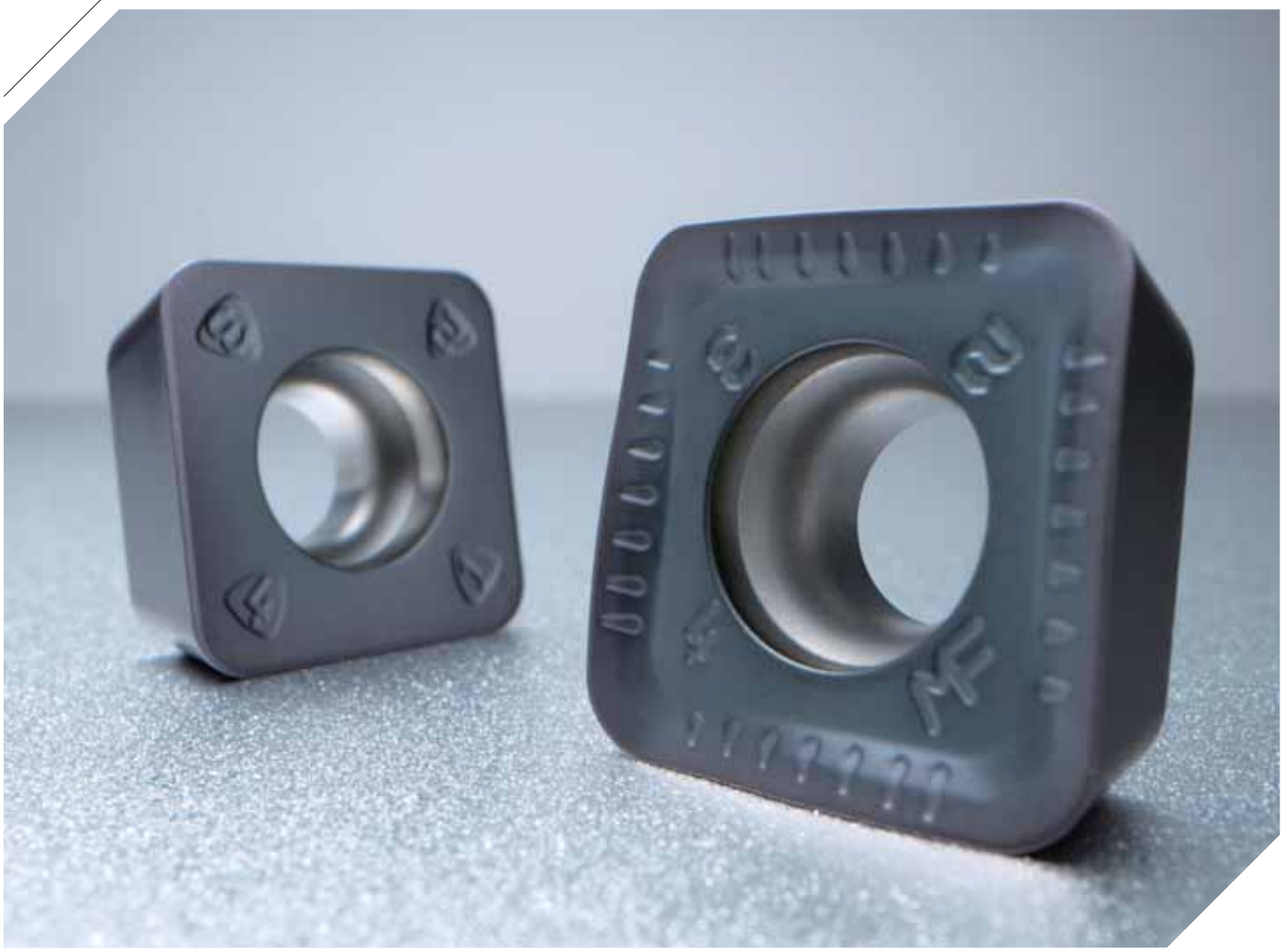
KORLOY TECH-NEWS

HQM

High feed sQuare Milling

- Stable and high efficient cutting due to the design with high rigidity of 4 planar corners
- High speed and high feed cutting from the optimal rake angle and high helix cutting edge



KORLOY

High feed sQuare Milling

HQM

High-feed machining is a highly efficient processing method that removes workpieces quickly by reducing chip thickness, and it has recently gained significant attention. However, this method also presents several challenges.
First of all, it shortens tool life due to high cutting resistance. The rapid feed rates in high-feed machining lead to increase in cutting resistance which can easily cause insert fracture. This becomes problematic when machining difficult-to-cut materials used in the aerospace and power generation industries. In addition, the chip management is challenging in high-feed machining. Volume of chips removed at once is significant, it disturbs proper chip evacuation and damages both the tool and the workpiece, resulting in reduced surface finish and tool life.
To address these issues and maximize the effectiveness of high-feed machining, KORLOY has launched the HQM.

The **HQM** features an optimized helical structure in its insert design and a high-rigidity clamping system which reduces cutting resistance during high-feed cutting and ramping operations, preventing insert fracture and maintaining stable tool life. Furthermore, the positive geometry and chip breaker design enable efficient chip management, protecting both the insert and the workpiece from damage, thereby extends tool life and ensures a clean surface finish. Additionally, the increased insert thickness and the application of large screws in the high-rigidity clamping system, along with a dimpled surface structure that effectively controls heat generated during machining, allow for over a 20% increase in feed rate compared to conventional high-feed machining, enhancing productivity.

