

FORMING THE FUTURE



STAMPING AND FORMING SYSTEMS SPECIAL APPLICATIONS

SCHULER 

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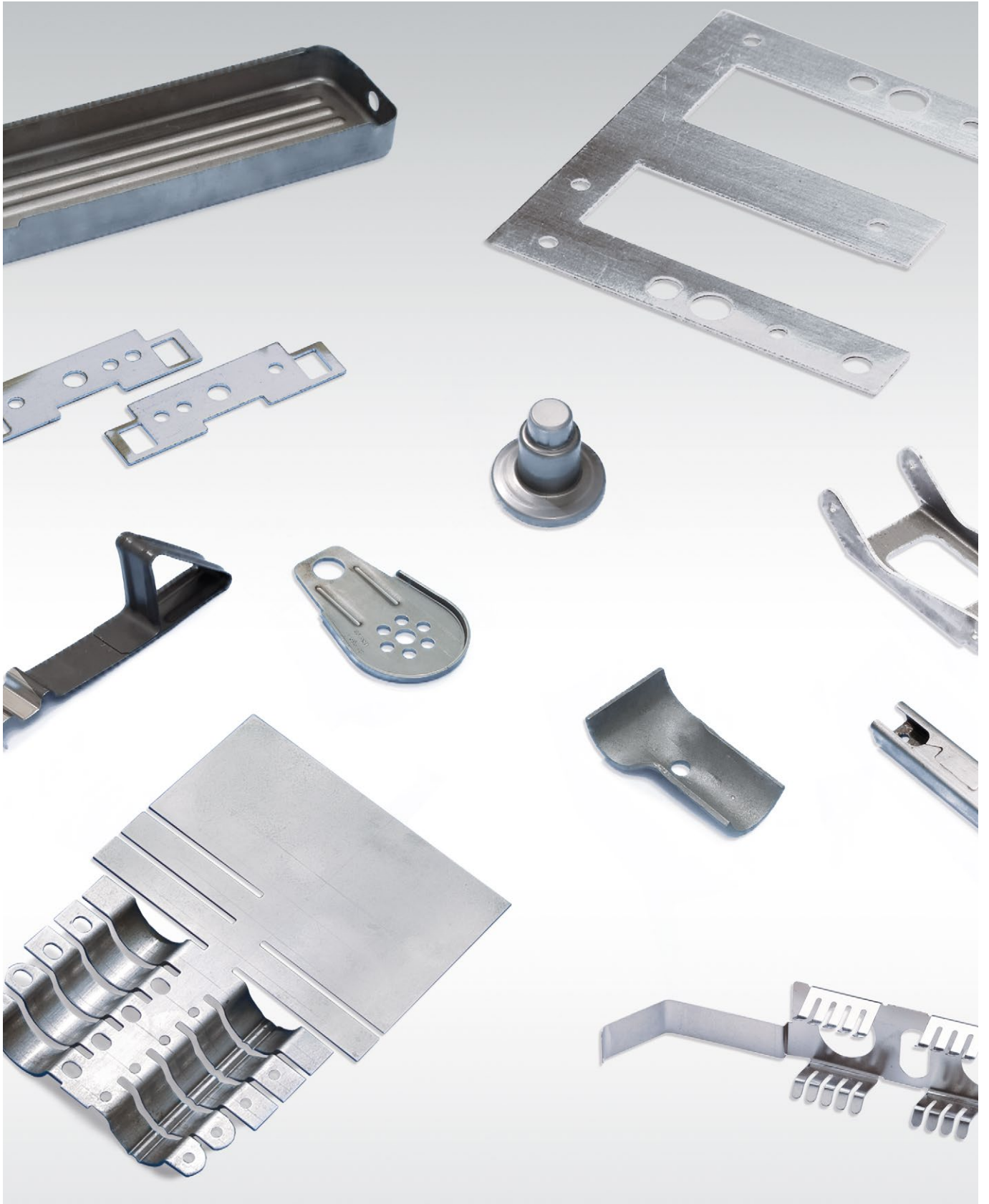


