Code	Category	Product Image	Size Rang	Page
SB	Saw Blade		Dia. 50/ 63/ 80/ 100/ 125/ 160/ 200/ 250/ 285/ 300 mm AE 1.4/ 1.5/ 1.6/ 1.8/ 2.0/ 2.2/ 2.5/ 2.7/ 3.0/ 3.2/ 3.5/ 4.0/ 4.2/ 4.5/ 5.0/ 5.2/ 5.5 mm	188 | 199
SBL	Saw Milling Cutter		Dia. 80/ 100/ 125/ 160 mm AE 1.4/ 1.5/ 1.6/ 1.8/ 2.0/ 2.2/ 2.5/ 2.7/ 3.0/ 3.2/ 3.5/ 4.0/ 4.2/ 4.5/ 5.0/ 5.2/ 5.5 mm	202 | 204
STL	Side Milling Cutter		Dia. 80/ 100/ 125/ 160 mm AE 4/ 5 mm	205
BL BLL	Adapter Holder		Dia. 45/ 58 mm I.D. 22/ 25.4/ 31.75/ 32 mm	206
SCL	Side Milling Cutter		Dia. 160/ 200/ 250 mm AE 6/ 8/ 10/ 12 mm	209

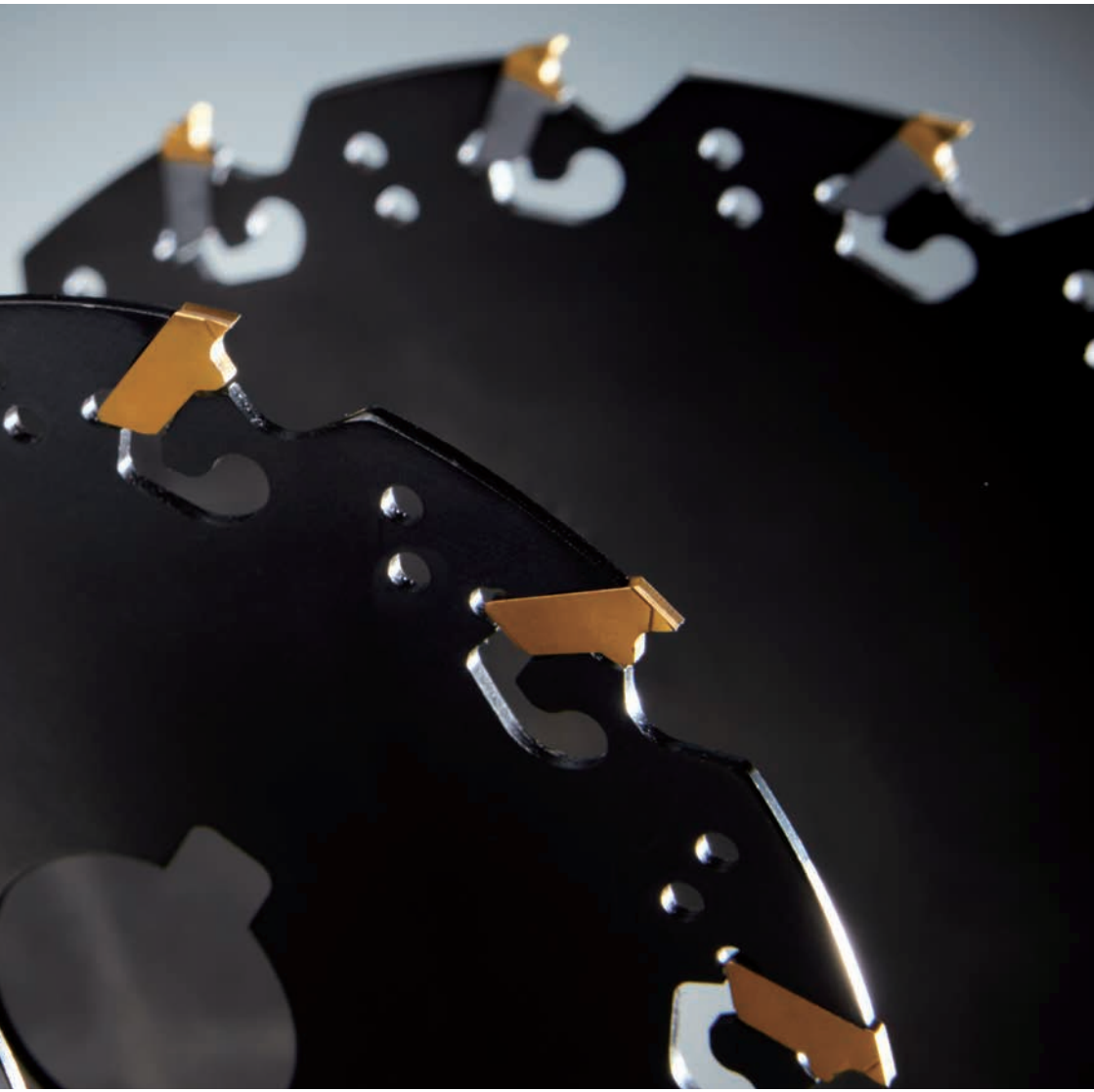
Code	Category	Product Image	Size Rang	Page
CEL	Disc Milling Cutter		Dia. 160/ 200/ 250 mm AE 14/ 16/ 18/ 20/ 22/ 25/ 30 mm	210 | 211
CWL	Back Milling Cutter		Dia. 160/ 200/ 250 mm AE 12 mm	212
BCL	Adapter Holder		Dia. 65/ 90 mm I.D. 32/ 31.75/ 40/ 38.1/ 60/ 50.8 mm	212 | 213
SC	Side Milling Cutter		Dia. 80/ 100/ 125/ 160 mm AE 4/ 5/ 6/ 7/ 8/ 10/ 12 mm	215 | 220
ST			Dia. 80/ 100/ 125/ 160 mm AE 6/ 7/ 8/ 10/ 12 mm	221 | 222
CE	Disc Milling Cutter		Dia. 80/ 100/ 125 mm AE 14/ 16/ 18/ 20/ 22/ 25/ 30 mm	224 | 226
CW			Dia 80/ 100/ 125 mm AE 14/ 16/ 18/ 20/ 22/ 25/ 30 mm	227 | 229
CB	Back Milling Cutter		Dia. 100/ 125 mm AE 12 mm	232
CDL CDR	Straddle Milling Cutter		Dia. 100/ 125/ 160 mm AE 12 mm	233

SLITTING/ SLOTTING/ CUT-OFF SERIES

Video

The Safest Saw

Patented embedding system assures the rigidity of inserts clamping which enhances the tool life and cutting speed, meanwhile realize impressive productivities.



SAW BLADE

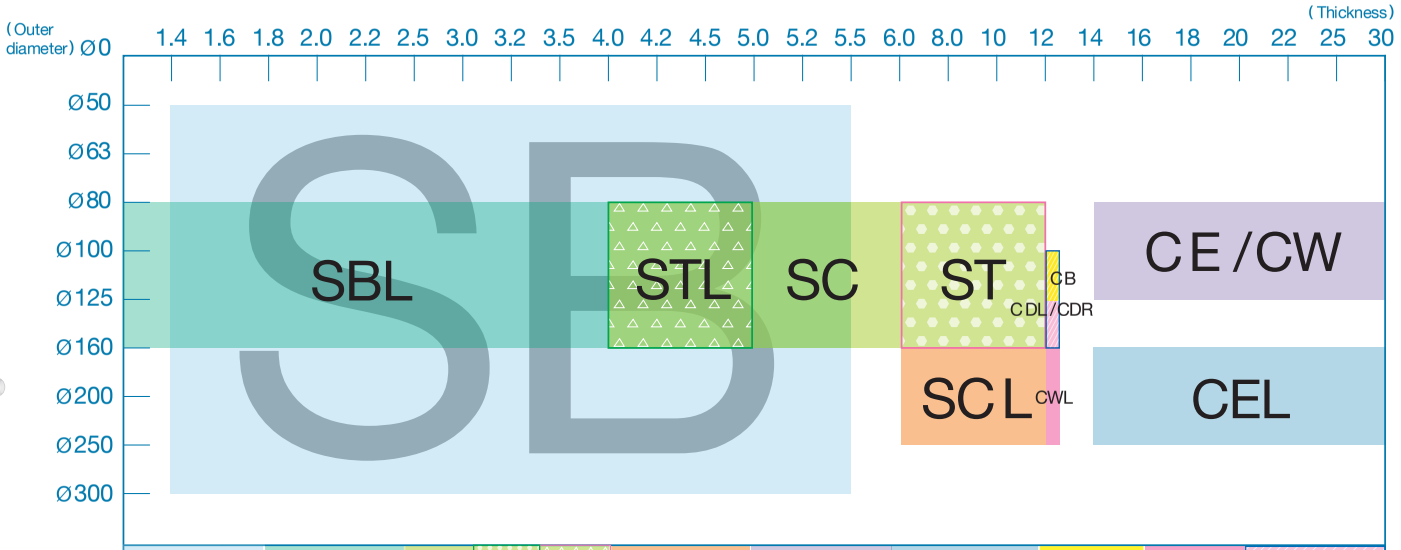
Video

Features

- Available in materials: P K M N S H
- Cost 200~300% SAVING
- Applicable Machines: Milling machine
- Efficiency 300~500% UP
- Durability 300% UP

SLITTING/SLOTTING/CUT-OFF SERIES

Classification table



Product	SB	SBL	SC	ST	STL	SCL	CE/CW	CEL	CB	CWL	CDL/CDR
Outer diameter	Ø50-300	Ø80-160	Ø80-160			Ø160-250	Ø80-125	Ø160-250	Ø100-125	Ø160-250	Ø100-160
Thickness	1.4-5.5	1.4-5.5	4-12	6-12	4-5	6-12	14-30	14-30	12	12	12

Unit : mm

Traditional vs. New Patent

"Yih Troun" is the first ever in the world which developed this precise locking type saw blade.

1. The screwless indexable insert was TIALN coated and designed with exclusive geometric angle on the cutting edge for producing impressive performance.
2. It increasing the machining (cutting) speed 300% - 500%
3. Cut down the cost of cutting tools

Patent No. : M538848

Patent No. : ZL 2016 2 1300067.8

PCT Priority

Traditional

Solid type saw blade:

1. HSS Saw is only available with low cutting speed, if speed up, the blade will be damaged soon.
2. The carbide brazed saw is welded by high temperature and without coating, it will degrade the body hardness and machining performance.

Multi Functional Saw Blade

1 Same cutter applicable to inserts of :

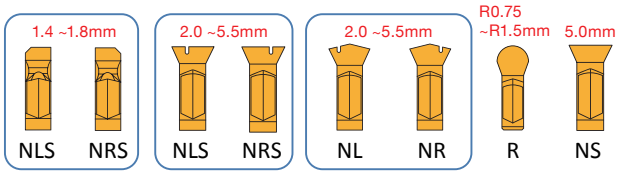
A. Different materials

P M K N S H

B. Different thickness

ex.: 1.75 mm cutter can fit inserts 2.0/2.2/2.5mm

C. Different insert forms

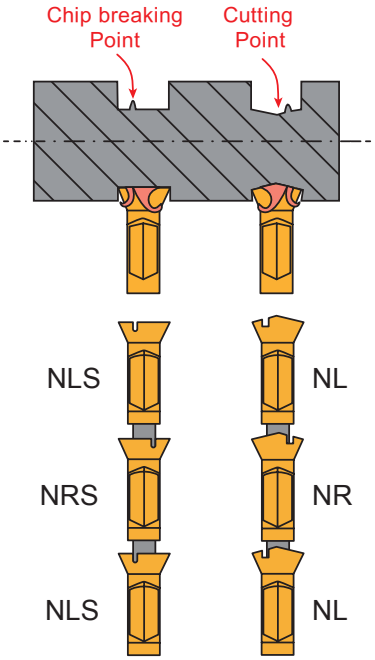


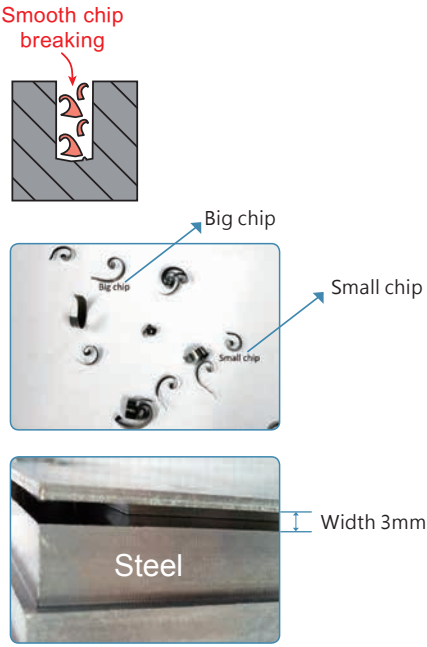
2 Patented embedding system

Strong clamping even in high feed machining

Circular embedding system achieves optimum performance in high speed machining, Max. RPM 17200 rev/min, approved in sweden.

Y.T. Patented Chip Breaking System



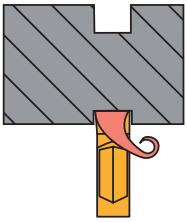


Excellent surface finishing quality and chip evacuation at the live test for machining 20mm deep slots by one pass

Characteristics

- The Insert has unique chip breaker design to break chips into two parts and chips are easily discharged while machining deep grooves and slots.
- It has accurate center positioning design which enables stronger and steady cutter conditions while machining, and lessens vibrations.
- Compare with the saw blades in the market, this design helps in reducing lots of cutting resistances and lower the machining power. It's the best choice for long depth and difficult materials machining.

Defect of other branded self-grip inserts



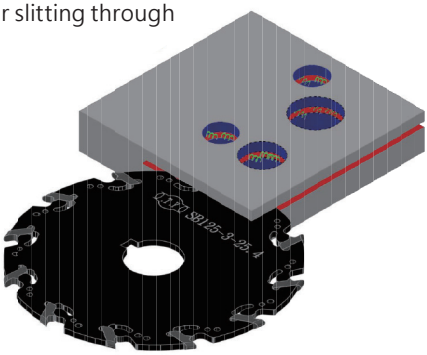
Characteristics

- While in deep grooving, chips often get stuck in the workpiece slot.
- Requires heavy power and generates large resistance in machining.
- As a result, it gives a be poor efficiency and heavy vibrations while large contact machining.

