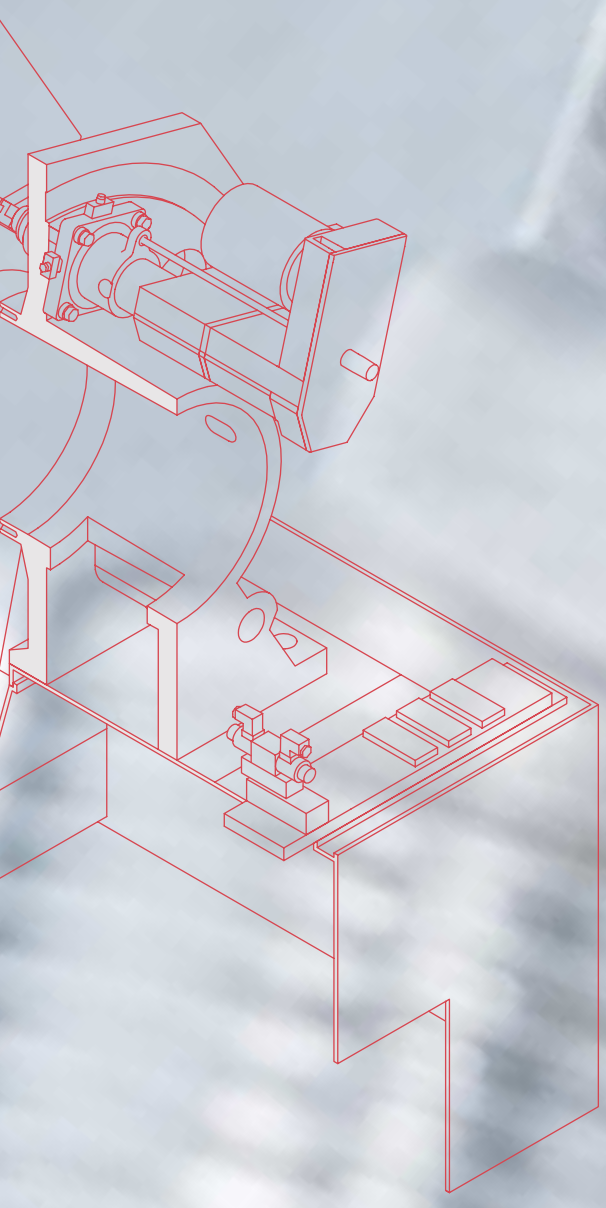
Pfiffner
precise solutions

Pfiffner Hydromat® V 8, V 12

Flexible Rotary Transfer Machines



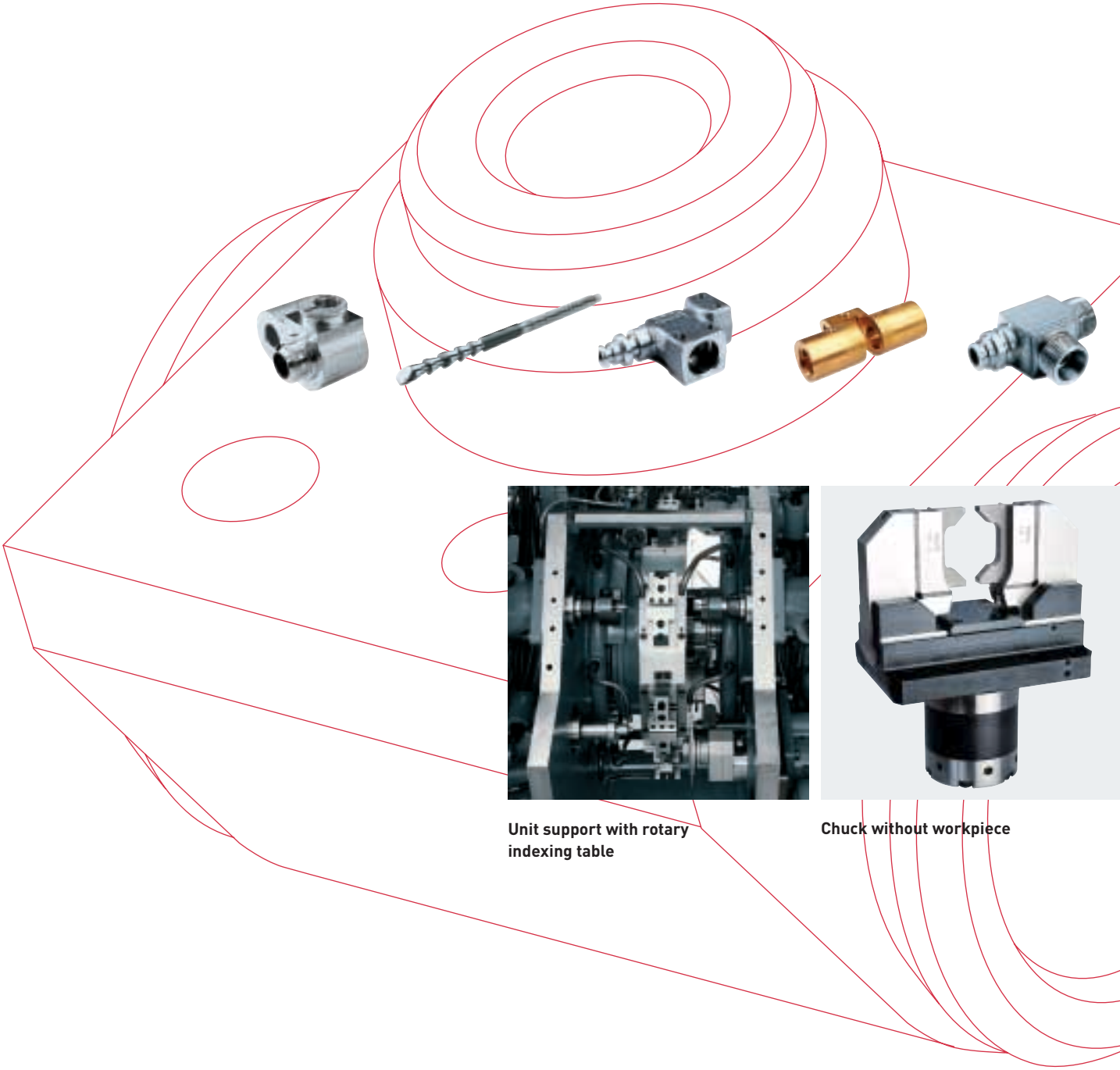
- Vertical transfer system
- Simultaneous machining on three sides
- Optimised for long lengths (overlengths)

Model Brochure

Hydromat® V: for high flexibility, productivity and economy

Pfiffner has been constructing special, highly-developed machinery for the manufacture of mass-produced workpieces since 1976. These electro-hydraulic, rotary transfer machines can be used for machining from bar stock, coil materials, or parts that are fed in automatically. An intelligent module system offers a high degree of flexibility: The construction and equipping of Pfiffner machines are essentially determined by the workpiece to be machined.

The V8 and V12 rotary transfer machines can handle the most demanding machining requirements. Due to their «vertical» method of construction, the V-series machines offer a diverse range of user possibilities. In contrast to the HW, HB and HS ranges, the axis of the rotary indexing table is arranged horizontally. Up to 16 (V8) or 25 (V12) machining stations can be mounted around the indexing drum. The machine concept permits up to 3 machining units per station: this facilitates the simultaneous machining of the workpiece in 3 planes.



Unit support with rotary indexing table

Chuck without workpiece

Hydromat®'s own, completely modular concept is also employed in this machine model. A wide range of different machining units, control valves, tool heads etc., from the Hydromat® module system can be used in all machine ranges, a feature which assures flexibility for the future.

The hydraulic chucks are specifically adapted to suit the workpiece that is to be clamped. In addition to the self-centering twin-jaw chucks, special clamping elements can also be used for shaped parts. The clamping pressure can be infinitely adjusted by means of hydraulics. This allows raw workpieces, shaped parts of various sizes and bar materials up to 45 mm in diameter and 300 mm in length to be machined without problem.