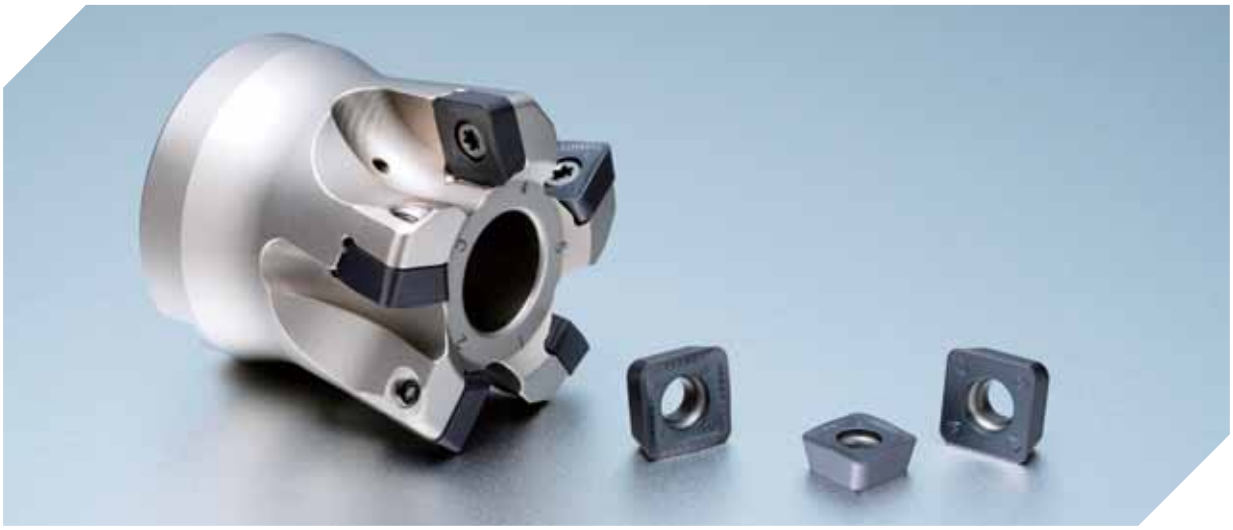
The HQM provides excellent tool life by suppressing edge wear during machining and improves wear resistance through its geometric features and customized coatings tailored to the workpiece.

» **Stable and high feed cutting**
- high rigidity helix structure

» **Higher productivity (increased more than 20% of existing tools' performance)**
- High rigidity clamping system

» **Good chip control**
- Positive shape and sharp chip breaker

» **Effective controlling cutting heat**
- The dimple shape of the insert rake surface



Code system

Cutter type

HQM	C	M	063	R	-	22	-	6	-	SQ14

HQM — High feed sQuare Milling

C — Type: C: Cutter

M — Arbor: M: Metric, A: Inch, None: Asia

063 — Machining diameter: 063: Ø63mm

R — Oil hole & hand: R: With oil hole, Right-handed; NR: Without oil hole, Right-handed

22 — Internal diameter: 22: Ø22mm

6 — No. of tooth: 6: 6 teeth

SQ14 — Available insert: SQ12: SQMT12; SQ14: SQMT14

Shank type

HQM	S	032	R	-	3	W	32	-	150	-	SQ14

HQM — High feed sQuare Milling

S — Type: S: Shank

032 — Machining diameter: 032: Ø32mm

R — Oil hole & hand: R: With oil hole, Right-handed; NR: Without oil hole, Right-handed

3 — No. of tooth: 3: 3 teeth

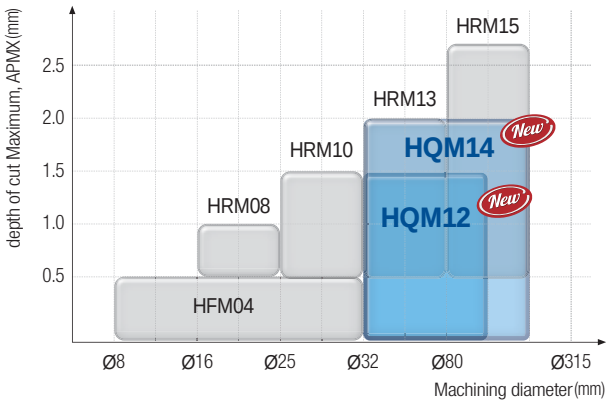
W — Shank type: W: Weldon; C: Cylindrical

