

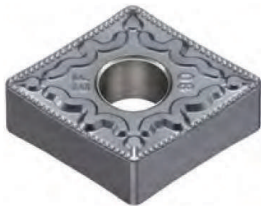
PROMOTION DETAILS

To get this promotion, refer to promo code **SUMI40**

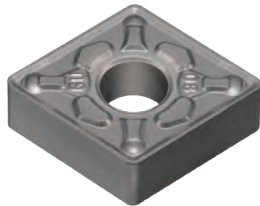
Turning pg. 4 - 10

*requires minimum purchase of 40 inserts

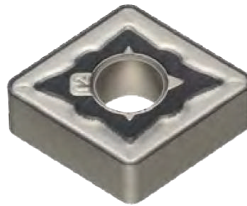
Get **Up To 40% off** your purchase of our industry leading turning grades



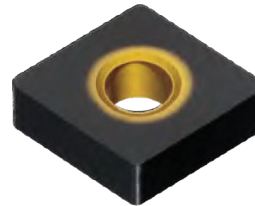
AC5000S
Series for
Heat Resistant
& Exotic Alloys



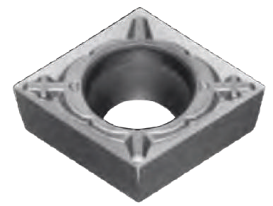
AC8000P
Series for
Steel Turning



AC6000M
Series for
Stainless Steel



AC4000K
Series for
Cast Iron



AC1030U
Grade for
High Precision
Machining

Indexable Drilling pg. 11 - 16

Get **10 FREE** WDXT inserts with the purchase of a WDX drill body



WDX
Coolant Through
Indexable Drill

Milling pg. 17 - 39

*select milling cutters only

Get a **Free Milling Body** with a purchase of **10 inserts** per pocket



WFX  pg. 17
90° Shoulder
Milling Cutter



TSX  pg. 24
Tangential Shoulder
Milling Cutter



WGX  pg. 31
45° Milling Cutter



MSX  pg. 37
High Feed
Milling Cutter



WEX  pg. 20
90° Shoulder
Milling Cutter



DFC  pg. 28
90° Milling Cutter



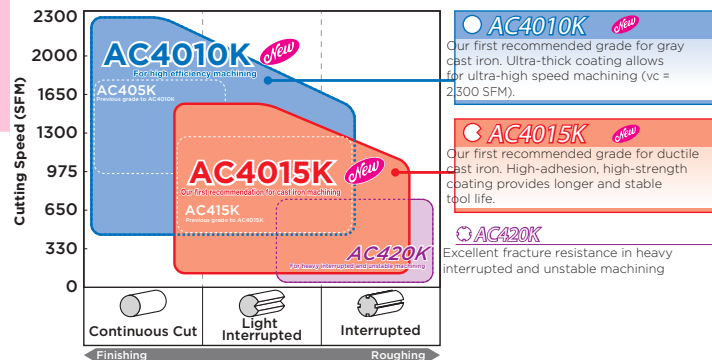
DGC  pg. 34
45° Face Mill

UP TO 40% OFF TURNING INSERTS!

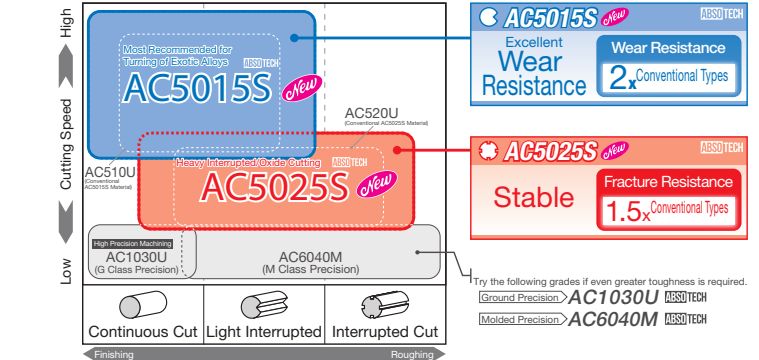
FIVE NEW GRADES AVAILABLE

See following pages for insert availability. * Availability subject to change. Additional inserts may be available, please see individual series product pages and brochures @ www.sumicarbide.com to download PDF brochures

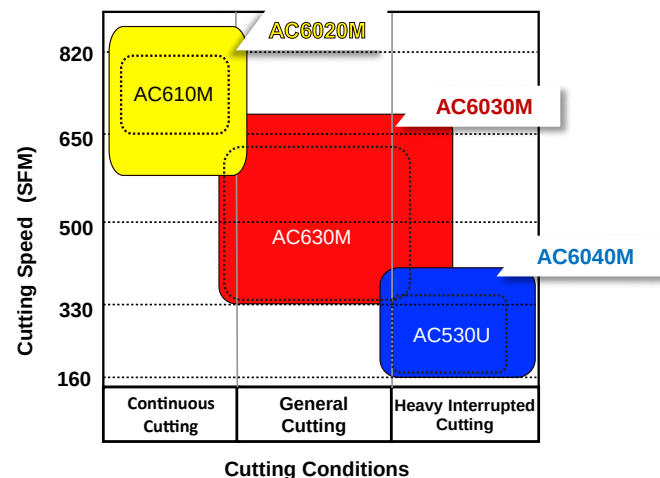
AC4010K \ AC4015K GRADES FOR CAST IRON



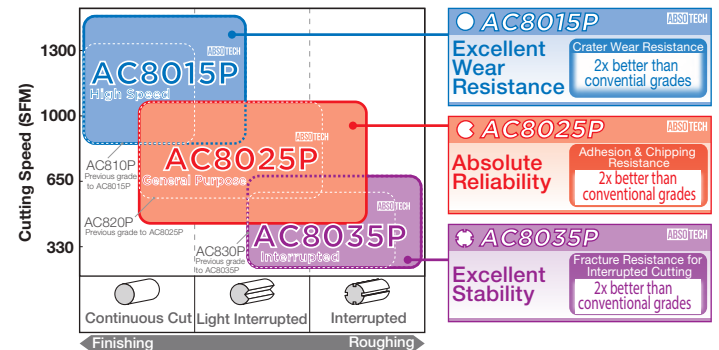
AC5015S \ AC5015S GRADES FOR HEAT RESISTANT ALLOYS



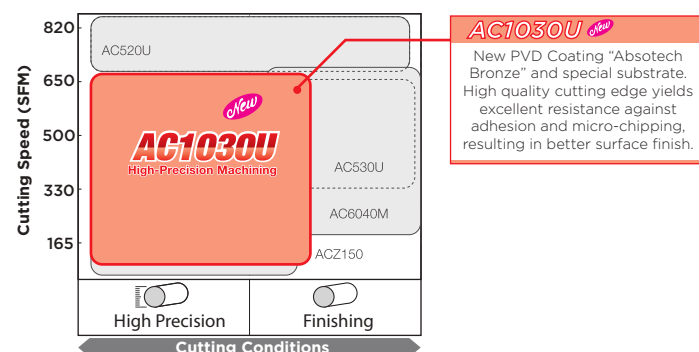
AC6020M \ AC6030M \ AC6030M GRADES FOR STAINLESS STEEL APPLICATIONS



AC8015P \ AC8025P \ AC8035P GRADES FOR STEEL APPLICATIONS



AC1030U GRADES FOR HIGH PRECISION MACHINING



AC4000K, AC5000S, AC6000M, AC8000P & AC1030U Availability - Negative Inserts

CNGG 80° Diamond/Negative														
Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P	AC8035P	Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter
CNGG430.5EEF			●	●							.500	1.875	.0078	.2031
CNGG431.1EEF			●	●							.500	1.875	.0156	.2031
CNGG432EEF			★								.500	1.875	.0313	.2031
CNGG430.5ESU			●	●							.500	1.875	.0078	.2031
CNGG431.2ESU			●	●							.500	1.875	.0156	.2031
CNGG432.2ESU			●	●							.500	1.875	.0313	.2031

CNMA 80° Diamond/Negative

CNMA432			★★							.500	.1875	.0313	.2031
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CNMG 80° Diamond/Negative

CNMG331EEF		★	★	★				375.1875.0156.150
CNMG332EEF		★	★	★				375.1875.0313.150
CNMG431EEF		●	●	●	●	★	★	500.1875.0156.2031
CNMG432EEF		●	●	●	●	★	★	500.1875.0313.2031
CNMG433EEF		★	●			★	★	500.1875.0469.2031
CNMG332EEG		★	★	★				375.1875.0313.150
CNMG333EEG		★	★	★				375.1875.0469.150
CNMG431EEG		★	★	★	★	●	●	500.1875.0156.2031
CNMG432EEG		●	●	●	●	★	●	500.1875.0313.2031
CNMG433EEG		●	●	●	●	★	●	500.1875.0469.2031
CNMG542EEG		●	●	●	●	★	★	625.250.0313.250
CNMG543EEG		●	●	●	●	★	★	625.250.0469.250
CNMG544EEG		★	★	●	●	★	★	625.250.0625.250
CNMG643EEG		●	●	●	●	★	★	750.250.0469.3126
CNMG644EEG		★	★	●	●	★	★	750.250.0625.3126
CNMG432EEM		●	●	●	●	★	●	500.1875.0313.2031
CNMG433EEM		●	●	●	●	★	★	500.1875.0469.2031
CNMG434EEM		★	★	●		★	★	500.1875.0625.2031
CNMG542EEM		★	★	●	●	★	★	625.250.0313.250
CNMG543EEM		●	●	●	●	★	★	625.250.0469.250
CNMG544EEM		●	●	●	●	★	★	625.250.0625.250
CNMG643EEM		●	●	●	●	★	★	750.250.0469.3126
CNMG644EEM		●	●	●	●	★	★	750.250.0625.3126
CNMG646EEM		★	★			★	★	750.250.0938.3126
CNMG866EEM		★	●	●	★	★	★	1.00.375.0938.3622
CNMG431EEX		●	●	●	●			500.1875.0156.2031
CNMG432EEX		●	●	●	●			500.1875.0313.2031
CNMG433EEX		●	●	●	●			500.1875.0469.2031
CNMG543EEX		●	●		●			625.250.0469.250
CNMG643EEX		●	●					750.250.0469.3126
CNMG321EFE					★	★	★	375.125.0156.150
CNMG322EFE					★	★	★	375.125.0313.150
CNMG331EFE					★	★	★	375.1875.0156.150
CNMG332EFE					★	★	★	375.1875.0313.150
CNMG430.SEFE					★	●	★	500.1875.0078.2031
CNMG431EFE					★	●	★	500.1875.0156.2031
CNMG432EFE					★	●	★	500.1875.0313.2031
CNMG433EFE					★	●	★	500.1875.0469.2031
CNMG322EFL						★		375.125.0313.150
CNMG431EFL		★	★				●	500.1875.0156.2031
CNMG432EFL		★	★				●	500.1875.0313.2031
CNMG431EGE						●	●	500.1875.0156.2031
CNMG432EGE						●	●	500.1875.0313.2031
CNMG433EGE						●	●	500.1875.0469.2031
CNMG434EGE						★	★	500.1875.0625.2031
CNMG542EGE						★	★	625.250.0313.250
CNMG543EGE						●	★	625.250.0469.250
CNMG544EGE						★	★	625.250.0625.250
CNMG643EGE						●	★	750.250.0469.3126
CNMG644EGE						★	★	750.250.0625.3126
CNMG321EGU						★	★	375.125.0156.150
CNMG322EGU						★	★	375.125.0313.150
CNMG331EGU							★	375.1875.0156.150
CNMG332EGU							★	375.1875.0313.150
CNMG333EGU						★	★	375.1875.0

See next page for negative inserts availability continued
* Availability subject to change.

CNMG 80° Diamond/Negative

Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P	AC8035P	Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter
CNMG432EGUW						●		●	●	●	.500	.1875	.0313	.2031
CNMG433EGUW								●	●	●	.500	.1875	.0469	.2031
CNMG543EGUW								●	●	●	.625	.250	.0469	.2500
CNMG321ELU						★		●	★		.375	.125	.0156	.1500
CNMG322ELU						★		★	★		.375	.125	.0313	.1500
CNMG431ELU						★		●	★	●	.500	.1875	.0156	.2031
CNMG432ELU						★		●	●	★	.500	.1875	.0313	.2031
CNMG433ELU						★		★	★	★	.500	.1875	.0469	.2031
CNMG431ELUW						★		●	●		.500	.1875	.0156	.2031
CNMG432ELUW						★		●	●		.500	.1875	.0313	.2031
CNMG433ELUW						★		●	●		.500	.1875	.0469	.2031
CNMG432EME								●	●	●	.500	.1875	.0313	.2031
CNMG433EME								●	●	●	.500	.1875	.0469	.2031
CNMG434EME								★	●	★	.500	.1875	.0625	.2031
CNMG542EME								●	●	●	.625	.250	.0313	.2500
CNMG543EME								●	●	●	.625	.250	.0469	.2500
CNMG544EME								★	★	★	.625	.250	.0625	.2500
CNMG643EME								★	●	★	.750	.250	.0469	.3125
CNMG644EME								★	●	★	.750	.250	.0625	.3125
CNMG646EME								★	★	★	.750	.250	.0938	.3125
CNMG866EME								●	●	★	1.00	.375	.0938	.3622
CNMG432EMU		●	●			●	●	●	●	●	.500	.1875	.0313	.2031
CNMG433EMU		●	●			●	●	●	●	●	.500	.1875	.0469	.2031
CNMG434EMU		★	●			●	●	●	●	●	.500	.1875	.0625	.2031
CNMG542EMU		●	●					●	●	●	.625	.250	.0313	.2500
CNMG543EMU		●	●			●		●	●	●	.625	.250	.0469	.2500
CNMG544EMU		★	●			●		●	●	●	.625	.250	.0625	.2500
CNMG642EMU			●					●	●	●	.750	.250	.0313	.3125
CNMG643EMU		●	●			●		●	●	●	.750	.250	.0469	.3125
CNMG644EMU		★	●			●		●	●	●	.750	.250	.0625	.3125
CNMG646EMU		★	★					★	★	★	.750	.250	.0938	.3125
CNMG866EMU		★	★					●	●	★	1.00	.375	.0938	.3622
CNMG432EMX								●	●	●	.500	.1875	.0313	.2031
CNMG433EMX								●	●	●	.500	.1875	.0469	.2031
CNMG434EMX								●	●	●	.500	.1875	.0625	.2031
CNMG542EMX								●	●	●	.625	.250	.0313	.2500
CNMG543EMX								●	●	●	.625	.250	.0469	.2500
CNMG544EMX								●	●	●	.625	.250	.0625	.2500
CNMG643EMX								●	●	●	.750	.250	.0469	.3125
CNMG644EMX								●	●	●	.750	.250	.0625	.3125
CNMG321ENG								★	★		.375	.125	.0156	.1500
CNMG322ENG								★	★		.375	.125	.0313	.1500
CNMG32.51ENG								★			.375	.156	.0156	.1732
CNMG32.52ENG								★			.375	.156	.0313	.1732
CNMG331ENG								★			.375	.125	.0156	.1500
CNMG332ENG								★	★		.375	.125	.0313	.1500
CNMG431ENG								●	●		.500	.1875	.0156	.2031
CNMG432ENG								●	●		.500	.1875	.0313	.2031
CNMG433ENG								●	●		.500	.1875	.0469	.2031
CNMG434ENG								★	★		.500	.1875	.0625	.2031
CNMG542ENG								●	●		.625	.250	.0313	.2500
CNMG543ENG								●	●		.625	.250	.0469	.2500
CNMG544ENG								★	★		.625	.250	.0625	.2500
CNMG642ENG								●	●		.750	.250	.0313	.3125
CNMG643ENG								●	●		.750	.250	.0469	.3125
CNMG644ENG								●	★		.750	.250	.0625	.3125
CNMG431ENZ								★			.500	.1875	.0313	.2031
CNMG432ENZ		★	★					●	★		.500	.1875	.0313	.2031
CNMG433ENZ		★	★					★	★		.500	.1875	.0469	.2031
CNMG434ENZ								★			.500	.1875	.0625	.2031
CNMG542ENZ								●	★		.625	.250	.0313	.2500
CNMG543ENZ								●	★		.625	.250	.0469	.2500
CNMG544ENZ								★	★		.625	.250	.0625	.2500
CNMG642ENZ								●	★		.750	.250	.0313	.3125
CNMG643ENZ								●	★		.750	.250	.0469	.3125
CNMG644ENZ								●	★		.750	.250	.0625	.3125
CNMG431ESE								●	●		.500	.1875	.0156	.2031
CNMG432ESE								●	●		.500	.1875	.0313	.2031
CNMG433ESE								●	●		.500	.1875	.0469	.2031
CNMG331ESEW								★	★	★	.375	.1875	.0156	.1500
CNMG332ESEW								★	★	★	.375	.1875	.0313	.1500
CNMG431ESEW								●	●		.500	.1875	.0156	.2031
CNMG432ESEW								●	●		.500	.1875	.0313	.2031
CNMG433ESEW								●	●		.500	.1875	.0469	.2031

CNMG 80° Diamond/Negative

Sumitomo Catalog Number							Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter	
	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M					
CNMG321ESU							★ ★	.375	.125	.0156	.150
CNMG322ESU							★ ★	.375	.125	.0313	.150
CNMG32.51ESU							★ ★	.375	.156	.0156	.1732
CNMG32.52ESU							★ ★	.375	.156	.0313	.1732
CNMG331ESU							★ ★	.375	.1875	.0156	.150
CNMG332ESU							★ ★	.375	.1875	.0313	.150
CNMG333ESU							★ ★ ★	.375	.1875	.0469	.150
CNMG430.5ESU		● ●						.500	.1875	.0078	.2031
CNMG431ESU		● ●			● ●		● ●	.500	.1875	.0156	.2031
CNMG432ESU		● ●			● ●		● ●	.500	.1875	.0313	.2031
CNMG433ESU		● ●			● ●		● ●	.500	.1875	.0469	.2031
CNMG431ESX							● ●	.500	.1875	.0156	.2031
CNMG432ESX							● ●	.500	.1875	.0313	.2031
CNMG433ESX							● ● ★	.500	.1875	.0469	.2031
CNMG431EUP		● ●			● ●		● ●	.500	.1875	.0156	.2031
CNMG432EUP		● ●			● ●		● ●	.500	.1875	.0313	.2031
CNMG433EUP		★ ●			● ●		● ●	.500	.1875	.0469	.2031
CNMG542EUP							● ●	.625	.250	.0313	.250
CNMG543EUP							● ●	.625	.250	.0469	.250
CNMG643EUP							● ●	.750	.250	.0469	.3126
CNMG321EUX							★	.375	.125	.0156	.150
CNMG322EUX								.375	.125	.0313	.150
CNMG431EUX							● ●	.500	.1875	.0156	.2031
CNMG432EUX							● ●	.500	.1875	.0313	.2031
CNMG433EUX							● ●	.500	.1875	.0469	.2031
CNMG434EUX							● ● ★	.500	.1875	.0625	.2031
CNMG542EUX							● ★	.625	.250	.0313	.250
CNMG543EUX							● ●	.625	.250	.0469	.250
CNMG544EUX							● ★ ★	.625	.250	.0625	.250
CNMG642EUX								.750	.250	.0313	.3126
CNMG643EUX							● ●	.750	.250	.0469	.3126
CNMG644EUX							★ ★ ★	.750	.250	.0625	.3126

CNMM 80° Diamond/Negative

CNMM644EHF							★	★	.750	.250	.0625	.3126	
CNMM646EHF							★	★	.750	.250	.0938	.3126	
CNMM866EHF							★	★	1.00	.375	.0938	.3622	
CNMM868EHF							★	★	1.00	.375	.125	.3622	
CNMM432EHG							●	●	★	.500	.1875	.0313	.2031
CNMM433EHG							●	●	★	.500	.1875	.0469	.2031
CNMM434EHG								★	.500	.1875	.0625	.2031	
CNMM543EHG							★	★	.625	.250	.0469	.250	
CNMM544EHG							★	★	.625	.250	.0625	.250	
CNMM643EHG							★	●	★	.750	.250	.0469	.3126
CNMM644EHG							●	★	.750	.250	.0625	.3126	
CNMM646EHG							★	★	.750	.250	.0938	.3126	
CNMM432EHP								★	.500	.1875	.0313	.2031	
CNMM433EHP								★	.500	.1875	.0469	.2031	
CNMM434EHP								★	.500	.1875	.0625	.2031	
CNMM542EHP								★	.625	.250	.0313	.250	
CNMM543EHP								★	.625	.250	.0469	.250	
CNMM544EHP								★	.625	.250	.0625	.250	
CNMM642EHP								★	.750	.250	.0313	.3126	
CNMM643EHP								★	.750	.250	.0469	.3126	
CNMM644EHP								★	.750	.250	.0625	.3126	
CNMM646EHP								★	.750	.250	.0938	.3126	
CNMM432ENP						★	★	★	★	.500	.1875	.0313	.2031
CNMM433ENP						★	★	★	★	.500	.1875	.0469	.2031
CNMM434ENP						★	★	★	★	.500	.1875	.0625	.2031
CNMM542ENP						★	★	★	★	.625	.250	.0313	.250
CNMM543ENP						★	★	★	★	.625	.250	.0469	.250
CNMM544ENP						★	★	★	★	.625	.250	.0625	.250
CNMM642ENP						★	★	★	★	.750	.250	.0313	.3126
CNMM643ENP						★	★	★	★	.750	.250	.0469	.3126
CNMM644ENP						★	★	★	★	.750	.250	.0625	.3126
CNMM646ENP						★	★	★	★	.750	.250	.0938	.3126
CNMM856ENP								★	★	1.00	.3125	.0938	.3622
CNMM866ENP								★	★	1.00	.375	.0938	.3622

DNGG 55° Diamond/Negative

DNKG431EEF											.500	1875.0156	2031
DNKG432EEF											.500	1875.0313	2031
DNKG430.5ESU											.500	1875.0078	2031
DNKG431ESU											.500	1875.0156	2031
DNKG432ESU											.500	1875.0313	2031

● = USA Stocked item ★ = Worldwide Warehouse item

150	Insert	
150		
150		
2031		
2031		
2031		
2031		
2031	Neg.	

Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8018P	AC8025P	AC8035P	Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter
DNMG331EEF			★		●	●	●	★	★	★	375	1875	0156	150
DNMG332EEF			★	●	●	●	●	★	★	★	375	1875	0313	150
DNMG333EEF			★	★	●	★	★	★	★	★	375	1875	0469	150
DNMG431EEF			●	●	●	★	★	★	★	★	500	1875	0156	2031
DNMG432EEF			●	●	●	●	●	★	★	★	500	1875	0313	2031
DNMG433EEF			★	★	●	●	●	★	★	★	500	1875	0469	2031
DNMG441EEF						★		★	★	★	500	250	0156	2031
DNMG442EEF							★	★	★	★	500	250	0313	2031
DNMG443EEF						★		★	★	★	500	250	0469	2031
DNMG332EEG			★	●	●	●	●	★	★	★	375	1875	0313	150
DNMG333EEG			★	★	●	●	●	★	★	★	375	1875	0469	150
DNMG431EEG					●	●	●	★	●	●	500	1875	0156	2031
DNMG432EEG			●	●	●	●	●	★	●	●	500	1875	0313	2031
DNMG433EEG			★	★				★	★	★	500	1875	0469	2031
DNMG441EEG						★		★	★	★	500	250	0156	2031
DNMG442EEG							★	★	★	★	500	250	0313	2031
DNMG443EEG						★		★	★	★	500	250	0469	2031
DNMG432EEM			●	●	●	●	●	★			500	1875	0313	2031
DNMG433EEM			●	●	●	●	●	★	★	★	500	1875	0469	2031
DNMG434EEM			★	★				★	★	★	500	1875	0625	2031
DNMG442EEM						★		★	★	★	500	250	0313	250
DNMG443EEM								★	★	★	500	250	0469	250
DNMG431EEH			●	●	●	●	●				500	1875	0156	2031
DNMG432EEH			●	●	●	●	●				500	1875	0313	2031
DNMG433EEH			●	●	●	●	●				500	1875	0469	2031
DNMG331EFE					★			★	★	★	375	1875	0156	150
DNMG332EFE					★			●	★	★	375	1875	0313	150
DNMG333EFE					★			★	★	★	375	1875	0469	150
DNMG430.5EFE								●	●	●	500	1875	0078	2031
DNMG431EFE					★			●	●	●	500	1875	0156	2031
DNMG432EFE					★			●	●	●	500	1875	0313	2031
DNMG433EFE					★			●	●	●	500	1875	0469	2031
DNMG440.5EFE								★	★	★	500	250	0078	250
DNMG441EFE					★			★	★	★	500	250	0156	250
DNMG442EFE					★			★	★	★	500	250	0313	250
DNMG443EFE					★			★	★	★	500	250	0469	250
DNMG431EFL								●			500	1875	0156	2031
DNMG432EFL								●			500	1875	0313	2031
DNMG433EFL								★			500	1875	0469	2031
DNMG332EGE														

Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P	AC8035P	Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter
DNMG332EMU											.375	.1875	.0313	.150
DNMG432EMU			●	●		●	●	●	●	●	.500	.1875	.0313	.2031
DNMG433EMU			●	●		●	●	●	★	●	.500	.1875	.0469	.2031
DNMG434EMU			★	★				★	★	●	.500	.1875	.0625	.2031
DNMG442EMU						★		★	★	●	.500	.250	.0313	.250
DNMG443EMU						★		★	★	●	.500	.250	.0469	.250
DNMG444EMU								★	★	●	.500	.250	.0625	.250
DNMG432EMX								●	●	●	.500	.1875	.0313	.2031
DNMG433EMX								●	●	●	.500	.1875	.0469	.2031
DNMG434EMX								●	●	●	.500	.1875	.0625	.2031
DNMG442EMX								★	★	●	.500	.250	.0313	.250
DNMG443EMX								★	★	●	.500	.250	.0469	.250
DNMG331ENG								●	★	●	.375	.1875	.0156	.150
DNMG332ENG								●	★	●	.375	.1875	.0313	.150
DNMG431ENG								●	●	●	.500	.1875	.0156	.2031
DNMG432ENG								●	●	●	.500	.1875	.0313	.2031
DNMG433ENG						.625		★	★	●	.500	.1875	.0469	.2031
DNMG441ENG								★	★	●	.500	.250	.0156	.250
DNMG442ENG								★	★	●	.500	.250	.0313	.250
DNMG443ENG								★	★	●	.500	.250	.0469	.250
DNMG444ENG								★	★	●	.500	.250	.0625	.250
DNMG542ENG								●	.625	.250	.0313	.250		
DNMG543ENG								●	.625	.250	.0469	.250		
DNMG431ENZ								★	●	●	.500	.1875	.0156	.2031
DNMG432ENZ			★	★				●	●	●	.500	.1875	.0313	.2031
DNMG433ENZ			★	★				●	★	●	.500	.1875	.0469	.2031
DNMG442ENZ								★	★	●	.500	.250	.0313	.250
DNMG443ENZ								★	★	●	.500	.250	.0469	.250
DNMG542ENZ								●	.625	.250	.0313	.250		
DNMG543ENZ								●	.625	.250	.0469	.250		
DNMG544ENZ								●	.625	.250	.0625	.250		
DNMG332ESE								●	★	●	.375	.1875	.0313	.150
DNMG431ESE								●	★	●	.500	.1875	.0156	.2031
DNMG432ESE								●	★	●	.500	.1875	.0313	.2031
DNMG433ESE								●	★	●	.500	.1875	.0469	.2031
DNMG331ESU						★		★	★	●	.375	.1875	.0156	.150
DNMG332ESU						★		●	★	●	.375	.1875	.0313	.150
DNMG333ESU						★		★	★	●	.375	.1875	.0469	.150
DNMG430.5ESU			★	●		★				●	.500	.1875	.0078	.2031
DNMG431ESU			●	●		●	●	●	●	●	.500	.1875	.0156	.2031
DNMG432ESU			●	●		●	●	●	●	●	.500	.1875	.0313</	

DNMM431EHP						★ ★	500	1875	0.156	2031
DNMM432EHP						★ ★	500	1875	0.313	2031
DNMM433EHP						★ ★	500	1875	0.469	2031
DNMM434EHP						★	500	1875	0.625	2031
DNMM441EHP						★	500	250	0.156	250
DNMM442EHP						★ ★	500	250	0.313	250
DNMM443EHP						★ ★	500	250	0.469	250
DNMM444EHP						★	500	250	0.625	250
DNMM431ENP						★ ★	500	1875	0.156	2031
DNMM432ENP					★	★ ★	500	1875	0.313	2031
DNMM433ENP					★ ★	★	500	1875	0.469	2031
DNMM434ENP					★ ★	★	500	1875	0.625	2031
DNMM441ENP						★	500	250	0.156	250
DNMM442ENP						★ ★	500	250	0.313	250
DNMM443ENP						★ ★	500	250	0.469	250
DNMM444ENP						★ ★	500	250	0.625	250

Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6040M	AC8015P	AC8025P	AC8035P	Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter
DNMX331E5EW							★	★	★	.375	.1875	.0156	.150
DNMX332E5EW							★	★	★	.375	.1875	.0313	.150
DNMX333E5EW							★	★	★	.375	.1875	.0469	.150
DNMX431E5EW							●	●	●	.500	.1875	.0156	.2031
DNMX432E5EW							●	●	●	.500	.1875	.0313	.2031
DNMX433E5EW							★	★	★	.500	.1875	.0469	.2031

RNMG43ENT					●	.500	.1875		.203
RNMG54ENU					●	.625	.250		.250
RNMG64ENV					●	.750	.250	-	.312
RNMG84ENY					●	1.00	.250		.362
RNMG86ENY					●	1.00	.375		.362

SNMG431EEF			★	★	●	●	★	★	★	500	1875	0156	2031	
SNMG432EEF			★	★			★	★	★	500	1875	0313	2031	
SNMG431EEG			★	★	★		★	★	★	500	1875	0156	2031	
SNMG432EEG			●	●	●	●	★	★	★	500	1875	0313	2031	
SNMG433EEG			●	●	●	●	★	★	★	500	1875	0469	2031	
SNMG542EEG			★	★	●		★	★	★	625	250	0313	250	
SNMG543EEG			★	★	●	●	★	★	★	625	250	0469	250	
SNMG544EEG			★	★		★	★	★	★	625	250	0625	250	
SNMG643EEG			★	★	●	●	★	★	★	750	250	0469	3126	
SNMG644EEG			★	★	●	●	★	★	★	750	250	0625	3126	
SNMG432EEM			●	●	●	●	★	★	●	500	1875	0313	2031	
SNMG433EEM			●	●	●	●	★	★	★	500	1875	0469	2031	
SNMG542EEM			★	★	●		★	★	★	625	250	0313	250	
SNMG543EEM			●	●	●	●	★	★	★	625	250	0469	250	
SNMG544EEM			●	●	●	●	★	★	★	625	250	0625	250	
SNMG643EEM			●	●	●	●	★	★	★	750	250	0469	3126	
SNMG644EEM			●	●	●	●	★	★	★	750	250	0625	3126	
SNMG646EEM			★	★			★	★	★	750	250	0938	3126	
SNMG866EEM			★	★		●	★	★	★	1.00	375	0938	3622	
SNMG431EEX			●	●	●					500	1875	0156	2031	
SNMG432EEX			●	●	●	●				500	1875	0313	2031	
SNMG433EEX			★	★	●	●				500	1875	0469	2031	
SNMG543EEX			★	★						625	250	0469	250	
SNMG643EEX			★	★						750	250	0469	3126	
SNMG431EFE						★		★	★	●	500	1875	0156	2031
SNMG432EFE						★		★	★	●	500	1875	0313	2031
SNMG433EFE						★		★	★	●	500	1875	0469	2031
SNMG432EFL									●	500	1875	0313	2031	
SNMG432EGE								●	●	★	500	1875	0313	2031
SNMG433EGE								★	★	★	500	1875	0469	2031
SNMG434EGE								★	★	★	500	1875	0625	2031
SNMG542EGE								★	★	●	625	250	0313	250
SNMG543EGE								★	★	●	625	250	0469	250
SNMG544EGE								●	●	●	625	250	0625	250
SNMG321EGU									●	375	125	0156	150	
SNMG322EGU								★	★	★	375	125	0313	150
SNMG431EGU								★	★	★	500	1875	0156	2031
SNMG432EGU			★	●	●	●		●	●	●	500	1875	0313	2031
SNMG433EGU			★	★	●			●	●	●	500	1875	0469	2031
SNMG434EGU						●		★	★	★	500	1875	0625	2031
SNMG542EGU								★	★	●	625	250	0313	250
SNMG543EGU								★	★	●				

