VOLCUT®

Vol.28

PRODUCTS GUIDE

IMS INTER METAL SISTEMA, S.L.
soluciones globals per al mecanitzat

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「Idea Force」
×
「Implementation Force」

We are refining "the idea force" and "the implementation force'and as "FIJIGEN of Chamfering" aim to be the only one company who can have your trust from everyone.

www.intermetalsistema.com Tel. 933 321 239 info@intermetalsistema.com

New Comer

Centering・Chamfering series

MOMIMEN PICO

The following processing can be done by PICO only !

Centering Processing

Dish Chamfering Processing

Chamfering Processing

(※can't use for Bench Drilling Machine)

For more information to P.12

1. Succeeded the improvement of sharpness at the Pointing processing and eliminated the secondary Burrs !
2. Can also be used to C-Chamfering, Dish Chamfering Processlng that runs in the transverse!

New Comer

Centering・Chamfering series

DODECAECO

Cost Reduction !

Centering Processing

Dish Chamfering Processing

Chamfering Processing

(※can't use for Bench Drilling Machine)

For more information to P.15

1. Reduced Processing Cost by by Tip with 3-corners
2. Improved machinability and cutting chip disposability
3. Achieved a long life by original tip (Ultrafine Particle Carbide+New coating)

New Comer

MENTRUDEE

Can be used with both Bench Drilling Machines and Electric Drill !

Dish Chamfering Processing

Dish Chamfering Processing

1. Best for small diameter hole chamfering(φ2.5～ (φ11mm)
2. Used durable high-speed steel in the body
3. Achieved a long life by original tip(Ultrafine Particle Carbide+new coating)
4. Positive type Tip with 3-corners

For more information to P28

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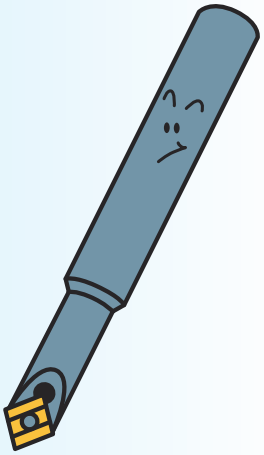

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Chamfering Series

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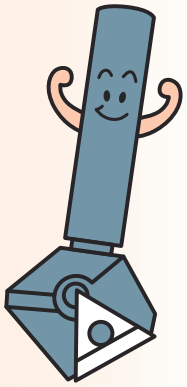

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Face/Shoulder Milling Series

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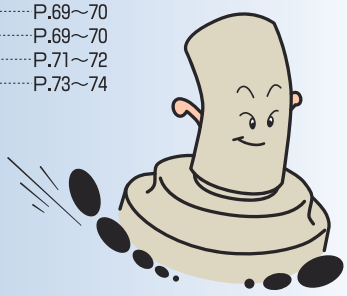

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Sleeve Series

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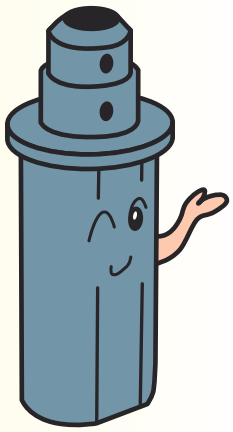

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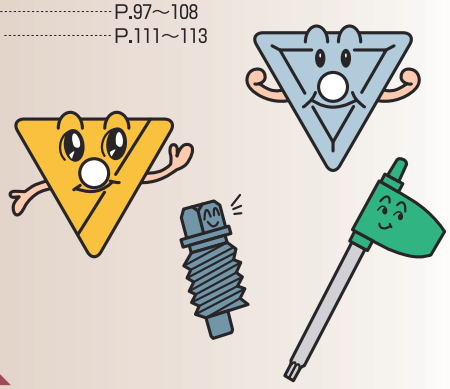

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NICECUT®

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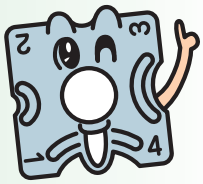

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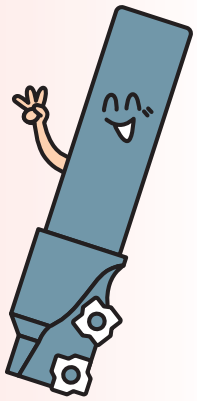

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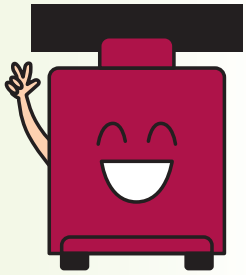

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Handy Series

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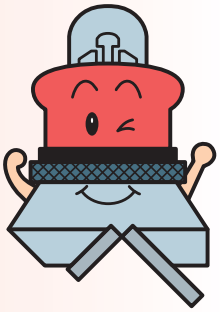

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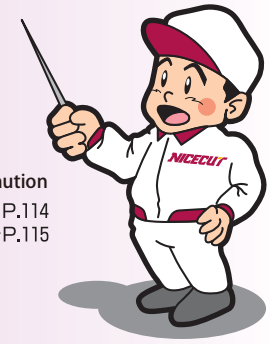

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Trouble Shooting

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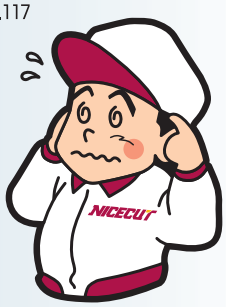

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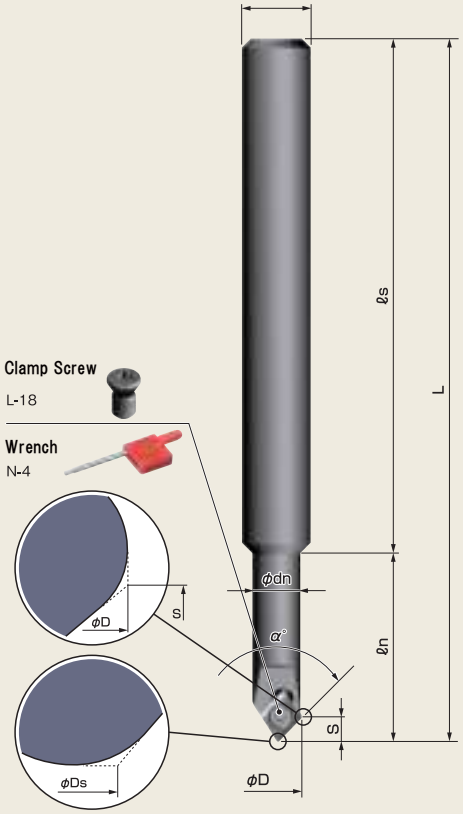
Centering & Chamfering Series

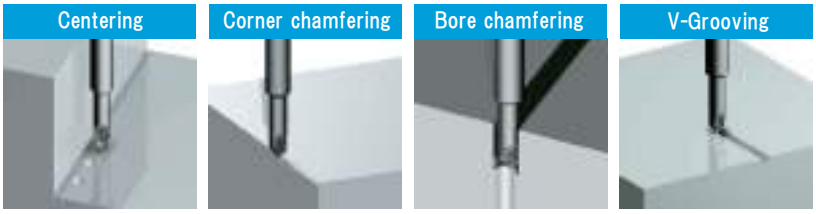
Momimen nano

1Blade

Smallest Indexable Tools !

- Developed screw-on type smallest Insert (under-neck diameter φ6mm) This will be smallest insert in the existing market.
- Small diameter long neck prevents tool interference when processing in the deep area
- You can use this tool for engraving process





※ This tool cannot be used with drilling machines

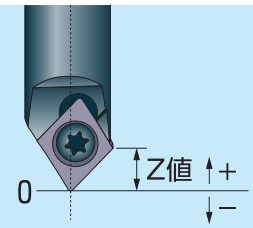
Dish Chamfering Processing (Min. Blade Diameter～Max. Blade Diameter)

90°	120°
φ0.6mm～φ6mm	φ0.6mm～φ7.4mm

Body

Model. No.	Blades	Dimensions (mm)								α°
		φD	φDs	φd	φdn	L	ℓs	ℓn	S	
SCN0845E	1	6	0.58	8	5.6	82	60	22	2.8	90°
SCN0830E	1	7.4	0.52	8	7	82	60	22	2.0	120°

※ Insert is not equipped as standard accessory.Please purchase it separately
※ Clamp screw wrench we have standard equipment.