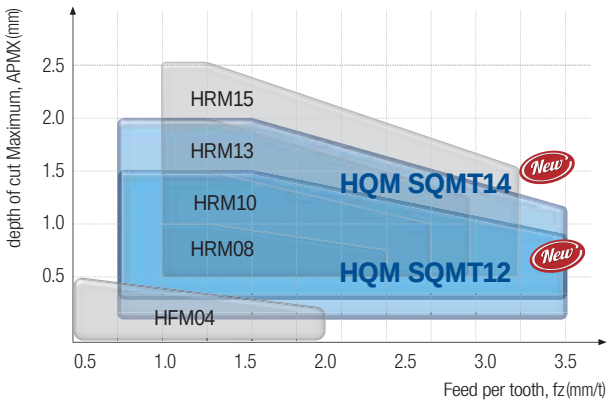
32 — Shank diameter: 32: Ø32mm

150 — Overall length: 150: 150mm

SQ14 — Available insert: SQ12: SQMT12; SQ14: SQMT14

Application range



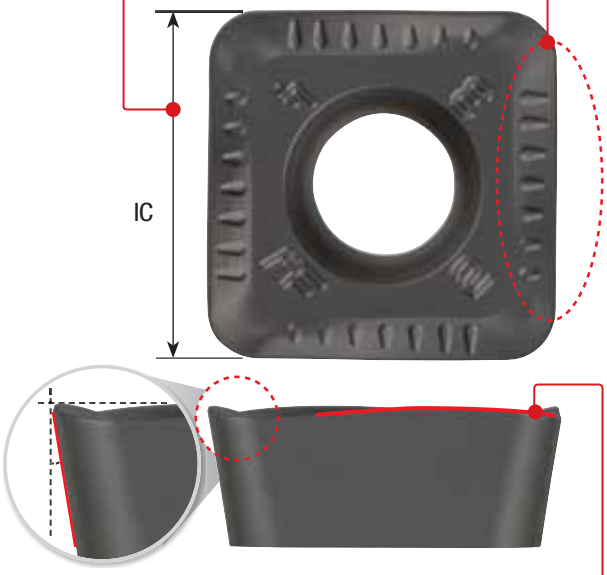


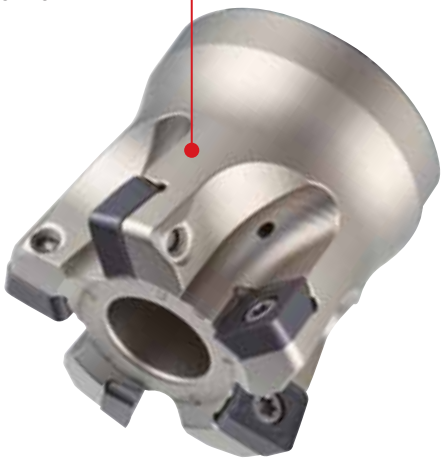
Feature

High rigidity insert
- Inscribed circle 12.0/14.0mm
- Increased rigidity

Structure of C/B for dispersing heat
- Several dimples
- Preventing heat crack/ increasing tool life

Positive axial direction rake angle
- Good chip curling





Streamlined structure of insert
- Good chip control

Shape for relief of corner
- Suitable for multi-functional cutting by securing enough relief

Insert shape for higher rigidity
- Applied streamlined helix
- Increase chipping resistance/ preventing unexpected fracture

Application and features of chip breakers

Chip breaker		Cutting edge	Application	Feature
ML			For HRSA and Titanium	Guarantees high quality of performance from applying suitable for low cutting resistance chip breaker for HRSA cutting and high hardness cutting edge
MF			For finishing	Optimal for finishing due to low cutting load and low resistance chip breaker
MM			For general cutting	Suitable for general cutting range from design structure for general high feed cutting
None			For high hardness cutting	Good for high hardness die steel due to shape of strong cutting edge

Recommended grade and cutting edge

Designation	Recommended insert and grade for different workpieces (●: 1st recommendation)									
	P		M		K		S		H	
	C/B	Grade	C/B	Grade	C/B	Grade	C/B	Grade	C/B	Grade
SQMT120516R SQMT140620R	●MM ○MF ○ML	●PC3700 ○PC5300	●ML ○MF	●PC9540 ○PC5300	●MF ○MM	●PC6100 ○PC5300	●ML ○MF	●UNC840 ○UPC845 ○PC5300	○MM	○PC2510 ○PC2505
SQMW120516 SQMW140520	○None	○PC5300	-	-	-	-	-	-	●None	●PC2510 ○PC2505

Recommended cutting conditions _ SQ12

Workpiece				Specific cutting force (N/mm²)	Brinell hardness (HB)	Grade	C/B		Grade	C/B		MM, MF
ISO	Workpiece material	KS	ISO			PC3700	MM	MF	PC5300	MM	MF	
						vc (m/min)	fz (mm/t)		vc (m/min)	fz (mm/t)		APMX (mm)
P	Non-ferrous alloy steel Mn < 1.65	SM25C	C25	1500	125	230	1.8	2.0	210	1.8	2.0	≥ 1.5
						305	**1.4**	**1.5**	**280**	**1.4**	**1.5**	
						380	0.9	1.0	350	0.9	1.0	
		SM45C	C45	1700	190	210	1.4	1.5	190	1.4	1.5	
						280	**0.9**	**1.0**	**255**	**0.9**	**1.0**	
						350	0.5	0.6	320	0.5	0.6	
	Low alloy steel ≤ 5%	SCM440	42CrMo4	1700	175	160	1.6	1.8	150	1.6	1.8	
						215	**1.4**	**1.5**	**195**	**1.4**	**1.5**	
						270	0.9	1.0	240	0.9	1.0	
	High alloy steel > 5%	STD11 STD61	X40CrMoV5-1	1950	200	120	0.9	1.0	110	0.9	1.0	
						160	**0.7**	**0.8**	**150**	**0.7**	**0.8**	
						200	0.4	0.4	190	0.4	0.4	

Workpiece				Specific cutting force (N/mm²)	Brinell hardness (HB)	Grade	C/B		Grade	C/B		ML, MF
ISO	Workpiece material	KS	ISO			PC9540	ML	MF	PC5300	ML	MF	
						vc (m/min)	fz (mm/t)		vc (m/min)	fz (mm/t)		APMX (mm)
M	Ferritic/ martensitic	STS405 STS430	X6CrAl13 X6Cr17	1800	200	100	1.4	1.6	130	1.4	1.6	≥ 1.5
						135	**0.9**	**1.0**	**170**	**0.9**	**1.0**	
						170	0.4	0.5	210	0.4	0.5	
		STS416 STS434	X12CrS13 X6CrMo17-1	2850	330	100	1.4	1.6	130	1.4	1.6	
						135	**0.9**	**1.0**	**170**	**0.9**	**1.0**	
						170	0.4	0.5	210	0.4	0.5	
		STS403 STS410	X12Cr13	2350	330	100	1.4	1.6	130	1.4	1.6	
						135	**0.9**	**1.0**	**170**	**0.9**	**1.0**	
						170	0.4	0.5	210	0.4	0.5	
	Austenitic	STS304 STS316	X5CrNI18-9 X2CrNI18-9 X5CrNiMo17-12-2 XCrNiMo17-12-3	2000	180	80	1.4	1.6	105	1.4	1.6	
						110	**0.9**	**1.0**	**140**	**0.9**	**1.0**	
						140	0.4	0.5	175	0.4	0.5	
	Austenitic/ ferritic	-	-	2450	260	65	1.4	1.6	80	1.4	1.6	
						85	**0.9**	**1.0**	**110**	**0.9**	**1.0**	
						105	0.45	0.5	140	0.45	0.5	

