



TOX®-PowerKurver

- The versatile TOX®-Cam-Presses

The new generation!



TOX®-PowerKurve:

The new generation of cam generated press forces.

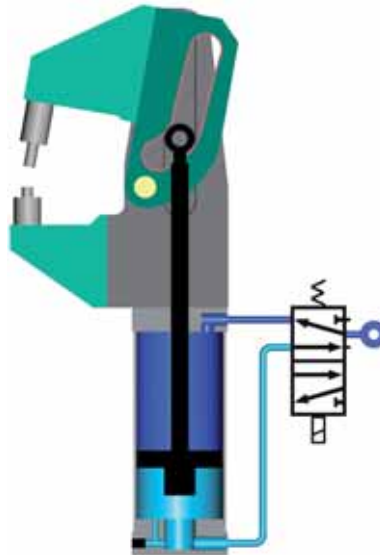
Also available with electric drive!

Function:

The piston of the TOX®-PowerKurve, when pressurized with air, pushes the high capacity rollers against the cam surface in the cam lever. The in-house developed and patented cam shape produces a constant force over the adjustable stroke.

Advantages:

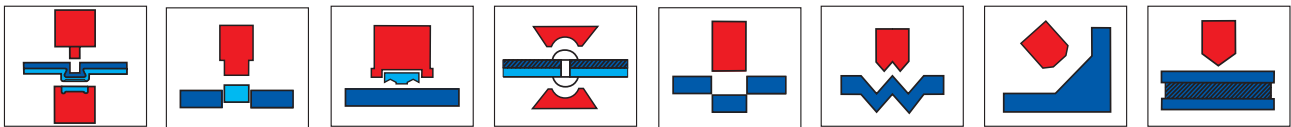
- Part accessibility
- Top loading
- Cost effective when compared against a C-frame or machine unit with indexing slide
- Higher force compared to toggle lever
- Robust, straight pneumatic cylinder drive. (Also available with electric drive)
- **Clamping and Clinching at the same time**



The TOX®-PowerKurve offers the following features:

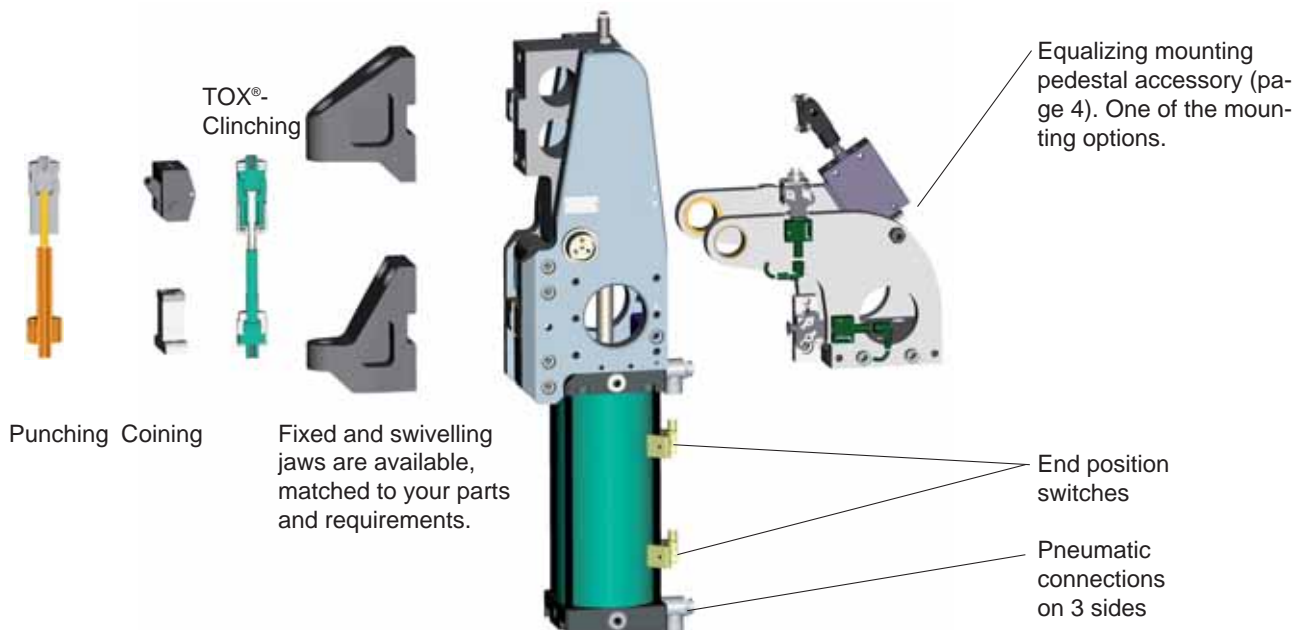
- Constant Force-Travel characteristic over the working stroke
- Fast approach stroke
- Smooth power stroke initiation
- High press forces with low air pressure
- Low air consumption
- High stroke frequency
- Compact design
- Adjustment possibility of longitudinal and transverse axes

For applications such as clamping, clinching, cutting, coining or bending, one needs repeatable forces which can also be applied in hard to reach places.



