



SCHAAL

by Weil Technology

Presses
Stamping systems
Tools

Realizing fascinating solutions

Machines and systems for innovative forming and stamping solutions for over 70 years



Realizing fascinating solutions

We ensure the further development and service around the stamping and forming process and offer system solutions for versatile applications in various industries.

Precision stamping presses from Schaal Technology stand for durability and top quality under the most demanding conditions. The machine components and the press body in the double support monoblock structure are of correspondingly high quality. Our solutions are based on over 70 years of expertise in stamping and forming technology and the associated tools. Schaal Technology emerged from "A. Schaal GmbH & Co. KG Werkzeug- und Maschinenbau", which was founded in 1948.

We have been a subsidiary of Weil Technology since 2009. Our machines are manufactured at the Müllheim site. Service, design and sales take place at the Salach site.



Schaal Technology, Salach plant

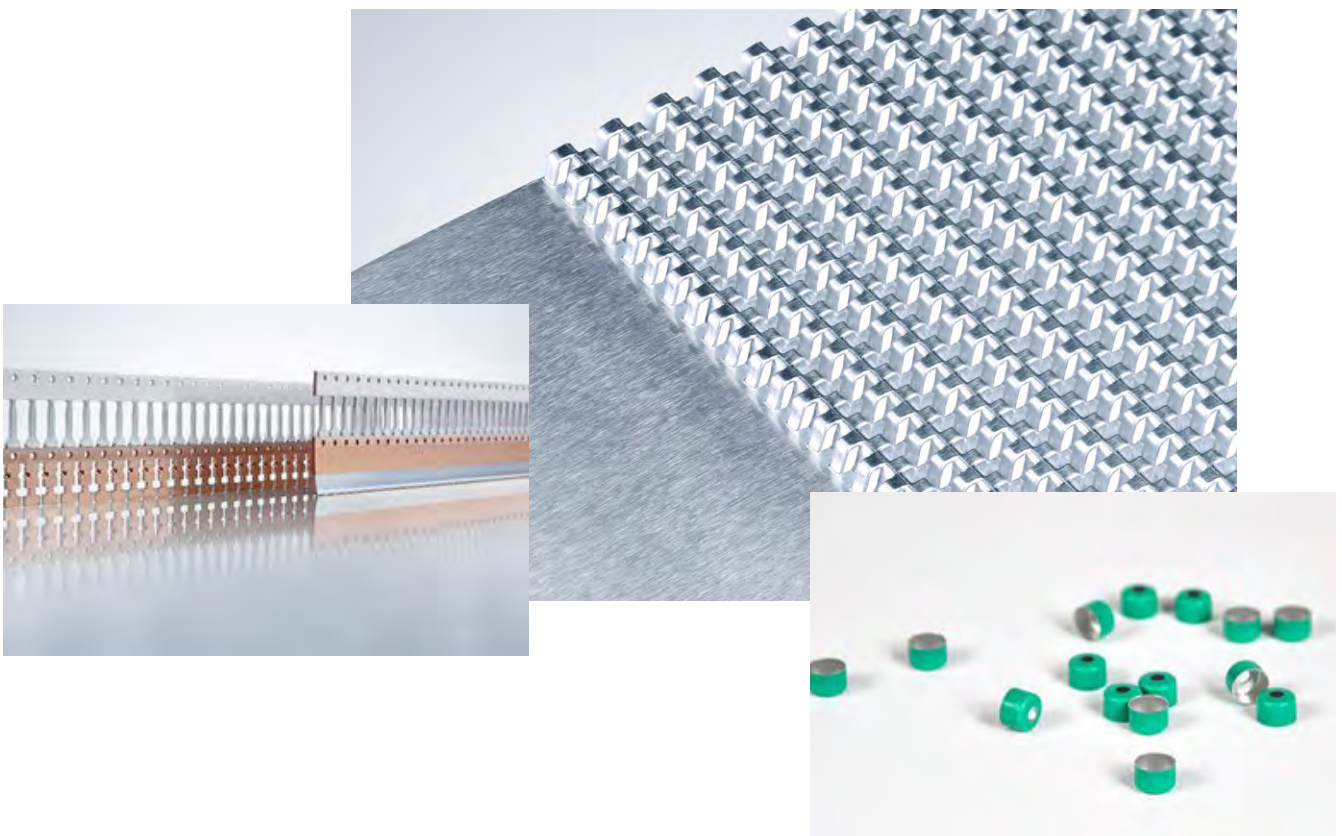


Weil Technology, plant 2 Müllheim

Presses and stamping systems with a press force from 120 to 1000 kN

A wide range of possible applications and combinations thanks to modular design make the SEP series interesting for every production application.

Simple changeover devices, set-up procedures supported by the control system, and a design individually tailored to the user ultimately mean economy, cost savings, and flexibility. At the same time, the greatest effectiveness means a significant increase in your competitiveness.





SEP 12



SEP 25N



SEP 40N



SEP 63N



SEP 80N