Recommended cutting conditions _ SQ12

Workpiece				Specific cutting force (N/mm²)	Brinell hardness (HB)	Grade	C/B		Grade	C/B		MM, MF
ISO	Workpiece material	KS	ISO			PC6100	MF	MM	PC5300	MF	MM	
						vc (m/min)	fz (mm/t)		vc (m/min)	fz (mm/t)		APMX (mm)
K	Gray cast iron	GC200	200	900	180	180	1.8	2.0	140	1.8	2.0	≥ 1.5
						240	**0.9**	**1.0**	**190**	**0.9**	**1.0**	
						300	0.45	0.5	240	0.45	0.5	
	Nodular graphite cast iron	GCD500	500-7	870	155	120	1.8	2.0	100	1.8	2.0	
						160	**0.9**	**1.0**	**130**	**0.9**	**1.0**	
						200	0.45	0.5	160	0.45	0.5	

Workpiece				Specific cutting force (N/mm²)	Brinell hardness (HB)	Grade	C/B		ML, MF
ISO	Workpiece material	KS	ISO			UNC840	ML	MF	
						vc (m/min)	fz (mm/t)		APMX (mm)
S	Nickel based	Inconel625	15156-3	2650	250	30	1	1.2	≥ 1.5
						40	**0.7**	**0.8**	
						50	0.3	0.3	
		Inconel718	9723	3000	320	30	1	1.2	
						40	**0.7**	**0.8**	
						50	0.3	0.3	
	Cobalt based alloy	Stellite	Stellite	3000~3100	300~320	15	1	1.2	
						20	**0.7**	**0.8**	
						25	0.3	0.3	
	Titanium alloy	Ti-6Al-4V	5832-11	1400	320	40	1	1.2	
						50	**0.7**	**0.8**	
						60	0.3	0.3	

Workpiece				Specific cutting force (N/mm²)	Rockwell hardness (HRC)	Grade	C/B	Grade	C/B	MM
ISO	Workpiece material	KS	ISO			PC2510	None	PC2510	MM	
						vc (m/min)	fz (mm/t)	vc (m/min)	fz (mm/t)	APMX (mm)
H	High hardened steel (heat treatment)	STD61	X40CrMoV5-1	2750	50	80	0.1	80	0.1	≥ 1.5
						100	**0.05**	**100**	**0.05**	
						130	0.05	130	0.05	

Recommended cutting conditions _ SQ14

Workpiece				Specific cutting force (N/mm²)	Brinell hardness (HB)	Grade	C/B		Grade	C/B		MM, MF
ISO	Workpiece material	KS	ISO			PC3700	MM	MF	PC5300	MM	MF	
						vc (m/min)	fz (mm/t)		vc (m/min)	fz (mm/t)		APMX (mm)
P	Non-ferrous alloy steel Mn < 1.65	SM25C	C25	1500	125	230	2.0	2.4	210	2.0	2.4	≥ 2
						305	**1.5**	**1.8**	**280**	**1.5**	**1.8**	
						380	1.0	1.2	350	1.0	1.2	
		SM45C	C45	1700	190	210	1.5	1.8	190	1.5	1.8	
						280	**1.0**	**1.2**	**255**	**1.0**	**1.2**	
						350	0.6	0.7	320	0.6	0.7	
	Low alloy steel ≤ 5%	SCM440	42CrMo4	1700	175	160	1.8	2.2	150	1.8	2.2	
						215	**1.5**	**1.8**	**195**	**1.5**	**1.8**	
						270	1.0	1.2	240	1.0	1.2	
	High alloy steel > 5%	STD11 STD61	X40CrMoV5-1	1950	200	120	1.0	1.2	110	1.0	1.2	
						160	**0.8**	**0.9**	**150**	**0.8**	**0.9**	
						200	0.4	0.5	190	0.4	0.5	

Recommended cutting conditions _ SQ14

Workpiece				Specific cutting force (N/mm²)	Brinell hardness (HB)	Grade	C/B		Grade	C/B		ML, MF
ISO	Workpiece material	KS	ISO			PC9540	ML	MF	PC5300	ML	MF	
						vc (m/min)	fz (mm/t)		vc (m/min)	fz (mm/t)		APMX (mm)
M	Ferritic/ martensitic	STS405 STS430	X6CrAl13 X6Cr17	1800	200	100	1.6	1.9	130	1.6	1.9	≥ 2
						135	**1.0**	**1.2**	**170**	**1.0**	**1.2**	
						170	0.5	0.6	210	0.5	0.6	
		STS416 STS434	X12CrS13 X6CrMo17-1	2850	330	100	1.6	1.9	130	1.6	1.9	
						135	**1.0**	**1.2**	**170**	**1.0**	**1.2**	
						170	0.5	0.6	210	0.5	0.6	
		STS403 STS410	X12Cr13	2350	330	100	1.6	1.9	130	1.6	1.9	
						135	**1.0**	**1.2**	**170**	**1.0**	**1.2**	
						170	0.5	0.6	210	0.5	0.6	
	Austenitic	STS304 STS316	X5CrNI18-9 X2CrNI18-9 X5CrNiMo17-12-2 XCrNiMo17-12-3	2000	180	80	1.6	1.9	105	1.6	1.9	
						110	**1.0**	**1.2**	**140**	**1.0**	**1.2**	
						140	0.5	0.6	175	0.5	0.6	
	Austenitic/ ferritic	-	-	2450	260	65	1.6	1.9	080	1.6	1.9	
						85	**1.0**	**1.2**	**110**	**1.0**	**1.2**	
						105	0.5	0.6	140	0.5	0.6	