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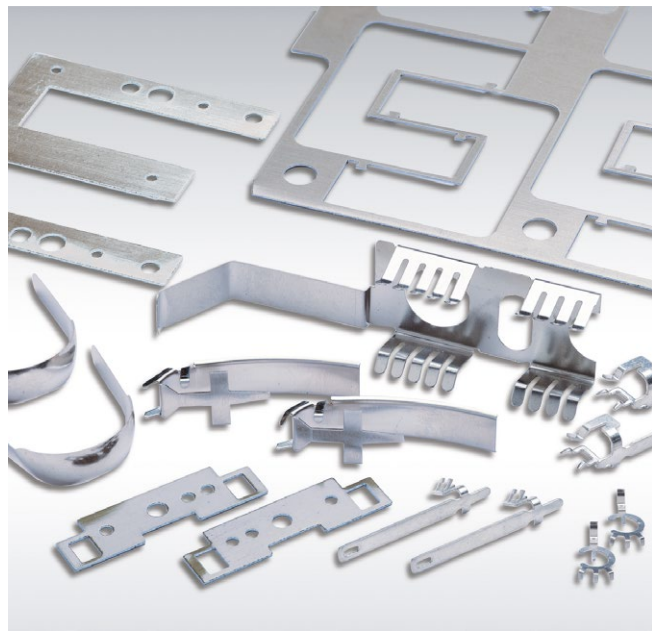
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HIGH-SPEED STAMPING PRESSES. MCF SERIES.

MCF high-speed stamping presses produce precise parts with up to 300 strokes per minute.



High-speed stamping press MCF 800.



Small, precise parts that require a low die clearance.

MCF HIGH-SPEED STAMPING PRESS

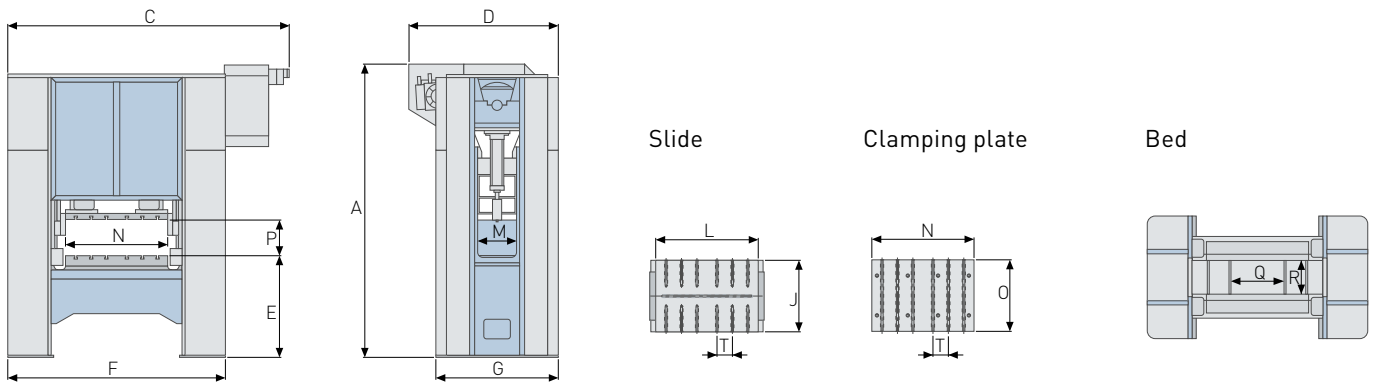
High-speed stamping presses are modular machines for manufacturing parts with output rates of up to 300 strokes per minute. The prestressed, play-free roller guiding

guarantees the necessary precision in the process: Best conditions for the series production of small parts which require a low die clearance.