**AC4000K, AC5000S, AC6000M,
AC8000P & AC1030U Availability -
Negative Inserts**

SNMG 90° Square/Negative									
Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P
Inscribed Circle	Thickness	Nose Radius	Insert Hole	Diameter					
SNMG432EMX								★	★
SNMG433EMX								●	★
SNMG434EMX								●	★
SNMG543EMX								●	★
SNMG544EMX								●	★
SNMG643EMX								●	★
SNMG644EMX								●	★
SNMG322ENG								●	★
SNMG432ENG								●	★
SNMG433ENG								★	★
SNMG434ENG								★	★
SNMG543ENG								●	★
SNMG643ENG								●	★
SNMG644ENG								●	★
SNMG866ENG								●	★
SNMG432ENZ	★	★						●	★
SNMG433ENZ	★	★						★	★
SNMG434ENZ								★	★
SNMG543ENZ								★	★
SNMG544ENZ								●	★
SNMG642ENZ								●	★
SNMG643ENZ								★	★
SNMG644ENZ								★	★
SNMG866ENZ								●	★
SNMG432ESE								●	★
SNMG433ESE								★	★
SNMG432ESU	●	●	●					●	★
SNMG432ESX								●	★
SNMG433ESX								●	★
SNMG431EUP								●	★
SNMG432EUP	●	●	●					●	★
SNMG433EUP	★	●						★	★
SNMG322EUX								★	★
SNMG431EUX								★	★
SNMG432EUX								★	★
SNMG433EUX								★	★
SNMG434EUX								★	★
SNMG643EUX								★	★
SNMG644EUX								★	★

SNMM 90° Square/Negative									
Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P
SNMM644EHF								★	★
SNMM646EHF								★	★
SNMM856EHF								★	★
SNMM858EHF								★	★
SNMM866EHF								★	★
SNMM868EHF								★	★
SNMM1066EHF								★	★
SNMM432EHG								★	★
SNMM433EHG								★	★
SNMM434EHG								★	★
SNMM544EHG								★	★
SNMM643EHG								★	★
SNMM644EHG								★	★
SNMM646EHG								★	★
SNMM432EHP								★	★
SNMM433EHP								★	★
SNMM434EHP								★	★
SNMM643EHP								★	★
SNMM644EHP								★	★
SNMM856EHP								★	★
SNMM866EHP								★	★
SNMM1066EHP								★	★
SNMM856EHU								★	★
SNMM866EHU								★	★
SNMM1066EHU								★	★
SNMM856EHW								★	★
SNMM866EHW								★	★
SNMM1066EHW								★	★

SNMM 90° Square/Negative									
Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P
SNMM432EHP								★	★
SNMM433EHP								★	★
SNMM434EHP								★	★
SNMM643EHP								★	★
SNMM644EHP								★	★
SNMM856EHP								★	★
SNMM866EHP								★	★
SNMM1066EHP								★	★
SNMM856EHU								★	★
SNMM866EHU								★	★
SNMM1066EHU								★	★
SNMM856EHW								★	★
SNMM866EHW								★	★
SNMM1066EHW								★	★
SNMM432ENP		★	★					★	★
SNMM433ENP		★	★					★	★
SNMM434ENP		★	★					★	★
SNMM435ENP								★	★
SNMG543ENP								★	★
SNMG544ENP								★	★
SNMM643ENP		★	★					★	★
SNMM644ENP		★	★					★	★
SNMM856ENP								★	★
SNMM866ENP								★	★
SNMM1066ENS								★	★

SNMN 90° Square/Negative									
Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P
SNMN432								★	★
SNMN433								★	★
SNMN434								★	★

TNMG Triangle/Negative									
Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P
TNMG330.5ESU								★	★
TNMG331ESU								★	★
TNMG332ESU								★	★

TNMG Triangle/Negative									
Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P
TNMG331EEF								★	★
TNMG332EEF								★	★
TNMG331EEG								★	★
TNMG332EEG								★	★
TNMG333EEG								★	★
TNMG332EEM								★	★
TNMG333EEM								★	★
TNMG666EEM								★	★
TNMG331EEH								★	★
TNMG332EEH								★	★
TNMG333EEH								★	★
TNMG330.5EFE								★	★
TNMG331EFE								★	★
TNMG332EFE								★	★
TNMG333EFE								★	★
TNMG331EFL								★	★
TNMG332EFL								★	★
TNMG331EGE								★	★
TNMG332EGE								★	★
TNMG333EGE								★	★
TNMG432EGE								★	★
TNMG433EGE								★	★
TNMG331EGU								★	★
TNMG332EGU								★	★
TNMG333EGU								★	★
TNMG431EGU								★	★
TNMG432EGU								★	★
TNMG433EGU								★	★
TNMG331ELU								★	★
TNMG332ELU								★	★
TNMG333ELU								★	★
TNMG332EME								★	★
TNMG333EME								★	★
TNMG432EME								★	★
TNMG433EME								★	★
TNMG434EME								★	★

TNMG Triangle/Negative														
Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P	AC8035P	Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter
TNMG332EMU			●	●		●		●	●	●	.375	.1875	.0313	.150
TNMG333EMU			★	★		●	●	●	●	●	.375	.1875	.0469	.150
TNMG432EMU			●	●		●		●	●	●	.500	.1875	.0313	.2031
TNMG433EMU				●		●		●	●	●	.500	.1875	.0469	.2031
TNMG434EMU								●	●	●	.500	.1875	.0625	.2031
TNMG543EMU								●	●	●	.625	.250	.0469	.250
TNMG544EMU								●	●	●	.625	.250	.0625	.250
TNMG332EMX								●	★	●	.375	.1875	.0313	.150
TNMG333EMX								★	●	●	.375	.1875	.0469	.150
TNMG432EMX								●	●	●	.500	.1875	.0313	.2031
TNMG433EMX								★	●	●	.500	.1875	.0469	.2031
TNMG321ENG								●	●	●	.375	.125	.0156	.150
TNMG322ENG								●	●	●	.375	.125	.0313	.150
TNMG331ENG								★	★	●	.375	.1875	.0156	.150
TNMG332ENG								●	●	●	.375	.1875	.0313	.150
TNMG333ENG								★	★	●	.375	.1875	.0469	.150
TNMG334ENG								★	★	●	.375	.1875	.0625	.150
TNMG432ENG								●	●	●	.500	.1875	.0313	.2031
TNMG433ENG								●	●	●	.500	.1875	.0469	.2031
TNMG434ENG								●	●	●	.500	.1875	.0625	.2031
TNMG542ENG								●	●	●	.625	.250	.0313	.250
TNMG543ENG								●	●	●	.625	.250	.0469	.250
TNMG544ENG								●	●	●	.625	.250	.0625	.250
TNMG666ENG								●	●	●	.750	.375	.0938	.3125
TNMG322ENZ								●	●	●	.375	.125	.0313	.150
TNMG323ENZ								●	●	●	.375	.125	.0469	.150
TNMG331ENZ								★	●	●	.375	.1875	.0156	.150
TNMG332ENZ								●	●	●	.375	.1875	.0313	.150
TNMG333ENZ								★	★	●	.375	.1875	.0469	.150
TNMG334ENZ								★	●	●	.375	.1875	.0625	.150
TNMG335ENZ								★	★	●	.375	.1875	.0787	.150
TNMG432ENZ								●	●	●	.500	.1875	.0313	.2031
TNMG433ENZ								★	●	●	.500	.1875	.0469	.2031
TNMG434ENZ								●	●	●	.500	.1875	.0625	.2031
TNMG444ENZ								★	●	●	.500	.250	.0625	.2031
TNMG542ENZ								●	●	●	.625	.250	.0313	.250
TNMG543ENZ								●	●	●	.625	.250	.0469	.250
TNMG544ENZ								●	●	●	.625	.250	.0625	.250
TNMG548ENZ								●	●	●	.625	.250	.125	.250
TNMG666ENZ								●	●	●	.750	.375	.0938	.3125
TNMG331ESE								★	★	●	.375	.1875	.0156	.150
TNMG332ESE								●	★	●	.375	.1875	.0313	.150
TNMG333ESE								●	★	★	.375	.1875	.0469	.150
TNMG431ESE								●	★	★	.500	.1875	.0156	.2031
TNMG432ESE								●	★	●	.500	.1875	.0313	.2031
TNMG433ESE								★	★	●	.500	.1875	.0469	.2031
TNMG321ESU								●	●	●	.375	.125	.0156	.150
TNMG322ESU								●	●	●	.375	.125	.0313	.150
TNMG330.5ESU			★	●		★		●	●	●	.375	.1875	.0078	.150
TNMG331ESU						●		●	●	●	.375	.1875	.0156	.150
TNMG332ESU						●	●	●	★	●	.500	.1875	.0313	.150
TNMG333ESU						●		●	●	★	.500	.1875	.0469	.150
TNMG431ESU			●	●							.500	.1875	.0156	.2031
TNMG432ESU			●	●							.500	.1875	.0313	.2031
TNMG321ESX								★	●	●	.375	.125	.0156	.150
TNMG322ESX								★	●	●	.375	.125	.0313	.150
TNMG331ESX								●	★	●	.375	.1875	.0156	.150
TNMG332ESX								●	●	●	.375	.1875	.0313	.150
TNMG431ESX								●	●	●	.500	.1875	.0156	.2031
TNMG432ESX								●	●	●	.500	.1875	.0313	.2031
TNMG433ESX								●	★	●	.500	.1875	.0469	.2031
TNMG331EUP			●	●		★	●	●	●	●	.375	.1875	.0156	.150
TNMG332EUP			●	●		●		●	●	●	.375	.1875	.0313	.150
TNMG333EUP			●	★		●		●	●	●	.375	.1875	.0469	.150
TNMG432EUP			●	●				●	●	●	.500	.1875	.0313	.2031
TNMG433EUP								●	●	●	.500	.1875	.0469	.2031
TNMG321EUX								●	●	●	.375	.125	.0156	.150
TNMG322EUX								●	●	●	.375	.125	.0313	.150
TNMG331EUX								★	●	★	.375	.1875	.0156	.150
TNMG332EUX								●	●	●	.375	.1875	.0313	.150
TNMG333EUX								★	●	★	.375	.1875	.0469	.150
TNMG432EUX								●	●	●	.500	.1875	.0313	.2031
TNMG433EUX								●	★	●	.500	.1875	.0469	.2031

AC4000K, AC5000S, AC6000M, AC8000P & AC1030U Availability - Negative Inserts

Insert
Neg.

TNMR/L Triangle/Negative

Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P	AC8035P	Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter
TNMR331EHM		★	★					★	★	★		.375	.1875	.0156 .150
TNMR332EHM		★	★					★	★	★		.375	.1875	.0313 .150
TNMR431EHM								★	★	★		.500	.1875	.0156 .2031
TNMR432EHM								★	★	★		.500	.1875	.0313 .2031
TNML331EHM	★	★						★	★	★		.375	.1875	.0156 .150
TNML332EHM	★	★						★	★	★		.375	.1875	.0313 .150
TNML431EHM								★	★	★		.500	.1875	.0156 .2031
TNML432EHM								★	★	★		.500	.1875	.0313 .2031

TNMM Triangle/Negative

TNMM432EHG								●	●	●		.500	.1875	.0313 .2031
TNMM433EHG								●	●	●		.500	.1875	.0469 .2031
TNMM434EHG								●	●	●		.500	.1875	.0625 .2031
TNMM332EHP								★	★	★		.375	.1875	.0313 .150
TNMM333EHP								★	★	★		.375	.1875	.0469 .150
TNMM432EHP								★	★	★		.500	.1875	.0313 .2031
TNMM433EHP								★	★	★		.500	.1875	.0469 .2031
TNMM434EHP								★	★	★		.500	.1875	.0625 .2031
TNMM543EHP								★	★	★		.625	.250	.0469 .250
TNMM544EHP								★	★	★		.625	.250	.0625 .250
TNMM331ENP								★	★	★		.375	.1875	.0156 .150
TNMM332ENP								★	★	★		.375	.1875	.0313 .150
TNMM333ENP								★	★	★		.375	.1875	.0469 .150
TNMM432ENP								★	★	★		.500	.1875	.0313 .2031
TNMM433ENP								★	★	★		.500	.1875	.0469 .2031
TNMM434ENP								★	★	★		.500	.1875	.0625 .2031
TNMM543ENP								★	★	★		.625	.250	.0469 .250
TNMM544ENP								★	★	★		.625	.250	.0625 .250

TNP R/L Triangle/Negative

TNPL330.5FFX	★	★										.375	.1875	.0078 .150
TNPL331FFX	★	★										.375	.1875	.0156 .150
TNPL330.5FFY	★	★										.375	.1875	.0078 .150
TNPL331FFY	★	★										.375	.1875	.0156 .150
TNPR330.5FFX	★	★										.375	.1875	.0078 .150
TNPR331FFX	★	★										.375	.1875	.0156 .150
TNPR330.5FFY	★	★										.375	.1875	.0078 .150
TNPR331FFY	★	★										.375	.1875	.0156 .150

TRM 55° Triangle/Negative

TRM551704-FL								★				.394	.197	.0156 .084
TRM551708-FL								★				.394	.197	.0313 .084
TRM551704-GU					●			●				.394	.197	.0156 .084
TRM551708-GU					●			●				.394	.197	.0313 .084
TRM551712-GU					●			●				.394	.197	.0469 .084
TRM551704-LU					●			●				.394	.197	.0156 .084
TRM551708-LU					●			●				.394	.197	.0313 .084
TRM551712-LU					●			●				.394	.197	.0469 .084
TRM551704-SU					●			★				.394	.197	.0156 .084
TRM551708-SU					●			★				.394	.197	.0313 .084
TRM551712-SU					●			★				.394	.197	.0469 .084

VNGG 35° Diamond/Negative

VNGG330.5EEF		●	●									.375	.1875	.0078 .150
VNGG331EEF		●	●									.375	.1875	.0156 .150
VNGG330.5ESU			●									.375	.1875	.0039 .150
VNGG330.5ESU			●									.375	.1875	.0078 .150
VNGG331ESU			●									.375	.1875	.0156 .150
VNGG332ESU			●									.375	.1875	.0313 .150

VNMG 35° Diamond/Negative

VNMG330.5EEF			●	★	★	★		★	★	★		.375	.1875	.0078 .150
VNMG331EEF			●	★	★	★		★	★	★		.375	.1875	.0156 .150
VNMG332EEF			●	★	★	★		★	★	★		.375	.1875	.0313 .150
VNMG331EEG			●	★	★	★		★	★	★		.375	.1875	.0156 .150
VNMG332EEG			●	★	★	★		★	★	★		.375	.1875	.0313 .150
VNMG333EEG			●	★	★	★		★	★	★		.375	.1875	.0469 .150
VNMG330.5EFE				★	★	★		★	★	★		.375	.1875	.0078 .150
VNMG331EFE				★	★	★		★	★	★		.375	.1875	.0156 .150
VNMG332EFE				★	★	★		★	★	★		.375	.1875	.0313 .150
VNMG333EFE				★	★	★		★	★	★		.375	.1875	.0469 .150
VNMG331EFL				●				●				.375	.1875	.0156 .150
VNMG332EFL				●				●				.375	.1875	.0313 .150

VNMG 35° Diamond/Negative

Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P	AC8035P	Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter
VNMG330.5EEF			●		★						.375	.1875	.0078	.150
VNMG331EEF			●								.375	.1875	.0156	.150
VNMG332EEF			●								.375	.1875	.0313	.150
VNMG331EEG			★	★							.375	.1875	.0156	.150
VNMG332EEG			●								.375	.1875	.0313	.150
VNMG333EEG			★	★							.375	.1875	.0469	.150
VNMG331EEH			●	●	●						.375	.1875	.0156	.150
VNMG332EEH			●	●	●						.375	.1875	.0313	.150
VNMG331EGE								●	●	★	.375	.1875	.0156	.150
VNMG332EGE								●	●	★	.375	.1875	.0313	.150
VNMG333EGE								●	●	★	.375	.1875	.0469	.150
VNMG331EGU			★	●				●	●	●	.375	.1875	.0156	.150
VNMG332EGU			★	●				●	●	●	.375	.1875	.0313	.150
VNMG333EGU			★	★				★	●	●	.375	.1875	.0469	.150
VNMG331ELU					★			●	●	●	.375	.1875	.0156	.150
VNMG332ELU					★			●	●	●	.375	.1875	.0313	.150
VNMG333ELU					★			●	●	●	.375	.1875	.0469	.150
VNMG331ENG								●	●	●	.375	.1875	.0156	.150
VNMG332ENG								●	●	●	.375	.1875	.0313	.150
VNMG331ENZ			★	★				★	●	●	.375	.1875	.0156	.150
VNMG332ENZ			★	★				●	●	●	.375	.1875	.0313	.150
VNMG333ENZ								●	★	●	.375	.1875	.0469	.150
VNMG432ENZ								●	●	●	.500	.1875	.0313	.2031
VNMG433ENZ								●	●	●	.500	.1875	.0469	.2031
VNMG331ESE								●	●	★	.375	.1875	.0156	.150
VNMG332ESE								●	●	●	.375	.1875	.0313	.150
VNMG330.5ESU			★	●	★						.375	.1875	.0078	.150
VNMG331ESU			●	●	●	●	●	●	●	●	.375	.1875	.0156	.150
VNMG332ESU			●	●	●	●	●	●	●	●	.375	.1875	.0313	.150
VNMG331ESX								●	●	●	.375	.1875	.0156	.150
VNMG332ESX								●	●	●	.375	.1875	.0313	.150
VNMG331EUP			●	●				●	●	●	.375	.1875	.0156	.150
VNMG332EUP			●	●				●	●	●	.375	.1875	.0313	.150
VNMG331EUX								●	●	●	.375	.1875	.0156	.150
VNMG332EUX								●	●	●	.375	.1875	.0313	.150
VNMG333EUX								●	●	★	.375	.1875	.0469	.150

VNGG Trigon/Negative

VNGG431ESU			●								.500	.1875	.0156 .2031
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VNMG Trigon/Negative

VNMG331EEF			★	●	●	●	★	★	★	.375	.1875	.0156	.150
VNMG332EEF			★	●	●	●	★	★	●	.375	.1875	.0313	.150
VNMG431EEF			●	●	●	●	★	★	★	.500	.1875	.0156	.2031
VNMG432EEF			●	●	●	●	★	★	★	.500	.1875	.0313	.2031
VNMG332EEG			★	●	●	●	★	★	●	.375	.1875	.0313	.150
VNMG333EEG			★	★	●	●	★	★	★	.375	.1875	.0469	.150
VNMG431EEG			★	★	●	●	★	★	●	.500	.1875	.0156	.2031
VNMG432EEG			●	●	●	●	★	★	★	.500	.1875	.0313	.2031
VNMG433EEG			●	●	●	●	★	★	★	.500	.1875	.0469	.2031
VNMG432EEM			●	●	●	●	★	★	★	.500	.1875	.0313	.2031
VNMG433EEM			●	●	●	●	★	★	★	.500	.1875	.0469	.2031
VNMG331EEX			●	●						.375	.1875	.0156	.150
VNMG332EEX			●	●						.375	.1875	.0313	.150
VNMG431EEX			●	●	●	●				.500	.1875	.0156	.2031
VNMG432EEX			●	●	●	●				.500	.1875	.0313	.2031
VNMG433EEX			●	●	●	●				.500	.1875	.0469	.2031
VNMG331EFE						★	★	★	★	.375	.1875	.0156	.150
VNMG332EFE						★	★	★	●	.375	.1875	.0313	.150
VNMG430.5EFE						★	★	★	★	.375	.1875	.0078	.2031
VNMG431EFE						★	★	★	★	.500	.1875	.0156	.2031
VNMG432EFE						★	★	★	●	.500	.1875	.0313	.2031
VNMG433EFE						★	★	★	●	.500	.1875	.0469	.2031
VNMG431EFL									●	.500	.1875	.0156	.2031
VNMG432EFL									●	.500	.1875	.0313	.2031
VNMG332EGE							●	●	●	.375	.1875	.0313	.150
VNMG333EGE							●	●	★	.375	.1875	.0469	.150
VNMG431EGE							★	★	●	.500	.1875	.0156	.2031
VNMG432EGE							●	●	●	.500	.1875	.0313	.2031
VNMG433EGE							●	●	●	.500	.1875	.0469	.2031
VNMG434EGE							★	★	★	.500	.1875	.0625	.2031

AC4000K, AC5000S, AC6000M, AC8000P & AC1030U Availability - Positive Inserts

CCGT 80° Diamond/ 7° Relief Angle

Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P	AC8035P	AC1030U	Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter
CCGT21.50MEFC											●	.250	.094	.0039	.110
CCGT21.50SMEFC											●	.250	.094	.0078	.110
CCGT21.51MEFC											●	.250	.094	.0156	.110
CCGT32.5.001MEFC											●	.375	.156	.0012	.1732
CCGT32.50MEFC											●	.375	.156	.0039	.1732
CCGT32.50SMEFC											●	.375	.156	.0078	.1732
CCGT32.51MEFC											●	.375	.156	.0156	.1732
CCGT32.50MESI			●	●		●					●	.375	.156	.0039	.1732
CCGT32.50SMEI			●	●		●					★	.375	.156	.0078	.1732
CCGT32.51MESI			●	●		●					●	.375	.156	.0156	.1732
CCGT21.5.001EFM											●	.250	.094	.0012	.110
CCGT32.5.001EFM											●	.375	.156	.0012	.1732
CCGT21.50SMEFM											●	.250	.094	.0078	.110
CCGT21.50SMEFM											●	.250	.094	.0078	.110
CCGT32.50MEFM											●	.375	.156	.0039	.1732
CCGT32.50SMEFM											●	.375	.156	.0078	.1732
CCGT03X1003L-FYS											★	.1378	.055	.0012	.071
CCGT03X1003R-FYS											★	.1378	.055	.0012	.071
CCGT03X101L-FYS											★	.1378	.055	.0039	.071
CCGT03X101R-FYS											★	.1378	.055	.0039	.071
CCGT03X102L-FYS											★	.1378	.055	.0078	.071
CCGT03X102R-FYS											★	.1378	.055	.0078	.071
CCGT03X104L-FYS											★	.1378	.055	.0156	.071
CCGT03X104R-FYS											★	.1378	.055	.0156	.071
CCGT04X1003L-FYS											★	.1693	.071	.0012	.087
CCGT04X1003R-FYS											★	.1693	.071	.0012	.087
CCGT04X101L-FYS											★	.1693	.071	.0039	.087
CCGT04X101R-FYS											★	.1693	.071	.0039	.087
CCGT04X102L-FYS											★	.1693	.071	.0078	.087
CCGT04X102R-FYS											★	.1693	.071	.0078	.087
CCGT04X104L-FYS											★	.1693	.071	.0156	.087
CCGT04X104R-FYS											★	.1693	.071	.0156	.087
CCGT03X1011LFY											●	.1378	.055	.0039	.071
CCGT03X1011RFY											★	.1378	.055	.0039	.071
CCGT03X102LFY											●	.1378	.055	.0078	.071
CCGT03X102RFY											★	.1378	.055	.0078	.071
CCGT03X104LFY											●	.1378	.055	.0156	.071
CCGT03X104RFY											★	.1378	.055	.0156	.071
CCGT04X1011LFY											●	.1693	.071	.0039	.087
CCGT04X1011RFY											★	.1693	.071	.0039	.087
CCGT04X102LFY											●	.1693	.071	.0078	.087
CCGT04X102RFY											★	.1693	.071	.0078	.087
CCGT04X104LFY											●	.1693	.071	.0156	.087
CCGT04X104RFY											★	.1693	.071	.0156	.087
CCGT21.5.001LFX											★	.250	.094	.0012	.110
CCGT21.5.001RFX											★	.250	.094	.0012	.110
CCGT21.50LFX											●	.250	.094	.0039	.110
CCGT21.50RFX											★	.250	.094	.0039	.110
CCGT21.50S5LFX											●	.250	.094	.0078	.110
CCGT21.50S5RFX											●	.250	.094	.0078	.110
CCGT21.51LFX											●	.250	.094	.0156	.110
CCGT21.51RFX											★	.250	.094	.0156	.110
CCGT32.5.001LFX											★	.375	.156	.0012	.1732
CCGT32.5.001RFX											★	.375	.156	.0012	.1732
CCGT32.50LFX											★	.375	.156	.0039	.1732
CCGT32.50RFX											●	.375	.156	.0039	.1732
CCGT32.50S5LFX											●	.375	.156	.0078	.1732
CCGT32.50S5RFX											★	.375	.156	.0078	.1732
CCGT32.51LFX											★	.375	.156	.0156	.1732
CCGT32.51RFX											★	.375	.156	.0156	.1732
CCGT32.52LFX											★	.375	.156	.0313	.1732
CCGT32.52RFX											★	.375	.156	.0313	.1732

CCMT 80° Diamond/ 7° Relief Angle

CCMT21.51EFM												●	.250	.094	.0156	.110
CCMT2.521EFM												●	.3125	.094	.0156	.134
CCMT32.52EFM												●	.375	.125	.0313	.1732
CCMT43.2EFM												●	.500	.1875	.0313	.2165
CCMT21.50.5ELB				●	★							●	.250	.094	.0078	.110
CCMT21.51ELB				●	★							●	.250	.094	.0156	.110
CCMT21.52ELB				●	★							●	.250	.094	.0313	.110
CCMT32.50.5ELB				●	★							●	.375	.156	.0078	.1732
CCMT32.51ELB				●	★							●	.375	.156	.0156	.1732
CCMT32.52ELB				●	★							●	.375	.156	.0313	.1732
CCMT21.50.5ELU				●	●							●	.250	.094	.0078	.110
CCMT21.51ELU				●	●							●	.250	.094	.0156	.110
CCMT32.51ELU				●	●							●	.375	.156	.0156	.1732
CCMT32.52ELU				●	●							●	.375	.156	.0313	.1732

CCMT 80° Diamond/ 7° Relief Angle

CCMT32.51ELUW												●	.375	.156	.0156	.1732
CCMT32.52ELUW												●	.375	.156	.0313	.1732
CCMT32.51EMU												●	.375	.156	.0156	.1732
CCMT32.52EMU												●	.375	.156	.0313	.1732
CCMT21.51ENK												●	.250	.094	.0156	.110
CCMT21.52ENK												●	.250	.094	.0313	.110
CCMT32.51ENK												●	.375	.156	.0156	.1732
CCMT32.52ENK												●	.375	.156	.0313	.1732
CCMT431ENK												●	.500	.1875	.0156	.2165
CCMT432ENK												●	.500	.1875	.0313	.2165
CCMT21.50.5ESU												●	.250	.094	.0078	.110
CCMT21.51ESU												●	.250	.094	.0156	.110
CCMT21.52ESU												●	.250	.094	.0313	.110
CCMT32.50.5ESU												●	.375	.156	.0078	.1732
CCMT32.51ESU												●	.375	.156	.0156	.1732
CCMT32.52ESU												●	.375	.156	.0313	.1732
CCMT431ESU												●	.500	.1875	.0156	.2165
CCMT432ESU												●	.500	.1875	.0313	.2165

CPGT 80° Diamond/ 11° Relief Angle

CPGT2.51.50.5													.3125	.094	.0078	.134
CPGT2.51.51													.3125	.094	.0156	.134
CPGT2.51.52													.3125	.094	.0313	.134
CPGT320.5													.375	.125	.0078	.1732
CPGT321													.375	.125	.0156	.1732
CPGT322													.375	.125	.0313	.1732
CPGT430.5													.500	.1875	.0078	.2165
CPGT431													.500	.1875	.0156	.2165
CPGT432													.500	.1875	.0313	.2165
CPGT32.50.5ESU													.375	.156	.0078	.1732
CPGT32.51ESU													.375	.156	.0156	.1732

CPMT 80° Diamond/11° Relief Angle

CPMT2.51.51ELB												●	.3125	.094	.0156	.134
CPMT321ELB												●	.375	.125	.0156	.1732
CPMT322ELB												●	.375	.125	.0313	.1732
CPMT2.51.51ELU												●	.3125	.094	.0156	.134
CPMT321ELU												●	.375	.125	.0156	.1732
CPMT322ELU												●	.375	.125	.0313	.1732
CPMT321ELUW												●	.375	.125	.0156	.1732
CPMT322ELUW												●	.375	.125	.0313	.1732
CPMT2.51.51EMU												●	.3125	.094	.0156	.1

AC4000K, AC5000S, AC6000M, AC8000P & AC1030U Availability - Positive Inserts

SCGT 90° Square/ 7° Relief Angle

Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P	AC8035P	AC1030U	Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter
SCGT2.51.50MEFM											●	.3125	.094	.0039	.134
SCGT2.51.50SMEFM											●	.3125	.094	.0078	.134
SCGT32.50MEFM											★	.375	.156	.0039	.1732
SCGT32.50SMEFM											●	.375	.156	.0078	.1732
SCGT32.50.5LFX											●	.375	.156	.0078	.1732
SCGT32.50.5RFX											●	.375	.156	.0078	.1732
SCGT32.51LFX											●	.375	.156	.0156	.1732
SCGT32.51RFX											●	.375	.156	.0156	.1732

SPMT 90° Square/ 11° Relief Angle

SPMT321ELB				●	★				★	●		.375	.125	.0156	
SPMT322ELB				●	★				★	●		.375	.125	.0313	
SPMT321ELU								★	★			.375	.125	.0156	
SPMT322ELU								★	★			.375	.125	.0313	
SPMT321ENF									★	★		.375	.125	.0156	
SPMT322ENF									★	★		.375	.125	.0313	

SPMR 90° Square/ 11° Relief Angle

SPMR321ENF									★	★		.375	.125	.0156	
SPMR322ENF									★	★		.375	.125	.0313	
SPMR421ENF									★	★		.500	.125	.0156	
SPMR422ENF									★	★		.500	.125	.0313	
SPMR423ENF									★	★		.500	.125	.0469	
SPMR321EUJ									★	★		.375	.125	.0156	
SPMR322EUJ									★	★		.375	.125	.0313	
SPMR421EUJ									★	★		.500	.125	.0156	
SPMR422EUJ									★	★		.500	.125	.0313	

SPG 90° Square/ 11° Relief Angle

SPG422			★	★								.500	.125	.0156	
SPG422			★	★								.500	.125	.0313	
SPG423												.500	.125	.0469	
SPG432												.500	.1875	.0313	
SPG433												.500	.1875	.0469	
SPG632												.750	.1875	.0313	
SPG633												.750	.1875	.0469	
SPG634												.750	.1875	.0625	

SPMN 90° Square/ 11° Relief Angle

SPMN322											●	.375	.125	.0313	
SPMN421											●	.500	.125	.0156	
SPMN422											●	.500	.125	.0313	
SPMN423			★	★							●	.500	.125	.0469	
SPMN634											●	.750	.1875	.0625	

TBGT Triangle/ 5° Relief Angle

TBGT520.5L			●	★							●	★	.156	.0625	.0078	.090
TBGT521L			●	★							●	★	.156	.0625	.0156	.090
TBGT520.5LFX			●	★							●	★	.156	.0625	.0078	.090
TBGT521LFX			●	★							●	★	.156	.0625	.0156	.090
TBGT520.5R											●	★	.156	.0625	.0078	.090
TBGT521R											●	★	.156	.0625	.0156	.090
TBGT520.5RFX											●	★	.156	.0625	.0078	.090
TBGT521RFX											●	★	.156	.0625	.0156	.090

TCGT Triangular/ 7° Relief Angle

TCGT21.51MESI			●	○								.250	.094	.0156	.110
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TCMT Triangle/ 7° Relief Angle

TCMT21.51ELB			●	★							●	.250	.094	.0156	.110
TCMT21.52ELB			●	★							●	.250	.094	.0313	.110
TCMT21.51ELU								★	★			.250	.094	.0156	.110
TCMT21.52ELU								★	★			.250	.094	.0313	.110
TCMT21.51ENK								●	●	●	●	.250	.094	.0156	.110
TCMT21.52ENK								●	●	●	●	.250	.094	.0313	.110
TCMT32.51ENK								●	●	●	●	.375	.156	.0156	.1693
TCMT32.52ENK								●	●	●	●	.375	.156	.0313	.1693
TCMT32.53ENK								●	●	●	●	.375	.156	.0469	.1693
TCMT21.51ESU			●	●	●	●	●	●	●	●	●	.250	.094	.0156	.110
TCMT21.52ESU			●	●	●	●	●	●	●	●	●	.250	.094	.0313	.110
TCMT32.51ESU			●	●	●	●	●	●	●	●	●	.375	.156	.0156	.1693
TCMT32.52ESU			●	●	●	●	●	●	●	●	●	.375	.156	.0313	.1693

TPG Triangle/ 11° Relief Angle

TPG221			★	★							●	.250	.125	.0156	
TPG222											●	.250	.125	.0313	
TPG321											●	.375	.125	.0156	
TPG322											●	.375	.125	.0313	
TPG323											●	.375	.125	.0469	
TPG324											●	.375	.125	.0625	
TPG332											●	.375	.1875	.0313	
TPG431											●	.500	.1875	.0156	
TPG432											●	.500	.1875	.0313	
TPG433											●	.500	.1875	.0469	
TPG434											●	.500	.1875	.0625	
TPG436											●	.500	.1875	.0938	

TPG Triangular/ 11° Relief Angle

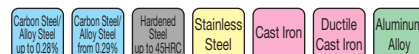
Sumitomo Catalog Number	AC4010K	AC4020K	AC5015S	AC5025S	AC6020M	AC6030M	AC6040M	AC8015P	AC8025P	AC8035P	AC1030U	Inscribed Circle	Thickness	Nose Radius	Insert Hole Diameter
TPGG221L			★	★								.250	.125	.0156	.130
TPGG331L			★	★								.375	.1875	.0156	.1693

TPGT Triangular/ 11° Relief Angle

TPGT630L												●	.1875	.094	.0039	.090
TPGT631L												●	.1875	.094	.0156	.090
TPGT220L												●	.250	.125	.0039	.130
TPGT221L												★	.250	.125	.0156	.130
TPGT222L												●	.250	.125	.0313	.130
TPGT630R												●	.1875	.094	.0039	.090
TPGT631R												●	.1875	.094	.0156	.090
TPGT220R												●	.250	.125	.0039	.130
TPGT221R												●	.250	.125	.0156	.130
TPGT222R												●	.250	.125	.0313	.130
TPGT630.5LFX				●	●							★	.1875	.094	.0078	.090
TPGT631LFX				●	●							★	.1875	.094	.0156	.090
TPGT21.50.5LFX				●	★							●	.250	.094	.0078	.110
TPGT21.51LFX				●	★							●	.250	.094	.0156	.110
TPGT21.52LFX				●	★							●	.250	.094	.0313	.110
TPGT220.5LFX				★	●							●	.250	.125	.0078	.130
TPGT221LFX				★	●							●	.250	.125	.0156	.130
TPGT222LFX				★	●							★	.250	.125	.0313	.130
TPGT63.001LFY				★	●							●	.1875	.094	.0012	.090
TPGT630LFY				★	●							●	.1875	.094	.0039	.090
TPGT630.5LFY				★	★							★	.1875	.094	.0078	.090
TPGT631LFY				★	★							★	.1875	.094	.0156	.090
TPGT22.001LFY				★	★							★	.250	.125	.0012	.130
TPGT220LFY				★	★							★	.250	.125	.0039	.130
TPGT220.5LFY				★	★							★	.250	.125	.0078	.130
TPGT221LFY				★	★							★	.250	.125	.0156	.130
TPGT222LFY				★	★							●	.250	.125	.0313	.130
TPGT630.5RFX				●	●							★	.1875	.094	.0078	.090
TPGT631RFX				●	●							★	.1875	.094	.0156	.090
TPGT21.50.5RFX				●	★							●	.250	.094	.0078	.110
TPGT21.51RFX				●	★							●	.250	.094	.0156	.110
TPGT21.52RFX				●	★							●	.250	.094	.0313	.110
TPGT220.5RFX				★	●							●	.250	.125	.0078	.130
TPGT221RFX				★	●							●	.250	.125	.0156	.130
TPGT222RFX				★	●							●	.250	.125	.0313	.130
TPGT63.001RFY				★	★							●	.1875	.094	.0012	.090
TPGT630RFY				★	★							●	.1875	.094	.0039	.090
TPGT630.5RFY				★	★							★	.1875	.094	.0078	.090
TPGT631RFY				★	★							★	.1875	.094	.0156	.090
TPGT22.001RFY				★	★							★	.250	.125	.0012	.130
TPGT220RFY				★	★							★	.250	.125	.0039	.130
TPGT220.5RFY				★	★							●	.250	.125	.0078	.130
TPGT221RFY				★	★							●	.250	.125	.0156	.130
TPGT222RFY				★	★							●	.250	.125	.0313	.130
TPGT220.5MEFC				★	●							●	.250	.125	.0078	.130
TPGT221MEFC				★	●							●	.250	.125	.0156	.130



■ Features and Applications



● Balanced Design

Cutting force during drilling is balanced between central insert and peripheral insert. The relative position of each insert is optimized to provide stable drilling.