Workpiece				Specific cutting force (N/mm²)	Brinell hardness (HB)	Grade	C/B		Grade	C/B		MM, MF
ISO	Workpiece material	KS	ISO			PC6100	MF	MM	PC5300	MF	MM	
						vc (m/min)	fz (mm/t)		vc (m/min)	fz (mm/t)		APMX (mm)
K	Gray cast iron	GC200	200	900	180	180	2.0	2.4	140	2.0	2.4	≥ 2
						240	**1.0**	**1.2**	**190**	**1.0**	**1.2**	
						300	0.5	0.6	240	0.5	0.6	
	Nodular graphite cast iron	GCD500	500-7	870	155	120	2.0	2.4	100	2.0	2.4	
						160	**1.0**	**1.2**	**130**	**1.0**	**1.2**	
						200	0.5	0.6	160	0.5	0.6	

Workpiece				Specific cutting force (N/mm²)	Brinell hardness (HB)	Grade	C/B		ML, MF
ISO	Workpiece material	KS	ISO			UNC840	ML	MF	
						vc (m/min)	fz (mm/t)		APMX (mm)
S	Nickel based	Inconel625	15156-3	2650	250	30	1.2	1.3	≥ 2
						40	**0.8**	**0.8**	
						50	0.3	0.3	
		Inconel718	9723	3000	320	30	1.2	1.3	
						40	**0.8**	**0.8**	
						50	0.3	0.3	
	Cobalt based alloy	Stellite	Stellite	3000~3100	300~320	15	1.2	1.3	
						20	**0.8**	**0.8**	
						25	0.3	0.3	
	Titanium alloy	Ti-6Al-4V	5832-11	1400	320	40	1.2	1.3	
						50	**0.8**	**0.8**	
						60	0.3	0.3	

Workpiece				Specific cutting force (N/mm²)	Rockwell hardness (HRC)	Grade	C/B		Grade	C/B		MM
ISO	Workpiece material	KS	ISO			PC2510	MM	None	PC2510	MM	None	
						vc (m/min)	fz (mm/t)		vc (m/min)	fz (mm/t)		APMX (mm)
H	High hardened steel (heat treatment)	STD61	X40CrMoV5-1	2750	50	80	0.1		70	0.1		≥ 2
						100	**0.05**		**90**	**0.05**		
						130	0.05		120	0.05		

Performance evaluation

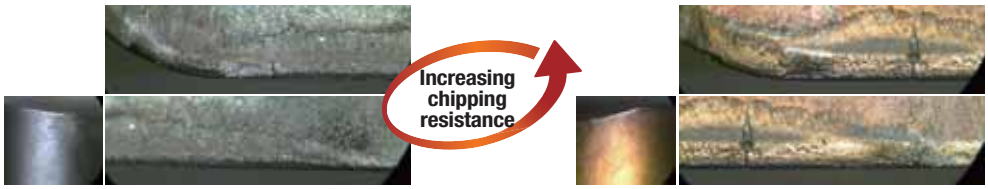
Wear resistance

Workpiece	Die steel(KP4M), 300(L) × 200(W) × 100(H), Square lumber
Cutting conditions	vc(m/min) = 147, fz(mm/t) = 1.66, ap(mm) = 1.0, ae(mm) = 58, Dry
Tools	**Insert** SQMT140520R-MM(PC5300) **Holder** HQMCM080R-27-5-SQ14

[HQM] [Competitor]

Chipping resistance

Workpiece	Die steel(KP4M), 300(L) × 200(W) × 100(H), Square lumber
Cutting conditions	vc(m/min) = 135, fz(mm/t) = 1.75, ap(mm) = 0.8, ae(mm) = 55, Dry
Tools	**Insert** SQMT140520R-MM(PC5300) **Holder** HQMCM080R-27-5-SQ14



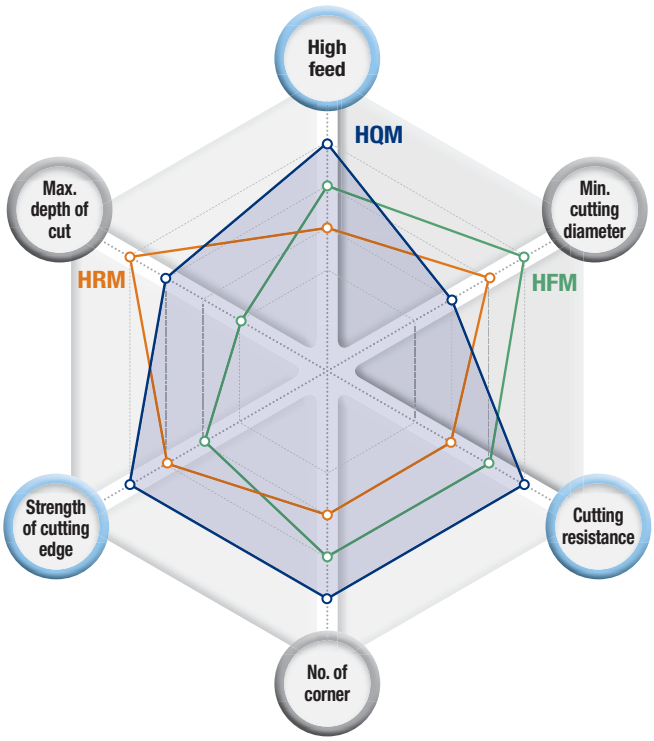
[HQM] [Competitor]

Wear resistance

Workpiece	Die steel(KP4M), 300(L) × 200(W) × 100(H), Square lumber
Cutting conditions	vc(m/min) = 150, fz(mm/t) = 1.7, ap(mm) =1.2, ae(mm) = 60, Dry
Tools	**Insert** SQMT140520R-MM(PC5300) **Holder** HQMCM080R-27-5-SQ14

