

## Alfra Compact Combi Portable Hydraulic Puncher Instructions



## **Punching Capacity:**

Punch and die sets with thread 9.5 mm Punch and die sets with thread 11.1 mm Punch and die sets with thread 19.0 mm to Ø 60mm Punch and die sets with thread 19.0 mm to Ø 54mm

Punch and die sets with axis size 6 Punch and die sets with axis size 5 Punch and die sets with axis size 3 Punch and die sets with axis size 2 Punch and die sets with axis size 1 Sheet steel to 2.0mm with  $F = 370 \text{ N/mm}^2$ Stainless steel to 2.0mm with  $F = 600 \text{ N/mm}^2$ Sheet steel to 3.0mm with  $F = 370 \text{ N/mm}^2$ Stainless steel to 2.0mm with  $F = 600 \text{ N/mm}^2$ 

Sheet steel to 1.75mm with F = 370 N/mm<sup>2</sup> Sheet steel to 2.0mm with F = 370 N/mm<sup>2</sup> Sheet steel to 2.5mm with F = 370 N/mm<sup>2</sup> Sheet steel to 3.0mm with F = 370 N/mm<sup>2</sup> Sheet steel to 2.0mm with F = 370 N/mm<sup>2</sup>

## Operation:

1. Pre-drill with twist drill or multi-step drill. Drill diameter for standard punch and die sets:

- for screws 9.5 mm Ø  $\,$  minimum 11.0 Ø

- for TriCut splitter punch/die sets 10mm Ø

- for screws 11.1 mm Ø minimum 11.5 mm Ø
- for screws 19.0 mm Ø minimum 20.4mm Ø

(smaller pre-drilling and then punching is also possible)

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- 2. Screw in hydraulic screw with the short screw side 10mm Ø completely into the portable hydraulic puncher.
- 3. Set correct size spacer bush with the die on the hydraulic screw. It is essential to use a spacer bush.
- 4. Push the hydraulic screw through the pre-drilled hole and screw on the round punch from the rear side or place the angular or special form punch on the axis guide and secure with the respective counter nut.
  - Please note: punches which have been screwed on or fitted must be screwed on at least to the full height of the punch or sit at full height on the axis guide.
  - Next, adjust the die to the lease marking with the division marking.
- 5. Close the valve wheel. Hold the pump firmly with one hand and pump slowly. The punching procedure is completed after a few strokes.
  - The waste piece falls out of the die if further punching is carried out by 3-4 strokes with the hydraulic puncher, following the punching procedure. In doing this the waste piece is pressed behind the edge of the die and falls freely out of the die.
  - Please note: Do not fix the punch (or the TriCut punch) in the die. This can cause damage to the tool and to the hydraulic puncher. If resistance is met when pumping, do not use force to pump further. Check the tool and length of the spacer bush.
- 6. Open the valve wheel. The integral spring presses the piston back to the starting position.
- 7. Unscrew the round punch or loosen the counter nut. Remove the waste from the die.

There is a six month guarantee covering defects in construction and manufacture as well as faulty material but excluding parts subject to wear such as O0rings and seals.

Never overload the hydraulic puncher or exert force when pumping

## Alfra Compact Combi Portable Hydraulic Punch Parts

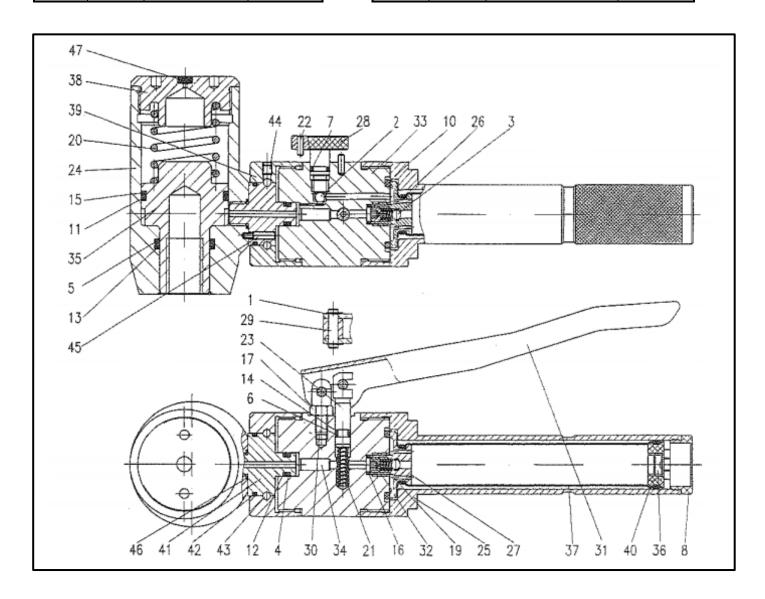
Dia. #	Pieces	Description	
1	4	Circlip	1500-1
2	1	Ball	1500-2
3	2	ball	1500-3
4	1	o-ring	1500-4
5	1	o-ring	1500-5
6	1	o-ring	1500-6
7	1	o-ring	1500-7
8	1	Screw cap	1495-3
9			
10	1	o-ring	1500-10
11	1	o-ring	1500-11
12	1	back-up ring	1500-12
13	1	back-up ring	1500-13
14	1	back-up ring	1500-14
15	1	back-up ring	1500-15
16	1	seal	1500-16
17	1	hexagon nut	1500-17
18	1		
19	1	pressure spring	1500-19
20	1	pressure spring	1500-20
21	1	pressure spring	1500-21

Dia. #	Pieces	Description	
25	1	oil tank	1495-0
26	4	o-ring	1502-26
27	1	suction valve support	1505-4
28	1	drain plug	1500-28
29	2	bolt	1500-29
30	1	hand lever holder	1500-30
31	1	hand lever	1500-31
32	1	set screw bored	1500-32
33	1	pump body	1500-33
34	1	return valve	1500-34
35	1	main piston	1500-35
36	1	screw plug	1500-36
37	1	oil tank	1500-37
38	1	сар	1502-38
39	1	hasp	1502-39
40	1	screw cap	1505-3
41	1	pivot screw	1502-41
42	1	o-ring	1502-42
43	1	ball	1502-43
44	1	set screw	1502-44
45	1	notched taper pin	1502-45



22	1	dowel pin	1500-22
23	1	pump piston	1500-23
24	1	swivel head	1500-31

46	1	o-ring	1502-46
47	1	filter	1502-47



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