THE NEW VALUE FRONTIER

KYOCERA

MST SLOTTING CUTTER

Full range from 1.6 to 23.3mm in 3 types

MSTA

- For narrow groove
- Self-clamping type
- Slot Width 1.6~4.0mm

MSTB

- For middle groove
- Semi-adjustable type
- Slot Width 6.0~13.0mm

MSTC

- For wide groove
- Full-adjustable type
- Slot Width 14.0~23.3mm

MSTA

Slot width 1.6　2.2　3.0　4.0mm

Self-clamping Slot Mills

MSTA Slot Mills have simple self-clamping system to allow for easy attachment by just installing the insert.

Highly rigid clamping system

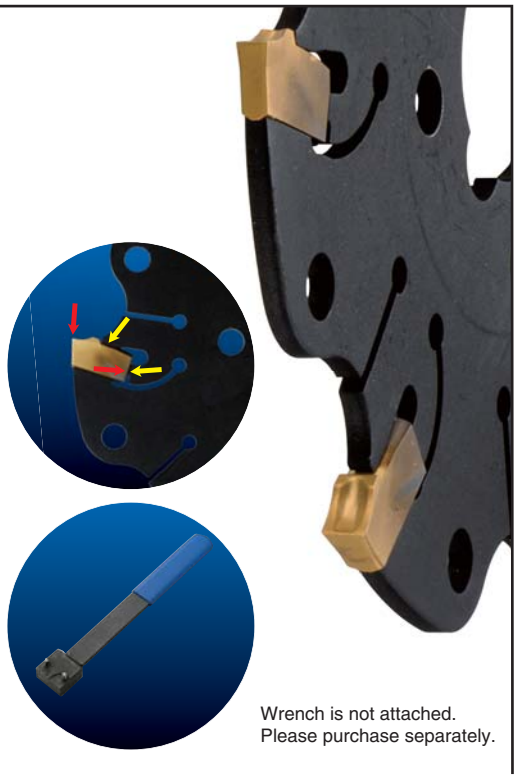
Holders achieve high operability through the stopper highly rigid clamping system and achieve stable slotting by maintaining an accurate edge position.

2 Prism Clamping system

High replacement precision due to the clamping system with two prisms.

Easy replacement

The replacement of inserts is easy and quick by using special wrench.



Wrench is not attached.
Please purchase separately.

Slot width 6.0～13.0mm

Up-right type / semi-adjustable groove width

Inserts have four edge and are, therefore, cost-effective

Note : Inserts for 6mm slotting width has two edges.

Easy and secure screw holding

MSTB Slot Mills are a very simple form used to screw clamp inserts.

Applicable to a variety of slotting by choosing different inserts

By changing the thickness of inserts, it's applicable to various slotting widths up to max 1mm in 0.5mm increments.

Full lineup of MST Series Slot Mills

Type	Applicable Insert	Feature	Slot width (mm) 1.6	2.2	3	4	6	8	10	12	14	16	18	20	22	24
MSTA Type	SLT..	1.6mm - 4mm fixed	●	●	●	●										
MSTB Type	LNEU12..	6mm - 13mm semi adjustable			※ Adjustable in 0.5mm increments between 6mm and 13mm with the combination of inserts											
MSTC Type	SP..10T3..	14mm - 18mm fully adjustable									※ Adjustable between 14mm and 18mm					
	SD..1204...	18mm - 23.3mm fully adjustable												※ Adjustable between 18mm and 23.3mm		

MSTC

Slot width 14.0～23.3mm

Lay-down type / fully adjustable slot width

Applicable to various slotting needs. Slotting widths: 14.0mm to 23.3mm.

Cutter diameters: 100mm to 160m.

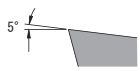
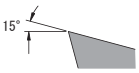
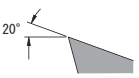
Smooth slotting width adjustment can be available by unique cam style adjustment mechanism.

Four-edges inserts that are cost-effective.

Wide range corner R repertories are suitable for various work.

By wiper edge insert, excellent surface finish can be expected.

By abundant insert geometry and grades, applicable for various type of workpiece machining.

Insert		
Symbol	Rake Angle	Shape
SB		
SD		
SE		

■ Features of Insert Grades

CA0835

- TiN+TiCN+Al2O3 based CVD coating
- For carbon steel, alloy steel, stainless steel and nodular cast iron
- For middle to high speed cutting

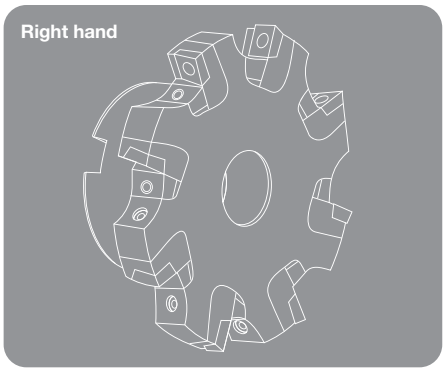
PR0725

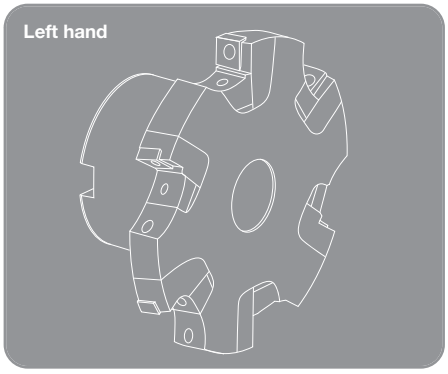
- TiN+TiCN+TiN based PVD multi layer coating
- For carbon steel, alloy steel, stainless steel, heat resistant alloy and nodular cast iron
- For middle speed cutting

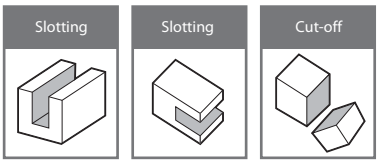
PR0110

- TiB2 based PVD coating
- For non ferrous metal such as aluminum alloy (Si＜10%) and titanium alloy
- For high speed cutting

Shell Mount for half-side cutting







Toolholder

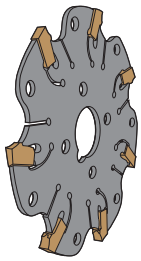
Identification System

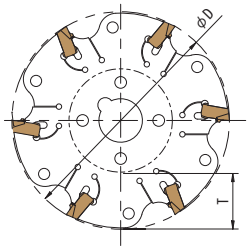
〈 MSTA Type Slot Mill〉

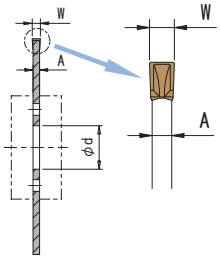
MSTA ○○○ **N** ○○○ - ○○ **T**

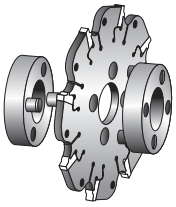
Slot Mill with Self-Clamping System	Cutting Dia.	Neutral	Edge Width	No. of Insert

MSTA Type









Drive Ring (Sold Separately)
Assembly example

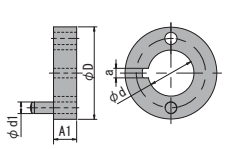
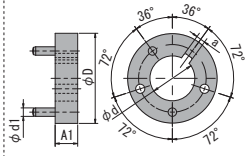
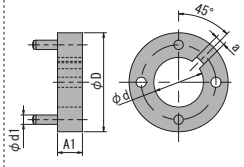
Toolholder Dimension

Description		Stock	Edge Width W (mm)	Slot Depth T (mm)	No.of Insert	Dimension (mm) ϕD	Dimension (mm) ϕd (H7)	Dimension (mm) A	Weight (kg)	Applicable Insert See P5	Max.Revolution (min⁻¹)	Spare parts Wrench	Recommended Cutting Condition	Example of Applicable Arbor
MSTA	63N16-5T	●	1.6	15	5	63	16	1.3	0.03	SLT16…	5,100	MS-FRW1	See P5	See Back Page
	80N16-7T	●		21	7	80			0.04		4,000			
	100N16-9T	●		27	9	100	22		0.07		3,200			
	125N16-11T	●		35	11	125	32		0.1		2,600			
MSTA	63N22-5T	●	2.2	15	5	63	16	1.8	0.03	SLT22…	5,100	Wrench is not attached. Please purchase separately. Set up see P5.		
	80N22-7T	●		21	7	80			0.05		4,000			
	100N22-9T	●		27	9	100	22		0.08		3,200			
	125N22-11T	●		35	11	125	32		0.12		2,600			
	160N22-14T	●		40	14	160	40		0.3		2,000			
MSTA	63N30-4T	●	3.0	15	4	63	16	2.4	0.05	SLT30…	5,100			
	80N30-6T	●		21	6	80			0.08		4,000			
	100N30-9T	●		27	9	100	22		0.13		3,200			
	125N30-11T	●		35	11	125	32		0.2		2,600			
	160N30-14T	●		40	14	160	40		0.35		2,000			
MSTA	63N40-4T	●	4.0	15	4	63	16	3.4	0.06	SLT40…	5,100			
	80N40-6T	●		21	6	80			0.1		4,000			
	100N40-9T	●		27	9	100	22		0.15		3,200			
	125N40-11T	●		35	11	125	32		0.25		2,600			
	160N40-14T	●		40	14	160	40		0.4		2,000			

Note) 1 Attach the drive ring (sold separately) to MSTA type slot mill to use. Drive ring is sold per single quantity. Please purchase two drive rings per one MSTA type slot mill.
2. Do not exceed the max revolution.
3. Do not operate cutting on reverse revolution.
4. Wrench (MS-FRW1) is not attached. Please purchase separately.

●: Std Stock

Drive Ring (mm spec)

Shape	Description	Stock	Dimension (mm) ϕd	ϕD	A1	a	ϕd1	Shape	Applicable Toolholder
 Fig. 1	DR16-32A	●	16	32	8	4.1	3	Fig.2	MSTA 63N16-5T, 63N22-7T
	DR16-32B	●					4	Fig.1	MSTA 63N30-4T, 63N40-4T
 Fig. 2	DR16-38	●		38				Fig.3	MSTA 80NOO-OT
 Fig. 3	DR22-46	●	22	46	10	6.1	5		MSTA 100NOO-OT
	DR32-55	●	32	55		8.1	6		MSTA 125NOO-OOT
	DR40-80	●	40	80	12	10.1	12		MSTA 160NOO-OOT

Wrench and Drive Ring are sold 1 pieace per 1 box.