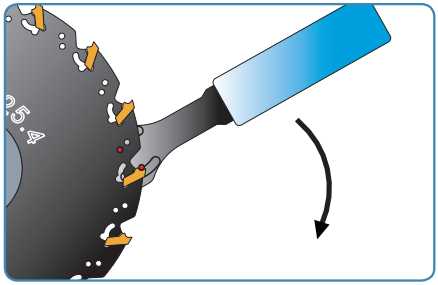
The Solution To Interrupted Cutting:

LNGT Radius Inserts

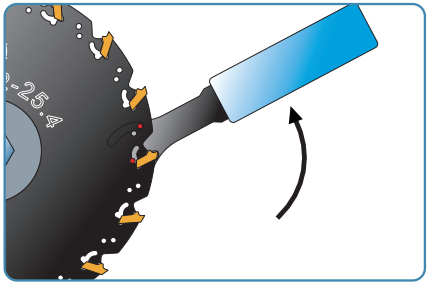
The radius insert with smooth entering cut provides excellent solution to the interrupted cutting, especially for slitting through the workpiece with holes inside.



Change The Inserts



Mount inserts



Remove inserts

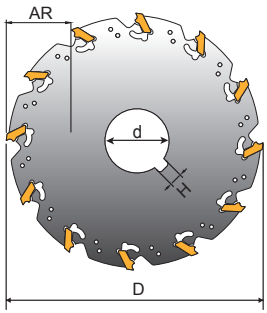
Video

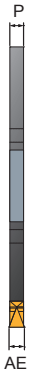
Before mounting inserts, use marker pen (oil-based) to wipe across the concave surface of the insert for helping fit the insert into the blade smoothly.

PRODUCT SPECIFICATIONS

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247





SB

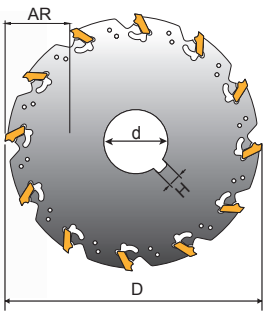
Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserst LNGT	Wrench
	D	AE	AR	P	d	C	B						
SB050-1.4-13	50	1.4 1.5	14.5	1.2	13	-	-	4	-	0.07	12000	1414 1415	150.10-30
SB050-1.4-12.7					12.7								
SB063-1.4-16	63		18		16			6			11000		
SB063-1.4-15.875					15.875								
SB080-1.4-22	80		22.5		22			8	6	0.09	8000		
SB080-1.4-25.4			19.5		25.4				6.35				
SB100-1.4-22	100		32.5		22			10	6	0.13	6300		
SB100-1.4-25.4			29.5		25.4				6.35				
SB100-1.4-27					27				7				
SB125-1.4-22	125		45		22			12	6	0.20	5000		
SB125-1.4-25.4					25.4				6.35				
SB125-1.4-32			39		32				8				

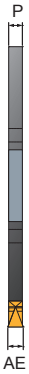
* Wrench 150.10-30 for above cutter order seperately.

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247

SB





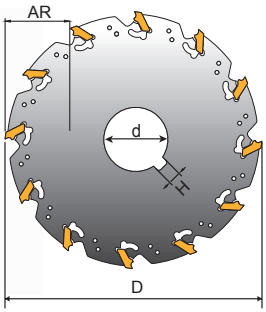
Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SB050-1.6-13	50	1.6	14.5	1.4	13	-	-	4	-	0.08	12000	1616	150.10-30
SB050-1.6-12.7					12.7								
SB063-1.6-16	63		18		16			6			11000		
SB063-1.6-15.875					15.875								
SB080-1.6-22	80		22.5		22			8	6	0.09	8000		
SB080-1.6-25.4			19.5		25.4				6.35				
SB100-1.6-22	100		32.5		22			10	6	0.14	6300		
SB100-1.6-25.4			29.5		25.4				6.35				
SB100-1.6-27					27				7				
SB125-1.6-22	125		45		22			12	6	0.21	5000		
SB125-1.6-25.4			42		25.4				6.35				
SB125-1.6-32			39		32				8				
SB160-1.6-25.4	160		59.5		25.4			16	6.35	0.35	4000		
SB160-1.6-32			56.5		32				8				
SB160-1.6-40			52		40				10				

* Wrench 150.10-30 for above cutter order seperately.

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247

SB

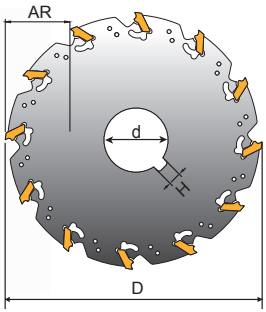


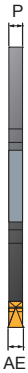
Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SB050-1.8-13	50	1.8	14.5	1.6	13	-	-	4	-	0.09	12000	1818	150.10-30
SB050-1.8-12.7					12.7								
SB063-1.8-16	63		18		16			6			11000		
SB063-1.8-15.875					15.875								
SB080-1.8-22	80		22.5		22			8	6	0.10	8000		
SB080-1.8-25.4			19.5		25.4				6.35				
SB100-1.8-22	100		32.5		22			10	6	0.15	6300		
SB100-1.8-25.4			29.5		25.4				6.35				
SB100-1.8-27					27				7				
SB125-1.8-22	125		45		22			12	6	0.22	5000		
SB125-1.8-25.4			42		25.4				6.35				
SB125-1.8-32			39		32				8				
SB160-1.8-25.4	160		59.5		25.4			16	6.35	0.38	4000		
SB160-1.8-32			56.5		32				8				
SB160-1.8-40			52		40				10				

* Wrench 150.10-30 for above cutter order seperately.

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247





SB

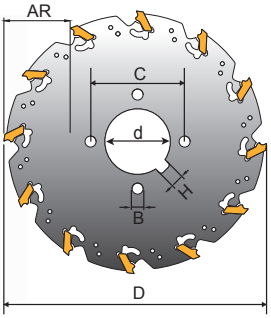
Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SB050-2-13	50	2.0 2.2 2.5	14.5	1.7	13	-	-	4	-	0.08	12000	2020 2022 2025	150.10-30
SB050-2-12.7					12.7								
SB063-2-16	63		18		16			6			11000		
SB063-2-15.875					15.875								
SB080-2-22	80		22.5		22			8	6	0.10	8000		
SB080-2-25.4			19.5		25.4				6.35				
SB100-2-22	100		32.5		22			10	6	0.16	6300		
SB100-2-25.4			29.5		25.4				6.35				
SB100-2-27					27				7				
SB125-2-22	125		45		22			12	6	0.24	5000		
SB125-2-25.4			42		25.4				6.35				
SB125-2-32			39		32				8				
SB160-2-25.4	160		59.5		25.4			16	6.35	0.39	4000		
SB160-2-32			56.5		32				8				
SB160-2-40			52		40				10				

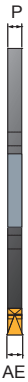
* Wrench 150.10-30 for above cutter order seperately.

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247

SB



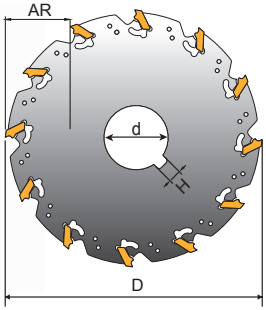


Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SB200-2-25.4	200	2.0 2.2 2.5	79.5	1.7	25.4	-	-	20	6.35	0.64	3200	2020 2022 2025	150.10-30
SB200M-2-25.4								26					
SB200-2-32			76.5		32	63	11	20	8				
SB200M-2-32								26					
SB200-2-40			72		40	90		20	10		3200		
SB200M-2-40								26					
SB250-2-25.4	250		104.5		25.4	-	-		6.35	0.96	2600		
SB250M-2-25.4								34					
SB250-2-32			101.5		32	63	11	26	8				
SB250M-2-32								34					
SB250-2-40			97		40	90		26	10				
SB250M-2-40								34					
SB285-2-32	285		119		32	63		28	8	1.12	2300		
SB285M-2-32								40					
SB050-2.5-13	50	2.5 2.7 3.0	14.5	2.25	13	-	-	4	-	0.1	12000	2525 2527 2530	150.10-30
SB050-2.5-12.7					12.7								

* Wrench 150.10-30 for above cutter order seperately.

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247



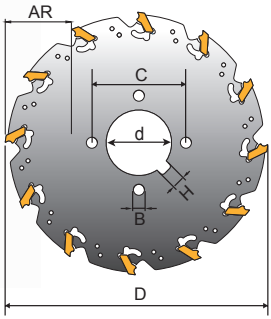
SB

Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SB063-2.5-16	63	2.5 2.7 3.0	18	2.25	16	-	-	6	-	0.11	11000	2525 2527 2530	150.10-30
SB063-2.5-15.875					15.875								
SB080-2.5-22	80		22.5		22			8	6	0.12	8000		
SB080-2.5-25.4			19.5		25.4				6.35				
SB100-2.5-22	100		32.5		22			10	6	0.18	6300		
SB100-2.5-25.4			29.5		25.4				6.35				
SB100-2.5-27					27				7				
SB125-2.5-22	125		45		22			12	6	0.27	5000		
SB125-2.5-25.4			42		25.4				6.35				
SB125-2.5-32			39		32				8				
SB160-2.5-25.4	160		59.5		25.4			16	6.35	0.47	4000		
SB160-2.5-32			56.5		32				8				
SB160-2.5-40			52		40				10				
SB200-2.5-25.4	200		79.5		25.4			20	6.35	0.73	3200		
SB200M-2.5-25.4								26					

* Wrench 150.10-30 for above cutter order seperately.

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247



SB

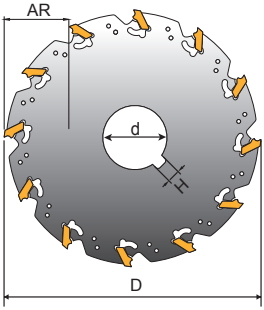
Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts **LNGT**	Wrench
	D	AE	AR	P	d	C	B						
SB200-2.5-32	200	2.5 2.7 3.0	76.5	2.25	32	63	11	20	8	0.73	3200	2525 2527 2530	150.10-30
SB200M-2.5-32								26					
SB200-2.5-40			72		40	90		20	10				
SB200M-2.5-40								26					
SB250-2.5-25.4	250		104.5		25.4	-	-	26	6.35	1.12	2600		
SB250M-2.5-25.4								34					
SB250-2.5-32			101.5		32	63	11	26	8				
SB250M-2.5-32								34					
SB250-2.5-40			97		40	90		26	10				
SB250M-2.5-40								34					
SB300-2.5-25.4	300		129.5		25.4	-	-	30	6.35	1.61	2200		
SB300M-2.5-25.4								40					
SB300-2.5-32			126.5		32	63	11	30	8		2200		
SB300M-2.5-32								40					
SB300-2.5-40			122		40	90		30	10				
SB300M-2.5-40								40					

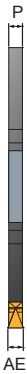
* Wrench 150.10-30 for above cutter order seperately.

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247

SB



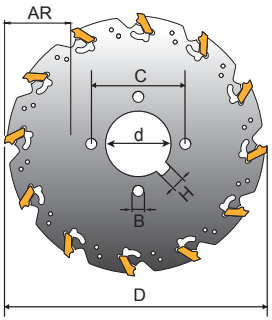


Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SB050-3-13	50	3.0 3.2 3.5	14.5	2.7	13	-	-	4	-	0.10	12000	3030 3032 3035	150.10-30
SB050-3-12.7					12.7								
SB063-3-16	63		18		16			6	-	0.11	11000		
SB063-3-15.875					15.875								
SB080-3-22	80		22.5		22			8	6	0.13	8000		
SB080-3-25.4			19.5		25.4				6.35				
SB100-3-22	100		32.5		22			10	6	0.20	6300		
SB100-3-25.4			29.5		25.4				6.35				
SB100-3-27					27				7				
SB125-3-22	125		45		22			12	6	0.31	5000		
SB125-3-25.4			42		25.4				6.35				
SB125-3-32			39		32				8				
SB160-3-25.4	160		59.5		25.4			16	6.35	0.53	4000		
SB160-3-32			56.5		32				8				
SB160-3-40			52		40				10				
SB200-3-25.4	200		79.5		25.4			20	6.35	0.85	3200		
SB200M-3-25.4								26					

* Wrench 150.10-30 for above cutter order seperately.

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247



SB

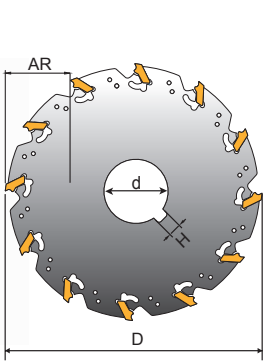
Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SB200-3-32	200	3.0 3.2 3.5	76.5	2.7	32	63	11	20	8	0.85	3200	3030 3032 3035	150.10-30
SB200M-3-32								26					
SB200-3-40			72		40	90		20	10				
SB200M-3-40								26					
SB250-3-25.4	250		104.5		25.4	-	-		6.35	1.38	2600		
SB250M-3-25.4								34					
SB250-3-32			101.5		32	63	11	26	8				
SB250M-3-32								34					
SB250-3-40			97		40	90		26	10				
SB250M-3-40								34					
SB300-3-25.4	300		129.5		25.4	-	-	30	6.35	1.86	2200		
SB300M-3-25.4								40					
SB300-3-32			126.5		32	63	11	30	8		2200		
SB300M-3-32								40					
SB300-3-40			122		40	90		30	10				
SB300M-3-40								40					

* Wrench 150.10-30 for above cutter order seperately.