THE ADVANTAGES

- Infinitely variable adjustable overload protection device safeguards machine and die
 - Lower setup times thanks to fully automatic stroke and slide adjustment
 - Prestressed and play-free roller guiding
 - Stress-relief annealed press frame
 - Long die life and high precision parts
 - High working capacity even at low speeds thanks to the planetary gear
-

DIMENSIONS



MODEL	MCF 63	MCF 80	MCF 100	MCF 125
Height of the press (without damping elements), A [mm]	2,900	2,900	3,100	3,100
Width of the press, C [mm]	2,905	2,905	3,250	3,250
Depth of the press, D [mm]	1,415	1,415	1,515	1,515
Height of the bed**, E [mm]	995	995	800	800
Width of the press upright, F [mm]	2,130	2,130	2,460	2,460
Depth of the press upright, G [mm]	1,200	1,200	1,300	1,300
Slot distance, T [mm]	150	150	200	200
T-slots / DIN 650 [mm]	a = 18	a = 18	a = 18	a = 18

TECHNICAL DATA

MODEL	MCF 63	MCF 80	MCF 100	MCF 125
Press force [kN]	630	800	1,000	1,250
Working capacity [J]	3,200	4,700	5,300	6,200
Drive power [kW]	11	16	18	21
Slide dimensions, L x J [mm]	1,000 x 700	1,000 x 700	1,300 x 800	1,300 x 800
Opening in the press frame (lateral), M [mm]	380	380	490	490
Bed dimensions, N x O [mm]	1,000 x 700	1,000 x 700	1,300 x 800	1,300 x 800
Shut height, P* [mm]	350	350	400	400
Opening in the bed, Q x R [mm]	880 x 150	520 x 330	520 x 380	520 x 380
Slide adjustment [mm]	70	70	100	100
Stroke rate [1 / min]	30 - 300	30 - 300	30 - 280	30 - 280
Stroke adjustment [mm]	9 - 80	9 - 100	11 - 100	11 - 120
Weight with standard equipment [kg]	10,000	10,000	12,000	14,500

* Largest stroke bottom, slide adjustment on top, without clamping plate. ** incl. clamping plate, without dampening elements.
Subject to technical modifications.

HIGH-SPEED STAMPING PRESSES. BMK AND EMKH SERIES.

BMK and EMKH high-speed stamping presses provide quality from the first to the last part. Durable and with low wear, they ensure reliable mass production of technical discs.



EMKH 300 with sound enclosure for further processing of the disc blanks.

High-performance and reliable –the best performance for high part quantities and large-scale production.

High-speed automatic stamping presses in the BMK and EMKH series increase production quantities, improve quality and optimize unit costs of mass-production products with greater strength and thicker material. With up to 3,000 parts per minute from the stamping operation off the coil, the BMK delivers high parts quality at constantly high production speeds. The dynamic slide mass balancing compensates the vibration of the press and guarantees exceptionally smooth running. The horizontal design also supports compressed



Typical components are technical discs, shims, blanks, shaft retaining rings, link plates and locking washers.

air-controlled parts removal, making a separate parts removal device superfluous. Each production system can be equipped with a coil feed line and is durable, low-wear and reliable.

Well designed down to the last detail. The EMKH uses a slope conveyor that individually positions the blanks for embossing. The knuckle-joint bottom drive is directly connected to an active part in the die, permitting stroke rates of up to 750 parts per minute, depending on the component.

TECHNICAL DATA

Model	BMK 200	BMK 400	EMKH 150	EMKH 200	EMKH 300
Press force [kN]	2,000	4,000	1,500	2,000	3,000
Bed dimensions [l × w in mm]	950 × 600	950 × 600			
Slide dimensions [l × w in mm]	720 × 420	720 × 420			
Height of stroke [mm]	65	65			
Stroke rate [rpm]	80–250	60–200	Up to 750	Up to 650	Up to 500
Ejector force [kN]	200	200			
Raw part dimensions [mm]			Up to 32	Up to 40	Up to 60

Further system specifications depend on the shape and thickness of the raw parts. Subject to technical changes.

THE ADVANTAGES

- Economical production of mass-produced products with high strength
- Efficient, safe parts removal
- Dynamic mass balancing of the slide for particularly quiet running
- Mechanic cam-controlled ejector, adjustable timing
- Small tolerances thanks to simultaneous blanking of the inner and outer contours
- Best parts quality with low center deviations and high plane parallelism
- Durable, low wear and reliable

PRESSES FOR ALUMINUM FORMING. PAL/PAZ SERIES.

The press models PAL/PAZ have been developed especially for producing containers and cans out of aluminum or tinplate.



PAZ 630 aluminum forming press.

