

Workholding Systems **for use on** **CNC Grinding** **Machines**

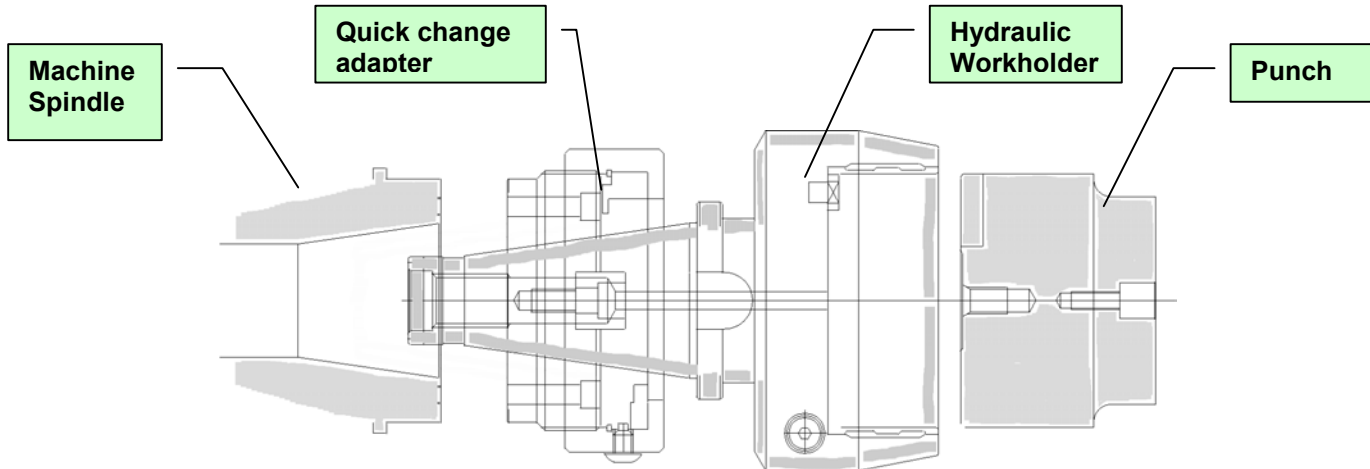
Application:

GRINDING FRONT FORM ON PRESS PUNCHES

Minimal load and unload time
Quick component change over
3 micron run out at nose on hydraulics



HYDRAULIC Quick Change System



OPERATION

The punch blanks are placed into the hydraulic workholder. Radial positioning is built in. The punch is then clamped into position.

The complete fixture and punch assembly is then loaded into the quick change adapter. A quarter turn of the lock ring clamps the assembly into position.

Component load and unload in less than 30 seconds.

SPECIFICATION

Hydraulic chucks available in bore sizes to suit a large range of punch blanks . Typical 16mm to 114mm.

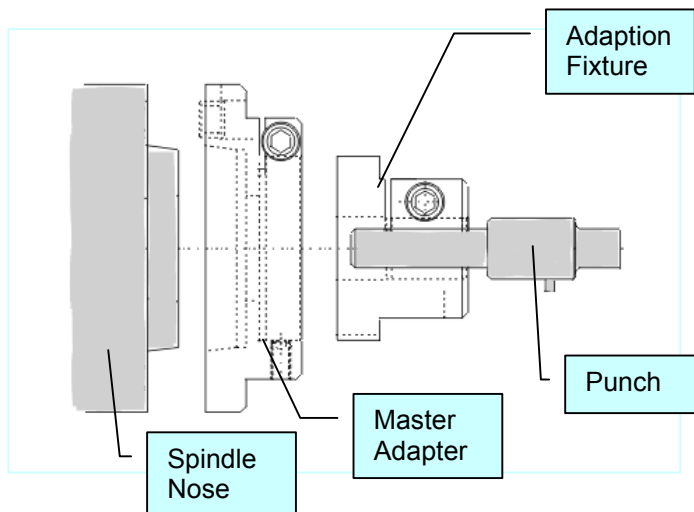
By way of features on the punch blank, precision orientation of the punch blank to machine spindle datum, can be accurately achieved.

System is sealed against the ingress of dirt or grinding dust.

Maximum run out 3 microns at nose. Radial location within 10 microns.

High gripping torque to accommodate most grinding situations

MECHANICAL Quick Change System



SPECIFICATION

Adaption fixtures available in bore sizes to suit a large range of punch blanks . Typical 16mm to 114mm.

By way of pins or slots on the punch blank precision orientation of the punch blank to machine spindle datum can be accurately achieved.

Excellent run out and radial location

High gripping torque to accommodate most grinding situations.

OPERATION

The punch blanks are placed into the adaption fixture, located radially, then clamped into position.

The complete adaption fixture and punch assembly is then loaded into the master adapter then locked into position with a simple mechanism.