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247

SB

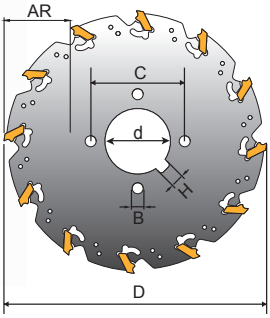


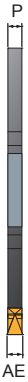
Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts **LNGT**	Wrench
	D	AE	AR	P	d	C	B						
SB050-4-13	50	4.0 4.2 4.5	14.5	3.7	13	-	-	4	-	0.09	12000	4040 4042 4045	150.10-30
SB050-4-12.7					12.7								
SB063-4-16	63		18		16			6	-	0.12	11000		
SB063-4-15.875					15.875								
SB080-4-22	80		22.5		22			8	6	0.15	8000		
SB080-4-25.4			19.5		25.4				6.35				
SB100-4-22	100		32.5		22			10	6	0.25	6300		
SB100-4-25.4			29.5		25.4				6.35				
SB100-4-27					27				7				
SB125-4-22	125		45		22			12	6	0.40	5000		
SB125-4-25.4			42		25.4				6.35				
SB125-4-32			39		32				8				
SB160-4-25.4	160		59.5		25.4			16	6.35	0.66	4000		
SB160-4-32			56.5		32				8				
SB160-4-40			52		40				10				
SB200-4-25.4	200		79.5		25.4			20	6.35	1.02	3200		
SB200M-4-25.4								26					

* Wrench 150.10-30 for above cutter order seperately.

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247





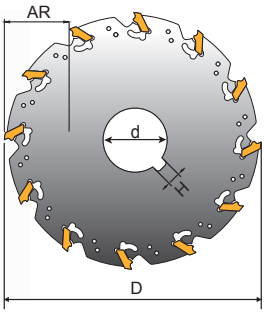
SB

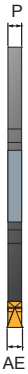
Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SB200-4-32	200	4.0 4.2 4.5	76.5	3.7	32	63	11	20	8	1.02	3200	4040 4042 4045	150.10-30
SB200M-4-32								26					
SB200-4-40			72		40	90		20	10				
SB200M-4-40								26					
SB250-4-25.4	250		104.5		25.4	-	-	26	6.35	1.69	2600		
SB250M-4-25.4								34					
SB250-4-32			101.5		32	63	11	26	8				
SB250M-4-32								34					
SB250-4-40			97		40	90		26	10				
SB250M-4-40								34					
SB300-4-25.4	300		129.5		25.4	-	-	30	6.35	2.18	2200		
SB300M-4-25.4								40					
SB300-4-32			126.5		32	63	11	30	8				
SB300M-4-32								40					
SB300-4-40			122		40	90		30	10				
SB300M-4-40								40					

* Wrench 150.10-30 for above cutter order seperately.

Saw Blades

- Inserts P. 235 - 241
- Cutting Data P. 245 - 247





SB

Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SB050-5-13	50	5.0 5.2 5.5	14.5	4.5	13	-	-	4	-	0.13	12000	5050 5052 5055	150.10-30
SB050-5-12.7					12.7								
SB063-5-16	63		18		16			6			11000		
SB063-5-15.875					15.875								
SB080-5-22	80		22.5		22			8	6	0.18	8000		
SB080-5-25.4			19.5		25.4				6.35				
SB100-5-22	100		32.5		22			10	6	0.28	6300		
SB100-5-25.4			29.5		25.4				6.35				
SB100-5-27					27				7				
SB125-5-22	125		45		22			12	6	0.45	5000		
SB125-5-25.4			42		25.4				6.35				
SB125-5-32			39		32				8				
SB160-5-25.4	160		59.5		25.4			16	6.35	0.75	4000		
SB160-5-32			56.5		32				8				
SB160-5-40			52		40				10				

* Wrench 150.10-30 for above cutter order seperately.

ADAPTER HOLDER SERIES

Video

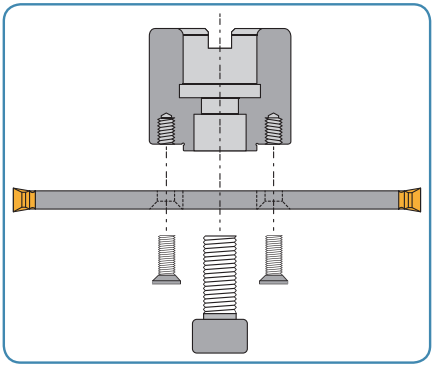
Features

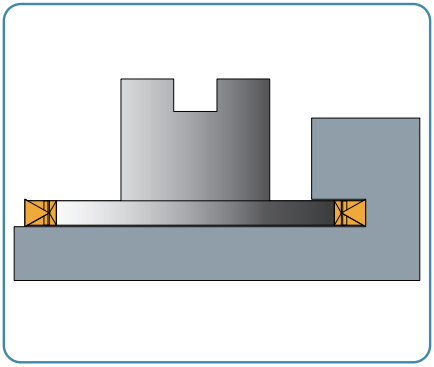
- Available in materials: P K M N S H
- Cost 200~300% SAVING
- Applicable Machines: Milling machine
- Efficiency 300~500% UP
- Durability 300% UP

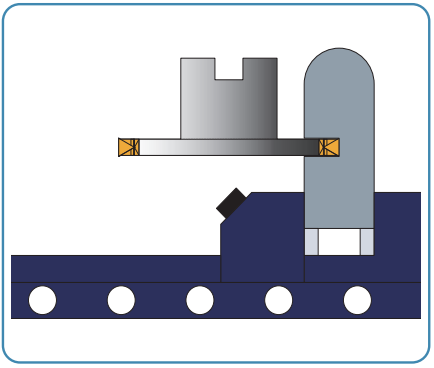
New System For T-Slot Milling

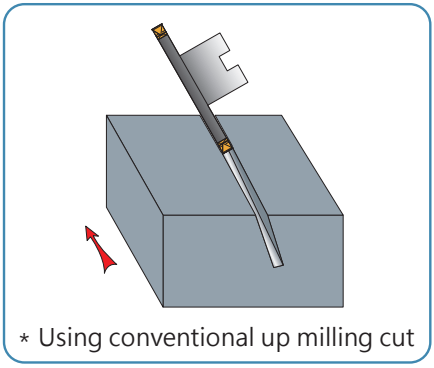
ADAPTER HOLDER

Slitting / Slotting / Cut-off







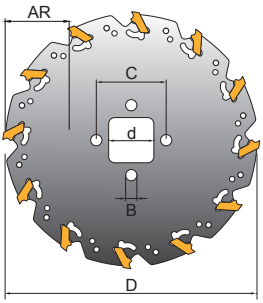


* Using conventional up milling cut

PRODUCT SPECIFICATIONS

Saw Milling Cutters

- Adapter Holders P. 206
- Inserts P. 235 - 241
- Cutting Data P. 245 - 247



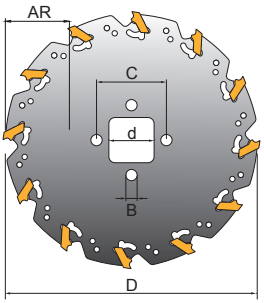
SBL

Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SBL080-1.4-22	80	1.4 1.5	17	1.2	22	34	5	8	-	0.08	8000	1414 1415	150.10-30
SBL100-1.4-22	100		27					10		0.13	6300		
SBL125-1.4-32	125		33		32	46	6	12		0.18	5000		
SBL160-1.4-32	160		50.5					16		0.33	4000		
SBL080-1.6-22	80	1.6	17	1.4	22	34	5	8	-	0.09	8000	1616	150.10-30
SBL100-1.6-22	100		27					10		0.14	6300		
SBL125-1.6-32	125		33		32	46	6	12		0.19	5000		
SBL160-1.6-32	160		50.5					16		0.35	4000		

* Wrench 150.10-30 for above cutter order seperately.

Saw Milling Cutters

- Adapter Holders P. 206
- Inserts P. 235 - 241
- Cutting Data P. 245 - 247



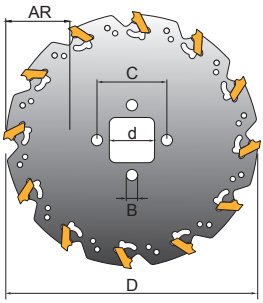
SBL

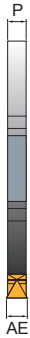
Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SBL080-1.8-22	80	1.8	17	1.6	22	34	5	8	-	0.10	8000	1818	150.10-30
SBL100-1.8-22	100		27					10		0.15	6300		
SBL125-1.8-32	125		33		32	46	6	12		0.21	5000		
SBL160-1.8-32	160		50.5					16		0.37	4000		
SBL080-2-22	80	2.0 2.2 2.5	17	1.7	22	34	5	8	-	0.10	8000	2020 2022 2025	150.10-30
SBL100-2-22	100		27					10		0.15	6300		
SBL125-2-32	125		33		32	46	6	12		0.22	5000		
SBL160-2-32	160		50.5					16		0.39	4000		
SBL080-2.5-22	80	2.5 2.7 3.0	17	2.25	22	34	5	8	-	0.11	8000	2525 2527 2530	150.10-30
SBL100-2.5-22	100		27					10		0.17	6300		
SBL125-2.5-32	125		33		32	46	6	12		0.26	5000		
SBL160-2.5-32	160		50.5					16		0.45	4000		

* Wrench 150.10-30 for above cutter order seperately.

Saw Milling Cutters

- Adapter Holders P. 206
- Inserts P. 235 - 241
- Cutting Data P. 245 - 247





SBL

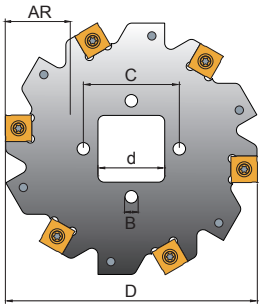
Order Code	Dimensions (mm)							Z	H	KG	MAX. RPM	Inserts LNGT	Wrench
	D	AE	AR	P	d	C	B						
SBL080-3-22	80	3.0 3.2 3.5	17	2.7	22	34	5	8	-	0.12	8000	3030 3032 3035	150.10-30
SBL100-3-22	100		27					10		0.20	6300		
SBL125-3-32	125		33		32	46	6	12		0.29	5000		
SBL160-3-32	160		50.5					16		0.51	4000		
SBL080-4-22	80	4.0 4.2 4.5	17	3.7	22	34	5	8	-	0.15	8000	4040 4042 4045	150.10-30
SBL100-4-22	100		27					10		0.24	6300		
SBL125-4-32	125		33		32	46	6	12		0.36	5000		
SBL160-4-32	160		50.5					16		0.64	4000		
SBL080-5-22	80	5.0 5.2 5.5	17	4.5	22	34	5	8	-	0.17	8000	5050 5052 5055	150.10-30
SBL100-5-22	100		27					10		0.27	6300		
SBL125-5-32	125		33		32	46	6	12		0.42	5000		
SBL160-5-32	160		50.5					16		0.74	4000		

* Wrench 150.10-30 for above cutter order seperately.

Side Milling Cutters

- Adapter Holders P. 206
- Inserts P. 242 - 244
- Cutting Data P. 248 - 249

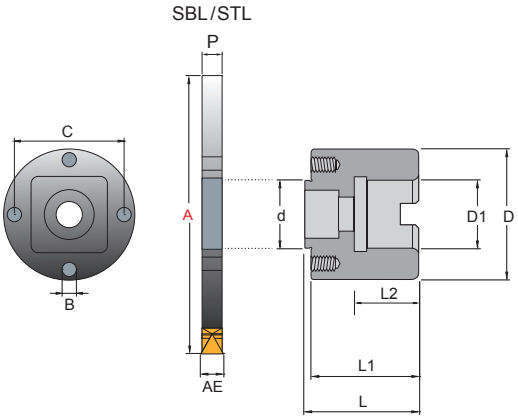
STL



Order Code	Dimensions (mm)							Z	Zc	KG	MAX. RPM	Inserts SNGX SNGW	Screw	Key
	D	AE	AR	P	d	C	B							
STL080-4-22	80	4	17	3.4	22	34	5	8	4	0.16	13700	1102	T9354	T09P
STL080-5-22		5		4.2								1103	T9355	T08P
STL100-4-22	100	4	27	3.4				10	5	0.26	12000	1102	T9354	T09P
STL100-5-22		5		4.2								1103	T9355	T08P
STL125-4-32	125	4	33	3.4	32	46	6	12	6	0.37	10900	1102	T9354	T09P
STL125-5-32		5		4.2								1103	T9355	T08P
STL160-4-32	160	4	50.5	3.4				16	8	0.68	8300	1102	T9354	T09P
STL160-5-32		5		4.2								1103	T9355	T08P

* Use Zc (effective no. of teeth) to calculate the feed.
* Fit Insert SNGW...R2.5 and R3.0, cutter have to modified (ask salesman).

Adapter Holders



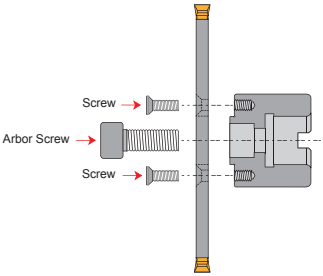
BL / BLL

Order Code	Dimensions (mm)									KG	Available P
	D	D1	d	C	B	L	L1	L2	A		
BL45-22	45	22	22	34	5	43	41.8	27	80 100	0.47	 1.2-2.25mm
BL45-25.4		25.4				45	43.8				
BL58-31.75	58	31.75	32	46	6	55	53.8	28	125 160	0.95	
BL58-32		32									
BLL45-22	45	22	22	34	5	43	40.5	27	80 100	0.47	 2.7-4.5mm
BLL45-25.4		25.4				45	42.5				
BLL58-31.75	58	31.75	32	46	6	55	52.5	28	125 160	0.95	
BLL58-32		32									

* Please follow the step 1、2、3 to choose the cutter and holder to match: 1. Available P 2. “d” size 3. “D1” size.

Standard Spare Parts

Holders	Screw	Holders	Screw	Arbor Screw
BL45-22	C90512	BLL45-22	C90512	M1035
BL45-25.4		BLL45-25.4		M1235
BL58-31.75	C90612	BLL58-31.75	C90612	M1235/M1635/ W2403
BL58-32		BLL58-32		M1635

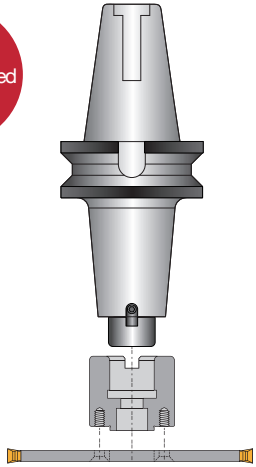


SOLUTION-1

Face Milling Arbor:
Better strength with shorter length and bigger diameter

SBL/STL Series

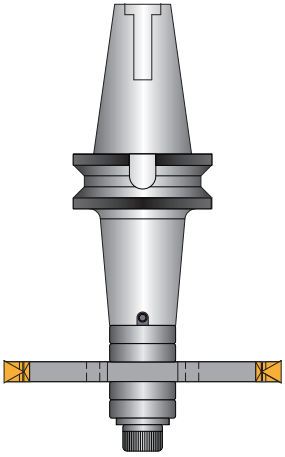
Highly Recommended



SOLUTION-2

Side Milling Arbor:
Poor strength with longer length and smaller diameter

SB Series



It might cause mechanism interferences.

