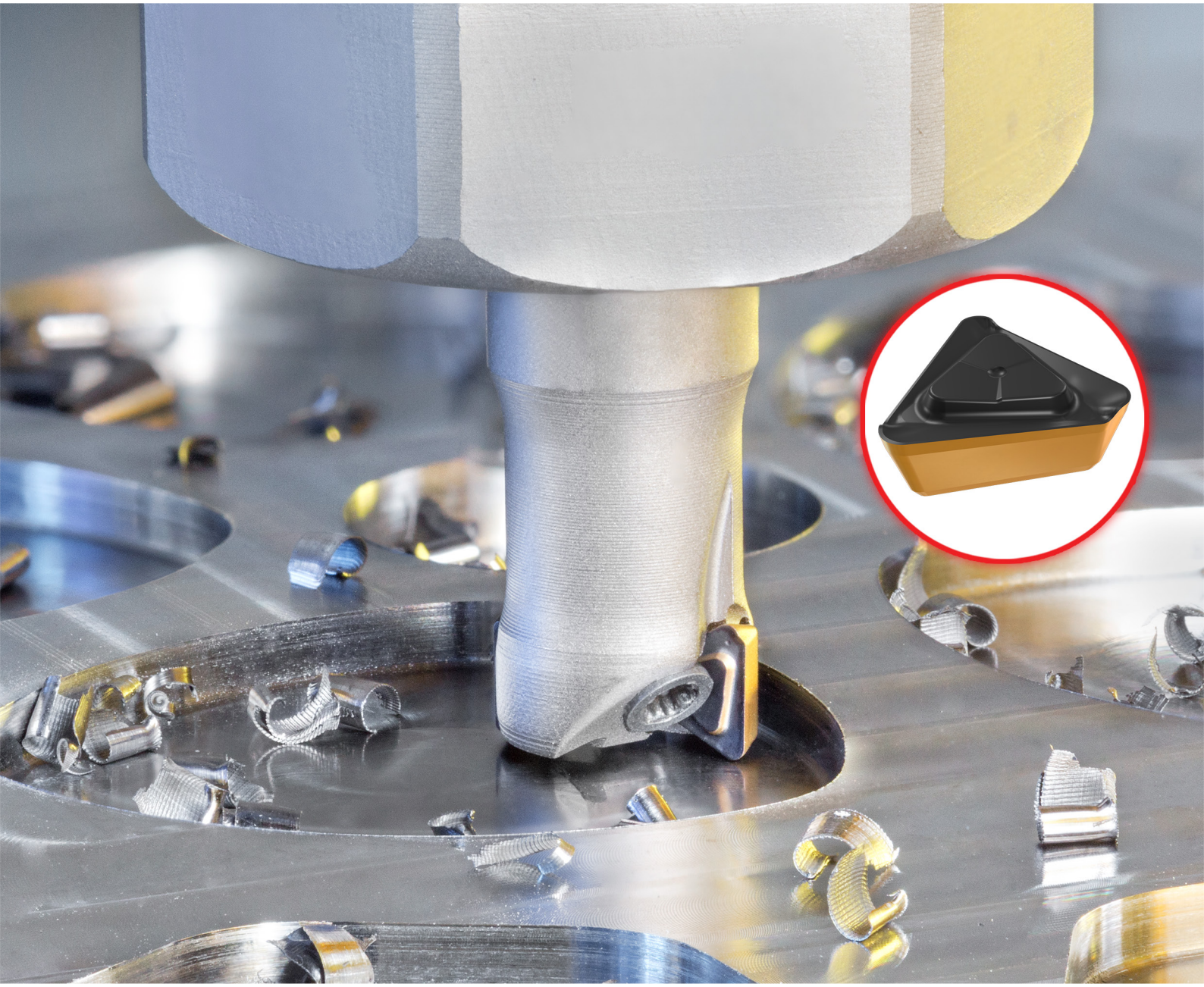
NPA
New Product Announcement
MILLING
MARCH 2018 • INCH 22-2018



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A Smart and Highly Efficient Indexable Solution for Small-Size Tools Carrying Triangular Inserts

Member IMC Group
ISCAR

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Highlights

ISCAR is expanding the milling line by introducing a new family of very small-size indexable 90° cutters in .313 and .375 inch diameters, carrying triangular inserts.

The new **NANMILL** family has been designed for applications that usually utilize solid carbide endmills. When compared with solid carbide endmills, the new family provides a significant cost-benefit option due to the advantages of indexable tools.

The **NANMILL** indexable endmill carries more than one insert and is the smallest of its type in the market today.

NANMILL tools will provide an attractive solution for manufacturers of small-size and miniature parts and compact components, in a variety of industries.

The new **HM390 ETP ...-04** endmills carry **HM390 TPKR 0401-PCTR** inserts.