SEP 100

Space for your flexibility

Structure

These robust, precision automatic punching presses with single piston rod drives are designed for rugged, continuous operation. This makes the body of the press highly stable, and it is designed with a vibration-absorbing grey cast iron double support monoblock structure. Other components of the stamping press are similarly stable, such as the press ram made of high-strength titanium alloyed cast aluminium or the air-cooled piston rod.

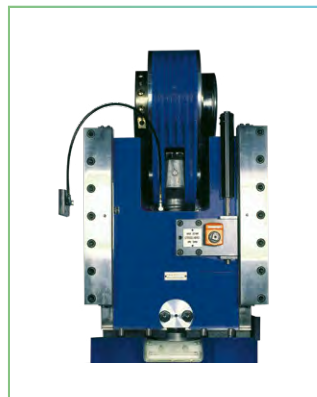
Due to the adjustable ram stroke and the customised screwed clamping plate, various tools can be used.

Optional

- Motorised ram height precision adjustment
- Automatic stroke adjustment
- Special clamping plate (also with integrated tool underdrive)
- Forced ejector
- Extra ram in different versions
- Central lubrication
- Reels according to customer requirements
- Straightening machine according to customer requirements
- Coil oiling device
- Soundproof cabins
- and much more



Precision adjustment of the ram height



Motorised adjustment of the ram height



Ram SEP 63 - 100



Eccentric shaft

Part accuracy over the entire stroke rate range



The mould space with clamping plate provides space for your flexibility.



Control

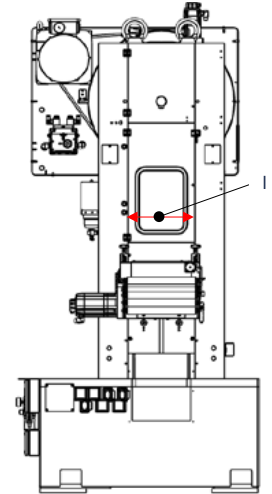
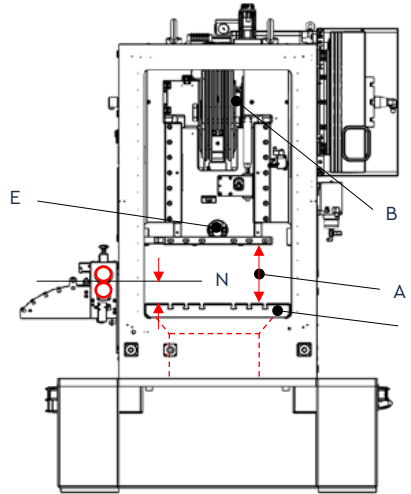
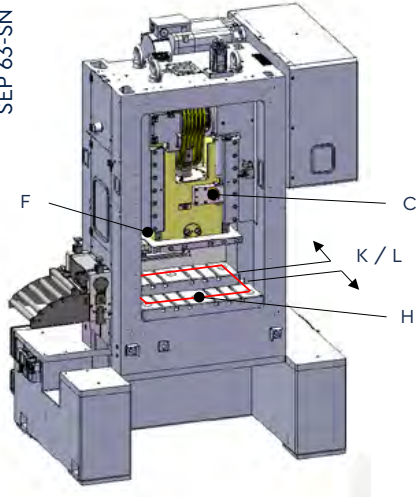
The press control offers the operator clear assistance for flexible handling of operating modes and tool data. Context-sensitive control for fast and reliable setting of tool data. The choice of press control is based on the customer's specifications, whereby different press controls can be used.

