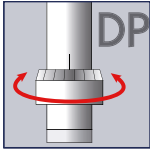


Pictograms in the catalogue show which accessories are possible for which presses.



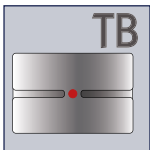
### Precision ram adjustment (DP)

As toggle presses do not achieve their maximum force until BDC, adjusting the height of the press head by means of the threaded spindle is often too inaccurate. The precision ram adjustment enables the press pressure point to be pre-cisely set directly at the ram. The scale on the adjustment ring enables the fine setting to be read off to 0.02 mm. The adjustment range is  $\pm 1.5$  mm. The precision ram adjustment is used when the utmost precision is required for the press depth. Ideal for prototype manufacture and serial production when accurate and easy adjustment within the tolerance range is required.



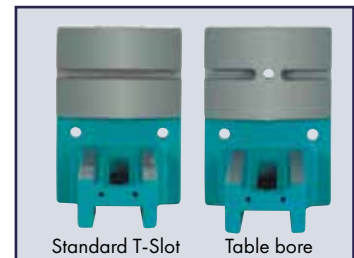
### Micrometer stop (MICRO)

The micrometer stop is used with rack and pinion presses for high-precision assembly work or for when the tool has to be accurately positioned. This enables the press stroke length to be accurately adjusted to 0.01 mm

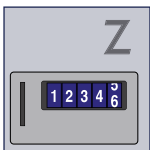


### Table bore (TB)

The bottom part of the tool can be mounted in the centric table bore. Fixing is by means of a transverse screw in all models up to 80 mm throat. The table bore enables the tool to be changed quickly and reduces set-up time. The alignment accuracy of the ram bore with the table bore is  $<0.05$  mm.



Standard T-Slot Table bore

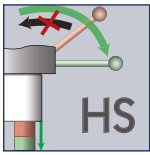


### Stroke counter (Z)

A rapid overview of the number of items produced can be obtained with the five-digit stroke counter. The number of items can be reset.

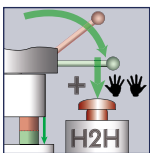
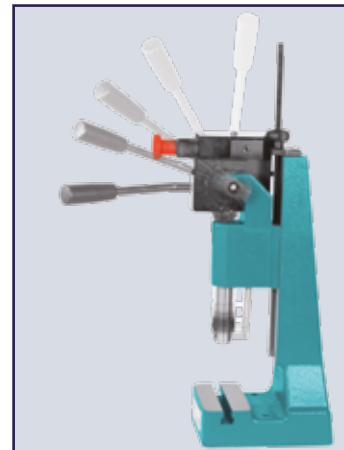


Counter



### Return travel lock (HS)

The return travel lock for toggle and rack and pinion presses is an effective contribution to quality assurance during production. The return travel lock rules out partial strokes and therefore incomplete operations. Forming, assembly and joining operations are always reliably and completely executed, as the return stroke of the press is blocked on the downward stroke. The interlock is only released and the lever can only be returned when the stroke is complete. The Quick-Release mechanism enables this inhibit to be released and jammed parts to be removed in any position. The Quick-Release is automatically deactivated when the lever is returned.



**2-hand safeguard for manual toggle presses (H2H)** The risk analysis for a manual toggle press workstation may indicate that using a 2-hand safeguard is advisable. This applies particularly when it is used by disabled employees or in work sequences that might induce a subconscious reaction to reach into the pressing process.

This is why mäder is now offering a 2-hand safeguard for manual toggle presses, which are generally used in mass production. The 2-hand safeguard is designed to prevent reaching into the ram movement, as both hands have to be out of the danger zone before the press can be operated. First the left hand has to actuate the 2-hand safeguard by pressing it down, before the right hand pulls down the manual press lever. If the 2-hand safeguard is actuated during the press stroke, the press blocks downward movement, but it can be reset at any time to its starting position.