[HQM] [Competitor]

High feed tool selection guide



HQM New

- High rigidity and high feed cutting
- 4-cornered cutting
- Good chip evacuation

HFM

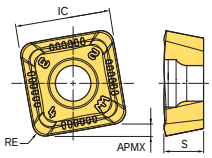
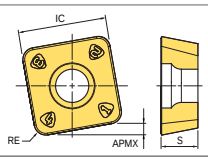
- Small cutting diameter
- At least Ø8mm

HRM

- For general cutting
- 3-cornerd cutting

Tools	High feed	Min. cutting diameter	Cutting resistance	No. of Corner	Strength of cutting edge	Max. depth of cut
HQM New	★★★★	★★	★★★★	★★★★	★★★★	★★★
HFM	★★★	★★★★	★★★	★★★	★★	★
HRM	★★	★★★	★★	★★	★★★	★★★★

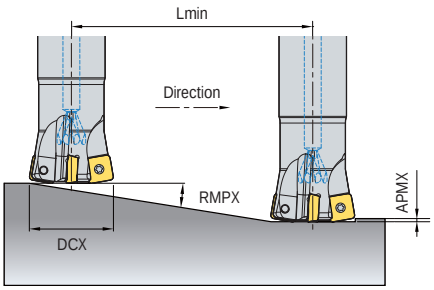
Inserts

Workpiece	Picture	Designation		Coated							Dimension (mm)				Geometry
				PC2510	PC3700	PC6100	PC9540	PC5300	UNC840	UPC845	IC	RE	S	APMX	
Titanium, Stainless steel		SQMT	120516R-ML					●	●	●	12	1.6	5	1.5	
			140520R-ML					●	●	●	14	2	5.56	2	
Stainless steel, Cast iron		SQMT	120516R-MF		●	●	●	●	●	●	12	1.6	5	1.5	
			140520R-MF		●	●	●	●	●	●	14	2	5.56	2	
Steel		SQMT	120516R-MM		●	●		●			12	1.6	5	1.5	
			140520R-MM		●	●		●			14	2	5.56	2	
High hardness		SQMW	120516	●				●			12	1.6	5	1.5	
			140520	●				●			14	2	5.56	2	

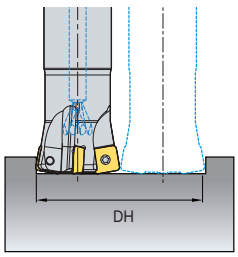
●: Stock item

Ramping and helical cutting

Ramping



Helical cutting



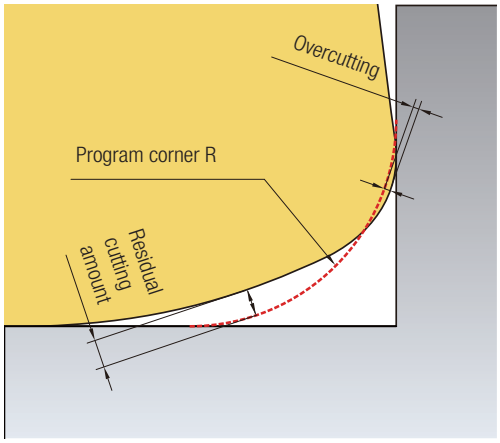
(mm)

Designation	DCX	IC	APMX	Ramping		Helical cutting			
				RMPX	Lmin	Min diameter (DHmin)	Max pitch	Max diameter (DHmax)	Max pitch
SQ12	32	12	1.5	1.7°	50.5	47	1.4	64	1.5
	40	12	1.5	1.8°	47.7	60	1.5	80	1.5
	50	12	1.5	1.1°	78.1	80	1.5	100	1.5
	52	12	1.5	1.1°	78.1	84	1.5	104	1.5
	63	12	1.5	0.7°	122.8	106	1.5	126	1.5
	66	12	1.5	0.7°	122.8	112	1.5	132	1.5
	80	12	1.5	0.5°	171.9	140	1.5	160	1.5
	100	12	1.5	0.4°	214.9	180	1.5	200	1.5
SQ14	32	14	2	2.2°	52.1	48	1.9	64	2.0
	40	14	2	2.9°	39.5	57	2.0	80	2.0
	52	14	2	1.5°	76.4	81	2.0	104	2.0
	63	14	2	1.1°	104.2	103	2.0	126	2.0
	66	14	2	0.9°	127.3	109	2.0	132	2.0
	80	14	2	0.8°	143.2	137	2.0	160	2.0
	100	14	2	0.6°	191.0	177	2.0	200	2.0

- When ramping and helical milling, table feed, vf (ipm) should be lower than 70% of the recommended cutting conditions.
- When helical milling, Max. pitch, DHmax should be lower than max. depth of cut, APMX.
- When ramping, the depth of cut should be lower than max. depth of cut, APMX.

- Lmin = APMX/tan(RMPX) (mm)
- Lmin : Min. length of ramping
- APMX : depth of cut Maximum
- RMPX : Max. rake angle in ramping

Precautions in corner R cutting



------ Program corner R

(mm)

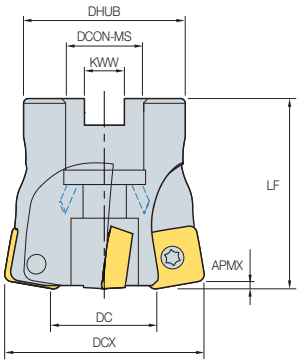
Insert	Program corner R	Nose R RE	APMX	Over cut	Uncut
SQMT120516R-MM	R1.5	1.6	1.5	0	1.5
	R2.0			0	1.42
	R3.0			0	1.26
	R3.5			0.05	1.18
	R4.0			0.17	1.10
	R4.5			0.33	1.02
	R5.0			0.50	0.94
SQMT140520R-MM	R1.5	2.0	2	0	1.73
	R3.0			0	1.46
	R3.5			0	1.37
	R4.0			0.03	1.29
	R4.5			0.14	1.21
	R5.0			0.27	1.12
	R5.5			0.45	1.04
	R6.0			0.63	0.95

- When writing CNC programs, entering the appropriate corner radius (R value) for each insert can lead to overcutting and residual cutting amounts in the corner machining areas, as described.
- To prevent overcutting, it is essential to create CNC programs that take the aforementioned overcutting amounts into account.

