











TOOL HOLDERSCITIZEN CINCOM L12.





PCM WILLEN SA

For over 40 years, PCM Willen SA is one of the world's leading manufacturers of special tool holders for automatic lathes.

All our products are developed and manufactured in Switzerland and bear the label «Swiss Made», which is synonymous with precision, quality and reliability.

Our company is located in the middle of French-speaking part of Switzerland at the edge of Lake Geneva near Montreux.

Our international dealer network ensures continued after sales support. We offer training courses, which we tailor to individual customer requirements.

PCM stays for innovation and progress. Our superbly qualified engineering staff ensures finest quality of manufacturing solutions and keeps our customers ahead of the competition.

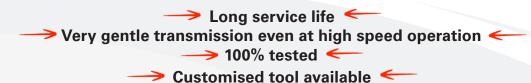
In close cooperation with machine builders and end users, we stay on the way to satisfied customers. We will keep this track in the future.

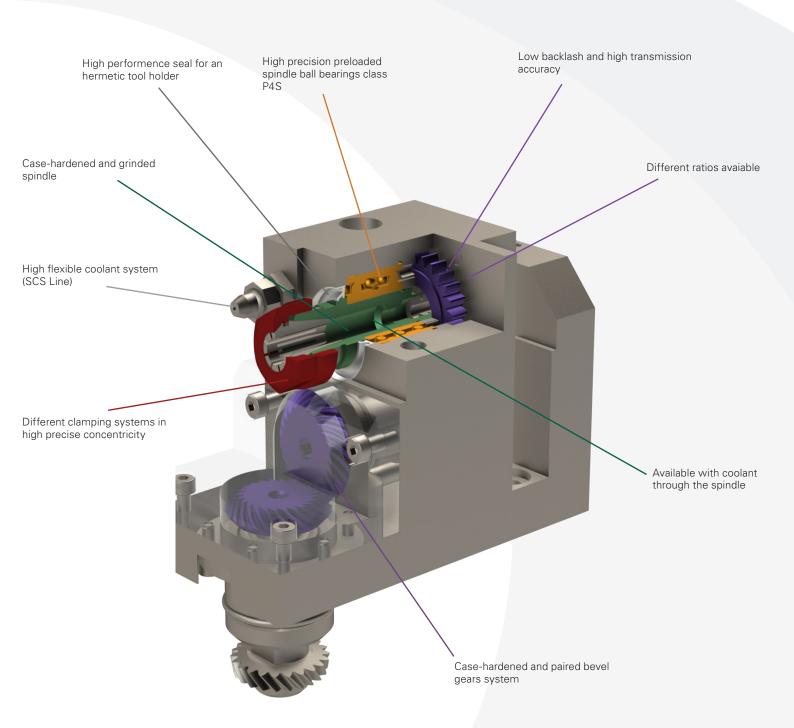
The best quality toolholders can only provide optimum performance if they are maintained or repaired with first class replacement parts. PCM experts emphasize professional after sale support for all PCM equipment.





YOUR CHOISE N°1 IN TOOLING SYSTEMS







CITIZEN CINCOM L12

Radial tools	5
Axial tools	15
Accelereted tools	21
Slitting saw tools	27
Polygon tools	31
Hobbing tools	35
Whirling tools	45
Static tools	49

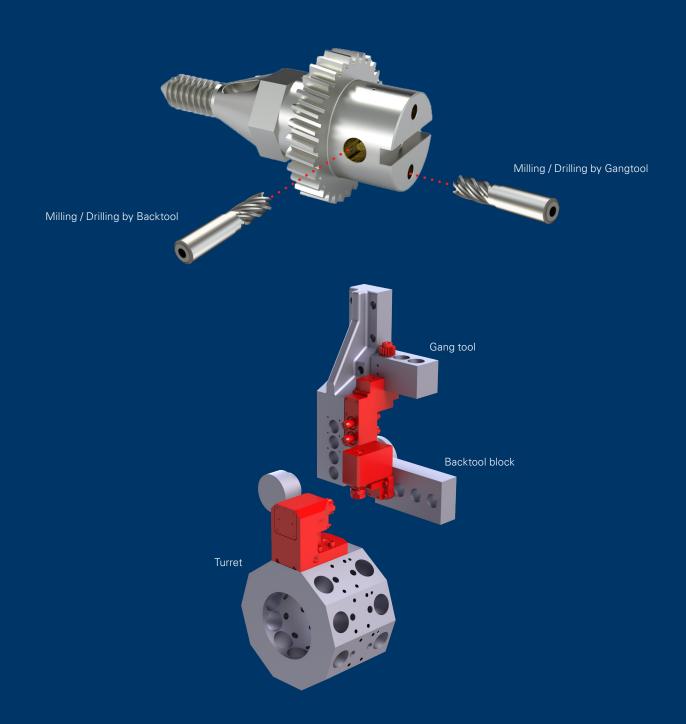
Rotation: cw Clockwise ccw Counterclockwise Cooling: 6 INT Interior 6 EXT Exterior 8 Without