Optional:

- Tool data memory
- Maximum force monitoring
- Press force monitoring with envelope curve
- Ram press force stabilisation
- Vester or Unidor systems
- Tool protection
- Remote maintenance
- and much more

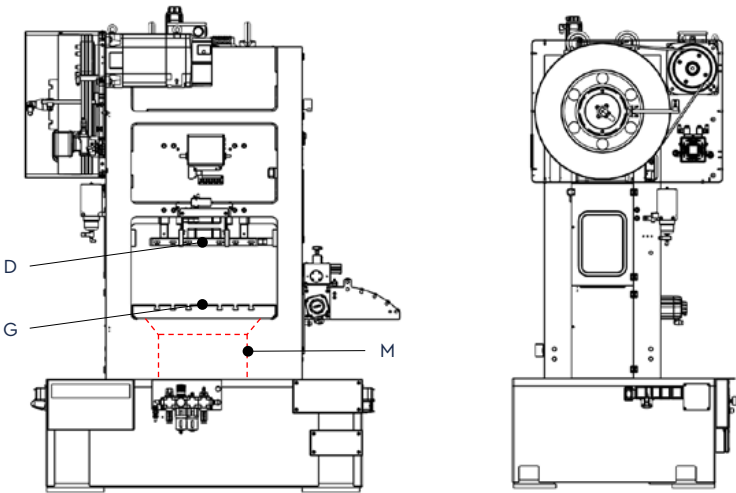
Schaal Technology

SEP 63-SN



Stamping press/models		SEP 12	SEP 25N	SEP 40N	SEP 40S-810	
		model SEP 12	model SEP 25N	model SEP 40N	model SEP 63N with main drive mechanism SEP40N	
		fly wheel	fly wheel	fly wheel	fly wheel	
	available press force at a stroke rate of 100spm (SEP12 / SEP25N starting at a stroke rate of 150 spm/min)	KN	120	250	400	
	max. stroke rate (adjustable)	strokes/min	600 (800)	500 (800)	500	
A	distance between table and ram (with mounting table) largest stroke and bottom, height adjustment on the top		-	-	with/without ram mounting plate	
		mm	215	240	270	250 / 275
B	ram stroke - adjustable	mm	8 - 40	8 - 60	8 - 70	8 - 80
		stroke table (all single strokes of the ram) with the respective mould installation heights - see individual				
C	continuous ram height adjustment	mm	0 - 40	0 - 60	0 - 70	0 - 80
D	ram size L x W		225 x 140	280 x 260	340 x 320	500 x 293
D	ram mounting plate size L x W x H	mm	-	-	-	620 x 400 x 25
E	mounting hole in ram	mm	Ø 32	Ø 40	Ø 40	Ø 50
F	ram keyway	mm	16 H7	30 H7	30 H7	30 H7
G	mounting table size L x W	mm	370 x 440	490 x 560	610 x 690	810 x 710
H	tooling dimension L x W	mm	330 x 440	450 x 460	570 x 590	768 x 610
I	passage way (left to right) (*while using a gripper feed, passageway is reduced)	mm	210 (*160)	250 (*180)	320 (*260)	320 (*260)
J	mounting table - thickness	mm	50	50	60	80
K	opening for part exit in the mounting table L x W	mm	240 x 120	330 x 120	460 x 160	-
L	distance between clamping bars L x W (L = continuous / W = adjustable)	mm	-	-	-	W = 100 - 160
M	opening for part exit in the press body L x W	mm	300/240 x 160	420/340 x 160	540/460 x 200	640/520 x 200
N	strip height above mounting table	mm	as agreed			
	driving power (main drive)	kW	5,5	11	18,5	18,5
	weight (without feeding unit)	kg	1800	3400	5400	6000
	dimensions L x W x H (approx.)	mm	940 x 740 x 1900	1180 x 950 x 2200	1420 x 1140 x 2400	1700 x 1240 x 2550

Technical changes reserved.