HQMCM-SQ12

KAPR 10°

- AR: 3°
- RR: -4°



(mm)

Designation		Stock	DCX	CICT	DCON-MS	DHUB	LF	KWW	APMX
HQMCM	050R-22-3-SQ12	●	50	3	22	47	50	10.4	1.5
	050R-22-4-SQ12	●	50	4	22	47	50	10.4	1.5
	052R-22-4-SQ12	●	52	4	22	47	50	10.4	1.5
	052R-22-5-SQ12	●	52	5	22	47	50	10.4	1.5
	063R-22-5-SQ12		63	5	22	58	50	10.4	1.5
	063R-22-6-SQ12	●	63	6	22	58	50	10.4	1.5
	066R-27-5-SQ12	●	66	5	27	58	50	12.4	1.5
	066R-27-6-SQ12		66	6	27	58	50	12.4	1.5
	066R-27-7-SQ12		66	7	27	58	50	12.4	1.5
	080R-27-6-SQ12		80	6	27	70	60	12.4	1.5
	080R-27-8-SQ12	●	80	8	27	70	60	12.4	1.5
	100R-32-6-SQ12		100	6	32	78	70	14.4	1.5
	100R-32-8-SQ12	●	100	8	32	78	70	14.4	1.5

●: Stock item

Available inserts


SQMT-ML


SQMT-MF


SQMT-MM


SQMW

Designation		Coated						
		PC2510	PC3700	PC6100	PC9540	PC5300	UNC840	UPC845
SQMT	120516R-ML					●	●	●
	120516R-MF		●	●	●	●	●	●
	120516R-MM		●	●		●		
SQMW	120516	●				●		

●: Stock item

Available arbors

Designation		DCON-MS	Available arbors
HQMCM	050R-22-□-SQ12	22	BT□□-FMC22-□□
	052R-22-□-SQ12		
	063R-22-□-SQ12		
	066R-22-□-SQ12		

Designation		DCON-MS	Available arbors
HQMCM	066R-27-□-SQ12	27	BT□□-FMC27-□□
	080R-27-□-SQ12		
	100R-32-□-SQ12	32	BT□□-FMC32-□□

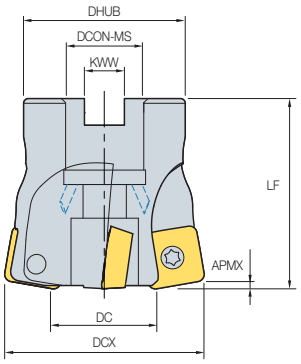
Parts

Specification	Screw	Wrench
Ø50 ~ Ø100	FTKA0408	TW15S

HQMCM-SQ14

KAPR 10°

- AR: 2°
- RR: -3.5°



(mm)

Designation		Stock	DCX	CICT	DCON-MS	DHUB	LF	KWW	APMX
HQMCM	052R-22-3-SQ14		52	3	22	47	50	10.4	2
	052R-22-4-SQ14	●	52	4	22	47	50	10.4	2
	052R-22-5-SQ14	●	52	5	22	47	50	10.4	2
	063R-22-4-SQ14		63	4	22	58	50	10.4	2
	063R-22-5-SQ14	●	63	5	22	58	50	10.4	2
	063R-22-6-SQ14	●	63	6	22	58	50	10.4	2
	066R-27-5-SQ14	●	66	5	27	58	50	10.4	2
	066R-27-6-SQ14		66	6	27	58	50	10.4	2
	080R-27-5-SQ14	●	80	5	27	70	60	12.4	2
	080R-27-6-SQ14	●	80	6	27	70	60	12.4	2
	100R-32-6-SQ14	●	100	6	32	78	70	14.4	2
	100R-32-8-SQ14	●	100	8	32	78	70	14.4	2

●: Stock item

Available inserts


SQMT-ML


SQMT-MF


SQMT-MM


SQMW

Designation		Coated						
		PC2510	PC3700	PC6100	PC9540	PC5300	UNC840	UPC845
SQMT	140520R-ML					●	●	●
	140520R-MF		●	●	●	●	●	●
	140520R-MM		●	●		●		
SQMW	140520	●				●		

●: Stock item

Available arbors

Designation		DCON-MS	Available arbors
HQMCM	050R-22-□-SQ12	22	BT□□-FMC22-□□
	052R-22-□-SQ12		
	063R-22-□-SQ12		
	066R-22-□-SQ12		

Designation		DCON-MS	Available arbors
HQMCM	066R-27-□-SQ12	27	BT□□-FMC27-□□
	080R-27-□-SQ12		
	100R-32-□-SQ12	32	BT□□-FMC32-□□

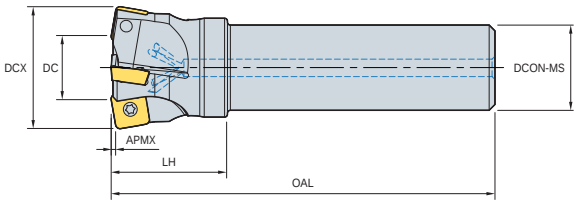
Parts

Specification	Screw	Wrench
Ø52 ~ Ø100	FTGA0510-P	TW20-100

HQMS-SQ12

KAPR 10°

- AR: 2°
- RR: -28° ~ -6°



(mm)