ADAPTER HOLDER SERIES

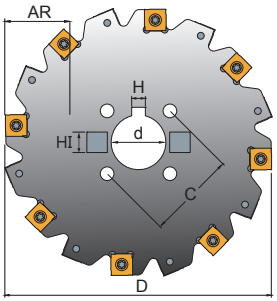
Features

- Available in materials: P K M N S H
- Cost **200~300%** SAVING
- Applicable Machines: Milling machine
- Efficiency **300~500%** UP
- Durability **300%** UP

PRODUCT SPECIFICATIONS

Side Milling Cutters

- Adapter Holders P. 212
- Inserts P. 242 - 244
- Cutting Data P. 248 - 249



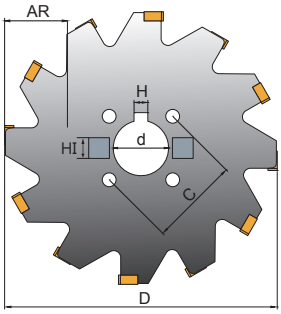
SCL

Order Code	Dimensions (mm)								Z	Zc	KG	MAX. RPM	Inserts SNGX SNGW	Screw	Key
	D	AE	AR	P	H	C	d	HI							
SCL-160-6-32	160	6	46.5	5	8	52	32	12X12	16	8	0.87	8300	1203	T945	T15P
SCL-160-8-32		8		7							1.11		12045	T947	
SCL-160-10-32		10		9							1.35		1205	T948	
SCL-160-12-32		12		11							1.56		1207	T9411	
SCL-200-6-40	200	6	54	5	10	70	40		18	9	1.34	4200	1203	T945	
SCL-200-8-40		8		7							1.72		12045	T947	
SCL-200-10-40		10		9							2.11		1205	T948	
SCL-200-12-40		12		11							2.49		1207	T9411	
SCL-250-6-40	250	6	79	5					24	12	2.05	3800	1203	T945	
SCL-250-8-40		8		7							2.57		12045	T947	
SCL-250-10-40		10		9							3.09		1205	T948	
SCL-250-12-40		12		11							3.61		1207	T9411	

* Use Zc (effective no. of teeth) to calculate the feed.
* Fit Insert SNGW…R2.5 and R3.0, cutter have to modified (ask salesman).

Disc Milling Cutters

- Adapter Holders P. 206
- Inserts P. 245
- Cutting Data P. 250 - 251



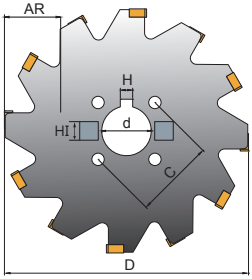
CEL

Order Code	Dimensions (mm)								Z	Zc	KG	MAX. RPM	Inserts CNGX	Screw	Key
	D	AE	AR	P	H	C	d	HI							
CEL-160-14-32	160	14	46.5	12.5	8	52	32	12X12	12	6	1.72	6900	1005	C04011	T15P
CEL-160-16-32		16		14.5							1.95				
CEL-160-18-32		18		16.5							2.19		1305		
CEL-160-20-32		20		18.5							2.44				
CEL-160-22-32		22		20.5							2.68				
CEL-160-25-32		25		23.5							3.04		1605		
CEL-160-30-32		30		28.5							3.64				
CEL-200-14-40	200	14	54	12.5	10	70	40		16	8	2.68	6100	1005		
CEL-200-16-40		16		14.5							3.06				
CEL-200-18-40		18		16.5							3.44		1305		
CEL-200-20-40		20		18.5							3.82				
CEL-200-22-40		22		20.5					12	6	4.20				
CEL-200-25-40		25		23.5							4.77		1605		
CEL-200-30-40		30		28.5							5.72				

* Use Zc (effective no. of teeth) to calculate the feed.

Disc Milling Cutters

- Adapter Holders P. 206
- Inserts P. 245
- Cutting Data P. 250 - 251



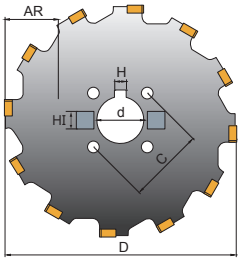
CEL

Order Code	Dimensions (mm)								Z	Zc	KG	MAX. RPM	Inserts CNGX	Screw	Key
	D	AE	AR	P	H	C	d	HI							
CEL-250-14-40	250	14	79	12.5	10	70	40	12X12	20	10	3.20	5500	1005	C04011	T15P
CEL-250-16-40		16		14.5							3.72				
CEL-250-18-40		18		16.5							4.24		1305		
CEL-250-20-40		20		18.5							4.76				
CEL-250-22-40		22		20.5					16	8	5.28				
CEL-250-25-40		25		23.5							6.06		1605		
CEL-250-30-40		30		28.5							7.36				

* Use Zc (effective no. of teeth) to calculate the feed.

Back Milling Cutters

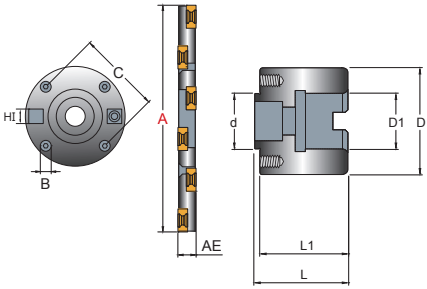
- Adapter Holders P. 206
- Inserts P. 245
- Cutting Data P. 250 - 251



CWL

Order Code	Dimensions(mm)								Z	KG	MAX. RPM	Inserts CNGX	Screw	Key
	D	AE	AR	P	H	C	d	HI						
CWL-160-32	160	12	46.5	16.5	10	70	40	12X12	16	1.90	6900	1305	C04011	T15P
CWL-200-40	200		54						20	2.30	6100			
CWL-250-40	250		79						24	3.20	5500			

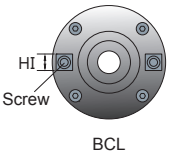
Adapter Holders



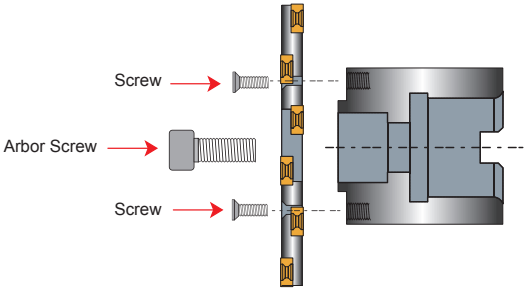
BCL

Order Code	Dimensions (mm)								KG
	D	D1	d	C	B	L	L1	A	HI	
BCL65-31.75	65	31.75	32	52	8	50	44.5	160	12X12	0.84
BCL65-32		32								
BCL65-38.1		38.1								0.74
BCL65-40		40								
BCL90-38.1	90	38.1	40	70	8	60	54.5	200 250	12X12	1.70
BCL90-40		40								1.78
BCL90-50		50				65				1.80
BCL90-50.8		50.8								1.85
BCL90-60		60								1.90

Standard Spare Parts



BCL



Holders	Screw	Arbor Screw	HI+Screw
SCL-160-6-32	C90815	M1650	W12.12.8 + M0510
SCL-160-8-32			
SCL-160-10-32	C90820		
SCL-160-12-32			
SCL-200-6-40	C90815	M1650 M2050 W3003	
SCL-200-8-40			
SCL-200-10-40	C90820		
SCL-200-12-40			
SCL-250-6-40	C90815		
SCL-250-8-40			
SCL-250-10-40	C90820		
SCL-250-12-40			
CWL-160-32	C90825		
CWL-200-40			
CWL-250-40			

Holders	Screw	Arbor Screw	HI+Screw
CEL-160-14-32	C90820	M1650	W12.12.8 + M0510
CEL-160-16-32	C90825		
CEL-160-18-32			
CEL-160-20-32	C90830		
CEL-160-22-32			
CEL-160-25-32			
CEL-160-30-32	C90835		
CEL-200-14-40	C90820	M1650 M2050	
CEL-200-16-40	C90825		
CEL-200-18-40			
CEL-200-20-40	C90830		
CEL-200-22-40			
CEL-200-25-40			
CEL-200-30-40	C90835		
CEL-250-14-40	C90820		
CEL-250-16-40	C90825		
CEL-250-18-40			
CEL-250-20-40	C90830		
CEL-250-22-40			
CEL-250-25-40			
CEL-250-30-40	C90835		

SIDE MILLING CUTTER

Video

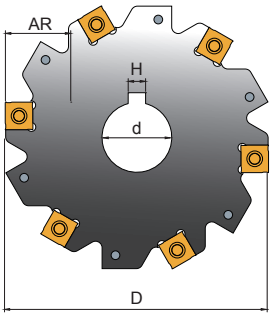
Features

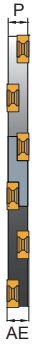
- Available in materials: P K M N S H
- Cost **200~300%** SAVING
- Applicable Machines: Milling machine
- Efficiency **300~500%** UP
- Durability **300%** UP

PRODUCT SPECIFICATIONS

Side Milling Cutters

- Inserts P. 242 - 244
- Cutting Data P. 248 - 249





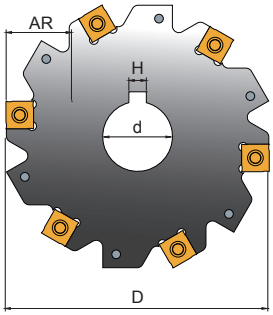
SC

Order Code	Dimensions (mm)						Z	Zc	KG	MAX. RPM	Inserts SNGX SNGW	Screw	Key
	D	AE	AR	P	H	d							
SC-80-4-22	80	4	22.5	3.4	6	22	8	4	0.15	13700	1102	T9354	T09P
SC-80-5-22		5		4.2					0.16		1103	T9355	T08P
SC-80-6-22		6		5					0.22		1203	T945	T15P
SC-80-7-22		7	19.5	6					0.23		1204	T946	
SC-80-8-22		8		7					0.25		12045	T947	
SC-80-10-22		10		9					0.30		1205	T948	
SC-80-12-22		12		11					0.34		1207	T9411	
SC-80-4-25.4		4		3.4	6.35	25.4			0.15		1102	T9354	T09P
SC-80-5-25.4		5		4.2					0.17		1103	T9355	T08P
SC-80-6-25.4		6		5					0.21		1203	T945	T15P
SC-80-7-25.4		7		6					0.23		1204	T946	
SC-80-8-25.4		8		7					0.24		12045	T947	
SC-80-10-25.4		10		9					0.29		1205	T948	
SC-80-12-25.4		12		11					0.33		1207	T9411	

* Use Zc (effective no. of teeth) to calculate the feed.
* Fit Insert SNGW…R2.5 and R3.0, cutter have to modified (ask salesman).

Side Milling Cutters

- Inserts P. 242 - 244
- Cutting Data P. 248 - 249



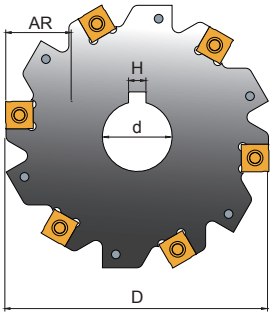
SC

Order Code	Dimensions (mm)						Z	Zc	KG	MAX. RPM	Inserts SNGX SNGW	Screw	Key
	D	AE	AR	P	H	d							
SC-100-4-25.4	100	4	29.5	3.4	6.35	25.4	10	5	0.23	12000	1102	T9354	T09P
SC-100-5-25.4		5		4.2					0.26		1103	T9355	T08P
SC-100-6-25.4		6		5					0.32		1203	T945	T15P
SC-100-7-25.4		7		6					0.36		1204	T946	
SC-100-8-25.4		8		7					0.39		12045	T947	
SC-100-10-25.4		10		9					0.46		1205	T948	
SC-100-12-25.4		12		11					0.54		1207	T9411	
SC-100-4-27		4		3.4	7	27			0.23		1102	T9354	T09P
SC-100-5-27		5		4.2					0.26		1103	T9355	T08P
SC-100-6-27		6		5					0.31		1203	T945	T15P
SC-100-7-27		7		6					0.35		1204	T946	
SC-100-8-27		8		7					0.39		12045	T947	
SC-100-10-27		10		9					0.46		1205	T948	
SC-100-12-27		12		11					0.53		1207	T9411	

* Use Zc (effective no. of teeth) to calculate the feed.
* Fit Insert SNGW...R2.5 and R3.0, cutter have to modified (ask salesman).

Side Milling Cutters

- Inserts P. 242 - 244
- Cutting Data P. 248 - 249



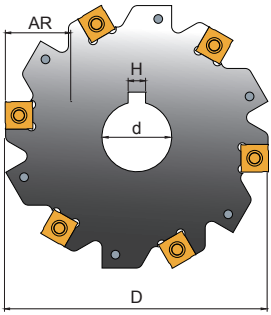
SC

Order Code	Dimensions (mm)						Z	Zc	KG	MAX. RPM	Inserts SNGX SNGW	Screw	Key
	D	AE	AR	P	H	d							
SC-125-4-32	125	4	39	3.4	8	32	12	6	0.35	10900	1102	T9354	T09P
SC-125-5-32		5		4.2					0.39		1103	T9355	T08P
SC-125-6-32		6		5					0.43		1203	T945	T15P
SC-125-7-32		7		6					0.53		1204	T946	
SC-125-8-32		8		7					0.59		12045	T947	
SC-125-10-32		10		9					0.73		1205	T948	
SC-125-12-32		12		11					0.86		1207	T9411	
SC-125-4-40		4	34.5	3.4	10	40			0.35		1102	T9354	T09P
SC-125-5-40		5		4.2					0.39		1103	T9355	T08P
SC-125-6-40		6		5					0.43		1203	T945	T15P
SC-125-7-40		7		6					0.53		1204	T946	
SC-125-8-40		8		7					0.59		12045	T947	
SC-125-10-40		10		9					0.73		1205	T948	
SC-125-12-40		12		11					0.86		1207	T9411	

* Use Zc (effective no. of teeth) to calculate the feed.
* Fit Insert SNGW…R2.5 and R3.0, cutter have to modified (ask salesman).