	SEP 63N	SEP 63SN	SEP 63SN-950	SEP 80N	SEP 100	SEP 100S
	model SEP 63N	model SEP 80N with main drive mechanism SEP 63N	model SEP 80N with main drive mechanism SEP 63N and extended working range	model SEP 80N	model SEP 100	model SEP 100S with extended working range
	fly wheel	fly wheel	fly wheel	planetary gear	planetary gear	planetary gear
	630	630	630	800	1000	1000
	500	500	500	320	320	320
	with/without ram mounting plate	with/without ram mounting plate	with/without ram mounting plate	with/without ram mounting plate	-	-
	250 / 275	325 / 370	325 / 370	325 / 370	320	320
	8 - 80	8 - 80	8 - 80	8 - 80	10 - 100	10 - 100

Technical data sheets stamping presses SEP

	0 - 80	0 - 80	0 - 80	0 - 80	0 - 100	0 - 100
	500 × 293	500 × 293	500 × 293	500 × 293	-	-
	500 × 400 × 25	620 × 500 × 45	620 × 500 × 45	620 × 500 × 45	800 × 600 × 50	960 × 600 × 50
	Ø 50	Ø 50	Ø 50	Ø 50	-	-
	30 H7	30 H7	30 H7	30 H7	30 H7	30 H7
	710 × 710	830 × 710	950 × 710	830 × 710	1050 × 860	1210 × 860
	670 × 610	790 × 610	910 × 610	790 × 610	1010 × 760	1170 × 760
	320 (*260)	320 (*260)	320 (*260)	320 (*260)	420 (*260)	420 (*260)
	80	80	80	80	100	100
	-	-	-	-	-	-
	W = 130 - 190	W = 130 - 190	W = 130 - 190	W = 130-190	W = 100-220	W = 100-220
	640/520 × 200	640/520 × 200	640/520 × 200	640/520 × 200	840/720 × 260	1000/880 × 260
	22	22	22	22	22	22
	6200	8000	8000	8400	13000	14000
	1700 × 1240 × 2550	1820 × 1240 × 2800	1820 × 1240 × 2800	1820 × 1240 × 2800	2400 × 1550 × 3000	2290 × 1400 × 3000

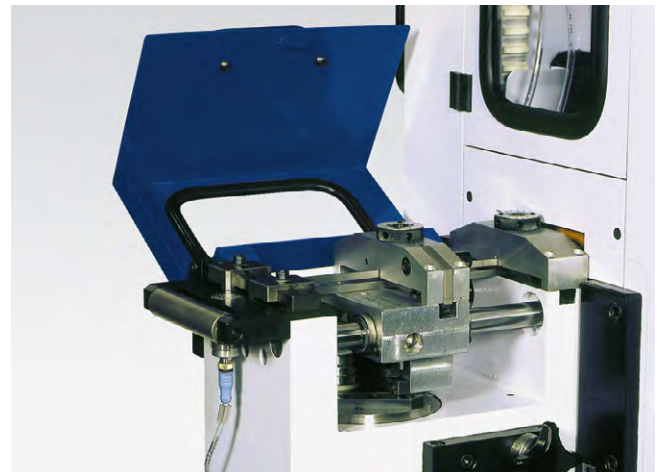
High-performance coil feed SZV

Simple and fast adjustment of the feed length and sheet thickness with high feed accuracy characterise the SZV mechanical gripper feeders SZV.

The gripper feeders can be attached to all SEP automatic stamping presses (optionally left, right).