Modular system:

Our modular system gives you the freedom to match the TOX®-PowerKurve to your specific requirements. Custom solutions are also available. We solve your application and quality assurance requirements with clear defined interfaces.



TOX®-PowerKurve with pneumatic cylinder drive

Type: KK 90

The TOX®-PowerKurve consists of the base unit, the jaws, the tools and accessories. All these components form the complete unit. The jaws, tools and accessories are matched to your specific requirements. Following are the technical details of the base unit.

Technical data:

The press force is dependent on the throat depth and opening between the tools. Refer to the diagram shown on this page. The KK 90 generates 60 kN at 100 mm throat depth and 8 mm tool opening. At the end of the stroke it provides up to 90 kN over a travel distance of 3.5 mm.

Note: in punching operations only 50% of the nominal force of the TOX®-PowerKurve may be utilised. The cylinder features an adjustable end of stroke cushion. Minimum air pressure: 2 bar. Maximum air pressure: 6 bar. Weight: approx. 53 kg (without jaws).

Opening angle:

There are two main positions: 90° open and 0° closed. The working range of the TOX®-PowerKurve lies in between these values. The distance between the tools during the approach stroke is designated as the tool opening. For various reasons, it might be necessary to restrict the opening angle. The TOX®-PowerKurve can be ordered with standard opening angles of 30°/45°/60°/75°. Please specify the required opening angle as shown in the ordering example below.

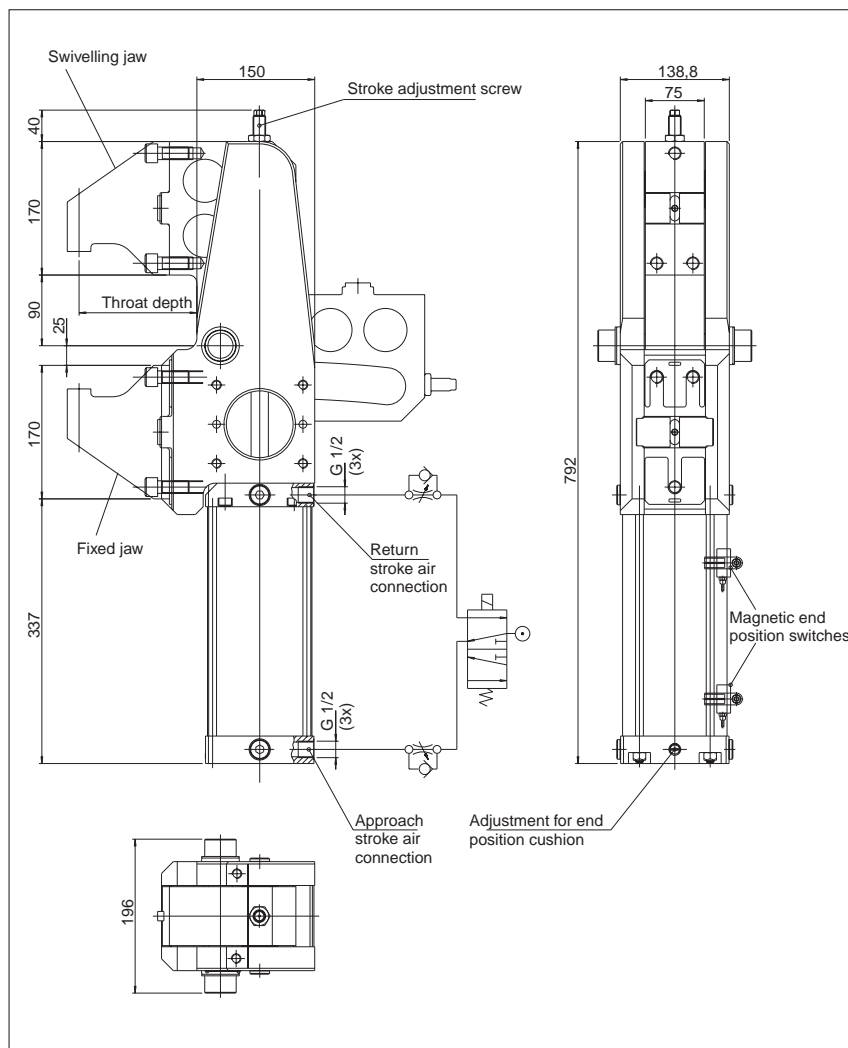
Scope of delivery:

The TOX®-PowerKurve assembled according to order number. The jaws are not included with the base unit and need to be ordered separately.