The PAZ 630 is a closed and flexible single frame construction with welded and stress-relief annealed design. The size of the oscillating weight mounted on the backside of the machine gives the machine a high working capacity. The prestressed roller guides are extremely precise and do not heat up. Stroke and slide are servo-adjustable. The slide weight is counterbalanced pneumatically.



Aluminum containers for the food industry.

The PAL 400 is a double-walled, expansive C-frame construction. By mounting an additional armature rod and installing additional oscillating weights the rigidity and the working capacity can be improved.

TECHNICAL DATA

MODEL	PAL 40	PAZ 63
Press force [kN]	400	630
Depth of throat [mm]	350	–
Bed width [mm]	975	1,300
Bed depth [mm]	650	950
Slide width [mm]	340	1,300
Slide depth [mm]	265	820
Slide adjustment [mm]	100	100
Slide stroke [mm]	80 – 180	16 – 160
Shut height* [mm]	475	650
Opening in the bed [mm]	600 × 420	1,000 × 600
Drive power (depending on unit) [kW]	15	15
Stroke rate [rpm]	40 – 150	30 – 150
Weight with standard equipment [kg]	7,000	13,000
Opening in the press frame (backwards) [mm]	740	–
Overload stroke with mechanical breaking plate [mm]	13	–
Overload stroke with hydraulic overload protection device [mm]	–	20

* Largest stroke bottom, slide adjustment on top, without clamping plate. ** Vibration damped mounting: max. 135 strokes per minute. Subject to technical modifications.

THE ADVANTAGES

- Customized system solution from the coil to the finished product
- Generously dimensioned shut height, stroke height and bed length
- User-friendly 12" touch screen with interfaces for peripheral equipment
- Production lines for test runs and training of operator personnel in Switzerland

THE RADIATOR SPECIALISTS.

RMK SERIES.

The RMK knuckle-joint presses are the specialists when it comes to the manufacture of flat radiators. They are available with press forces of 3,550 or 15,000 kN as individual equipment versions or complete system solutions – for fast, highly efficient processes.



RMK 1500 radiator press with double knuckle-joint upper drive.



Flat radiator with different embossing stages.

Cost effective and reliable – from the coil to the formed radiator panel. The RMK series knuckle-joint presses enable precise embossing of radiator panels with exceptionally low material consumption. An optimal stroke rate is achieved through precise coordination of the entire system.

All models are equipped with two knuckle-joint systems, working in parallel, which ensure maximum precision and precise forming. The only exception is the RMK 355 model, which, due to its compact dimensions, can achieve comparable results with just one knuckle-joint system.

Dies and die change systems from a single source.

Schuler possesses years of experience in the radiator industry and offers mature technology and tried-and-tested system components. The press is run-in with the original die and original coil material to ensure rapid commissioning.

Depending on the bed width, single, double or sandwich dies can be used. The die change systems are precisely tailored to suit the system –according to requirements: From suspension consoles, mechanical or motorized die change consoles through to tandem die change cars.

TECHNICAL DATA

Model	RMK 355	RMK 630	RMK 800	RMK 1500
Press force [kN]	3,550	6,300	8,000	15,000
Bed length [mm]	Bed width [mm]			
1,050	900			
1,500		1,200		
2,000			1,400	
2,500				1,500
Shut height [mm]	550 – 710	550 – 710	550 – 710	550 – 710
Slide adjustment [mm]	10	10	10	10
Slide stroke [mm]	80	80	80	80
Stroke rate [rpm]	20 – 65	30 – 85	30 – 80	20 – 70
Possible panel size	1 × 600	1 × 900	2 × 600	2 × 900

Subject to technical changes.

THE ADVANTAGES

- Optimum stroke rate thanks to precise coordination of the entire system
- Extremely high rigidity for precise results
- High component accuracy, low die wear and maximum process reliability
- Very easy to use
- Optimized slide bearing guide thanks to special materials, surfaces and multi-circuit lubrication supply
- Long service life for all components thanks to counterbalance system

HIGH-PERFORMANCE FOR EMBOSSING AND CALIBRATING. EMK SERIES.

Presses in the EMK series have press forces from 3,600 to 10,000 kN, enabling fast and cost-effective production of embossed and calibrated parts.



EMK 630 with knuckle-joint bottom drive.