- Compact, robust structure
- Fully mechanical, force-controlled process for high stroke rates
- Coil thickness guide over the entire feed length
- Intermediate ventilation that can be switched on and off and is infinitely adjustable
- Stroke rates of up to 800 strokes/min

- Coil speed up to 30 m/min
- Feed height adjustment possible up to ± 30 mm
- Feed precision up to 0.01 mm
- Feed easily adjustable to different tools and strokes



Feed unit / size		SZV 2	SZV 202	SZV 3	SZV 302
Feed length (1)	mm	2 - 80*	3 - 100	4 - 150	4 - 160
Feed length (2)	mm	-	30 - 130	-	70 - 230
Coil width	mm	8 - 160	8 - 160	8 - 250	8 - 250
Coil thickness	-	0,1 - 2	0,1 - 2	0,1 - 4	0,1 - 4
Max. coil cross-section	mm ²	200	200	400	400
Feed gripper hold force	kN	1,6	1,6	4	4
Holding forceps hold force	kN	0,8	0,8	2	2
Feed angle	°	180	180	180	180
Feed precision	mm	$\pm 0,01$	$\pm 0,02$	$\pm 0,02$	$\pm 0,03$
Coil speed	m/min	30	30	30	30
Feed height adjustment	mm	on request	± 30	on request	± 30

* For stroke rate >600 strokes/min, a reduced version is used, stroke travel then 2 - 60 mm

Dynamic coil feed SWV

With the feed units, the system chain from the conveyor system to the press is complete for highly productive use. With a feed capacity of up to 120 m/min for the roll feed devices and an accuracy of up to 0.02 mm, as well as minimised set-up and adjustment times, you can be sure that your press is well equipped.

- Stable structure, high precision and repeatability
- Off-centre coil transport possible
- Hardened and polished feed rolls, optionally plastic/rubber
- Integrated feed control with simple programming
- Pneumatic intermediate ventilation, on request also mechanical forced ventilation for high stroke rates
- Can be mounted variably on the left or right side of the press or on the back of the press, as well as on stamping

presses and machines from other manufacturers

- Coil widths according to customer requirements up to 1000 mm
- A contact for presses and feeds