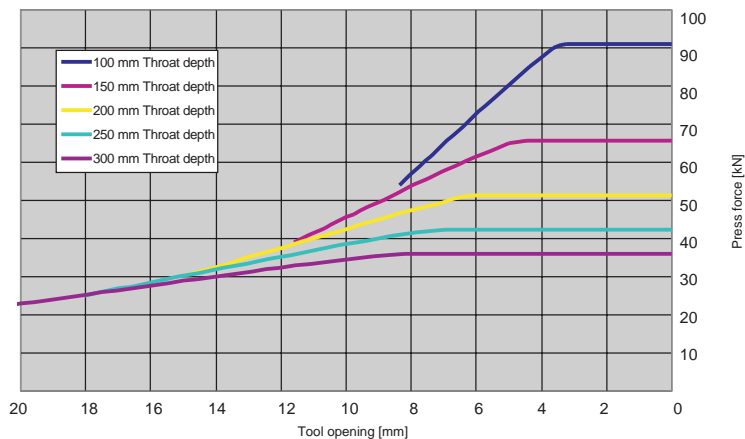
Ordering example:

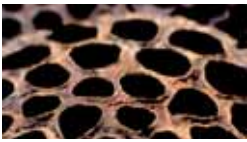
KK 090.00.90

└─ Opening angle
 └─ 00 = standard
 └─ Press force (kN)
 └─ TOX®-PowerKurve



Press force dependent on tool opening and throat depth
 (at 6 bar air pressure)





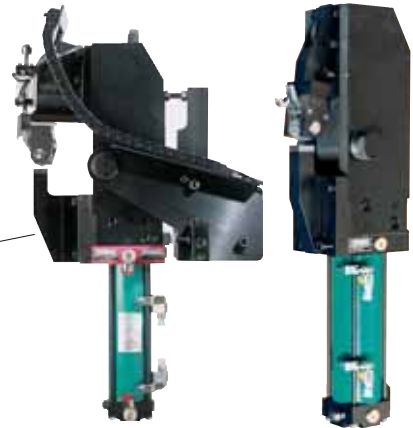
TOX®-Coining TOX®-Punching

TOX®-PowerKurver Type: KK 20

The quick approach stroke, the force buildup during the power stroke and the optimum part loading accessibility are some of the key features of the TOX®-PowerKurver KK 20 with a press force capacity up to 20 kN.

Ordering Example:

KK 020.090
 — Opening angle
 — Press force (kN)
 — TOX®-PowerKurver



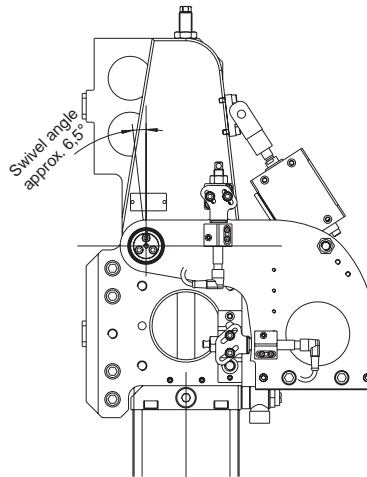
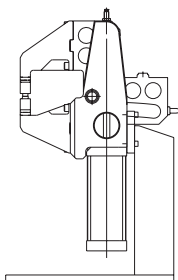
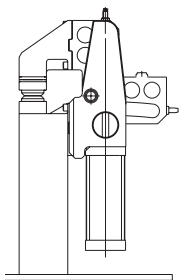
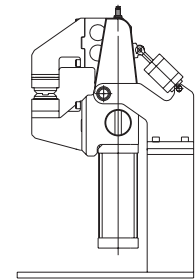
Example:
 KK with automatically
 advancing marking tool

See data sheet 70.02
 for detailed information

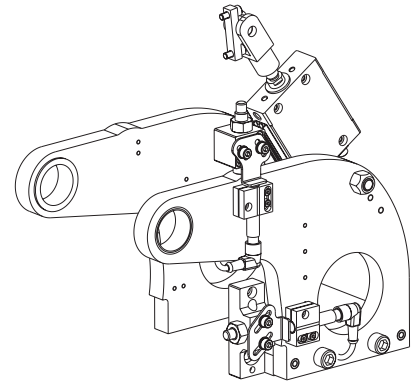
Accessories

Equalizing mounting pedestal KKZ 06 for KK 90

The TOX®-PowerKurver can be mounted in various ways. One of the common ways is with the TOX® swivel equalizing pedestal.



The tool is pushed against the workpiece by the swivel pedestal. Position and part tolerances are equalized, which proves advantageous for the process quality of clinching, embossing and marking operations.



Scope of delivery:

Swivel pedestal complete with bushings and dampening elements, without mounting screws.

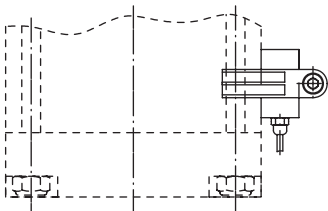
Order No. KKZ 06

A simplified version for the KK 20 TOX®-PowerKurver is available.

Accessories: End position switch

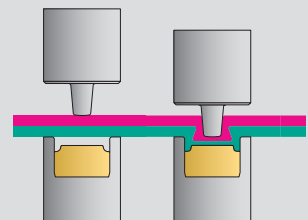
Contactless 24 V. The upper end position switch can be used as a tool position sensor within the power stroke, as due to the large mechanical intensification ratio a measuring accuracy of for example $\pm 1/100$ mm at a jaw length of 100 mm is achieved.

Order No. KKZ 03.000



TOX®-Controls and TOX®-Monitoring

The TOX® Process Monitoring CEP 400 was specifically designed for the TOX®-Joining process. It helps to check, monitor and control all related quality parameters.



Subject to technical alterations.

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