Z-value compensate standard

※ Please note that this value may be getting some errors

α°= 90° → +0.3

α°= 120° → +0.15

[Example]
Correct Z-value (-2.5)to -2.2 in case of φ5mm spot drilling process

Cutting Conditions

Centering

Material	Feed per blade (fz)	Rotation speed (r.p.m.)	Recommended Insert	Coolant
General Steel	0.02～0.03	4,000～	ENGX040102 AC15N	Yes
Alloy Steel	0.02～0.03	4,000～	ENGX040102 AC15N	Yes
Stainless Steel	0.01～0.02	4,000～	ENGX040102 AC15N	Yes
Aluminum,Resin,Brass	0.05～0.08	4,000～	ENGX040102F ZC16N	Yes
Castings	0.04～0.06	4,000～	ENGX040102 AC15N	None

Chamfering

Material	Feed per blade (fz)	Rotation speed (r.p.m.)	Recommended Insert	Coolant
General Steel	0.07～0.1	4,000～	ENGX040102 AC15N	Yes
Alloy Steel	0.07～0.1	4,000～	ENGX040102 AC15N	Yes
Stainless Steel	0.05～0.1	4,000～	ENGX040102 AC15N	Yes
Aluminum,Resin,Brass	0.1～0.15	4,000～	ENGX040102F ZC16N	Yes
Castings	0.07～0.12	4,000～	ENGX040102 AC15N	None

V-groove processing

Material	Feed per blade (fz)	Rotation speed (r.p.m.)	Recommended Insert	Coolant
General Steel	0.05～0.07	4,000～	ENGX040102 AC15N	Yes
Alloy Steel	0.05～0.07	4,000～	ENGX040102 AC15N	Yes
Stainless Steel	0.03～0.05	4,000～	ENGX040102 AC15N	Yes
Aluminum,Resin,Brass	0.05～0.08	4,000～	ENGX040102F ZC16N	Yes
Castings	0.04～0.06	4,000～	ENGX040102 AC15N	None

- In case of bore chamfering process by Z-axis only,please take same cutting condition of centering process
- According to the shape of work, large or small chamfering amount and position of blade, the cutting condition will have to be adjusted . In case of processing with large amount chamfer,please take reducing cutting condition
- In case of chanfering process of Stainless Steel, please take the down cutting

Processing Example

[Perimetery C2 Chamfering]

- Body : SCN0845E
- Insert : ENGX040102 AC15N

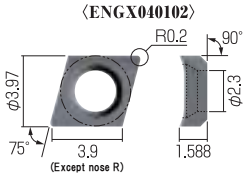
- Material・・・・・・・・・ SUS304
- Rotation Speed・・・ 5,000r.p.m.
- Feed (Z-axis) ・・・・ 350mm/min
- Cutting Depth・・・・・ C2
- Cutting Oil・・・・・・・ Yes

Result

Good!
No secondary burrs and No chattering after processing

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈ENGX040102〉	NEW ENGX040102F ZC16N	Fine particles Carbide	Sharp edge	None	2	12
	ENGX040102 AC15N	Fine particles Carbide	Honing edge	AlCrN	2	12



⚠ Blade edge by V-grooving and centering processing could not be a perfect vertex angle

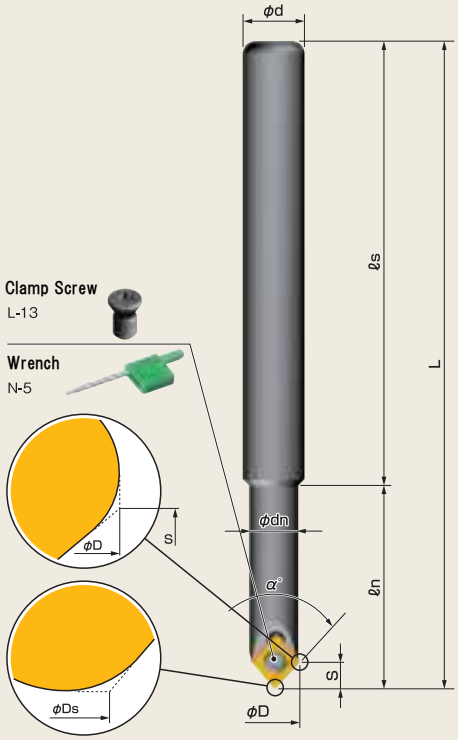
Centering & Chamfering Series

Chibimomi

1Blade

This Tool !

- Center-drilling and chamfer process can be done by this Tool. You can reduce numbers of ATC tooling by using this tool and make high productivity!
- Original insert shape desined by us solved risk of Chattering and breakage



- Carbide made shank increased rigidity and limit of spotting has been much improved with the standard long shank, Protruding limit is now high.
- This tool have (φ10) Shank and (φ9) Blade, and can be used at narrow area also

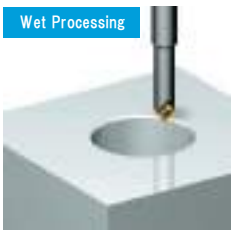
Processing Example

[φ100 Bore Chamfering]

- Body : SCM1045C
- Insert : C22GUX NK5050

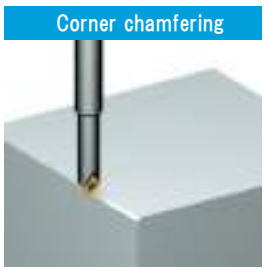
- Material ····· SUS304
- Rotation Speed ··· 5,000r.p.m.
- Feed (Z-axis) ···· 500mm/min
- Cutting Depth ···· C1
- Cutting Oil ····· Yes

Wet Processing



Result

Good!
800pcs process has successfully done without size change, secondary burrs and alternant sound during processing



※ This tool cannot be used with drilling machines

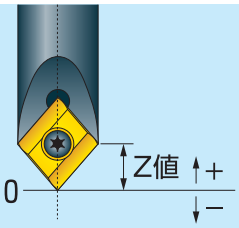
Dish Chamfering Processing (Min. Blade Diameter～Max. Blade Diameter)

90°
φ0.6mm～φ9mm

Body

Model. No.	Blades	Dimensions (mm) φD	φDs	φd	φdn	L	ℓs	ℓn	S	α°	Carbide Shank
SCM1045C	1	9	0.5	10	8	105	72	33	4.4	90°	
SCM1045CL	1	9	0.5	10	8	165	132	33	4.4	90°	
SCM1045CL-CB	1	9	0.5	10	8	165	145	20	4.4	90°	●

※ Inset is not equipped as standard accessory. Please purchase it spearately.
※ Clamp screw wrench we have standard equipment.