Precise embossing and calibrating. Optimum product quality with high output, long die service lives, low service and maintenance costs and tight product tolerances: The EMK series knuckle-joint presses are the problem solvers when it comes to high-precision and complex embossing and calibration parts.



Typical components are engine and gearbox components, locks and fittings, hand tools, cutlery as well as insignias and medals.

The knuckle-joint bottom drive provides all the advantages of a low center of gravity: low construction height, high stability and quiet running. The press frame functions as the slide, while the bed is rigidly connected to the housing. The knuckle-joint kinematics reduce the slide speed during forming and give the material enough time for plastic flow. This results in long die lives and efficiently produced precision parts for a wide range of applications.

TECHNICAL DATA

Model	EMK 360	EMK 630	EMK 1000
Press force [kN]	3,600	6,300	10,000
Bed length [mm]	Bed width [mm]		
525	580		
580		750	
670			650
Shut height [mm]	407	450	450
Slide adjustment [mm]	7	50	50
Slide stroke [mm]	90	100	100
Stroke rate [rpm]	32–80	20–60	20–45

Subject to technical changes.

THE ADVANTAGES

- Compact, space saving and robust knuckle-joint lower drive
- Low die wear thanks to almost shock-free contact with the workpiece
- Highly rigid system
- Low construction height
- High stability and quiet running

LIFECYCLE SERVICE FROM SCHULER.
EXTENSIVE INDUSTRY SERVICES FOR
FORMING TECHNOLOGY.



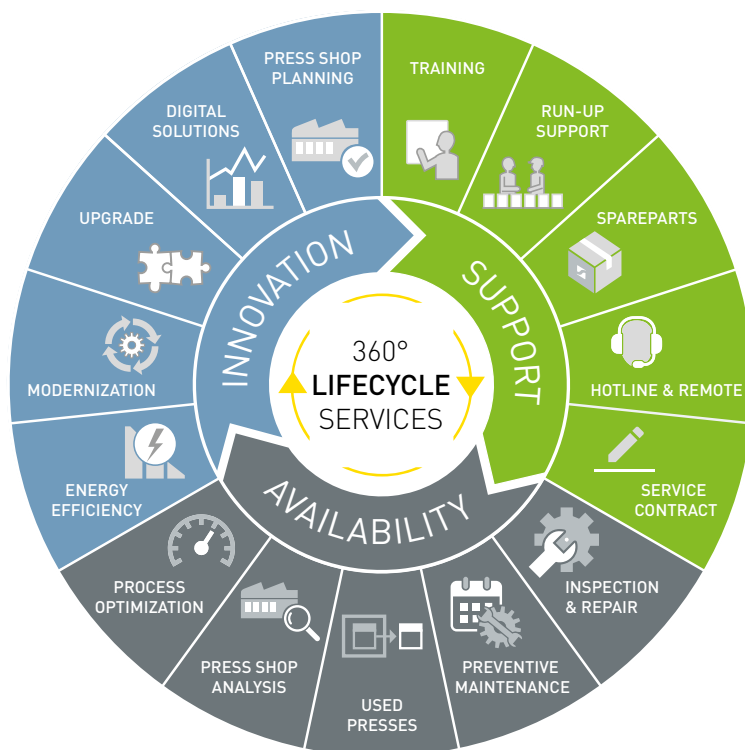
From the dependable supply of spare parts and rapid assistance in the event of malfunctions to the digital transformation process: products and services from Schuler Service help you to keep your system running at an optimal level.

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Schuler offers customized cutting-edge technology in all areas of forming – from the networked press to press shop planning. In addition to presses, our products include automation, dies, process know-how and service for the entire metalworking industry. Schuler's Digital Suite brings together solutions for networking forming technology and is continuously being developed to further improve line productivity and availability. Our customers include automotive manufacturers and suppliers, as well as companies in the forging, household appliance and electrical industries. Presses from the Schuler Group mint coins for more than 180 countries. Founded in 1839 at our headquarters in Göppingen, Germany, Schuler has approx. 5,000 employees at production sites in Europe, China and the Americas, as well as service companies in more than 40 countries. The company is part of the international technology group ANDRITZ.

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