●: Std Stock

Insert Description

Insert Identification System

S L T ① **16** ② **-** **15** ③ **S** ④ **KB** ⑤

① Insert Symbol

② Edge Width

Symbol	Edge Width
16	1.6mm
22	2.2mm

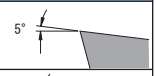
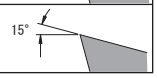
③ Corner-R(rε)

Symbol	Corner-R
15	0.15mm
20	0.2mm

④ Edge Prep.

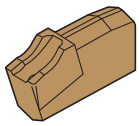
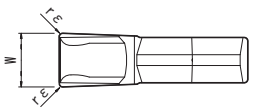
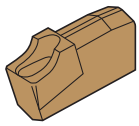
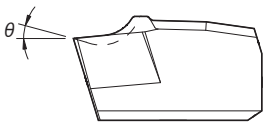
Symbol	Cuttig Edge Spec.
S	Chamfer+R-honed

⑤ Chipbreaker Symbol

Symbol	Rake Angle
KB	
KD	

SLT Type

Classification of usage					Ref. Page for Toolholder
●: 1st Choice ○: 2nd Choice	P	Carbon Steel・Alloy Steel	●	○	
	M	Stainless Steel	○	●	
	K	Cast Iron	○		
	N	Non-ferrous Material			
	S	Heat-Resistant Alloy		●	
		Titanium Alloy			

Shape	Description		Dimension (mm) W	Dimension (mm) rε	Angle (°) θ	CVD Coated carbide CA0835	PVD Coated carbide PR0735	Ref. Page for Toolholder
 	SLT	16-15SKB	$1.6^{+0}_{-0.1}$	0.15	5°	●	●	P3
		22-20SKB	$2.2^{+0.08}_{-0.05}$	0.2		●	●	
		30-20SKB	$3.0^{+0.15}_{-0}$			●	●	
		40-20SKB	$4.0^{+0.15}_{-0}$			●	●	
 Low Cutting Force 	SLT	16-15SKD	$1.6^{+0}_{-0.1}$	0.15	15°	●	●	
		22-20SKD	$2.2^{+0.08}_{-0.05}$	0.2		●	●	
		30-20SKD	$3.0^{+0.15}_{-0}$			●	●	
		40-20SKD	$4.0^{+0.15}_{-0}$			●	●	

●: Std Stock

● Chipbreaker Selection
KB・・・Conventional chipbreaker for steel and cast iron.
KD・・・Low cutting force chipbreaker for stainless steel.

Features of Insert Grades

CA0835

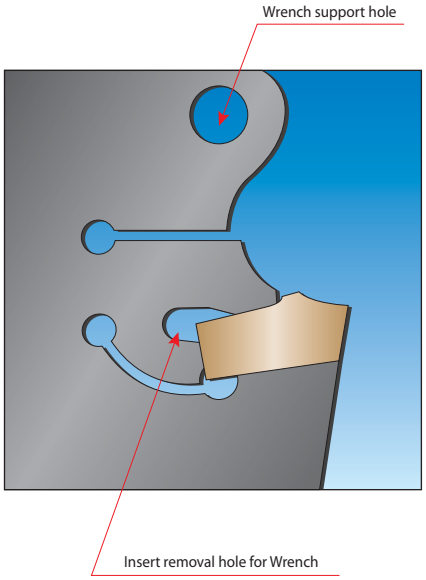
- TiN+TiCN+Al2O3 based CVD coated carbide
- For carbon steel, alloy steel, stainless steel and nodular cast iron
- For middle to high speed cutting

PR0735

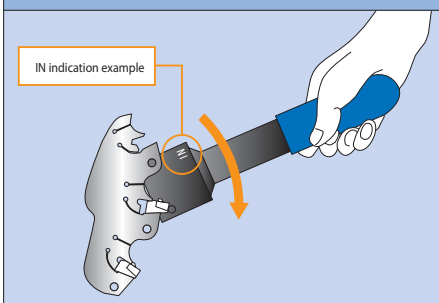
- TiN based PVD coated carbide
- For stainless steel and heat resistant alloy
- For low to middle speed cutting

Inserts are sold in 10 piece per 1 box.

Set up

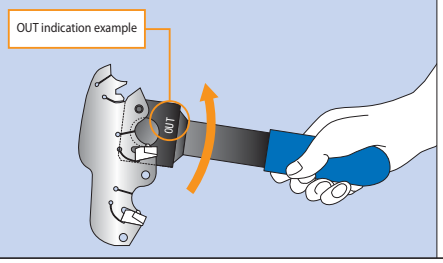


How to attach inserts



1. Put insert inside the slot mill.
2. Insert one of the pin on the wrench (on IN indicated side) into the wrench support hole.
3. Using the other pin, push the front relief surface of the insert.
4. Rotate the wrench until insert's back end makes contact with slot mill.

How to detach inserts



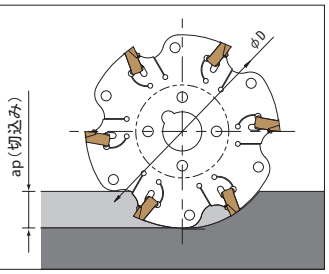
1. Insert one of the pin on the wrench (on OUT indicated side) into the wrench support hole, and insert other pin into the hole on releasing wrench.
2. Insert can be uninstalled by rotating the wrench counter clock wise.(A magnet is installed out side)

Note) Use appropriate wrench for set up

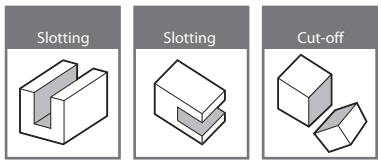
Recommended Cutting Condition

Workpiece Material	Hardness (HB)	Recommended Grade (Vc:m/min)		Feed per tooth fz (mm/t)				Remarks
		CVD coated carbide	PVD coated carbide	Edge width (mm)				
		CA0835	PR0735	1.6	2.2	3.0	4.0	
Low-carbon Steel	125	250 — 310	200 — 250	0.03 — 0.12	0.04 — 0.14	0.06 — 0.18	0.08 — 0.20	with coolant
Carbon Steel	190	160 — 190	130 — 160	0.03 — 0.12	0.04 — 0.14	0.06 — 0.18	0.08 — 0.20	
	250	140 — 180	110 — 150	0.03 — 0.12	0.04 — 0.14	0.06 — 0.18	0.08 — 0.20	
Alloy Steel	180	140 — 180	110 — 150	0.03 — 0.12	0.04 — 0.14	0.06 — 0.18	0.08 — 0.20	
	275	120 — 160	100 — 130	0.03 — 0.10	0.04 — 0.12	0.06 — 0.16	0.08 — 0.18	
High-carbon Alloy	280	100 — 140	80 — 120	0.03 — 0.10	0.04 — 0.12	0.06 — 0.16	0.08 — 0.18	
Stainless Steel	220	150 — 190	80 — 120	0.03 — 0.10	0.04 — 0.12	0.06 — 0.16	0.08 — 0.18	
	300	140 — 180	60 — 80	0.03 — 0.10	0.04 — 0.12	0.06 — 0.16	0.08 — 0.18	
Gray Cast Iron	260	160 — 200	—	0.03 — 0.12	0.04 — 0.14	0.06 — 0.18	0.08 — 0.20	without coolant
Nodular Cast Iron	160	130 — 160	—	0.03 — 0.12	0.04 — 0.14	0.06 — 0.18	0.08 — 0.20	
	250	110 — 140	—	0.03 — 0.12	0.04 — 0.14	0.06 — 0.18	0.08 — 0.20	

Note) 1. Use down-cut machining.
2. If D.O.C (ap) is under 1/10 of Cutter Dia (ϕ D) , it is possible to increase feed per tooth (fz) 40%.



MSTB



Toolholder

Identification System

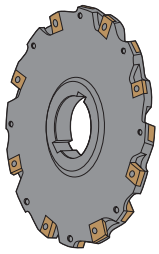
〈MSTB Type Slot Mill〉

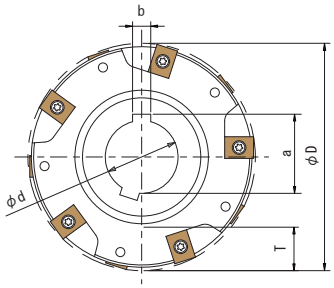
mm spec

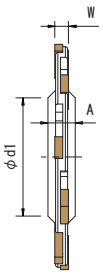
MSTB ○○○ A N ○○ ○○ - ○ T

- MSTB: Slot Mill with Up-right Insert
- ○○○: Cutting Dia.
- A: Without Boss / S: With Boss
- N: Neutral
- ○○ ○○: Edge Width
- ○: No. of Edge Line

Arbor Mount







In order to use more than two slot mills of combination, there are two key slots on the slot mill itself.

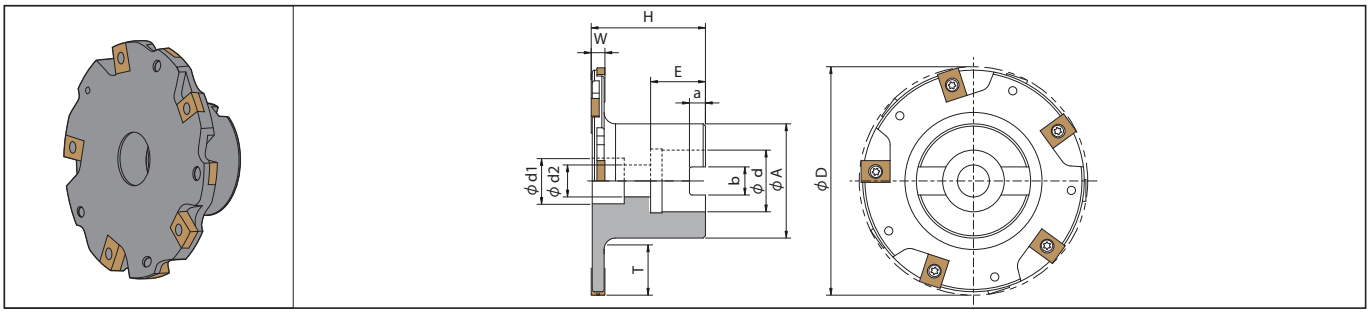
Toolholder Dimension

Description		Stock	Edge Width(mm)		Slot Depth	No.of Insert	No.of Edge Line	Dimension (mm)						Weight (kg)	Max. Revolution (min^{-1})
			W (min)	W (max)	T (mm)			ϕD	ϕd (H7)	ϕd1	A	a	b		
MSTB	80AN0607-4T	●	6	7	15	8	4	80	27	44	12	29.8	7	0.3	9,240
	100AN0607-5T	●			21	10	5	100	32	52		34.8	8	0.4	8,270
	125AN0607-6T	●			28	12	6	125	40	63		43.5	10	0.7	7,390
	160AN0607-8T	●			45.5	16	8	160						1.1	6,540
MSTB	80AN0809-4T	●	8	9	16	8	4	80	27	44		29.8	7	0.4	9,240
	100AN0809-5T	●			22	10	5	100	32	52		34.8	8	0.5	8,270
	160AN0809-8T	●			45.5	16	8	160	40	63		43.5	10	1.3	6,450
MSTB	125AN1011-4T	●	10	11	30	12	4	125						0.9	7,390
	160AN1011-5T	●			47.5	15	5	160						1.6	6,450
MSTB	160AN1213-5T	●	12	13	48.5	15	5	160						1.6	6,450

