

# ALFRA Busbar Bending and Punghing Maghine

### Made in Germany by ALFRA



	ProdNo.
ALFRA busbar bending and punching machine	03200SET
with electric angle reader R10, bending die R10 and length stop	
Electric angle reader R10	03201
Bending die R10	03202
Length stop	03203
Bending die with movable jaws (120 x 10 mm Cu)	03228
Digital angle reader	03229
Step-by-step bending tool	03246
with 2 pairs of pressure plates for 5 and 10 mm steps (max. range: 100 x 5 mm / 60 x 10 mm Cu)	

## Electro-hydraulic pump SC-05 III B

#### Technical data:

Motor voltage: 230 V/50 Hz

(110 V/50 Hz or 60 Hz on request)

Motor output: 0.55 kW
Max. operating pressure: 700 bar
Default setting: 620 bar
Pump capacity: 0.9 l/min.
Tank volume: 5.0 l
Weight: 29 kg

Dimensions L x W x H: 500 x 230 x 370 mm

	ProdNo.
Electro-hydraulic pump SC-05 III B	03852
with 2.0 m hydraulic hose + quick coupling	
Option:	
Foot switch for start function, 1 pedal	03861
Foot switch for start-stop-off function, 3 pedals	03865

### Electro-hydraulic pump AHP 03-1

### Technical data:

Motor voltage: 230V/50Hz

(110 V/50 or 60 Hz on request)

Motor output: 0.55 kW Max. operating pressure: 700 bar

Pump capacity: 0.52 l / min. at 50 Hz

Tank volume: 2.5 I
Temperature switch: 80°C +/- 5°
Weight: 17 kg

Dimensions L x W x H: 330 x 180 x 350 mm

	ProdNo.
Electro-hydraulic pump AHP 03-1 with hand switch	03853
and 2.0 m hydraulic hose + quick coupling Option:	
Foot switch with 2 pedals, start-stop function	03866



Prod.-No. 03200SET



Prod.-No. 03229



Prod.-No. 03228



Prod.-No. 03202





# ALFRA Busbar Bending and Punghing Maghine

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A universal working cylinder is used to bend busbars  $120 \times 12 \text{ mm}$  (160 x 10 mm on request) easily and punch holes from Ø 6.6 to 21.5 mm or oblong holes by simple insertion of hole punches.

### Bending busbars

#### Switch position to "bending".

For bending, the bending die is inserted into the hydraulic piston and the electric angle reader is set into the round guide groove of the counter block. The contact cable is connected to the electric motor.

The desired angle is fixed on the angle scale using a set screw. Depending on material thickness, we recommend setting the angle  $1^{\circ}$  -  $3^{\circ}$  larger than the desired angle, because copper springs back.

The first bending angle should be checked. This bending angle can be reproduced as often as required, because the bending process is interrupted by the electric contact switch as soon as the the angle has been reached.



### Switch position to "punching".

The punch with neoprene stripper and the corresponding die are inserted in the mounting hole.

The punch is fixed at the side using a headless screw. The machining block can be continuously raised or lowered hydraulically using the handwheel in accordance with the busbar width and the required hole layout. A counter fixed on the handwheel indicates the height of the hole centre in mm. We recommend centre-punching the busbar with subsequent alignment of the centring tip of the punch to this point – thus guaranteeing an exact hole pattern.

The neoprene stripper and a built-in electric sensor ensure automatic punch retraction.



Bending

Bending Cu max. 120 x 12 mm
Bending angle up to: over 90°
Smallest leg length: 50 mm
Smallest U-bending: 100 mm

Smallest Z-bending: 72 mm (depending on material thickness)

The specified values are based on a Cu rail  $120 \times 10 \text{ mm}$ 

Punching

Punching Cu: 6.6 - 21.5 mm

including oblong holes up to max. L = 21

mm

Material thickness Cu max.: 12 mm Material width up to: 110 mr

Material width up to: 110 mm centric
Outer dimensions L x W x H: 700 x 410 x 410 mm

Weight: 60 kg

Special version for machining busbars up to 160 x 10 mm available on request.











# PUMP OVERVIEW



Recommended combination  Possible combination	FOOT PUMP	AHP 03-01	SC-05 III B	DSP-120	LHP 700	ALH 600		
ProdNo.	02121	03853	03852	02027	02140	03190		
ProdNo. 02012 / 02013	••	•	*	•	•	•		
ProdNo. 03200SET		•	••					
ProdNo. 03250	•	••	<b>-</b> *	•	•	•		
ProdNo. 03256	•	••	<b>*</b>	•	•	•		
ProdNo. 03258	-	••	*	-	•	•		
ProdNo. 03260	•	••	*	•	•	•		
ProdNo. 03300	•	••	<b></b> *	•	•	•		
ProdNo. 03360/03380		••						
AP 250		•			•			
AP 400		•			•	••		
* in combination with optional foot switch								