Side Milling Cutters

- Inserts P. 242 - 244
- Cutting Data P. 248 - 249



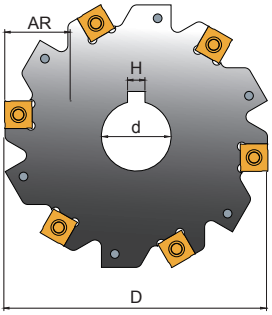
SC

Order Code	Dimensions (mm)						Z	Zc	KG	MAX. RPM	Inserts SNGX SNGW	Screw	Key
	D	AE	AR	P	H	d							
SC-125-4-25.4	125	4	42	3.4	6.35	25.4	12	6	0.36	10900	1102	T9354	T09P
SC-125-5-25.4		5		4.2					0.41		1103	T9355	T08P
SC-125-6-25.4		6		5					0.48		1203	T945	T15P
SC-125-7-25.4		7		6					0.55		1204	T946	
SC-125-8-25.4		8		7					0.61		12045	T947	
SC-125-10-25.4		10		9					0.74		1205	T948	
SC-125-12-25.4		12		11					0.88		1207	T9411	
SC-125-4-31.75		4	39	3.4	8	31.75			0.36		1102	T9354	T09P
SC-125-5-31.75		5		4.2					0.41		1103	T9355	T08P
SC-125-6-31.75		6		5					0.48		1203	T945	T15P
SC-125-7-31.75		7		6					0.55		1204	T946	
SC-125-8-31.75		8		7					0.61		12045	T947	
SC-125-10-31.75		10		9					0.74		1205	T948	
SC-125-12-31.75		12		11					0.88		1207	T9411	

* Use Zc (effective no. of teeth) to calculate the feed.
* Fit Insert SNGW…R2.5 and R3.0, cutter have to modified (ask salesman).

Side Milling Cutters

- Inserts P. 242 - 244
- Cutting Data P. 248 - 249



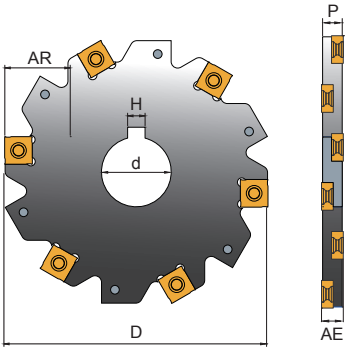
SC

Order Code	Dimensions (mm)						Z	Zc	KG	MAX. RPM	Inserts SNGX SNGW	Screw	Key
	D	AE	AR	P	H	d							
SC-160-4-32	160	4	56.5	3.4	8	32	16	8	0.56	8300	1102	T9354	T09P
SC-160-5-32		5		4.2					0.70		1103	T9355	T08P
SC-160-6-32		6		5					0.82		1203	T945	T15P
SC-160-7-32		7		6					0.94		1204	T946	
SC-160-8-32		8		7					1.04		12045	T947	
SC-160-10-32		10		9					1.28		1205	T948	
SC-160-12-32		12		11					1.52		1207	T9411	
SC-160-4-40		4	52	3.4	10	40			0.56		1102	T9354	T09P
SC-160-5-40		5		4.2					0.70		1103	T9355	T08P
SC-160-6-40		6		5					0.82		1203	T945	T15P
SC-160-7-40		7		6					0.94		1204	T946	
SC-160-8-40		8		7					1.04		12045	T947	
SC-160-10-40		10		9					1.28		1205	T948	
SC-160-12-40		12		11					1.52		1207	T9411	

* Use Zc (effective no. of teeth) to calculate the feed.
* Fit Insert SNGW...R2.5 and R3.0, cutter have to modified (ask salesman).

Side Milling Cutters

- Inserts P. 242 - 244
- Cutting Data P. 248 - 249



SC

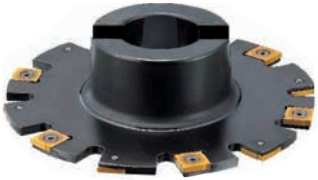
Order Code	Dimensions (mm)						Z	Zc	KG	MAX. RPM	Inserts SNGX SNGW	Screw	Key
	D	AE	AR	P	H	d							
SC-160-4-25.4	160	4	59.5	3.4	6.35	25.4	16	8	0.56	8300	1102	T9354	T09P
SC-160-5-25.4		5		4.2					0.71		1103	T9355	T08P
SC-160-6-25.4		6		5					0.84		1203	T945	T15P
SC-160-7-25.4		7		6					0.95		1204	T946	
SC-160-8-25.4		8		7					1.06		12045	T947	
SC-160-10-25.4		10		9					1.31		1205	T948	
SC-160-12-25.4		12		11					1.55		1207	T9411	
SC-160-4-31.75		4	56.5	3.4	8	31.75			0.56		1102	T9354	T09P
SC-160-5-31.75		5		4.2					0.71		1103	T9355	T08P
SC-160-6-31.75		6		5					0.84		1203	T945	T15P
SC-160-7-31.75		7		6					0.95		1204	T946	
SC-160-8-31.75		8		7					1.06		12045	T947	
SC-160-10-31.75		10		9					1.31		1205	T948	
SC-160-12-31.75		12		11					1.55		1207	T9411	

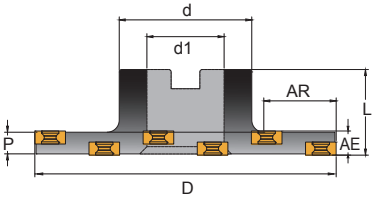
* Use Zc (effective no. of teeth) to calculate the feed.
* Fit Insert SNGW…R2.5 and R3.0, cutter have to modified (ask salesman).

Side Milling Cutters

- Inserts P. 242 - 244
- Cutting Data P. 248 - 249

ST





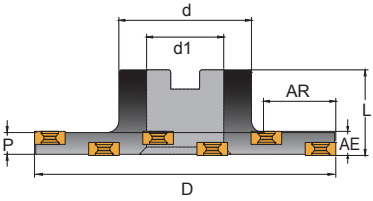
Order Code	Dimensions (mm)							Z	Zc	KG	MAX. RPM	Inserts SNGX SNGW	Screw	Key
	D	AE	AR	P	d	d1	L							
ST-80-6-22	80	6	17	5	40	22	35	8	4	0.47	13700	1203	T945	T15P
ST-80-7-22		7		6						0.48		1204	T946	
ST-80-8-22		8		7						0.49		12045	T947	
ST-80-10-22		10		9						0.52		1205	T948	
ST-80-12-22		12		11						0.55		1207	T9411	
ST-100-6-27	100	6	27	5		27		10	5	0.56	12000	1203	T945	
ST-100-7-27		7		6						0.57		1204	T946	
ST-100-8-27		8		7						0.59		12045	T947	
ST-100-10-27		10		9						0.66		1205	T948	
ST-100-12-27		12		11						0.72		1207	T9411	
ST-125-6-32	125	6	31	5	55	32		12	6	0.96	10900	1203	T945	
ST-125-7-32		7		6						1.02		1204	T946	
ST-125-8-32		8		7						1.05		12045	T947	
ST-125-10-32		10		9						1.16		1205	T948	
ST-125-12-32		12		11						1.26		1207	T9411	
ST-160-6-32	160	6	48.5	5				16	8	1.42	8300	1203	T945	
ST-160-7-32		7		6						1.48		1204	T946	
ST-160-8-32		8		7						1.60		12045	T947	
ST-160-10-32		10		9						1.82		1205	T948	
ST-160-12-32		12		11						2.01		1207	T9411	

* Use Zc (effective no. of teeth) to calculate the feed.
* Fit Insert SNGW…R2.5 and R3.0, cutter have to modified (ask salesman).

Side Milling Cutters

- Inserts P. 242 - 244
- Cutting Data P. 248 - 249

ST



Order Code	Dimensions (mm)							Z	Zc	KG	MAX. RPM	Inserts SNGX SNGW	Screw	Key
	D	AE	AR	P	d	d1	L							
ST-80-6-25.4	80	6	17	5	40	25.4	35	8	4	0.47	13700	1203	T945	T15P
ST-80-7-25.4		7		6						0.48		1204	T946	
ST-80-8-25.4		8		7						0.49		12045	T947	
ST-80-10-25.4		10		9						0.52		1205	T948	
ST-80-12-25.4		12		11						0.55		1207	T9411	
ST-100-6-25.4	100	6	27	5				10	5	0.56	12000	1203	T945	
ST-100-7-25.4		7		6						0.57		1204	T946	
ST-100-8-25.4		8		7						0.59		12045	T947	
ST-100-10-25.4		10		9						0.66		1205	T948	
ST-100-12-25.4		12		11						0.72		1207	T9411	
ST-125-6-31.75	125	6	31	5	55	31.75		12	6	0.96	10900	1203	T945	
ST-125-7-31.75		7		6						1.02		1204	T946	
ST-125-8-31.75		8		7						1.05		12045	T947	
ST-125-10-31.75		10		9						1.16		1205	T948	
ST-125-12-31.75		12		11						1.26		1207	T9411	
ST-160-6-31.75	160	6	48.5	5				16	8	1.42	8300	1203	T945	
ST-160-7-31.75		7		6						1.48		1204	T946	
ST-160-8-31.75		8		7						1.60		12045	T947	
ST-160-10-31.75		10		9						1.82		1205	T948	
ST-160-12-31.75		12		11						2.01		1207	T9411	

* Use Zc (effective no. of teeth) to calculate the feed.
* Fit Insert SNGW…R2.5 and R3.0, cutter have to modified (ask salesman).

DISC MILLING CUTTER

Features

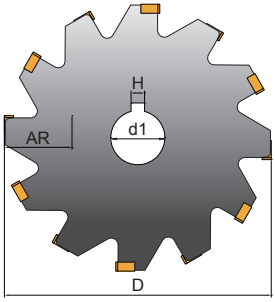
- Available in materials: P K M N S H
- Cost 200~300% SAVING
- Applicable Machines: Milling machine
- Efficiency 300~500% UP
- Durability 300% UP

PRODUCT SPECIFICATIONS

Disc Milling Cutters

- Inserts P. 245
- Cutting Data P. 250 - 251

CE



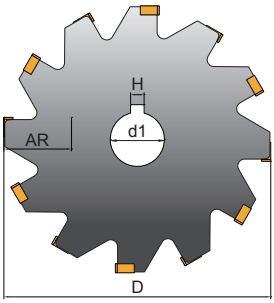
Order Code	Dimensions (mm)						Z	Zc	KG	MAX. RPM	Inserts CNGX	Screw	Key
	D	AE	AR	P	H	d1							
CE080-14-22	80	14	22.5	12.5	6	22	8	4	0.45	13700	1005	C04011	T15P
CE080-16-22		16		14.5					0.51				
CE080-18-22		18		16.5					0.54		1305		
CE080-20-22		20		18.5					0.59				
CE080-22-22		22		20.5					0.69				
CE080-25-22		25		23.5					0.75		1605		
CE080-30-22		30		28.5					0.88				
CE100-14-27	100	14	29.5	12.5	7	27	10	5	0.67	12000	1005		
CE100-16-27		16		14.5					0.76				
CE100-18-27		18		16.5					0.84		1305		

* Use Zc (effective no. of teeth) to calculate the feed.

Disc Milling Cutters

- Inserts P. 245
- Cutting Data P. 250 - 251

CE

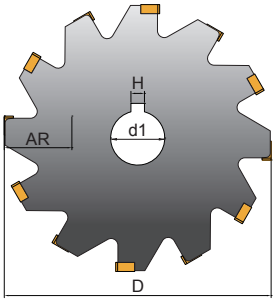


Order Code	Dimensions (mm)						Z	Zc	KG	MAX. RPM	Inserts CNGX	Screw	Key
	D	AE	AR	P	H	d1							
CE100-20-27	100	20	29.5	18.5	7	27	10	5	0.91	12000	1305	C04011	T15P
CE100-22-27		22		20.5					1.01				
CE100-25-27		25		23.5					1.16		1605		
CE100-30-27		30		28.5					1.40				
CE125-14-32	125	14	39	12.5	8	32	12	6	1.02	10900	1005		
CE125-16-32		16		14.5					1.17				
CE125-18-32		18		16.5					1.36		1305		
CE125-20-32		20		18.5					1.52				
CE125-22-32		22		20.5					1.57				
CE125-25-32		25		23.5					1.85		1605		
CE125-30-32		30		28.5					1.92				
CE080-14-25.4	80	14	19.5	12.5	6.35	25.4	8	4	0.45	13700	1005	C04011	T15P
CE080-16-25.4		16		14.5					0.51				
CE080-18-25.4		18		16.5					0.54		1305		
CE080-20-25.4		20		18.5					0.59				
CE080-22-25.4		22		20.5					0.69				

* Use Zc (effective no. of teeth) to calculate the feed.

Disc Milling Cutters

- Inserts P. 206
- Cutting Data P. 250 - 251



CE

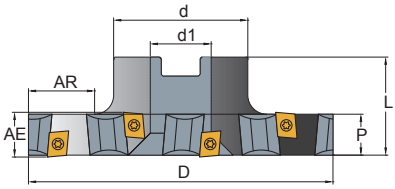
Order Code	Dimensions (mm)						Z	Zc	KG	MAX. RPM	Inserts CNGX	Screw	Key
	D	AE	AR	P	H	d1							
CE080-25-25.4	80	25	19.5	23.5	6.35	25.4	8	4	0.75	13700	1605	C04011	T15P
CE080-30-25.4		30		28.5					0.88				
CE100-14-25.4	100	14	29.5	12.5			10	5	0.67	12000	1005		
CE100-16-25.4		16		14.5					0.76				
CE100-18-25.4		18		16.5					0.84		1305		
CE100-20-25.4		20		18.5					0.91				
CE100-22-25.4		22		20.5					1.01				
CE100-25-25.4		25		23.5					1.16		1605		
CE100-30-25.4		30		28.5					1.40				
CE125-14-25.4	125	14	42	12.5			12	6	1.02	10900	1005		
CE125-16-25.4		16		14.5					1.17				
CE125-18-25.4		18		16.5					1.36		1305		
CE125-20-25.4		20		18.5					1.52				
CE125-22-25.4		22		20.5					1.57				
CE125-25-25.4		25		23.5					1.85		1605		
CE125-30-25.4		30		28.5					1.92				

* Use Zc (effective no. of teeth) to calculate the feed.

