

# CNC-E-P(V) 15 SHEET FEED PRESS



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### DESCRIPTION TYPE E

The sheet feed press consists of a speedy eccentric press with a wide open frame and a 2-coordinate servo driven advance system which moves the sheets synchronously to the ram.

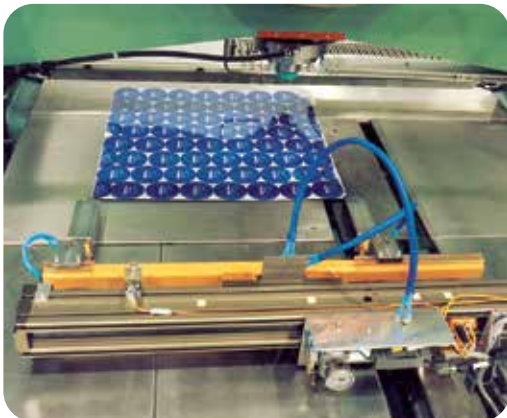
In the basic version of the press the sheet is placed onto the positioning table and registered manually. The sheet is taken automatically from the positioning table by pneumatically controlled grippers. These grippers move the sheet into the first punching position.

When the sheet arrives there, the clutch of the press is engaged and the sheet is moved synchronously with the ram from punch to punch. When the sheet is finished, the grippers open and the sheet falls on the floor on the front side of the press. At the same time the grippers are moved to the positioning table to pick up the next sheet.

This mode allows the placement of another sheet onto the positioning table while a sheet is in process so that the operator is able to feed more than one machine.



**1** The positioning table is equipped with 3 register points. For processing of printed sheets, these register points are adjusted to the corresponding register points of the printing press. Therefore an exact reproduction is always possible and it is independent of the real geometry of the sheet. In the basic version, the placement of the sheet and the positioning are done manually. When registered, the sheet is locked on the positioning table by pressing a foot switch until the grippers take the sheet.



**2** From the view of the operator, the 2-coordinate advance system is located behind the press. The forward movement is carried out through play free preloaded ball screws which are directly coupled to maintenance-free A.C. servo motors. All of the necessary measurements systems are integrated in the servo motors themselves. The slides of both coordinates are moved on playfree roller bearing guidances. The sheet advance system is equipped with 2 pneumatically operated grippers which hold the sheet at the outermost edge. Extra space for clamping purposes is unnecessary for round blanks. The complete control of the sheet through the advance system enables a minimal skeleton width of 0.6 mm without any clip out risk.

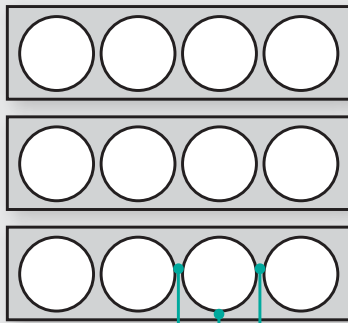


**3** In order to pick up the sheet, the advance system moves forward and reaches with its grippers from behind through the press frame. After the grippers have taken the sheet over, it is unlocked and the advance system moves back-ward as far as one sheet width, so that the punching of the sheet starts at the side of the sheet opposite to the grippers. The discharge of the punched parts is perpendicular to the opening of the press and it is operated by controlled compressed air. A die safety device monitors whether the product has left the die in time. If the die safety device signals that a part was not properly discharged, the clutch is disengaged to stop the ram before the die closes to prevent damage.

## THE PRINCIPLE

### Not staggered punching pattern

Strip feeding has disadvantageous material utilization and will produce additional costs for "strip slitting".



1.25 mm

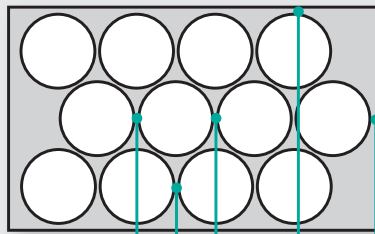
### EXAMPLE

Blank diameter 100mm, 100 blanks per sheet

**Metal utilization 75.4 %**

### Staggered punching pattern

Better material utilization in range of blank diameters up to 200 mm with approximately 0.6 mm space between blanks.



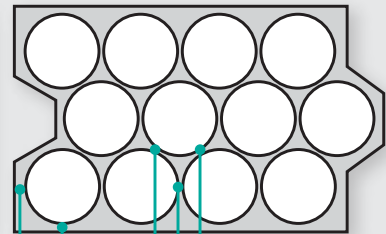
0.6 mm

1.0 mm

**Metal utilization 83.8 %**

### Staggered punching pattern scrolled

Best material utilization especially in range of blank diameters of more than 200 mm.