RADIAL DRILLING / MILLING TOOLS

The machining direction of radial tools is usually at 90° to the drive. These tools make it possible to carry out face machining on the gang tool. On the backtool block, these tools are used for radial machining.

These tools are available in different versions such as spindle cooling, transmission, multi-spindle, etc.













































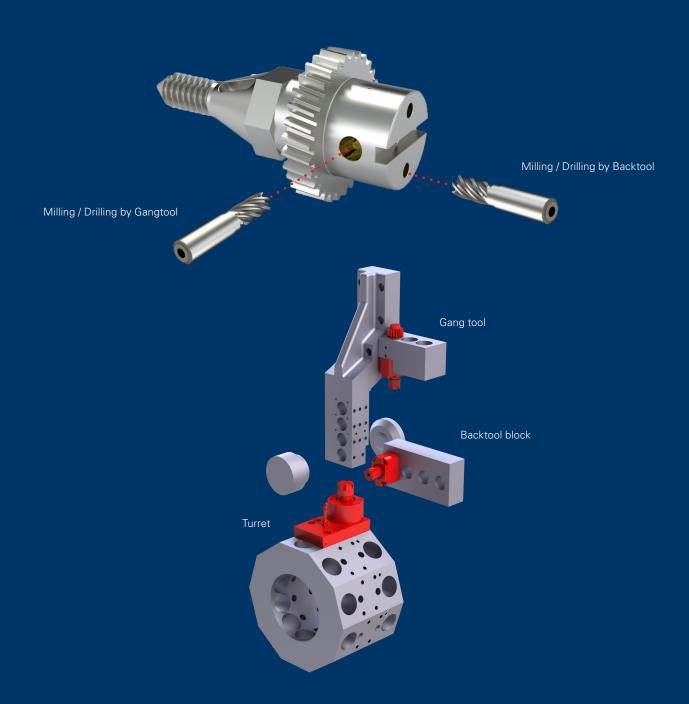




AXIAL DRILLING / MILLING TOOLS

The machining direction of radial tools is usually 0° relative to the drive. These tools make it possible to carry out radial machining on the gear tool. On the backtool block, these tools are used for face machining.

These tools are available in different versions such as spindle cooling, transmission, multi-spindle, etc.





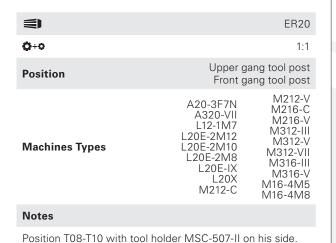






MSC-513







MSC507-HP



	ER11
O ÷0	1:1
Position	Upper gang tool post Back gang tool post Front gang tool post
Machines Types	A20-VII A20-3F7N M212-C A320-VII M212-V L12-1M7 M216-C L20E-2M10 M216-V L20E-2M8 M312-II L20E-IX M312-VI L20E-IX M312-VI L20X L32-1M10 M316-III L32-1M10 M316-V M316-VI M316-V M316-V M316-V M316-V M316-V M316-V M316-V M316-V M316-W M316-W M316-W M316-W M316-W M316-W M316-W M316-W M316-W M316-W M316-W M316-W M316-W
Notes	

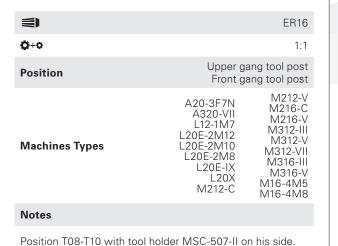
We strive to publish complete, correct and up-to-date information. However, we take no responsibility for, and make no warranty as to, the accuracy, completeness or frequency of updates. We reserve the right to make changes