Z-value compensate standard
※ Please note that this value may be getting little errors

α°= 90° → +0.2

[Example]
Correct Z-value(-4.0)to -3.8in case of φ8mm spot drilling process

Cutting Conditions

Centering

Material	Feed Per Blade (fz)	Rotation speed (r.p.m.)	Recommended Insert	Coolant
General Steel	0.05～0.08	2,000～3,500	C22GUX NK2020	Yes
Alloy Steel	0.05～0.08	2,000～3,500	C22GUX NK3030	Yes
Stainless Steel	0.05～0.08	2,000～3,500	C22GUXT AC16N	Yes
Aluminum,Resin,Brass	0.05～0.1	3,000～	C22GUX NK1010	Yes
Castings	0.05～0.08	2,000～3,500	C22GUX NK3030	Yes

Chamfering

Material	Feed Per Blade (fz)	Rotation Speed (r.p.m.)	Recommended Insert	Coolant
General Steel	0.1～0.15	2,000～	C22GUX NK2020	Yes
Alloy Steel	0.1～0.15	2,000～	C22GUX NK3030	Yes
Stainless Steel	0.1～0.15	2,000～	C22GUXT AC16N	Yes
Aluminum,Resin,Brass	0.1～0.15	3,000～	C22GUX NK1010	Yes
Castings	0.1～0.15	2,000～	C22GUX NK3030	Yes

- In case of bore chamfering prosess by Z-axis only,please take same cutting condition of centering process
- According to the shape of work, large or small chamfering, amount and position of blade, the cutting condition will have to be adjusted. In case of process with large amount chamfer, please take reducing cutting condition
- In case of chamfering process of stainless steel,please take the down cutting

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈C22GUX〉 R0.2 7° φ6.35 φ2.8 80° 6 2.38 (Except nose R)	C22GUX NK1010	Carbide K10	Sharp edge	None	2	12
	C22GUX NK2020	Carbide M20	Honing edge	None	2	12
	C22GUX NK3030	Carbide M20	Honing edge	TiN	2	12
	C22GUX NK5050	Carbide K10	Sharp edge	TiN	2	12
	C22GUX NK6060	Carbide M20	Honing edge	TiAℓN	2	12
	C22GUX NK8080	Carbide K10	Sharp edge	TiAℓN	2	12
	C22GUXF AC16N	Fine particles Carbide	Sharp edge	AlCrN	2	12
	C22GUXT AC16N	Fine particles Carbide	Honing edge	AlCrN	2	12

⚠ Blade edge by V-grooving and centering processing could not be a perfect vertex angle

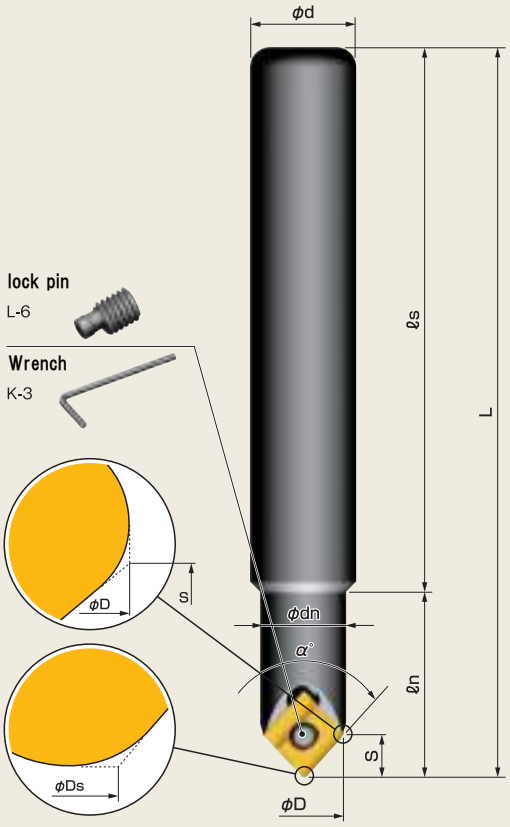
Centering & Chamfering Series

Momimen

1Blade

This Tool !

- Center-drilling and chamfer process can be done by this Tool. You can reduce numbers of ATC tooling by using this tool and make high productivity!
- Original insert shape desined by us solved risk of Chattering and breakage



※ This tool cannot be used with drilling machines

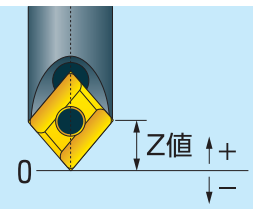
Dish Chamfering Processing (Min. Blade Diameter～Max. Blade Diameter)

90°	118°
ϕ2mm～ϕ13.5mm	ϕ2mm～ϕ16.15mm

Body

Model. No.	Blades	Dimensions (mm)								α°
		ϕD	ϕDs	ϕd	ϕdn	L	ℓs	ℓn	S	
SC1045C	1	13.5	1.0	10	13	110	82	28	6.3	90°
SC1245C	1	13.5	1.0	12	13	110	82	28	6.3	90°
SC1645C	1	13.5	1.0	16	13	110	82	28	6.3	90°
SC1645CL	1	13.5	1.0	16	13	200	172	28	6.3	90°
SC1630C	1	16.15	0.39	16	16.5	110	82	28	4.6	118°
SC1630CL	1	16.15	0.39	16	16.5	200	172	28	4.6	118°

※ Inset is not equipped as standard accessory. Please purchase it spearately.
※ Lock Pin is supplied as standard accessory



Z-value compensate standard
※ Please note that this value may be getting little errors

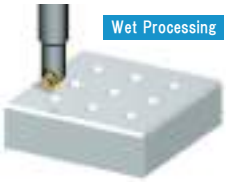
α°= 90° → +0.45
α°= 118° → +0.2

[Example]
Correct Z-value(-6.0)to -5.55in case of
ϕ12mm spot drilling process

Processing Example

[Φ8 of Centering Processing, Circumference C3 Chamfering]

- Body : SC1645C
- Insert : C32GUX NK3030
- Material·····S45C
- Rotation Speed···3,500r.p.m
- Feed (Z-axis)····100mm/min
- Feed (X-axis)····300mm
- Cutting Oil·····Yes



Result

Good! No secondary burrs and no chattering process

Cutting Conditions

Centering

Material	Feed Per Blade (fz)	Rotation Speed (r.p.m.)	Recommended Insert	Coolant
General Steel	0.05～0.1	1,500～3,000	C32GUX NK2020	Yes
Alloy Steel	0.05～0.1	1,500～3,000	C32GUX NK3030	Yes
Stainless Steel	0.05～0.1	1,500～3,000	C32GUX AC15D	Yes
Aluminum,Resin,Brass	0.05～0.2	3,000～	C32GUX NK1010	Yes
Castings	0.05～0.1	1,500～3,000	C32GUX NK3030	Yes

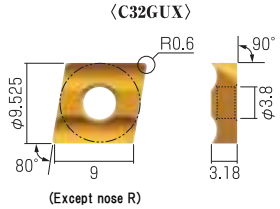
Chamfering

Material	Feed per blade (fz)	Rotation speed (r.p.m.)	Recommended Insert	Coolant
General Steel	0.1～0.2	2,000～	C32GUX NK2001	None
Alloy Steel	0.1～0.2	2,000～	C32GUX NK2001	None
Stainless Steel	0.1～0.2	2,000～	C32GUX AC15D	Yes
Aluminum,Resin,Brass	0.1～0.2	3,000～	C32GUX NK1010	Yes
Castings	0.1～0.2	2,000～	C32GUX NK2001	None

- In case of bore chamfering prosess by Z-axis only,please take same cutting condition of centering process
- According to the shape of work, large or small chamfering, amount and position of blade, the cutting condition will have to be adjusted.
  In case of process with large amount chamfer, please take reducing cutting condition
- In case of chamfering process of stainless steel,please take the down cutting

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈C32GUX〉	C32GUX NK2001	Cermet	Honing edge	None	2	12
	C32GUX NK1010	Carbide K10	Sharp edge	None	2	12
	C32GUX NK2020	Carbide M20	Honing edge	None	2	12
	C32GUX NK3030	Carbide M20	Honing edge	TiN	2	12
	C32GUX NK5050	Carbide K10	Sharp edge	TiN	2	12
	C32GUX NK6060	Carbide M20	Honing edge	TiAℓN	2	12
	C32GUX NK8080	Carbide K10	Sharp edge	TiAℓN	2	12
	C32GUX AC15D	Fine particles Carbide	Honing edge	AlCrN	2	12
	C32GUX AC25D	Fine particles Carbide	Sharp edge	AlCrN	2	12
	C32GUX HSS	HSS	Sharp edge	None	2	12
	C32GUX HSS TiN	HSS	Sharp edge	TiN	2	12



(Except nose R)

Blade edge by centering processing could not be a perfect vertex angle
When mounting insert, please do not take reverse tightening.
Due to the eccentricity looking mechanism ,poor accuracy or breakage of insert may be occurred
When replacing insert, please confirm twhether you have been taking reserve tightening or not.