● Std. Stock

Toolholder

Shell Mount



Toolholder Dimension

Description		Stock	Edge Width(mm)		Slot Depth	No.of Insert	No.of Edge Line	Dimension (mm)									Weight (kg)	Max. Revolution (min^{-1})
			W (min)	W (max)	T (mm)			φD	φd (H7)	φA	H (min)	E	a	b	φd1	φd2		
MSTB	80SN0607-4T	●	6	7	16	8	4	80	22	40	50	23	6.3	10.4	18	12	0.7	9,240
	100SN0607-5T	●			21	10	5	100	27	50		24	7	12.4	20	14	1.0	8,270
	160SN0607-8T	●			41	16	8	160	40	70		28	9	16.4	33	22	1.9	6,540
MSTB	80SN0809-4T	●	8	9	16	8	4	80	22	40		23	6.3	10.4	18	12	0.8	9,240
	100SN0809-5T	●			21	10	5	100	27	50		24	7	12.4	20	14	1.2	8,270
	160SN0809-8T	●			41	16	8	160	40	70		28	9	16.4	33	22	2.2	6,540
MSTB	125SN1011-4T	●	10	11	26	12	4	125									2.0	7,390
	160SN1011-5T	●			43	15	5	160									2.5	6,540

Note) 1. H(min) dimension shows in case of minimum of edge width.

● Std. Stock

Spare Parts and Applicable Insert

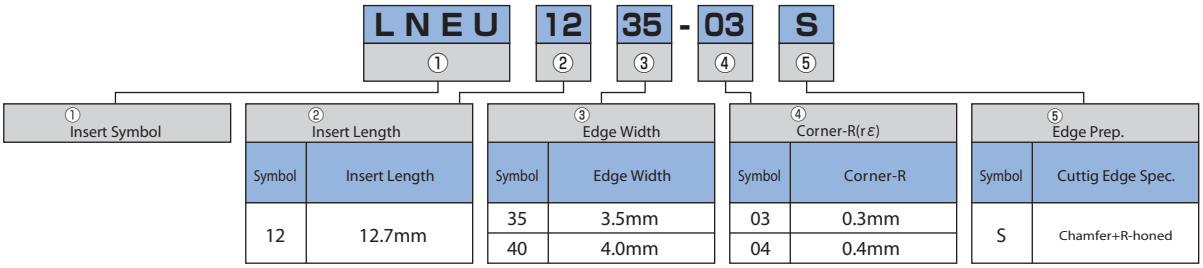
Spare Parts

Description				Spare Parts				Applicable Insert	Recommended Cutting Condition	Example of Applicable Arbor
				Clamp Screw	Wrench	Anti-seize Compound	Mounting Bolt			
mm spec	Without Boss	MSTB	OOOAN0607-OT	SE-40050TR	TT-15L	MP- 1	—	See P8, P9	See P10	See Back Page
			OOOAN0809-OT	SE-40068TR						
			OOOAN1011-OT							
			160AN1213-5T	SE-40090TR						
	With Boss	MSTB	80SN0607-4T	SE-40050TR			HH10X35			
			100SN0607-5T				HH12X35			
			160SN0607-8T				HH20X40			
		MSTB	80SN0809-4T	SE-40068TR			HH10X35			
			100SN0809-5T				HH12X35			
			160SN0809-8T				HH20X40			
		MSTB	OOOSN1011-OT	SE-40068TR			HH20X40			

Coat anti-seize compound (MP-1) thinly on clamp screw when insert is fixed.

Applicable Insert

Insert Identification System



① Insert Symbol

② Insert Length	
Symbol	Insert Length
12	12.7mm

③ Edge Width	
Symbol	Edge Width
35	3.5mm
40	4.0mm

④ Corner-R(rε)	
Symbol	Corner-R
03	0.3mm
04	0.4mm

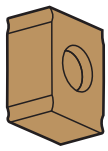
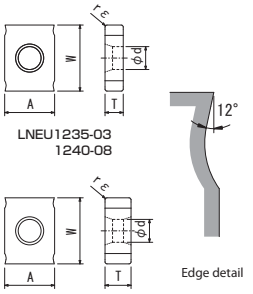
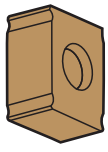
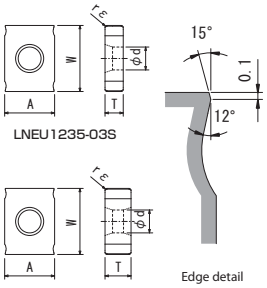
⑤ Edge Prep.	
Symbol	Cuttig Edge Spec.
S	Chamfer+R-honed

LN Type

(mm)

Description	W	A	ϕd
LNEU12	12.7	9.6	4.4

Classification of usage			
●: 1st Choice ○: 2nd Choice	P	Carbon Steel・Alloy Steel	●
	M	Stainless Steel	●
	K	Cast Iron	
	N	Non-ferrous Material	
	S	Heat-Resistant Alloy	●
		Titanium Alloy	

Shape	Description		No.of Edge	Dimension (mm) T	Dimension (mm) rε	PVD Coated carbide PR0725	Applicable Clamp Screw	Ref. Page for Toolholder	Ref. Page for Recommended Cutting Condition
 Honed	 LNEU1235-03 1240-08 Edge detail	LNEU 1235-03	2	3.5	0.3	●	SE-40050TR	P6 P7	P10
		1240-08	2	4.0	0.8	●	SE-40055TR		
		1245-04	4	4.5	0.4	●	SE-40068TR		
		1245-08			0.8	●			
		1250-04	4	5.0	0.4	●	SE-40080TR		
		1250-08			0.8	●			
		1255-04	4	5.5	0.4	●	SE-40090TR		
		1255-08			0.8	●			
		1260-04	4	6.0	0.4	●	SE-40100TR		
 Tough Edge	 LNEU1235-03S Edge detail	LNEU 1235-03S	2	3.5	0.3	●	SE-40050TR		
		1245-04S	4	4.5	0.4	●	SE-40068TR		
		1245-08S			0.8	●			
		1250-04S	4	5.0	0.4	●	SE-40080TR		
		1250-08S			0.8	●			

Note) 1. Please select the applicable clamp screw depending on each insert description.
2. See page 10 for insert description and applicable clamp screw depending on edge width.

●: Std Stock

Features of Insert Grades

PR0725

- TiN+TiCN+TiN based PVD multi layer coated carbide
- For carbon steel, alloy steel, stainless steel, heat resistant alloy and nodular cast iron
- For middle speed cutting

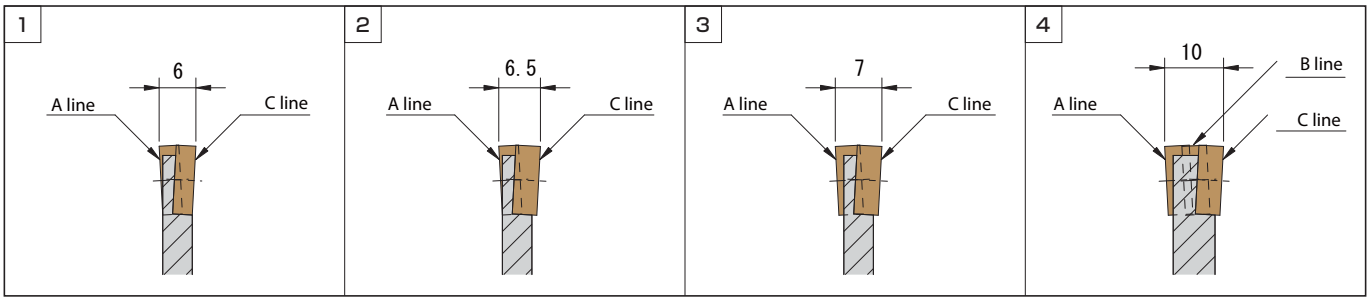
Inserts are sold in 10 piece per 1 box.

Combination of applicable insert

Description		Clamp Screw (Standard attachment parts)	Edge Width		A Line		B Line		C Line		Wrench For Clamp Screw	Tightening Torque (Nm)
			mm	inch (mm)	Applicable Insert	Clamp Screw	Applicable Insert	Clamp Screw	Applicable Insert	Clamp Screw		
mm spec	MSTB ○○○AN0607-OT	SE-40050TR	6	—	LNEU1235..	SE-40050TR	—	—	LNEU1235..	SE-40050TR	TT-15L	3
	○○○SN0607-OT		6.5		LNEU1240..	SE-40055TR			LNEU1240..	SE-40055TR		
	MSTB ○○○AN0809-OT	SE-40068TR	7	—	LNEU1245..	SE-40068TR	—	—	LNEU1245..	SE-40068TR		
	○○○SN0809-OT		8		LNEU1250..	SE-40080TR			LNEU1250..	SE-40080TR		
	MSTB ○○○AN1011-OT	SE-40068TR	9	—	LNEU1245..	SE-40068TR	LNEU1245..	SE-40068TR	LNEU1245..	SE-40068TR		
	○○○SN1011-OT		10		LNEU1250..	SE-40080TR	LNEU1250..	SE-40080TR	LNEU1250..	SE-40080TR		
	MSTB ○○○AN1213-OT	SE-40090TR	10.5	—	LNEU1255...	SE-40090TR	LNEU1255...	SE-40090TR	LNEU1255...	SE-40090TR		
			11		LNEU1260...	SE-40100TR	LNEU1260...	SE-40100TR	LNEU1260...	SE-40100TR		
			12									
			12.5									
			13									

For clamp screw, above listed "Standard attachment parts" are attached. In case of necessity of another size of clamp screw by changing slotting width, please purchase separately.