● Excellent Chip Control

The chip evacuation direction can be controlled with the chip control groove at the center of the breaker, enabling good chip control.

● Versatile Tool for a Variety of Machining Applications

Select among three types of breakers for different applications, allowing optimal drilling for a variety of work materials and conditions. Suitable for a wide range of applications including hole expansion, spot facing, external turning and internal boring.

● Economical Four-Cornered Insert

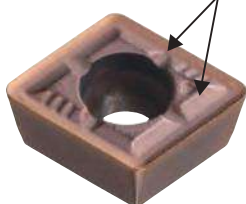
This product has an extremely economical design where a single insert type can be used for the central insert or peripheral insert, with two corners for each position - a total of four corners.

Design

Cutting force of central insert = that peripheral blade



Chip control groove in each cutting edge

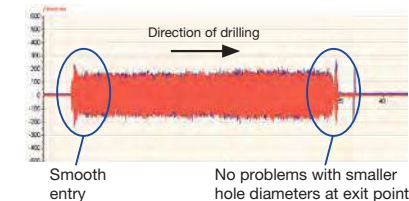


Type	L Type	G Type	H Type
Features	For low feed with chip control	General-purpose	For Non-ferrous Metal Milling
Appearance			
Figure			

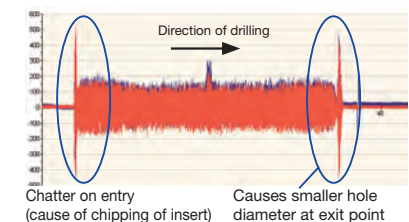
■ Performance

- Balanced Design (Comparison of Horizontal Component Values)
Balance is maintained at the through hole entry and exit points, and drilling is stable.

SumiDrill WDX Type



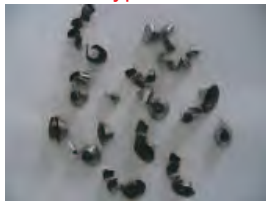
Conventional and Competitor's Products



- Improved chip control

Drill: WDX 200D3S25 (ø20.0)
Work material: SUS304
Cutting Conditions: $v_c=427$ SFM, $f=0.0024$ IPR
 $H=1.98"$, Wet

SumiDrill WDX Type

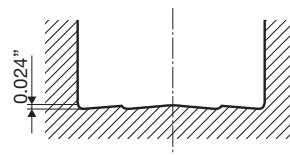


Conventional and Competitor's Products

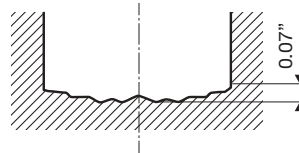


- Finishing is easy because the hole bottom is almost flat.

Bottom of hole after drilling with WDX200D3S25



Bottom of hole after drilling with conventional tool (ø20)



Tool Holder Features	Figure	Cutting Force	Machined Surface (Exit)
WDX 260D5S32 Special Flute Shape for L/D=5 * Designed with emphasis on chip evacuation Expanded flute design improves chip evacuation for stable drilling performance even with holes up to 5 L/D.			Good machined surface down to end of hole
Other Tool Flute Shape for L/D=4 * Designed with emphasis on drill rigidity Flute design enables greater rigidity of the drill, achieving stable drilling of shallow holes up to 4 L/D.			Poor machined surface due to chip blockage at bottom of hole (near 5 L/D)

Work Material: SUS304, Insert: WDX 073506-G
Cutting Conditions: $v_c=492$ SFM, $f=0.002$ IPR, $H=5.118"$ (through hole), Wet

4D Side Port for WDX Type (Internal Coolant Supply)

General Features

Sumitomo Electric Carbide, Inc. is now offering WDX-L Indexable Drill with side port coolant. Due to not all spindles being coolant-thru, the WDX-L allows for customers to use coolant through the side port.

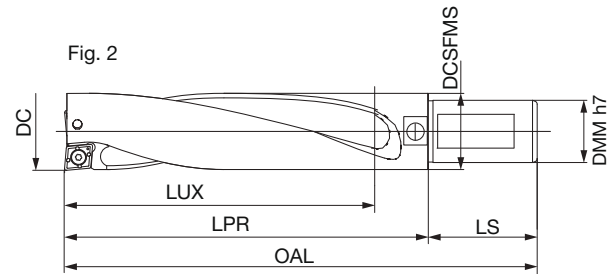
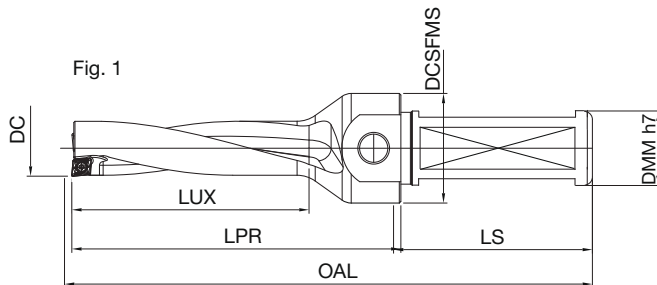
Features and Applications

- Diameters available in 0.5625" to 2.5000"
- WDX-L uses WDXT inserts (same as WDX style)
- Available in 4XD style

Parts

*For all Inch Holders

Applicable Holder	Flat Screw		Wrench	Wrench
				
WDX0562D_S075 to WDX0594D_S075	BFTX01604N	0.3	TRX06	-
WDX0625D_S100 to WDX0687D_S100	BFTX0204N	0.5	TRX06	-
WDX0750D_S100 to WDX0875D_S100	BFTY02206	1.0	-	TRD07
WDX0937D_S125 to WDX1125D_S125	BFTX02506N	1.5	-	TRD08
WDX1187D_S125 to WDX1437D_S150	BFTX03584	3.5	-	TRD15
WDX1500D_S150 to WDX1750D_S150	BFTX0511N	5.0	-	TRD20
WDX1812D_S150 to WDX2625D_S150	BFTX0615N	5.0	-	TRD25



10 FREE Inserts with a body purchase

4XD - SumiDrill WDX Side Port Bodies - Inch														Holder Diameter ø0.5625" to 2.6250"				Suggested Drill Body Promo Pricing*
Dia. DC	Stock	Cat.No.	Neck Length LUX	Overhang Length LPR	Overall Length OAL	Shank LS	Flange DCSFMS	Shank Dia. DCON	Good Insert	Fig	Screw	Wrench	Pipe Plug					
0.5625	•	WDX0562D4S100-L	5.350	3.350	2.366	2.0000	1.000	0.7500	WDXT042004	1	BFTX01604N	TRX06	XP02	\$ 338.76				
0.5937	•	WDX0594D4S100-L	5.478	3.478	2.494					1	BFTX01604N	TRX06	XP02	\$ 338.76				
0.6250	•	WDX0625D4S100-L	6.181	3.681	2.618	2.5000	1.000	1.0000		1	BFTX0204N	TRX06	XP04	\$ 353.77				
0.6562	•	WDX0656D4S100-L	6.305	3.805	2.742					1	BFTX0204N	TRX06	XP04	\$ 353.77				
0.6875	•	WDX0687D4S100-L	6.429	3.929	2.866	2.5000	1.000	1.0000	WDXT052504	1	BFTX0204N	TRX06	XP04	\$ 353.77				
0.7500	•	WDX0750D4S100-L	6.681	4.181	3.118					1	BFTY02206	TRD07	XP04	\$ 373.86				
0.7870	•	WDX0787D4S100-L	6.829	4.329	3.266					1	BFTY02206	TRD07	XP04	\$ 373.86				
0.8125	•	WDX0812D4S100-L	6.931	4.431	3.368					1	BFTY02206	TRD07	XP04	\$ 373.86				
0.8750	•	WDX0875D4S100-L	7.181	4.681	3.618	2.5000	1.000	1.0000	WDXT052504	1	BFTY02206	TRD07	XP04	\$ 373.86				
0.9375	•	WDX0937D4S125-L	7.549	5.049	3.868					2	BFTX02506N	TRD08	XP04	\$ 393.80				
1.0000	•	WDX1000D4S125-L	7.799	5.299	4.118	2.5000	1.250	1.2500	WDXT063006	2	BFTX02506N	TRD08	XP04	\$ 393.80				
1.0625	•	WDX1062D4S125-L	8.549	5.549	4.368					2	BFTX02506N	TRD08	XP04	\$ 406.56				
1.1250	•	WDX1125D4S125-L	8.799	5.799	4.618	3.0000	1.250	1.2500		2	BFTX02506N	TRD08	XP04	\$ 406.56				
1.1875	•	WDX1187D4S125-L	9.206	6.206	4.907					2	BFTX03584	TRX15	XP04	\$ 462.90				
1.2500	•	WDX1250D4S125-L	9.456	6.456	5.157	3.0000	1.250	1.2500	WDXT063006	2	BFTX03584	TRX15	XP04	\$ 462.90				
1.3125	•	WDX1312D4S150-L	9.824	6.824	5.407					2	BFTX03584	TRX15	XP04	\$ 462.90				
1.3750	•	WDX1375D4S150-L	10.074	7.074	5.657	3.0000	1.500	1.5000		2	BFTX03584	TRX15	XP04	\$ 462.90				
1.4375	•	WDX1437D4S150-L	10.324	7.324	5.907					2	BFTX03584	TRX15	XP04	\$ 462.90				
1.5000	•	WDX1500D4S150-L	10.850	7.850	6.197	3.0000	1.500	1.5000	WDXT073506	2	BFTX0511N	TRD20	XP04	\$ 495.82				
1.5625	•	WDX1562D4S150-L	11.098	8.098	6.445					2	BFTX0511N	TRD20	XP04	\$ 495.82				
1.6250	•	WDX1625D4S150-L	11.350	8.350	6.697	3.0000	1.500	1.5000		2	BFTX0511N	TRD20	XP04	\$ 495.82				
1.6875	•	WDX1687D4S150-L	11.602	8.602	6.949					3	BFTX0511N	TRD20	XP04	\$ 495.82				
1.7500	•	WDX1750D4S150-L	11.850	8.850	7.197	3.0000	1.500	1.5000	WDXT073506	3	BFTX0511N	TRD20	XP04	\$ 495.82				
1.8125	•	WDX1812D4S150-L	12.102	9.102	7.449					3	BFTX0615N	TRD25	XP04	\$ 530.73				
1.8750	•	WDX1875D4S150-L	12.350	9.350	7.697					3	BFTX0615N	TRD25	XP04	\$ 530.73				
1.9375	•	WDX1937D4S150-L	12.602	9.602	7.949					3	BFTX0615N	TRD25	XP04	\$ 530.73				
2.0000	•	WDX2000D4S150-L	12.850	9.850	8.197	3.0000	1.500	1.5000	WDXT073506	3	BFTX0615N	TRD25	XP04	\$ 568.26				
2.1250	•	WDX2125D4S150-L	13.350	10.350	8.697					3	BFTX0615N	TRD25	XP04	\$ 630.25				
2.2500	•	WDX2250D4S150-L	14.047	11.047	9.315	3.0000	1.500	1.5000		3	BFTX0615N	TRD25	XP04	\$ 700.70				
2.3750	•	WDX2375D4S150-L	14.547	11.547	9.815					3	BFTX0615N	TRD25	XP04	\$ 700.70				
2.5000	•	WDX2500D4S150-L	15.047	12.047	10.315				3	BFTX0615N	TRD25	XP04	\$ 724.90					

*USA Stocked Item

WDX Type 2XD & 3XD - INCH

10 FREE Inserts with a body purchase


2XD - SumiDrill WDX Bodies - Inch													Holder Diameter ø0.5625" to 2.6250"			Suggested Drill Body Promo Pricing*
Dia. DC	Stock	Cat.No.	Neck Length LUX	Overhang Length LPR	Overall Length OAL	Shank LS	Flange DCSFMS	Shank Dia. DCON	Good Insert	Fig	Screw	Wrench				
0.5625	•	WDX0562D2S075	1.2420	1.8330	3.8330	2.0000	1.1020	0.7500	WDXT042004	1	BFTX01604N	TRX06	\$ 272.02			
0.5937	•	WDX0594D2S075	1.3060	1.8960	3.8960					1	BFTX01604N	TRX06	\$ 272.02			
0.6250	•	WDX0625D2S100	1.3680	1.9590	4.4590					2.5000	1.2600	1.0000	1	BFTX0204N	TRX06	\$ 278.68
0.6562	•	WDX0656D2S100	1.4300	2.0210	4.5210								1	BFTX0204N	TRX06	\$ 278.68
0.6875	•	WDX0687D2S100	1.4920	2.0830	4.5830	2.5000	1.2990	1.0000	WDXT052504	1	BFTX0204N	TRX06	\$ 278.68			
0.7500	•	WDX0750D2S100	1.6180	2.2090	4.7090					1	BFTY02206	TRD07	\$ 284.58			
0.7870	•	WDX0787D2S100	1.6920	2.2830	4.7830					1	BFTY02206	TRD07	\$ 284.58			
0.8125	•	WDX0812D2S100	1.7430	2.3340	4.8340					1	BFTY02206	TRD07	\$ 284.58			
0.8750	•	WDX0875D2S100	1.8680	2.4590	4.9590					1	BFTY02206	TRD07	\$ 284.58			
0.9375	•	WDX0937D2S125	1.9930	2.7020	5.2020	2.5000	1.6140	1.2500		2	BFTX02506N	TRD08	\$ 299.88			
1.0000	•	WDX1000D2S125	2.1180	2.8270	5.3270					2	BFTX02506N	TRD08	\$ 299.88			
1.0625	•	WDX1062D2S125	2.2430	2.9520	5.9520	3.0000	1.6140	1.2500		2	BFTX02506N	TRD08	\$ 309.23			
1.1250	•	WDX1125D2S125	2.3680	3.0770	6.0770					2	BFTX02506N	TRD08	\$ 309.23			
1.1875	•	WDX1187D2S125	2.5320	3.3590	6.3590	3.0000	1.9680	1.2500		2	BFTX03584	TRX15	\$ 351.86			
1.2500	•	WDX1250D2S125	2.6570	3.4840	6.4840					2	BFTX03584	TRX15	\$ 351.86			
1.3125	•	WDX1312D2S150	2.7820	3.7270	6.7270	3.0000	2.1260	1.5000	WDXT063006	2	BFTX03584	TRX15	\$ 351.86			
1.3750	•	WDX1375D2S150	2.9070	3.8520	6.8520					2	BFTX03584	TRX15	\$ 351.86			
1.4375	•	WDX1437D2S150	3.0320	3.9770	6.9770					2	BFTX03584	TRX15	\$ 351.86			
1.5000	•	WDX1500D2S150	3.1570	4.1020	7.1020					2	BFTX0511N	TRD20	\$ 459.78			
1.5625	•	WDX1562D2S150	3.2810	4.2260	7.2260	3.0000	1.9490	1.5000		2	BFTX0511N	TRD20	\$ 439.50			
1.6250	•	WDX1625D2S150	3.4070	4.3520	7.3520					3	BFTX0511N	TRD20	\$ 459.78			
1.6875	•	WDX1687D2S150	3.5330	4.4780	7.4780	3.0000	1.9490	1.5000		3	BFTX0511N	TRD20	\$ 459.78			
1.7500	•	WDX1750D2S150	3.6570	4.6020	7.6020					3	BFTX0511N	TRD20	\$ 459.78			
1.8125	•	WDX1812D2S150	3.7830	4.7280	7.7280	3.0000	1.9490	1.5000	WDXT073506	3	BFTX0615N	TRD25	\$ 495.93			
1.8750	•	WDX1875D2S150	3.9070	4.8520	7.8520					3	BFTX0615N	TRD25	\$ 495.93			
1.9375	•	WDX1937D2S150	4.0330	4.9780	7.9780					3	BFTX0615N	TRD25	\$ 495.93			
2.0000	•	WDX2000D2S150	4.1570	5.1020	8.1020					3	BFTX0615N	TRD25	\$ 527.22			
2.1250	•	WDX2125D2S150	4.4070	5.3520	8.3520					3	BFTX0615N	TRD25	\$ 590.90			
2.2500	•	WDX2250D2S150	4.8150	6.0750	9.0750					3.0000	2.1730 2.2950 2.4210 2.5470	1.5000	3	BFTX0615N	TRD25	\$ 643.81
2.3750	•	WDX2375D2S150	5.0670	6.3270	9.3270	3	BFTX0615N	TRD25	\$ 643.81							
2.5000	•	WDX2500D2S150	5.3150	6.5750	9.5750	3	BFTX0615N	TRD25	\$ 665.84							
2.6250	•	WDX2625D2S150	5.5670	6.8270	9.8270	3	BFTX0615N	TRD25	\$ 695.01							

3XD - SumiDrill WDX Bodies - Inch													Holder Diameter ø0.5625" to 2.6250"			Suggested Drill Body Promo Pricing*
Dia. DC	Stock	Cat.No.	Neck Length LUX	Overhang Length LPR	Overall Length OAL	Shank LS	Flange DCSFMS	Shank Dia. DCON	Good Insert	Fig	Screw	Wrench				
0.5625	•	WDX0562D3S075	1.8040	2.3950	4.3950	2.0000	1.1020	0.7500	WDXT042004	1	BFTX01604N	TRX06	\$ 288.70			
0.5937	•	WDX0594D3S075	1.9000	2.4910	4.4910					1	BFTX01604N	TRX06	\$ 288.70			
0.6250	•	WDX0625D3S100	1.9930	2.5840	5.0840					2.5000	1.2600	1.0000	1	BFTX0204N	TRX06	\$ 295.37
0.6562	•	WDX0656D3S100	2.0860	2.6770	5.1770								1	BFTX0204N	TRX06	\$ 295.37
0.6875	•	WDX0687D3S100	2.1790	2.7700	5.2700	2.5000	1.2990	1.0000	WDXT052504	1	BFTX0204N	TRX06	\$ 295.37			
0.7500	•	WDX0750D3S100	2.3680	2.9590	5.4590					1	BFTY02206	TRD07	\$ 297.27			
0.7870	•	WDX0787D3S100	2.4790	3.0700	5.5700					1	BFTY02206	TRD07	\$ 297.27			
0.8125	•	WDX0812D3S100	2.5560	3.1460	5.6460					1	BFTY02206	TRD07	\$ 297.27			
0.8750	•	WDX0875D3S100	2.7430	3.3340	5.8340					2	BFTY02206	TRD07	\$ 297.27			
0.9375	•	WDX0937D3S125	2.9310	3.6390	6.1390	2.5000	1.6140	1.2500		2	BFTX02506N	TRD08	\$ 313.22			
1.0000	•	WDX1000D3S125	3.1180	3.8270	6.3270					2	BFTX02506N	TRD08	\$ 313.22			
1.0625	•	WDX1062D3S125	3.3060	4.0140	7.0140	3.0000	1.6140	1.2500		2	BFTX02506N	TRD08	\$ 323.22			
1.1250	•	WDX1125D3S125	3.4930	4.2020	7.2020					2	BFTX02506N	TRD08	\$ 323.22			
1.1875	•	WDX1187D3S125	3.7200	4.5470	7.5470	3.0000	1.9680	1.2500		2	BFTX03584	TRX15	\$ 367.88			
1.2500	•	WDX1250D3S125	3.9070	4.7340	7.7340					2	BFTX03584	TRX15	\$ 367.88			
1.3125	•	WDX1312D3S150	4.0950	5.0400	8.0400	3.0000	2.1260	1.5000	WDXT063006	2	BFTX03584	TRX15	\$ 367.88			
1.3750	•	WDX1375D3S150	4.2820	5.2270	8.2270					2	BFTX03584	TRX15	\$ 367.88			
1.4375	•	WDX1437D3S150	4.4700	5.4150	8.4150					2	BFTX03584	TRX15	\$ 367.88			
1.5000	•	WDX1500D3S150	4.6970	5.8780	8.8780					2	BFTX0511N	TRD20	\$ 480.82			
1.5625	•	WDX1562D3S150	4.8830	6.0640	9.0640	3.0000	1.9490	1.5000		2	BFTX0511N	TRD20	\$ 480.82			
1.6250	•	WDX1625D3S150	5.0720	6.2530	9.2530					3	BFTX0511N	TRD20	\$ 480.82			
1.6875	•	WDX1687D3S150	5.2610	6.4420	9.4420	3.0000	1.9490	1.5000		3	BFTX0511N	TRD20	\$ 480.82			
1.7500	•	WDX1750D3S150	5.4470	6.6280	9.6280					3	BFTX0511N	TRD20	\$ 480.82			
1.8125	•	WDX1812D3S150	5.6360	6.8170	9.8170	3.0000	1.9490	1.5000	WDXT073506	3	BFTX0615N	TRD25	\$ 517.38			
1.8750	•	WDX1875D3S150	5.8820	7.0030	10.0030					3	BFTX0615N	TRD25	\$ 517.38			
1.9375	•	WDX1937D3S150	6.0110	7.1920	10.1920					3	BFTX0615N	TRD25	\$ 517.38			
2.0000	•	WDX2000D3S150	6.1970	7.3780	10.3780					3	BFTX0615N	TRD25	\$ 572.84			
2.1250	•	WDX2125D3S150	6.5720	7.7530	10.7530					3	BFTX0615N	TRD25	\$ 615.22			
2.2500	•	WDX2250D3S150	7.0670	8.3270	11.3270					3.0000	2.1730 2.2950 2.4210 2.5470	1.5000	3	BFTX0615N	TRD25	\$ 684.92
2.3750	•	WDX2375D3S150	7.4410	8.7010	11.7010	3	BFTX0615N	TRD25	\$ 684.92							
2.5000	•	WDX2500D3S150	7.8150	9.0750	12.0750	3	BFTX0615N	TRD25	\$ 708.80							
2.6250	•	WDX2625D3S150	8.1890	9.4490	12.4490	3	BFTX0615N	TRD25	\$ 741.26							

• USA Stocked Item

WDX Type 4XD & 5XD - INCH

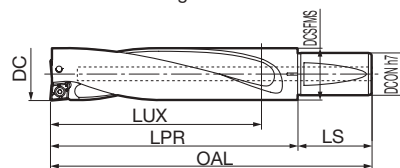
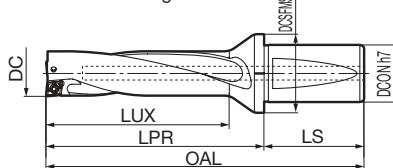
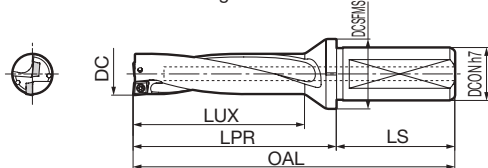
10 FREE Inserts with a body purchase


4XD - SumiDrill WDX Bodies - Inch													Holder Diameter ø0.5625" to 2.5000"				Suggested Drill Body Promo Pricing*
Dia. DC	Stock	Cat.No.	Neck Length LUX	Overhang Length LPR	Overall Length OAL	Shank LS	Flange DCSFMS	Shank Dia. DCON	Good Insert	Fig	Screw	Wrench					
0.5625	•	WDX0562D4S075	1.2420	1.8330	3.8330	2.0000	1.1020	0.7500	WDX042004	1	BFTX01604N	TRX06	\$ 305.39				
0.5937	•	WDX0594D4S075	1.3060	1.8960	3.8960					1	BFTX01604N	TRX06	\$ 305.39				
0.6250	•	WDX0625D4S100	1.3680	1.9590	4.4590					2.5000	1.2600	1.0000	1	BFTX0204N	TRX06	\$ 318.73	
0.6562	•	WDX0656D4S100	1.4300	2.0210	4.5210								1	BFTX0204N	TRX06	\$ 318.73	
0.6875	•	WDX0687D4S100	1.4920	2.0830	4.5830	1	BFTX0204N	TRX06	\$ 318.73								
0.7500	•	WDX0750D4S100	1.6180	2.2090	4.7090	2.5000	1.2990	1.0000	WDX052504	1	BFTY02206	TRD07	\$ 336.65				
0.7870	•	WDX0787D4S100	1.6920	2.2830	4.7830					1	BFTY02206	TRD07	\$ 336.65				
0.8125	•	WDX0812D4S100	1.7430	2.3340	4.8340					1	BFTY02206	TRD07	\$ 336.65				
0.8750	•	WDX0875D4S100	1.8680	2.4590	4.9590					1	BFTY02206	TRD07	\$ 336.65				
0.9375	•	WDX0937D4S125	1.9930	2.7020	5.2020	2.5000	1.6140	1.2500		2	BFTX02506N	TRD08	\$ 354.59				
1.0000	•	WDX1000D4S125	2.1180	2.8270	5.3270					2	BFTX02506N	TRD08	\$ 354.59				
1.0625	•	WDX1062D4S125	2.2430	2.9520	5.9520	3.0000	1.6140	1.2500		2	BFTX02506N	TRD08	\$ 365.95				
1.1250	•	WDX1125D4S125	2.3680	3.0770	6.0770					2	BFTX02506N	TRD08	\$ 365.95				
1.1875	•	WDX1187D4S125	2.5320	3.3590	6.3590	3.0000	1.9680	1.2500		2	BFTX03584	TRX15	\$ 416.61				
1.2500	•	WDX1250D4S125	2.6570	3.4840	6.4840					2	BFTX03584	TRX15	\$ 416.61				
1.3125	•	WDX1312D4S150	2.7820	3.7270	6.7270	3.0000	2.1260	1.5000	WDX063006	2	BFTX03584	TRX15	\$ 416.61				
1.3750	•	WDX1375D4S150	2.9070	3.8520	6.8520					2	BFTX03584	TRX15	\$ 416.61				
1.4375	•	WDX1437D4S150	3.0320	3.9770	6.9770					2	BFTX03584	TRX15	\$ 416.61				
1.5000	•	WDX1500D4S150	3.1570	4.1020	7.1020	3.0000	1.9490	1.5000		2	BFTX0511N	TRD20	\$ 514.55				
1.5625	•	WDX1562D4S150	3.2810	4.2260	7.2260					2	BFTX0511N	TRD20	\$ 514.55				
1.6250	•	WDX1625D4S150	3.4070	4.3520	7.3520	3.0000	1.9490	1.5000		2	BFTX0511N	TRD20	\$ 514.55				
1.6875	•	WDX1687D4S150	3.5330	4.4780	7.4780					3	BFTX0511N	TRD20	\$ 514.55				
1.7500	•	WDX1750D4S150	3.6570	4.6020	7.6020					3	BFTX0511N	TRD20	\$ 514.55				
1.8125	•	WDX1812D4S150	3.7830	4.7280	7.7280	3.0000	1.9490	1.5000	WDX073506	3	BFTX0615N	TRD25	\$ 550.69				
1.8750	•	WDX1875D4S150	3.9070	4.8520	7.8520					3	BFTX0615N	TRD25	\$ 550.69				
1.9375	•	WDX1937D4S150	4.0330	4.9780	7.9780					3	BFTX0615N	TRD25	\$ 550.69				
2.0000	•	WDX2000D4S150	4.1570	5.1020	8.1020					3	BFTX0615N	TRD25	\$ 589.83				
2.1250	•	WDX2125D4S150	4.4070	5.3520	8.3520					3	BFTX0615N	TRD25	\$ 654.44				
2.2500	•	WDX2250D4S150	4.8150	6.0750	9.0750					3	BFTX0615N	TRD25	\$ 747.74				
2.3750	•	WDX2375D4S150	5.0670	6.3270	9.3270	3.0000	2.1730	1.5000		3	BFTX0615N	TRD25	\$ 747.74				
2.5000	•	WDX2500D4S150	5.3150	6.5750	9.5750					3	2.2950	1.5000	3	BFTX0615N	TRD25	\$ 774.88	
2.4210																	
5XD - SumiDrill WDX Bodies - Inch													Holder Diameter ø0.5625" to 2.1250"				Suggested Drill Body Promo Pricing*
Dia. DC	Stock	Cat.No.	Neck Length LUX	Overhang Length LPR	Overall Length OAL	Shank LS	Flange DCSFMS	Shank Dia. DCON	Good Insert	Fig	Screw	Wrench	Coolant Sleeve				
0.5625	•	WDX0562D5S075	2.9280	3.5190	5.5190	2.0000	1.1020	0.7500	WDX042004	1	BFTX01604N	TRX06	SLV075	\$ 372.12			
0.5937	•	WDX0594D5S075	3.0880	3.6790	5.6790					1	BFTX01604N	TRX06	\$ 372.12				
0.6250	•	WDX0625D5S100	3.2430	3.8340	6.3340	2.5000	1.2600	1.0000	WDX042004	1	BFTX0204N	TRX06		\$ 372.12			
0.6562	•	WDX0656D5S100	3.3980	3.9890	6.4890					1	BFTX0204N	TRX06	\$ 383.45				
0.6875	•	WDX0687D5S100	3.5530	4.1440	6.6440					1	BFTX0204N	TRX06	\$ 383.45				
0.7500	•	WDX0750D5S100	3.8680	4.4590	6.9590	2.5000	1.2990	1.0000	WDX052504	1	BFTY02206	TRD07	SLV1000	\$ 384.00			
0.7870	•	WDX0787D5S100	4.0530	4.6440	7.1440					1	BFTY02206	TRD07	\$ 384.00				
0.8125	•	WDX0812D5S100	4.1780	4.7690	7.2690					1	BFTY02206	TRD07	\$ 384.00				
0.8750	•	WDX0875D5S100	4.4930	5.0840	7.5840					1	BFTY02206	TRD07	\$ 384.00				
0.9375	•	WDX0937D5S125	4.8030	5.5120	8.0120	2.5000	1.6140	1.2500		2	BFTX02506N	TRD08		\$ 385.95			
1.0000	•	WDX1000D5S125	5.1180	5.8270	8.3270					2	BFTX02506N	TRD08	\$ 385.95				
1.0625	•	WDX1062D5S125	5.4280	6.1370	9.1370	3.0000	1.6140	1.2500		2	BFTX02506N	TRD08	SLV1250	\$ 455.13			
1.1250	•	WDX1125D5S125	5.7430	6.4520	9.4520					2	BFTX02506N	TRD08	\$ 455.13				
1.1875	•	WDX1187D5S125	6.0930	6.9200	9.9200	3.0000	1.9680	1.2500		2	BFTX03584	TRX15		\$ 495.93			
1.2500	•	WDX1250D5S125	6.4080	7.2350	10.2350					2	BFTX03584	TRX15	\$ 495.93				
1.3125	•	WDX1312D5S150	6.7180	7.6630	10.6630	3.0000	2.1260	1.5000	WDX063006	2	BFTX03584	TRX15		\$ 495.93			
1.3750	•	WDX1375D5S150	7.0330	7.9780	10.9780					2	BFTX03584	TRX15	\$ 495.93				
1.4375	•	WDX1437D5S150	7.3430	8.2880	11.2880					2	BFTX03584	TRX15	\$ 547.36				
1.5000	•	WDX1500D5S150	7.6970	8.8780	11.8780	3.0000	1.9490	1.5000		2	BFTX0511N	TRD20		\$ 591.59			
1.5625	•	WDX1562D5S150	8.0070	9.1880	12.1880					2	BFTX0511N	TRD20	\$ 591.59				
1.6250	•	WDX1625D5S150	8.3220	9.5030	12.5030	3.0000	1.9490	1.5000	WDX073506	2	BFTX0511N	TRD20	SLV1500	\$ 591.59			
1.6875	•	WDX1687D5S150	8.6320	9.8130	12.8130					3	BFTX0511N	TRD20	\$ 629.57				
1.7500	•	WDX1750D5S150	8.9470	10.1280	13.1280					3	BFTX0511N	TRD20	\$ 646.86				
1.8125	•	WDX1812D5S150	9.2570	10.4380	13.7530	3.0000	1.9490	1.5000		3	BFTX0615N	TRD25		\$ 651.72			
1.8750	•	WDX1875D5S150	9.5720	10.7530	13.7530					3	BFTX0615N	TRD25	\$ 727.12				
1.9370	•	WDX1937D5S150	9.8820	11.0630	14.0630					3	BFTX0615N	TRD25	\$ 727.12				
2.0000	•	WDX2000D5S150	10.1970	11.3780	14.3780					3	BFTX0615N	TRD25	\$ 705.95				
2.1250	•	WDX2125D5S150	10.8220	12.0030	15.0030					3	BFTX0615N	TRD25		\$ 705.95			