	Designation	Stock	DCX	CICT	DCON-MS	OAL	LH	APMX
HQMS	032R-2W32-150-SQ12		32	2	32	150	50	1.5
	032R-3W32-150-SQ12	●	32	3	32	150	50	1.5
	040R-3W32-150-SQ12		40	3	32	150	50	1.5
	040R-4W32-150-SQ12	●	40	4	32	150	50	1.5

●: Stock item

Available inserts


SQMT-ML


SQMT-MF


SQMT-MM


SQMW

	Designation	Coated						
		PC2510	PC3700	PC6100	PC9540	PC5300	UNC840	UPC845
SQMT	120516R-ML					●	●	●
	120516R-MF		●	●	●	●	●	●
	120516R-MM		●	●		●		
SQMW	120516	●				●		

●: Stock item

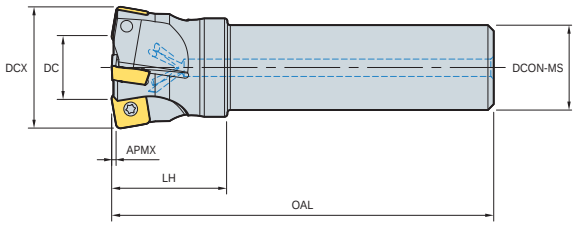
Parts

Specification	Screw	Wrench
Ø32 ~ Ø40	FTKA0408	TW15S

HQMS-SQ14

KAPR 10°

- AR: 2°
- RR: -20˚ ~ -7°



(mm)

	Designation	Stock	DCX	CICT	DCON-MS	OAL	LH	APMX
HQMS	032R-2W32-150-SQ14	●	32	2	32	150	50	2
	040R-2W32-150-SQ14		40	2	32	150	50	2
	040R-3W32-150-SQ14	●	40	3	32	150	50	2

●: Stock item

Available inserts


SQMT-ML


SQMT-MF


SQMT-MM


SQMW

	Designation	Coated						
		PC2510	PC3700	PC6100	PC9540	PC5300	UNC840	UPC845
SQMT	140520R-ML					●	●	●
	140520R-MF		●	●	●	●	●	●
	140520R-MM		●	●		●		
SQMW	140520	●				●		

●: Stock item

Parts

Specification	Screw	Wrench
Ø32 ~ Ø40	FTKA0408	TW15S

⚠ For the safe metalcutting

- Use safety supplies such as protective gloves to prevent possible injury while touching the edge of tools.
- Use safety glasess or safety cover to hedge possible dangers. Inappropriate usage or excessive cutting condition may lead tool's breakage or even the fragment's scattering.
- Clamp the workpiece tightly enough to prevent its movement while its machining.
- Properly manage the tool change phase because the inordinately used tool can be easily broken under the excessive cutting load or severe wear, and it may threat the operator's safety.
- Use safety cover because chips evacuated during cutting are hot and sharp and may cause burns and cuts. To remove chips safely, stop machining, put on protective gloves, and use a hook or other tools.
- Prepare for fire prevention measures as the use of the non-water soluble cutting oil may cause fire.
- Use safety cover and other safety supplies because the spare parts or the inserts can be pulled out due to centrifugal force while high speed machining.

KORLOY

Head Office: Holystar B/D, 326, Seocho-daero, Seocho-gu, Seoul, 06633, Republic of Korea
Tel: +82-2-522-3181 Fax: +82-2-522-3184, +82-2-3474-4744 Web: www.korloy.com E-mail: sales.khq@korloy.com

KORLOY AMERICA
620 Maple Avenue, Torrance, CA 90503, USA
Tel: +1-310-782-3800 Toll Free: +1-888-711-0001 Fax: +1-310-782-3885
E-mail: sales.kai@korloy.com

KORLOY INDIA
Plot No. 415, Sector 8, IMT Manesar, Gurgaon 122051, Haryana, India
Tel: +91-124-4391790 Fax: +91-124-4050032
E-mail: sales.kip@korloy.com

KORLOY TURKIYE
Serifali Mahallesi, Burhan Sokak NO: 34
Dudullu OSB/Umraniye/Istanbul, 34775, Turkey
Tel: +90-216-415-8874 E-mail: sales.ktl@korloy.com

KORLOY RUSSIA
Krasivy Dom office No. 305, Bld. 5, Novovladykinskiy proezd 8, 127106, Moscow, Russia
Tel: +7-495-280-1458 Fax: +7-495-280-1459 E-mail: sales.krc@korloy.com

KORLOY FACTORY INDIA
Plot No. 415, Sector 8, IMT Manesar, Gurgaon 122051, Haryana, India
Tel: +91-124-4391790 Fax: +91-124-4050032
E-mail: pro.kim@korloy.com

KORLOY EUROPE
Gablonzer Str. 25-27, 61440 Oberursel, Germany
Tel: +49-6171-277-83-0 Fax: +49-6171-277-83-59
E-mail: sales.keg@korloy.com

KORLOY BRASIL
Av. Aruana 280, conj.12, WLC, Alphaville, Barueri, CEP06460-010, SP, Brasil
Tel: +55-11-4193-3810 E-mail: sales.kbl@korloy.com

KORLOY CHILE
Av. Providencia 1650, Office 1009, 7500027
Providencia-Santiago, Chile
Tel: +56-229-295-490 E-mail: sales.kcs@korloy.com

KORLOY MEXICO
Calle R. M. Clemencia Borja Taboada 522, Jurica Acueducto, 76230 Juriquilla, Qro., Mexico
Tel: +52-442-673-7388 E-mail: sales.kml@korloy.com

PRINTED WITH SOY INK

TN118-EM-01/20250120