Cutter Features

- 90° cutting edge angle
- Advanced design reduces cutting forces and enables smooth cutting
- Ramping down ability
- Cutter body has a special protective single-layer hard touch coating for uninterrupted chip flow and protection from corrosion and wear
- Available in diameters .313 and .375 inch
- .118" maximum depth of cut

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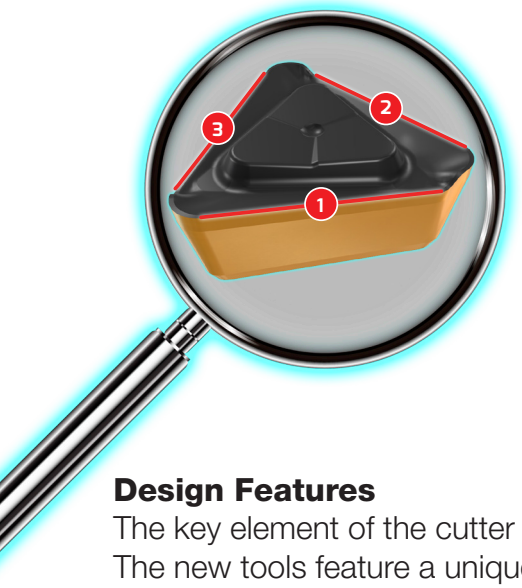
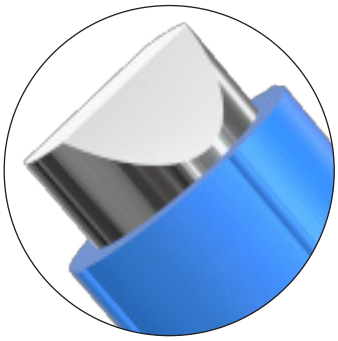
Insert Features

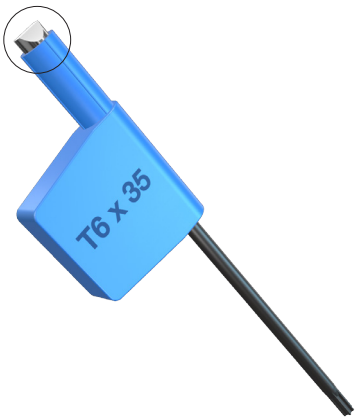
- Single-sided triangular inserts
- Features positive radial and axial cutting geometry on the tool
- Wiper flat for high surface finish
- Produced from ISCAR's latest SUMO TEC carbide grades, which significantly increase productivity



Design Features

The key element of the cutter design is a method of clamping inserts with **no falling parts**.
The new tools feature a unique rigid screw head wedge clamping method that does not require screw removal for insert indexing, which is very important for such small elements.
As the insert is very small, placing it in the pocket is done by a key with a **magnetic boss on the key handle.**





Marketing aspects

The new **NANMILL** family provides a viable economical alternative to the commonly used of .313 or .375 inch diameter solid carbide endmills used for milling small-size surfaces.

Most competitive indexable solutions in this diameter range feature less teeth, which reflects directly on their productivity and operational stability.

NANMILL milling cutter **HM390 ETP ...-04** of .313" diameter could be the smallest indexable tool with multiple inserts in the market today.

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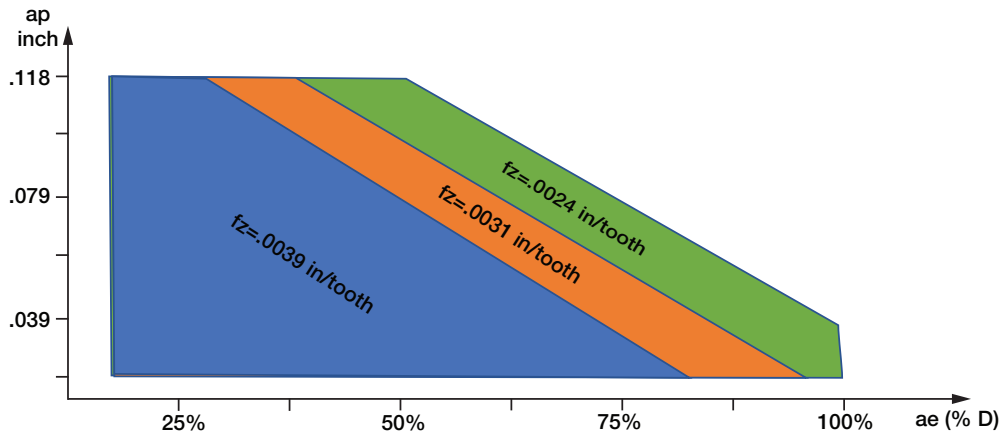
Application Range
D.O.C. vs. Feed

Overhang = 1.5xD



Availability
Most of the tools are in stock. Several will gradually become available during the first quarter of 2018

Prices
Your price list will be sent to you by the pricing department and it is available in the **GAL** system.