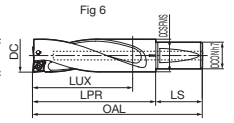
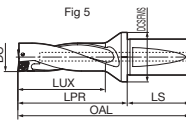
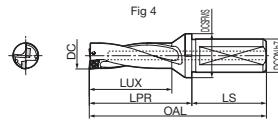
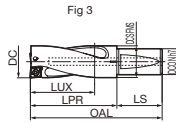
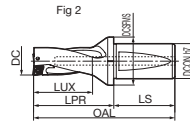
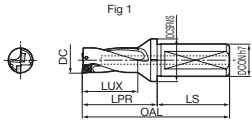
Fig 1

Fig 2

Fig 3



WDX Type 2XD & 3XD - METRIC



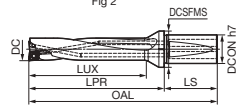
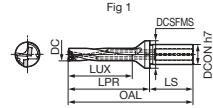
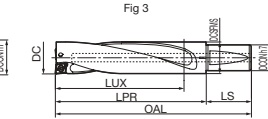
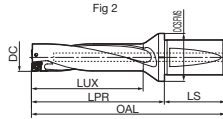
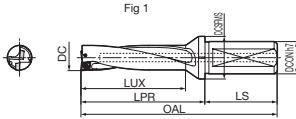
10 FREE Inserts with a body purchase

2XD - SumiDrill WDX Bodies - Metric										Suggested Drill Body Promo Pricing*	
Dia. DC	Stock	Cat. No.	Neck Length LUX	Overhang Length LPR	Overall Length OAL	Shank LS	Flange DCSMS	Shank Dia. DCON	Radial Offset (Max)	Good Insert	Fig
13.0	★	WDX130D2S20	29	44	88	44	28.0	20	0.35	WDX1042004	1
13.5	★	WDX135D2S20	30	45	89				0.30		1
14.0	★	WDX140D2S20	31	46	90				0.25		1
14.5	★	WDX145D2S20	32	47	91				0.20		1
15.0	★	WDX150D2S20	33	48	92	44	30.0	20	0.15	WDX1052504	1
15.5	★	WDX155D2S20	34	49	93				0.40		1
16.0	★	WDX160D2S20	35	50	94				0.35		1
16.5	★	WDX165D2S20	36	51	95				0.30		1
17.0	★	WDX170D2S20	37	52	96	56	32.0	25	0.25	WDX1062504	1
17.5	★	WDX175D2S25	38	53	109				0.20		1
18.0	★	WDX180D2S25	39	54	110				0.50		1
18.5	★	WDX185D2S25	40	55	111				0.45		1
19.0	★	WDX190D2S25	41	56	112	56	33.0	25	0.40	WDX1063006	1
19.5	★	WDX195D2S25	42	57	113				0.30		1
20.0	★	WDX200D2S25	43	58	114				0.20		1
20.5	★	WDX205D2S25	44	59	115				0.15		1
21.0	★	WDX210D2S25	45	60	116	60	41.0	32	0.10	WDX1073506	1
21.5	★	WDX215D2S25	46	61	117				0.05		1
22.0	★	WDX220D2S25	47	62	118				0.70		1
22.5	★	WDX225D2S25	48	63	119				0.60		1
23.0	★	WDX230D2S25	49	67	123	56	37.0	25	0.50	WDX1083006	1
23.5	★	WDX235D2S25	50	68	124				0.50		1
24.0	★	WDX240D2S25	51	69	125				0.50		1
24.5	★	WDX245D2S25	52	70	126				0.50		1
25.0	★	WDX250D2S25	53	71	127	60	41.0	32	0.45	WDX1073506	2
25.5	★	WDX255D2S32	54	74	134				0.40		2
26.0	★	WDX260D2S32	55	75	135				0.35		2
26.5	★	WDX265D2S32	56	76	136				0.25		2
27.0	★	WDX270D2S32	57	77	137	70	54.0	40	0.20	WDX1094008	2
27.5	★	WDX275D2S32	58	78	138				0.15		2
28.0	★	WDX280D2S32	59	79	139				0.10		2
28.5	★	WDX285D2S32	60	80	140				1.00		2
29.0	★	WDX290D2S32	62	83	143	60	50.0	32	0.95	WDX1094008	2
29.5	★	WDX295D2S32	63	84	144				0.90		2
30.0	★	WDX300D2S32	64	88	148				0.80		2
31.0	★	WDX310D2S32	66	90	150				0.70		2
32.0	★	WDX320D2S32	68	92	152	70	54.0	40	0.90	WDX1125012	2
32.5	★	WDX325D2S32	69	93	153				0.80		2
33.0	★	WDX330D2S40	70	94	164				0.70		2
34.0	★	WDX340D2S40	72	96	166				0.55		2
35.0	★	WDX350D2S40	74	98	168	70	54.0	40	0.45	WDX1125012	2
36.0	★	WDX360D2S40	76	100	170				0.35		2
37.0	★	WDX370D2S40	79	109	179				0.20		2
38.0	★	WDX380D2S40	81	111	181	70	49.5	40	1.00	WDX1156012	2
39.0	★	WDX390D2S40	83	113	183				0.90		2
40.0	★	WDX400D2S40	85	115	185				0.80		2
41.0	★	WDX410D2S40	87	117	187				0.70		2
42.0	★	WDX420D2S40	89	119	189	70	50.5	40	0.60	WDX1156012	2
43.0	★	WDX430D2S40	91	121	191				0.50		2
44.0	★	WDX440D2S40	93	123	193				0.40		2
45.0	★	WDX450D2S40	95	125	195				1.50	WDX1156012	2
46.0	★	WDX460D2S40	97	127	197	70	49.5	40	1.40		2
47.0	★	WDX470D2S40	99	129	199				1.30		2
48.0	★	WDX480D2S40	101	131	201				1.20		2
49.0	★	WDX490D2S40	103	133	203				1.10		2
50.0	★	WDX500D2S40	105	135	205	70	50.5	40	1.00	WDX1156012	2
51.0	★	WDX510D2S40	107	137	207				0.90		2
52.0	★	WDX520D2S40	109	139	209				0.80		2
53.0	★	WDX530D2S40	111	141	211				0.60		2
54.0	★	WDX540D2S40	113	143	213	70	51.5	40	0.50	WDX1156012	2
55.0	★	WDX550D2S40	115	145	215				1.50		2
56.0	★	WDX560D2S40	120	152	222				1.40		2
57.0	★	WDX570D2S40	122	154	224	70	51.5	40	1.30	WDX1156012	2
58.0	★	WDX580D2S40	124	156	226				1.20		2
59.0	★	WDX590D2S40	126	158	228				1.10		2
60.0	★	WDX600D2S40	128	160	230				1.00		2
61.0	★	WDX610D2S40	130	162	232	70	60.0	40	1.00	WDX1186012	2
62.0	★	WDX620D2S40	132	164	234				0.90		2
63.0	★	WDX630D2S40	134	166	236				0.80		2
64.0	★	WDX640D2S40	136	168	238				0.70		2
65.0	★	WDX650D2S40	138	170	240	70	61.0	40	0.60	WDX1186012	2
66.0	★	WDX660D2S40	140	172	242				0.50		2
67.0	★	WDX670D2S40	142	174	244				1.50		2
68.0	★	WDX680D2S40	144	176	246				1.40		2

10 FREE Inserts with a body purchase

3XD - SumiDrill WDX Bodies - Metric											Suggested Drill Body Promo Pricing*	
Dia. DC	Stock	Cat. No.	Neck Length LUX	Overhang Length LPR	Overall Length OAL	Shank LS	Flange DCSMS	Shank Dia. DCON	Radial Offset (Max)	Good Insert	Fig	
13.0	●	WDX130D3S20	42.0	57.0	101.0	44	28.0	20	0.35	WDX1042004	4	\$ 258.68
13.5	●	WDX135D3S20	43.5	58.5	102.5				0.30		4	\$ 258.68
14.0	●	WDX140D3S20	45.0	60.0	104.0				0.25		4	\$ 258.68
14.5	●	WDX145D3S20	46.5	61.5	105.5				0.20		4	\$ 258.68
15.0	●	WDX150D3S20	48.0	63.0	107.0	44	30.0	20	0.15	WDX1052504	4	\$ 258.68
15.5	●	WDX155D3S20	49.5	64.5	108.5				0.40		4	\$ 278.68
16.0	●	WDX160D3S20	51.0	66.0	110.0				0.35		4	\$ 278.68
16.5	●	WDX165D3S20	52.5	67.5	111.5				0.30		4	\$ 278.68
17.0	●	WDX170D3S20	54.0	69.0	113.0	56	32.0	25	0.25	WDX1062504	4	\$ 278.68
17.5	●	WDX175D3S25	55.5	70.5	126.5				0.20		4	\$ 278.68
18.0	●	WDX180D3S25	57.0	72.0	128.0				0.50		4	\$ 297.27
18.5	●	WDX185D3S25	58.5	73.5	129.5				0.45		4	\$ 297.27
19.0	●	WDX190D3S25	60.0	75.0	131.0	56	33.0	25	0.40	WDX1063006	4	\$ 297.27
19.5	●	WDX195D3S25	61.5	76.5	132.5				0.30		4	\$ 297.27
20.0	●	WDX200D3S25	63.0	78.0	134.0				0.20		4	\$ 297.27
20.5	●	WDX205D3S25	64.5	79.5	135.5				0.15		4	\$ 297.27
21.0	●	WDX210D3S25	66.0	81.0	137.0	60	41.0	32	0.10	WDX1073506	4	\$ 297.27
21.5	●	WDX215D3S25	67.5	82.5	138.5				0.05		4	\$ 297.27
22.0	●	WDX220D3S25	69.0	84.0	140.0				0.70		4	\$ 313.22
22.5	●	WDX225D3S25	70.5	85.5	141.5				0.60		4	\$ 313.22
23.0	●	WDX230D3S25	72.0	90.0	146.0	56	37.0	25	0.50	WDX1083506	4	\$ 313.22
23.5	●	WDX235D3S25	73.5	91.5	147.5				0.40		4	\$ 313.22
24.0	●	WDX240D3S25	75.0	93.0	149.0				0.30		4	\$ 313.22
24.5	●	WDX245D3S25	76.5	94.5	150.5				0.20		4	\$ 313.22
25.0	●	WDX250D3S25	78.0	96.0	152.0	60	41.0	32	0.10	WDX1083506	4	\$ 313.22
25.5	●	WDX255D3S32	79.5	99.5	159.5				0.45		5	\$ 323.22
26.0	●	WDX260D3S32	81.0	101.0	161.0				0.40		5	\$ 323.22
26.5	●	WDX265D3S32	82.5	102.5	162.5				0.35		5	\$ 323.22
27.0	●	WDX270D3S32	84.0	104.0	164.0	60	50.0	32	0.25	WDX1094008	5	\$ 323.22
27.5	●	WDX275D3S32	85.5	105.5	165.5				0.20		5	\$ 323.22
28.0	●	WDX280D3S32	87.0	107.0	167.0				0.15		5	\$ 323.22
28.5	●	WDX285D3S32	88.5	108.5	168.5				0.10		5	\$ 323.22
29.0	●	WDX290D3S32	91.0	112.0	172.0	60	54.0	32	1.00	WDX1125012	5	\$ 328.50
29.5	●	WDX295D3S32	92.5	113.5	173.5				0.95		5	\$ 328.50
30.0"	★	WDX300D3S32	94.0	118.0	178.0				0.90		5	\$ 367.88
31.0"	★	WDX310D3S32	97.0	121.0	181.0				0.80		5	\$ 367.88
32.0"	★	WDX320D3S32	100.0	124.0	184.0	70	54.0	40	0.70	WDX1156012	5	\$ 367.88
30.0"	★	WDX300D3S40	94.0	118.0	188.0				0.90		5	\$ 367.88
31.0"	★	WDX310D3S40	97.0	121.0	191.0				0.80		5	\$ 367.88
32.0"	★	WDX320D3S40	100.0	124.0	194.0				0.75		5	\$ 367.88
33.0	★	WDX330D3S40	103.0	127.0	197.0	70	54.0	40	0.50	WDX1156012	5	\$ 367.88
34.0	★	WDX340D3S40	106.0	130.0	200.0				0.45		5	\$ 367.88
35.0	★	WDX350D3S40	109.0	133.0	203.0				0.35		5	\$ 367.88
36.0	★	WDX360D3S40	112.0	136.0	206.0				0.20		5	\$ 367.88
37.0	★	WDX370D3S40	116.0	146.0	216.0	70	49.5	40	1.00	WDX1186012	5	\$ 413.25
38.0	★	WDX380D3S40	119.0	149.0	219.0				0.90		5	\$ 413.25
39.0	★	WDX390D3S40	122.0	152.0	222.0				0.80		5	\$ 413.25
40.0	★	WDX400D3S40	125.0	155.0	225.0				0.70		5	\$ 413.25
41.0	★	WDX410D3S40	128.0	158.0	228.0	70	50.5	40	0.60	WDX1186012	5	\$ 413.25
42.0	★	WDX420D3S40	131.0	161.0	231.0				0.50		5	\$ 413.25
43.0	★	WDX430D3S40	134.0	164.0	234.0				0.40		5	\$ 413.25
44.0	★	WDX440D3S40	137.0	167.0	237.0				1.50		5	\$ 444.81
45.0	★	WDX450D3S40	140.0	170.0	240.0	70	51.5	40	1.40	WDX1186012	5	\$ 444.81
46.0	★	WDX460D3S40	143.0	173.0	243.0				1.30		5	\$ 444.81
47.0	★	WDX470D3S40	146.0	176.0	246.0				1.20		5	\$ 444.81
48.0	★	WDX480D3S40	149.0	179.0	249.0				1.10		5	\$ 444.81
49.0	★	WDX490D3S40	152.0	182.0	252.0	70	52.5	40	1.00	WDX1186012	6	\$ 491.52
50.0	★	WDX500D3S40	155.0	185.0	255.0				0.90		6	\$ 491.52
51.0	★	WDX510D3S40	158.0	188.0	258.0				0.80		6	\$ 491.52
52.0	★	WDX520D3S40	161.0	191.0	261.0				0.60		6	\$ 491.52
53.0	★	WDX530D3S40	164.0	194.0	264.0	70	53.5	40	0.50	WDX1186012	6	\$ 491.52
54.0	★	WDX540D3S40	167.0	197.0	267.0				2.00		6	\$ 684.92
55.0	★	WDX550D3S40	170.0	200.0	270.0				1.80		6	\$ 684.92
56.0	★	WDX560D3S40	176.0	208.0	278.0				1.70		6	\$ 684.92
57.0	★	WDX570D3S40	179.0	211.0	281.0	70	59.0	40	1.60	WDX1186012	6	\$ 708.80
58.0	★	WDX580D3S40	182.0	214.0	284.0				1.50		6	\$ 708.80
59.0	★	WDX590D3S40	185.0	217.0	287.0				1.40		6	\$ 708.80
60.0	★	WDX600D3S40	188.0	220.0	290.0				1.30		6	\$ 708.80
61.0	★	WDX610D3S40	191.0	223.0	293.0	70	61.0	40	1.20	WDX1186012	6	\$ 708.80
62.0	★	WDX620D3S40	194.0	226.0	296.0				1.10		6	\$ 708.80
63.0	★	WDX630D3S40	197.0	229.0	299.0				1.00		6	\$ 708.80
64.0	★	WDX640D3S40	200.0	232.0	302.0				0.90		6	\$ 708.80
65.0	★	WDX650D3S40	203.0	235.0	305.0	70	62.0	40	0.80	WDX1186012	6	\$ 708.80
66.0	★	WDX660D3S40	206.0	238.0	308.0				0.70		6	\$ 741.26
67.0	★	WDX670D3S40	209.0	241.0	311.0				0.60		6	\$ 741.26
68.0	★	WDX680D3S40	212.0	244.0	314.0				0.50		6	\$ 741.26

WDX Type 4XD & 5XD - METRIC



10 FREE Inserts with a body purchase

4XD - SumiDrill WDX Bodies - Metric											Suggested Drill Body Promo Pricing*
Dia. DC	Stock	Cat. No.	Neck Length LUX	Overhang Length LPR	Overall Length OAL	Shank LS	Flange DCSFMS	Shank Dia. DCON	Radial Offset (Max)	Good Insert	
13.0	●	WDX130D4S20	55	70	114				0.35	1	\$ 292.05
13.5	●	WDX135D4S20	57	72	116				0.30	1	\$ 292.05
14.0	●	WDX140D4S20	59	74	118	44	28.0	20	0.25	1	\$ 292.05
14.5	●	WDX145D4S20	61	76	120				0.20	1	\$ 292.05
15.0	●	WDX150D4S20	63	78	122				0.15	1	\$ 292.05
15.5	●	WDX155D4S20	65	80	124				0.40	1	\$ 312.05
16.0	●	WDX160D4S20	67	82	126	44	30.0	20	0.35	1	\$ 312.05
16.5	●	WDX165D4S20	69	84	128				0.30	1	\$ 312.05
17.0	●	WDX170D4S20	71	86	130				0.30	1	\$ 312.05
17.5	●	WDX175D4S25	73	88	144	56	32.0	25	0.25	1	\$ 312.05
18.0	●	WDX180D4S25	75	90	146				0.20	1	\$ 312.05
18.5	●	WDX185D4S25	77	92	148				0.50	1	\$ 336.65
19.0	●	WDX190D4S25	79	94	150				0.45	1	\$ 336.65
19.5	●	WDX195D4S25	81	96	152				0.40	1	\$ 336.65
20.0	●	WDX200D4S25	83	98	154				0.30	1	\$ 336.65
20.5	●	WDX205D4S25	85	100	156	56	33.0	25	0.30	1	\$ 336.65
21.0	●	WDX210D4S25	87	102	158				0.20	1	\$ 336.65
21.5	●	WDX215D4S25	89	104	160				0.15	1	\$ 336.65
22.0	●	WDX220D4S25	91	106	162				0.10	1	\$ 336.65
22.5	●	WDX225D4S25	93	108	164				0.05	1	\$ 336.65
23.0	●	WDX230D4S25	95	110	166				0.70	1	\$ 354.59
23.5	●	WDX235D4S25	97	112	168				0.70	1	\$ 354.59
24.0	●	WDX240D4S25	99	114	170	56	37.0	25	0.60	1	\$ 354.59
24.5	●	WDX245D4S25	101	116	172				0.50	1	\$ 354.59
25.0	●	WDX250D4S25	103	118	174				0.50	1	\$ 354.59
25.5	●	WDX255D4S32	105	120	176				0.45	2	\$ 365.95
26.0	●	WDX260D4S32	107	122	178				0.40	2	\$ 365.95
26.5	●	WDX265D4S32	109	124	180				0.35	2	\$ 365.95
27.0	●	WDX270D4S32	111	126	182	60	41.0	32	0.25	2	\$ 365.95
27.5	●	WDX275D4S32	113	128	184				0.20	2	\$ 365.95
28.0	●	WDX280D4S32	115	130	186				0.15	2	\$ 365.95
28.5	●	WDX285D4S32	117	132	188				0.10	2	\$ 365.95
29.0	●	WDX290D4S32	120	140	190				1.00	2	\$ 371.22
29.5	●	WDX295D4S32	122	142	192				0.95	2	\$ 371.22
30.0	●	WDX300D4S32	124	144	194	60	54.0	32	0.90	2	\$ 416.61
31.0	●	WDX310D4S32	128	152	212				0.80	2	\$ 416.61
32.0	●	WDX320D4S32	132	156	216				0.70	2	\$ 416.61
30.0	●	WDX300D4S40	124	148	218				0.90	2	\$ 416.61
31.0	●	WDX310D4S40	128	152	222				0.80	2	\$ 416.61
32.0	●	WDX320D4S40	132	156	226				0.70	2	\$ 416.61
33.0	●	WDX330D4S40	136	160	230	70	54.0	40	0.55	2	\$ 416.61
34.0	●	WDX340D4S40	140	164	234				0.45	2	\$ 416.61
35.0	●	WDX350D4S40	144	168	238				0.35	2	\$ 416.61
36.0	●	WDX360D4S40	148	172	242				0.20	2	\$ 416.61
37.0	●	WDX370D4S40	153	183	253				1.00	2	\$ 446.62
38.0	●	WDX380D4S40	157	187	257				0.90	2	\$ 446.62
39.0	●	WDX390D4S40	161	191	261				0.80	2	\$ 446.62
40.0	●	WDX400D4S40	165	195	265				0.70	2	\$ 446.62
41.0	●	WDX410D4S40	169	199	269	70	49.5	40	0.60	2	\$ 446.62
42.0	●	WDX420D4S40	173	203	273				0.50	2	\$ 446.62
43.0	●	WDX430D4S40	177	207	277				0.40	2	\$ 446.62
44.0	●	WDX440D4S40	181	211	281				0.30	2	\$ 446.62
45.0	●	WDX450D4S40	185	215	285				0.20	2	\$ 446.62
46.0	●	WDX460D4S40	189	219	289				1.50	2	\$ 478.18
47.0	●	WDX470D4S40	193	223	293				1.40	2	\$ 478.18
48.0	●	WDX480D4S40	197	227	297				1.30	2	\$ 478.18
49.0	●	WDX490D4S40	201	231	301				1.20	2	\$ 478.18
50.0	●	WDX500D4S40	205	235	305				1.10	2	\$ 478.18
51.0	●	WDX510D4S40	209	239	309	70	49.5	40	1.00	3	\$ 511.55
52.0	●	WDX520D4S40	213	243	313				0.90	3	\$ 511.55
53.0	●	WDX530D4S40	217	247	317				0.80	3	\$ 511.55
54.0	●	WDX540D4S40	221	251	321				0.60	3	\$ 511.55
55.0	●	WDX550D4S40	225	255	325				0.50	3	\$ 511.55
56.0	●	WDX560D4S40	232	264	334				2.00	3	\$ 747.74
57.0	●	WDX570D4S40	236	268	338				1.80	3	\$ 747.74
58.0	●	WDX580D4S40	240	272	342				1.70	3	\$ 747.74
59.0	●	WDX590D4S40	244	276	346				1.60	3	\$ 747.74
60.0	●	WDX600D4S40	248	280	350	70	57.0	40	1.50	3	\$ 747.74
61.0	●	WDX610D4S40	252	284	354				1.40	3	\$ 774.88
62.0	●	WDX620D4S40	256	288	358				1.30	3	\$ 774.88
63.0	●	WDX630D4S40	260	292	362				1.20	3	\$ 774.88

● USA stocked item

★ Worldwide Warehouse item

10 FREE Inserts with a body purchase

5XD - SumiDrill WDX Bodies - Metric											Suggested Drill Body Promo Pricing*
Dia. DC	Stock	Cat. No.	Neck Length LUX	Overhang Length LPR	Overall Length OAL	Shank LS	Flange DCSFMS	Shank Dia. DCON	Radial Offset (Max)	Good Insert	
13.0	●	WDX130D5S20	68.0	83.0	127.0				0.35	1	\$ 372.12
13.5	●	WDX135D5S20	70.5	85.5	129.5				0.30	1	\$ 372.12
14.0	●	WDX140D5S20	73.0	88.0	132.0	44	28.0	20.0	0.25	1	\$ 372.12
14.5	●	WDX145D5S20	75.5	90.5	134.5				0.20	1	\$ 372.12
15.0	●	WDX150D5S20	78.0	93.0	137.0				0.15	1	\$ 372.12
15.5	●	WDX155D5S20	80.5	95.5	139.5				0.40	1	\$ 372.12
16.0	●	WDX160D5S20	83.0	98.0	142.0	44	30.0	20.0	0.35	1	\$ 383.44
16.5	●	WDX165D5S20	85.5	100.5	144.5				0.30	1	\$ 383.44
17.0	●	WDX170D5S20	88.0	103.0	147.0				0.30	1	\$ 383.44
17.5	●	WDX175D5S25	90.5	105.5	161.5	56	32.0	25.0	0.25	1	\$ 383.44
18.0	●	WDX180D5S25	93.0	108.0	164.0				0.20	1	\$ 383.44
18.5	●	WDX185D5S25	95.5	110.5	166.5				0.50	1	\$ 383.99
19.0	●	WDX190D5S25	98.0	113.0	169.0				0.45	1	\$ 383.99
19.5	●	WDX195D5S25	100.5	115.5	171.5				0.40	1	\$ 383.99
20.0	●	WDX200D5S25	103.0	118.0	174.0				0.30	1	\$ 383.99
20.5	●	WDX205D5S25	105.5	120.5	176.5	56	33.0	25.0	0.30	1	\$ 383.99
21.0	●	WDX210D5S25	108.0	123.0	179.0				0.20	1	\$ 383.99
21.5	●	WDX215D5S25	110.5	125.5	181.5				0.15	1	\$ 383.99
22.0	●	WDX220D5S25	113.0	128.0	184.0				0.10	1	\$ 383.99
22.5	●	WDX225D5S25	115.5	130.5	186.5				0.05	1	\$ 383.99
23.0	●	WDX230D5S25	118.0	136.0	192.0				0.70	1	\$ 385.93
23.5	●	WDX235D5S25	120.5	138.5	194.5				0.70	1	\$ 385.93
24.0	●	WDX240D5S25	123.0	141.0	197.0	56	37.0	25.0	0.60	1	\$ 385.93
24.5	●	WDX245D5S25	125.5	143.5	199.5				0.50	1	\$ 385.93
25.0	●	WDX250D5S25	128.0	146.0	202.0				0.50	1	\$ 385.93
26.0	●	WDX260D5S32	133.0	153.0	213.0				0.40	2	\$ 385.93
27.0	●	WDX270D5S32	138.0	158.0	218.0	60	41.0	32.0	0.25	2	\$ 455.13
28.0	●	WDX280D5S32	143.0	163.0	223.0				0.15	2	\$ 455.13
29.0	●	WDX290D5S32	149.0	170.0	230.0				1.00	2	\$ 460.40
30.0	●	WDX300D5S32	154.0	178.0	238.0				0.90	2	\$ 460.40
31.0	●	WDX310D5S32	159.0	183.0	243.0	60	54.0	32.0	0.80	2	\$ 495.93
32.0	●	WDX320D5S32	164.0	188.0	248.0				0.70	2	\$ 495.93
30.0	●	WDX300D5S40	154.0	178.0	248.0				0.90	2	\$ 495.93
31.0	●	WDX310D5S40	159.0	183.0	253.0				0.80	2	\$ 495.93
32.0	●	WDX320D5S40	164.0	188.0	258.0				0.70	2	\$ 495.93
33.0	●	WDX330D5S40	169.0	193.0	263.0	70	54.0	40.0	0.55	2	\$ 495.93



Buy 10 inserts per pocket at standard price, and receive the milling body for FREE

General Features

SEC-WaveMill WFX Type for shoulder milling is a screw-locking type cutter capable of using four corners. Ideal cut edge design delivers good squareness. Now with high-efficiency, multi-functional WFXH type and chamfering WFXC type. Our wide range covers a wide variety of applications.



WFXH Type WFXC Type

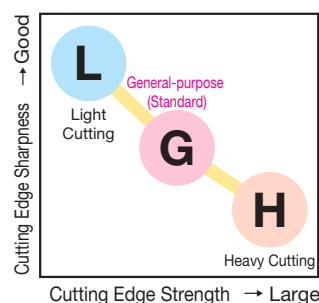
Grade Application Range

Work Material	Grade	Finishing to Light Cutting	Medium Cutting	Rough to Heavy Cutting
 Steel	Coated Carbide			
				
				
 Stainless Steel	Coated Carbide			
				

Work Material	Grade	Finishing to Light Cutting	Medium Cutting	Rough to Heavy Cutting
K Cast Iron	Coated Carbide	ACK200	ACK300	
N Non-Ferrous Metals	Coated Carbide	DL1000		
	Carbide		H1	

The letters "C" and "P" at the end of each grade indicate the coating type. ▽ : CVD, ▲ : PVD, Blank: Uncoated

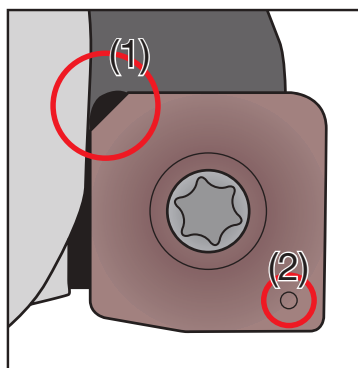
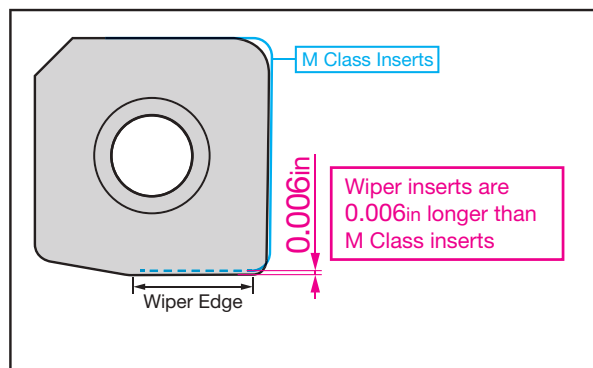
Chipbreaker Selection



Work Material	P M K				N
Chipbreaker	L Type	G Type	H Type	Wiper Insert	S Type
					
Features	Low Cutting Force	General-purpose Type	High Strength Type	Wiper Edge	Sharp Edge
Cutting Edge Cross Section					
Applications	Light Cutting, Low Rigidity Milling and Reduction of Burrs	Main Chipbreaker General Purpose to Interrupted Milling	Roughing, Heavy Interrupted Cutting and Hardened Steel Milling	High-precision Finish	For Non-Ferrous Metals

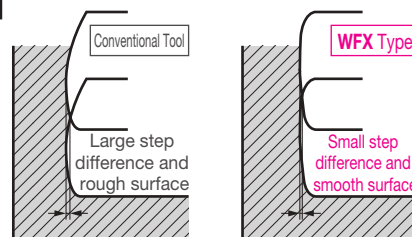
Wiper Insert

Optimized wiper edge shape provides superior surface roughness.

