

TC

DOUBLE FOLDER

LARGE, SOLID AND POWERFUL



TC DOUBLE FOLDER Internally and among experts, the TC is often affectionately and respectfully referred to as "Big Mama" – the given nickname probably due to its solid construction. The TC is made exclusively of individual high-quality parts, 11,564 to be precise, which are assembled by hand. The **VFD DESIGN PRINCIPLE** used in the TC is unparalleled. The machine stands are formed in the shape of "rigid C-frames" and combined with a vertical clamping tool infeed, turned into a combination of a long folder and a press. This results in a great amount of clamping and pressure capacity - which is a prerequisite for the precise processing of thick sheets. Its drive unit is no less impressive. The high-performance aggregate is the heart of the TC and uses two high-power hydraulic pumps and the most up-to-date double valve block technology for the direct supply of power. It goes without saying that "Big Mama" is also equipped with the latest generation of **DFT DRIVE CONCEPT**. In addition, the unique **CONTROL SHAFT TECHNOLOGY** guarantees a uniform transmission of the tremendous power to the machine. The TC 300 combines all of the attributes which are crucial factors to success nowadays in industrial sheet metal processing.





AUTOM. BACK GAUGE SPRING-LOADED FINGERS

The fully-automatic pneumatic spring-loaded fingers position sheet metal parts up to a minimum dimension of as little as 5 mm (0.19"). A maximum of 1150 mm (45.27") can be gauged in parallel. If the lowest possible gripper dimension of 35 mm (1.37") is not reached, the spring-loaded fingers are automatically programmed by the controller.



AUTOMATIC GRIPPER UNIT

The gripper system, equipped with a HARDOX clamp finger, positions the sheet metal parts fully automatically over a measuring range of 35 mm - 1250 mm (1.37" - 49.21"). If the sheet needs a gripper offset during the course of folding, it is done automatically. A sheet, already folded, can be completed in full automatic mode if its height does not exceed 30 mm (1.18").



INGENIOUS TOOL GEOMETRY

The clever tool geometry provides high-precision folding results - even with the smallest folds of as little as 15 mm x 15 mm (0.59" x 0.59"). The manufacturing of such profiles is achieved with a tool arrangement which offers a folding space measuring 275°.



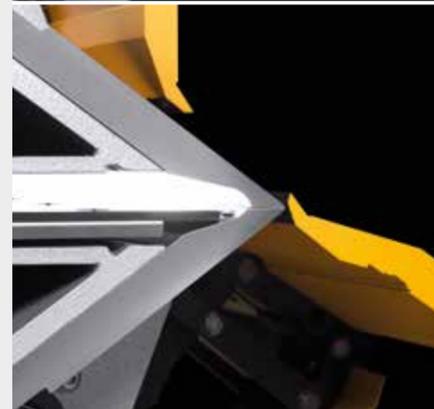
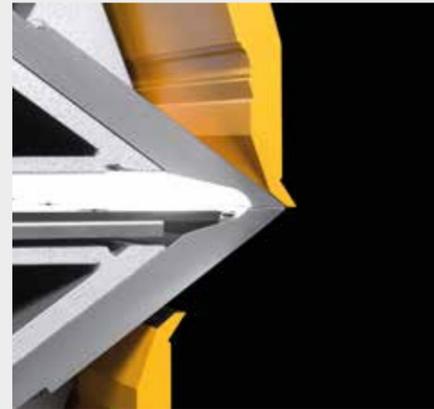
INDIVIDUAL FOLDING BEAM CROWNING

The folding beam crowning settings allow the folding tool to be adjusted individually if necessary. A crowning system is required in the manufacturing of highly precise profiles in situations where the effects of stress release in the material or overbent of the profile ends need to be compensated. The settings can be adjusted individually for each of the stands.



VFD (VERTICAL FORCE DRIVE)

The exclusive VFD design principle by Thalmann provides the basis for a stable performance in industrial profile manufacturing. It ensures that folded parts are precisely positioned during processing.



CLEVERLY DEvised TOOL GEOMETRY

The cleverly devised tool geometry offers additional folding space - a significant advantage in the manufacturing of industrial folded parts.



HIGH-PERFORMANCE HYDRAULIC UNIT

The high-performance double pump hydraulics generate the driving force needed to operate the heavy-weight steel colossus. The most up-to-date double valve block technology is responsible for the direct supply of power. The standard oil cooler ensures constant operation, equally guaranteed when maximum load is applied.



STAINLESS STEEL SUPPORTING TABLE

This sheet supporting table equipped with ball casters guarantees the energy-saving handling of heavy folded parts as well. To achieve a consistent performance and service life in the long term, this sheet support is manufactured solely of stainless steel.



LOADING AID WITH GLIDING UNITS

The bottom folding beam can be used as a loading aid for the easier material feed and is equipped with gliding units which allow the sheet metal to be introduced more easily.



CHARACTERISTICS

- » VFD design principle
- » Offset folding beam geometry
- » Fully-automatic gripper system
- » Multi-section gripper function
- » Highly dynamic DFT drive
- » Kinetic control shaft technology
- » High-performance hydraulics with oil cooler
- » Remote maintenance using TeamViewer software
- » Low-friction CNS supporting table
- » Multi-zone folding beam crowning
- » Graphic CNC touch-screen controller

OPTIONS

- » Detached automatic slitter
- » Roll-forming unit for special profiles
- » Back gauge spring-loaded fingers
- » Double gripper unit
- » Automatic tapered back gauge
- » HARDOX beam tools
- » Folding beams with interchangeable tools
- » Mobile machine control desk
- » Fully-automatic sheet loading and draw-in table
- » M-Guard remote maintenance system

MODEL TC300

Max. folding capacity*	3,00 mm**
Working length	From 3,2 to 12,0 m***
Throat depths	1250 mm****
Folding beam width	10 + add. rail 10/20 mm*****
Max. folding angle	143°
Folding accuracy	± 0,5°

*At 400 N/mm² / 58 ksi **11 ga ***10.5 to 39.4 ft
****49.21 in *****0.39 + 0.39/0.78 in

DFT (DYNAMIC FOLDING TECHNOLOGY)

This innovative technology, the simultaneous movement of several machine axes, increases the production speed considerably while maintaining the folding accuracy. The DFT reduces travel times and downtimes to a minimum and thus facilitates an extremely smooth and highly dynamic folding process, which results in a measurable increase in productivity and a substantial expansion of machine capacity. The DFT system by Thalmann provides you and your customers with a significant and sustainable additional value.