Slot width (edge width) adjustment



The Slot width (edge width) of MSTB-Type slot Mills is adjustable by a maximum of 1mm (.039 ″) with the combination of inserts.

1. In the case of MSTB ○○○AN0607-OT

   the width (W) is 6mm by installing LNEU1235 on both A line and C line.
2. By replacing C line only with LNEU1240 the width (W) is 6.5mm.
3. By replacing A line and C line with LNEU1240 the width (W) is 7mm.
4. If the slotting width（edge width）is 10mm (.375"), the B line (middle edge) is necessary.

※ Note

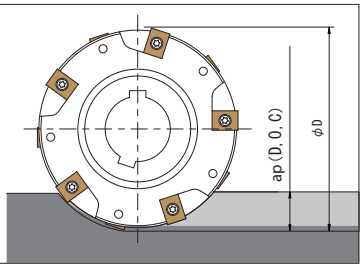
1) There is no description such as "A line", "B line", and "C line" on the actual slot Mill. These are only for explanation of the combination of insert.
2) Use proper clamp screws for applicable inserts on the basis of the above chart.
3) Please do not use, that has a difference of width more than 1mm (.039").

MSTB

Recommended Cutting Condition

Workpiece Material	Hardness (HB)	Recommended Grade (Vc:m/min)	Feed per tooth fz (mm/t)		Remarks
		PVD coated carbide	Insert Thickness (mm)		
		PR0725	3.5 ~ 4.0	4.5 ~ 6.0	
Low-carbon Steel	125	170 — 210	0.07 — 0.20	0.10 — 0.22	without coolant
Carbon Steel	190	100 — 140	0.07 — 0.20	0.10 — 0.22	
	250	90 — 120	0.07 — 0.20	0.10 — 0.22	
Alloy Steel	180	90 — 120	0.07 — 0.20	0.10 — 0.22	
	275	80 — 110	0.05 — 0.18	0.08 — 0.20	
High-carbon Alloy	280	70 — 90	0.05 — 0.18	0.08 — 0.20	
Stainless Steel	220	110 — 140	0.05 — 0.18	0.08 — 0.20	with coolant
	300	100 — 120	0.05 — 0.18	0.08 — 0.20	
Heat-Resistant Alloy	350	15 — 30	0.05 — 0.18	0.08 — 0.20	
Titanium Alloy	270	20 — 50	0.05 — 0.18	0.08 — 0.20	
Gray Cast Iron	260	110 — 130	0.07 — 0.22	0.10 — 0.25	without coolant
Nodular Cast Iron	160	80 — 100	0.07 — 0.22	0.10 — 0.25	
	250	70 — 90	0.07 — 0.22	0.10 — 0.25	

Note)
1. Use down-cut machining.
2. If D.O.C (ap) is under 1/10 of Cutter Dia (ϕ D) , it is possible to increase feed per tooth (fz) 40%.



〈MSTC Type Slot Mill〉

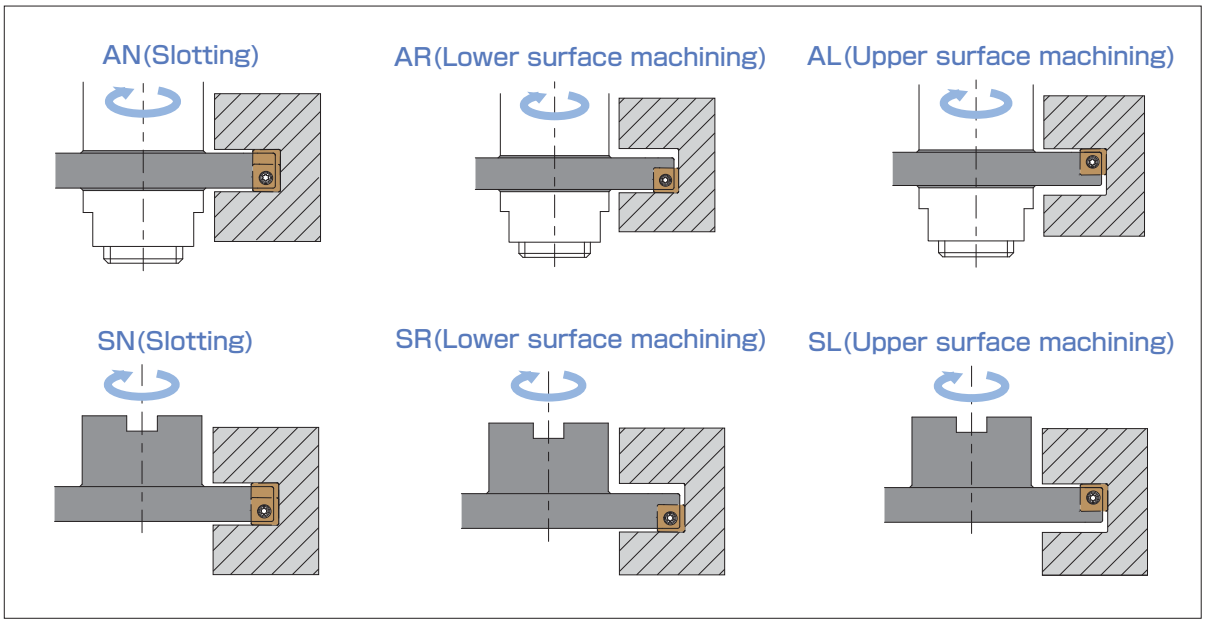
Identification System

mm spec

MSTC ○○○ A N ○○ ○○ - ○○- ○○ T

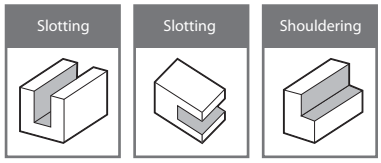
- MSTC: Slot Mill with Lay-down type
- ○○○: Cutting Dia.
- A: Without Boss / S: With Boss
- N: Neutral / R: Right-hand / L: Left-hand
- ○○: Edge Width
- ○○: Applicable Insert — 10 : SP..10T3.. / 12 : SD..1204..
- ○○: No. of Insert

Machining direction of MSTC type slot mill



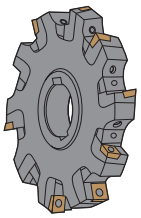
MSTC

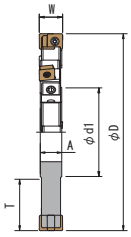
Slotting | Slotting | Shouldering

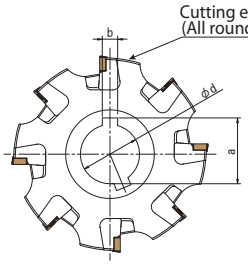


Toolholder

Arbor Mount







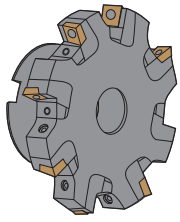
In order to use more than two slot mills of combination, there are two key slots on the slot mill itself.

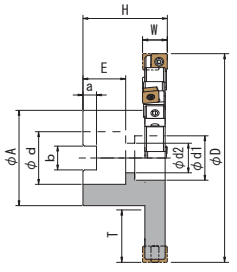
Toolholder Dimension

Description		Stock	Edge Width (mm) W (min)	Edge Width (mm) W (max)	Slot Depth T (mm)	No.of Insert	No.of Edge Line	Dimension (mm) φD	φd (H7)	φd1	A	a	b	Weight (kg)	Max. Revolution (min⁻¹)
MSTC	100AN1416-10-3T	●	14	16	25.9	6	3	100	32	46.8	13.9	34.8	8	0.5	17,250
	125AN1416-10-4T	●			34.4	8	4	125	40	54.8		43.5	10	0.8	15,450
	160AN1416-10-5T	●			51.9	10	5	160						1.5	13,650
MSTC	125AN1618-10-4T	●	16	18	34.4	8	4	125			15.9			1.0	15,450
	160AN1618-10-5T	●			51.9	10	5	160						1.8	13,650
MSTC	125AN1820-12-4T	●	18	20.7	34	8	4	125			18.2			1.0	10,350
	160AN1820-12-5T	●			51.5	10	5	160						1.8	9,150
MSTC	125AN2123-12-4T	●	21	23.3	34	8	4	125			20.8			1.2	10,350
	160AN2123-12-5T	●			51.5	10	5	160						2.1	9,150

●: Std Stock

Shell Mount





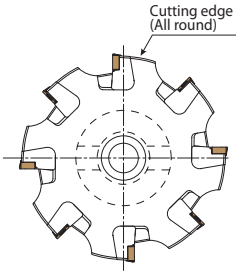
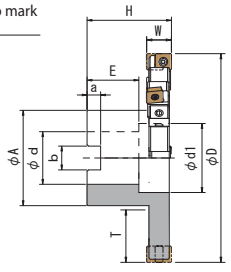


Fig.1



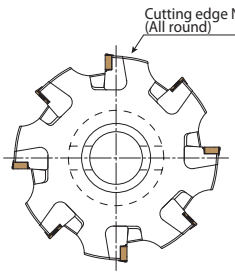


Fig.2

Toolholder Dimension

Description		Stock	Edge Width (mm) W (min)	Edge Width (mm) W (max)	Slot Depth T (mm)	No.of Insert	No.of Edge Line	Dimension (mm) φD	φd (H7)	φA	H (min)	E	a	b	φd1	φd2	Shape	Weight (kg)	Max. Revolution (min⁻¹)
MSTC	100SN1416-10-3T	●	14	16	24.4	6	3	100	27	48	50.8	24	7	12.4	20	14	Fig.1	1.0	17,250
	125SN1416-10-4T	●			31.9	8	4	125	32	58		26	8	14.4	27	18		1.6	15,450
	160SN1416-10-5T	●			43.4	10	5	160	40	70		30	9	16.4	56	—	Fig.2	2.0	13,650
MSTC	125SN1618-10-4T	●	16	18	31.9	8	4	125	32	58	50.8	26	8	14.4	27	18	Fig.1	1.7	15,450
	160SN1618-10-5T	●			43.4	10	5	160	40	70		30	9	16.4	56	—	Fig.2	2.3	13,650
MSTC	125SN1820-12-4T	●	18	20.7	31.9	8	4	125	32	58	51.0	26	8	14.4	27	18	Fig.1	1.6	10,350
	160SN1820-12-5T	●			43.4	10	5	160	40	70		30	9	16.4	56	—	Fig.2	2.3	9,150
MSTC	125SN2123-12-4T	●	20.7	23.3	31.9	8	4	125	32	58	51.0	26	8	14.4	27	18	Fig.1	1.7	10,350
	160SN2123-12-5T	●			43.4	10	5	160	40	70		30	9	16.4	56	—	Fig.2	2.6	9,150

Note) 1. H(min) dimension shows in case of minimum of edge width.