INT



MSC-512





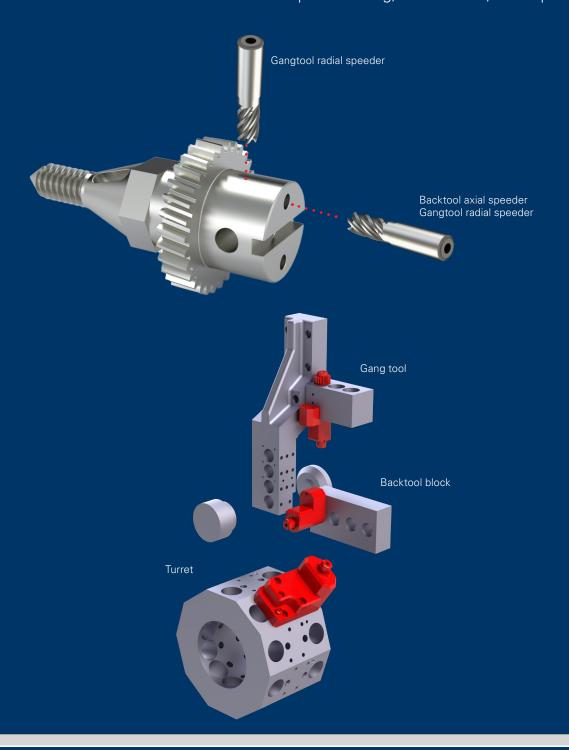






ACCELERATED TOOLS (SPEEDERS)

The accelerated tools, also called speeder, are internally translated to achieve higher speeds. This is necessary if the required cutting speed cannot be achieved with the machine's rotational speeds. Engraving, small drillings and milling can be done with them. The tool size is under 3mm as usual. The tools are available with ratios from 1:2 to 1:3.8 and reach a maximum speed of 38'000 rpm. These tools are available in different versions such as spindle cooling, transmission, multi-spindle, etc.





















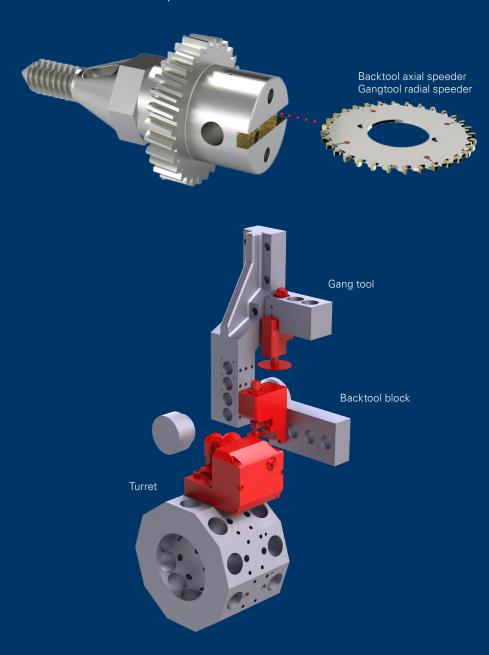






SAWBLADE TOOLS

On a bar lathe, the distance between a tool and the guide bush is very short in order to achieve maximum stability of the workpiece and therefore minimum vibration. The distance from the tool axis to the zero point of the machine is between 2 mm and 10 mm, depending on the type of machine. It is therefore impossible to make a niche. For this reason, tools have been developed that have a greater distance from the machine zero point and whose spindle has a very stable design. Thus, the forces that occur during such a process can be absorbed without damaging the bearings of the tool holder. Side milling cutters with a diameter of up to 75 mm can be used.











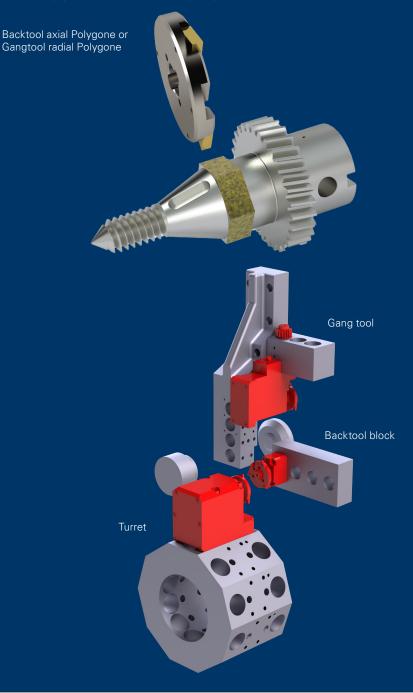




POLYGON TOOLS

The polygon turning unit has a multitude of inserts, and is synchronized so that when an insert cuts the turning bar stock, it cuts the bar at the same radial position each time the workpiece rotates = counterrun. This enables geometries such as hexes, squares and flats to be machined at faster speeds than by milling.

