

Silicon

SWISS SAWS AND PRESSES

SERVO FEEDER SILICON SFS - 300



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High performance strip feed unit

Feeding length	min 0.10 mm to max. 9999.99 mm
Feeding width	max. 300 mm
Material thickness	0.20 - 2.20 mm
Feeding angle	180°
Die line height	± 50 mm
Max. feeding speed	20 m/minute
Strip release	mechanical
Control	NC Touch screen
Servo brushless motor	1.5 kw
Weight approx feeder:	175 kg
console:	150 kg
Dimension feeder:	780 X 730 X 680mm
console:	1160 X 410 X 1150mm



This strip feed unit has been designed to function without parts that are subject to wear, such as brakes and free-wheeling mechanisms. Thus harmful heat generation can be avoided and the unit can operate almost maintenance-free.

Thanks to a reduction in the mass forces, the rigid construction, accurate vibration calculations and the input of many years of experience in design and production, the unit has an exceptional feed performance with optimal step accuracy.

AA Digital AC Servo Motors offer a simple solution to servo applications involving speed and positioning control. The AC EMG-15 Servo Motor comes standard with a 2,500 Pulses Per Revolution (PPR) Incremental Encoder, runs at a maximum speed of 3,000 RPM, provides peak values up to 300% of the rated torque and current values, and has a rated torque of 1,014 oz-in with a 1.5 kWatt power rating. These enclosed and self-cooled motors also provide longer motor life and higher reliability. The EMG-15 AC Servo Motors enable industrial motion control applications with medium inertia to attain a great combination of speed and positioning functionality



The unit is driven by the brushless servo motor, with synchronous belt transmission, eliminate the gear clearance, abrasion, no noise, no lubrication, safely to a synchronized pair of roller segments.

Rolls can be made upon request with PU surface for delicate raw material feeding.

Synchronization of the feeder and punching machine is done easy through cam signal from PLC of a punching machine.

Programmable feeding can be done for up to five groups of feeding pitches.

The feed length can be steplessly adjusted during operation

The system functions with oscillating roller segments for the feed movement and clamping bars which hold the strip firmly during the punching process. The design successfully combines the advantages of a roller feed unit with those of a servo feed unit.

One pushing feed unit usually suffices for most punching work. This can be installed on the left or right, as required.

A second feed unit might be required if very thin strips are to be processed or delicate punched strips produced. It is controlled from same operated panel as a twin feeder. In this combination one feeder is pushing and another one is pulling.

Also as option another feeder can be mounted stand alone away from punching machine on its own heavy duty stand to provide space for punched parts to fall after the punching into big hopper.

In general, a second feed unit is used when very thin strip material is processed, or when the punched strip in the tool is very delicate and inclined to jam and fold. Depending on the speed, the strip material, the tool and its condition, the length of the strip could alter during the stamping process.



This can be taken into consideration and compensated for by setting a larger feed length on the second feed unit. Feed corrections can also be carried out easily while the press is running. The feed length on the second unit must, however, never be set too long, otherwise this would have a negative influence on the first unit. The result: a diversity of feed lengths. The two operating feed units must be of the same type and their operation synchronized.

The servo feeder is controlled from logical, easy to operate Touch screen operator panel. At the servo feed panel, there are three screens : Setting, operator and monitoring menu.