NANMILL Tool: small size, significant benefits

Sincerely,

Kobi Kisos

Kobi Kisos
Chief Technical Officer,
Marketing Division
ISCAR Headquarters

Sincerely,

Gil Getz

Gil Getz
Milling Product Manager
ISCAR Headquarters

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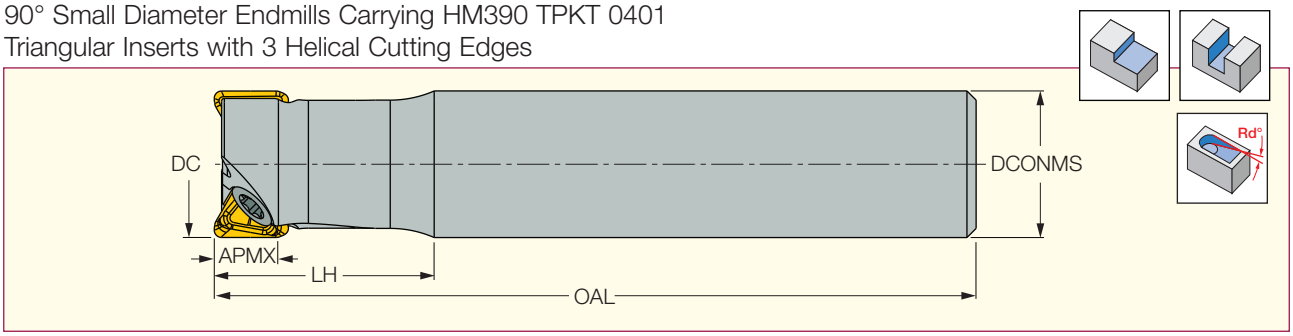
HM390 ETP-04

90° Small Diameter Endmills Carrying HM390 TPKT 0401
Triangular Inserts with 3 Helical Cutting Edges



Designation	DC	APMX	CICT(1)	OAL	LH	DCONMS	Shank(2)	RMPX(3)	WT(4)
HM390 ETP D.31-2-C.31-04	.313	.012	2	2.500	.470	.313	C	3.0	.00
HM390 ETP D.38-3-C.38-04	.375	.012	3	3.000	.560	.375	C	2.6	.09

• Tightening torque 4 lbfxin

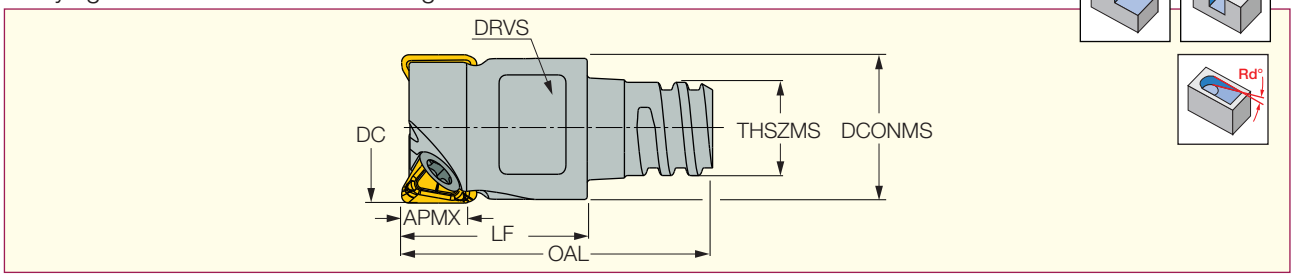
(1) Number of inserts (2) C-Cylindrical, W-Weldon (3) Ramping angle maximum (4) Item weight

Spare Parts

Designation	Screw	Key
HM390 ETP-04	SR M2X0.4-3 T6	T-6/5 MAGNET 3X3

HM390 ETP-MM-04

90° Endmills with a MULTI-MASTER Threaded Adaptation
Carrying HM390 TPKR 0401... Triangular Inserts



Designation	DC	APMX	CICT(1)	LF	DCONMS	THSZMS	OAL	DRVS(2)	RMPX(3)	WT(4)
HM390 ETP D.31-2-MMT05-04	.310	.120	2	.380	.300	T05	.850	.190	3.0	.00
HM390 ETP D.38-3-MMT06-04	.380	.120	3	.500	.360	T06	.740	.230	2.5	.00

• Tightening torque 4 lbf*in

(1) Number of inserts (2) Key flat size (3) Ramping angle maximum (4) Item weight

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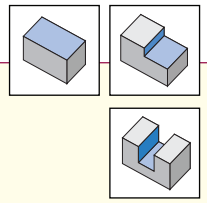
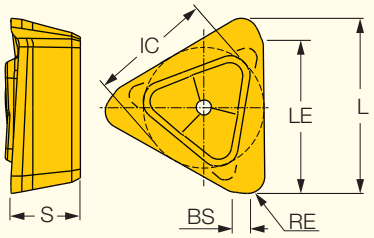
HM390 TPKR 0401

Triangular Miniature Inserts with 3 Helical Cutting Edges for 90° Shoulder Milling





Designation	Dimensions						IC830	Recommended Machining Data	
	L	IC	S	APMX	RE	BS		a_p (inch)	f_z (inch/t)
HM390 TPKR 0401-PCTR	.157	.110	.063	.118	.0157	.016	•	.020-.118	.0016-.0039