1.0 mm

0.6 mm

**Metal utilization 87.9 %**

**METAL SAVING: 14.2% (1-out)**

- Daily production (8 hours)
- 80% machine utilization

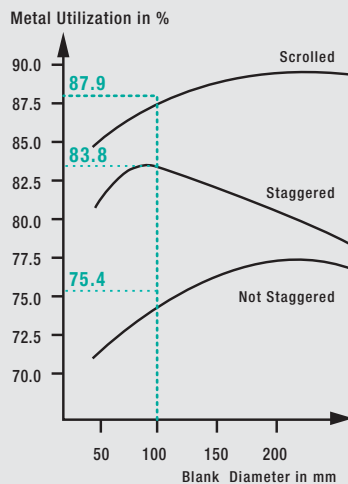
**104.5 m<sup>2</sup> / day**

**WEIGHT SAVING: (1-out)**

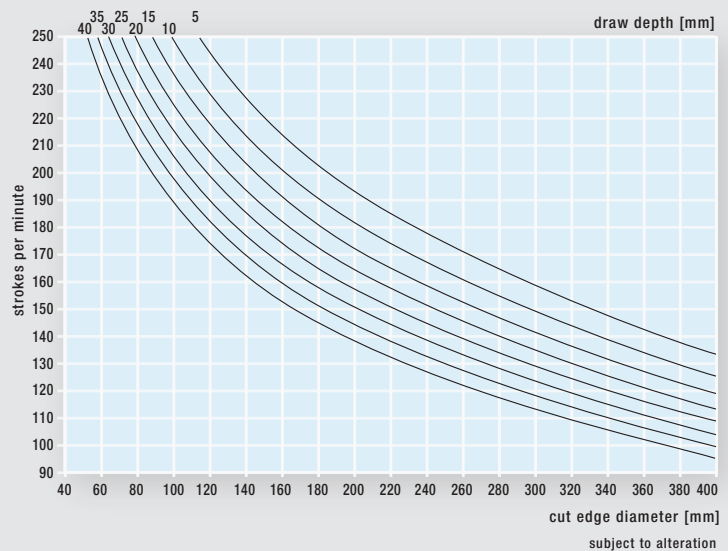
- Using tin plate 0.2 mm

**40t / year**

## METAL UTILIZATION IN RELATION TO BLANK DIAMETER



## SPEED IN RELATION TO BLANK Ø AND DRAW DEPTH



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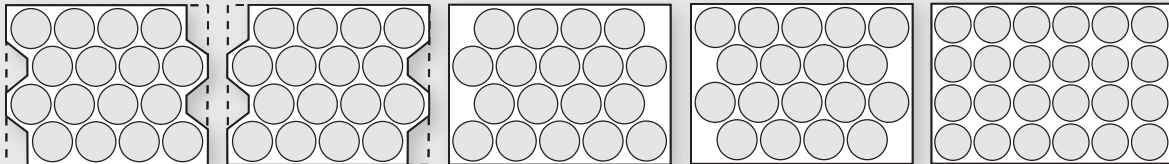


## TECHNICAL DATA

| TYPE:                   | P 15  | PV 15                          |
|-------------------------|---|--------------------------------|
| DRIVE:                  | AC-DRIVE WITH STATIC FREQUENCY CONVERTER, MECHANIC FLYWHEEL BRAKE |                                |
|                         | DIRECT DRIVE  | BACKGEAR DRIVE                 |
| CAPACITY:               | 15 t  | 15 t                           |
| SPEED MAX.:             | 100 - 250 spm   | 70 - 180 spm                   |
| DRIVING POWER:          | 2.2 kW  | 7.5 kW                         |
| STROKE LENGTH:          | 120 mm  | 150 mm                         |
| CUP HEIGHT MAX.:        | 30 mm   | 46 mm                          |
| CUT EDGE DIAMETER MAX.: | 200 mm  | 200 mm                         |
| SHEET SIZE MAX.:        | 1150 x 1000 mm<br>47 x 39 inch                                    | 1150 x 1000 mm<br>47 x 39 inch |
| TOOLING:                | 1-out/2-out tandem  | 1-out/2-out tandem             |
| RAM ADJUSTMENT:         | + 10 / - 15 mm  | + 10 / - 15 mm                 |

- Playfree preloaded anti friction ram roller guidance
- Tool holding fixture with pivot (Ø 50 mm), alternatively with T-Slots.
- Automatic central lubrication-system with closed circuit.

## SHEET PATTERNS (standard and double die strip feed)



## CNC-E-P15