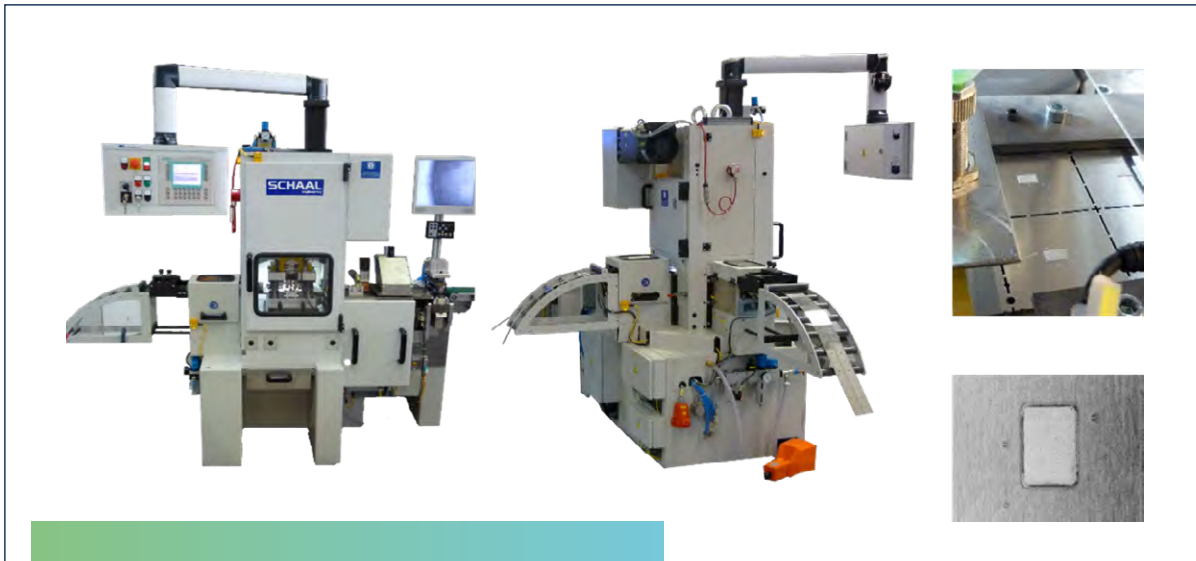


Feed unit / size		SZV 2	SZV 202	SZV 3	SZV 302
Coil width	mm	160 (300 max.)	250 (700 max.)	250 (700 max.)	300 (1000 max.)
Coil thickness	mm	0,1 – 2	0,1 – 3	0,1 – 3	0,1 – 4
Max. coil cross-section	mm ²	100	400	400	800
Feed length	mm	0 – 9.999,9	0 – 9.999,9	0 – 9.999,9	0 – 9.999,9
Feed precision	mm	± 0,05	± 0,05	± 0,02	± 0,01
Input unit	mm	0,01	0,01	0,01	0,01
Roller – diameter	mm	72	100	110	165
Contact pressure	kN	0 – 4	0 – 6	0 – 8	0 – 12

* Other coil widths on request

Examples of customer specific solutions

Punching lines for the efficient production of customer-specific components from the coil.



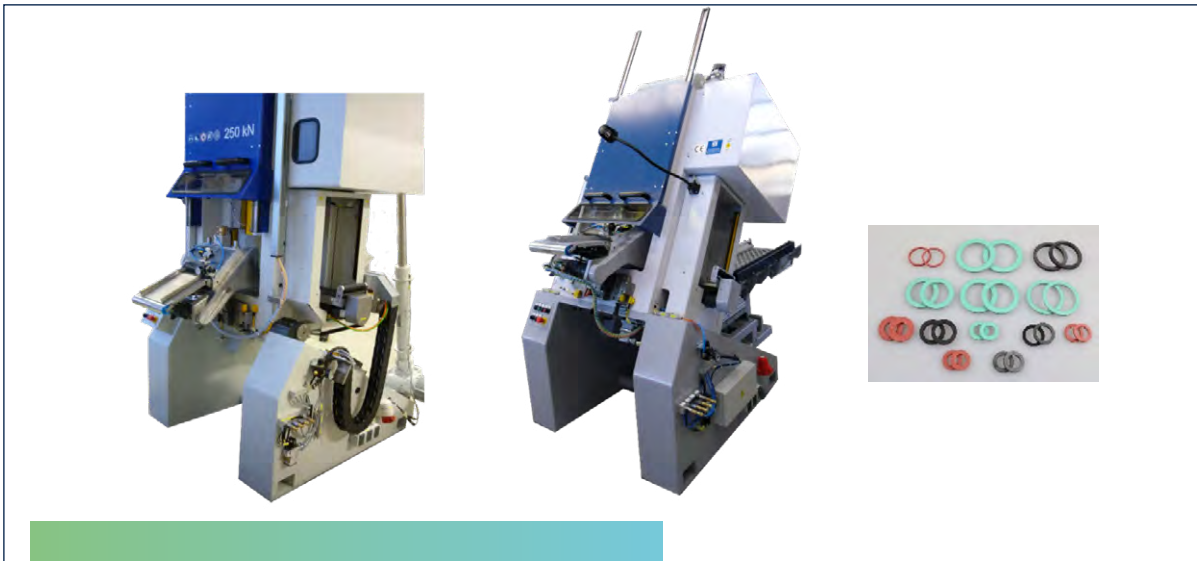
SEP 12 with 2x SZV2 gun feed and laser welding unit for solar panels



SEP 25N with conveyor system, external feed and comb slide control for data cable shielding



