FIDES
a spühl brand

FT-81

Transfer system for Bonnell spring units

The FT-81 transfer system is a fully automatic, compact unit with a straightforward design that manu-factures high-quality, completely finished Bonnell innerspring units.

In four processing steps, the wire, which is fed from the swift, is processed to a spring. After the coiling process, the springs are placed into a star-shaped, 6-arm transport wheel and are gradually advanced to the next step. On the front side, the spring ends are knotted into end rings and then heat-treated between two electrodes. This heating relieves the wire from the stress of the coiling process and therefore reduces the setting loss. The finished springs are picked up by a turning arm and the knots turn to the correct position. The springs are finally moved vertically into the conveyor channel and are gradually advanced. The feed rate corresponds to the spring spacing within the spring unit. During transport, the springs are turned from the horizontal to the vertical position. After the programmed unit width has been reached, i.e., the required number of springs has been loaded, the row will be pushed by a loading slider into the jaws of the assembly machine. Using a helical feeder on the left side, one row after the other is tied into an innerspring unit. The innerspring unit ejection on the operator side allows for optimal handling by the operator.

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The FT-81 consists of the following:

- Swift with wire end detection for up to 1,000 kg of wire
- Coiling machine
- Geneva motion unit with 6 arms
- Upper and lower knotting unit
- Heat treatment station
- Turning and delivery station to conveyor channel
- Insertion unit with loading slider
- 2 swifts for helical wire
- Wire feeds with two helical coiling machines
- Helical cutting tools
- Upper and lower knuckling devices (end jaws)
- Forward-facing innerspring unit table

Options:

- Additional pairs of jaws available
- Conversion kit for production of Low Height

Advantages / Special Features:

- Easy Adjustment of end ring diameters in the knotting units
- The stacking device is equipped with the unique spring turning station
- 18 jaws included in the standard equipment. Each jaw can be used as a knuckling device
- Very flexible and quick unit width settings
- Very compact and minimum space require-ments

Certified Management System according to
ISO 9001 and ISO 14001

Working range

TECHNICAL DATA OF THE FT-81 AT A GLANCE

Typ of springs	Bonnell
Spring dimensions	Spring end ring Ø (Dfi) 65 - 88 mm Number of jaws: 18 standard Jaw type 88 (Dfi 75 – 88 mm): max. 20 jaws Jaw type 74 (Dfi 69 – 76 mm): max. 24 jaws Jaw type 68 (Dfi 65 – 70 mm): max. 25 jaws
Spring height	**4 turns Low height** 55 - 75 mm, **4 turns** 75 - 120 mm, **5 turns** 120 - 150 mm, **6 turns** 140 - 160 mm, **7 turns** 160 - 190 mm
Spring wire gauge	1.9 - 2.3 mm (Dfi 65 - 70 mm) 1.9 - 2.4 mm (Dfi 70 - 90 mm) 1.6 - 1.9 mm (Dfi 65 - 70 mm) - on request
Helical wire diameter	1.3 - 1.4 mm
Working width	2'000 mm
Performance	up to 81 springs / minute (depending on spring dimensions)
Air consumption	approx. 0.45 m^3 / hour
Power consumption total	approx. 20 kVA
Power requirements	Voltage: 3 x 400 V, input fuse: 63 A or Voltage: 3 x 220 V, input fuse: 100 A (other Voltages on request) Frequency: 50/60 Hz
Working temperature	+10° C to +40° C
Weight	net approx. 3'500 kg (swift with safety mesh guard net approx. 680 kg)
Space requirements	Details and machine layout please visit: www.spuhl.com

CE The machine complies with CE safety standards

Subject to changes without notice. The machine will be set for one spring type only from its working range. Each additional modification of the actual coil specification(Dta, wire ø, turns, height etc.) may request additional tools.

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3 years warranty
Swiss-checked quality

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