Disc Milling Cutters

- Inserts P. 206
- Cutting Data P. 250 - 251

CW



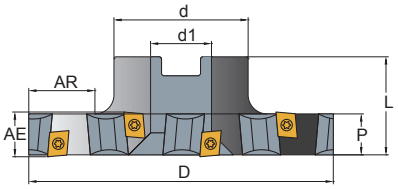
Order Code	Dimensions (mm)							Z	Zc	KG	MAX. RPM	Inserts CNGX	Screw	Key
	D	AE	AR	P	d	d1	L							
CW080-14-22	80	14	17	12.5	40	22	35	8	4	0.67	13700	1005	C04011	T15P
CW080-16-22		16		14.5						0.72				
CW080-18-22		18		16.5						0.76		1305		
CW080-20-22		20		18.5						0.78				
CW080-22-22		22		20.5						0.79				
CW080-25-22		25		23.5						0.85		1605		
CW080-30-22		30		28.5			40			0.92				
CW100-14-27	100	14	24.5	12.5	45	27	35	10	5	0.84	10900	1005		
CW100-16-27		16		14.5						0.94				
CW100-18-27		18		16.5						1.02		1305		
CW100-20-27		20		18.5						1.09				
CW100-22-27		22		20.5						1.17				
CW100-25-27		25		23.5						1.25		1605		
CW100-30-27		30		28.5			40			1.32				
CW125-14-32	125	14	32	12.5	55	32	35	12	6	1.42	10900	1005		
CW125-16-32		16		14.5						1.53				

* Use Zc (effective no. of teeth) to calculate the feed.

Disc Milling Cutters

- Inserts P. 206
- Cutting Data P. 250 - 251

CW



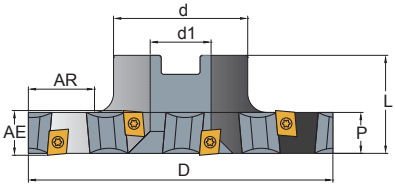
Order Code	Dimensions (mm)							Z	Zc	KG	MAX. RPM	Inserts CNGX	Screw	Key
	D	AE	AR	P	d	d1	L							
CW125-18-32	125	18	32	16.5	55	32	35	12	6	1.68	10900	1305	C04011	T15P
CW125-20-32		20		18.5						1.92				
CW125-22-32		22		20.5						1.94				
CW125-25-32		25		23.5						1.96		1605		
CW125-30-32		30		28.5			40			2.29				
CW080-14-25.4	80	14	17	12.5	40	25.4	35	8	4	0.67	13700	1005	C04011	T15P
CW080-16-25.4		16		14.5						0.72				
CW080-18-25.4		18		16.5						0.76		1305		
CW080-20-25.4		20		18.5						0.78				
CW080-22-25.4		22		20.5						0.79				
CW080-25-25.4		25		23.5						0.85		1605		
CW080-30-25.4		30		28.5			40			0.92				
CW100-14-25.4	100	14	24.5	12.5	45		35	10	5	0.86	12000	1005		
CW100-16-25.4		16		14.5						0.94				
CW100-18-25.4		18		16.5						1.02		1305		
CW100-20-25.4		20		18.5						1.09				

* Use Zc (effective no. of teeth) to calculate the feed.

Disc Milling Cutters

- Inserts P. 206
- Cutting Data P. 250 - 251

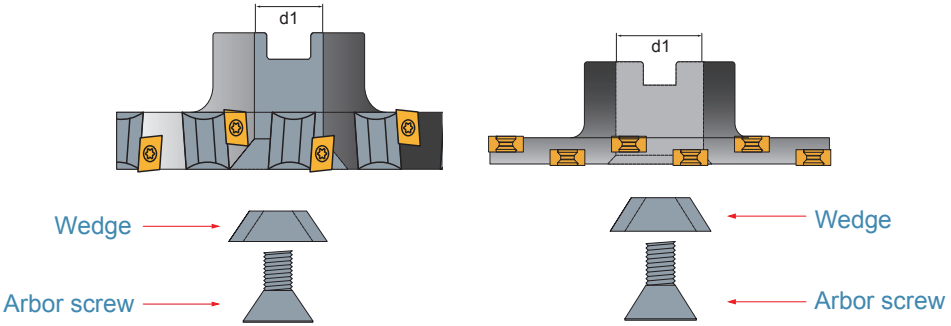
CW



Order Code	Dimensions (mm)							Z	Zc	KG	MAX. RPM	Inserts CNGX	Screw	Key
	D	AE	AR	P	d	d1	L							
CW100-22-25.4	100	22	24.5	20.5	45	25.4	35	10	5	1.17	12000	1305	C04011	T15P
CW100-25-25.4		25		23.5						1.25		1605		
CW100-30-25.4		30		28.5			40			1.32				
CW125-14-31.75	125	14	32	12.5	55	31.75	35	12	6	1.42	10900	1005		
CW125-16-31.75		16		14.5						1.53				
CW125-18-31.75		18		16.5						1.68		1305		
CW125-20-31.75		20		18.5						1.92				
CW125-22-31.75		22		20.5						1.94				
CW125-25-31.75		25		23.5						1.96		1605		
CW125-30-31.75		30		28.5			40			2.29				

* Use Zc (effective no. of teeth) to calculate the feed.

Mounting Dimensions



Dimension (mm)		
Cutter dimension d1	Arbor screw	Tapered Wedge
ST Ø 22	C901035	WE30
ST Ø 27	C901235	
ST Ø 32	C901635	WE45
ST Ø 25.4	C901235	WE30
ST Ø 31.75	C901635	WE45
CW Ø 22	C901035	WE30
CW Ø 27	C901235	
CW Ø 32	C901635	WE45
CW Ø 40	C901640	WE63
CW Ø 25.4	C901235	WE30
CW Ø 31.75	C901635	WE45
CW Ø 38.1	C901640	WE63
CW Ø 50.8		

* Cutter price includes the wedge.

BACK AND STRADDLE

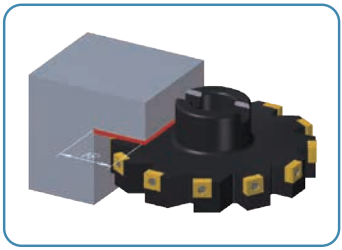
Features

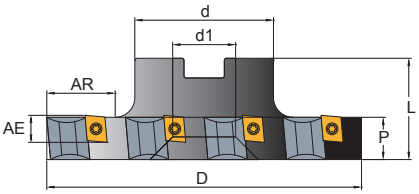
- Available in materials: P K M N S H
- Cost **200~300%** SAVING
- Applicable Machines: Milling machine
- Efficiency **300~500%** UP
- Durability **300%** UP

PRODUCT SPECIFICATIONS

Back milling Cutters

- Inserts P. 206
- Cutting Data P. 250 - 251



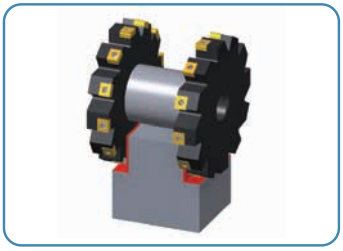


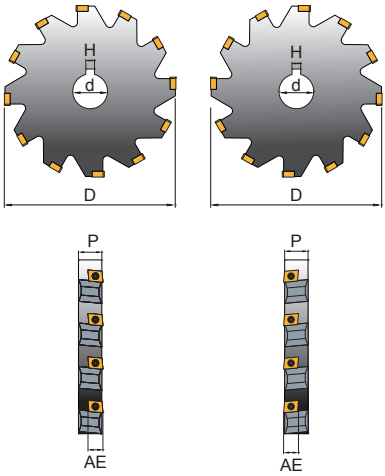
CB

Order Code	Dimensions (mm)							Z	KG	MAX. RPM	Insert CNGX	Screw	Key
	D	AE	P	d	d1	L	AR						
CB-100-27	100	12	16.5	45	27	35	24.5	10	0.97	12000	1305	C04011	T15P
CB-125-32	125			55	32		32	12	1.76	10900			

Straddle milling cutters

- Inserts P. 206
- Cutting Data P. 250 - 251





CDL/CDR

Order Code	Dimensions (mm)						Z	KG	MAX. RPM	Insert CNGX	Screw	Key
	D	AE	P	d	H	L/R						
CDL-100-27	100	12	16.5	27	7	L	10	0.87	12000	1305	C04011	T15P
CDR-100-27						R						
CDL-125-32	125			32	8	L	12	1.42	10900			
CDR-125-32						R						
CDL-160-40	160			40	10	L	16	2.52	6900			
CDR-160-40						R						

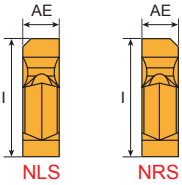
SLITTING/ SLOTTING/ CUT-OFF SERIES Inserts

NRS / NLS

NR / NL

R

LNGT Inserts



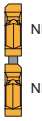
Tolerances (mm)
AE=±0.02

Inserts 10 PCS / Box

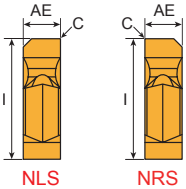
Dimensions (mm)		
Cutter thickness (P)	AE	I
1.2	1.4	9
1.2	1.5	
1.4	1.6	

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	EE
NLS	LNGT 1414NLS-EE				■						
	LNGT 1415NLS-EE				■						
	LNGT 1616NLS-EE				■						
NRS	LNGT 1414NRS-EE				■						
	LNGT 1415NRS-EE				■						
	LNGT 1616NRS-EE				■						

Inserts Sequencing Position



(Interleaving one after another different one.)



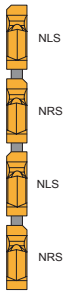
Tolerances (mm)
AE=±0.02

Inserts 10 PCS / Box

Dimensions (mm)			
Cutter thickness (P)	AE	I	C
1.2	1.4	9	0.03
1.2	1.5		
1.4	1.6		

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	M / ME
NLS	LNGT 1414NLS-M	■									
	LNGT 1415NLS-M	■									
	LNGT 1616NLS-M	■									
	LNGT 1414NLS-ME	◎			■						
	LNGT 1415NLS-ME	◎			■						
	LNGT 1616NLS-ME	◎			■						
NRS	LNGT 1414NRS-M	■									
	LNGT 1415NRS-M	■									
	LNGT 1616NRS-M	■									
	LNGT 1414NRS-ME	◎			■						
	LNGT 1415NRS-ME	◎			■						
	LNGT 1616NRS-ME	◎			■						

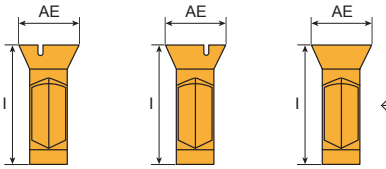
Inserts Sequencing Position



(Interleaving one after another different one.)

- ■ Steel ■ Stainless Steel ◎ Steel/Stainless Steel /Super alloy ■ Cast Iron ■ Aluminum ■ Steel/Cast Iron ◎ Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: LNGT 1414NLS-M,B100

LNGT Inserts



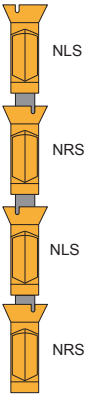
Only applicable in cutter width 6,8mm

Tolerances (mm)
AE=±0.02

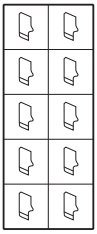
Dimensions (mm)		
Cutter thickness (P)	AE	l
1.6	1.8	9
1.75	2.0, 2.2, 2.5	
2.25	2.5, 2.7, 3.0	
2.7	3.0, 3.2, 3.5	
3.7	4.0, 4.2, 4.5	
4.5	5.0, 5.2, 5.5	

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		EE
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
NLS	LNGT 1818NLS-EE				■						
	LNGT 2020NLS-EE				■						
	LNGT 2022NLS-EE				■						
	LNGT 2025NLS-EE				■						
	LNGT 2525NLS-EE				■						
	LNGT 2527NLS-EE				■						
	LNGT 2530NLS-EE				■						
	LNGT 3030NLS-EE				■						
	LNGT 3032NLS-EE				■						
	LNGT 3035NLS-EE				■						
	LNGT 4040NLS-EE				■						
	LNGT 4042NLS-EE				■						
	LNGT 4045NLS-EE				■						
	LNGT 5050NLS-EE				■						
	LNGT 5052NLS-EE				■						
	LNGT 5055NLS-EE				■						
NRS	LNGT 1818NRS-EE				■						
	LNGT 2020NRS-EE				■						
	LNGT 2022NRS-EE				■						
	LNGT 2025NRS-EE				■						
	LNGT 2525NRS-EE				■						
	LNGT 2527NRS-EE				■						
	LNGT 2530NRS-EE				■						
	LNGT 3030NRS-EE				■						
	LNGT 3032NRS-EE				■						
	LNGT 3035NRS-EE				■						
	LNGT 4040NRS-EE				■						
	LNGT 4042NRS-EE				■						
	LNGT 4045NRS-EE				■						
	LNGT 5050NRS-EE				■						
	LNGT 5052NRS-EE				■						
	LNGT 5055NRS-EE				■						
NS	LNGT 5050NS-EE				■						

Inserts Sequencing Position



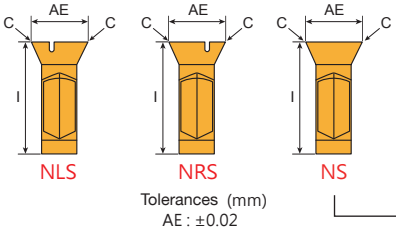
(Interleaving one after another different one.)