## Practical accessories

**ERGO-hand lever for all mäder hand-operated presses.**



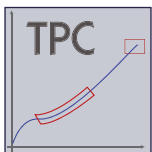
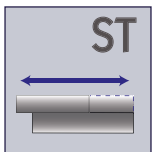
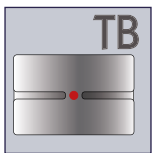
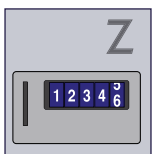
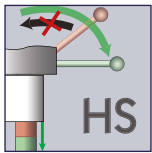
The ERGO hand lever for mäder hand-operated presses improves their ergonomics. The horizontal and rota-table hand lever permits operation of the press without fully grasping it, and so increases the ease of use.

**If your hand-operated press is to remain mobile**



The hand-operated press fastened to a practical **baseplate** stands firm and does not tilt. Rubber stoppers prevent it from slipping. Two movable threaded inserts can be adjustet to the distance between the fixing holes of the press.

## The accessories



## APZ range

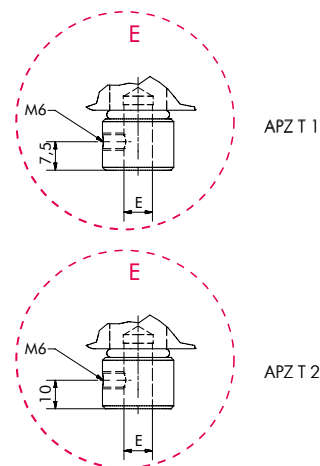
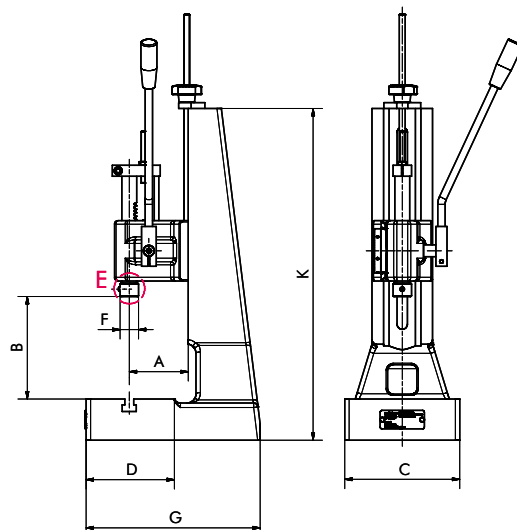
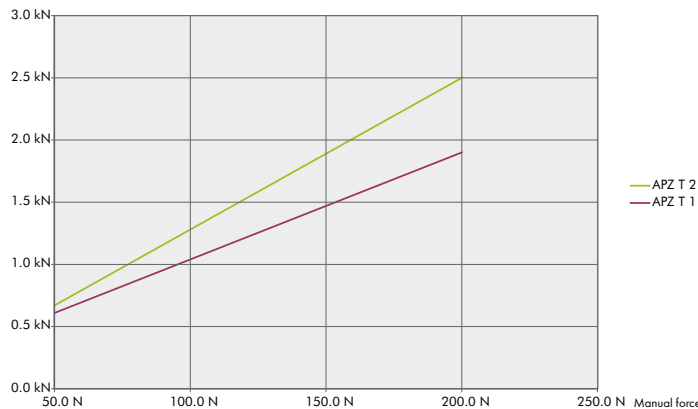
mader rack and pinion presses transmit their force constantly over the whole stroke length. The direct transmission of force via the manual lever allows fine control. Rack and pinion presses are therefore used where a constant force characteristic over a longer stroke is required.

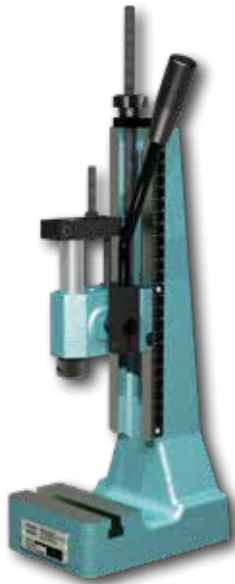
## Manual lever with ergonomic user comfort

- ▶ Can be turned through 360°: adaptable for any body size and application.
- ▶ Lever angled to the side: free view of work area and ergonomically comfortable position.
- ▶ **R/L Version:** simple and easy conversion for left-handers without losing the tool setting. Ideal for job sharing on one press.