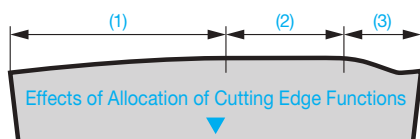


Precautions when Using Wiper Inserts

- The wiper insert has a single corner specification.
- Attach the wiper insert so that the chamfered corner is in location (1) shown in the figure.
- Use the corner with the ID mark. (2) (08-size inserts have no marks)
- Refer to page N19 for details about wiper inserts.



Optimized Edge Shape (For Shoulder Milling)



- (1): The convex shape ensures cutting edge strength
- (2): The flat shape reduces step differences in shoulder milling
- (3): The wiper edge function improves the surface roughness

WFX 90° - SHELL MILLS

Rake Angle	Radial	-8°	10mm	90°	.394"	90°
	Axial	8°				

Fig 1

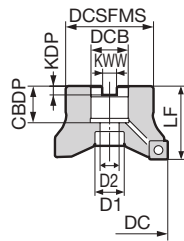


Fig 2

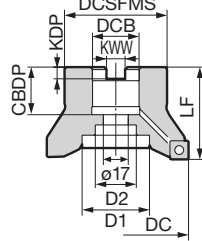


Fig 3

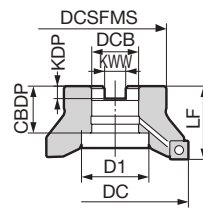


Fig 4

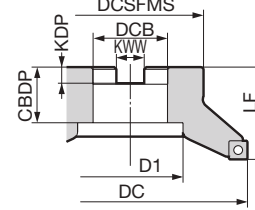
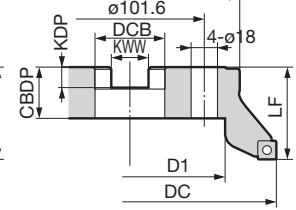


Fig 5



WFXF 40000R Type - Standard - Inch

	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	No. of Teeth	Buy Inserts Get Cutter FREE	Fig
Inch	WFXF42000R	•	2.000	1.500	1.750	0.750	0.312	0.190	0.750	3	30	1
	WFXF42500R	•	2.500	1.750	1.750	1.000	0.375	0.220	0.750	4	40	1
	WFXF43000R	•	3.000	2.250	1.750	1.000	0.375	0.220	0.750	4	40	1
	WFXF44000R	•	4.000	2.870	2.000	1.250	0.500	0.280	0.750	5	50	1
	WFXF44000R-1.50	•	4.000	3.750	2.500	1.500	0.625	0.380	1.000	5	50	3
	WFXF45000R	•	5.000	3.750	2.500	1.500	0.625	0.380	1.000	6	60	1
	WFXF46000R	•	6.000	4.380	2.500	1.500	0.625	0.380	1.060	8	80	2
	WFXF48000R	•	8.000	5.906	2.500	2.500	1.000	0.560	1.594	10	100	3

WFXF(X) 40000R Type - Extra Fine Pitch - Inch

	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	No. of Teeth	Buy Inserts Get Cutter FREE	Fig
Fine Pitch - Inch	WFXF42000R	•	2.000	1.500	1.750	0.750	0.312	0.190	0.750	4	40	1
	WFXF42500R	•	2.500	1.750	1.750	1.000	0.375	0.220	0.750	5	50	1
	WFXF43000R	•	3.000	2.250	1.750	1.000	0.375	0.220	0.750	6	60	1
	WFXF44000R	•	4.000	2.870	2.000	1.250	0.500	0.280	0.750	7	70	1
	WFXF44000R-1.50	•	4.000	3.750	2.500	1.500	0.625	0.380	1.000	7	70	3
	WFXF45000R	•	5.000	3.750	2.500	1.500	0.625	0.380	1.000	8	80	1
	WFXF46000R	•	6.000	4.380	2.500	1.500	0.625	0.380	1.060	12	120	2
	WFXF48000R	•	8.000	5.906	2.500	2.500	1.000	0.560	1.594	16	160	3
Super Fine - Inch	WFXF42000R	•	2.000	1.500	1.750	0.750	0.312	0.190	0.750	5	50	1
	WFXF42500R	•	2.500	1.750	1.750	1.000	0.375	0.220	0.750	6	60	1
	WFXF43000R	•	3.000	2.250	1.750	1.000	0.375	0.220	0.750	8	80	1
	WFXF44000R	•	4.000	2.870	2.000	1.250	0.500	0.280	0.750	10	100	1
	WFXF44000R-1.50	•	4.000	3.750	2.500	1.500	0.625	0.380	1.000	10	100	3
	WFXF45000R	•	5.000	3.750	2.500	1.500	0.625	0.380	1.000	12	120	1

WFX 12000R(S) - Standard - Metric

	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	No. of Teeth	Buy Inserts Get Cutter FREE	Fig
Metric	WFX12050RS	★	50	41	40	22	10.4	6.3	20	3	30	1
	WFX12063RS	★	63	50	40	22	10.4	6.3	20	4	40	1
	WFX12080RS	★	*80	55	50	27	12.4	7	25	4	40	1
	WFX12100RS	★	100	70	50	32	14.4	8	32	5	50	3
	WFX12080R	★	*80	55	50	25.4	9.5	6	25	4	40	1
	WFX12100R	★	*100	70	63	31.75	12.7	8	32.5	5	50	2
	WFX12125R	★	125	80	63	38.1	15.9	10	35.5	6	60	1
	WFX12160R	★	160	100	63	50.8	19.1	11	38	8	80	4
	WFX12200R	★	200	160	63	47.625	25.4	14	35	10	100	5
	WFX12250R	★	250	180	63	47.625	25.4	14	35	12	120	5

WFXF 12000R(S) -Extra Fine Pitch - Metric

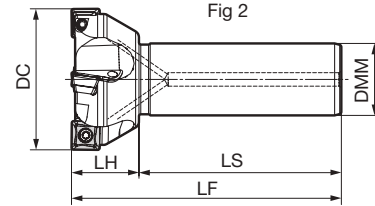
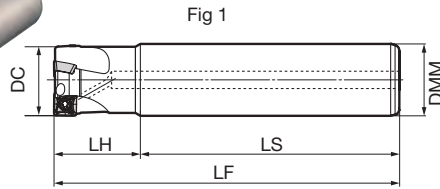
	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	No. of Teeth	Buy Inserts Get Cutter FREE	Fig
Metric	WFXF12050RS	★	50	41	40	22	10.4	6.3	20	4	40	1
	WFXF12063RS	★	63	50	40	22	10.4	6.3	20	5	50	1
	WFXF12080RS	★	*80	55	50	27	12.4	7	22	6	60	1
	WFXF12100RS	★	100	70	50	32	14.4	8	32	7	70	3
	WFXF12080R	★	*80	55	50	25.4	9.5	6	25	6	60	1
	WFXF12100R	★	*100	70	63	31.75	12.7	8	32.5	7	70	2
	WFXF12125R	★	125	80	63	38.1	15.9	10	35.5	8	80	1
	WFXF12160R	★	160	100	63	50.8	19.1	11	38	12	120	4
	WFXF12200R	★	200	160	63	47.625	25.4	14	35	16	160	5
	WFXF12250R	★	250	180	63	47.625	25.4	14	35	18	180	5

• USA stocked item

★ Worldwide Warehouse item

WFX 90° - ENDMILLS

Rake Angle	Radial	-8°	10mm	90°	.394"	90°
	Axial	8°				



Dimensions (mm)

WFX 12000E - Standard - Metric								Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Shank Dia. DMM	Head LH	Shank Length LS	Overall Length LF	Number of Teeth		
WFX12040E	★	40	32	30	90	120	3	30	1
WFX12050E	★	50	32	30	90	120	3	30	1
WFX12063E	★	63	32	30	90	120	4	40	1
WFX12080E	★	80	32	30	90	120	4	40	1

WFX 12000E - Standard - Metric								Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Shank Dia. DMM	Head LH	Shank Length LS	Overall Length LF	Number of Teeth		
WFXF12040E	★	50	32	30	90	120	4	40	1
WFXF12050E	★	63	32	30	90	120	5	50	1
WFXF12063E	★	80	32	30	90	120	6	60	1

● USA stocked item

★ Worldwide Warehouse item

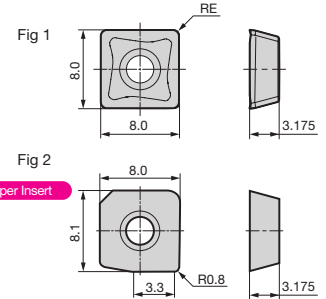
Dimensions (mm)

Inserts

		Grade		Coated Carbide						Carbide	DLC	Cermet		
Process	High-speed/Light	P				K		M	S		N			
	General-purpose		P	M	K		M	S			N		P	
	Roughing		P	M		K		M	S					
Cat. No.		ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	H1	DL1000	T4500A	Nose Radius RE	Fig	
12mm	SOMT120408PDER-L	●	●	●	●	●	●	●	-	-	-	0.031	1	
	SOMT120404PDER-G	●	●	●	●	●	●	●	-	-	-	0.016	1	
	SOMT120408PDER-G	●	●	●	●	●	●	●	-	-	●	0.031	1	
	SOMT120412PDER-G	●	●	●	●	●	●	●	-	-	-	0.047	1	
	SOMT120416PDER-G	●	●	●	●	●	●	●	-	-	-	0.063	1	
	SOMT120408PDER-H	●	●	●	●	●	●	●	-	-	-	0.031	1	
	SOET120408PDFR-S	-	-	-	-	-	-	-	●	-	●	0.031	1	
XOEW120408PDTR-W	-	-	-	-	●			-	-	●	-	2		

Fig 1

Fig 2



Identification Code - Inch

WFX F 4 2000 R

Cutter Series Fine-Pitch Insert Cutter Dia. Feed
Indication Size 2.000" Direction

Identification Code - Metric

WFX F 08 040 R S

Cutter Series M: Fine Insert Cutter Dia. Feed Metric
Pitch Size Direction Bore
F: Extra Fine Pitch



3040 N. Pointer Road • Appleton, WI 54911

800.734.2573 • 920.734.2573

Fax: 920.734.1749

Email: sales@valleytool.net

Web: www.valleytool.net

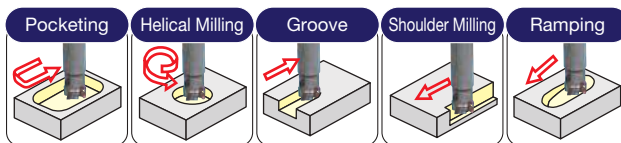


General Features

An insert with a strong cutting edge design coupled with a high rigidity body, for stable and high efficiency milling with low resistance.

The improved body and insert accuracy provides high accuracy and smooth surface finish, supporting various machining with a selection of 6 types of chipbreakers and 9 milling grades.

Compatible with Wide Range of Milling

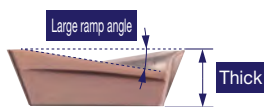
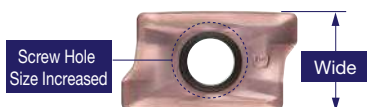


Features

Higher Accuracy Cutting Edge with Both Sharpness and Cutting Edge Strength
Unique curved cutting edge design lowers cutting force yet improves cutting edge strength. Achieves high quality machined surface with high precision cutting edge. Smooth deep groove milling even with low-rigidity machines

High-precision Curved Cutting Edge

High Rake Wave Cutting Edge



Coolant Holes are a Standard Feature for the Whole Series

Improved chip evacuation with air or coolant supply.

Highly Durable Body

Special surface treatment improves corrosion resistance and scratch resistance. Increased screw size improves clamping force and durability

WEX1000 Series

Fine-pitched and high efficiency milling is possible at a small machining cost.

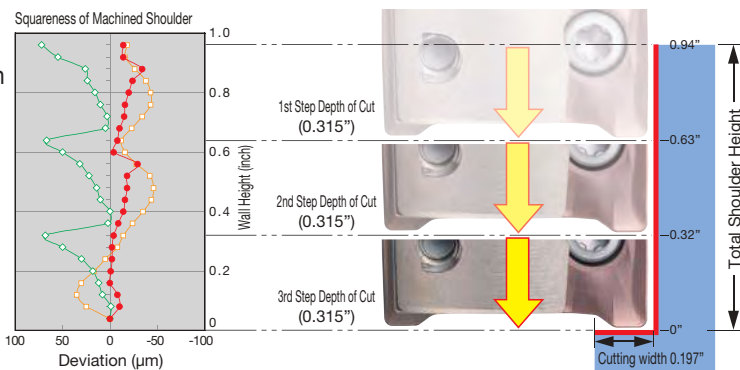
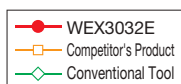
Wide Variety of Inserts

6 types of chipbreakers and 9 milling grades available for a wide range of applications and work materials

Cutting Performance

(1) Shoulder milling precision

High-precision cutting edges provide very small step marks (less than half that of competitors' products)



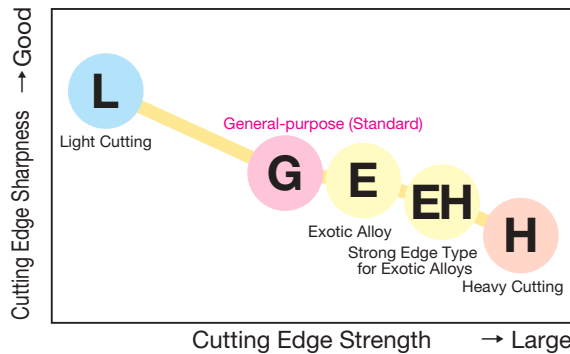
Cutting Conditions
Work Material: SS400
Tool: WEX3032E (ø32)
Insert: AXMT170508PEER-G
Grade: ACP200
Cutting Speed: $v_c=492$ SFM
Feed Rate: $f_z=0.006$ IPT ($v_f=26.57$ IPM)
Cutting Width: $a_e=0.197''$
Depth of Cut: $a_p=0.315'' \times 3$ times
Dry

Chipbreaker Lineup

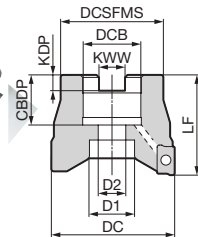
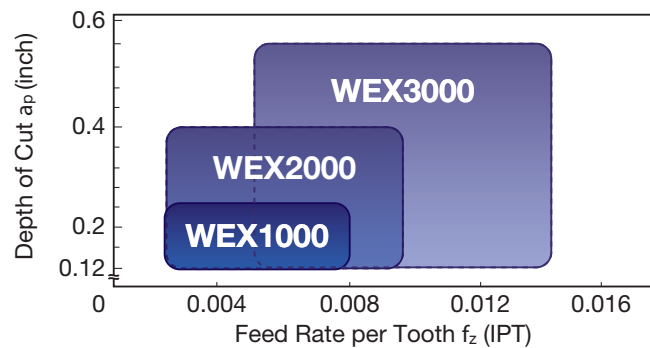
Work Material	P K			M S		N
Chipbreaker	L Type	G Type	H Type	E Type	EH Type	S Type
Features	Low Cutting Force	General-purpose Type	High Strength Type	General-Purpose Type For Exotic Alloys	Strong Edge Type For Exotic Alloys	High Rake Type
1000 Series Cross Section				-	-	
2000 Series Cross Section	-					
3000 Series Cross Section						
Applications	Light Cutting, Low Rigidity Milling and Reduction of Burrs	Main Chipbreakers General-purpose to Interrupted Milling	Roughing, Heavy Interrupted Cutting and Hardened Steel Milling	Light Cutting to General Purpose	Heavy Interrupted Machining	For Aluminum Alloy and Non-Ferrous Metal

WEX 90° - SHELL MILLS

■ Chipbreaker Selection Guide



■ WEX Type Series Application Range (Shoulder Milling)



WEX 2000 & 2000 Shell Mill (Inch & Metric) Type

Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBBDP	No. of Teeth	Buy Inserts Get Cutter FREE
Inch										
WEX21500R	●	1.500	1.339	1.562	0.750	0.312	0.187	0.750	6	60
WEX22000R	●	2.000	1.500	1.562	0.750	0.312	0.187	0.750	7	70
WEX22500R	●	2.500	1.750	1.562	1.000	0.375	0.218	0.750	8	80
Metric										
WEX2040F	★	40	32	40	16	8.4	5.6	18	6	60
WEX2050F	★	50	40	40	22	10.4	6.3	20	7	70
WEX2063F	★	63	50	40	22	10.4	6.3	20	8	80

Inserts are sold separately.

● USA stocked item

★ Worldwide Warehouse item

WEX 30000 Shell Mill Inch Type

Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBBDP	No. of Teeth	Buy Inserts Get Cutter FREE
Inch										
WEX32000R	●	2.000	1.575	1.562	0.750	0.312	0.187	0.750	5	50
WEX32500R	●	2.500	1.969	1.562	1.000	0.375	0.218	0.750	6	60
WEXC33000R	●	3.000	2.362	1.750	1.000	0.375	0.218	0.750	5	50
WEX33000R	●	3.000	2.362	1.750	1.000	0.375	0.218	0.750	7	70
WEXC34000R	●	4.000	2.756	1.750	1.250	0.500	0.281	0.750	6	60
WEXC34000R-1.50	●	4.000	3.750	2.000	1.500	0.625	0.380	1.535	6	60
WEX34000R	●	4.000	2.756	2.461	1.250	0.500	0.281	0.750	8	80
WEX34000R-1.50	●	4.000	3.750	2.000	1.500	0.625	0.380	1.535	8	80
WEXC36000R	●	6.000	4.370	2.500	1.500	0.625	0.380	1.060	8	80
WEX38000R	●	8.000	5.118	2.500	2.500	1.000	0.560	1.250	12	120

WEX 3000 Shell Mill Metric Type

Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBBDP	No. of Teeth	Buy Inserts Get Cutter FREE
Metric										
WEX3040F	★	40	32	40	16	8.4	5.6	18	4	40
WEX3050F	★	50	40	40	22	10.4	6.3	20	5	50
WEX3063F	★	63	50	40	22	10.4	6.3	20	6	60
WEX3080R	★	*80	60	50	25.4	9.5	6	25	4	40
WEX3100R	★	*100	70	63	31.75	12.7	8	32.5	5	50
WEX3125R	★	125	80	63	38.1	15.9	10	35.5	6	60

WEX 3000 Shell Mill Metric Type - Fine Pitch

Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBBDP	No. of Teeth	Buy Inserts Get Cutter FREE
Metric										
WEXF3080R	★	*80	60	50	25.4	9.5	6	25	7	70
WEXF3100R	★	*100	70	63	31.75	12.7	8	32.5	8	80
WEXF3125R	★	125	80	63	38.1	15.9	10	35.5	9	90

Inserts are sold separately.

● USA stocked item

★ Worldwide Warehouse item



For securing the ø80mm and ø100mm cutters to the arbors marked with *, use a JIS B1176 hexagonal socket bolt (ø80: M12 x 30 to 35mm, ø100: M16 x 40 to 45mm).

Parts

Flat Screw	Wrench	Anti-seize Cream
BFTX0409IP	3.0	TRDR15IP SUMI-P

Identification Code - Inch

WEX 3 2000 R

Cutter Series Insert Series Dia. 2.000" Feed Direction

Identification Code - Metric

WEX 3 040 F

Cutter Series Insert Size Dia. F: Metric R: Inch Bore

* Modification of the cutter body is required when attaching a nose radius RE = 2.0 or 3.0 insert.



Modify this portion.

Reworking guidelines

For Nose Radius of 2.0: C1 (AXMT170520PEER)

For Nose Radius of 3.0: C1.5 (AXMT170530PEER)

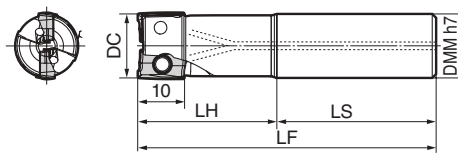
Standard: C0.5.

WEX 90° - ENDMILLS

Rake Angle	Radial 8° to 15° Axial 16° to 24°	14mm 90°	.551" 90°
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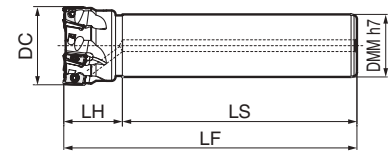


Fig 1



Dimensions (inch)

Fig 2



Dimensions (mm)

WEX 2000 - Standard & Long Type - Inch								Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	DMM	LH	LS	LF	No. of Teeth		
WEX20500EW	●	.500	.750	1.309	2.031	3.325	1	10	1
WEX20625EW	●	.625	.625	1.312	1.906	3.218	2	20	1
WEX20625EMW	●	.625	.625	1.685	1.906	3.591	2	20	2
WEXC20750EW	●	.750	.750	1.530	2.031	3.561	2	20	1
WEX20750EW	●	.750	.750	1.530	2.031	3.561	3	30	2
WEX20750EMW	●	.750	.750	2.060	2.031	4.091	3	30	1
WEX20750ELW	●	.750	.750	3.060	2.031	5.091	3	30	2
WEXC21000EW	●	1.000	1.000	1.531	2.281	3.812	3	30	2
WEXC21000EMW	●	1.000	1.000	2.560	2.281	4.841	4	40	1
WEX21000EW	●	1.000	1.000	1.530	2.281	3.811	4	40	2
WEX21250EW	●	1.250	1.250	2.250	2.281	4.531	5	50	2
WEXC20750ELC	●	.750	.750	3.080	6.000	9.000	2	20	1
WEX20750ELC	●	.750	.750	3.080	6.920	10.000	3	30	1
WEX21000ELC	●	1.000	1.000	3.157	6.843	10.000	4	40	2

Inserts are sold separately.

● USA stocked item

WEX 2000 - Standard & Long Type - Metric								Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	DMM	LH	LS	LF	No. of Teeth		
WEX2014E	★	14	16	25	55	80	1	10	1
WEX2016E	★	16	16	25	75	100	2	20	1
WEX2018E	★	18	16	25	75	100	2	20	2
WEX2020E	★	20	20	30	80	110	3	30	1
WEX2022E	★	22	20	30	80	110	3	30	2
WEX2025E	★	25	25	35	85	120	4	40	1
WEX2028E	★	28	25	35	85	120	4	40	2
WEX2030E	★	30	25	35	85	120	4	40	2
WEX2032E	★	32	32	40	90	130	5	50	1
WEX2040E	★	40	32	30	120	150	6	60	2
WEX2050E	★	50	32	30	120	150	7	70	2
WEX2063E	★	63	32	30	120	150	8	80	2
WEX2014EL	★	14	16	25	95	120	1	10	1
WEX2016EL	★	16	16	25	120	145	2	20	1
WEX2018EL	★	18	16	25	120	145	2	20	2
WEX2020EL	★	20	20	40	110	150	2	20	1
WEX2022EL	★	22	20	30	120	150	2	20	2
WEX2025EL	★	25	25	50	120	170	2	20	1
WEX2028EL	★	28	25	30	140	170	2	20	2
WEX2030EL	★	30	25	30	140	170	2	20	2
WEX2032EL	★	32	32	60	120	180	2	20	1
WEX2040EL	★	40	32	30	150	180	2	20	2

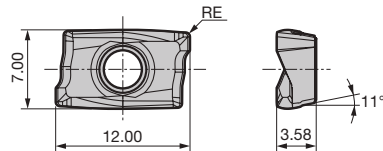
Inserts are sold separately.

★ Worldwide Warehouse item

Inserts

Grade		Coated Carbide						Carbide	DLC	Nose Radius RE
Process	High-speed / Light	P	P	K	M	S	N	N	N	
	General-purpose	P	P	K	M	S	N	N	N	
	Roughing	P	P	K	M	S	N	N	N	
Cat. No.		ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	H1	DL1000
AXMT123504PEER-G		●	●	●	●	●			-	0.4
AXMT123508PEER-G		●	●	●	●	●			-	0.8
AXMT123512PEER-G		●	●	●	●	●			-	1.2
AXMT123504PEER-H		●	●	●	●	●			-	0.4
AXMT123508PEER-H		●	●	●	●	●			-	0.8
AXMT123512PEER-H		●	●	●	●	●			-	1.2
AXMT123504PEER-E							●	●	-	0.4
AXMT123508PEER-E							●	●	-	0.8
AXMT123512PEER-E							●	●	-	1.2

Fig 1



-L: Low Cutting force, -G: General-purpose, -H: Strong Edge,
-E, -EH: Exotic Alloy, -S: Aluminum Alloy.

* marked inserts require modification of the cutter body.

Parts

Flat Screw	Wrench	Anti-seizure Cream
BFTX0409IP	3.0	TRDR15IP SUMI-P

Identification Code - Inch

WEX 3 2000 R
Cutter Series Insert Series Dia. 2.000" Feed Direction

Identification Code - Metric

WEX 3 040 F
Cutter Series Insert Size Dia. F: Metric
R: Inch Bore

* Modification of the cutter body is required when attaching a nose radius RE = 2.0 or 3.0 insert.

Modify this portion.
Reworking guidelines
For Nose Radius of 2.0: C1 (AXMT170520PEER)
For Nose Radius of 3.0: C1.5 (AXMT170530PEER)
Standard: C0.5.



Recommended Tightening Torque (N-m)

Parts (Sold Separately)

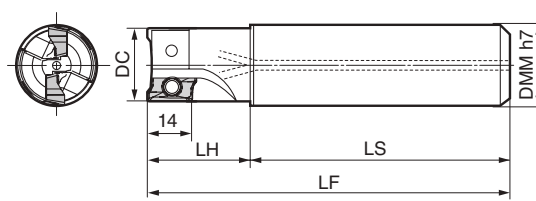
Flat Screw	
BFTX01804IP	0.5

Wrench	Anti-seizure Cream	Torque Wrench
TRX06IP	SUMI-P	TRDR06IP05

WEX 90° - ENDMILLS

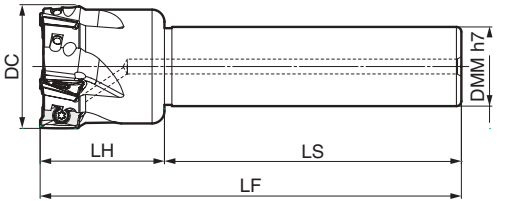


Fig 1



Dimensions (inch)

Fig 2



Dimensions (inch)

WEX 30000 - Weldon Shank Type - Inch							Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	DMM	LH	LS	LF		
WEX31000EW	●	1.000	1.000	1.530	2.281	3.811	20	2
WEX31000EMW	●	1.000	1.000	2.560	2.281	4.841	20	1
WEX31000ELW	●	1.000	1.000	4.060	2.281	6.341	20	2
WEX31250EW	●	1.250	1.250	2.250	2.281	4.531	30	2
WEX31250EMW	●	1.250	1.250	4.100	2.281	6.381	30	2
WEX31500EMW	●	1.500	1.500	4.140	2.281	6.421	30	1
WEX31500EW	●	1.500	1.500	2.250	2.281	4.531	40	2
WEX32000EW	●	2.000	2.000	2.250	2.281	4.531	50	2

Dimensions (mm)

WEX 30000 - Cylindrical Shank Type - Inch							Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	DMM	LH	LS	LF		
WEX31000ELC	●	1.000	1.000	3.137	6.863	10.000	20	1
WEX31250ELC	●	1.250	1.250	3.149	6.851	10.000	30	2
WEX31500ELC	●	1.500	1.250	3.000	7.000	10.000	40	2

Inserts are sold separately.

● USA stocked item

WEX 3000 - Metric							Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	DMM	LH	LS	LF		
WEX3025E-20	★	25	20	35	85	120	20	2
WEX3025E	★	25	25	35	85	120	20	1
WEX3028E	★	28	25	35	85	120	20	2
WEX3030E	★	30	25	40	90	130	30	2
WEX3032E-25	★	32	25	40	90	130	30	2
WEX3032E	★	32	32	40	90	130	30	1
WEX3035E	★	35	32	40	90	130	30	2
WEX3040E	★	40	32	50	120	170	40	2
WEX3050E	★	50	32	50	120	170	50	2
WEX3063E	★	63	32	50	120	170	60	2

Dimensions (mm)

WEX 3000 - Short Type - Metric							Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	DMM	LH	LS	LF		
WEX3050ES	★	50	32	25	110	135	50	2
WEX3050ES-42	★	50	42	25	110	135	50	2
WEX3063ES	★	63	32	25	110	135	60	2
WEX3063ES-42	★	63	42	25	110	135	60	2

Inserts are sold separately.

WEX 3000 - Long Type - Metric							Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	DMM	LH	LS	LF		
WEX3025EL	★	25	25	50	120	170	20	1
WEX3028EL	★	28	25	50	120	170	20	2
WEX3030EL	★	30	25	60	120	180	20	2
WEX3032EL	★	32	32	60	120	180	20	1
WEX3035EL	★	35	32	60	120	180	20	2
WEX3040EL	★	40	32	80	140	220	20	2

Dimensions (mm)

WEX3000 - Coarse Pitch Type - Metric							Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	DMM	LH	LS	LF		
WEX3040E-C	★	40	32	50	120	170	30	2
WEX3050E-C	★	50	32	50	120	170	30	2
WEX3063E-C	★	63	32	50	120	170	40	2

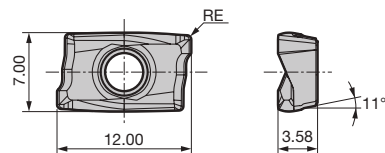
WEX 3000 - Short Coarse Pitch Type - Metric							Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	DMM	LH	LS	LF		
WEX3050ES-C	★	50	32	25	110	135	30	2
WEX3050ES-C-42	★	50	42	25	110	135	30	2
WEX3063ES-C	★	63	32	25	110	135	40	2
WEX3063ES-C-42	★	63	42	25	110	135	40	2

★ Worldwide Warehouse item

Inserts

Grade		Coated Carbide						Carbide	DLC	Nose Radius RE
Process	High-speed / Light	P	M	K	S	N		K	N	
	General-purpose	P	M	K	S	N		K	N	
	Roughing	P	M	K	S	N		K	N	
Cat. No.		ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	H1	DL1000
AXMT123504PEER-G		●	●	●	●	●			-	-
AXMT123508PEER-G		●	●	●	●	●			-	-
AXMT123512PEER-G		●	●	●	●	●			-	-
AXMT123504PEER-H		●	●	●	●	●			-	-
AXMT123508PEER-H		●	●	●	●	●			-	-
AXMT123512PEER-H		●	●	●	●	●			-	-
AXMT123504PEER-E							●	●	-	-
AXMT123508PEER-E							●	●	-	-
AXMT123512PEER-E							●	●	-	-

Fig 1



-L: Low Cutting force, -G: General-purpose, -H: Strong Edge,
-E, -EH: Exotic Alloy, -S: Aluminum Alloy.

* marked inserts require modification of the cutter body.

Grade		Coated Carbide						Carbide	DLC	Nose Radius RE
Process	High-speed / Light	P	M	K	S	N		K	N	
	General-purpose	P	M	K	S	N		K	N	
	Roughing	P	M	K	S	N		K	N	
Cat. No.		ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	H1	DL1000
AXMT170508PEER-L		●	●	●	●	●			-	-
AXMT170504PEER-G		●	●	●	●	●			-	-
AXMT170508PEER-G		●	●	●	●	●			-	-
AXMT170512PEER-G		●	●	●	●	●			-	-
AXMT170516PEER-G		●	●	●	●	●			-	-
AXMT170520PEER-G*		●	●	●	●	●			-	-
AXMT170530PEER-G*		●	●	●	●	●			-	-
AXMT170508PEER-H		●	●	●	●	●			-	-
AXMT170512PEER-H		●	●	●	●	●			-	-
AXMT170504PEER-E							●	●	-	-
AXMT170508PEER-E							●	●	-	-
AXMT170512PEER-E							●	●	-	-
AXMT170516PEER-E							●	●	-	-
AXMT170520PEER-E*							●	●	-	-
AXMT170530PEER-E*							●	●	-	-
AXMT170508PEER-EH							●	●	-	-
AXET170502PEFR-S		-	-	-	-	-	-	-	●	0.2
AXET170504PEFR-S		-	-	-	-	-	-	-	●	0.4
AXET170508PEFR-S		-	-	-	-	-	-	-	●	0.8



SEC-Sumi Dual Mill

TSX

■ Features

- Excellent Machined Surface Quality
Adopts ground insert for high accuracy to produce excellent machined surface quality.
- Cutting Edge Designed for High Cutting Edge Strength and Sharpness
Adopts tangential insert and optimized cutting edge shape to achieve both high cutting edge strength and sharpness.
- Wide Ranging Product Lineup
An enhanced lineup of grades is available in addition to 2 types of insert sizes and 3 types of chipbreakers.
Can be used for various machining applications.

