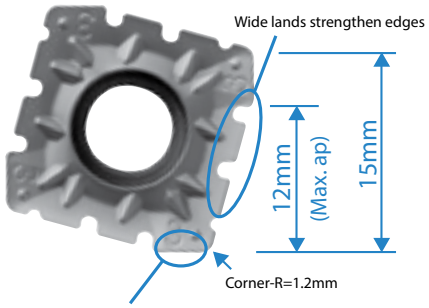
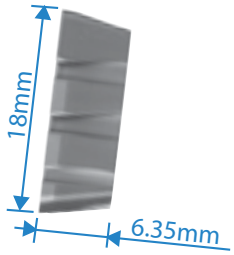
MSRS15 face mill for heavy milling

Large depth of cut and high feed rate achieves high efficiency machining

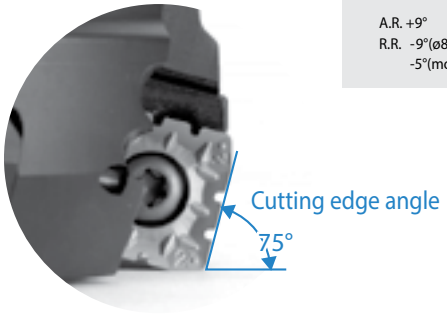
Recommended ap: 5 ~ 10mm



Large wiper edges achieve high feed rate.

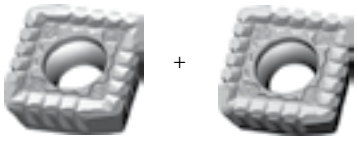
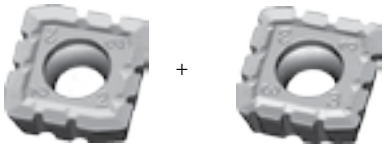
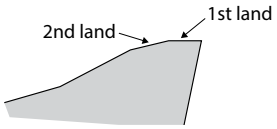
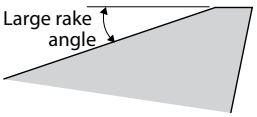
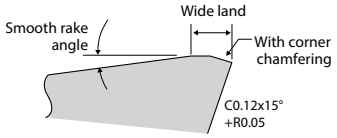


Inserts are strengthened with 6.35mm thickness.



A.R. +9°
R.R. -9°(ø80)
-5°(more than ø100)

Selection of chipbreaker

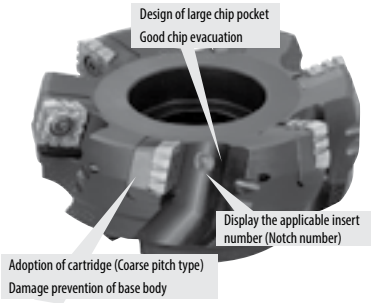
	Low cutting force	General purpose	Edge strength oriented
Insert type	 NB2P(4-Notched) + NB3P(5-Notched)	 NB2(2-Notched) + NB3(3-Notched)	 NB2T(2-Notched) + NB3T(3-Notched)
Applications	When using long arbor or for machining of thin-plate workpieces	General purpose type with good balance of strength and cutting force	For interrupted machining and high load machining When feed rate is increased or workpiece material is cast iron
Edge preparation	As many as four (or five) notches help to alleviate the shock when biting into the workpiece	Strength, edge and chip control are all well balance	Strength is increased by the edge shape and moderate rake angle of the chamfer edge
			

A supplemental chipbreaker is used when it is necessary to increase strength and bite while focusing on resistance, as when machining welded areas.

• About insert no. of NB2P (4-notched) and NB3P (5-notched)
In order to adjust applicable inserts on marked numbers on toolholders, "2+" is marked for NB2P (4-notched) and "3+" is marked on NB3P (5-notched).

Features of toolholder

Coarse pitch



Fine pitch

Higher productivity with fine pitch design

Insert replacement identification

Insert number is transcribed as a result of the cutting tool load.

* Depending on the cutting conditions, marks are not transcribed.