···P.114

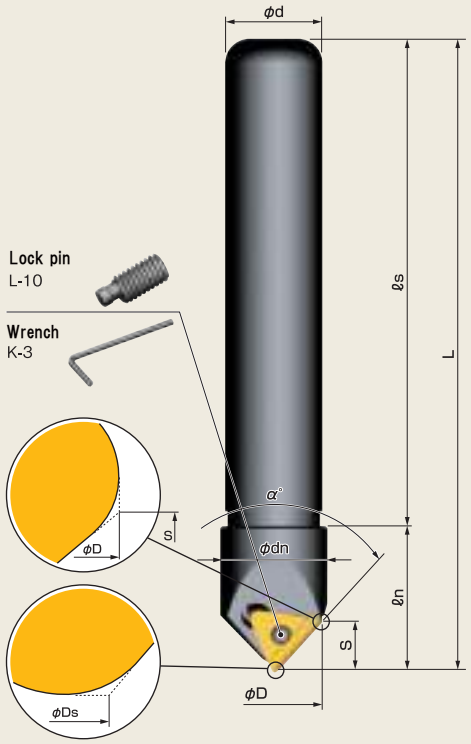
Centering & Chamfering Series

Dekamomi

1Blade

This Tool !

- Center-drilling and chamfer process can be done by this Tool. You can reduce numbers of ATC tooling by using this tool and make high productivity!
- Original insert shape desined by us solved risk of Chattering and breakage



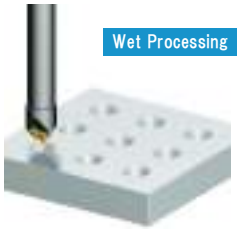
Achieved large Capacity Cutting of Center-Drilling(22.5mm) and C-Face Chamfering(C8mm).

Processing Example

[Φ20 of Centering Processing]

- Body : SC2045T
- Insert : T32GUX NK3030

- Material·····S50C
- Rotation Speed···2,500r.p.m
- Feed (Z-axis)····80mm/min
- Cutting Oil·····Yes



Result

Good! No secondary burrs and no chattering process

Centering	Dish chamfering	Corner chamfering

※ This tool cannot be used with drilling machines

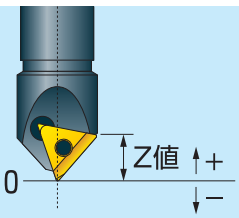
Dish Chamfering Processing (Min. Blade Diameter～Max. Blade Diameter)

90°	120°
ϕ3mm～ϕ22.5mm	ϕ3mm～ϕ26.6mm

Body

Model. No.	Blades	Dimensions (mm)								α°
		ϕD	ϕDs	ϕd	ϕdn	L	ℓs	ℓn	S	
SC2045T	1	22.5	1.99	20	22	130	100	30	10.5	90°
SC2045TL	1	22.5	1.99	20	22	200	170	30	10.5	90°
SC2545TL	1	22.5	1.99	25	22	200	150	50	10.5	90°
SC2530T	1	26.6	1.90	25	25	130	95	35	7.5	120°
SC3230TL	1	26.6	1.90	32	25	200	150	50	7.5	120°

※ Inset is not Included. Please Order Spearately.
※ Lock pin Wrench we have Standard Equipment.



Z-value compensate standard

※ Please note that this value may be getting little errors

α°= 90° → +0.8
α°= 120° → +0.6

[Example]
Correct Z-value(-10.0)to -9.2in case of
ϕ20mm spot drilling process

Cutting Conditions

Centering				
Material	Feed Per Blade (fz)	Rotation Speed (r.p.m.)	Recommended Insert	Coolant
General Steel	0.03～0.08	1,500～2,500	T32GUX NK2020	Yes
Alloy Steel	0.03～0.08	1,500～2,500	T32GUX NK3030	Yes
Stainless Steel	0.03～0.08	1,500～2,500	T32GUX NK6060	Yes
Aluminum,Resin,Brass	0.03～0.1	3,000～	T32GUX NK1010	Yes
Castings	0.03～0.08	1,500～2,500	T32GUX NK3030	Yes

Chamfering				
Material	Feed per blade (fz)	Rotation speed (r.p.m.)	Recommended Insert	Coolant
General Steel	0.1～0.2	1,500～	T32GUX NK2001	None
Alloy Steel	0.1～0.2	1,500～	T32GUX NK2001	None
Stainless Steel	0.1～0.2	1,500～	T32GUX NK6060	Yes
Aluminum,Resin,Brass	0.1～0.2	2,000～	T32GUX NK1010	Yes
Castings	0.1～0.2	1,500～	T32GUX NK2001	None

- In case of bore chamfering prosess by Z-axis only,please take same cutting condition of centering process
- According to the shape of work, large or small chamfering, amount and position of blade, the cutting condition will have to be adjusted. In case of process with large amount chamfer, please take reducing cutting condition
- In case of chamfering process of stainless steel,please take the down cutting

Insert

〈T32GUX〉〈T32GUXF〉〈T32GUXT〉

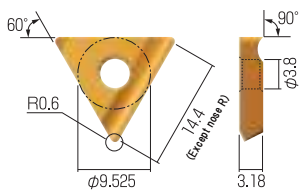


Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈T32GUX〉〈T32GUXF〉〈T32GUXT〉	T32GUX NK2001	Cermet	Honing edge	None	2	12
	T32GUX NK1010	Carbide K10	Sharp edge	None	2	12
	T32GUX NK2020	Carbide M20	Honing edge	None	2	12
	T32GUX NK3030	Carbide M20	Honing edge	TiN	2	12
	T32GUX NK5050	Carbide K10	Sharp edge	TiN	2	12
	T32GUX NK6060	Carbide M20	Honing edge	TiAℓN	2	12
	T32GUX NK8080	Carbide K10	Sharp edge	TiAℓN	2	12
	T32GUXF AC16N	Fine particles Carbide	Sharp edge	AlCrN	2	12
	T32GUXT AC16N	Fine particles Carbide	Honing edge	AlCrN	2	12
	T32GUX HSS	HSS	Sharp edge	None	2	12
	T32GUX HSS TiN	HSS	Sharp edge	TiN	2	12

Blade edge by centering processing could not be a perfect vertex angle
When mounting insert, please do not take reverse tightening.
Due to the eccentricity looking mechanism ,poor accuracy or breakage of insert may be occurred
When replacing insert, please confirm twhether you have been taking reserve tightening or not.

···P.114

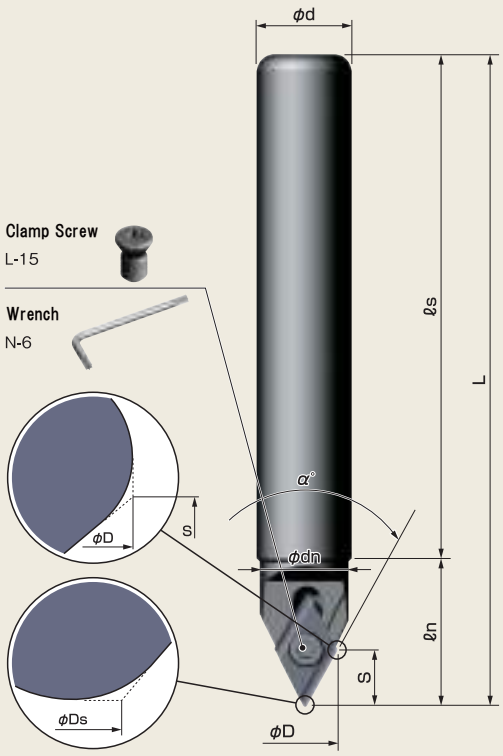
Centering & Chamfering Series

60°Momimen

1Blade

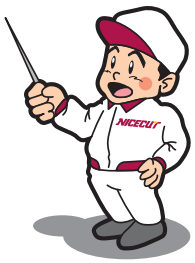
This Tool !