SEP 63S with belt feeder, external feed and comb pusher control for reflectors



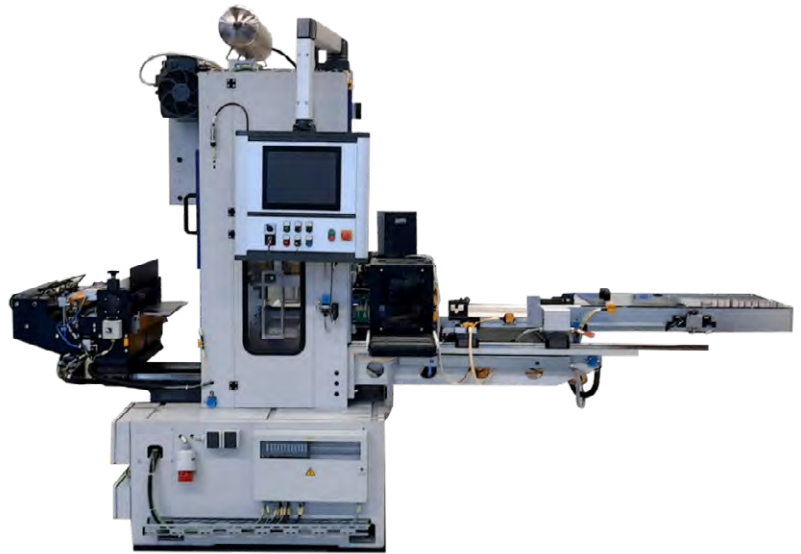
SEP 25N – 30° inclined for improved part ejection and possibility to set up for tool change



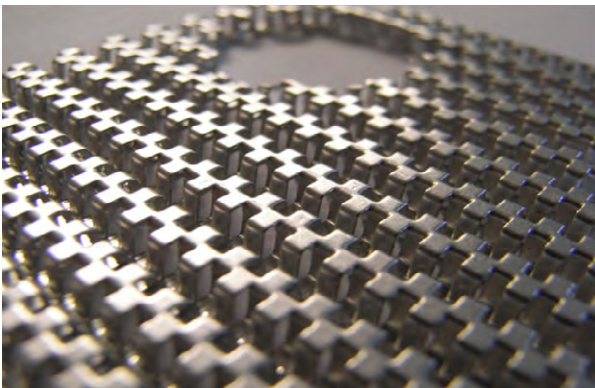
SEP 12 with SZV 2 and special pneumatics for sealing caps

Customized solutions

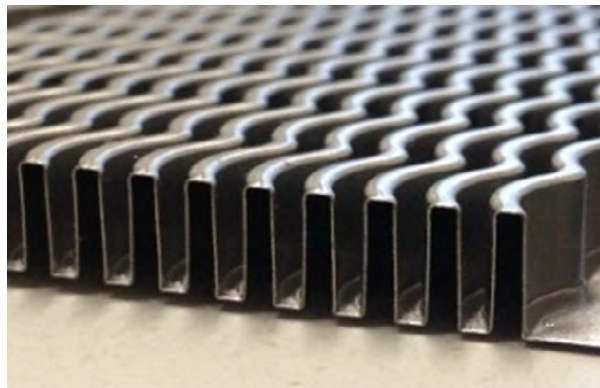
Punching lines for the efficient production of customer-specific components from the coil.



SEP 40N with multicoiler up to 6 lanes, SWV 202-450, hydraulic die cutting unit, punching tools, soundproof booth and stacking device for punched cooler fins.



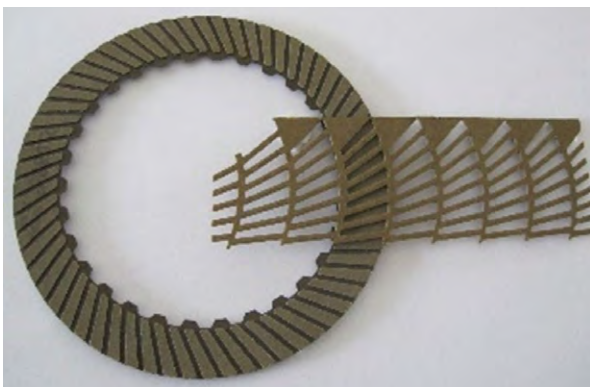
Radiator fin (off-set fin)



Radiator fin (wavy fin)



Punching line for the production of clutch plates SEP 12 with strip feeding system, roll feeding unit SWV 202, rotary indexing table with 6 stations, complete automation for loading, turning and unloading.



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