●: Std Stock

Applicable Insert

Description	Edge No. (Marked)	Applicable Insert → see P17-P18 With hand	Applicable Insert → see P17-P18 Neutral
MSTC...AN...10..	Location of odd No	SP..10T3...R...	SP..10T3...N...
MSTC...SN...10..	Location of even No	SP..10T3...L...	
MSTC...AN...12..	Location of odd No	SD..1204...R...	SD..1204...N...
MSTC...SN...12..	Location of even No	SD..1204...L...	

In case of attaching handed insert on above slottmill, same number of dege line right handed and left handed inserts are necessary.

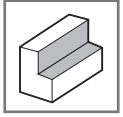
Recommended Cutting Conditions P19.

Spare Parts
・For spare parts, see P15.

Slot width (edge with) adjustment
・See P20-P22.

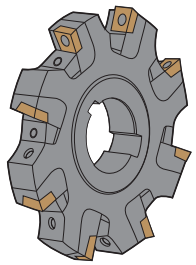
Example of Applicable Arbor
・See Back page.

Shouldering

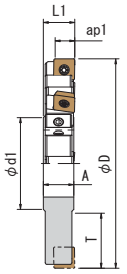


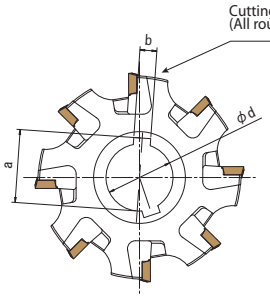
Toolholder

Arbor Mount Right-hand



※ Right-hand shown





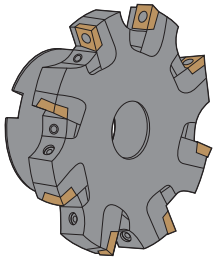
In order to use more than two slot mills of combination, there are two key slots on the slot mill itself.

Toolholder Dimension

Description		Stock	No.of Insert	Dimension (mm) φD	φd (H7)	φd1	A	L1 (min)	L1 (max)	T	ap1 (max)	a	b	Weight (kg)	Max. Revolution (min⁻¹)
MSTC	100AR1416-10-6T	●	6	100	32	46.8	13.9	13.9	14.9	25.9	9.1	34.8	8	0.5	17,250
	125AR1416-10-8T	●	8	125	40	54.8				34.4		43.5	10	0.8	15,450
	160AR1416-10-10T	●	10	160						51.9				1.5	13,650
MSTC	125AR1618-10-8T	●	8	125	40	54.8	15.9	15.2	16.2	34.4	9.1	43.5	10	1.0	15,450
	160AR1618-10-10T	●	10	160						51.9				1.8	13,650
MSTC	125AR1820-12-8T	●	8	125	40	54.8	18.2	18.1	19.4	34.0	11.7	43.5	10	1.0	10,350
	160AR1820-12-10T	●	10	160						51.5				1.8	9,150
MSTC	125AR2123-12-8T	●	8	125	40	54.8	20.8	20.7	22.0	34.0	11.7	43.5	10	1.2	10,350
	160AR2123-12-10T	●	10	160						51.5				2.1	9,150

●: Std Stock

Shell Mount Right-hand



※ Right-hand shown

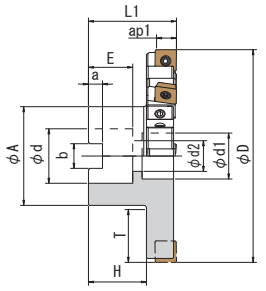
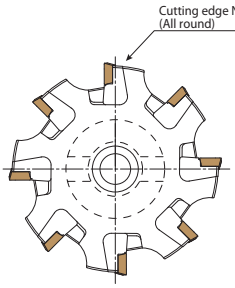


Fig.1



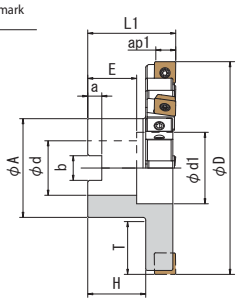
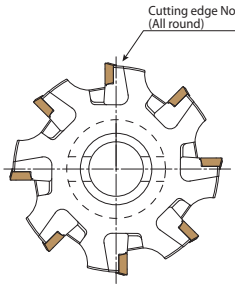


Fig.2



Toolholder Dimension

Description		Stock	No.of Insert	Dimension (mm) φD	φd (H7)	φA	H	L1 (min)	L1 (max)	T	ap1 (max)	E	a	b	φd1	φd2	Shape	Weight (kg)	Max. Revolution (min⁻¹)
MSTC	100SR1416-10-6T	●	6	100	27	48	37.7	50.8	51.8	24.4	9.1	24	7	12.4	20	14	Fig.1	1.0	17,250
	125SR1416-10-8T	●	8	125	32	58				31.9		26	8	14.4	27	18		1.6	15,450
	160SR1416-10-10T	●	10	160	40	70				43.4		30	9	16.4	56	—	Fig.2	2.0	13,650
MSTC	125SR1618-10-8T	●	8	125	32	58	35.7	50.8	51.8	31.9	9.1	26	8	14.4	27	18	Fig.1	1.7	15,450
	160SR1618-10-10T	●	10	160	40	70				43.4		30	9	16.4	56	—	Fig.2	2.3	13,650
MSTC	125SR1820-12-8T	●	8	125	32	58	34.0	51.0	52.3	31.9	11.7	26	8	14.4	27	18	Fig.1	1.6	10,350
	160SR1820-12-10T	●	10	160	40	70				43.4		30	9	16.4	56	—	Fig.2	2.3	9,150
MSTC	125SR2123-12-8T	●	8	125	32	58	31.4	51.0	52.3	31.9	11.7	26	8	14.4	27	18	Fig.1	1.7	10,350
	160SR2123-12-10T	●	10	160	40	70				43.4		30	9	16.4	56	—	Fig.2	2.6	9,150

●: Std Stock

Applicable Insert

Description	Applicable Insert → see P17-P18	
	With hand	Neutral
MSTC...AR...10.. MSTC...SR...10..	SP..10T3...R...	SP..10T3...N...
MSTC...AR...12.. MSTC...SR...12..	SD..1204...R...	SD..1204...N...

Recommended Cutting Conditions P19.

Spare Parts

・For spare parts, see P16.

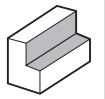
Slot width (edge with) adjustment

・See P20-P22.

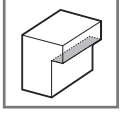
Example of Applicable Arbor

・See Back page.

Shouldering

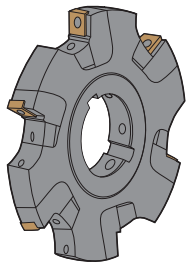


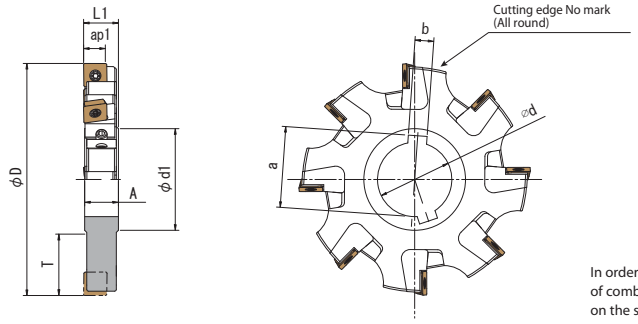
Back Side Milling



Toolholder

Arbor Mount Left-hand





※ Left-hand shown

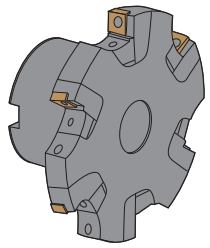
In order to use more than two slot mills of combination, there are two key slots on the slot mill itself.

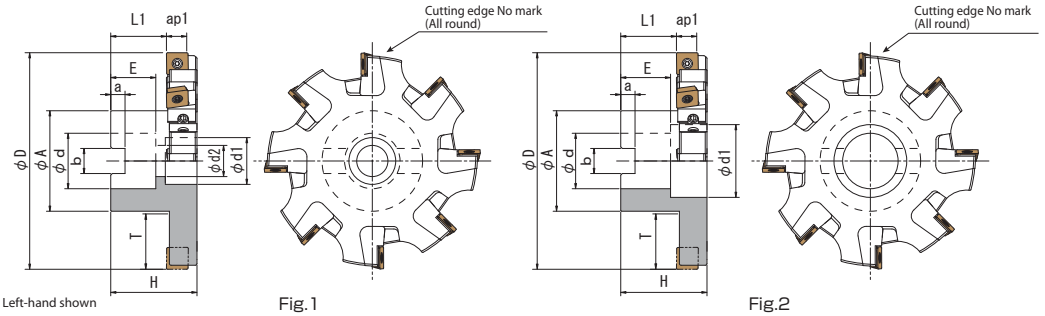
Toolholder Dimension

Description		Stock	No.of Insert	Dimension (mm) φD	φd (H7)	φd1	A	L1 (min)	L1 (max)	T	ap1 (max)	a	b	Weight (kg)	Max. Revolution (min⁻¹)
MSTC	100AL1416-10-6T	●	6	100	32	46.8	13.9	13.9	14.9	25.9	9.1	34.8	8	0.5	17,250
	125AL1416-10-8T	●	8	125	40	54.8				34.4		43.5	10	0.8	15,450
	160AL1416-10-10T	●	10	160						51.9				1.5	13,650
MSTC	125AL1618-10-8T	●	8	125			15.9	15.2	16.2	34.4				1.0	15,450
	160AL1618-10-10T	●	10	160						51.9				1.8	13,650
MSTC	125AL1820-12-8T	●	8	125			18.2	18.1	19.4	34.0	11.7			1.0	10,350
	160AL1820-12-10T	●	10	160						51.5				1.8	9,150
MSTC	125AL2123-12-8T	●	8	125			20.8	20.7	22.0	34.0				1.2	10,350
	160AL2123-12-10T	●	10	160						51.5				2.1	9,150

