



**X**-treme thread cutting<sup>™</sup>





### **Company Profile**

Carmex Precision Tools Ltd. is a leading manufacturer of high quality cutting tools. The company was founded in 1988 in Maalot, located in the beautiful North West region of Israel.

#### **Product Lines**

Carmex specializes in the production of threading tools for turning and milling. Our product lines include Thread Turning inserts and toolholders, Mill-Thread inserts and toolholders, Mill-Thread Solid Carbide and Spiral Mill-Thread. In addition to threading, we produce Grooving tools, Mini Chamfer mills and the Tiny Tools line of small boring bars for threading, turning and grooving of small parts. The company's different product lines are recognized worldwide for their advanced technology, reliable full range lines that offer accurate geometry, excellent cutting performance and extended tool life. Our products and service we provide live up to the highest standards and outperform them. Carmex also produces special tools in accordance with the customer's requirements.

#### **Quality Assurance**

In addition to our unyielding strive for high quality, speedy service and reliability, Carmex is certified by ISO 9001:2008, ISO 13485:2003, ISO 14001:2004, OHSAS 18001 and CE. Most of our customers' requirements are supplied immediately from our readily available wide range of inventory as well as from our agents and distributor's stocks around the world. In August 2008 Carmex completed its transfer to the new, state-of-the-art modern building. In addition to the construction we invested in advanced machinery and equipment as part of our strategy to keep our position in the first line of high technology.

#### **Carmex Branches**

In addition to its distributor's chain, Carmex has three independent sales branches. Each of them keeps Carmex's wide range of stock and employs talented, service oriented managers, engineers, technicians and administrators willing to fulfill the customers' needs.

**C.P.T. GmbH**, Stuttgart Germany serving Europe.

**Carmex Precision Tools LLC**, Wisconsin USA, serving North America and Mexico.

Carmex Italia Srl, Modena Italy.



### **HBA** – Takes on the toughest materials

# Carmex introduces HBA, a new extra-fine sub-micron grade with high toughness for optimized performance.

Threading of fully hardened and toughened materials is increasing due to manufacturers who need to avoid thread distortion and want to reduce the manufacturing time. Thread turning inserts for machining materials harder than 40 HRc require an optimized combination of carbide substrate, coating type and edge conditions.

To meet this market need, Carmex is introducing HBA, a new extra -fine high-strength sub-micron grade for optimized performance on:

Hardened Steels and Cast Iron up to 62 HRc. HBA 可加工至HRC62

Titanium Alloys and Super Alloys (Hastelloy, 钛合金和超合金 (海斯特、Inconel and Nickel base alloys). 因科镍和镍基金)

### **Advantages:**

- High wear and heat resistance <mark>高耐热、高耐磨</mark>
- Excellent edge stability 杰出的切削刃稳定性
- Unique coating structure **独特的涂层结构**



### Size 11mm Type B inserts 规格 11 烧结 B 型断屑槽刀片

### Precision ground thread form with sintered Chip-Breaker

Carmex expands the Type B line by offering a new size 11mm internal thread turning inserts, including a wide range of thread profiles and pitches.

- Ensures accurate and high quality threads. 确保准确的和高品质的螺纹。
- Reduces cutting forces. 减小切削力
- Improved chip control and chip flow, for high surface finish. 改进切屑控制和流向、高表面光洁度
- Excellent for internal threads. 内螺纹加工杰出
- BMA Sub-Micrograin grade (K20-K30, P20-P40), provides high wear and heat resistance. 亚微粒级 (K20-K30、P20-P30) 高耐热和高耐磨



### Swiss-Line 多用途瑞士小型切槽、切断、倒角车刀、刀片,冷却供给。

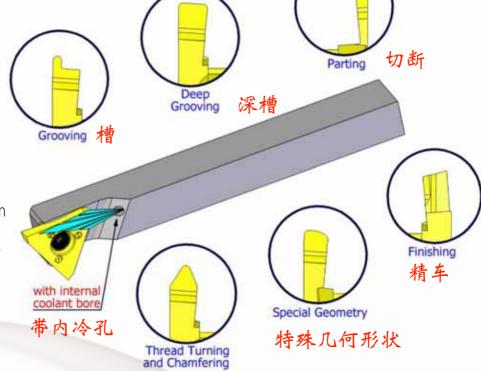
Carmex is introducing a new line of inserts and toolholders, developed for automatic lathes and Swiss Type machines.

Designed for economic parting, grooving, profiling and chamfering mass production.

### **Advantages**

Advance sub-micron grade (K10-K30) with unique PVD triple coating - a combination of strength, toughness, wear resistance and edge sharpness.

- Three grounded cutting edges.
- For most types of material, including Stainless Steels, Titanium and Super Alloys.
- The insert can be indexed directly on the machine.
- Internal coolant to the cutting edge.



### **Mini Tools**

螺纹和倒角

Carmex expands Mini tools product line of vertical inserts and toolholders for threading, chamfering, grooving and turning by offering smaller inserts and holders for small diameters starting from 8mm.