The surfaces can be produced using the grooving method as well as the longitudinal turning method. It can also be used to copy a chamfer (deburring the surface).













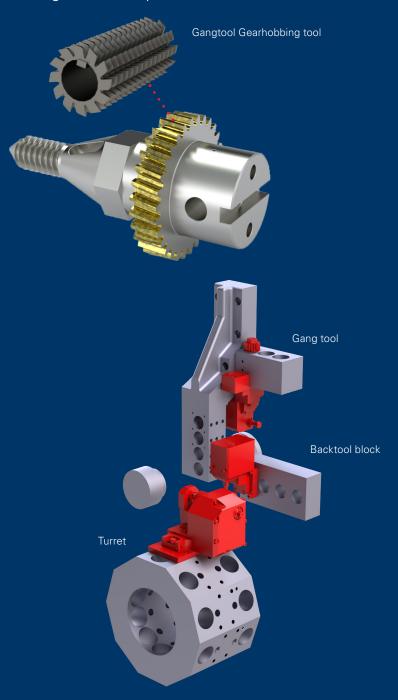


HOBBING TOOLS

When gear cutting on a bar-turning machine, make sure that the main spindle turns synchrnously with the tool. For this purpose, the machine manufacturer provides a macro that guarantees synchronism and simplifies programming.

The smallest gears have a module of 0.03mm and the largest a module of 2mm.

Furthermore spur and helical gears can be produced.













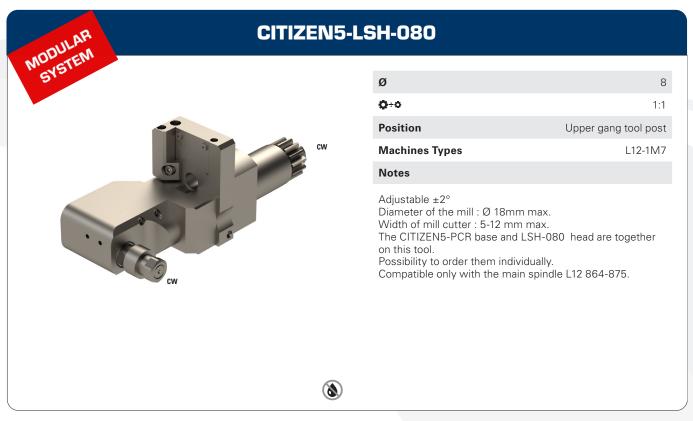




































RSH045



Ø	4.5mm
Ö÷0	1:1
Position	Front gang tool post
Machines Types	L12VII
NI C	

Notes

Diameter of the mill : Ø 30mm Width of mill cutter : 4.5mm max Adjustable height ± 2° Need 2 tools positions





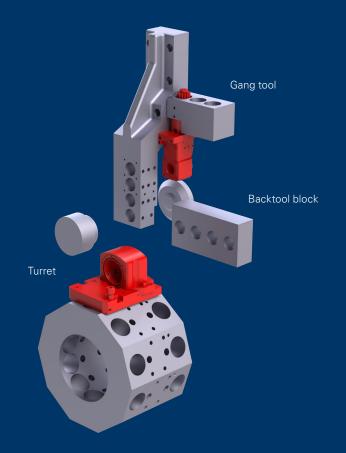


WHIRLING TOOLS

Thread Whirling is a form of the Thread Milling process with the exception that the cutters are mounted on the inside of a Cutting Ring or Cutter Holder rather than the outside of a milling tool. This process is used in the production of screws. The process is very stable and safe due to short chip formation.

Whirling can also be used to produce eccentric shafts.





