

TD

# DOUBLE FOLDER

FAST, PRECISE AND FLEXIBLE



**TD DOUBLE FOLDER** Depending on the profile requirements, folding can also involve intricate rotation and turning. Depending on the profile length, material type and weight of the sheet-metal parts, this may require the involvement of several operators. By applying Thalmann **DOUBLE FOLDER TECHNOLOGY**, sheet-metal part handling can be completely omitted or reduced to an absolute minimum. Two folding beams are used to fold the sheet metal in two directions: Fully automatically, efficiently, fast and with high precision. With the innovative **DYNAMIC FOLDING TECHNOLOGY (DFT)**, the folding speed and thus production output are increased considerably. Driven by the globally unique kinetic **CONTROL SHAFT TECHNOLOGY** – a mechanical controller which synchronizes the clamping and folding beam – the TD model delivers the highest precision and parallelism, even in complex parts. The **MODULAR TOOL GEOMETRY** ensures decisively more flexibility and folding space, the sophisticated **GRIPPER SYSTEM** guarantees a precise positioning of the sheet-metal parts even at a high operating speed and the **INTERCONNECTED CONTROL TECHNOLOGY** can be operated easily and intuitively – thus enabling reliable and economical handling.



**DFT**  
DYNAMIC FOLDING TECHNOLOGY



**FULLY-AUTOMATIC GRIPPER UNIT**

Depending on the type („Pelikan“ or „Professional“), the gripper system positions the sheet-metal parts over a measuring range of 15 mm or 25 mm - 1250 mm (0.59" or 0.98" - 49.21"). The servo-drive-controlled positioning system operates at up to a maximum speed of 380 mm/s (14.96 in/s). If the part needs a gripper offset during the folding process, this work step is programmed automatically. A sheet, already folded, can be completed in full automatic mode if its height does not exceed 28 mm (1.10"). Legs of greater dimension can be gauged using spring-loaded fingers.



**AUTOM. BACK GAUGE SPRING-LOADED FINGERS**

The fully-automatic pneumatic spring-loaded fingers are automatically activated when the smallest possible gripper measurement is exceeded and positions the sheet metal parts up to the minimum measurement of 5 mm (0.19"). A maximum of 1150 mm (45.27") can be gauged in parallel.



**AUTOMATIC SHEET INSERT AND HANDLING TABLE**

The fully-automatic sheet insert and handling table significantly facilitates the loading of the machine with metal sheets. The function for loading and unloading sheets can be programmed individually. The table also simplifies material handling and increases production output.



**FULLY-AUTOMATIC RADIUS ADJUSTMENT**

With the fully-automatic radius adjustment system, the clamping tools can be positioned precisely in accordance with the sheet thickness used, therefore achieving perfect folding radii. The material thickness can be defined in the controller. The adjustment value can also be adapted to suit the specific material, in order to enable the folding of larger radii. Adjustment is fully hydraulic.



**MACHINE SAFETY CONCEPT**

The safety concept is aimed at meeting user requirements for easy and reliable operation. Laser units for the clamping area and slitting device and a light grid system around the working area all protect against potential risks and ensure safety.



**FOLDING BEAM CROWNING**

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



**TAPERED GRIPPER**

An additional, independently mobile gripper unit is used for folding tapered profiles. It is switched on automatically once a tapered dimension is programmed. The maximum axis offset is 90 mm (3.54"). When the profile length is entered, the controller decides independently which gripper to use (X1-X2).