MSRS15

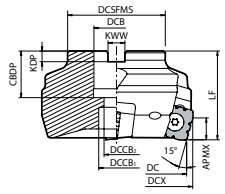


Fig. 1

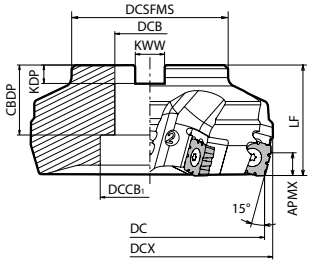


Fig. 2

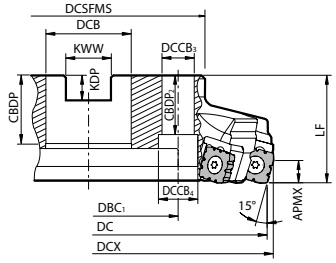


Fig. 3

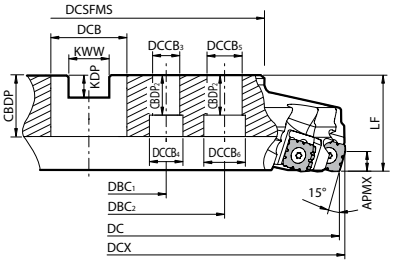


Fig. 4

Toolholder dimensions

Description				Availability	Inserts	Dimension (mm)																		A.R. (°)	R.R. (°)	Coolant hole	Weight (kg)	Fig.	Applicable inserts ➡ M60
				R		DC	DCX	DCSFMS	DCB	$DCCB_1$	$DCCB_2$	$DCCB_3$	$DCCB_4$	$DCCB_5$	$DCCB_6$	DBC_1	DBC_2	LF	CBDP	KDP	KWW	APMX	$CBDP_2$						
Metric	Coarse pitch	MSRS	15080R-4T-M	●	4	80	87	70	27	20	13	-	-	-	-	-	-	50	24	7	12.4	12	-	+9	-9	No	1.3	1	SPMT1806EDER... SPMT1806EDSR...
			15100R-4T-M	●		100	107	85	32	45	-								29	8	14.4		-		-5		2	2	
			15125R-6T-M	●	6	125	132		40	55				-	-	-	-	60	33	9	16.4						3.6	2	
			15160R-8T-M	●	8	160	167	110		68	-	14	20			66.7							28				5	3	
			15200R-10T-M	●	10	200	207	140	60	-		18	26			101.6			38	15	25.7		32				7.7	3	
			15250R-12T-M	●	12	250	257																				12	3	
			15315R-14T-M	●	14	315	322	230						22	32		177.8										17	4	
	Fine pitch	MSRS	15080R-6T-M	●	6	80	87	70	27	20	13	-	-	-	-	-	-	50	24	7	12.4	12	-	+9	-9	No	1.3	1	SPMT1806EDER... SPMT1806EDSR...
			15100R-6T-M	●		100	107	85	32	45	-								29	8	14.4		-		-5		1.9	2	
			15125R-8T-M	●	8	125	132		40	55				-	-	-	-	60	33	9	16.4						3.5	2	
			15160R-10T-M	●	10	160	167	110		68	-	14	20			66.7							28				4.9	3	
			15200R-12T-M	●	12	200	207	140	60	-		18	26			101.6			38	15	25.7		32				7.6	3	
			15250R-14T-M	●	14	250	257																				11.9	3	
			15315R-16T-M	MTO	16	315	322	230						22	32		177.8										17	4	
Bore dia. inch spec	Coarse pitch	MSRS	15080R-4T	□	4	80	87	55	25.4	20	13	-	-	-	-	-	-	50	26	6	9.5	12	-	+9	-9	No	1.3	1	SPMT1806EDER... SPMT1806EDSR...
			15100R-4T	□		100	107	70	31.75	42									32	8	12.7				-5		2	2	
			15125R-6T	□	6	125	132	85	38.1	54				-	-	-	-	60	38	10	15.9		-				3.6	2	
			15160R-8T	□	8	160	167	100	50.8	68	-									11	19						5	2	
			15200R-10T	□	10	200	207	130	47.625	-		18	26			101.6				14	25.4		32				7.7	3	
			15250R-12T	□	12	250	257																				12	3	
			15315R-14T	□	14	315	322	220						22	32		177.8						25				17	4	
	Fine pitch	MSRS	15080R-6T	□	6	80	87	55	25.4	20	13	-	-	-	-	-	-	50	26	6	9.5	12	-	+9	-9	No	1.3	1	SPMT1806EDER... SPMT1806EDSR...
			15100R-6T	□		100	107	70	31.75	42									32	8	12.7				-5		1.9	2	
			15125R-8T	□	8	125	132	85	38.1	54				-	-	-	-	60	38	10	15.9		-				3.5	2	
			15160R-10T	□	10	160	167	100	50.8	68	-									11	19						4.9	2	
			15200R-12T	□	12	200	207	130	47.625	-		18	26			101.6				14	25.4		32				7.6	3	
			15250R-14T	□	14	250	257																				11.9	3	
			15315R-16T	MTO	16	315	322	220						22	32		177.8						25				17	4	

Mounting bolt (HH12X35) is included for MSRS15080R-○T(-M).
Cartridge is included in the coarse pitch type, but no cartridge in the fine pitch type.