Insert

Dimensions (inch / mm)

Grade		Coated Carbide								
Process	High-speed / Light									
	General-purpose									
	Roughing									
Cat. No.		ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	Nose Radius RE	Fig
LNEX080404PNER-L			●	●	●	●	●	●	0.016 / 0.4	1
LNEX080408PNER-L			●	●	●	●	●	●	0.032 / 0.8	1
LNEX080412PNER-L			●			●	●	●	0.047 / 1.2	1
LNEX080416PNER-L			●			●	●	●	0.063 / 1.6	1
LNEX080404PNER-G		●	●	●	●	●	●	●	0.016 / 0.4	1
LNEX080408PNER-G		●	●	●	●	●	●	●	0.032 / 0.8	1
LNEX080412PNER-G		●	●	●	●	●	●	●	0.047 / 1.2	1
LNEX080416PNER-G		●	●	●	●	●	●	●	0.063 / 1.6	1

Fig 1

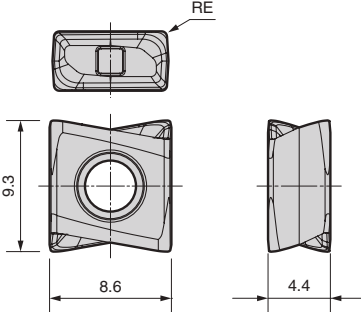


Fig 1

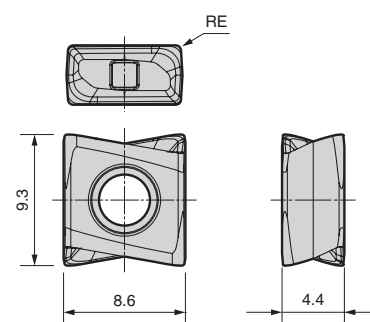
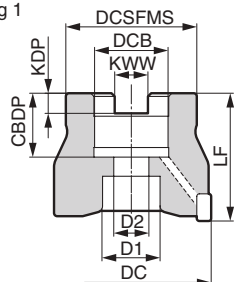


Fig 1



TSX 31000R & 08000R(S) Type - Standard							Applicable Insert: LNEX08				Buy Inserts Get Cutter FREE	Fig
	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CB DP	No. of Teeth		
Inch	TSX31500R	●	1.500	1.339	1.750	0.750	0.312	0.190	0.750	4	40	1
	TSX32000R	●	2.000	1.500	1.750	0.750	0.312	0.190	0.750	5	50	1
	TSX32500R	●	2.500	1.750	1.750	1.000	0.375	0.220	0.750	6	60	1
Metric	TSX08040RS	★	40	33	40	16.0	8.4	5.6	18	4	40	1
	TSX08050RS	★	50	41	40	22.0	10.4	6.3	20	5	50	1
	TSX08063RS	★	63	50	40	22.0	10.4	6.3	20	6	60	1
	TSX08080RS	★	*80	55	50	27.0	12.4	7.0	22	7	70	1
	TSX08080R	★	*80	55	50	25.4	9.5	6.0	25	7	70	1
TSX 31000R & 08000R(S) Type - Standard							Applicable Insert: LNEX08				Buy Inserts Get Cutter FREE	Fig
	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CB DP	No. of Teeth		
Inch	TSXF31500R	●	1.500	1.339	1.750	0.750	0.312	0.190	0.750	6	60	1
	TSXF32000R	●	2.000	1.500	1.750	0.750	0.312	0.190	0.750	8	80	1
	TSXF32500R	●	2.500	1.750	1.750	1.000	0.375	0.220	0.750	10	100	1
Metric	TSXF08040RS	★	40	33	40	16.0	8.4	5.6	18	6	60	1
	TSXF08050RS	★	50	41	40	22.0	10.4	6.3	20	8	80	1
	TSXF08063RS	★	63	50	40	22.0	10.4	6.3	20	10	100	1
	TSXF08080RS	★	*80	55	50	27.0	12.4	7.0	22	11	110	1
	TSXF08080R	★	*80	55	50	25.4	9.5	6.0	25	11	110	1

● USA stocked item

★ Worldwide Warehouse item

Identification Code - Inch

TSX F 3 2000 R

Cutter Series Extra Insert Cutter Dia. Feed
Fine Pitch Series 2.000" Direction

Identification Code - Metric

TSX F 08 050 R S

Cutter Series Extra Insert Size Cutter Dia. Feed Metric
Fine Pitch Direction Bore

Recommended Cutting Conditions

ISO	Work Material	Hardness	Cutting Speed v_c (m/min) Min. - Optimum - Max.	Feed Rate f_z (mm/t) Min. - Optimum - Max.	Insert Grade
P	Carbon Steel	180 to 280 HB	150 - 225 - 300	0.08 - 0.20 - 0.30	ACP100
		> 280HB	75 - 150 - 230	0.08 - 0.20 - 0.30	ACP200
	Alloy Steel	180 to 280 HB	100 - 175 - 250	0.08 - 0.15 - 0.25	ACP300
M	Stainless Steel	220 to 280 HB	90 - 135 - 180	0.08 - 0.15 - 0.25	ACM200
		> 280HB	75 - 125 - 170	0.08 - 0.15 - 0.25	ACM300
K	Cast Iron/Ductile Cast Iron	250HB	150 - 175 - 250	0.08 - 0.20 - 0.30	ACK200 ACK300
S	Exotic Alloy	-	30 - 60 - 90	0.05 - 0.10 - 0.15	ACM200 ACM300

TSX - SHELL MILLS

Rake Angle	Radial	-23° to 15°	.473"	90°	12mm	90°
	Axial	-6°				



Fig 1

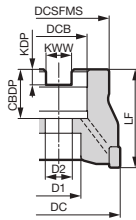


Fig 2

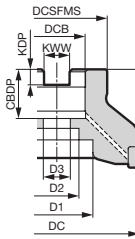


Fig 3

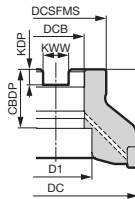


Fig 4

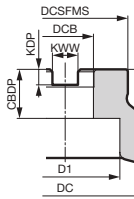


Fig 5

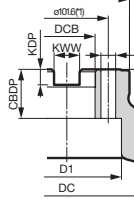
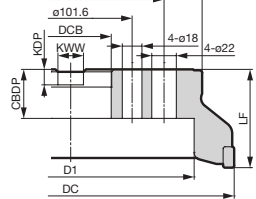


Fig 6



For TSX 13160RS
*1: ø66.7 *2: 4-ø14

Dimensions (inch / mm)

TSX 4000R & 13000R(S) Type - Standard													Applicable Insert: LNE13 (see page 27)		Buy Inserts Get Cutter FREE		Fig
	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	Bolt D1	Bolt D2	Weight (lb / kg)	No. of Teeth				
Inch	TSX41500R	•	1.500	1.339	1.750	0.750	0.312	0.190	0.750	0.609	0.406	0.44	4	40			1
	TSX42000R	•	2.000	1.500	1.750	0.750	0.312	0.190	0.750	0.609	0.406	0.66	5	50			1
	TSX42500R	•	2.500	1.750	1.750	1.000	0.375	0.220	0.750	0.797	0.531	1.10	6	60			1
	TSX43000R	•	3.000	2.250	1.750	1.000	0.375	0.220	0.750	0.797	0.531	1.76	7	70			1
	TSX44000R	•	4.000	2.870	2.000	1.500	0.625	0.380	1.000	2.000	0.781	4.85	9	90			2
	TSX45000R	•	5.000	3.750	2.500	1.500	0.625	0.380	1.000	2.000	0.781	7.50	12	120			2
Metric	TSX46000R	•	6.000	4.380	2.500	1.500	0.625	0.380	1.000	2.000	0.781	11.0	14	140			2
	TSX13040RS	★	40	33	40	16.0	8.4	5.6	18.0	14	9	0.20	3	30			1
	TSX13050RS	★	50	41	40	22.0	10.4	6.3	20.0	18	11	0.30	4	40			1
	TSX13063RS	★	63	50	40	22.0	10.4	6.3	20.0	18	11	0.50	5	50			1
	TSX13080RS	★	*80	55	50	27.0	12.4	7.0	22.0	20	14	0.92	5	50			1
	TSX13100RS	★	100	70	50	32.0	14.4	8.0	32.0	46	-	1.35	6	60			3
	TSX13125RS	★	125	80	63	40.0	16.4	9.0	29.0	52	29	2.55	7	70			1
	TSX13160RS	★	160	130	63	40.0	16.4	9.0	29.0	90	-	4.97	8	80			5*
	TSX13200RS	★	200	160	63	60.0	25.7	14.0	35.0	135	-	6.20	12	120			5
	TSX13250RS	★	250	180	63	60.0	25.7	14.0	35.0	160	-	9.35	14	140			5
	TSX13315RS	★	315	240	63	60.0	25.7	14.0	35.0	230	-	16.42	16	160			6
	TSX13080R	★	*80	55	50	25.4	9.5	6.0	25.0	20	14	0.93	5	50			1
	TSX13100R	★	*100	70	63	31.75	12.7	8.0	32.0	46	27	1.88	6	60			2
	TSX13125R	★	125	80	63	38.1	15.9	10.0	35.5	55	30	2.61	7	70			1
	TSX13160R	★	160	100	63	50.8	19.1	11.0	38.0	72	-	4.18	8	80			4
	TSX13200R	★	200	160	63	47.625	25.4	14.0	35.0	135	-	6.36	12	120			5
	TSX13250R	★	250	180	63	47.625	25.4	14.0	35.0	160	-	9.60	14	140			5
	TSX13315R	★	315	240	63	47.625	25.4	14.0	35.0	230	-	16.68	16	160			6
TSXM 13000R(S) Type - Fine Pitch													Applicable Insert: LNE13 (see page 27)		Buy Inserts Get Cutter FREE		Fig
	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	Bolt D1	Bolt D2	Weight (lb / kg)	No. of Teeth				
Metric	TSXM13040RS	★	40	33	40	16.0	8.4	5.6	18.0	14	9	0.19	4	40			1
	TSXM13050RS	★	50	41	40	22.0	10.4	6.3	20.0	18	11	0.28	5	50			1
	TSXM13063RS	★	63	50	40	22.0	10.4	6.3	20.0	18	11	0.50	6	60			1
	TSXM13080RS	★	*80	55	50	27.0	12.4	7.0	22.0	20	14	0.92	7	70			1
	TSXM13100RS	★	100	70	50	32.0	14.4	8.0	32.0	46	-	1.36	8	80			3
	TSXM13125RS	★	125	80	63	40.0	16.4	9.0	29.0	52	29	2.57	10	100			1
	TSXM13160RS	★	160	130	63	40.0	16.4	9.0	29.0	90	-	5.02	12	120			5*
	TSXM13200RS	★	200	160	63	60.0	25.7	14.0	35.0	135	-	6.32	16	160			5
	TSXM13250RS	★	250	180	63	60.0	25.7	14.0	35.0	160	-	9.42	20	200			5
	TSXM13315RS	★	315	240	63	60.0	25.7	14.0	35.0	230	-	16.37	24	240			6
	TSXM13080R	★	*80	55	50	25.4	9.5	6.0	25.0	20	14	0.93	7	70			1
	TSXM13100R	★	*100	70	63	31.75	12.7	8.0	32.0	46	27	1.90	8	80			2
	TSXM13125R	★	125	80	63	38.1	15.9	10.0	35.5	55	30	2.62	10	100			1
	TSXM13160R	★	160	100	63	50.8	19.1	11.0	38.0	72	-	4.22	12	120			4
	TSXM13200R	★	200	160	63	47.625	25.4	14.0	35.0	135	-	6.48	16	160			5
	TSXM13250R	★	250	180	63	47.625	25.4	14.0	35.0	160	-	9.68	20	200			5
	TSXM13315R	★	315	240	63	47.625	25.4	14.0	35.0	230	-	16.63	24	240			6

Inserts are sold separately. Check the pilot diameter (DCB) when selecting the cutter.

• USA stocked item

★ Worldwide Warehouse item



For securing the ø80mm and ø100mm cutters to the arbors marked with *, use a JIS B1176 hexagonal socket bolt (ø80: M12 x 30 to 35mm, ø100: M16 x 40 to 45mm).

Identification Code - Inch

TSX 4 2000 R

Cutter Series Insert Series Cutter Dia. 2.000" Feed Direction

Identification Code - Metric

TSX 13 100 R S

Cutter Series Insert Size Cutter Dia. Feed Metric Direction Bore

Milling Cutters

Face Milling

Shoulder Milling

TSX - SHELLMILLS & ENDMILLS

Rake Angle	Radial	-23° to 15°	473"	90°	12mm	90°
	Axial	-6°				

Fig 1

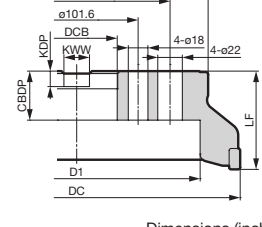
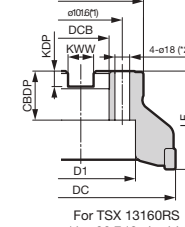
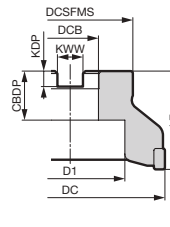
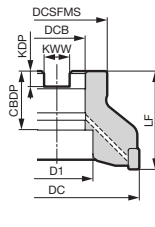
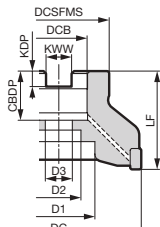
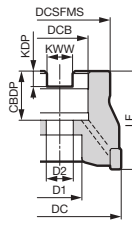
Fig 2

Fig 3

Fig 4

Fig 5

Fig 6



For TSX 13160RS
*1: ø66.7 *2: 4-ø14

Dimensions (inch / mm)

TSX 4000R & 13000R(S) Type - Standard

Applicable Insert: LNEX13 (see page 27)

Buy Inserts
Get Cutter
FREE

	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	Bolt D1	Bolt D2	Weight (lb / kg)	No. of Teeth		Fig
Inch	TSXF41500R	●	1.500	1.339	1.750	0.750	0.312	0.190	0.750	0.609	0.406	0.44	5	50	
	TSXF42000R	●	2.000	1.500	1.750	0.750	0.312	0.190	0.750	0.609	0.406	0.66	6	60	
	TSXF42500R	●	2.500	1.750	1.750	1.000	0.375	0.220	0.750	0.797	0.531	1.10	8	80	
	TSXF43000R	●	3.000	2.250	1.750	1.000	0.375	0.220	0.750	0.797	0.531	1.76	10	100	
	TSXF44000R	●	4.000	2.870	2.000	1.500	0.625	0.380	1.000	2.000	0.781	4.85	13	130	
Metric	TSXF13040RS	★	40	33	40	16.0	8.4	5.6	18.0	14	9	0.18	5	50	1
	TSXF13050RS	★	50	41	40	22.0	10.4	6.3	20.0	18	11	0.29	6	60	1
	TSXF13063RS	★	63	50	40	22.0	10.4	6.3	20.0	18	11	0.50	7	70	1
	TSXF13080RS	★	*80	55	50	27.0	12.4	7.0	22.0	20	14	0.92	8	80	1
	TSXF13100RS	★	100	70	50	32.0	14.4	8.0	32.0	46	-	1.34	10	100	3
	TSXF13125RS	★	125	80	63	40.0	16.4	9.0	29.0	52	29	2.58	14	140	1
	TSXF13160RS	★	160	130	63	40.0	16.4	9.0	29.0	90	-	5.08	16	160	5
Inch	TSXF13080R	★	*80	55	50	25.4	9.5	6.0	25.0	20	14	0.93	8	80	1
	TSXF13100R	★	*100	70	63	31.75	12.7	8.0	32.0	46	27	1.88	10	100	2
	TSXF13125R	★	125	80	63	38.1	15.9	10.0	35.5	55	30	2.60	14	140	1
	TSXF13160R	★	160	100	63	50.8	19.1	11.0	38.0	72	-	4.28	16	160	4

Fig 1

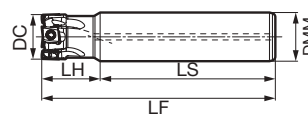
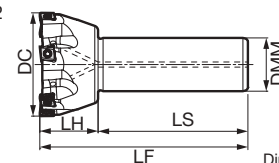


Fig 2



Dimensions (inch / mm)

TSX 30000EW & 08000E Type - Standard

Applicable Insert: LNEX08 (see page 24)

Buy Inserts
Get Cutter
FREE

	Cat. No.	Stock	Dia. DC	Shank Dia. DMM	Head LH	Shank Length LS	Overall Length LF	Weight (kg)	Number of Teeth		Fig
Inch	TSX30625EW	●	0.625	0.625	1.312	1.906	3.218	0.22	2	20	
	TSX30750EW	●	0.750	0.750	1.534	2.030	3.563	0.35	2	20	
	TSX31000EW	●	1.000	1.000	2.060	2.281	4.341	0.88	3	30	
	TSX31250EW	●	1.250	1.250	2.060	2.281	4.341	1.32	3	30	
	TSX31500EW	●	1.500	1.250	2.060	2.281	4.341	1.54	4	40	
Metric	TSX08016E	★	16	16	25	75	100	0.13	2	20	1
	TSX08020E	★	20	20	30	80	110	0.22	2	20	1
	TSX08020E-16	★	20	16	30	80	110	0.15	2	20	1
	TSX08025E	★	25	25	30	90	120	0.40	3	30	1
	TSX08025E-20	★	25	20	30	90	120	0.26	3	30	3
	TSX08032E	★	32	32	30	90	120	0.67	3	30	1
	TSX08032E-25	★	32	25	30	90	120	0.43	3	30	5
	TSX08040E	★	40	32	30	90	120	0.72	4	40	1
	TSX08050E	★	50	32	30	90	120	0.85	5	50	2
	TSX08063E	★	63	32	35	90	125	1.09	6	60	1
	TSX08080E	★	80	32	35	90	125	1.44	7	70	4

TSXF 30000EW & 08000E Type - Extra Fine Pitch

Buy Inserts
Get Cutter
FREE

	Cat. No.	Stock	Dia. DC	Shank Dia. DMM	Head LH	Shank Length LS	Overall Length LF	Weight (kg)	Number of Teeth		Fig
Inch	TSXF30750EW	●	0.750	0.750	1.534	2.030	3.563	0.44	3	30	
	TSXF31000EW	●	1.000	1.000	2.060	2.281	4.341	0.88	4	40	
	TSXF31250EW	●	1.250	1.250	2.060	2.281	4.341	1.32	5	50	
	TSXF31500EW	●	1.500	1.250	2.060	2.281	4.341	1.54	6	60	
Metric	TSXF08020E	★	20	20	30	80	110	0.22	3	30	
	TSXF08025E	★	25	25	30	90	120	0.40	4	04	1
	TSXF08032E	★	32	32	30	90	120	0.67	5	50	1
	TSXF08040E	★	40	32	30	90	120	0.73	6	60	2
	TSXF08050E	★	50	32	30	90	120	0.85	8	80	1
	TSXF08063E	★	63	32	35	90	125	1.10	10	100	2
	TSXF08080E	★	80	32	35	90	125	1.42	11	110	1

● USA stocked item

★ Worldwide Warehouse item

TSX - ENDMILLS

Fig 1

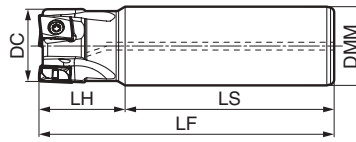
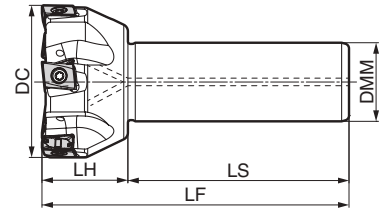


Fig 2



Rake Angle	Radial	-23° to 15°	.473"	90°	12mm	90°
	Axial	-6°				

TSX 40000EW & 13000E Type - Standard								Number of Teeth	Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Shank Dia. DMM	Head LH	Shank Length LS	Overall Length LF	Weight (kg)			
Inch										
TSX41000EW	●	1.000	1.000	2.060	2.281	4.341	0.66	2	20	1
TSX41250EW	●	1.250	1.250	2.060	2.281	4.341	1.32	2	20	1
TSX41500EW	●	1.500	1.250	2.060	2.281	4.341	1.54	3	30	1
Metric										
TSX13025E	★	25	25	35	85	120	0.38	2	20	1
TSX13032E	★	32	32	35	85	120	0.66	2	20	1
TSX13040E	★	40	32	30	90	120	0.71	3	30	2
TSX13050E	★	50	32	30	90	120	0.81	4	40	2
TSX13063E	★	63	32	35	90	125	1.08	5	50	2
TSX13080E	★	80	32	35	90	125	1.40	5	50	2
TSXM 13000E Type - Fine Pitch								Number of Teeth	Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Shank Dia. DMM	Head LH	Shank Length LS	Overall Length LF	Weight (kg)			
Metric										
TSXM13032E	★	32	32	35	85	120	0.65	3	30	1
TSXM13040E	★	40	32	30	90	120	0.71	4	40	1
TSXM13050E	★	50	32	30	90	120	0.80	5	50	1
TSXM13063E	★	63	32	35	90	125	1.07	6	60	1
TSXM13080E	★	80	32	35	90	125	1.41	7	70	1
TSXF 40000EW & 13000E Type - Extra Fine Pitch								Number of Teeth	Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Shank Dia. DMM	Head LH	Shank Length LS	Overall Length LF	Weight (kg)			
Inch										
TSXF41250EW	●	1.250	1.250	2.060	2.281	4.341	1.32	3	30	1
TSXF41500EW	●	1.500	1.250	2.060	2.281	4.341	1.78	4	40	1
Metric										
TSXF13040E	★	40	32	30	90	120	0.70	5	50	2
TSXF13050E	★	50	32	30	90	120	0.80	6	60	2
TSXF13063E	★	63	32	30	90	125	1.07	7	70	2
TSXF13080E	★	80	32	35	90	125	1.42	8	80	2

Insert

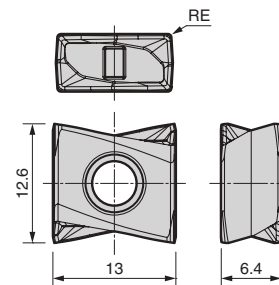
Dimensions (inch / mm)

Grade		Coated Carbide						Nose Radius RE	Fig
Process	High-speed / Light								
	General-purpose								
	Roughing								
Cat. No.		ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	
LNEX130604PNER-L		●	●	●	●	●	●	●	0.016 / 0.4 1
LNEX130608PNER-L		●	●	●	●	●	●	●	0.032 / 0.8 1
LNEX130612PNER-L		●	●	●	●	●	●	●	0.047 / 1.2 1
LNEX130616PNER-L		●	●	●	●	●	●	●	0.063 / 1.6 1
LNEX130620PNER-L		●	●	●	●	●	●	●	0.079 / 2.0 1
LNEX130624PNER-L		●	●	●	●	●	●	●	0.094 / 2.4 1
LNEX130632PNER-L		●	●	●	●	●	●	●	0.126 / 3.2 1
LNEX130604PNER-G		●	●	●	●	●	●	●	0.016 / 0.4 1
LNEX130608PNER-G		●	●	●	●	●	●	●	0.032 / 0.8 1
LNEX130612PNER-G		●	●	●	●	●	●	●	0.047 / 1.2 1
LNEX130616PNER-G		●	●	●	●	●	●	●	0.063 / 1.6 1
LNEX130620PNER-G		●	●	●	●	●	●	●	0.079 / 2.0 1
LNEX130624PNER-G		●	●	●	●	●	●	●	0.094 / 2.4 1
LNEX130632PNER-G		●	●	●	●	●	●	●	0.126 / 3.2 1
LNEX130604PNER-H		●	●	●	●	●	●	●	0.016 / 0.4 1
LNEX130608PNER-H		●	●	●	●	●	●	●	0.032 / 0.8 1
LNEX130612PNER-H		●	●	●	●	●	●	●	0.047 / 1.2 1
LNEX130616PNER-H		●	●	●	●	●	●	●	0.063 / 1.6 1
LNEX130620PNER-H		●	●	●	●	●	●	●	0.079 / 2.0 1
LNEX130624PNER-H		●	●	●	●	●	●	●	0.094 / 2.4 1
LNEX130632PNER-H		●	●	●	●	●	●	●	0.126 / 3.2 1

TSX Parts

Screw	Wrench	Anti-seizure Cream
BFTX0308IP 2.0	TRDR08IP	SUMI-P

Fig 1



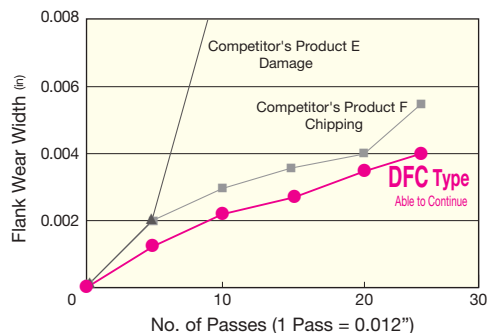


General Features

The high-efficiency general-purpose SEC-Sumi Dual Mill DFC Type has a unique insert shape with both excellent sharpness and cutting edge strength, enabling it to be used for a wider range of applications from high-efficiency machining through to finishing.

Further expansion of the shoulder milling GS Type chipbreaker, suitable for a wide range of applications.

Wear resistance: Achieves long tool life thanks to excellent wear resistance



Comparison of cutting edge damage

DFC Type: After 25 passes



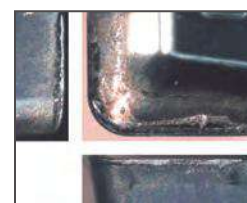
Little damage / Able to continue

Competitor's Product E: After 10 passes



Breakage

Competitor's Product F: After 25 passes



Extremely damaged

Work Material: S50C Tool: DFC 09100RS Insert: XNMU 060608PNER-G Grade: ACP200 Cutting Conditions: $v_c = 656$ SFM, $f_z = 0.008$ IPT, $a_p = 0.12"$, $a_e = 3.35"$ Dry

Fig 1

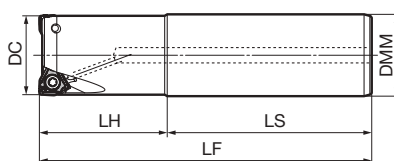
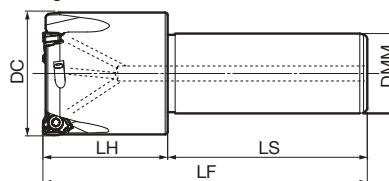


Fig 2



DFC 20000EW & 09000E - Standard								Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Shank Dia. DMM	Head LH	Shank Length LS	Overall Length LF	Number of Teeth		
Inch									
DFC21000EW	●	1.000	1.000	2.060	2.281	4.341	2	20	1
DFC21250EW	●	1.250	1.250	2.060	2.281	4.341	3	30	1
DFC21500EW	●	1.500	1.250	2.060	2.281	4.341	3	30	1
DFC22000EW	●	2.000	1.250	2.060	2.281	4.341	4	40	1
DFC22500EW	●	2.500	1.250	2.060	2.281	4.341	5	50	1
Metric									
DFC09025E	★	25	25	40	80	120	2	20	1
DFC09032E	★	32	32	50	80	130	2	20	1
DFC09040E	★	40	32	50	80	130	3	30	2
DFC09050E	★	50	32	50	80	130	3	30	2
DFC09050E-42		50	42	50	100	150	3	30	2
DFC09063E	★	63	32	50	80	130	4	40	2
DFC09063E-42		63	42	50	100	150	4	40	2
DFC09080E	★	80	32	50	80	130	5	50	2
DFC09080E-42		80	42	50	100	150	5	50	2
DFCM 20000EW & 09000E - Fine Pitch								Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Shank Dia. DMM	Head LH	Shank Length LS	Overall Length LF	Number of Teeth		
Inch									
DFCM21500EW	●	1.500	1.250	2.060	2.281	4.341	4	40	1
DFCM22000EW	●	2.000	1.250	2.060	2.281	4.341	5	50	1
DFCM22500EW	●	2.500	1.250	2.060	2.281	4.341	7	70	1
Metric									
DFCM09032E	★	32	32	50	80	130	3	30	1
DFCM09040E	★	40	32	50	80	130	4	40	2
DFCM09050E	★	50	32	50	80	130	5	50	2
DFCM09050E-42		50	42	50	100	150	5	50	2
DFCM09063E	★	63	32	50	80	130	6	60	2
DFCM09063E-42		63	42	50	100	150	6	60	2
DFCM09080E	★	80	32	50	80	130	7	70	2
DFCM09080E-42		80	42	50	100	150	7	70	2

● USA stocked item

★ Worldwide Warehouse item

DFC - SHELL MILLS

Rake Angle	Radial	-9°
	Axial	-5°
		.236" 90°
		6mm 90°

Fig 1

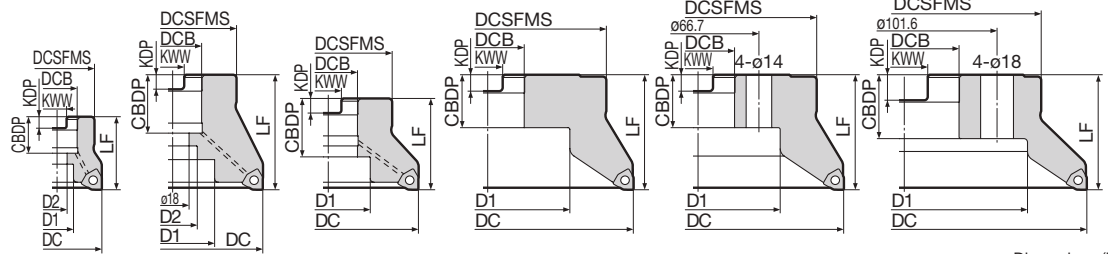
Fig 2

Fig 3

Fig 4

Fig 5

Fig 6



Dimensions (inch)

DFC 22000R Type - Standard													Buy Inserts Get Cutter FREE	
	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	Bolt D1	Bolt D2	Number of Teeth		Fig
Inch	DFC22000R	●	2.000	1.500	1.750	0.750	0.312	0.190	0.750	0.609	0.406	4	40	1
	DFC22500R	●	2.500	1.750	1.750	1.000	0.375	0.220	0.750	0.797	0.531	5	50	1
	DFC23000R	●	3.000	2.250	1.750	1.000	0.375	0.220	0.750	0.797	0.531	6	60	1
	DFC24000R	●	4.000	2.870	2.000	1.250	0.500	0.280	0.750	1.000	0.656	6	60	1
	DFC24000R-1.50	●	4.000	3.150	2.500	1.500	0.625	0.380	1.000	2.000	1.181	6	60	2
	DFC25000R	●	5.000	3.750	2.500	1.500	0.625	0.380	1.000	2.000	1.181	7	70	2
	DFC26000R	●	6.000	4.380	2.500	1.500	0.625	0.380	1.000	2.000	1.181	8	80	2
	DFC28000R	●	8.000	5.906	2.500	2.500	1.000	0.560	1.594	5.118	-	10	100	6
DFCM 22000R Type - Fine Pitch													Buy Inserts Get Cutter FREE	
	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	Bolt D1	Bolt D2	Number of Teeth		Fig
Inch	DFCM22000R	●	2.000	1.500	1.750	0.750	0.312	0.190	0.750	0.609	0.406	5	50	1
	DFCM22500R	●	2.500	1.750	1.750	1.000	0.375	0.220	0.750	0.797	0.531	6	60	1
	DFCM23000R	●	3.000	2.250	1.750	1.000	0.375	0.220	0.750	0.797	0.531	8	80	1
	DFCM24000R	●	4.000	2.870	2.000	1.250	0.500	0.280	0.750	1.000	0.656	10	100	1
	DFCM24000R-1.50	●	4.000	3.150	2.500	1.500	0.625	0.380	1.000	2.000	1.181	10	100	2
	DFCM25000R	●	5.000	3.750	2.500	1.500	0.625	0.380	1.000	2.000	1.181	12	120	2
	DFCM26000R	●	6.000	4.380	2.500	1.500	0.625	0.380	1.000	2.000	1.181	14	140	2
	DFCM28000R	●	8.000	5.906	2.500	2.500	1.000	0.560	1.594	5.118	-	15	150	6
DFCF 22000R Type - Extra Fine Pitch													Buy Inserts Get Cutter FREE	
	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	Bolt D1	Bolt D2	Number of Teeth		Fig
Inch	DFCF22000R	●	2.000	1.500	1.750	0.750	0.312	0.190	0.750	0.609	0.406	6	60	1
	DFCF22500R	●	2.500	1.750	1.750	1.000	0.375	0.220	0.750	0.797	0.531	7	70	1
	DFCF23000R	●	3.000	2.250	1.750	1.000	0.375	0.220	0.750	0.797	0.531	9	90	1
	DFCF24000R	●	4.000	2.870	2.000	1.250	0.500	0.280	0.750	1.000	0.656	11	110	1
	DFCF24000R-1.50	●	4.000	3.150	2.500	1.500	0.625	0.380	1.000	2.000	1.181	11	110	1
	DFCF25000R	●	5.000	3.750	2.500	1.500	0.625	0.380	1.000	2.000	1.181	14	140	2
	DFCF26000R	●	6.000	4.380	2.500	1.500	0.625	0.380	1.000	2.000	1.181	16	160	2
	DFCF28000R	●	8.000	5.906	2.500	2.500	1.000	0.560	1.594	5.118	-	20	200	6