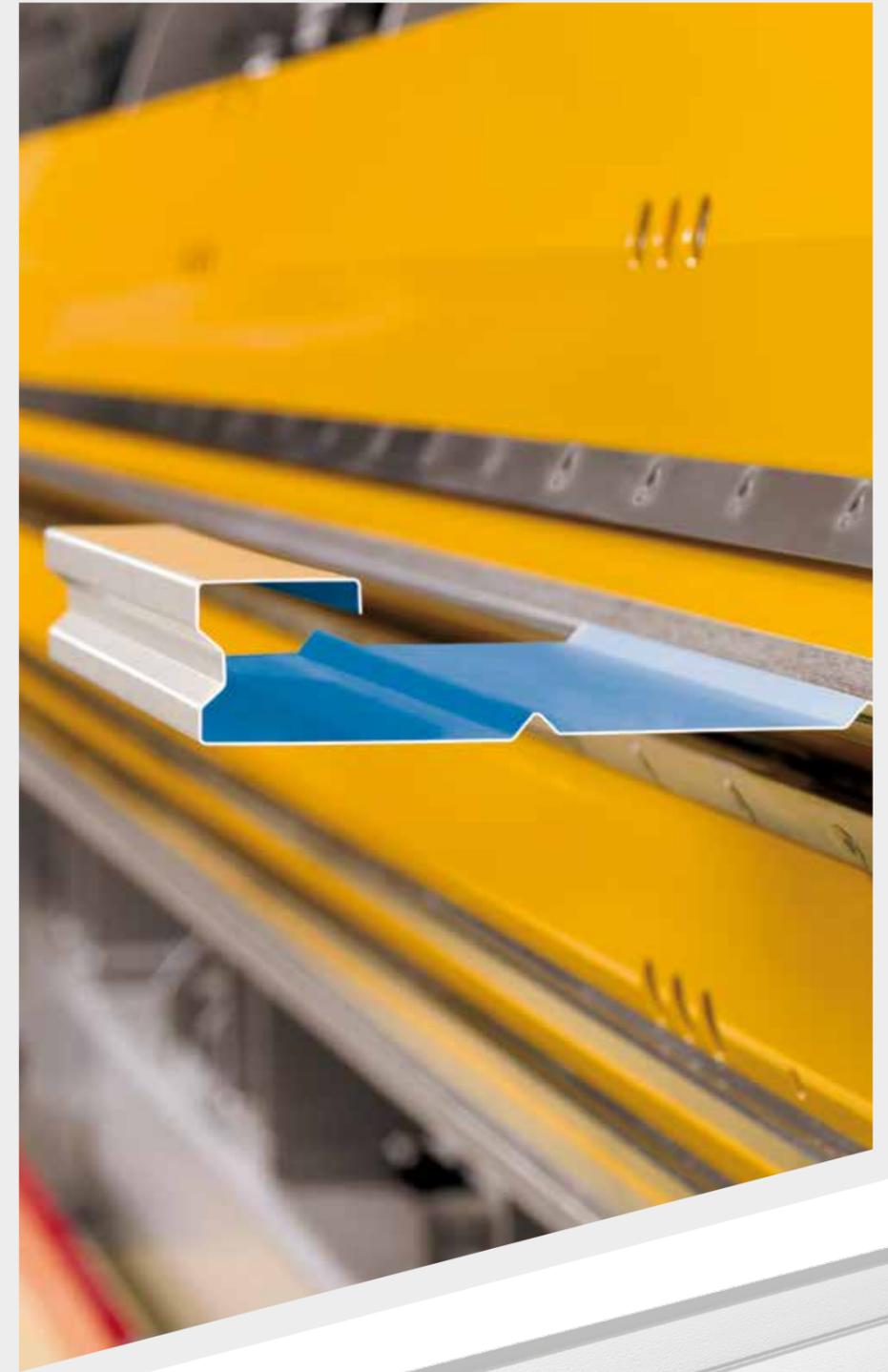
**MULTI-SECTION GRIPPER FUNCTION**

The multi-section gripper function allows several sheet metal parts to be processed simultaneously and independently of each other. As a result, the loading and removal of the sheets can be managed by just one single operator, which significantly increases productivity.



**FOLDING BEAM WITH INTERCHANGEABLE TOOLS**

The folding beam concept with one interchangeable tool offers high flexibility. Depending on the situation, it can be adapted to suit the requirements of the folded part. This innovative concept also allows special folding tools to be retrofitted, such as those made of tempered HARDOX steel.



**CHARACTERISTICS**

- » Tool geometry with 275° free space
- » 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 CDF 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
- » Super high-speed PRO-Hydraulic
- » Fully-automatic sheet loading and draw-in table
- » M-Guard remote maintenance system
- » Automatic radius adjustment (standard from TD 200)

**MODELS**

TD 125 | TD 150 | TD 200

Max. folding capacity*	1,25   1,50   2,00 mm**
Working length	From 3,2 to 12,0 m***
Throat depths	1250 mm****
Folding beam width	10 + add. rail 10 mm*****
Max. folding angle	143°
Folding accuracy	± 0,5°

\*At 400 N/mm<sup>2</sup> / 58 ksi \*\*18 | 16 | 14 ga  
 \*\*\*10.5 to 39.4 ft \*\*\*\*49.21 in \*\*\*\*\*0.39 + 0.39 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.