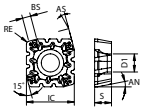
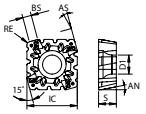
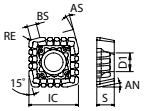
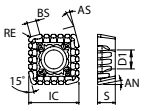
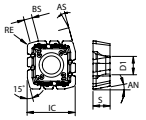
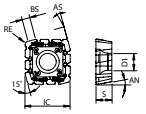
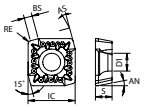
● : Standard item R : Right-hand only L : Left-hand only □ : Check availability MTO : Made to order

SPMT

Classification of usage

★ : Roughing / 1st Choice
☆ : Roughing / 2nd Choice
■ : Finishing / 1st Choice
□ : Finishing / 2nd Choice
(In case hardness is 45HRC or under)

Carbon steel / Alloy steel		★	☆	P
Mold and die steel		★	☆	P
Austenitic stainless steel				M
Martensitic stainless steel				M
Precipitation hardening stainless steel				M
Gray cast iron	★			K
Nodular cast iron	★			K
Non-ferrous metals				N
Heat-resistant alloy			★	S
Titanium alloy			★	S
Hard materials				H

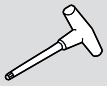
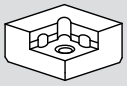
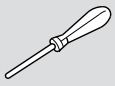
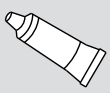
Insert		Description	No. of edges	Dimension (mm)					Angle (°)		Carbide			Applicable toolholder ➡ M59
				IC	S	D1	RE	BS	AN	AS	PVD			
											PR1810	PR1825	PR1835	
	 2-notch	SPMT 1806EDER-NB2	4	18	6.35	6.8	1.2	3.1	11	15	●	●	●	MSRS15...
	 3-notch	SPMT 1806EDER-NB3	4	18	6.35	6.8	1.2	3.1	11	15	●	●	●	MSRS15...
	 4-notch / Low cutting force	SPMT 1806EDER-NB2P	4	18	6.35	6.8	1.2	3.1	11	15	●	●	●	MSRS15...
	 5-notch / Low cutting force	SPMT 1806EDER-NB3P	4	18	6.35	6.8	1.2	3.1	11	15	●	●	●	MSRS15...
	 2-notch / Tough edge	SPMT 1806EDSR-NB2T	4	18	6.35	6.8	1.2	3.1	11	15	●		●	MSRS15...
	 3-notch / Tough edge	SPMT 1806EDSR-NB3T	4	18	6.35	6.8	1.2	3.1	11	15	●		●	MSRS15...
	 Without notch	SPMT 1806EDER-V	4	18	6.35	6.8	1.2	3.1	11	15	●	●	●	MSRS15...

Handed insert shows Right-hand

Recommended cutting conditions ➡ M61

● : Standard item R : Right-hand only L : Left-hand only □ : Check availability

Spare parts (common to Metric / Inch spec)

Description		Spare parts						
		Clamp screw	Wrench	Cartridge	Clamp screw	Wrench	Anti-seize compound	Mounting bolt
								
Coarse pitch	MSRS 15080R-○○(M)	SB-60120TR	TT-25L	MAP-1806	SB-40140TR	DT-15	P-37	HH12X35
	MSRS 15100R-○○(M) ~ 15315R-○○(M)	Recommended tightening torque for insert clamp 7.5N·m		Recommended tightening torque for cartridge clamp 3.5N·m				-
Fine pitch	MSRS 15080R-○○(M)	SB-60120TR	TT-25L	-	-	-	P-37	HH12X35
	MSRS 15100R-○○(M) ~ 15315R-○○(M)	Recommended tightening torque for insert clamp 7.5N·m						-

Coat anti-seize compound thinly on portion of taper and thread when insert is fixed.

Recommended cutting conditions

Workpiece material	fz (mm/t)			Recommended insert grades (Vc: m/min)		
	NB2P + NB3P	NB2 + NB3	NB2T + NB3T	MEGACOAT NANO EX		
				PR1810	PR1825	PR1835
Carbon steel	0.15	0.2	0.3	-	★ 120~**180**~250	☆ 120~**180**~220
Alloy steel	0.15	0.2	0.3	-	★ 120~**180**~250	☆ 120~**180**~220
Mold steel	0.1	0.15	0.2	-	★ 100~**160**~220	☆ 100~**160**~200
Gray cast iron	0.2	0.25	0.35	★ 120~**180**~250	-	-
Nodular cast iron	0.15	0.2	0.3	★ 100~**160**~220	-	-
Stainless steel	Not recommended					
Aluminum/Copper	Not recommended					

★: 1st Recommendation ☆: 2nd Recommendation