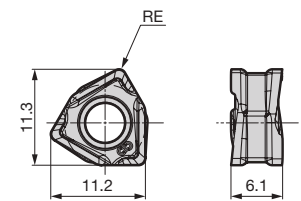
• USA stocked item

Insert

Dimensions (inch)

Grade		Coated Carbide							Nose Radius RE		Fig
Process	High-speed / Light										
	General-purpose										
	Roughing										
Cat. No.		ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300			
XNMMU060604PNER-L		•	•	•	•	•	•	•	0.16		1
XNMMU060608PNER-L		•	•	•	•	•	•	•	0.31		1
XNMMU060604PNER-G		•	•	•	•	•	•	•	0.16		1
XNMMU060608PNER-G		•	•	•	•	•	•	•	0.31		1
XNMMU060612PNER-G		•	•	•	•	•	•	•	0.47		1
XNMMU060616PNER-G		•	•	•	•	•	•	•	0.63		1
XNMMU060604PNER-GS		•	•	•	•	•	•	•	0.16		1
XNMMU060608PNER-GS		•	•	•	•	•	•	•	0.31		1
XNMMU060612PNER-GS		•	•	•	•	•	•	•	0.47		1
XNMMU060616PNER-GS		•	•	•	•	•	•	•	0.63		1
XNMMU060608PNER-H		•	•	•	•	•	•	•	0.31		1
XNMMU060612PNER-H		•	•	•	•	•	•	•	0.47		1
XNMMU060616PNER-H		•	•	•	•	•	•	•	0.63		1

Fig 1



DFC 09000R(S) Type

Fig 1

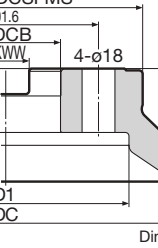
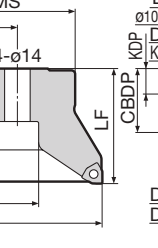
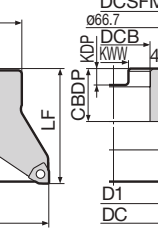
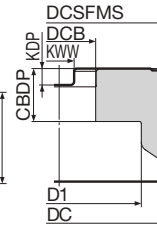
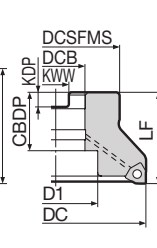
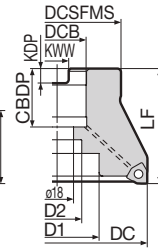
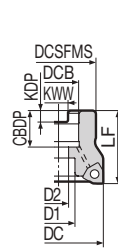
Fig 2

Fig 3

Fig 4

Fig 5

Fig 6



Dimensions (mm)

DFC 09000R(S) Type - Standard

	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	Bolt D1	Bolt D2	Number of Teeth	Buy Inserts Get Cutter FREE	Fig
Metric	DFC09050RS	★	50	41	40	22	10.4	6.3	20	18	11	4	40	1
	DFC09063RS	★	63	50	40	22	10.4	6.3	20	18	11	4	40	1
	DFC09080RS	★	*80	55	50	27	12.4	7	22	20	14	5	50	1
	DFC09100RS	★	100	70	50	32	14.4	8	32	46	-	6	60	3
	DFC09125RS	★	125	80	63	40	16.4	9	29	52	29	7	70	1
	DFC09160RS	★	160	130	63	40	16.4	9	29	90	-	8	80	5
	DFC09200RS	★	200	150	63	60	25.7	14	35	135	-	10	100	6
	DFC09080R	★	*80	55	50	25.4	9.5	6	25	20	14	5	50	1
	DFC09100R	★	*100	70	63	31.75	12.7	8	32	46	27	6	60	2
	DFC09125R	★	125	80	63	38.1	15.9	10	35.5	55	30	7	70	1
	DFC09160R	★	160	100	63	50.8	19.1	11	38	72	-	8	80	4
	DFC09200R	★	200	150	63	47.625	25.4	14	35	135	-	10	100	6

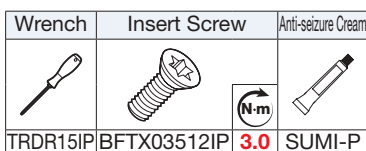
DFCM 09000R(S) Type - Fine Pitch

	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	Bolt D1	Bolt D2	Number of Teeth	Buy Inserts Get Cutter FREE	Fig
Metric	DFCM09050RS	★	50	41	40	22	10.4	6.3	20	18	11	5	50	1
	DFCM09063RS	★	63	50	40	22	10.4	6.3	20	18	11	6	60	1
	DFCM09080RS	★	*80	55	50	27	12.4	7	22	20	14	7	70	1
	DFCM09100RS	★	100	70	50	32	14.4	8	32	46	-	8	80	3
	DFCM09125RS	★	125	80	63	40	16.4	9	29	52	29	11	110	1
	DFCM09160RS	★	160	130	63	40	16.4	9	29	90	-	12	120	5
	DFCM09200RS	★	200	150	63	60	25.7	14	35	135	-	16	160	6
	DFCM09080R	★	*80	55	50	25.4	9.5	6	25	20	14	7	70	1
	DFCM09100R	★	*100	70	63	31.75	12.7	8	32	46	27	8	80	2
	DFCM09125R	★	125	80	63	38.1	15.9	10	35.5	55	30	11	110	1
	DFCM09160R	★	160	100	63	50.8	19.1	11	38	72	-	12	120	4
	DFCM09200R	★	200	150	63	47.625	25.4	14	35	135	-	16	160	6

DFCF 09000R(S) Type - Extra Fine Pitch

	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CBDP	Bolt D1	Bolt D2	Number of Teeth	Buy Inserts Get Cutter FREE	Fig
Metric	DFCF09050RS	★	50	41	40	22	10.4	6.3	20	18	11	6	60	1
	DFCF09063RS	★	63	50	40	22	10.4	6.3	20	18	11	7	70	1
	DFCF09080RS	★	*80	55	50	27	12.4	7	22	20	14	9	90	1
	DFCF09100RS	★	100	70	50	32	14.4	8	32	46	-	11	110	3
	DFCF09125RS	★	125	80	63	40	16.4	9	29	52	29	14	140	1
	DFCF09160RS	★	160	130	63	40	16.4	9	29	90	-	16	160	5
	DFCF09200RS	★	200	150	63	60	25.7	14	35	135	-	20	200	6
	DFCF09080R	★	*80	55	50	25.4	9.5	6	25	20	14	9	90	1
	DFCF09100R	★	*100	70	63	31.75	12.7	8	32	46	27	11	110	2
	DFCF09125R	★	125	80	63	38.1	15.9	10	35.5	55	30	14	140	1
	DFCF09160R	★	160	100	63	50.8	19.1	11	38	72	-	16	160	4
	DFCF09200R	★	200	150	63	47.625	25.4	14	35	135	-	20	200	6

Parts



Identification Code

DFC 09 050 R S

Cutter Series Insert Size Cutter Dia. Feed Direction Metric Bore

Recommended Cutting Conditions

★ Worldwide Warehouse item

ISO	Work Material	Hardness	Cutting Speed (V_c) (m/min) Min. - Optimum - Max.	Feed Rate f_z (mm/t) Min. - Optimum - Max.	Depth of Cut a_p (mm)	Insert Grade
P	General Steel	180 to 280 HB	150 - 200 - 250	0.10 - 0.20 - 0.30	< 6	ACP200 ACP300
	Mild Steel	≤ 180HB	180 - 250 - 350	0.15 - 0.25 - 0.35	< 6	ACP200 ACP300
	Die Steel	200 to 220 HB	100 - 150 - 200	0.10 - 0.18 - 0.25	< 4	ACP200 ACP300
M	Stainless Steel	-	160 - 205 - 250	0.12 - 0.18 - 0.25	< 6	ACM300
K	Cast Iron	250HB	100 - 175 - 250	0.10 - 0.20 - 0.30	< 6	ACK200 ACK300

For shoulder milling, the GS Type breaker is recommended. Use at $a_e \leq 50\%$ of cutter diameter and $f_z \leq 0.008$ IPT



General Features

SEC-WaveMill WGX Type employs a unique chipbreaker design to provide lower resistance and higher-quality finished surface roughness than conventional tools.

Lineup of insert grades and chipbreakers has been significantly expanded, and employment of the ACM series enables machining of stainless steel and exotic alloys.

Features

- Reduced Cutting Force
 - High-rake chipbreaker designed for use with the WGX type achieves low resistance
- High Quality
 - Improved runout precision and unique wiper edge shape ensure excellent surface finish quality
 - Addition of chamfer reduces burrs and edge chipping
- New Grade Coating
 - Features high-precision technology that reduces insert runout variation and a new coating to provide long, stable tool life
 - The new ACM200 and ACM300 grades for stainless steel/exotic alloy machining further expand the range of applications

Insert

Grade		Coated Carbide						Carbide	DLC	Cermet		
Process	High-speed / Light	P			K	M		K	N		Applications	Fig
	General-purpose		P	P	K	M	S		N	P		
	Roughing		P	P		K	M	S				
Cat. No.		ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	H1	DL1000	T4500A	
SEET13T3AGFR-L			●	●	●	●	●	●	●	●	Light Cutting (For Non-Ferrous Metals)	1
SEET13T3AGSR-L		●	●	●	●	●	●	●			Light Cutting	1
SEET13T3AGSR-G		●	●	●	●	●	●	●		●	General-purpose	1
SEMT13T3AGSR-L		●	●	●	●	●	●	●			Light Cutting	1
SEMT13T3AGSR-G		●	●	●	●	●	●	●			General-purpose	1
SEMT13T3AGSR-H		●	●	●	●	●	●	●			Heavy Cutting	1
SEMT13T3AGSR-FG		●	●	●	●	●	●	●			Low-burr design	2
XEEW13T3AGER-WR			●			●				●	Wiper Insert	3
XEEW13T3AGER-AWR			●			●				●	Wiper Insert	3

Fig 1

Fig 2

Fig 3

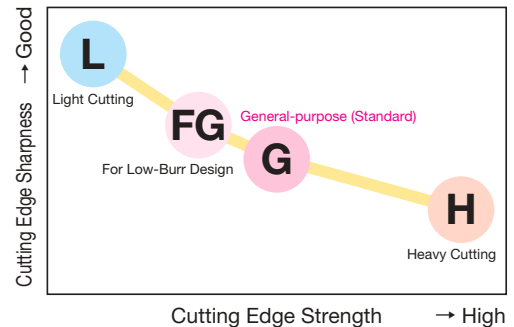
Wiper Insert

The ACP100 and ACK200 may vary in color or luster, but these variations do not affect the performance.
Refer to H2 (Precautions when Using Wiper Inserts With Holes) (Mounting Precautions).

Chipbreaker Selection

Work Material	P	M	K	S	N
Chipbreaker	L Type	FG Type	G Type	H Type	W Type
Appearance					
Cutting Edge Cross Section					
Features	Low Resistance	Standard / With Wiper Edge	Standard	High Strength	Wiper
Applications	Light Cutting	General-purpose / Burr Prevention	General-purpose	Heavy Cutting	Finishing Surface Roughness Emphasised

Chipbreaker Selection Guide



Parts

Applicable Cutter	Shim	Shim Screw	Insert Screw		Wrench	Wrench (For Shims)	Anti-seizure Cream
WGX Shell Mill Type	WGCS13R	BW0507F	BFTX03512IP	 3.0	TRDR15IP	LH035	SUMI-P
Other than those below WGX13000EW Type	WGCS13R	BW0507F	BFTX03512IP	 3.0	TRDR15IP	LH035	SUMI-P
WGX13032EW Type	-	-	BFTX03512IP	 3.0	TRDR15IP	-	SUMI-P

Recommended Tightening Torque (N·m)

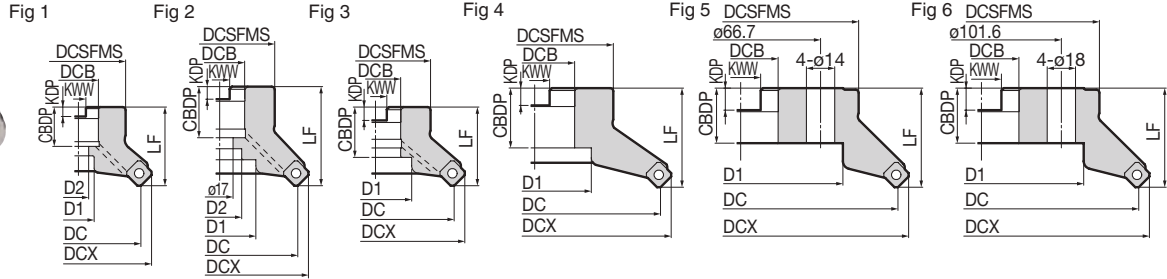
Recommended Cutting Conditions

ISO	Work Material	Hardness	Cutting Speed v_c (m/min) Min. - Optimum - Max.	Feed Rate f_z (mm/t) Min. - Optimum - Max.	Insert Grade
P	General Steel	180 to 280 HB	150-200-250	0.10-0.20-0.30	ACP200
	Mild Steel	≤ 180HB	180-270-350	0.10-0.25-0.40	ACP200
	Die Steel	200 to 220 HB	100-150-200	0.15-0.20-0.25	ACP200
M	Stainless Steel	-	160-210-250	0.15-0.23-0.30	ACM300
K	Cast Iron	250HB	100-180-250	0.15-0.23-0.30	ACK200
N	Non-Ferrous Alloy	-	500-750-1,000	0.15-0.23-0.30	DL1000
S	Exotic Alloy	-	30-50-80	0.10-0.20-0.30	ACM300

Note The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp rigidity, depth of cut and other factors.

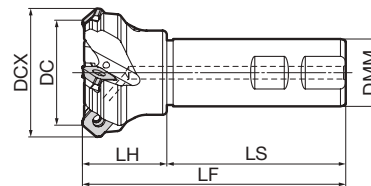
WGX 45° FACEMILL

Rake Angle	Radial	-20° to -24°	6mm	45°	.236"	45°
	Axial	20° to 22°				



• USA stocked item Dimensions (inch)

WGX 40000R Type - Standard													Buy Inserts Get Cutter FREE	Fig
	Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Boss DCSFMS	Height LF	Bore Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CBDP	Bolt D1	# of Teeth		
Inch	WGX42000R	•	2.000	2.461	1.500	1.750	0.750	0.312	0.190	0.750	0.609	3	30	1
	WGX42500R	•	2.500	3.008	1.750	1.750	1.000	0.375	0.220	0.750	0.797	4	40	1
	WGX43000R	•	3.000	3.504	2.250	1.750	1.000	0.375	0.220	0.750	0.787	4	40	1
	WGX44000R	•	4.000	4.500	2.870	2.000	1.250	0.500	0.280	0.750	1.000	5	50	2
	WGX44000R-1.50	•	4.000	4.500	3.750	2.500	1.500	0.625	0.380	1.000	2.000	5	50	2
	WGX45000R	•	5.000	5.496	3.750	2.500	1.500	0.625	0.380	1.000	2.000	6	60	1
	WGX46000R	•	6.000	6.496	4.380	2.500	1.500	0.625	0.380	1.060	2.000	7	70	4
	WGX48000R	•	8.000	8.496	5.906	2.500	2.500	1.000	0.560	1.594	5.118	8	80	6
	WGX410000R	•	10.000	10.492	7.480	2.756	2.500	1.000	0.531	1.575	6.299	10	100	6
WGXM 40000R Type - Fine Pitch													Buy Inserts Get Cutter FREE	Fig
	Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Boss DCSFMS	Height LF	Bore Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CBDP	Bolt D1	# of Teeth		
Inch	WGXM42000R	•	2.000	2.461	1.500	1.750	0.750	0.312	0.190	0.750	0.609	4	40	1
	WGXM42500R	•	2.500	3.008	1.750	1.750	1.000	0.375	0.220	0.750	0.797	5	50	1
	WGXM43000R	•	3.000	3.504	2.250	1.750	1.000	0.375	0.220	0.750	0.787	6	60	1
	WGXM44000R	•	4.000	4.500	2.870	2.000	1.250	0.500	0.280	0.750	1.000	7	70	2
	WGXM44000R-1.50	•	4.000	4.500	3.750	2.500	1.500	0.625	0.380	1.000	2.000	7	70	2
	WGXM45000R	•	5.000	5.496	3.750	2.500	1.500	0.625	0.380	1.000	2.000	8	80	1
	WGXM46000R	•	6.000	6.496	4.380	2.500	1.500	0.625	0.380	1.060	2.000	10	100	4
	WGXM48000R	•	8.000	8.496	5.906	2.500	2.500	1.000	0.560	1.594	5.118	12	120	6
WGXF 40000R Type - Extra Fine Pitch													Buy Inserts Get Cutter FREE	Fig
	Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Boss DCSFMS	Height LF	Bore Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CBDP	Bolt D1	# of Teeth		
Inch	WGXF42000R	•	2.000	2.461	1.500	1.750	0.750	0.312	0.190	0.750	0.609	5	50	1
	WGXF42500R	•	2.500	3.008	1.750	1.750	1.000	0.375	0.220	0.750	0.797	6	60	1
	WGXF43000R	•	3.000	3.504	2.250	1.750	1.000	0.375	0.220	0.750	0.787	8	80	1
	WGXF44000R	•	4.000	4.500	2.870	2.000	1.250	0.500	0.280	0.750	1.000	10	100	2
	WGXF44000R-1.50	•	4.000	4.500	3.750	2.500	1.500	0.625	0.380	1.000	2.000	10	100	2
	WGXF45000R	•	5.000	5.496	3.750	2.500	1.500	0.625	0.380	1.000	2.000	12	120	1
	WGXF46000R	•	6.000	6.496	4.380	2.500	1.500	0.625	0.380	1.060	2.000	16	160	4
	WGXF48000R	•	8.000	8.496	5.906	2.500	2.500	1.000	0.560	1.594	5.118	20	200	6



Dimensions (inch)

WGX 42000EW Type - Fine Pitch									Buy Inserts Get Cutter FREE	Fig
	Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Shank DMM	Head LH	Shank LS	Overall Length LF	# of Teeth	
Inch	WGX42000EW	•	2.000	2.567	1.250	1.591	2.379	3.970	4	40
	WGX42500EW	•	2.500	2.567	1.250	1.591	2.379	3.970	5	50

Inserts are sold separately. ø32 mm size does not have seats.

Standard Identification Code- Inch

WGX 4 2000 R

Cutter Series Insert Cutter Dia. Feed
Series 2.000" Direction

Fine Identification Code - Inch

WGX F 4 2000 R

Cutter Series Extra Insert Cutter Dia. Feed
Fine Pitch Series 2.000" Direction

Endmill Identification Code - Inch

WGX 4 2000 EW

Cutter Series Insert Cutter Dia. Endmill
Series Type

WGX 45° FACEMILL

Rake Angle	Radial	-20° to -24°	6mm	45°	.236"	45°
	Axial	20° to 22°				



Fig 1

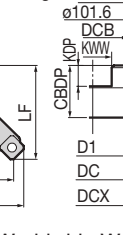
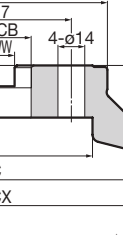
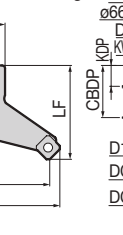
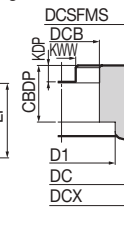
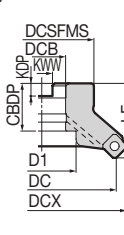
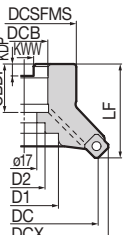
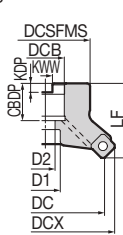
Fig 2

Fig 3

Fig 4

Fig 5

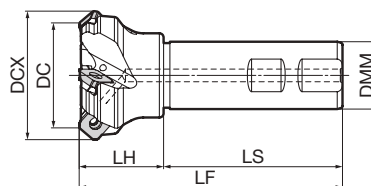
Fig 6



★ Worldwide Warehouse item Dimensions (mm)

WGX 13000R(S) Type													Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Boss DCSFMS	Height LF	Bore Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CDBP	Bolt D1	# of Teeth			
Standard - Metric	WGX13040RS	★	40	52	32	40	16	8.4	5.6	18	14	3	30	1
	WGX13050RS	★	50	62	40	40	22	10.4	6.3	20	18	3	30	1
	WGX13063RS	★	63	76	50	40	22	10.4	6.3	20	18	4	40	1
	WGX13080RS	★	*80	93	55	50	27	12.4	7	25	20	4	40	1
	WGX13100RS	★	100	113	70	50	32	14.4	8.5	32	46	5	50	3
	WGX13125RS	★	125	138	80	63	40	16.4	9.5	29	52	6	60	1
	WGX13160RS	★	160	173	130	63	40	16.4	9.5	29	88	7	70	5
	WGX13200RS	★	200	213	150	63	60	25.7	14	35	130	8	80	6
	WGX13250RS	★	250	263	190	63	60	25.7	14	35	160	10	100	6
	WGX13080R	★	*80	93	60	50	25.4	9.5	6	25	20	4	40	1
	WGX13100R	★	*100	113	70	63	31.75	12.7	8	32.5	46	5	50	2
	WGX13125R	★	125	138	80	63	38.1	15.9	10	35.5	55	6	60	1
Fine Pitch - Metric	WGX13160R	★	160	173	100	63	50.8	19.1	11	38	72	7	70	4
	WGX13200R	★	200	213	150	63	47.625	25.4	14	35	130	8	80	6
	WGX13250R	★	250	263	190	63	47.625	25.4	14	35	150	10	100	6
	WGXM13050RS	★	50	62	40	40	22	10.4	6.3	20	18	4	40	1
	WGXM13063RS	★	63	77	50	40	22	10.4	6.3	20	18	5	50	1
	WGXM13080RS	★	*80	94	55	50	27	12.4	7	25	20	6	60	1
	WGXM13100RS	★	100	114	70	50	32	14.4	8.5	32	46	7	70	3
	WGXM13125RS	★	125	139	80	63	40	16.4	9.5	29	52	8	80	1
	WGXM13160RS	★	160	174	130	63	40	16.4	9.5	29	88	10	100	5
	WGXM13200RS	★	200	214	150	63	60	25.7	14	35	130	12	120	6
	WGXM13250RS	★	250	264	190	63	60	25.7	14	35	160	14	140	6
	WGXM13080R	★	*80	94	60	50	25.4	9.5	6	25	20	6	60	1
Extra Fine Pitch - Metric	WGXM13100R	★	*100	114	70	63	31.75	12.7	8	32.5	46	7	70	2
	WGXM13125R	★	125	139	80	63	38.1	15.9	10	35.5	55	8	80	1
	WGXM13160R	★	160	174	100	63	50.8	19.1	11	38	72	10	100	4
	WGXM13200R	★	200	214	150	63	47.625	25.4	14	35	130	12	120	6
	WGXM13250R	★	250	264	190	63	47.625	25.4	14	35	150	14	140	6
	WGXF13050RS	★	50	62	40	40	22	10.4	6.3	20	18	5	50	1
	WGXF13063RS	★	63	77	50	40	22	10.4	6.3	20	18	6	60	1
	WGXF13080RS	★	*80	94	55	50	27	12.4	7	25	20	8	80	1
	WGXF13100RS	★	100	114	70	50	32	14.4	8.5	32	46	10	100	3
	WGXF13125RS	★	125	139	80	63	40	16.4	9.5	29	52	12	120	1
	WGXF13160RS	★	160	174	130	63	40	16.4	9.5	29	88	16	160	5
	WGXF13200RS	★	200	214	150	63	60	25.7	14	35	130	20	200	6
Extra Fine Pitch - Metric	WGXF13250RS	★	250	264	190	63	60	25.7	14	35	160	24	240	6
	WGXF13080R	★	*80	94	60	50	25.4	9.5	6	25	20	8	80	1
	WGXF13100R	★	*100	114	70	63	31.75	12.7	8	32.5	46	10	100	2
	WGXF13125R	★	125	139	80	63	38.1	15.9	10	35.5	55	12	120	1
	WGXF13160R	★	160	174	100	63	50.8	19.1	11	38	72	16	160	4
	WGXF13200R	★	200	214	150	63	47.625	25.4	14	35	130	20	200	6
	WGXF13250R	★	250	264	190	63	47.625	25.4	14	35	150	24	240	6

Inserts are sold separately. Check the pilot diameter (DCB) when selecting the cutter. * Sizes ø160 mm and above do not have coolant holes.
For securing the ø80mm and ø100mm cutters to the arbors marked with *, use a JIS B1176 hexagonal socket bolt
(ø80: M12 x 30 to 35mm, ø100: M16 x 40 to 45mm).



Dimensions (mm)

WGX 13000EW Type - Fine Pitch										Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Shank DMM	Head LH	Shank LS	Overall Length LF	# of Teeth			
Metric	WGX13032EW	★	32	44	32	40	85	125	3	30	1
	WGX13040EW	★	40	52	32	40	85	125	3	30	1
	WGX13050EW	★	50	62	32	40	85	125	4	40	1
	WGX13063EW	★	63	76	32	40	85	125	5	50	1

Inserts are sold separately. ø32 mm size does not have seats.



The DGC Type insert lineup includes double-sided SNMT/SNET and ONMT/ONET types. Up to 16 corners can be used for improved economy.

General Features

SEC-Sumi Dual Mill DGC Type employs double-sided inserts with up to 16 corners for excellent economy. This is a general-purpose cutter featuring high cutting edge strength for high efficiency milling and a low-burr chipbreaker design that provides high machined surface quality.

ONMT / ONET Type
(Double-sided, 16 Corners)

SNMT / SNET Type
(Double-sided, 8 Corners)

Features

Same cutting performance as single-sided inserts plus superior economy

Achieves levels of cutting edge sharpness and machined surface quality equivalent to single-sided cutters at a maximum depth of cut of $a_p = 0.12"$.

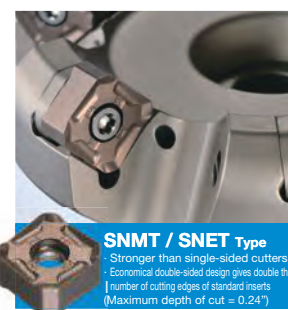
Common Body Features

Two types of inserts can be used with a single body depending on the milling application, to help reduce tool costs.

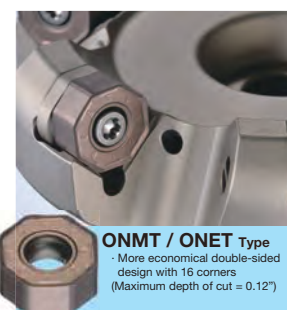
Use two types of insert for different applications



Seat protects the body



SNMT / SNET Type
Stronger than single-sided cutters
Economical double-sided design gives double the number of cutting edges of standard inserts
(Maximum depth of cut = 0.24")



ONMT / ONET Type
More economical double-sided design with 16 corners
(Maximum depth of cut = 0.12")

Dimensions (inch)

Insert

Grade		Coated Carbide						Carbide	DLC	Cermet	Fig		
Process	High-speed / Light	P			K		M		N				
	General-purpose		P	P	K		M		N				
	Roughing		P	P		K		M		P			
Cat. No.		ACP100	ACP200	ACP300	ACK200	ACK300	ACM200	ACM300	H1	EH520	DL1000	T4500A	
SNMT13T6ANER-L		•	•	•	•	•				•		•	1
SNMT13T6ANER-G		•	•	•	•	•				•		•	1
SNMT13T6ANER-H		•	•	•	•	•							1
SNMT13T6ANER-FL		•	•	•	•	•							2
SNMT13T6ANER-FG		•	•	•	•	•							2
SNET13T6ANER-L							•	•					1
SNET13T6ANER-G							•	•					1
SNET13T6ANER-FL							•	•					2
SNET13T6ANER-FG							•	•					2
SNET13T6ANFR-S									•	•			1
XNEU13T6ANEN-W			•			•						•	3
ONMT05T6ANER-L		•	•	•	•	•							4
ONMT05T6ANER-G		•	•	•	•	•							4
ONET05T6ANER-L							•	•					4
ONET05T6ANER-G							•	•					4

Fig 1

Fig 2

Fig 3

Wiper Insert

Fig 4

Wiper inserts can only be used in combination with 8-cornered inserts.

The ACP100 and ACK200 may vary in color or luster, but these variations do not affect the performance. Refer to H2 (Precautions when Using Wiper Inserts With Holes) (Mounting Precautions).

Recommended Cutting Conditions (SNMT / SNET)

ISO	Work Material	Hardness	Cutting Speed V_c (m/min) Min. - Optimum - Max.	Feed Rate f_z (mm/t) Min. - Optimum - Max.	Depth of Cut a_p (mm)	Insert Grade
P	General Steel	180 to 280 HB	150-200-250	0.10-0.25-0.40	< 4	ACP200 ACP300
	Mild Steel	≤ 180HB	180-250-350	0.10-0.30-0.45	< 4	ACP200 ACP300
	Die Steel	200 to 220 HB	100-150-200	0.15-0.25-0.35	< 4	ACP200 ACP300
M	Stainless Steel	—	160-200-250	0.15-0.23-0.30	< 3	ACM300
K	Cast Iron	250HB	100-200-250	0.10-0.25-0.40	< 5	ACK200 ACK300
N	Non-ferrous Metal	—	500-750-1,000	0.15-0.23-0.30	< 3	DL1000

Recommended Cutting Conditions (ONMT / ONET)

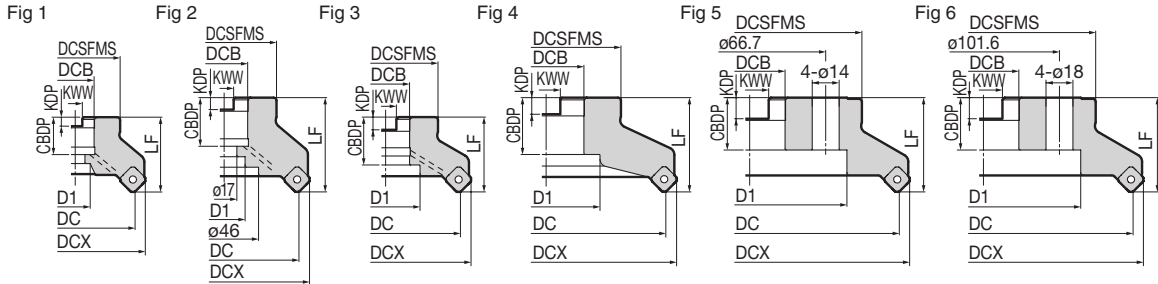
ISO	Work Material	Hardness	Cutting Speed V_c (m/min) Min. - Optimum - Max.	Feed Rate f_z (mm/t) Min. - Optimum - Max.	Depth of Cut a_p (mm)	Insert Grade
P	General Steel	180 to 280 HB	150-200-250	0.10-0.30-0.50	< 2	ACP200 ACP300
	Mild Steel	≤ 180HB	180-250-350	0.10-0.50-0.50	< 2	ACP200 ACP300
	Die Steel	200 to 220 HB	100-150-200	0.15-0.25-0.30	< 2	ACP200 ACP300
M	Stainless Steel	—	160-200-250	0.15-0.23-0.30	< 2	ACM300
K	Cast Iron	250HB	100-200-250	0.10-0.30-0.50	< 2	ACK200 ACK300

Note

The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp rigidity, depth of cut and other factors.