- Throw-away type tool ensured no alignment work
- Center-drilling and chamfer process can be done by tool. You can reduce numbers of ATC tooling, and ensured high speed cutting and high productivity.
- Slim body (shank:φ16mm and φ12mm blade)is suitable for work at narrow area



Centering

Corner chamfering (60)



※ This tool cannot be used with drilling machines

Dish Chamfering Processing (Min. Blade Diameter～Max. Blade Diameter)

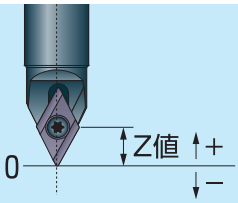
60°

φ1.2mm～φ11.88mm

Body

Model. No.	Blades	Dimensions (mm)								α°
		φD	φDs	φd	φdn	L	ℓs	ℓn	S	
SC1660DS	1	11.88	0.97	16	15	110	85	25	9.4	60°
SC1660DSL	1	11.88	0.97	16	15	200	175	25	9.4	60°

※ Inset is not equipped as standard accessory. Please purchase it separately
※ Clamp screw wrench we have standard equipment.



Z-value compensate standard

※ Please note that this value may be getting little errors

α°= 60° → +0.82

[Example]・・・Correct Z-value (-8.66)to -7.84 in case of φ10mm centering process

Cuttinng Conditions

Centering				
Material	Feed Per Blade (fz)	Rotation Speed (r.p.m.)	Recommended Insert	Coolant
General Steel	0.03～0.05	3,000～3,500	DCET11X304 AC15N	Yes
Alloy Steel	0.03～0.05	3,000～3,500	DCET11X304 AC15N	Yes
Stainless Steel	0.03～0.05	3,000～3,500	DCET11X304 AC15N	Yes
Aluminum,Resin,Brass	0.03～0.08	3,000～	DCET11X304 ZA10N	Yes
Castings	0.03～0.05	3,000～3,500	DCET11X304 AC15N	Yes

Chamfering				
Material	Feed Per Blade (fz)	Rotation Speed (r.p.m.)	Recommended Insert	Coolant
General Steel	0.1～0.15	2,000～	DCET11X304 AC15N	Yes
Alloy Steel	0.1～0.15	2,000～	DCET11X304 AC15N	Yes
Stainless Steel	0.1～0.15	2,000～	DCET11X304 AC15N	Yes
Aluminum,Resin,Brass	0.1～0.2	3,000～	DCET11X304 ZA10N	Yes
Castings	0.1～0.15	2,000～	DCET11X304 AC15N	Yes

- In case of bore chamfering process by Z-axis only, please take same cutting condition of centering process
- According to the shape of work, large or small chamfering amount and position of blade, the cutting condition will have to be adjusted. In cace of process with large chanfer ,please take reducing cutting condition
- In cace of chamfering process of stainless steel, please take the down cutting

Processing Example

[Φ12 of Centering, Perimetery chamfering]

- Body : SC1660DS
- Insert : DCET11X304 AC15N

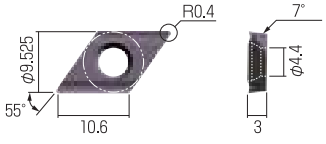
- Material・・・・・・・・・S45C
- Rotation Speed・・・3,500r.p.m
- Feed (Z-axis) ・・・・100mm/min
- Cutting Depth・・・・300mm/min
- Cutting Oil・・・・・・・Yes

Wet Processing

Result

Good!
No secondary burrs and no chattering process

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable Corner	Quantity per box
〈DCET11X304〉〈DCET11X304E〉  (Except nose R)	DCET11X304 ZA10N	Carbide K10	Sharp edge	None	2	12
	DCET11X304 AC15N	Fine Particles Carbide	Sharp edge	AlCrN	2	12
	DCET11X304E AC16N	Fine Particles Carbide	Honing edge	AlCrN	2	12

⚠ Blade edge by V-grooving and centering processing could not be a perfect vertex angle

Centering & Chamfering Series

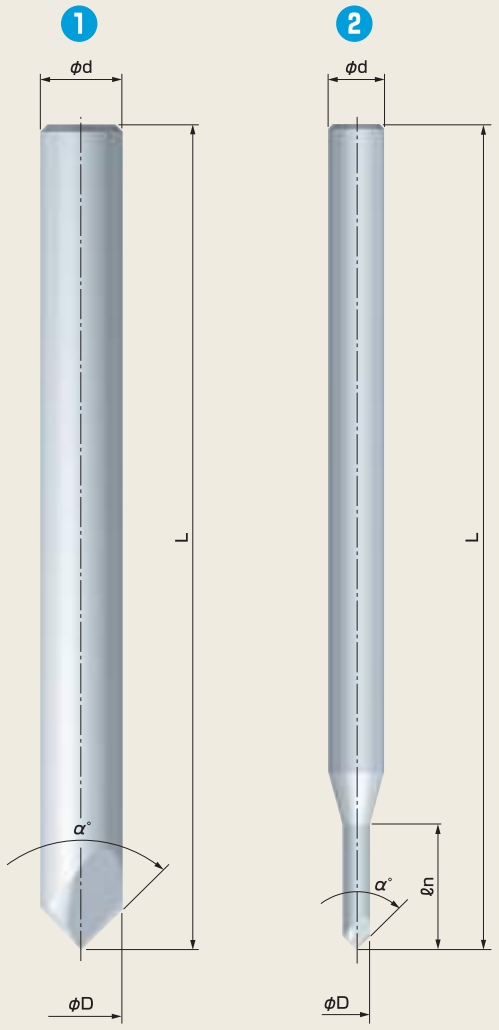
pinko

1Blade

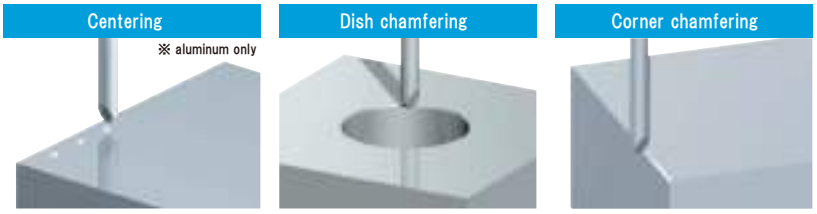
Micro Processing !

- Sharp edge design provides very fine Engraving
- Runout Accuracy is less than 0.005mm !
- φ0.01mm thread chamfering is possible

(※ not for coating material)



■Material : Fine Particles Carbide



※ This tool cannot be used with Drilling Machines

Model. No.	Capacity Bore chamfering	α°
PKP0145	φ0.01㎜~φ1㎜	90°
PKP0245	φ0.01㎜~φ2㎜	90°
PKP0345	φ0.01㎜~φ3㎜	90°
PKP0445	φ0.01㎜~φ4㎜	90°
PKP0545	φ0.01㎜~φ5㎜	90°
PKP0645	φ0.01㎜~φ6㎜	90°
PKP0145C	φ0.01㎜~φ1㎜	90°
PKP0245C	φ0.01㎜~φ2㎜	90°
PKP0345C	φ0.01㎜~φ3㎜	90°
PKP0445C	φ0.01㎜~φ4㎜	90°
PKP0545C	φ0.01㎜~φ5㎜	90°
PKP0645C	φ0.01㎜~φ6㎜	90°
PKP0145DLC	φ0.01㎜~φ1㎜	90°
PKP0245DLC	φ0.01㎜~φ2㎜	90°
PKP0345DLC	φ0.01㎜~φ3㎜	90°
PKP0445DLC	φ0.01㎜~φ4㎜	90°
PKP0545DLC	φ0.01㎜~φ5㎜	90°
PKP0645DLC	φ0.01㎜~φ6㎜	90°