●: Std Stock

Shell Mount Left-hand





※ Left-hand shown

Fig.1

Fig.2

Toolholder Dimension

Description		Stock	No.of Insert	Dimension (mm) φD	φd (H7)	φA	H	L1 (min)	L1 (max)	T	ap1 (max)	E	a	b	φd1	φd2	Shape	Weight (kg)	Max. Revolution (min⁻¹)
MSTC	100SL1416-10-6T	●	6	100	27	48	50	35.8	36.8	24.4	9.1	24	7	12.4	20	14	Fig.1	1.0	17,250
	125SL1416-10-8T	●	8	125	32	58				31.9		26	8	14.4	27	18		1.6	15,450
	160SL1416-10-10T	●	10	160	40	70				43.4		30	9	16.4	56	—	Fig.2	2.0	13,650
MSTC	125SL1618-10-8T	●	8	125	32	58		33.8	34.8	31.9		26	8	14.4	27	18	Fig.1	1.7	15,450
	160SL1618-10-10T	●	10	160	40	70				43.4		30	9	16.4	56	—	Fig.2	2.3	13,650
MSTC	125SL1820-12-8T	●	8	125	32	58	50	31.7	33.0	31.9	11.7	26	8	14.4	27	18	Fig.1	1.6	10,350
	160SL1820-12-10T	●	10	160	40	70				43.4		30	9	16.4	56	—	Fig.2	2.3	9,150
MSTC	125SL2123-12-8T	●	8	125	32	58		29.1	30.4	31.9		26	8	14.4	27	18	Fig.1	1.7	10,350
	160SL2123-12-10T	●	10	160	40	70				43.4		30	9	16.4	56	—	Fig.2	2.6	9,150

●: Std Stock

Applicable Insert

Description	Applicable Insert → see P17-P18	
	With hand	Neutral
MSTC...AL...10.. MSTC...SL...10..	SP..10T3...L...	SP..10T3...N...
MSTC...AL...12.. MSTC...SL...12..	SD..1204...L...	SD..1204...N...

Recommended Cutting Conditions P19.

Spare Parts

・For spare parts, see P16.

Slot width (edge with) adjustment

・See P20-P22.

Example of Applicable Arbor

・See Back page.

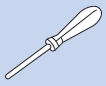
Spare Parts

Spare Parts

Description				Spare Parts										
				Cartridge		Wedge	Wedge Screw	Cam Pin	Clamp Screw	Wrench			Anti-seize Compound	Mounting Bolt
				Right-hand	Left-hand					For Wedge Screw	For Cam Pin	For Clamp Screw		
														
Without Boss	mm spec	MSTC	100AN1416-10-3T	C90SP1416-10R	C90SP1416-10L	WC-14	W6 X 18	AP-1416	SE-3070TRP	TH-3L	LW-2.5	DTP-9		–
			125AN1416-10-4T				W6 X 20							
			160AN1416-10-5T											
		MSTC	125AN1618-10-4T	C90SP1618-10R	C90SP1618-10L	WC-16	W6 X 20							
			160AN1618-10-5T											
		MSTC	125AN1820-12-4T	C90SD1820-12R	C90SD1820-12L	WC-18	W6 X 20	AP-1820	SB-3590TRP		LW-3	DTP-15		
			160AN1820-12-5T											
		MSTC	125AN2123-12-4T	C90SD2023-12R	C90SD2023-12L	WC-20								
			160AN2123-12-5T											
With Boss	mm spec	MSTC	100SN1416-10-3T	C90SP1416-10R	C90SP1416-10L	WC-14	W6 X 20	AP-1416	SE-3070TRP	TH-3L	LW-2.5	DTP-9		HH12 X 35
			125SN1416-10-4T											HH16 X 35
			160SN1416-10-5T											—
		MSTC	125SN1618-10-4T	C90SP1618-10R	C90SP1618-10L	WC-16								HH16 X 35
			160SN1618-10-5T											—
		MSTC	125SN1820-12-4T	C90SD1820-12R	C90SD1820-12L	WC-18	W6 X 20	AP-1820	SB-3590TRP		LW-3	DTP-15		HH16 X 35
			160SN1820-12-5T											—
		MSTC	125SN2123-12-4T	C90SD2023-12R	C90SD2023-12L	WC-20								HH16 X 35
			160SN2123-12-5T											—

Coat anti-seize compound (MP-1) thinly on clamp screw when insert is fixed.

Tightening Torque / Slot Mill / (Lay down Type)

Wrench	TH-3L	DTP-9	DTP-15
			
Tightening Torque (Nm)	5-6	1.5	4

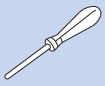
Spare Parts

Spare Parts

Description				Spare Parts										
				Cartridge		Wedge	Wedge Screw	Cam Pin	Clamp Screw	Wrench			Anti-seize Compound	Mounting Bolt
				Right-hand	Left-hand					For Wedge Screw	For Cam Pin	For Clamp Screw		
														
Without Boss	mm spec	MSTC	100AR1416-10-6T	C90SP1416-10R	—	WC-14	W6 X 18	AP-1416	SE-3070TRP	TH-3L	LW-2.5	DTP-9	MP- 1	—
			125AR1416-10-8T				W6 X 20							
			160AR1416-10-10T											
		MSTC	125AR1618-10-8T	C90SP1618-10R		WC-16	W6 X 20							
			160AR1618-10-10T											
		MSTC	125AR1820-12-8T	C90SD1820-12R		WC-18	W6 X 20	AP-1820	SB-3590TRP	TH-3L	LW-3	DTP-15		
			160AR1820-12-10T											
		MSTC	125AR2123-12-8T	C90SD2023-12R		WC-20								
			160AR2123-12-10T											
		MSTC	100AL1416-10-6T	—	C90SP1416-10L	WC-14	W6 X 18	AP-1416	SE-3070TRP	TH-3L	LW-2.5	DTP-9		
			125AL1416-10-8T				W6 X 20							
			160AL1416-10-10T											
		MSTC	125AL1618-10-8T		C90SP1618-10L	WC-16	W6 X 20							
			160AL1618-10-10T											
		MSTC	125AL1820-12-8T		C90SD1820-12L	WC-18	W6 X 20	AP-1820	SB-3590TRP	TH-3L	LW-3	DTP-15		
			160AL1820-12-10T											
		MSTC	125AL2123-12-8T		C90SD2023-12L	WC-20								
			160AL2123-12-10T											
With Boss	mm spec	MSTC	100SR1416-10-6T	C90SP1416-10R	—	WC-14	W6 X 20	AP-1416	SE-3070TRP	TH-3L	LW-2.5	DTP-9	MP- 1	HH12 X 35
			125SR1416-10-8T											HH16 X 35
			160SR1416-10-10T											—
		MSTC	125SR1618-10-8T	C90SP1618-10R		WC-16								HH16 X 35
			160SR1618-10-10T											—
		MSTC	125SR1820-12-8T	C90SD1820-12R		WC-18	W6 X 20	AP-1820	SB-3590TRP	TH-3L	LW-3	DTP-15	MP- 1	HH16 X 35
			160SR1820-12-10T											—
		MSTC	125SR2123-12-8T	C90SD2023-12R		WC-20								HH16 X 35
			160SR2123-12-10T											—
		MSTC	100SL1416-10-6T	—	C90SP1416-10L	WC-14	W6 X 20	AP-1416	SE-3070TRP	TH-3L	LW-2.5	DTP-9	MP- 1	HH12 X 35
			125SL1416-10-8T											HH16 X 35
			160SL1416-10-10T											—
		MSTC	125SL1618-10-8T		C90SP1618-10L	WC-16								HH16 X 35
			160SL1618-10-10T											—
		MSTC	125SL1820-12-8T		C90SD1820-12L	WC-18	W6 X 20	AP-1820	SB-3590TRP	TH-3L	LW-3	DTP-15	MP- 1	HH16 X 35
			160SL1820-12-10T											—
		MSTC	125SL2123-12-8T		C90SD2023-12L	WC-20								HH16 X 35
			160SL2123-12-10T											—

Coat anti-seize compound (MP-1) thinly on clamp screw when insert is fixed.

Tightening Torque / Half-Side Slot Mil

Wrench	TH-3L	DTP-9	DTP-15
			
Tightening Torque (Nm)	5-6	1.5	4

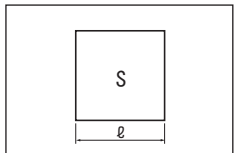
Insert Identification System

Symbol	Hand
S	Square

① Shape

Symbol	Tolerance		
	Corner Height	Thickness	IC Size
C	±0.013mm	±0.025mm	±0.025mm
E	±0.025mm		

③ Tolerance



⑤ Edge length

Symbol	Corner-R
16	1.6mm
12	1.2mm
08	0.8mm

⑦ Corner-R(rε)

Symbol	Hand
N	Neutral
L	Left-hand
R	Right-hand

⑨ Hand

S	P	C	T	10	T3	08	E	R	-	SD
①	②	③	④	⑤	⑥	⑦	⑧	⑨		⑩

② Relief Angle	
Symbol	Relief Angle
D	15°
P	11°

④ Hole/Chipbreaker Symbol	
Symbol	Shape
T	1 edge chipbreaker, with hole

⑥ Thickness	
Symbol	Thickness
T3	3.97mm
04	4.76mm

⑧ Edge Prep.	
Symbol	Cuttig Edge Spec.
E	Honed
F	Sharp Edge
S	Chamfer+R-honed

⑩ Chipbreaker Symbol	
Symbol	Rake Angle
SB	5°
SD	15°
SE	20°

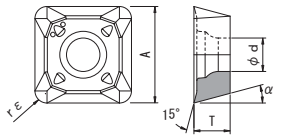
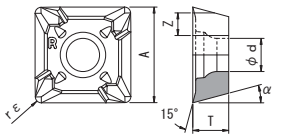
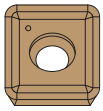
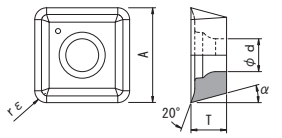
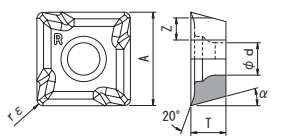
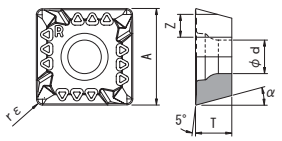
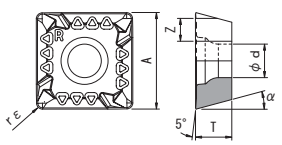
Applicable Insert

SP..10T3

(mm)

Description	L1	T	ϕd	α
SP..10T3	10.0	3.97	3.4	11°

Classification of usage					
●: 1st Choice ○: 2nd Choice	P	Carbon Steel・Alloy Steel	●	●	
	M	Stainless Steel	○	●	
	K	Cast Iron	○	●	
	N	Non-ferrous Material			●
	S	Heat-Resistant Alloy		●	
		Titanium Alloy		●	○

Shape (Handed Insert shows Right-hand)		Description		No.of Edge	Dimension (mm)		CVD coated carbide	PVD coated carbide	
					r ε	Wiper Edge	CA0835	PR0725	PR0110
		SPCT	10T316EN-SD	4	1.6	—		●	
 With Wiper Edge		SPCT	10T308E^{R}/L-SD	4	0.8	2.5		●	
			10T312E^{R}/L-SD	4	1.2	1.8		●	
 Sharp Edge		SPCT	10T316FN-SE	4	1.6	—			●
 Sharp Edge / With Wiper Edge		SPCT	10T308F^{R}/L-SE	4	0.8	2.7			●
			10T312F^{R}/L-SE	4	1.2	2.2			●
 With Wiper Edge		SPET	10T308E^{R}/L-SB	4	0.8	2.7	●	●	
 With Wiper Edge / Tough		SPET	10T308S^{R}/L-SB	4	0.8	2.7	●	●	

Inserts are sold in 10 piece per 1 box.