DGC 45° FACEMILL - Inch

Rake Angle	Radial	-10°		
	Axial	-5°		
			.118" 45° (ONMT / ONET)	.236" 45° (SNMT / SNET)



Dimensions (inch)

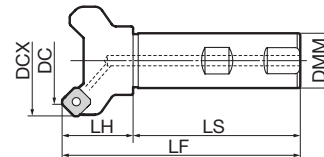
DGC 4000R Type - Standard													Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Boss DCSFMS	Height LF	Bore Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CBDP	Bolt D1	# of Teeth			
DGC42000R	●	2.000 (2.114)	2.567	1.500	1.750 (1.689)	0.750	0.312	0.190	0.750	0.609	3		30	1
DGC42500R	●	2.500 (2.614)	3.067	1.750	1.750 (1.689)	1.000	0.375	0.220	0.750	0.797	4		40	1
DGC43000R	●	3.000 (3.114)	3.567	2.250	1.750 (1.689)	1.000	0.375	0.220	0.750	0.787	4		40	1
DGC44000R	●	4.000 (4.114)	4.567	2.870	2.000 (1.939)	1.250	0.500	0.280	0.750	1.000	5		50	2
DGC44000R-1.50	●	4.000 (4.114)	4.000	3.750	2.500 (2.439)	1.500	0.625	0.380	1.000	2.000	5		50	2
DGC45000R	●	5.000 (5.114)	5.567	3.750	2.500 (2.439)	1.500	0.625	0.380	1.000	2.000	6		60	1
DGC46000R	●	6.000 (6.114)	6.567	4.380	2.500 (2.439)	1.500	0.625	0.380	1.060	2.000	7		70	4
DGC48000R	●	8.000 (8.114)	8.567	5.906	2.500 (2.439)	2.500	1.000	0.560	1.594	5.118	8		80	6
DGC410000R	●	10.000 (10.114)	10.567	7.480	2.500 (2.439)	2.500	1.000	0.531	1.575	6.299	10		100	6
DGCM 4000R Type - Fine Pitch													Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Boss DCSFMS	Height LF	Bore Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CBDP	Bolt D1	# of Teeth			
DGCM42000R	●	2.000 (2.114)	2.567	1.500	1.750 (1.689)	0.750	0.312	0.190	0.750	0.609	4		40	1
DGCM42500R	●	2.500 (2.614)	3.067	1.750	1.750 (1.689)	1.000	0.375	0.220	0.750	0.797	5		50	1
DGCM43000R	●	3.000 (3.114)	3.567	2.250	1.750 (1.689)	1.000	0.375	0.220	0.750	0.787	6		60	1
DGCM44000R	●	4.000 (4.114)	4.567	2.870	2.000 (1.939)	1.250	0.500	0.280	0.750	1.000	7		70	2
DGCM44000R-1.50	●	4.000 (4.114)	4.000	3.750	2.500 (2.439)	1.500	0.625	0.380	1.000	2.000	7		70	2
DGCM45000R	●	5.000 (5.114)	5.567	3.750	2.500 (2.439)	1.500	0.625	0.380	1.000	2.000	8		80	1
DGCM46000R	●	6.000 (6.114)	6.567	4.380	2.500 (2.439)	1.500	0.625	0.380	1.060	2.000	10		100	4
DGCM48000R	●	8.000 (8.114)	8.567	5.906	2.500 (2.439)	2.500	1.000	0.560	1.594	5.118	12		120	6
DGCF 4000R Type - Extra Fine Pitch													Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Boss DCSFMS	Height LF	Bore Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CBDP	Bolt D1	# of Teeth			
DGCF42000R	●	2.000 (2.114)	2.567	1.500	1.750 (1.689)	0.750	0.312	0.190	0.750	0.609	5		50	1
DGCF42500R	●	2.500 (2.614)	3.067	1.750	1.750 (1.689)	1.000	0.375	0.220	0.750	0.797	6		60	1
DGCF43000R	●	3.000 (3.114)	3.567	2.250	1.750 (1.689)	1.000	0.375	0.220	0.750	0.787	8		80	1
DGCF44000R	●	4.000 (4.114)	4.567	2.870	2.000 (1.939)	1.250	0.500	0.280	0.750	1.000	10		100	2
DGCF44000R-1.50	●	4.000 (4.114)	4.000	3.750	2.500 (2.439)	1.500	0.625	0.380	1.000	2.000	10		100	2
DGCF45000R	●	5.000 (5.114)	5.567	3.750	2.500 (2.439)	1.500	0.625	0.380	1.000	2.000	12		120	1
DGCF46000R	●	6.000 (6.114)	6.567	4.380	2.500 (2.439)	1.500	0.625	0.380	1.060	2.000	14		140	4
DGCF48000R	●	8.000 (8.114)	8.567	5.906	2.500 (2.439)	2.500	1.000	0.560	1.594	5.118	16		160	6

() indicates value for ONMT / ONET type inserts.

● USA stocked item

★ Worldwide Warehouse item

Inserts are sold separately. * Sizes ø6.000" and above do not have coolant holes.



Dimensions (inch)

DGC 42000EW Type - Fine Pitch									Buy Inserts Get Cutter FREE	Fig
Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Shank DMM	Head LH	Shank LS	Overall Length LF	# of Teeth		
DGC42000EW	●	2.000	2.567	1.250	1.591	2.379	3.970	4	40	1
DGC42500EW	●	2.500	2.567	1.250	1.591	2.379	3.970	5	50	1

Inserts are sold separately. ø32 mm size does not have seats.

Part

(Optional)

Shim	Shim Screw	Wrench	Insert Screw	Wrench	Anti-seizure Cream	Insert Screw (*)
DGCS13R	BW0609F	LH040	BFTX0412P	TRDR15IP	SUMI-P	BFTX0418IP
			3.0			3.0

*Insert corners can be changed simply by loosening the screw. Only applies to ø80mm size DGC / DGCM types.

Recommended Tightening Torque (N·m)

Milling
Cutters

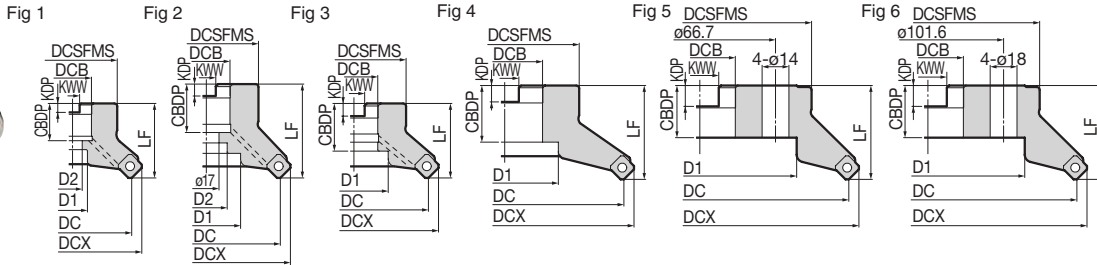
Face Milling

Shoulder
Milling

DGC 45° FACEMILL

Rake Angle	Radial	~10°		
	Axial	~5°		

(ONMT / ONET) (SNMT / SNET)

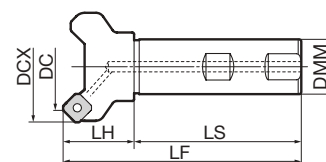


Dimensions (mm)

DGC 13000R(S) Type													Buy Inserts Get Cutter FREE	Fig
	Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Boss DCSFMS	Height LF	Bore Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CBDP	Bolt D1	# of Teeth		
Metric	DGC13040RS	★	40(42.9)	54	36	40(38.44)	16	8.4	5.6	18	13.5	3	30	1
	DGC13050RS	★	50(52.9)	64	40	40(38.44)	22	10.4	6.3	20	18	3	30	1
	DGC13063RS	★	63(65.9)	77	50	40(38.44)	22	10.4	6.3	20	18	4	40	1
	DGC13080RS	★	*80(82.9)	94	60	50(48.44)	27	12.4	7	25	20	4	40	1
	DGC13100RS	★	100(102.9)	114	70	50(48.44)	32	14.4	8.5	32	46	5	50	3
	DGC13125RS	★	125(127.9)	139	80	63(61.44)	40	16.4	9.5	29	52	6	60	1
	DGC13160RS	★	160(162.9)	174	130	63(61.44)	40	16.4	9.5	29	88	7	70	5
	DGC13200RS	★	200(202.9)	214	150	63(61.44)	60	25.7	14	35	130	8	80	6
	DGC13250RS	★	250(252.9)	264	190	63(61.44)	60	25.7	14	35	160	10	100	6
	DGC13080R	★	*80(82.9)	94	60	50(48.44)	25.4	9.5	6	25	20	4	40	1
	DGC13100R	★	*100(102.9)	114	70	63(61.44)	31.75	12.7	8	32.5	28	5	50	2
	DGC13125R	★	125(127.9)	139	80	63(61.44)	38.1	15.9	10	35.5	55	6	60	1
Metric	DGC13160R	★	160(162.9)	174	100	63(61.44)	50.8	19.1	11	38	72	7	70	4
	DGC13200R	★	200(202.9)	214	150	63(61.44)	47.625	25.4	14	35	130	8	80	6
	DGC13250R	★	250(252.9)	264	190	63(61.44)	47.625	25.4	14	35	150	10	100	6
	DGCM13050RS	★	50(52.9)	64	40	40(38.44)	22	10.4	6.3	20	18	4	40	1
	DGCM13063RS	★	63(65.9)	77	50	40(38.44)	22	10.4	6.3	20	18	5	50	1
	DGCM13080RS	★	*80(82.9)	94	60	50(48.44)	27	12.4	7	25	20	6	60	1
	DGCM13100RS	★	100(102.9)	114	70	50(48.44)	32	14.4	8.5	32	46	7	70	3
	DGCM13125RS	★	125(127.9)	139	80	63(61.44)	40	16.4	9.5	29	52	8	80	1
	DGCM13160RS	★	160(162.9)	174	130	63(61.44)	40	16.4	9.5	29	88	10	100	5
	DGCM13200RS	★	200(202.9)	214	150	63(61.44)	60	25.7	14	35	130	12	120	6
	DGCM13250RS	★	250(252.9)	264	190	63(61.44)	60	25.7	14	35	160	14	140	6
	DGCM13080R	★	*80(82.9)	94	60	50(48.44)	25.4	9.5	6	25	20	6	60	1
Metric	DGCM13100R	★	*100(102.9)	114	70	63(61.44)	31.75	12.7	8	32.5	28	7	70	2
	DGCM13125R	★	125(127.9)	139	80	63(61.44)	38.1	15.9	10	35.5	55	8	80	1
	DGCM13160R	★	160(162.9)	174	100	63(61.44)	50.8	19.1	11	38	72	10	100	4
	DGCM13200R	★	200(202.9)	214	150	63(61.44)	47.625	25.4	14	35	130	12	120	6
	DGCM13250R	★	250(252.9)	264	190	63(61.44)	47.625	25.4	14	35	150	14	140	6
	DGCF13050RS	●	50(52.9)	64	40	40(38.44)	22	10.4	6.3	20	18	5	50	1
	DGCF13063RS	●	63(65.9)	77	50	40(38.44)	22	10.4	6.3	20	18	6	60	1
	DGCF13080RS	●	*80(82.9)	94	60	50(48.44)	27	12.4	7	25	20	8	80	1
	DGCF13100RS	●	100(102.9)	114	70	50(48.44)	32	14.4	8.5	32	46	10	100	3
	DGCF13125RS	●	125(127.9)	139	80	63(61.44)	40	16.4	9.5	29	52	12	120	1
	DGCF13160RS	●	160(162.9)	174	130	63(61.44)	40	16.4	9.5	29	88	14	140	5
	DGCF13200RS	●	200(202.9)	214	150	63(61.44)	60	25.7	14	35	130	16	160	6
Metric	DGCF13250RS	●	250(252.9)	264	190	63(61.44)	60	25.7	14	35	160	18	180	6
	DGCF13080R	●	*80(82.9)	94	60	50(48.44)	25.4	9.5	6	25	20	8	80	1
	DGCF13100R	●	*100(102.9)	114	70	63(61.44)	31.75	12.7	8	32.5	28	10	100	2
	DGCF13125R	●	125(127.9)	139	80	63(61.44)	38.1	15.9	10	35.5	55	12	120	1
	DGCF13160R	●	160(162.9)	174	100	63(61.44)	50.8	19.1	11	38	72	14	140	4
	DGCF13200R	●	200(202.9)	214	150	63(61.44)	47.625	25.4	14	35	130	16	160	6
	DGCF13250R	●	250(252.9)	264	190	63(61.44)	47.625	25.4	14	35	150	18	180	6

Inserts are sold separately. Check the pilot diameter (DCB) when selecting the cutter. * Sizes ø160 mm and above do not have coolant holes.

For securing the ø80mm and ø100mm cutters to the arbors marked with *, use a JIS B1176 hexagonal socket bolt (ø80: M12 x 30 to 35mm, ø100: M16 x 40 to 45mm).



Dimensions (inch)

DGC 13000EW Type - Fine Pitch										Buy Inserts Get Cutter FREE	Fig
	Cat. No.	Stock	Dia. DC	Max. Dia. DCX	Shank DMM	Head LH	Shank LS	Overall Length LF	# of Teeth		
Metric	DGC13040EW	★	40(42.9)	54	32	40(38.44)	85	125	3	30	1
	DGC13050EW	★	50(52.9)	64	32	40(38.44)	85	125	3	30	1
	DGC13063EW	★	63(65.9)	77	32	40(38.44)	85	125	4	40	1

Inserts are sold separately. ø32 mm size does not have seats.

● USA stocked item

★ Worldwide Warehouse item



General Features

The SEC-Metal Slash Mill MSX Type is a multi-purpose cutter capable of roughing at ultra-high feeds. Its wide application range dramatically boosts efficiency. Inserts are available in four sizes, ranging from $\phi 16\text{mm}$ to the large diameter $\phi 100\text{mm}$ model, to cover a wide variety of milling needs.

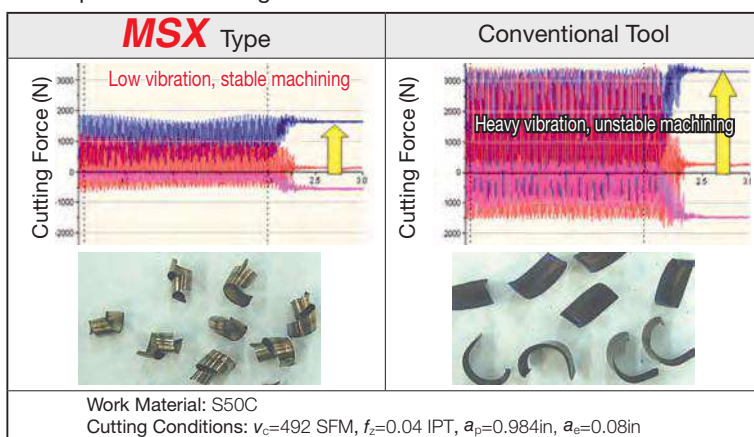


Features

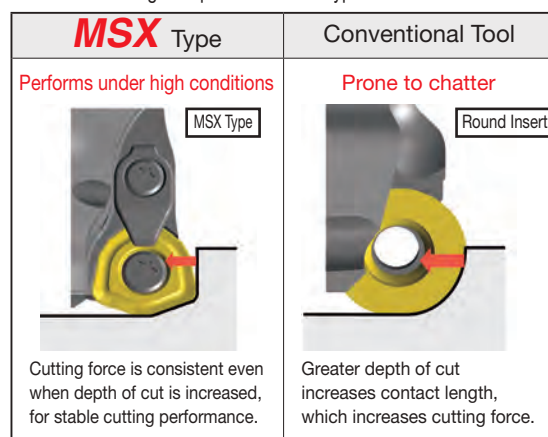
- (1) **Highly Durable Body** Special surface treatment improves scratch resistance
- (2) **Versatile Machining Operations** Use for ramping, helical and pocketing
- (3) **Double Clamp** Stable milling with a strong clamp is possible (MSX06000 type or MSX08000 type units with $\phi 22\text{mm}$ or less use a single clamp)
- (4) **With Coolant Hole** Improved chip evacuation with air or coolant supply hole and specially shaped pocket design
- (5) **Insert Shape** Unique tool shape combines sharpness and cutting edge strength

Cutting Performance

Comparison of Cutting Force



Shoulder Milling Comparison of MSX Type and Conventional Tool



Recommended Cutting Conditions

Work Material	Insert Grade	Cutting Speed v_c (SFM)	Insert Cat. No.	Endmill Type								Shell Type			
				$\phi 16$		$\phi 20$		$\phi 25$		$\phi 32$		$\phi 40$		$\phi 50/\phi 63$	
				a_p (in)	f_z (IPT)	a_p (in)	f_z (IPT)	a_p (in)	f_z (IPT)	a_p (in)	f_z (IPT)	a_p (in)	f_z (IPT)	a_p (in)	f_z (IPT)
P General Steel Below 200HB	ACP200	330-500-650	WDMT0603	0.032	0.032	0.032	0.032	-	-	-	-	-	-	-	-
			WDMT0804	-	-	0.039	0.039	0.039	0.047	0.039	0.047	0.047	0.055	0.047	0.055
			WDMT1205	-	-	-	-	-	-	0.047	0.055	0.055	0.059	0.059	0.059
			WDMT1406	-	-	-	-	-	-	-	-	0.059	0.059	0.059	0.059
P Alloy Steel Below 45HRC	ACP200	260-430-590	WDMT0603	0.028	0.032	0.028	0.032	-	-	-	-	-	-	-	-
			WDMT0804	-	-	0.032	0.039	0.032	0.047	0.032	0.047	0.047	0.055	0.039	0.055
			WDMT1205	-	-	-	-	-	-	0.039	0.055	0.039	0.055	0.039	0.055
			WDMT1406	-	-	-	-	-	-	-	-	0.051	0.059	0.051	0.059
M Stainless Steel SUS304, etc.	ACP300	260-400-500	WDMT0603	0.032	0.028	0.032	0.028	-	-	-	-	-	-	-	-
			WDMT0804	-	-	0.039	0.032	0.039	0.032	0.039	0.032	-	-	-	-
			WDMT1205	-	-	-	-	-	-	0.047	0.047	0.047	0.047	0.047	0.047
			WDMT1406	-	-	-	-	-	-	-	-	0.059	0.051	0.059	0.051
K Cast Iron FC, FCD	ACK200 ACK300	330-500-650	WDMT0603	0.032	0.039	0.032	0.039	-	-	-	-	-	-	-	-
			WDMT0804	-	-	0.039	0.047	0.039	0.055	0.039	0.055	-	-	-	-
			WDMT1205	-	-	-	-	-	-	0.047	0.059	0.047	0.059	0.047	0.059
			WDMT1406	-	-	-	-	-	-	-	-	0.059	0.071	0.059	0.071
H Hardened Steel Below 50HRC	ACK200 ACK300	130-260-330	WDMT0603	0.020	0.020	0.020	0.020	-	-	-	-	-	-	-	-
			WDMT0804	-	-	0.020	0.020	0.020	0.032	0.020	0.032	-	-	-	-
			WDMT1205	-	-	-	-	-	-	0.024	0.039	0.024	0.039	0.024	0.039
			WDMT1406	-	-	-	-	-	-	-	-	0.039	0.047	0.039	0.047

The above recommended cutting conditions may require adjustment depending on machine rigidity and work rigidity.

The above figures are guidelines for use with BT50 machine tools.

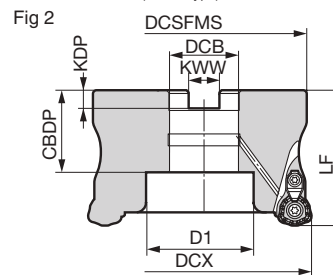
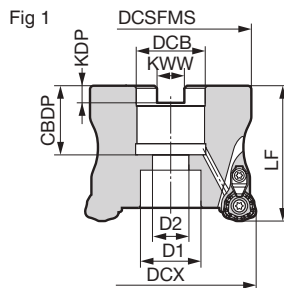
The above recommended cutting conditions assume a tool overhang length of $L/D=3$ (i.e. overhang length of 3 times tool diameter) or less.

When tool overhang is more than $L/D=3$ and less than or equal to $L/D=5$, settings should be adjusted to approximately 70 to 80% of those indicated in the above recommended cutting conditions (a_p , f_z).

When tool overhang is more than $L/D=5$ and less than or equal to $L/D=8$, settings should be adjusted to approximately 50 to 60% of those indicated in the above recommended cutting conditions (a_p , f_z).

MSX SHELL MILL Type

Rake Angle	Radial Axial	-3° to -8° 8°
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Dimensions (inch / mm)

MSX 30000R & 08000R Type - Standard

	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CDBP	Bolt D1	Bolt D2	No. of Teeth	Buy Inserts Get Cutter FREE	Fig
Inch	MSX31500R	●	1.500	1.339	1.530	0.750	0.312	0.190	0.750	0.609	0.406	4	40	1
	MSX32000R	●	2.000	1.850	2.000	0.750	0.312	0.190	0.750	0.609	0.406	5	50	1
Metric	MSX08040RS	★	40	37	45	16	8.4	5.6	18	13.5	9	4	40	1

MSX 40000R & 12000RS Type - Fine Pitch

	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CDBP	Bolt D1	Bolt D2	No. of Teeth	Buy Inserts Get Cutter FREE	Fig
Inch	MSX42000R	●	2.000	1.850	2.000	0.750	0.312	0.190	0.750	0.609	0.406	4	40	1
	MSXM42000R	●	2.000	1.850	2.000	0.750	0.312	0.190	0.750	0.609	0.406	5	50	1
	MSX42500R	●	2.500	2.362	2.000	1.000	0.375	0.220	0.750	0.797	0.530	5	50	1
	MSX43000R	●	3.000	2.756	2.000	1.000	0.375	0.220	0.750	0.797	0.530	6	60	1
	MSX44000R-1.25	●	4.000	3.740	2.500	1.250	0.500	0.280	0.750	1.000	0.656	7	70	1
	MSX44000R-1.50	●	4.000	3.740	2.500	1.500	0.625	0.380	1.000	2.000	0.781	7	70	1
Metric	MSX12050RS	★	50	47	50	22	10.4	6.3	20	18	11	4	40	1
	MSX12063RS	★	63	60	50	22	10.4	6.3	20	18	11	5	50	1

MSX 50000R & 14000R(S) Type - Fine Pitch

	Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Bore Dia. DCB	KWW	KDP	CDBP	Bolt D1	Bolt D2	No. of Teeth	Buy Inserts Get Cutter FREE	Fig
Inch	MSX52000R	●	2.000	1.850	2.000	0.750	0.312	0.190	0.750	0.609	0.406	4	40	1
	MSX52500R	●	2.500	2.362	2.000	1.000	0.375	0.220	0.750	0.797	0.531	5	50	1
	MSX53000R	●	3.000	2.756	2.000	1.000	0.375	0.220	0.750	0.797	0.531	5	50	1
	MSX54000R-1.25	●	4.000	3.740	2.500	1.250	0.500	0.280	0.750	1.000	0.656	6	60	1
	MSX54000R-1.50	●	4.000	3.740	2.500	1.500	0.625	0.380	1.000	2.000	0.781	6	60	1
	MSX55000R	●	5.000	3.937	2.500	1.500	0.625	0.380	1.000	2.000	0.781	7	70	1
	MSX56000R	●	6.000	3.937	2.500	1.500	0.625	0.380	1.000	2.000	0.781	8	80	1
Metric	MSX14050RS	★	50	47	50	22	10.4	6.3	20	17	11	3	30	1
	MSX14063RS	★	63	60	50	22	10.4	6.3	20	18	11	4	40	1
	MSX14080RS	★	*80	76	63	27	12.4	7.0	25	20	13.5	5	50	1
	MSX14100RS	★	100	96	63	32	14.4	8.5	32	44		6	60	2
	MSX14080R	★	*80	76	63	31.75	12.7	8.0	32	28	17	5	50	1
	MSX14100R	★	*100	96	63	31.75	12.7	8.0	32	28	17	6	60	1

Inserts are sold separately.

● USA stocked item

★ Worldwide Warehouse item

For securing the ø80mm and ø100mm cutters to the arbors marked with *, use a JIS B1176 hexagonal socket bolt
(ø80: M12 x 30 to 35mm, ø100: M16 x 40 to 45mm).

Insert

Dimensions (inch / mm)

Grade		Coated Carbide										
Process	High-speed / Light											
	General-purpose											
	Roughing											
Applications	Cat. No.	ACP200	ACP300	ACK200	ACK300	Inscribed Circle IC	Thickness S	Nose Radius RE	Applicable Cutter	Fig		
General-purpose	WDMT0804ZDTR	●	●	●	●	0.335 / 8.5	0.157 / 4.0	0.079 / 2.0	MSX3000R / MSX08000R	1		
	WDMT1205ZDTR	●	●	●	●	0.473 / 12	0.197 / 5.0	0.079 / 2.0	MSX4000R / MSX12000R	1		
	WDMT1406ZDTR	●	●	●	●	0.551 / 14	0.236 / 6.0	0.079 / 2.0	MSX5000R / MSX14000R	1		
Honed Type	WDMT0804ZDTR-H	●	●	●	●	0.335 / 8.5	0.157 / 4.0	0.079 / 2.0	MSX3000R / MSX08000R	1		
	WDMT1205ZDTR-H	●	●	●	●	0.473 / 12	0.197 / 5.0	0.079 / 2.0	MSX4000R / MSX12000R	1		
	WDMT1406ZDTR-H	●	●	●	●	0.551 / 14	0.236 / 6.0	0.079 / 2.0	MSX5000R / MSX14000R	1		

Identification Code - Inch

MSX 3 2000 R

Cutter Series Insert Cutter Dia. Feed
Size 2.000" Direction

Identification Code - Metric

MSX 08 040 R S

Cutter Series Insert Cutter Dia. Feed Metric
Size Direction Bore

Recommended Tightening Torque (N·m)

MSX END MILL Type

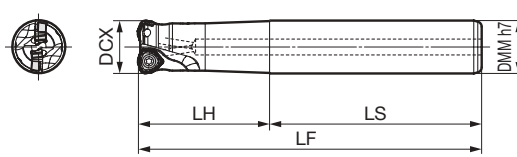
Rake Angle	Radial Axial	-3° to -8° 8°
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1.0mm 20° (06000 Type)	.039" 20° (06000 Type)
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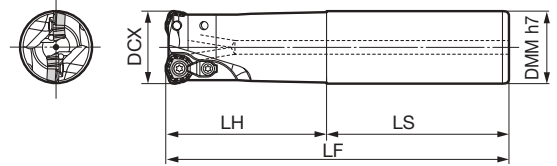
1.5mm 20° (08000 Type)	.0591" 20° (08000 Type)
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Fig. 1 (Single Clamp)

Fig. 2 (Double Clamp)



Dimensions (inch/ mm)



Dimensions (inch/ mm)

MSX 06000E Applicable Insert WDMT06 Type								Buy Inserts Get Cutter FREE		Fig
Cat. No.		Stock	Dia. DC	DMM	LH	LS	LF	No. of Teeth		
Inch	MSX20750EW	●	0.750	0.750	2.000	2.031	4.000	3	30	1
	MSX20750ELC	●	0.750	0.750	2.000	6.000	8.000	3	30	1
Metric	MSX06016ES	★	16	16	30	80	110	2	20	1
	MSX06016EM	★	16	16	70	80	150	2	20	1
	MSX06017EM	★	17	16	20	130	150	2	20	1
	MSX06018EM	★	18	16	20	130	150	2	20	1
	MSX06020ES	★	20	20	50	80	130	3	30	1
	MSX06020EM	★	20	20	100	80	180	3	30	1
	MSX06022EM	★	22	20	30	150	180	3	30	1
	MSX06025ES	★	25	25	60	80	140	3	30	1
	MSX06025EM	★	25	25	120	130	250	3	30	1
MSX 08000E Applicable Insert WDMT08 Type								Buy Inserts Get Cutter FREE		Fig
Cat. No.		Stock	Dia. DC	DMM	LH	LS	LF	No. of Teeth		
Inch	MSX31000EW	●	1.000	1.000	2.500	2.281	4.781	2	20	1
	MSX31000ELC	●	1.000	1.000	2.500	7.500	10.000	2	20	1
	MSXF31000EW	●	1.000	1.000	2.500	2.281	4.781	3	30	1
	MSXF31250EW	●	1.250	1.250	2.500	2.281	4.781	3	30	1
	MSXF31500EW	●	1.500	1.500	2.500	2.281	4.781	4	40	1
Metric	MSX08020ES	★	20	20	50	80	130	2	20	1
	MSX08020EM	★	20	20	100	80	180	2	20	1
	MSX08022EM	★	22	20	30	150	180	2	20	1
	MSX08025ES	★	25	25	60	80	140	2	20	2
	MSX08025EM	★	25	25	120	130	250	2	20	2
	MSX08028EM	★	28	25	40	210	250	2	20	2
	MSX08032ES	★	32	32	70	80	150	3	30	2
	MSX08032EM	★	32	32	120	130	250	3	30	2
	MSX08035EM	★	35	32	50	200	250	3	30	2

MSX 12000E - Applicable Insert WDMT12 Type								Buy Inserts Get Cutter FREE		
Cat. No.		Stock	Dia. DC	DMM	LH	LS	LF	No. of Teeth		Fig
Inch	MSX41250EW	●	1.250	1.250	2.500	2.281	4.781	2	20	2
	MSX41250ELC	●	1.250	1.250	2.500	7.500	10.000	2	20	2
	MSX41500EW	●	1.500	1.250	2.500	2.281	4.781	2	20	2
	MSX41500ELC	●	1.500	1.500	2.500	7.500	10.000	2	20	2
	MSXF41500EW	●	1.500	1.500	2.500	2.281	4.781	3	30	2
Metric	MSX12032ES	★	32	32	70	80	150	2	20	2
	MSX12032EM	★	32	32	120	130	250	2	20	2
	MSX12035EM	★	35	32	50	200	250	2	20	2
	MSX12040ES	★	40	32	50	100	150	3	30	2
	MSX12040EM	★	40	32	50	200	250	3	30	2
	MSX12050EM	★	50	42	50	200	250	4	40	2
MSX 14000E - Applicable Insert WDMT14 Type								Buy Inserts Get Cutter FREE		
Cat. No.		Stock	Dia. DC	DMM	LH	LS	LF	No. of Teeth		Fig
Metric	MSX14040ES	★	40	32	50	100	150	2	20	2
	MSX14040EM	★	40	32	50	200	250	2	20	2
	MSX14050ES	★	50	42	50	100	150	3	30	2
	MSX14050EM	★	50	42	50	200	250	3	30	2
	MSX14063ES	★	63	42	50	100	150	4	40	2
	MSX14063EM	★	63	42	50	200	250	4	40	2

• USA stocked item

★ Worldwide Warehouse item

Identification Code - Inch

MSX 3 1000 E W

Cutter Series Insert Cutter Dia. Endmill W: Weldon
Series 1.000" Type C: Cylindrical

Identification Code - Metric

MSX 06 016 E S

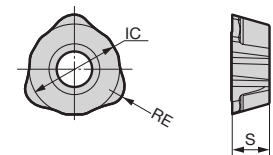
Cutter Series Insert Cutter Dia. Endmill S: Short
Size Type M: Medium

Dimensions (inch / mm)

Insert

Grade		Coated Carbide								
Process	High-speed / Light									
	General-purpose									
	Roughing									
Applications	Cat. No.	ACP200	ACP300	ACK200	ACK300	Inscribed Circle IC	Thickness S	Nose Radius RE	Applicable Cutter	Fig
General-purpose	WDMT0603ZDTR	•	•	•	•	0.250 / 6.35	0.118 / 3.0	0.071 / 1.5	MSX20000E / MSX6000E	1
	WDMT0804ZDTR	•	•	•	•	0.335 / 8.5	0.157 / 4.0	0.079 / 2.0	MSX30000E / MSX08000E	1
	WDMT1205ZDTR	•	•	•	•	0.473 / 12	0.197 / 5.0	0.079 / 2.0	MSX40000E / MSX12000E	1
	WDMT1406ZDTR	•	•	•	•	0.551 / 14	0.236 / 6.0	0.079 / 2.0	MSX50000E / MSX14000E	1
Honed Type	WDMT0603ZDTR-H	•	•	•	•	0.250 / 6.35	0.118 / 3.0	0.071 / 1.5	MSX20000E / MSX6000E	1
	WDMT0804ZDTR-H	•	•	•	•	0.335 / 8.5	0.157 / 4.0	0.079 / 2.0	MSX30000E / MSX08000E	1
	WDMT1205ZDTR-H	•	•	•	•	0.473 / 12	0.197 / 5.0	0.079 / 2.0	MSX40000E / MSX12000E	1
	WDMT1406ZDTR-H	•	•	•	•	0.551 / 14	0.236 / 6.0	0.079 / 2.0	MSX50000E / MSX14000E	1

Fig 1



Parts - Metric

Applicable Body	Flat Screw	Wrench	Clamp	C-Ring	Clamp Screw
MSX06000 Type	BFTX02505IP	1.5	TRDR08IP	-	-
MSX08020E, MSX08022E Type	BFTX0306IP	2.0	TRDR08IP	-	-
Other MSX08000 types not described above	BFTX0306IP	2.0	TRDR08IP	CCH3.5	CR03 BFTX03510IP08
MSX12000 Type	BFTX0409IP	3.0	TRDR15IP	CCH3.5	CR03 BFTX03510IP15
MSX14000 Type	BFTX0511IP	5.0	TRDR20IP	CCH4.5	CR03 BFTX04513IP20

Parts - Inch

Applicable Cutter	Screw	Wrench	Clamp	Ring	Clamp Screw
MSX20000	BFTX02505IP	TRDR08IP	-	-	-
MSX30000 ≤1.0"	BFTX0305IP	TRDR08IP	CCH3.5	CR3	BFTX03510IP08
MSX30000 >1.0"	BFTX0306IP	TRDR08IP	CCH3.5	CR3	BFTX03510IP08
MSX40000	BFTX0409IP	TRDR15IP	CCH3.5	CR3	BFTX03510IP15
MSX50000	BFTX0511IP	TRDR20IP	CCH4.5	CR3	BFTX04513IP20

40TH ANNIVERSARY

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3040 N. Pointer Road • Appleton, WI 54911
800.734.2573 • 920.734.2573
Fax: 920.734.1749
Email: sales@valleytool.net
Web: www.valleytool.net