■Body

Model. No.	Figure	Blades	Dimensions (㎜) φD	φd	L	ℓn	α°	Coating
PKP0145	2	1	1	4	55	9	90°	None
PKP0245	2	1	2	4	55	9	90°	None
PKP0345	1	1	3	3	55	–	90°	None
PKP0445	1	1	4	4	55	–	90°	None
PKP0545	1	1	5	5	60	–	90°	None
PKP0645	1	1	6	6	60	–	90°	None
PKP0145C	2	1	1	4	55	9	90°	AlCrN
PKP0245C	2	1	2	4	55	9	90°	AlCrN
PKP0345C	1	1	3	3	55	–	90°	AlCrN
PKP0445C	1	1	4	4	55	–	90°	AlCrN
PKP0545C	1	1	5	5	60	–	90°	AlCrN
PKP0645C	1	1	6	6	60	–	90°	AlCrN
PKP0145DLC	2	1	1	4	55	9	90°	DLC
PKP0245DLC	2	1	2	4	55	9	90°	DLC
PKP0345DLC	1	1	3	3	55	–	90°	DLC
PKP0445DLC	1	1	4	4	55	–	90°	DLC
PKP0545DLC	1	1	5	5	60	–	90°	DLC
PKP0645DLC	1	1	6	6	60	–	90°	DLC

■Cuttinng Conditions

Centering			
Material	Feed per blade (fz)	Rotation speed (r.p.m.)	Coolant
General Steel	×	×	×
Alloy Steel	×	×	×
Stainless Steel	×	×	×
Aluminum,Resin,Brass	0.05~0.08	10,000	YES
Cast Steel	×	×	×

V-groove processing			
Material	Feed per blade (fz)	Rotation speed (r.p.m.)	Coolant
General Steel	0.05~0.07	8,000	YES
Alloy Steel	0.05~0.07	8,000	YES
Stainless Steel	0.03~0.05	8,000	YES
Aluminum,Resin,Brass	0.05~0.08	10,000	YES
Cast Steel	0.04~0.06	8,000	YES

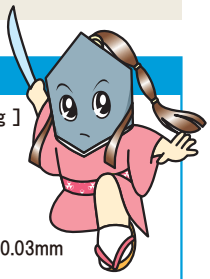
Chamfering			
Material	Feed per blade (fz)	Rotation speed (r.p.m.)	Coolant
General Steel	0.07~0.1	8,000	YES
Alloy Steel	0.07~0.1	8,000	YES
Stainless Steel	0.05~0.07	8,000	YES
Aluminum,Resin,Brass	0.1~0.15	10,000	YES
Cast Steel	0.07~0.12	8,000	YES

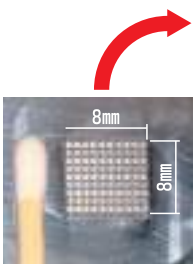
- For finish application, the cutting condition will have to be reduced
- Not possible for processing more than C1 chamfer processing
- According to the shape of work, large or small chamfering amount and position of blade, the cutting condition will have to be adjusted
- In case of chamfering process of stainless steel, reduce the cutting conditions

Processing Example

[0.8mm height of the pyramid 100 processing]

- Body : PKP0645
- Material····· A5052
- Rotation Speed···· 10,000r.p.m.
- Table feed····· 150/min
- Cutting Depth ····· Rough 0.185mm finish 0.03mm





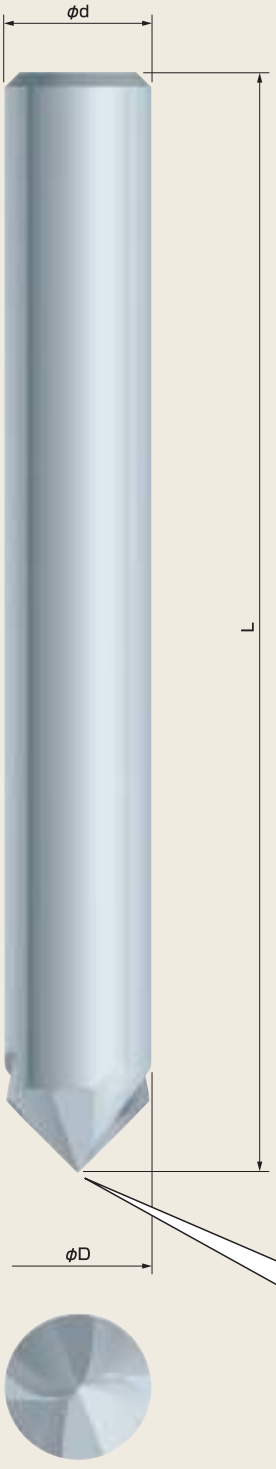
Centering & Chamfering Series

Alumizamurai

2 Blade

Exclusive for Aluminum processing !

- Original shaped edge provide sharp cutting without deburring
- Running cost has magnificently reduced with High Strength and No resistance
- Runout Accuracy is less than 0.005mm !



■Material : Fine Particles Carbide

※ This tool cannot be used with Drilling Machines

Model. No.	Capacity
	Bore chamfering
AZ4-90-L60	ϕ0.2mm～ϕ4mm
AZ6-90-L75	ϕ0.4mm～ϕ6mm
AZ10-90-L75	ϕ0.6mm～ϕ10mm
AZ10-90-L120	ϕ0.6mm～ϕ10mm

■ Body

Model. No.	Blades	Dimensions (mm)			
		ϕD	ϕD1	ϕd	L
AZ4-90-L60	2	4	ϕ0.2	4	60
AZ6-90-L75	2	6	ϕ0.4	6	75
AZ10-90-L75	2	10	ϕ0.6	10	75
AZ10-90-L120	2	10	ϕ0.6	10	120

⚠ Can not regrinding !

■ Cuttinng Conditions

Material	Processing type	Rotation speed (r.p.m.)	Table feed	Coolant
Aluminum,Resin,Brass	C chamfering	7,000～10,000	1,000～2,000	YES
	Sculpture, engraving	7,000～10,000	1,000～2,000	YES
	Centering Bore chamfering	6,000	80	YES

● take lower feed rate less than 800 in case of more than C1 process

■ Processing Example

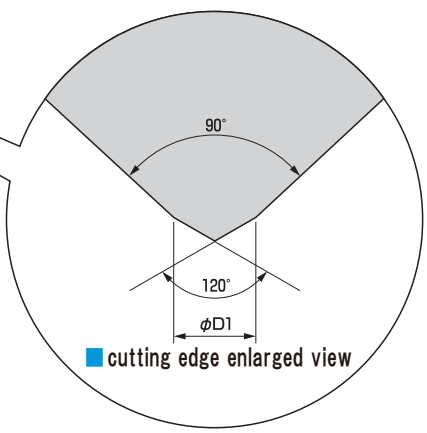
[Sculpturing, Engraving]

■ Body : AZ10-90-L75

- Material····· A5000
  A7000
- Rotation Speed ····· 8,000r.p.m.
- Feed Per Blade (fz)·· 0.15mm/tooth
- Table feed····· 2400mm/min
- Cutting Depth····· 0.15mm
- Coolant····· YES

Result

Good cutting, no deburring after processing



■cutting edge enlarged view

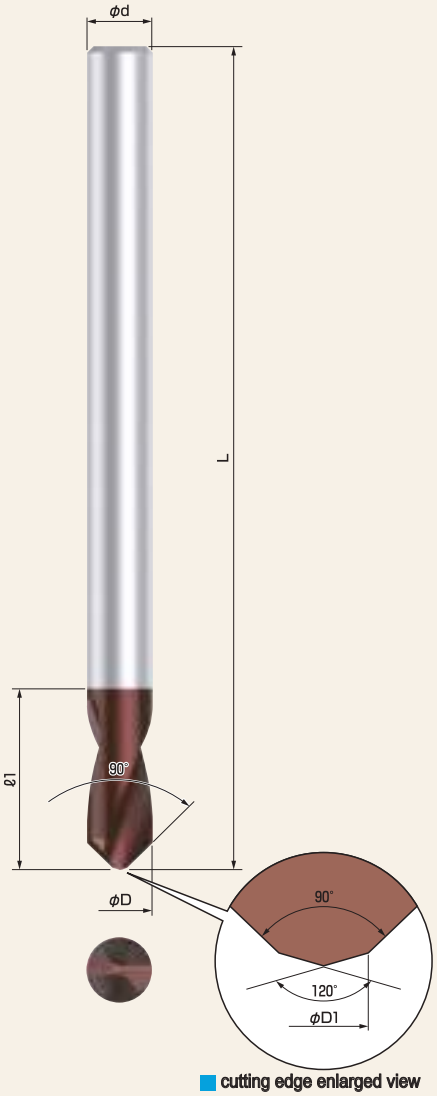
Centering & Chamfering Series

Momimen PICO

2Blades

By PICO only !