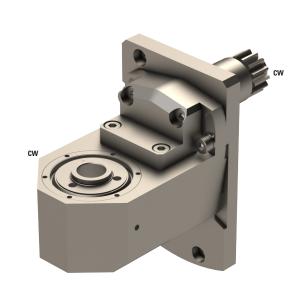


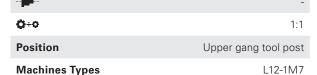






LSW-515





Notes

Adjustable +15°
Need 3 tool positions
Thread whirling ring not included!
W03060511113 / SCHWANOG Thread whirling ring
Z=5 Ø6 mm
501-0003 / GLOOR Thread whirling ring
Z=5 Ø6 mm
W01060311113 / GLOOR Thread whirling ring
Z=3 Ø6 mm







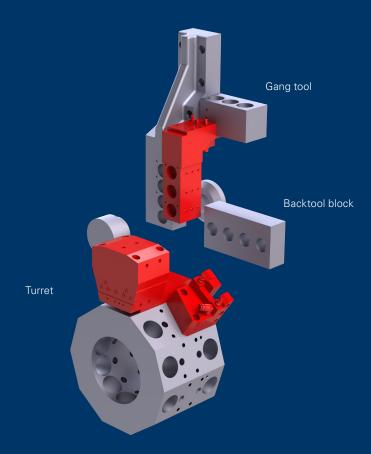
STATIC TOOLS

The toolholders are non-rotating tools. They can accommodate drilling spindles, colletholders or high-frequency spindles.

These toolholders are only for centric machining.

When using a high-frequency spindle, the same operations can be performed as with the driven toolholders.

















Machines Types Ø7mm

Notes

For collet Meister 1352 Adjustable axial position Main spindle



L12-876-872



 Machines Types
 Ø16mm

Notes

For collet WIBEMO 605 Main spindle

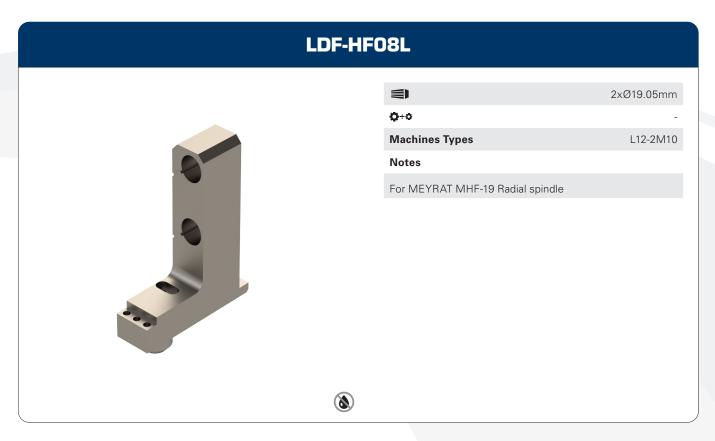
















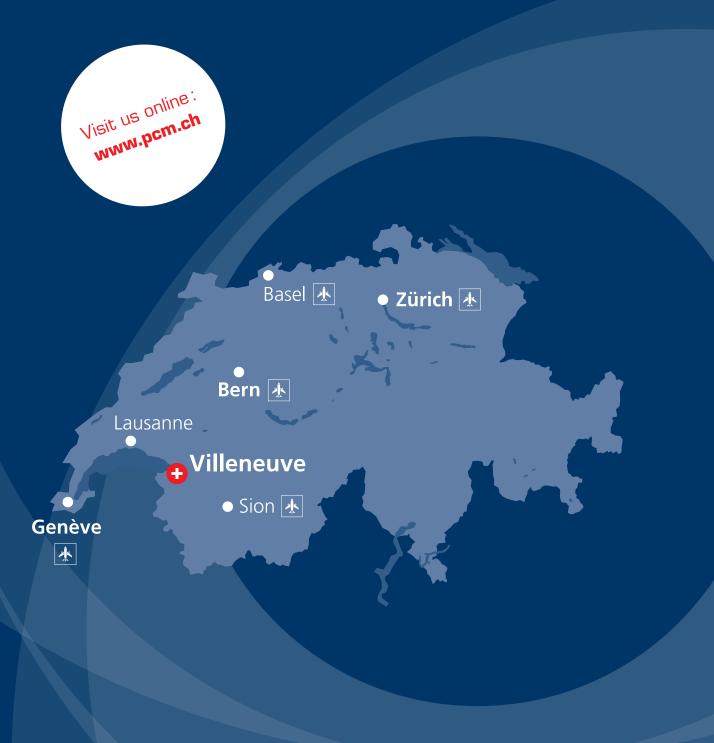












PCM Willen SA

Route du Grammont 101 1844 Villeneuve Switzerland

Tél. +41 (0)21 967 33 66 Fax: +41 (0)21 960 38 95