●: Std Stock

Applicable Insert

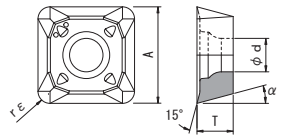
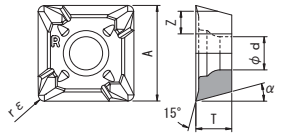
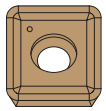
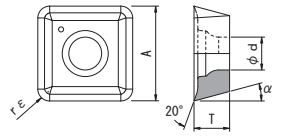
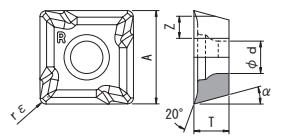
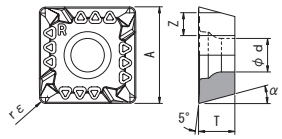
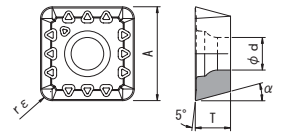
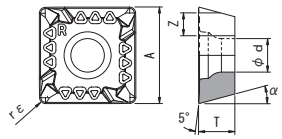
SD..1204

(mm)

Description	A	T	ϕd	α
SD..1204	12.7	4.76	4.4	15°

Classification of usage
●: 1st Choice
○: 2nd Choice

		CVD coated carbide	PVD coated carbide	
P	Carbon Steel・Alloy Steel	●	●	
M	Stainless Steel	○	●	
K	Cast Iron	○	●	
N	Non-ferrous Material			●
S	Heat-Resistant Alloy		●	
	Titanium Alloy		●	○

Shape (Handed Insert shows Right-hand)	Description	No.of Edge	Dimension (mm) rε	Dimension (mm) Wiper Edge	CVD coated carbide CA0835	PVD coated carbide PR0725	PVD coated carbide PR0110
 	SDCT 120416EN-SD	4	1.6	—		●	
 With Wiper Edge 	SDCT 120408E$^{R}_{L}$-SD	4	0.8	2.5		●	
	120412E$^{R}_{L}$-SD	4	1.2	1.8		●	
 Sharp Edge 	SDCT 120416FN-SE	4	1.6	—			●
 Sharp Edge / With Wiper Edge 	SDCT 120408F$^{R}_{L}$-SE	4	0.8	2.7			●
	120412F$^{R}_{L}$-SE	4	1.2	1.9			●
 With Wiper Edge 	SDET 120408E$^{R}_{L}$-SB	4	0.8	2.5	●	●	
	120412E$^{R}_{L}$-SB	4	1.2	1.8	●	●	
 	SDET 120416SN-SB	4	1.6	—	●	●	
 With Wiper Edge / Tough 	SDET 120408S$^{R}_{L}$-SB	4	0.8	2.5	●	●	

●: Std Stock

Inserts are sold in 10 piece per 1 box.

Features of Insert Grades

CA0835

- TiN+TiCN+Al_2O_3 based CVD coated carbide
- For carbon steel, alloy steel, stainless steel and nodular cast iron
- For middle to high speed cutting

PR0725

- TiN+TiCN+TiN based PVD multi layer coated carbide
- For carbon steel, alloy steel, stainless steel, heat resistant alloy and nodular cast iron
- For middle speed cutting

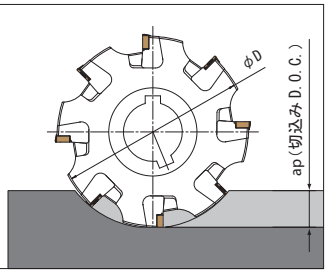
PR0110

- TiB2 based PVD coating
- For non ferrous metal such as aluminum alloy (Si＜10%) and titanium alloy
- For high speed cutting

Recommended Cutting Condition (For CA0835 / PR0725)

Workpiece Material	Hardness (HB)	Recommended Grade (Vc:m/min)		Feed per tooth fz (mm/t)			Remarks
		CVD coated carbide	PVD coated carbide	Chipbreaker Symbol			
		CA0835	PR0725	EN-SD ER-SD EL-SD	ER-SB EL-SB	SN-SB SR-SB SL-SB	
Low-carbon Steel	125	250 – 310	170 – 210	0.07– 0.20	0.10– 0.22	0.15– 0.3	without coolant
Carbon Steel	190	160 – 190	100 – 140	0.07– 0.20	0.10– 0.22	0.15– 0.3	
	250	140 – 180	90 – 120	0.07– 0.20	0.10– 0.22	0.15– 0.3	
Alloy Steel	180	140 – 180	90 – 120	0.07– 0.20	0.10– 0.22	0.15– 0.3	
	275	120 – 160	80 – 110	0.05– 0.18	0.08– 0.20	0.12– 0.25	
High-carbon Alloy	280	110 – 130	70 – 90	0.05– 0.18	0.08– 0.20	0.12– 0.25	
Stainless Steel	220	160 – 200	110 – 140	0.05– 0.18	0.08– 0.20	0.12– 0.25	with coolant
	300	150 – 180	100 – 120	0.05– 0.18	0.08– 0.20	0.12– 0.25	
Heat-Resistant Alloy	350	–	15 – 30	0.05– 0.18	0.08– 0.20	0.12– 0.25	
Titanium Alloy	270	–	20 – 50	0.05– 0.18	0.08– 0.20	0.12– 0.25	
Gray Cast Iron	260	160 – 200	110 – 130	0.07– 0.22	0.10– 0.25	0.15– 0.35	without coolant
Nodular Cast Iron	160	130 – 160	80 – 100	0.07– 0.22	0.10– 0.25	0.15– 0.35	
	250	110 – 140	70 – 90	0.07– 0.22	0.10– 0.25	0.15– 0.35	

Note) 1. Use down-cut machining.
2. If D.O.C (ap) is under 1/10 of Cutter Dia (ϕ D) , it is possible to increase feed per tooth (fz) 40%.



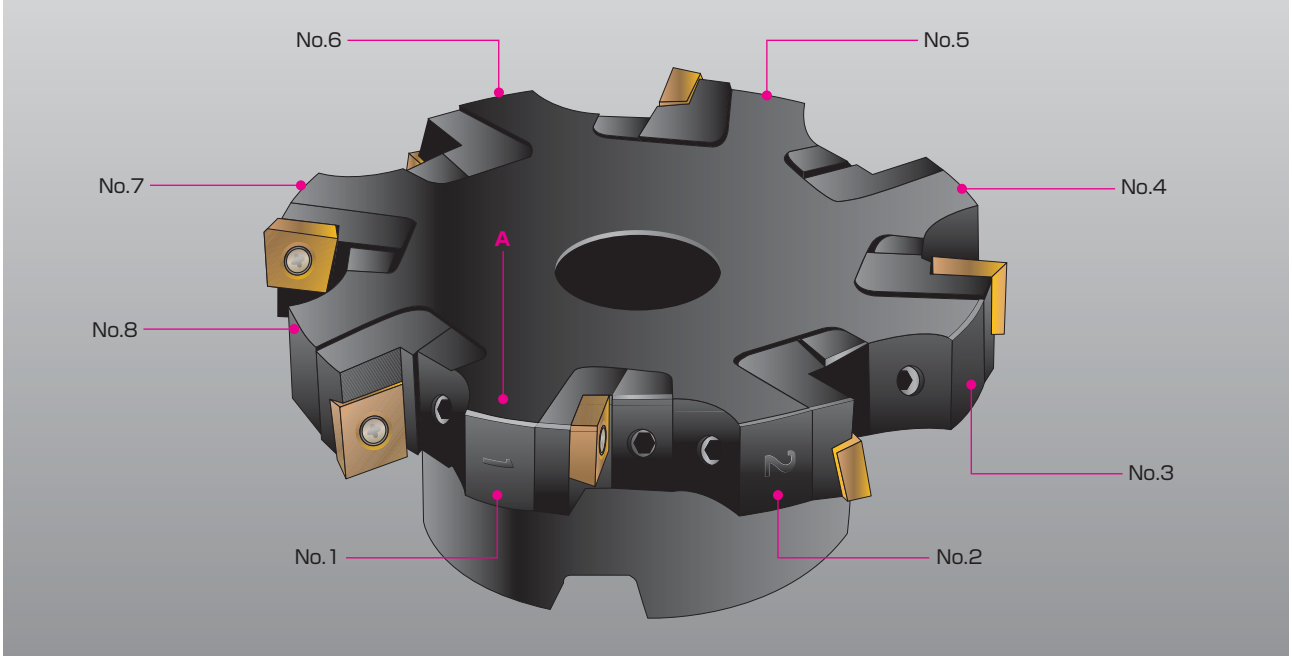
Recommended Cutting Condition (For PR0110)

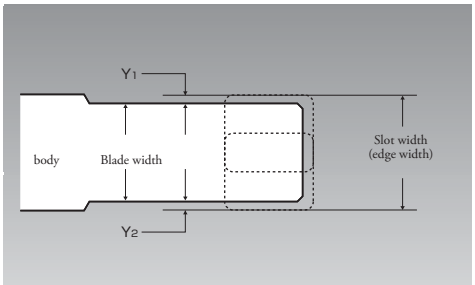
Workpiece Material	Hardness (HB)	Recommended Grade (Vc:m/min)	Feed per tooth fz (mm/t)	Remarks
		PVD coated carbide	Chipbreaker Symbol	
		PR0110	FN-SE FR-SE FL-SE	
Non-ferrous Material	–	750 – 950	0.07– 0.20	with coolant

Note) 1. Use down-cut machining.
2. If D.O.C (ap) is under 1/10 of Cutter Dia (ϕ D) , it is possible to increase feed per tooth (fz) 40%.