- Succeeded the improvement of sharpness at the Pointing processing and eliminated the secondary Burrs !
- Can also be used to C-Chamfering, Dish Chamfering Processing that runs in the transverse!



cutting edge enlarged view

Material:Fine Particles Carbide

Centering Processing | Dish Chamfering Processing | Chamfering Processing

※ Ncan't use for Bench Drilling Machines

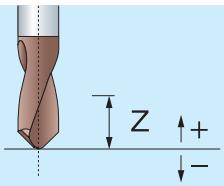
Model. No.	Capacity Dish Chamfering Processing
SCP0345F/SCP0345FL	ϕ0.75㎜~ϕ3.0㎜ (For steel-based)
SCP0445F/SCP0445FL	ϕ1.0㎜~ϕ4.0㎜ (For steel-based)
SCP0545F/SCP0545FL	ϕ1.25㎜~ϕ5.0㎜ (For steel-based)
SCP0645F/SCP0645FL	ϕ1.5㎜~ϕ6.0㎜ (For steel-based)
SCP0345S/SCP0345SL	ϕ0.75㎜~ϕ3.0㎜ (For stainless steel-based)
SCP0445S/SCP0445SL	ϕ1.0㎜~ϕ4.0㎜ (For stainless steel-based)
SCP0545S/SCP0545SL	ϕ1.25㎜~ϕ5.0㎜ (For stainless steel-based)
SCP0645S/SCP0645SL	ϕ1.5㎜~ϕ6.0㎜ (For stainless steel-based)

Body

Model. No.	Blades	Dimensions(㎜) ϕD	ϕD1	ϕd	L	ℓ1	Coating
NEW SCP0345F	2	3	ϕ0.75	3	50	8	TiAℓN
NEW SCP0445F	2	4	ϕ1.0	4	50	10	TiAℓN
NEW SCP0545F	2	5	ϕ1.25	5	50	13	TiAℓN
NEW SCP0645F	2	6	ϕ1.5	6	50	15	TiAℓN
NEW SCP0345FL	2	3	ϕ0.75	3	100	8	TiAℓN
NEW SCP0445FL	2	4	ϕ1.0	4	100	10	TiAℓN
NEW SCP0545FL	2	5	ϕ1.25	5	100	13	TiAℓN
NEW SCP0645FL	2	6	ϕ1.5	6	100	15	TiAℓN
NEW SCP0345S	2	3	ϕ0.75	3	50	8	TiAℓN
NEW SCP0445S	2	4	ϕ1.0	4	50	10	TiAℓN
NEW SCP0545S	2	5	ϕ1.25	5	50	13	TiAℓN
NEW SCP0645S	2	6	ϕ1.5	6	50	15	TiAℓN
NEW SCP0345SL	2	3	ϕ0.75	3	100	8	TiAℓN
NEW SCP0445SL	2	4	ϕ1.0	4	100	10	TiAℓN
NEW SCP0545SL	2	5	ϕ1.25	5	100	13	TiAℓN
NEW SCP0645SL	2	6	ϕ1.5	6	100	15	TiAℓN

⚠ Blade edge by centering processing could not be a perfect vertex angle

⚠ Can not regrinding !



Estimated Z value corrction during Cutting processing
※ (this value there is a case where slight error is out)

SCP0345➡+0.16 SCP0545➡+0.26
SCP0445➡+0.21 SCP0645➡+0.32

[Example]……In case of centering of 2ϕ in SCP0345, Z value is the place of-l to-0.84—Z value

Processing Example

[Φ2 Centering Processing]

Holder : SCP0445S

- Material ……SUS304
- Rotation ……2,000r.p.m.
- Z-Table Feed ……50㎜/min
- Use Cutting Oil…… Yes

Result

Good!
No secondary burrs and no chattering process

Cutting Conditions

Centering

Material	Feed Per Blade (fz)	Rotation Speed (r.p.m.) SCP□□45F/SCP□□45FL	SCP□□45S/SCP□□45SL	Coolant
General Steel	0.05~0.1	4,000	×	Yes
Alloy Steel	0.05~0.1	3,000	×	Yes
Stainless Steel	0.02~0.03	×	2,000	Yes
Aluminum,Resin,Brass	×	×	×	Yes
Castings	0.05~0.1	4,000	×	×

Chamfering

Material	Feed Per Blade (fz)	Rotation Speed (r.p.m.) SCP□□45F/SCP□□45FL	SCP□□45S/SCP□□45SL	Coolant
General Steel	0.08~0.12	5,000~	×	Yes
Alloy Steel	0.08~0.12	4,000~	×	Yes
Stainless Steel	0.05~0.1	×	3,000~	Yes
Aluminum,Resin,Brass	×	×	×	Yes
Castings	0.08~0.12	5,000~	×	×

- Lower as much as possible the conditions in the case of finishing
- Work shape, Clamp condition, Amount of large and small, please adjust the conditions by cutting edge position In case the amount is large, please lower cutting condition and process.
- In case Of Chamfering processing of Stainless Steel(SUS304etc) please process with Down-Cut.