Inserts 10 PCS / Box

- ■ Steel ■ Stainless Steel ■ Steel/Stainless Steel /Super alloy ■ Cast Iron ■ Aluminum ■ Steel/Cast Iron ■ Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: LNGT 2020NLS-EE, F20

LNGT Inserts

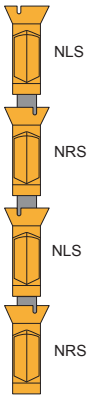


Tolerances (mm)
AE : ±0.02

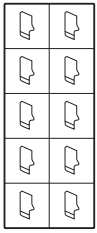
Dimensions (mm)			
Cutter thickness (P)	AE	I	C
1.6	1.8	9	0.05
1.75	2.0, 2.2, 2.5		
2.25	2.5, 2.7, 3.0		
2.7	3.0, 3.2, 3.5		
3.7	4.0, 4.2, 4.5		
4.5	5.0, 5.2, 5.5		

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	M
NLS	LNGT 1818NLS-M										
	LNGT 2020NLS-M										
	LNGT 2022NLS-M										
	LNGT 2025NLS-M										
	LNGT 2525NLS-M										
	LNGT 2527NLS-M										
	LNGT 2530NLS-M										
	LNGT 3030NLS-M										
	LNGT 3032NLS-M										
	LNGT 3035NLS-M										
	LNGT 4040NLS-M										
	LNGT 4042NLS-M										
	LNGT 4045NLS-M										
	LNGT 5050NLS-M										
	LNGT 5052NLS-M										
	LNGT 5055NLS-M										
NRS	LNGT 1818NRS-M										
	LNGT 2020NRS-M										
	LNGT 2022NRS-M										
	LNGT 2025NRS-M										
	LNGT 2525NRS-M										
	LNGT 2527NRS-M										
	LNGT 2530NRS-M										
	LNGT 3030NRS-M										
	LNGT 3032NRS-M										
	LNGT 3035NRS-M										
	LNGT 4040NRS-M										
	LNGT 4042NRS-M										
	LNGT 4045NRS-M										
	LNGT 5050NRS-M										
	LNGT 5052NRS-M										
	LNGT 5055NRS-M										
NS	LNGT 5050NS-M										

Inserts Sequencing Position



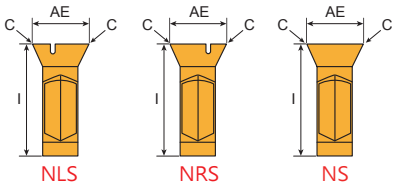
(Interleaving one after another different one.)



Inserts 10 PCS / Box

- Steel Stainless Steel Steel/Stainless Steel /Super alloy Cast Iron Aluminum Steel/Cast Iron Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: LNGT 2020NLS-M,B100

LNGT Inserts

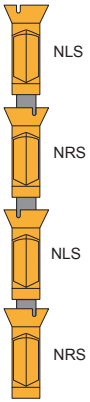


Tolerances (mm)
AE : ±0.02

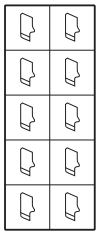
Dimensions (mm)			
Cutter thickness (P)	AE	I	C
1.6	1.8	9	0.05
1.75	2.0, 2.2, 2.5		
2.25	2.5, 2.7, 3.0		
2.7	3.0, 3.2, 3.5		
3.7	4.0, 4.2, 4.5		
4.5	5.0, 5.2, 5.5		

Inserts	Order Code	Grades									ME
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
NLS	LNGT 1818NLS-ME	◎									
	LNGT 2020NLS-ME	◎									
	LNGT 2022NLS-ME	◎									
	LNGT 2025NLS-ME	◎									
	LNGT 2525NLS-ME	◎									
	LNGT 2527NLS-ME	◎									
	LNGT 2530NLS-ME	◎									
	LNGT 3030NLS-ME	◎									
	LNGT 3032NLS-ME	◎									
	LNGT 3035NLS-ME	◎									
	LNGT 4040NLS-ME	◎									
	LNGT 4042NLS-ME	◎									
	LNGT 4045NLS-ME	◎									
	LNGT 5050NLS-ME	◎									
	LNGT 5052NLS-ME	◎									
	LNGT 5055NLS-ME	◎									
NRS	LNGT 1818NRS-ME	◎									
	LNGT 2020NRS-ME	◎									
	LNGT 2022NRS-ME	◎									
	LNGT 2025NRS-ME	◎									
	LNGT 2525NRS-ME	◎									
	LNGT 2527NRS-ME	◎									
	LNGT 2530NRS-ME	◎									
	LNGT 3030NRS-ME	◎									
	LNGT 3032NRS-ME	◎									
	LNGT 3035NRS-ME	◎									
	LNGT 4040NRS-ME	◎									
	LNGT 4042NRS-ME	◎									
	LNGT 4045NRS-ME	◎									
	LNGT 5050NRS-ME	◎									
	LNGT 5052NRS-ME	◎									
	LNGT 5055NRS-ME	◎									
NS	LNGT 5050NS-ME	◎									

Inserts Sequencing Position



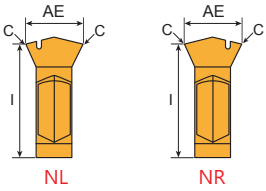
(Interleaving one after another different one.)



Inserts 10 PCS / Box

- Steel Stainless Steel Steel/Stainless Steel /Super alloy Cast Iron Aluminum Steel/Cast Iron Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: LNGT 2020NLS-ME,B100

LNGT Inserts



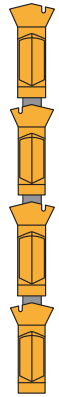
V shape insert designed for superior stability and durability

Tolerances (mm)
AE : ±0.02

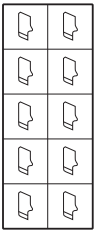
Dimensions (mm)			
Cutter thickness (P)	AE	I	C
1.75	2.0 2.2 2.5	9	0.05
2.25	2.5 2.7 3.0		
2.7	3.0 3.2 3.5		
3.7	4.0 4.2 4.5		
4.5	5.0 5.2 5.5		

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	M
NL	LNGT 2020NL-M	■									
	LNGT 2022NL-M	■									
	LNGT 2025NL-M	■									
	LNGT 2525NL-M	■									
	LNGT 2527NL-M	■									
	LNGT 2530NL-M	■									
	LNGT 3030NL-M	■									
	LNGT 3032NL-M	■									
	LNGT 3035NL-M	■									
	LNGT 4040NL-M	■									
	LNGT 4042NL-M	■									
	LNGT 4045NL-M	■									
	LNGT 5050NL-M	■									
	LNGT 5052NL-M	■									
	LNGT 5055NL-M	■									
NR	LNGT 2020NR-M	■									
	LNGT 2022NR-M	■									
	LNGT 2025NR-M	■									
	LNGT 2525NR-M	■									
	LNGT 2527NR-M	■									
	LNGT 2530NR-M	■									
	LNGT 3030NR-M	■									
	LNGT 3032NR-M	■									
	LNGT 3035NR-M	■									
	LNGT 4040NR-M	■									
	LNGT 4042NR-M	■									
	LNGT 4045NR-M	■									
	LNGT 5050NR-M	■									
	LNGT 5052NR-M	■									
	LNGT 5055NR-M	■									

Inserts Sequencing Position



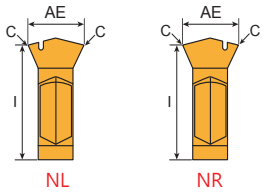
(Interleaving one after another different one.)



Inserts 10 PCS / Box

- Steel Stainless Steel Steel/Stainless Steel /Super alloy Cast Iron Aluminum Steel/Cast Iron Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: LNGT 2020NL-M, B100

LNGT Inserts

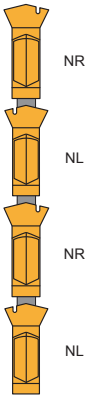


Tolerances (mm)
AE : ±0.02

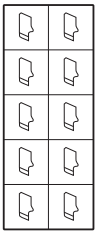
Dimensions (mm)			
Cutter thickness(P)	AE	I	C
1.75	2.0 2.2 2.5	9	0.05
2.25	2.5 2.7 3.0		
2.7	3.0 3.2 3.5		
3.7	4.0 4.2 4.5		
4.5	5.0 5.2 5.5		

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		ME
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
NL	LNGT 2020NL-ME	◎									
	LNGT 2022NL-ME	◎									
	LNGT 2025NL-ME	◎									
	LNGT 2525NL-ME	◎									
	LNGT 2527NL-ME	◎									
	LNGT 2530NL-ME	◎									
	LNGT 3030NL-ME	◎									
	LNGT 3032NL-ME	◎									
	LNGT 3035NL-ME	◎									
	LNGT 4040NL-ME	◎									
	LNGT 4042NL-ME	◎									
	LNGT 4045NL-ME	◎									
	LNGT 5050NL-ME	◎									
	LNGT 5052NL-ME	◎									
	LNGT 5055NL-ME	◎									
NR	LNGT 2020NR-ME	◎									
	LNGT 2022NR-ME	◎									
	LNGT 2025NR-ME	◎									
	LNGT 2525NR-ME	◎									
	LNGT 2527NR-ME	◎									
	LNGT 2530NR-ME	◎									
	LNGT 3030NR-ME	◎									
	LNGT 3032NR-ME	◎									
	LNGT 3035NR-ME	◎									
	LNGT 4040NR-ME	◎									
	LNGT 4042NR-ME	◎									
	LNGT 4045NR-ME	◎									
	LNGT 5050NR-ME	◎									
	LNGT 5052NR-ME	◎									
	LNGT 5055NR-ME	◎									

Inserts Sequencing Position



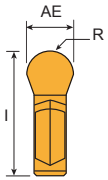
(Interlearing one after another different one.)



Inserts 10 PCS / Box

- Steel Stainless Steel Steel/Stainless Steel /Super alloy Cast Iron Aluminum Steel/Cast Iron Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: LNGT 2020NL-ME,B100

LNGT Inserts

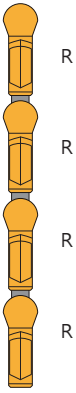


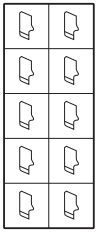
Tolerances (mm)
AE : ±0.02

Dimensions (mm)			
Cutter thickness (P)	AE	I	R
1.2	1.5	9	0.75
1.75	2.0		1.0
2.25	2.5		1.25
2.7	3.0		1.5

Inserts	Order Code	Grades									ME
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
R	LNGT 1415R075-ME	◎			■						
	LNGT 2020R100-ME	◎			■						
	LNGT 2525R125-ME	◎			■						
	LNGT 3030R150-ME	◎			■						

Inserts Sequencing Position

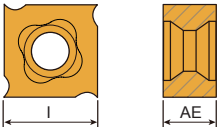




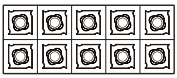
Inserts 10 PCS / Box

- Steel Stainless Steel Steel/Stainless Steel /Super alloy Cast Iron Aluminum Steel/Cast Iron Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: LNGT 1415R075-ME,B100

SNGX Inserts



Tolerances (mm)
I=±0.025 AE=±0.025



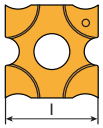
Inserts 10 PCS / Box

Dimensions (mm)		
Insert Code	AE	I
1102	2.3	11.0
1103	2.7	
1203	3.2	12.7
1204	4.0	
12045	4.5	
1205	5.4	
1207	7.0	

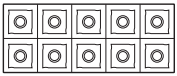
Inserts	Order Code	Cutting Rake	Grades								
			Carbide					Cermet		Uncoated	
			B100	C200	C250	F20	F30	CE100	CE60	K10	CE
E / ME / M	SNGX 1102-E	25 °				■					
	SNGX 1103-E					■					
	SNGX 1203-E					■					
	SNGX 1204-E					■					
	SNGX 12045-E					■					
	SNGX 1205-E					■					
	SNGX 1207-E					■					
	SNGX 1102-ME	15 °	◎				■				
	SNGX 1103-ME		◎				■				
	SNGX 1203-ME		◎				■				
	SNGX 1204-ME		◎				■				
	SNGX 12045-ME		◎				■				
	SNGX 1205-ME		◎				■				
	SNGX 1207-ME		◎				■				
	SNGX 1102T-M	15 °	■		■						
	SNGX 1103T-M		■		■						
	SNGX 1203T-M		■		■						
	SNGX 1204T-M		■		■						
	SNGX 12045T-M		■		■						
	SNGX 1205T-M		■		■						
	SNGX 1207T-M		■		■						

- ■ Steel ■ Stainless Steel ◎ Steel/Stainless Steel /Super alloy ■ Cast Iron ■ Aluminum ■ Steel/Cast Iron ◎ Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: SNGX 1102-E,F20

SNGW Inserts



Tolerances (mm)
I=±0.025 AE=±0.025



Inserts 10 PCS / Box

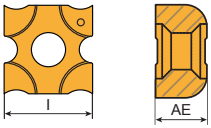
Dimensions (mm)		
Insert Code	AE	I
1102	2.3	11.0
1103	2.7	
1203	3.2	12.7
1204	4.0	
12045	4.5	
1205	5.4	
1207	7.0	

Inserts	Order Code	Cutting Rake	Grades								
			Carbide					Cermet		Uncoated	
			B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 E / ME / M	SNGW 1102-E	25 °				■					
	SNGW 1103-E					■					
	SNGW 1203-E					■					
	SNGW 1204-E					■					
	SNGW 12045-E					■					
	SNGW 1205-E					■					
	SNGW 1207-E					■					
	SNGW 1102-ME	15 °	◎				■				
	SNGW 1103-ME		◎				■				
	SNGW 1203-ME		◎				■				
	SNGW 1204-ME		◎				■				
	SNGW 12045-ME		◎				■				
	SNGW 1205-ME		◎				■				
	SNGW 1207-ME		◎				■				
	SNGW 1102T-M	15 °	■								
	SNGW 1103T-M		■								
	SNGW 1203T-M		■								
	SNGW 1204T-M		■								
	SNGW 12045T-M		■								
	SNGW 1205T-M		■								
	SNGW 1207T-M		■								

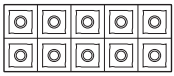
- ■ Steel ■ Stainless Steel ◎ Steel/Stainless Steel /Super alloy ■ Cast Iron ■ Aluminum ■ Steel/Cast Iron ◎ Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: SNGW 1102-E,F20

SNGW Inserts - R0.4~R3.0

* Fit Insert SNGW…R2.5 and R3.0, cutter have to modified (ask salesman).