Slot width (edge width) adjustment of MSTC type Slotting Cutter

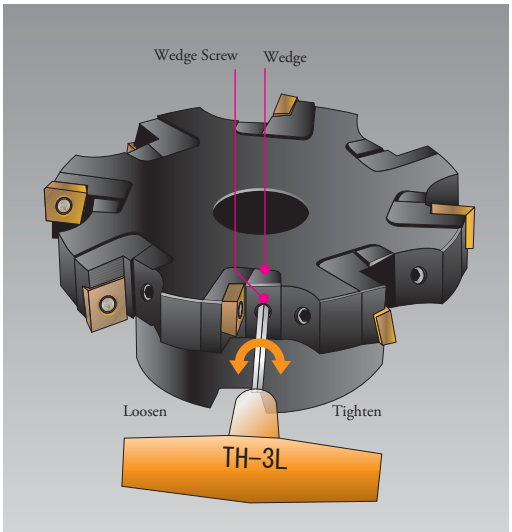
Slot width (edge width) measurement



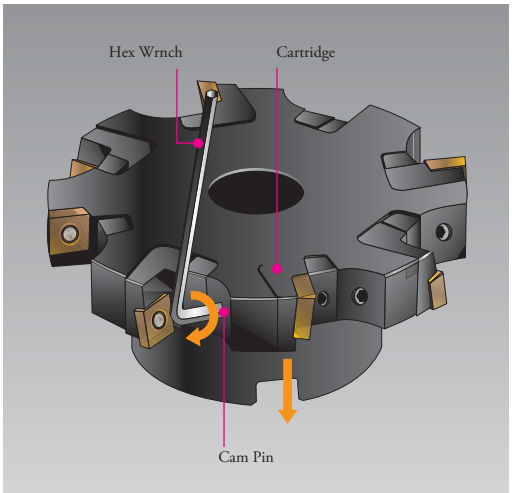


1. Please check slot mill egde location number. (The edge location number is marked othe slot mill body.)
2. Set up the slot mill on length measuring equipment such as tool presetters.
3. Place the point A of the slot mill body near the position No.1 to "0 (zero)" of the length measuring equipment.
4. Move the length measuring equipment to the insert corner part and measure the step (Y1) between the point A and the insert No.1.
5. Likewise, measure the step between the slot mill body and the insert, and you will obtain the slot width (edge width).

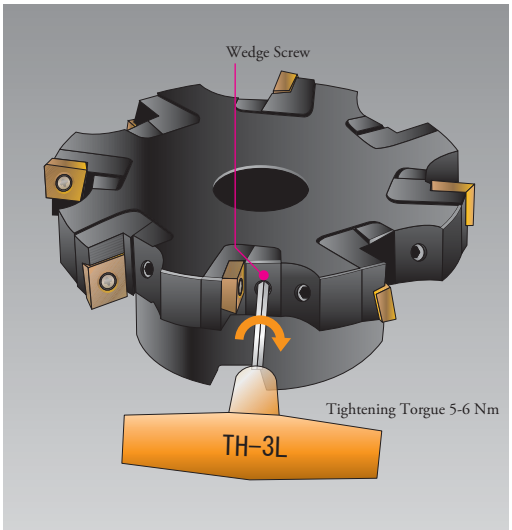
In the case of changing the slot width (edge width)



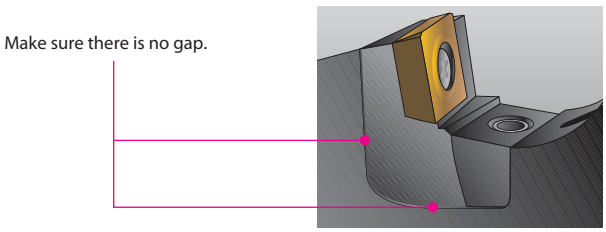
1. Set up the slot mill on length measuring equipment such as tool presetters.
2. Insert a 3mm hex wrench (TH-3L) into the wedge screw.
3. Turn TH-3L counterclockwise to loosen the wedge.
4. Turn TH-3L clockwise by the torque of 1 Newton-meter (N-m) to tighten the wedge lightly and make the wedge to contact the cartridge and the slot mill body.
   In doing so, some resistance occurs against the cartridge.



5. Insert a hex wrench (LW-2.5 or LW-3) into the cam pin on the back of the cartridge.
6. Turn the wrench and adjust the position of the cartridge.
7. To secure the adjustment, back the cam pin off and make sure that it does not touch the groove surface of the back of the cartridge.
8. Remove the wrench from the cam pin.

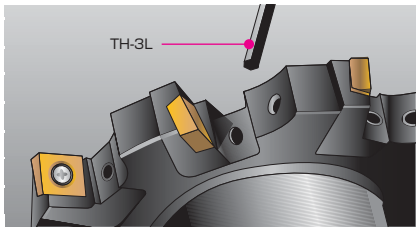


9. Insert TH-3L into the wedge screw.
10. Tighten the wedge screw by the torque of 5 to 6 N-m.
    (Use a torque wrench to get the correct torque.)
11. Make sure there is no gap between the cartridge and the slot mill body.

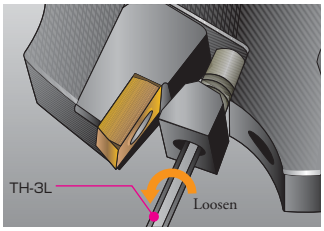


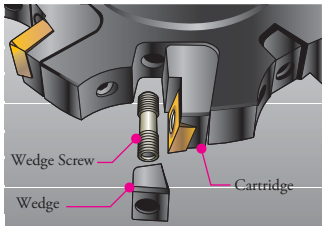
Replacement of the cartridge.

Follow the instruction below to replace the cartridge.



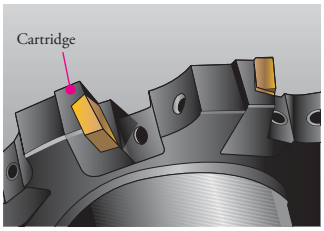
1. Insert a 3mm hex wrench (TH-3L) into the wedge screw.

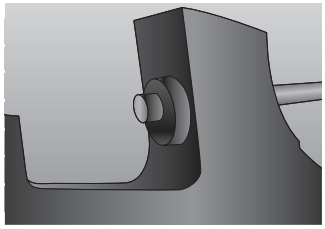




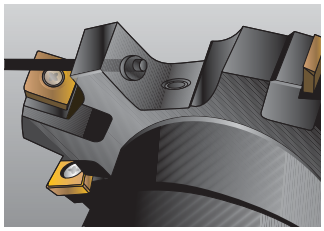
2. Loosen the wedge screw.

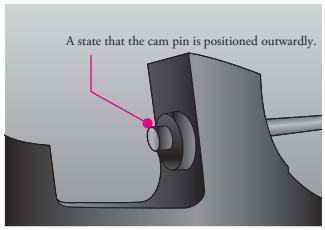
3. Remove the wedge screw and the wedge.



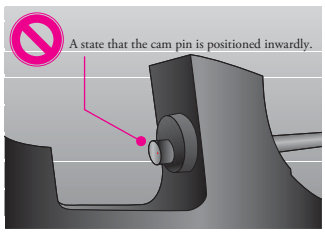


4. Remove the cartridge.

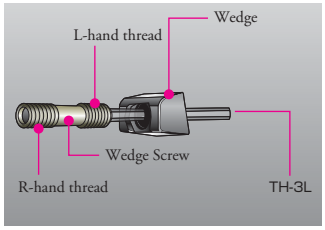


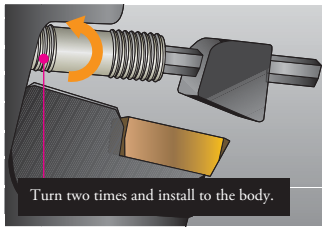


5. Before replacing the cartridge, confirm that the cam pin is positioned radially-outwardly.



6. If the cam pin is in the position shown in the left diagram, assembling the cartridge is not possible.



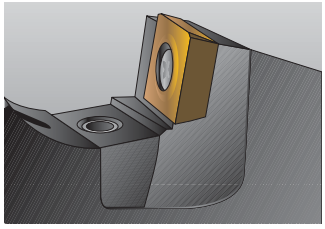


7. lace the wedge so that its larger slant surface faces toward the cartridge.

8. Turn the wedge screw two times to install the wedge to the body.

9. When installing the wedge screw to the body, keep the wedge from rotating and screw it in.

10. Tighten the wedge screw by the torque of 5 to 6 N-m. Keep the screw head and the wedge even (prevent either of those from sticking out)



Example of applicable arbor for Slotting Cutter

Shape	See pages	Description		Bore Dia	BT Shank Arbor			
					BIG	NIKKEN	SHOWA	NT TOOL
Arbor Mount	3	**MSTA**	**63N..**	16		BT○○-SCA16..		BT○○-SCA16..
			80N..	16		BT○○-SCA16..		BT○○-SCA16..
			100N..	22		BT○○-SCA22..		BT○○-SCA22..
			125N..	32		BT○○-SCA32..		BT○○-SCA32..
			160N..	40		BT○○-SCA40..		BT○○-SCA40..
Shell Mount	7	**MSTB**	**80SN..**	22	BBT○○-FMC22..	BT○○-FMC22..	BT○○-FMC22..	BT○○-FMC22..
			100SN..	27	BBT○○-FMC27..	BT○○-FMC27..	BT○○-FMC27..	BT○○-FMC27..
			125SN..	40	BBT○○-FMB40..	BT○○-FMB40..	BT○○-FMB40..	BT○○-FMB40..
			160SN..	40	BBT○○-FMB40..	BT○○-FMB40..	BT○○-FMB40..	BT○○-FMB40..
	12 13 14	**MSTC**	**100A○..**	32		BT○○-SCA32..		BT○○-SCA32..
			125A○..	40		BT○○-SCA40..		BT○○-SCA40..
			160A○..	40		BT○○-SCA40..		BT○○-SCA40..

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