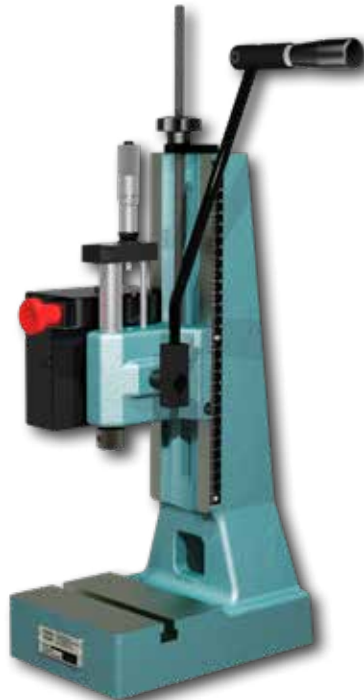


Manual lever can be refitted for right and left-handers



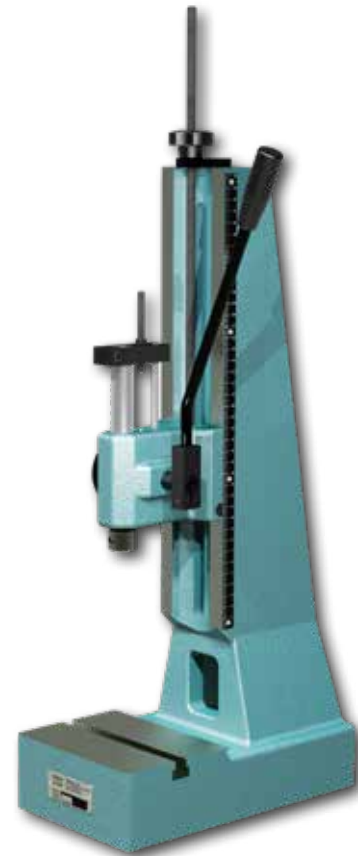


APZ T 1-40



APZ T 2-50

with accessories  
HS – Return travel lock  
MICRO – Micrometer stop  
Equipped with ERGO hand lever\*\*



L-APZ T 2-50

292297q noiniq bno k30Rack and pinion presses

Type			APZ T1-40	APZ T1-90	APZ T2-50	APZ T2-100	L-APZ T2-50	L-APZ T2-100
Capacity		kN	1.5	1.5	2.5	2.5	2.5	2.5
Working stroke		mm	40	90	50	100	50	100
Throat	A	mm	63	63	80	80	80	80
Daylight	B	mm	40 - 235	40 - 235	42 - 290	42 - 290	55 - 390	55 - 390
Table size	CxD	mm	110 x 65	110 x 65	157 x 115	157 x 115	157 x 115	157 x 115
T-slot width similar to DIN 650		mm	10	10	12	12	12	12
Ram bore Ø x Depth	E	mm	10H7 x 25	10H7 x 25	10H7 x 25	10H7 x 25	10H7 x 25	10H7 x 25
Ram Ø	F	mm	25	25	25	25	25	25
Space requirement	CxG	mm	110 x 164	110 x 164	157 x 237	157 x 237	156 x 275	156 x 275
Stand height	K	mm	355	355	450	450	570	570
Weight		kg	ca. 8.5	ca. 8.5	ca. 21	ca. 21	ca. 29	ca. 29

Accessories (see Page 8-9)	Please specify when ordering.						
Return travel lock	HS	HS	HS	HS	HS	HS	HS
Micrometer stop	MICRO	MICRO	MICRO	MICRO	MICRO	MICRO	MICRO
Counter	Z	Z	Z	Z	Z	Z	Z
Table bore 12 <sup>H7</sup>	TB	TB	TB	TB	TB	TB	TB
Left/right-hander version*	R/L	R/L	R/L	R/L	R/L	R/L	R/L

\* Can only be combined with the MICRO and TB accessories.

\*\* Not included. Accessories must be ordered separately.