Tolerances (mm)
I=±0.025 AE=±0.025



Inserts 10 PCS / Box

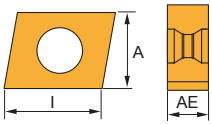
Dimensions (mm)			
Insert Code	AE	I	R
1102	2.3	11.0	0.4
1102			0.8
1103	2.7		0.4
1103			0.8
1203	3.2	12.7	0.4
1203			0.8
1203			1.2
1204	4.0		0.4
1204			0.8
1204			1.2
1204			1.6
12045	4.5		0.4
12045			0.8
12045			1.2

Dimensions (mm)			
Inserts Code	AE	I	R
12045	4.5	12.7	1.6
12045			2.0
1205	5.4		0.4
1205			0.8
1205			1.2
1205			1.6
1205			2.0
1205			2.5
1207	7.0		0.4
1207			0.8
1207			1.2
1207			1.6
1207			2.0
1207			2.5
1207			3.0

Inserts	Order Code	Cutting Rake	Grades								
			Carbide					Cermet		Uncoated	
			B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 ME	SNGW 1102R04-ME	15 °	◎								
	SNGW 1102R08-ME		◎								
	SNGW 1103R04-ME		◎								
	SNGW 1103R08-ME		◎								
	SNGW 1203R04-ME		◎								
	SNGW 1203R08-ME		◎								
	SNGW 1203R12-ME		◎								
	SNGW 1204R04-ME		◎								
	SNGW 1204R08-ME		◎								
	SNGW 1204R12-ME		◎								
	SNGW 1204R16-ME		◎								
	SNGW 12045R04-ME		◎								
	SNGW 12045R08-ME		◎								
	SNGW 12045R12-ME		◎								
	SNGW 12045R16-ME		◎								
	SNGW 12045R20-ME		◎								
	SNGW 1205R04-ME		◎								
	SNGW 1205R08-ME		◎								
	SNGW 1205R12-ME		◎								
	SNGW 1205R16-ME		◎								
	SNGW 1205R20-ME		◎								
	SNGW 1205R25-ME		◎								
	SNGW 1207R04-ME		◎								
	SNGW 1207R08-ME		◎								
	SNGW 1207R12-ME		◎								
	SNGW 1207R16-ME		◎								
	SNGW 1207R20-ME		◎								
	SNGW 1207R25-ME		◎								
	SNGW 1207R30-ME		◎								

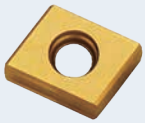
- Steel Stainless Steel Steel/Stainless Steel /Super alloy Cast Iron Aluminum Steel/Cast Iron Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: SNGW 1102R04-ME,F20

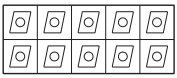
CNGX Inserts



Tolerances (mm)
I=±0.025 AE=±0.025 A=±0.025

Dimensions (mm)			
Insert Code	AE	I	A
1005	5.4	10.0	10
1305		12.7	
1605		16.0	

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		E ME M
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
	CNGX 1005-E				■						
	CNGX 1305-E				■						
	CNGX 1605-E				■						
	CNGX 1005-ME	◎				■					
	CNGX 1305-ME	◎				■					
	CNGX 1605-ME	◎				■					
	CNGX 1005T-M	■		■							
	CNGX 1305T-M	■		■							
	CNGX 1605T-M	■		■							



Inserts 10 PCS / Box

- ■ Steel ■ Stainless Steel ◎ Steel/Stainless Steel /Super alloy ■ Cast Iron ■ Aluminum ■ Steel/Cast Iron ◎ Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: CNGX 1005-E,F20

Recommendation-LNGT Inserts

LNGT Insert Grade Selection

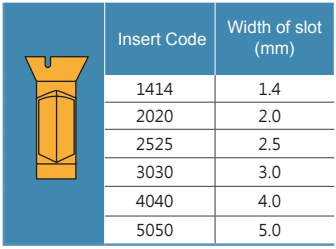
Material group	Recom. fz (mm/tooth)	Inserts			
		LNGT ... M	LNGT...ME	LNGT...EE	
1	0.04-0.12	B100	B100	-	-
2	0.04-0.10	B100	B100	-	-
3	0.04-0.10	B100	B100	-	-
4	0.04-0.10	B100	B100	-	-
5	0.04-0.08	B100	B100	-	-
6	0.04-0.07	B100	B100	-	-
7	0.03-0.06	-	B100	-	-
8	0.04-0.12	-	B100	-	-
9	0.04-0.10	-	B100	-	-
10	0.04-0.09	-	B100	-	-
11	0.04-0.08	-	B100	-	-
12	0.04-0.12	-	F20	-	-
13	0.04-0.12	-	F20	-	-
14	0.04-0.11	-	F20	-	-
15	0.04-0.10	-	F20	-	-
16	0.06-0.13	-	-	F20	-
17	0.06-0.12	-	-	F20	-
18	0.06-0.11	-	-	F20	-
19	0.06-0.09	-	B100	-	-
20	0.06-0.08	-	B100	-	-
21	0.04-0.06	-	B100	-	-
22	0.04-0.07	-	B100	-	-

Recommendation-LNGT Inserts

• LNGT Insert Recommended Cutting speed, Vc(m/min)

Material group	Grades						
	B100	C250	F20	CE60	CE	K10	F30
	fz (mm/tooth)						
	0.03 0.05 0.08		0.05 0.09 0.13				
	Cutting speed, Vc (m/min)						
1	215 195 168	-	-	-	-	-	-
2	168 151 135	-	-	-	-	-	-
3	151 135 122	-	-	-	-	-	-
4	134 122 109	-	-	-	-	-	-
5	121 109 97	-	-	-	-	-	-
6	109 - -	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	160 - 80	-	-	-	-	-	-
9	160 - 80	-	-	-	-	-	-
10	80 - 50	-	-	-	-	-	-
11	80 - 50	-	-	-	-	-	-
12	-	-	168 142 126	-	-	-	-
13	-	-	151 126 117	-	-	-	-
14	-	-	134 117 109	-	-	-	-
15	-	-	105 97 -	-	-	-	-
16	-	-	1150 950 850	-	-	-	-
17	-	-	950 780 700	-	-	-	-
18	-	-	950 780 700	-	-	-	-
19	50 45 -	-	-	-	-	-	-
20	50 45 -	-	-	-	-	-	-
21	35 40 -	-	-	-	-	-	-
22	50 45 -	-	-	-	-	-	-

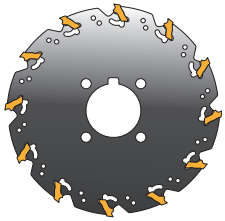
• Type Of Inserts



Insert Code	Width of slot (mm)
1414	1.4
2020	2.0
2525	2.5
3030	3.0
4040	4.0
5050	5.0

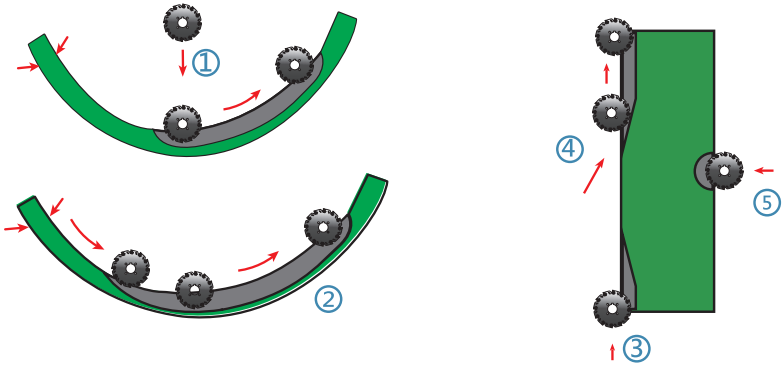
Recommendation-LNGT Inserts

f_z (mm / thooh)



• fz (mm/tooth)

AE	fz (mm/tooth)					
	Material group					
	1 2 3 4	5 6	8 9 10 11	12 13 14 15	16 17 18	19 20 21 22
1.4-1.7 mm	0.02-0.03	0.015-0.025	0.03-0.04	0.02-0.04	0.02-0.04	0.015-0.025
1.8-2.2 mm	0.03-0.05	0.03-0.04	0.03-0.04	0.03-0.06	0.03-0.08	0.02-0.03
2.5-3.0 mm	0.03-0.06	0.03-0.05	0.02-0.03	0.03-0.08	0.03-0.1	0.03-0.04
3.0-3.5 mm	0.04-0.08	0.03-0.06	0.03-0.06	0.04-0.1	0.04-0.1	0.03-0.05
4.0-4.5 mm						
5.0-5.5 mm	0.05-0.1	0.04-0.08	0.04-0.07	0.05-0.12	0.05-0.17	0.04-0.06



① Plunging to mill : Fz reduce to 50%
② Ramping to mill : Fz remain 100%
③ Mill : Fz remain 100%
④ Ramping : Fz remain 100%
⑤ Plunging to mill : Fz reduce to 50%

Recommendation-SNGX / SNGW Inserts

• SNGX / SNGW Insert Grade Selection

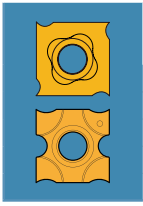
Material group	Recom. fz (mm/tooth)	Inserts			
		SNGX ... M SNGW ...M	SNGX ... ME SNGW ... ME	SNGX ... EE SNGW ... EE	
1	0.14-0.30	C250/B100	B100	-	-
2	0.14-0.25	C250/B100	B100	-	-
3	0.14-0.22	C250/B100	B100	-	-
4	0.14-0.22	C250/B100	B100	-	-
5	0.14-0.20	C250/B100	B100	-	-
6	0.10-0.15	C250/B100	B100	-	-
7	0.10-0.13	C250/B100	B100	-	-
8	0.14-0.25	-	B100	-	-
9	0.14-0.22	-	B100	-	-
10	0.14-0.20	-	B100	-	-
11	0.10-0.15	-	B100	-	-
12	0.14-0.30	-	F30	-	-
13	0.14-0.22	-	F30	-	-
14	0.14-0.20	-	F30	-	-
15	0.10-0.15	-	F30	-	-
16	0.16-0.30	-	-	F20	-
17	0.16-0.25	-	-	F20	-
18	0.16-0.20	-	-	F20	-
19	0.14-0.20	-	B100	-	-
20	0.14-0.18	-	B100	-	-
21	0.10-0.13	-	B100	-	-
22	0.14-0.20	-	B100	-	-

Recommendation-SNGX / SNGW Inserts

• Recommended Cutting Speed, Vc(m/min)

Material group	Grades						
	B100	C250	F20	CE60	CE	K10	F30
	fz (mm/tooth)						
	0.1 0.2 0.3	0.1 0.2 0.3	0.1 0.2 0.3				0.1 0.2 0.3
	Cutting Speed, Vc (m/min)						
1	186 166 150	166 146 130	-	-	-	-	-
2	168 150 135	148 130 115	-	-	-	-	-
3	151 136 122	131 116 102	-	-	-	-	-
4	136 122 110	116 102 90	-	-	-	-	-
5	120 110 99	100 90 79	-	-	-	-	-
6	92 78 -	72 58 -	-	-	-	-	-
7	-	-	-	-	-	-	-
8	160 - 80	-	-	-	-	-	-
9	160 - 80	-	-	-	-	-	-
10	80 - 50	-	-	-	-	-	-
11	80 - 50	-	-	-	-	-	-
12	-	-	-	-	-	-	140 119 105
13	-	-	-	-	-	-	126 105 98
14	-	-	-	-	-	-	119 98 91
15	-	-	-	-	-	-	91 88 -
16	-	-	1150 950 850	-	-	-	-
17	-	-	950 780 700	-	-	-	-
18	-	-	950 780 700	-	-	-	-
19	55 45 -	-	-	-	-	-	-
20	55 45 -	-	-	-	-	-	-
21	46 38 -	-	-	-	-	-	-
22	55 45 -	-	-	-	-	-	-

• Type Of Inserts



Insert Code	Width of slot (mm)
1203	6
1204	7
12045	8
1205	10
1207	12

Recommendation - CNGX Inserts

• CNGX Insert Grade Selection

Material group	Recom. fz (mm/tooth)	Inserts			
		CNGX ... M	CNGX...ME	CNGX...E	
1	0.2-0.4	C250/B100	B100	-	-
2		C250/B100	B100	-	-
3	0.2-0.35	C250/B100	B100	-	-
4		C250/B100	B100	-	-
5	0.2-0.32	C250/B100	B100	-	-
6		C250/B100	B100	-	-
7	0.15-0.3	C250/B100	B100	-	-
8	0.2-0.4	-	B100	-	-
9		-	B100	-	-
10	0.2-0.33	-	B100	-	-
11		-	B100	-	-
12	0.22-0.4	-	F30	-	-
13		-	F30	-	-
14	0.2-0.35	-	F30	-	-
15		-	F30		-
16	0.22-0.42	-	-	F20	-
17		-	-	F20	-
18		-	-	F20	-
19	0.2-0.3	-	B100	-	-
20		-	B100	-	-
21	0.15-0.25	-	B100	-	-
22	0.2-0.25	-	B100	-	-

• Recommended Cutting Speed, Vc(m/min)

Material group	Grades						
	B100	C250	F20	CE60	CE	K10	F30
	fz (mm/tooth)						
	0.1 0.2 0.3	0.1 0.2 0.3	0.1 0.2 0.3				
	Cutting Speed, Vc (m/min)						
1	162 140 123	162 140 123	-	-	-	-	-
2	146 123 105	146 123 105	-	-	-	-	-
3	120 101 92	120 101 92	-	-	-	-	-
4	109 92 84	109 92 84	-	-	-	-	-
5	90 78 70	90 78 70	-	-	-	-	-
6	63 56 -	64 56 -	-	-	-	-	-
7	-	28 - -	-	-	-	-	-
8	160 - 70	-	-	-	-	-	-
9	160 - 70	-	-	-	-	-	-
10	80 - 50	-	-	-	-	-	-
11	80 - 50	-	-	-	-	-	-
12	-	-	-	-	-	-	140 119 105
13	-	-	-	-	-	-	126 105 98
14	-	-	-	-	-	-	119 98 91
15	-	-	-	-	-	-	91 84 -
16	-	-	805 665 595	-	-	-	-
17	-	-	665 549 490	-	-	-	-
18	-	-	-	-	-	-	-
19	40 37 -	-	-	-	-	-	-
20	40 37 -	-	-	-	-	-	-
21	35 30 -	-	-	-	-	-	-
22	40 37 -	-	-	-	-	-	-

• Type Of Inserts

Insert Code	Width of slot (mm)
1005	14-16
1305	18-24
1605	25-30