

MEB

tmdpress®



Superior by
Mechanical Design.

MEB

intelligent press technology

»MEB tmdpress – the unique drive concept

■ Technical bases:

❖ Toggle Motion Drive – the ideal solution for coining, bending and fine blanking of complex stamped parts

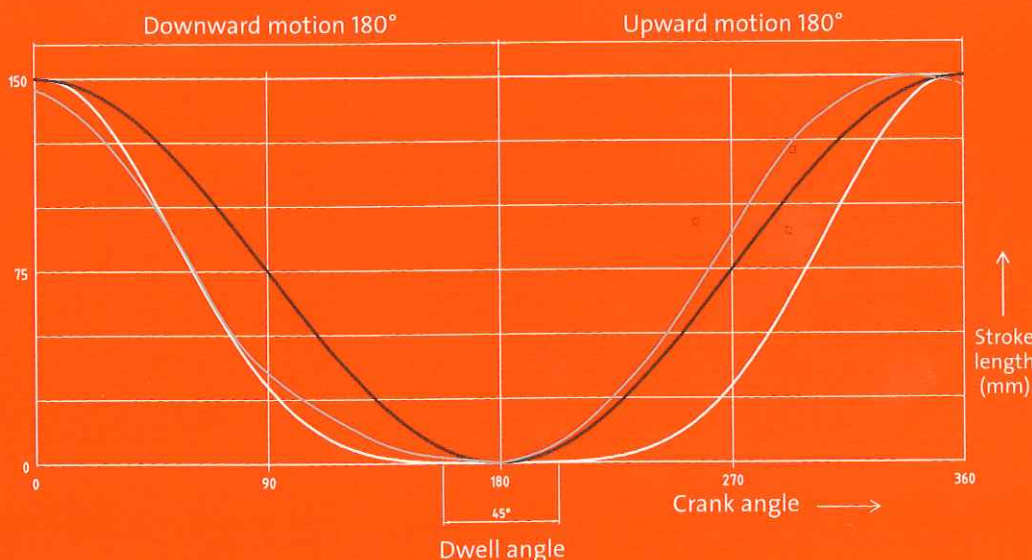
The **tmdpress** distinguishes itself by the very rigid and torsion resistant press body. This outstanding feature is achieved by the superior mechanical design. The long version of the tmdpress is made of a solid two-piece press body in combination with very short tie-rods. The shorter version is a welded straight side frame with a solid one piece cast steel bed. The resulting reduction in dynamic deformation allows designing stamping dies with a much smaller tolerance between punch and lower die inserts. This leads to cutting surfaces in fine blanking quality, enhanced flatness of the parts as well as accurate bending and forming of the parts. The wide tool opening of the **tmdpress** allows the integration of many stamping and fine cold forming stations into the progressive die which leads to a very stable part quality.

The **tmdpress** link motion drive creates a unique ram motion. It moves quick from top dead centre (TDC) to about 120 degrees, slows down to make soft contact with the material and has an extremely long dwell time around bottom dead centre (BDC) of around 45°. This movement results in a higher process safety and increased tool life cycles for a higher productivity.

The distinctive ram motion produces a constant flow of the material and hence improves bending, forming and coining accuracy as well as overall part quality. Furthermore, slow plastic deformation influences the structure and properties of the material positively which improves strength of the stamped product. The constant work energy around BDC guarantees good quality even when blanking or forming tough material.



The outstanding rigidity of the tmdpress results in a very slow dynamic deformation of the ram and the machine frame. This assures consistent part production in a high quality and efficiency.



- Conventional link motion press
- Conventional crank press
- tmdpress

The distinctive ram motion of the tmdpress with a double link mechanism creates a 45° dwell time around BDC resulting in a consistent and high compression force. These features lead to a reduced spring back effect of the material and an increased strength of the stamped part.

ot for a precise fine cold forming process.«

Technologies/ Areas of application:

--- Userfriendly machine control

The clearly arranged operating panel facilitates the operation of the press and helps the user to set-up and run a new die within a short time. Strong emphasis during the development stage was put on the reliability and therefore availability of the press. All components are selected in order to withstand the harsh environment of the stamping shop. The standard machine is delivered with basic control and manual setting of the tool parameters. Process control units like press force or tool monitoring can be linked to the machine as external devices.

For a higher degree of automation, the option of using an industrial PC with touch screen is also possible. This solution allows saving of process data and integration of peripheral units through common interface solutions. Even complex tool monitoring functions and other control tasks can be displayed on the press screen. The retooling of existing die sets is also simplified due to the integrated memory function of the process parameters.

--- Industries

The original target group of the **tmdpress** was the computer industry. The first machines were designed and built for the production of parts used in hard disc drives. Customers were impressed by the results achieved with the **tmdpress** technology leading to a successful introduction into the automotive industry and hinge systems for industry and furniture. Today the machines are used in various industries to obtain substantial cost reductions without having to compromise on precision and process safety.

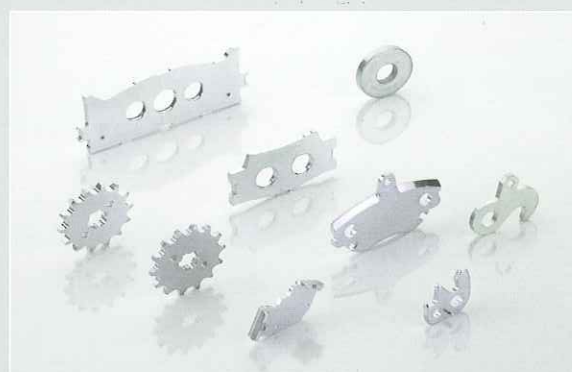


The optional PC control: clearly arranged and user friendly.

--- Versatile applications



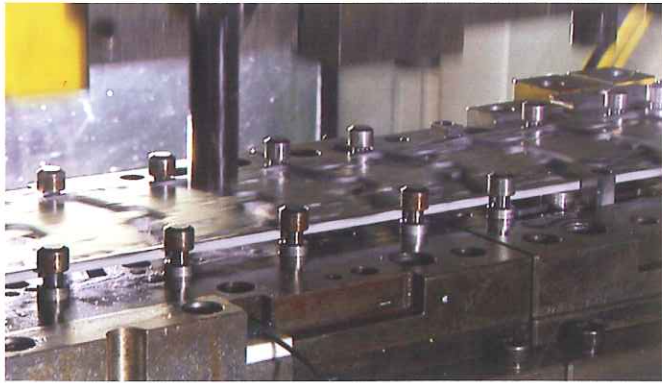
Integrated processes in progressive dies help to reduce manufacturing costs. This technology also allows converting non-pressed products into metal stamping products.



Flat stamping applications with cutting surfaces in fine blanking as well as complex coining and bending operations can be stamped on the **tmdpress** with an outstanding process quality.

→ How your business can profit from **MEB tmdpress**:

- Improved quality of the products with smooth shear surfaces and flawless geometry
- Increased tool life cycle
- Better material structure and improved overall strength of the product
- Enhanced productivity and higher efficiency
- Cost saving for secondary process on stamped part



The precise and rigid press design of the **tmdpress** increases the productivity and efficiency as well as it prolongs the tool life cycle of progressive dies.

» The tmdpress is ideal for the coining, shaving and bending process of tough and thick material. Experience the benefits with cutting surfaces in fine blanking quality, enhanced flatness of stamped parts as well as accurate bending and forming. «



intelligent **press technology**

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»Technik soll nicht
nur funktionieren.
Sie muß auch in
die Welt passen.«

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