



## Special Purpose Machinery for the *Minting Industry*

HME K-Series  
*Coin and Medal Embossing Presses*

**HME**  
Minting

# Our minting heritage

With over 250 machines installed worldwide, HME has offered unrivalled expertise in the supply of Minting Machinery. Today our presses produce precision engineered coins for leading Mints throughout the world.



## HME K-SERIES

The HME K-Series offers a market leading solution to a wide variety of coining, embossing, forming and sizing operations. The K-series Knuckle Joint Under-Driven Coining Machines are available in 180, 360 and 600 tonnes capacity, and are able to emboss a range of exotic materials, including Silver, Gold and Platinum.

The powerful coining action of the HME knuckle action drive combined with a choice of manual or fully automated feed systems makes these machines ideally suited for the production of medals and proof coins.

HME K-Series Minting machines are designed and built for quality, value and reliability. Compact frame construction minimises deflection through equal distribution of load, whilst pre-loaded linear bearings provide slide guidance promoting accurate die alignment. Pneumatic slide balancing, motorised top tool wedge adjustment and a multi-strike facility ensure a high degree of proof coin detail.

## SERVICE AND SUPPORT

HME's design and manufacturing facilities enable the Company to offer a total service from initial concept through to site installation and commissioning. All major research and development work for the HME K-series range is conducted in-house and is supported by a well equipped Computer Aided Design Department covering mechanical, electrical, hydraulic and software engineering disciplines.

**Main (left):** HME K360 with acoustic enclosure.

**Above (top):** HME minting presses utilise a triple cartridge coin blank feed system to ensure optimum operation at continuous speeds.

**Above (Bottom Left):** Front view of the HME fast Hydraulic Tool Clamping system.

**Above (bottom right):** Press tool area with precision guided pillar die set.

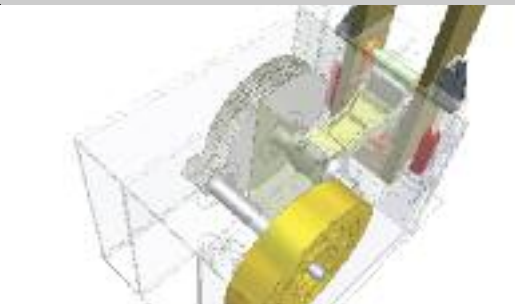
## SPECIFICATION

- Maximum pressure (tonnes)
- Maximum Stroke (mm)
- Top Tool Adjustment (mm)
- Speed (strokes per minute)
- Main Motor (KW)
- Net Weight (kg)



# Key Design Features

HME takes particular pride in its ability to design and manufacture bespoke machinery and complete turnkey solutions. 'Special' minting presses can be manufactured to custom specification, and optional extras added where required.



**Main (right):** Pendant mounted press control station provides ease of operation.

**Above (top left):** Typical touch screen HMI display.

**Above (top right):** Bespoke HME automated indexing blank feeding system.

**Above (bottom):** Proven design of the HME Minting Link Drive Mechanism provides a short stroke and maintains positive control of the press slide over the entire cycle.

## KEY DESIGN FEATURES OF THE HME K-SERIES INCLUDE:

### KINEMATICS OPTIMISATION

Computer aided kinematics optimisation ensures that the modified harmonics of the press slide provide sufficient time for the blank material to flow, thus ensuring high quality precision coins are struck every time.

### CONTROL TECHNOLOGY

Siemens touch screen Human Machine Interface (HMI), provides production and process information on all aspects of the press. The PLC control also includes a modem to enable on-line support.

### TOOL HOLDER (COIN PRESS TOOLING)

Fast hydraulic tool clamping is offered as part of the HME hydro-mechanical fail-safe facility. Both top and bottom coining dies and collar are provided with quick release clamping systems to ensure minimum press downtime during tool changeover. The K-series also incorporates a programmable closed die multiple strike capability to produce high definition mirror finished coins.

### MAIN DRIVE

The main drive is controlled via an AC Inverter providing infinitely variable speed settings, driving a balanced flywheel by means of a multi-groove belt. The flywheel rotates on anti-friction roller bearings and is supported on a quill rigidly attached to the press frame. A 'Crawl' mode is available for tool setting purposes.

### AUTOMATED BLANK LOADING SYSTEM

HME minting presses utilise a triple cartridge coin blank feed system to ensure optimum operation at continuous speeds.

### ISOLATING MOUNTS

Isolating mounts fitted to the press body reduce the vibration transferred into the foundations. This enables the machine to be installed on any floor providing it has the required load carrying capacity.

K180	K360	K600
180	360	600
50	60	100
7	7	7
65	40-80	35
15	22	30
6000	10000	12200





Aerial photograph of the Company's 8 Acre Wakefield site.  
Left: HME K360 undergoing final inspection prior to dispatch.



## KEY DESIGN FEATURES (CONT):

### BOTTOM EJECTOR

Fixed stroke hydraulic ejector with manual die height adjustment is fitted to suit different blank sizes.

### LOW INERTIA CLUTCH AND BRAKE

High efficiency low inertia combined friction clutch & brake unit achieves immediate motion arrest.

### LUBRICATION

Press lubrication is provided by a fully automatic re-circulating oil system complete with cooling circuit.

### COINING FORCE ADJUSTMENT

A motorised wedge adjustment mechanism is incorporated into the upper tool holder. This adjustment is pushbutton controlled and can be operated whilst the press is in operation. Adjustment positions can be stored in the press control memory and recalled for automatic positioning of the upper coining tool.

### LOAD MEASUREMENT

The HME K-Series can be supplied complete with a coining load measurement system. The system measures coining load at each press stroke, and can be used in conjunction with the coining force adjustment to apply the optimum coining pressure to each coin blank.

### ACOUSTIC ENCLOSURE

HME acoustic enclosures are designed to reduce noise levels to below 80 dBA. Access doors and force ventilation are provided. All panels are removable to aid routine maintenance

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**RHODES**  
HME Minting is a member  
of Group Rhodes