-loading-and-unloading-for-cnc-machines/>

INDUSTRY	PRODUCT	PROCESS
Manufacturing	HDS2 Heavy Duty Linear Guide	Pick and Place

## The Application

Overhead XZ gantries need to perform many movements in the course of a day, reacting to any machine that requires parts to be placed or collected, reliability therefore has to be taken for granted.

Gantries can be any length within reason, but typically 20 metres is a common requirement. Using a gantry to feed in-line CNC machines often requires one or more Z axes, travelling 1.5 to 2.0 metres into the machine to pick or place components.

## Product Solution

The HDS2 range of gantry systems satisfies a wide range of load and speed requirements. An easy to install X axis solution (configurable to any length) can be provided by combining the standard range of aluminium beam sections with Hepco's V guide linear bearings.

Steel beams are available requiring minimal support where long sections are needed. Common carriages incorporate both X and Z axes with lifting capacities up to 500 kg if necessary. Both beam axes are supplied with an integral rack cut V guide enabling simple alignment of motor and gearbox arrangements from the carriage.

The compact beam used for the Z axis will maintain accuracy of position even when reaching 2 metres into the machine. For applications where roof space is limited a telescopic Z-axes solution is also available. Systems are supplied with cable chains, steel supports, fitted gearboxes and an automatic lubrication facility.

For complete machine integration including servo drives, control and end of arm tooling our automation division HepcoAutomation will be pleased to help.

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