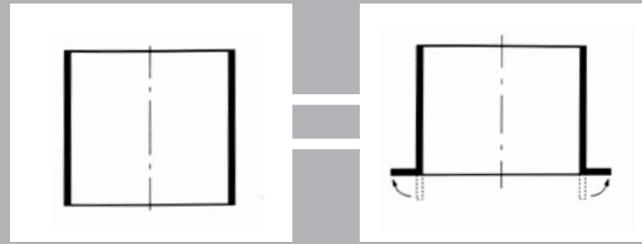


ROUND0

Flanging Machine Type SF

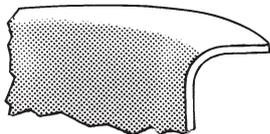
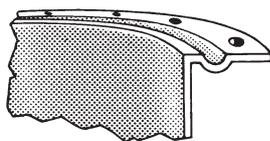
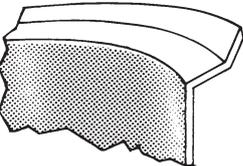
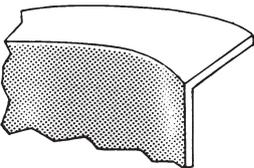
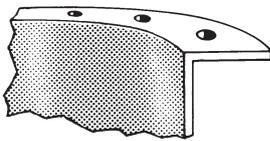


Roundo Flanging Machine for Easy Manufacturing of Flanged Cylinders and Pipes



The flanging and punching procedure, step by step

Example of flanges



The SF is a range of patented machines to produce flanged cylinders in a new way

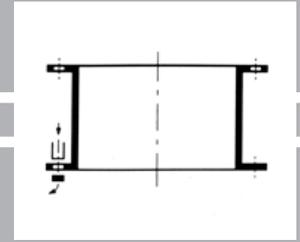
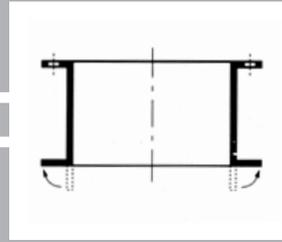
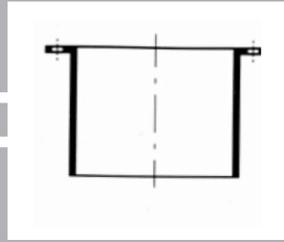
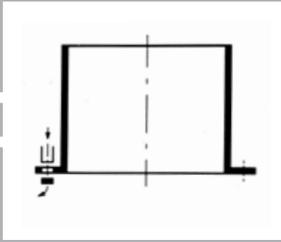
Almost any flange shape on a product can be produced with the SF machines. In addition, they are manufactured more efficiently, resulting in lower costs. They replace both the flange manufacturing (by bending, welding, drilling and turning) and the welding of the flange on to the cylinder.

The SF machines have many types of tooling, allowing for different styles of flange, such as grooves for sealing or different angles. Another option is producing light angle rings from sheet material. Costs can be reduced by up to half by using SF machines instead of conventionally manufacturing flanged cylinders or pipes.

For a 500 mm diameter cylinder and a flange with holes, manufacturing time is less than 10 minutes, producing a very high quality flanged cylinder. Because the cylinder is held in the machine by an expanding unit, the tolerances on the roundness are extremely good.



SF-2 machine in flanging position



Machine description and standard equipment

The Roundo flanging machine for easy production of flanged cylinders and pipes has four main functions;

The expanding unit

During the flanging operation, the cylinder is held in the correct position by an expanding unit. This consists of several segments with the same diameter as the cylinder, pressed against its inside. By clamping in this way, the cylinder keeps its cylindrical form. One set of clamping segments is required for each diameter range of cylinders.

The flanging unit

The flanging is performed by two rolls. One is fixed and the other is hydraulically adjustable. Both rolls are driven by an electric motor with a worm gear box. The rolls are mounted vertical to the cylinder and are interchangeable for different shapes on the flange.

The supporting table

The supporting table for the cylinder is horizontal and the flanging unit is hydraulically tilted into the vertical position during the flanging procedure.

The hole-punching unit

The machine is supplied complete with a standard hydraulic punching unit and an indexing plate for forming different numbers of holes in the flanges. The hydraulic punching unit is parked during the flanging operation; from there, it is moved into the punching position and locked pneumatically. The indexing plate has two circles with different numbers of holes. Three numbers of holes are available on each circle. The indexing is made by manual rotation and the positions are set pneumatically.

The machine can be equipped with automatic indexing, turning and punching as an optional extra.

Expanding unit



Flanging unit after completed operation



The punching unit



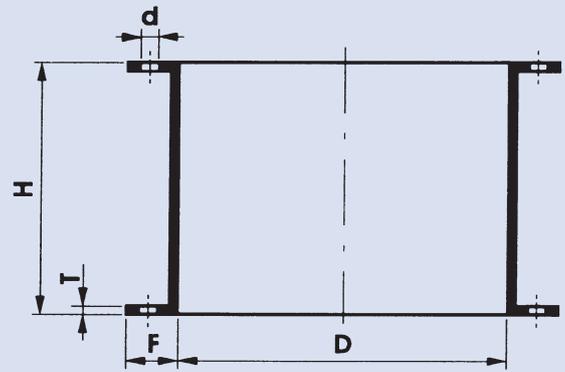
Punching of holes in the flange



Automatic turning and punching



ROUND0 FLANGING MACHINES TECHNICAL DATA



DATA	TYPE	SF-1	SF-2	SF-3	SF-4
Max cylinder diameter (D)	mm	1400	1500	2000	3000
Min cylinder diameter (D)	mm	330	400	500	500
Max flange height (F)	mm	60	60	80	100
Min flange height ¹⁾ (F)	mm	15	15	15	15
Max plate thickness (T)	mm	5	6	8	8
Max cylinder height ²⁾	mm	2000	2000	2500	3000
Min cylinder height that can be flanged and punched at both ends (H)	mm	200	200	200	200
Max punching diameter in max plate thickness (d)	mm	16	16	16	16
Number of holes that can be punched with standard index plate		8,16,32 6,12,24	8,16,32 6,12,24	8,16,32 6,12,24	8,16,32 6,12,24
Flanging speed	m/min	10/20	15/30	14/28	14/28
Diameter of the flanging rolls	mm	110	120	160	160
Max forming pressure	N	40.000	70.000	110.000	110.000
Total connected power	kW	4	5,5	8	8
Total weight, about	Kg	1600	2400	2700	3800
Export volume, about	m ³	9	10	13	30

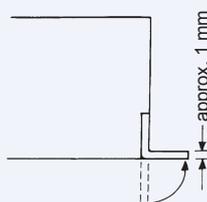
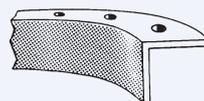
¹⁾ Depends of the plate thickness

²⁾ Depends on thickness and diameter

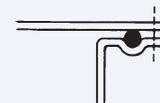
OPTIONAL EQUIPMENT

- * Automatic flanging operation
- * Automatic punching operation
- * Different sets of expanding dies
- * Different sets of punch and die
- * Extra set of flanging rolls
- * Special indexing plates on customer's request

Production of light angle rings



Special applications



ROUND0

www.roundo.com

Roundo AB
Box 171
SE-281 22 Hässleholm
Sweden
Tel: +46 451 422 00
Fax: +46 451 824 04
info@roundo.com