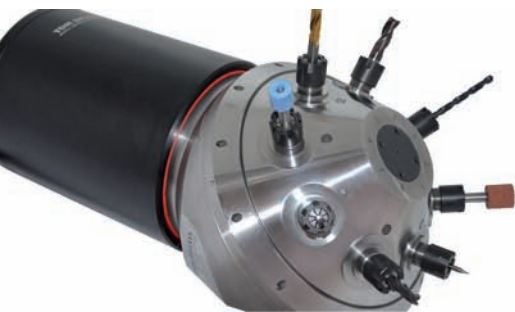


# **TDM SA** motor spindle technology

## **MULTI-TOOLS**



less vibrations



less heating



more speed

more rigidity



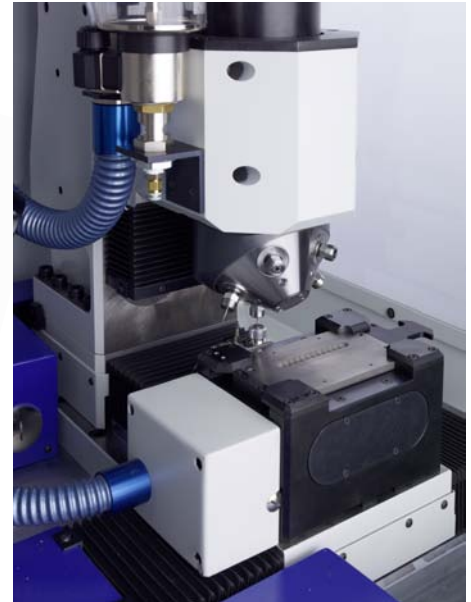
Made in Switzerland

A world leader in the design, development and manufacturing of high speed precision motor spindles

## MULTI-TOOLS presentation



TDM Multi-tool



- less vibrations
- more rigidity

- less heating
- longer life for tools

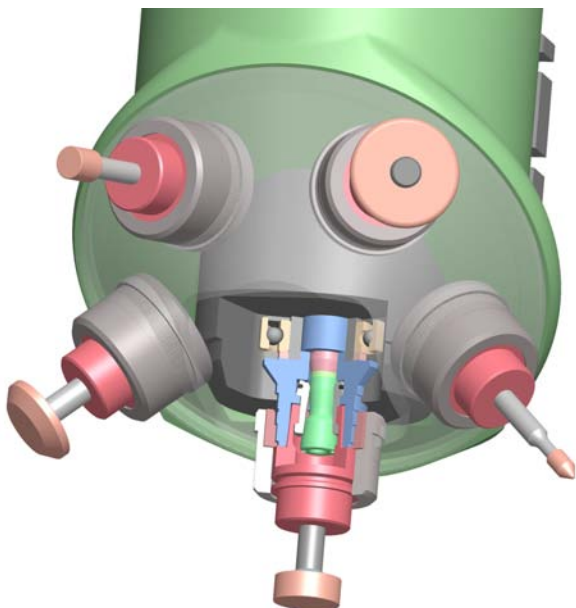
- more speed

### To increase the possibilities of machines

Rational and economic solution, the spindle is very compact and is available in several standard sizes. It is simply integrated into the working areas of the machine. With a single motor spindle many tools are available. It therefore increases significantly the number of available tools and thus the possibilities of machining.

### .... for efficient results

Fully sealed, the new multi-tools electrospindles are extremely dynamic and can reach **80'000 rpm** and more depending on the model. Indexing from one tool to another is done in a very short time (tool change chip to chip in **1 to 2 seconds**).



### An universal solution?

In economic conditions where it is necessary to do 'always more' with the most reduced possible investments the new TDM multi-tools increase significantly the possibilities.

### A robust and reliable design....

The selected tool is always in direct contact with the motorspindle. **It has no clutch no gears.** The toolholder is directly inserted in the shaft of the motorspindle through an HSK interfacing, very simple!

The level of vibration generated is therefore very low and impacts directly tools life and bearings life as well as the quality of machining.

### Optimal working conditions

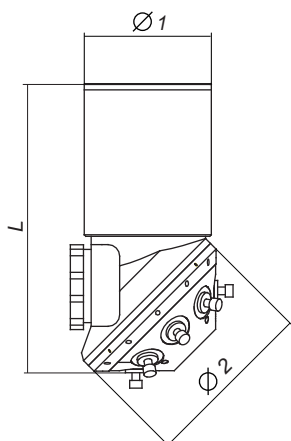
The motorspindles with integrated tool change are available with many conventional options, e.g. threaded holes, through center cooling and sensors of all types. But the company goes further in term of customization. The working conditions are always perfectly adapted to the needs.

### .... for

TDM multi-tools can be used for grinding, high precision turning and milling operations.

## MULTI-TOOLS Models

### MULTI-TOOLS 45°



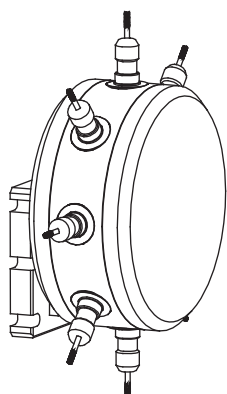
### Motorspindle with integrated tool changer

With different tools interface type HSK 11, HSK 25, HSK 32, HSK 40, HSK 50, HSK 63

type	tool interface	number of tools	max speed rpm	torque S1 Nm	power S1 kW	Ø 1 mm	Ø 2 mm	L mm
MT 11	HSK 11	from 2 to 10	80'000	0.3	2	120	145	328
MT 25	HSK 25	from 2 to 10	60'000	1.2	3	170	224	410
MT 32	HSK 32	from 2 to 10	45'000	8	7	215	272	450
MT 40	HSK 40	from 2 to 10	40'000	14.3	15	270	340	550
MT 50	HSK 50	from 2 to 10	30'000	30	25	330	400	700
MT 63	HSK 63	from 2 to 10	24'000	60	30	360	436	760

Other configurations with more tools or with other spindles characteristics are available on request

### MULTI-TOOLS 0°



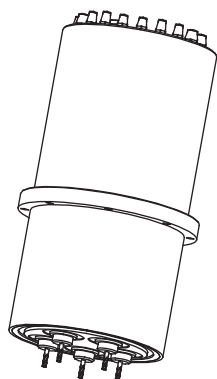
Ideal for turning machines, milling centers, grinding machines and transfer machines.

**Available:**

with different tools interface type HSK 11, HSK 25, HSK 32, HSK 40, HSK 50

with different numbers of tools from 4 to 30

### MULTI-TOOLS 90°



Ideal for machining centers, automatic turning machines, grinding machines and transfer machines.

**Available:**

with different tools interface type HSK 11, HSK 25, HSK 32, HSK 40, HSK 50, HSK 63

with different numbers of tools from 4 to 10

The new MULTI-TOOLS spindles with integrated tools changer are available for machine-tools manufacturers who want to equip their new products and also available as retrofit set comprising the spindle and all its needed peripherals for users of machines.

## Available documentation for:



Motorspindles for milling operations



Motorspindles for light milling operations



Adaptor spindles



Motorspindles for grinding operations



## Support units

- Cooling system
- Frequency converter
- Lubrication unit air + oil



**TDM SA**   
motor spindle technology

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