### Carmex迷你、垂直安装的刀片和刀杆,螺纹、倒角、切槽最小加工直径8mm。

- Carbide shank toolholder provides excellent vibration resistance. 硬质合金刀杆,杰出的抗振性能
- Long reach. 非常大的长径比
- Through coolant. 内冷供给
- Quick indexing. 快换式



**Carbide grade BLU:** Sub-micron grade with advanced PVD triple layer coating delivering high heat resistance and smooth cutting operation.



### **CMR**

Carmex Multi-Task Tiny Tools CMR 多用途小工具



 Carmex is introducing a new and innovative Multi-Task Tiny Tool CMR for Boring, Turning, Facing and Chamfering with a single tool.

Carmex推出一个新型多用途微型小鏡刀CMR: 集 鏡孔、车端面、和倒角于一身 A unique design enables to machine the material with no need for a pilot hole. 一个独特的设计,能够使机加时不需要一个引导孔

- The new tool shortens the machining cycle time and the number of tools required - providing "High Productivity" 新刀具缩短加工时间和减少刀具库存,提高生产效率
- Effective throught coolant hole with spiral flute, evacuates the chips out of the hole uninterruptedly. 通过冷却和螺旋槽能够有效的将切屑不断的排出孔外
- BMK Grade A PVD triple coated grade for high performance and normal machining condition. BMK級硬质合金,一个三层PVD涂层用于高效能和常规机械加工条件
- To use with standard SIM toolholders on Swiss Type or CNC lathe machines. 使用标准的SIM变径套刀杆于瑞士机床或数控机床

## **HK - Broaching Tools for Hexagon Keys**

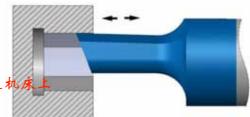
The HK broaching system has been developed to machine internal keyways inside blind or through holes, using CNC machines.

HK拉削系列刀具已经发展到用于在数控机床上加工内六方键槽,通孔或盲¶孔、以及内面加工,

● BMK Grade - A PVD triple coated grade for high performance. BMK级-三层PVD涂层用于高效能加工

 To use with Carmex standard SIM Bar Holders. The holder can be located directly in the turret or the machine spindle.使用Carmex标准的SIM变径套直接将刀杆定位在材

Holder with rear clamping screw for full support during operation. 刀杆帶领紧螺丝,能够完全领紧刀杆



HK-内六方拉削刀具



## CMT Vertical Thread Milling CMT 多切削刃螺纹铣刀

### **CMT Spiral Multi flute inserts**

Carmex presents the new generation of CMT vertical thread milling inserts to perform a wide variety of threading, grooving and chamfering.

- Grounded profile
- Multi flute: 4-8 cutting edges 4-8切削刃
- Spiral flute for smooth cutting 特殊的槽型用于光滑切削

The new cutters are designed for large range of materials including hardened steel up to 62 HRc.
To use with the same CMT tool holders, C18 type.

新设计切削刃应用大范围切削材料,包括硬钢至HRC62。与C18使用同一个刀杆。



## CMT High performance milling head CMT 高效性螺纹铣刀

Using indexable three cutting edges 切削刃可转位使用三次 milling inserts for Threading, Grooving, Chamfering and Facing 铣螺纹、铣槽、倒角、铣面

- To use with the standard CMT tool holders, S35 type 可用于CMT S35型
- Cutting diameter Ø 41 mm 最小直径40m
- Thread pitch up to 4 mm 螺距4mm
- Groove Depth up to 9 mm 槽深9mm
- Ground profile inserts for high precision and excellent performance 高精密、杰出的效能
- Multiple cutting edges for high productivity and economical machining
   多切削刃、高效能和经济的加工。
- High surface finish **高的表面质量**

**Mini Spiral Mill-Thread** 

Newly designed Mini Spiral inserts and toolholders with cutting diameter

smaller than 20mm.

迷你螺旋槽螺纹铣刀





### FMT Fast MT

#### 独特设计的排牙整体硬 质合金高效率螺纹铣刀

- Carmex has designed a unique line of solid carbide thread milling tools FMT for increased productivity, and high performance.
- Large number of flutes enables to achieve significant shorter machining time.

#### **Carbide grade MT8:**

Sub Micron grade with advanced PVD triple coating (ISO K10-K20). Extremely high heat resistant and smooth cutting operation, for high performance, and normal machining conditions. General purpose for all materials.

## **MG - Groove Milling**

Carmex expands the MG Groove Milling line with new full carbide cutters.

槽铣刀



#### **Precision Ground Profile**

- 6 flutes minimize cycle time and increase productivity
- Spiral flutes reduce cutting forces and provide smooth cutting actions
- High stability to prevent vibration

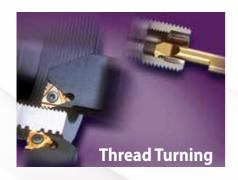
#### **Applications**

- Machining deep holes
- Allows high overhang
- Can fit on small or large machining centers and Swiss type lathe machines

#### **Carbide grade: MT8**

Sub-Micron grade with advance PVD triple coating (ISO K10-K20). Extremely high heat and wear resistance for high performance, and normal machining conditions. General purpose for all materials.

### **Carmex Product Lines**

































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