As is the case in all Hydromat® machines, all movements, advance speeds and rapid motions can be infinitely adjusted by means of the hydraulic control valve assigned to the machining unit. In the electro-hydraulic model, available as an alternative, the machining units can be comfortably set in operation and monitored via the operating panel. This great degree of flexibility allows the Hydromat® to be quickly and economically re-tooled for new production tasks.

Workpieces produced on the Hydromat® V






Chuck with workpiece

Simultaneous machining from two sides

Machining

Threading die head for external threads

Machine control system

The consistent modular nature and flexibility of the mechanical systems are also reflected in the machine's electrical control concept. The SIMATIC S7 from Siemens forms the basis of the machine control system. The integrated, Hydromat®-specific user screen facilitates the simple, dialogue-led operation and programming of the machine. Repetitive machining tasks can be stored and called up again when needed, a feature which makes re-tooling much easier. In addition, the unified operating concept of all base machine models reduces training expenditure to a minimum.

The machine's control system concept and design are planned to allow problem-free retooling for extended functionality, such as CNC axes etc. In this process, the digital control system, SINUMERIK 840 D from Siemens, takes over the control of the interpolative machining units. With its integrated ASI bus and Profibus, high performance bus systems are available, onto which customer-specific solutions can be easily mounted at a later date. Teleservice, available as an option, facilitates the fast, remote diagnosis and rectification of malfunctions, a feature which reduces stoppages to a minimum.

		V 8	V 12
Number of stations		8	12
Number of machining units	Left/right max.	5/6	8/9
	Vertical max.	5	8
	Total units	16	25
Rotary indexing table	Indexing	8-piece	12-piece
	Indexing time	0.7 seconds	0.7 seconds
Clamping device, hydraulic	Chuck	8	12
Round bar material	Max. bar diameter	45 mm	45 mm
	Max. workpiece length	300 mm	300 mm
Cubic material (LxWxH)	Max. edge length	200x60x60 mm	200x30x30 mm
Machine weight inc. bar magazine (4 m)		Approx. 6,500 kg	Approx. 7,000 kg

Machine dimensions		Length 9.8 m	Width 3.5 m	Height 3.6 m

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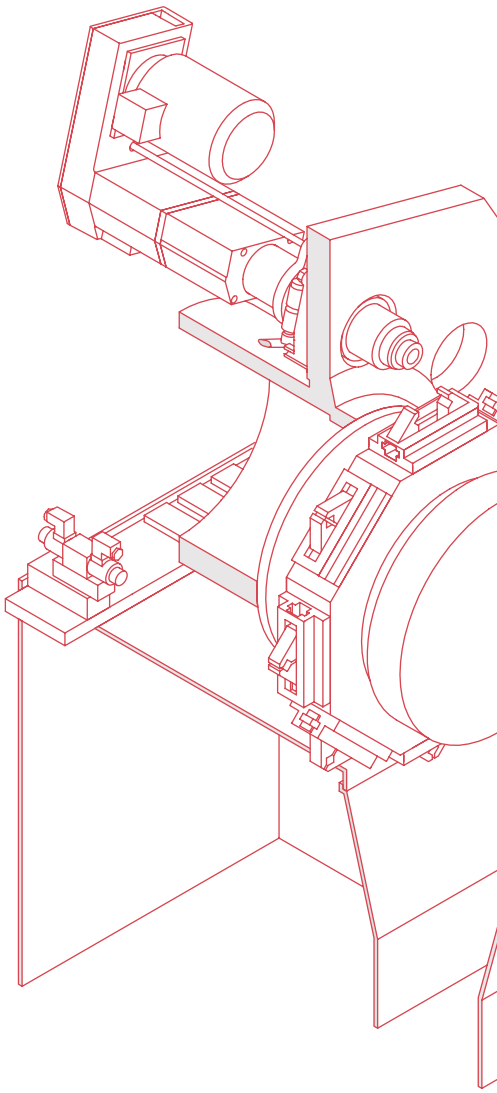

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