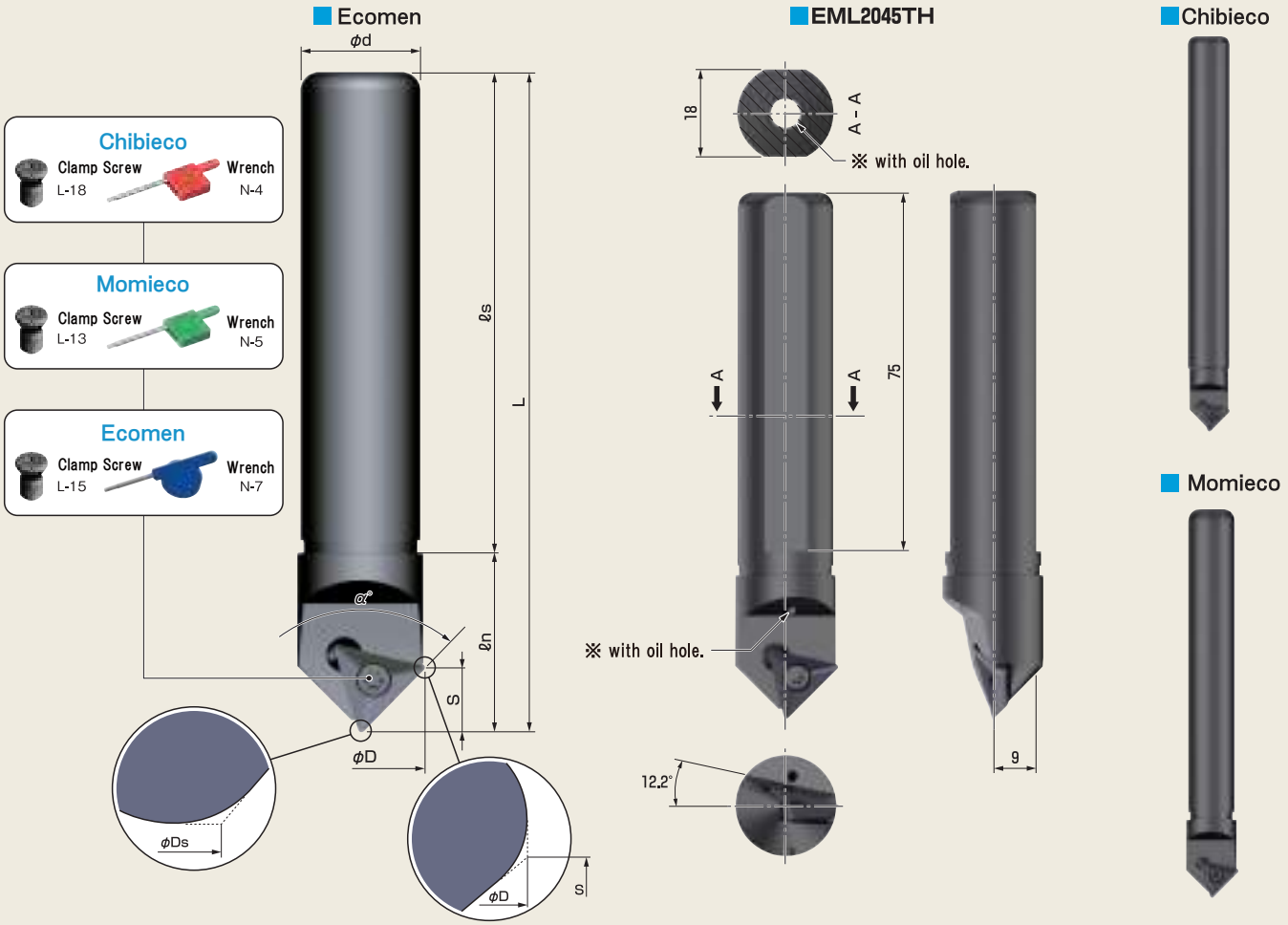
Centering & Chamfering Series

Chibieco / Momieco / Ecomen

Cost Reduction !

- Original insert have 3 usable corners and decrease the production cost widely
- Due to the improvement of blade shape and new coating, it is machinable more than any other insert, and chip(cuttings) release has been drastically improving
- Micro-grained Carbide with new coating made longer life of insert

※ This tool cannot be used with drilling machines



Body

Product name	Model. No.	blades	Dimensions (mm)							α°	Inserts
			ϕD	ϕDs	ϕd	L	ℓs	ℓn	S		
Chibieco	EMS1045T	1	10.3	0.88	10	95	80	15	4.7	90°	TXMT080206
	EMS1045TL	1	10.3	0.88	10	155	140	15	4.7	90°	TXMT080206
	EMS1030T	1	12.3	0.71	10	95	80	15	3.3	120°	TXMT080206
	EMS1030TL	1	12.3	0.71	10	155	140	15	3.3	120°	TXMT080206
Momieco	EMM1245T	1	14.2	0.88	12	100	80	20	6.7	90°	TXMT110306
	EMM1245TL	1	14.2	0.88	12	160	140	20	6.7	90°	TXMT110306
	EMM1645T	1	14.2	0.88	16	100	80	20	6.7	90°	TXMT110306
	EMM1645TL	1	14.2	0.88	16	160	140	20	6.7	90°	TXMT110306
	EMM1230T	1	17.1	0.71	12	100	80	20	4.7	120°	TXMT110306
	EMM1230TL	1	17.1	0.71	12	160	140	20	4.7	120°	TXMT110306
Ecomen	EML2045T	1	22	0.88	20	110	80	30	10.5	90°	TXMT16T306
	EML2045TL	1	22	0.88	20	170	140	30	10.5	90°	TXMT16T306
	EML2545TL	1	22	0.88	25	170	140	30	10.5	90°	TXMT16T306
	EML2045TH	1	22	0.88	20	110	80	30	10.5	90°	TXMT16T306
	EML2030T	1	26.6	0.71	20	110	80	30	7.5	120°	TXMT16T306
	EML2030TL	1	26.6	0.71	20	170	140	30	7.5	120°	TXMT16T306

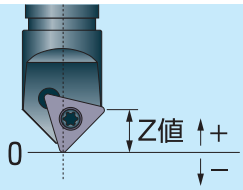
※ Insert is not equipped as standard accessory. Please purchase it separately ※ Clamp screw is equipped as standard accessory

⚠ Blade edge by V-grooving and centering processing could not be a perfect vertex angle

1Blade

Product Name	Model. No.	Capacity Bore chamfering	α°
Chibieco	EMS1045T	φ1.2mm~φ9.7mm	90°
	EMS1045TL	φ1.2mm~φ9.7mm	90°
	EMS1030T	φ1.0mm~φ11.7mm	120°
	EMS1030TL	φ1.0mm~φ11.7mm	120°
Momieco	EMM1245T	φ1.2mm~φ13.6mm	90°
	EMM1245TL	φ1.2mm~φ13.6mm	90°
	EMM1645T	φ1.2mm~φ13.6mm	90°
	EMM1645TL	φ1.2mm~φ13.6mm	90°
	EMM1230T	φ1.0mm~φ16.5mm	120°
	EMM1230TL	φ1.0mm~φ16.5mm	120°
Ecomen	EML2045T	φ1.2mm~φ21.6mm	90°
	EML2045TL	φ1.2mm~φ21.6mm	90°
	EML2545TL	φ1.2mm~φ21.6mm	90°
	※EML2045TH	φ1.2mm~φ21.6mm	90°
	EML2030T	φ1.0mm~φ26.0mm	120°
	EML2030TL	φ1.0mm~φ26.0mm	120°

※ with oil hole.



Z-value compensate standard

※ Please note that this value may be getting little errors

α°=90° → +0.44 (Common to all models)
α°=120° → +0.20 (Common to all models)
[Example] ··· Correct Z-value (-2.5)to -2.06 in case of 8mm centering process

Processing Example

[Φ5mm Center-drilling]

- Body : EML2045T
- Insert : TXMT16T306 AC15N
  - Material····· SUS304
  - Rotation Speed··· 2,000r.p.m
  - Feed (Z-axis) ···· 40mm/min
  - Cutting Oil····· Yes

Result

No cutting vibration or secondary burr after centering

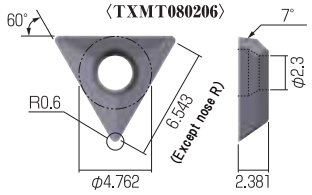
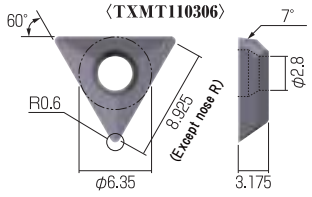
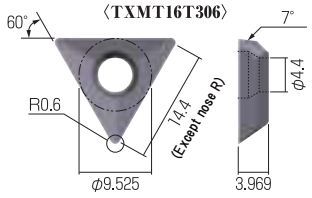
Cutting Conditions

Centering					
Material	Feed per blade (fz)	Rotation speed (r.p.m.)	Recommended Insert	Coolant	Air blow
General Steel	0.02~0.08	2,000~	TXMT□□□□□□ AC15N	Yes	–
Alloy Steel	0.02~0.08	2,000~	TXMT□□□□□□ AC15N	Yes	–
Stainless Steel	0.01~0.05	2,000~	TXMT□□□□□□ AC15N	Yes	–
Aluminum,Resin,Brass	0.02~0.08	5,000~	TXMT□□□□□□ ZA10N	Yes	–
Castings	0.02~0.08	2,000~	TXMT□□□□□□ AC15N	–	Yes

Chamfering					
Material	Feed per blade (fz)	Rotation speed (r.p.m.)	Recommended Insert	Coolant	Air blow
General Steel	0.03~0.15	3,000~	TXMT□□□□□□ AC15N	None (※)	–
Alloy Steel	0.03~0.15	3,000~	TXMT□□□□□□ AC15N	None (※)	–
Stainless Steel	0.03~0.15	3,000~	TXMT□□□□□□ AC15N	Yes	–
Aluminum,Resin,Brass	0.03~0.15	5,000~	TXMT□□□□□□ ZA10N	Yes	–
Castings	0.03~0.15	3,000~	TXMT□□□□□□ AC15N	–	Yes

※ Please used as needed.
- According to the shape of work, large or small chamfering, amount and position of blade, the cutting condition will have to be adjusted.
- In case of process with large amount chamfer, please take reducing cutting condition
- In case of chamfering process of stainless steel,please take the down cutting

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Chibieco 	TXMT080206 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT080206 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12
● Momieco 	TXMT110306 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT110306 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12
● Ecomen 	TXMT16T306 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT16T306 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12

MEMO

Chamfering Series

Chibieco / Momieco 2 / Ecomen 2

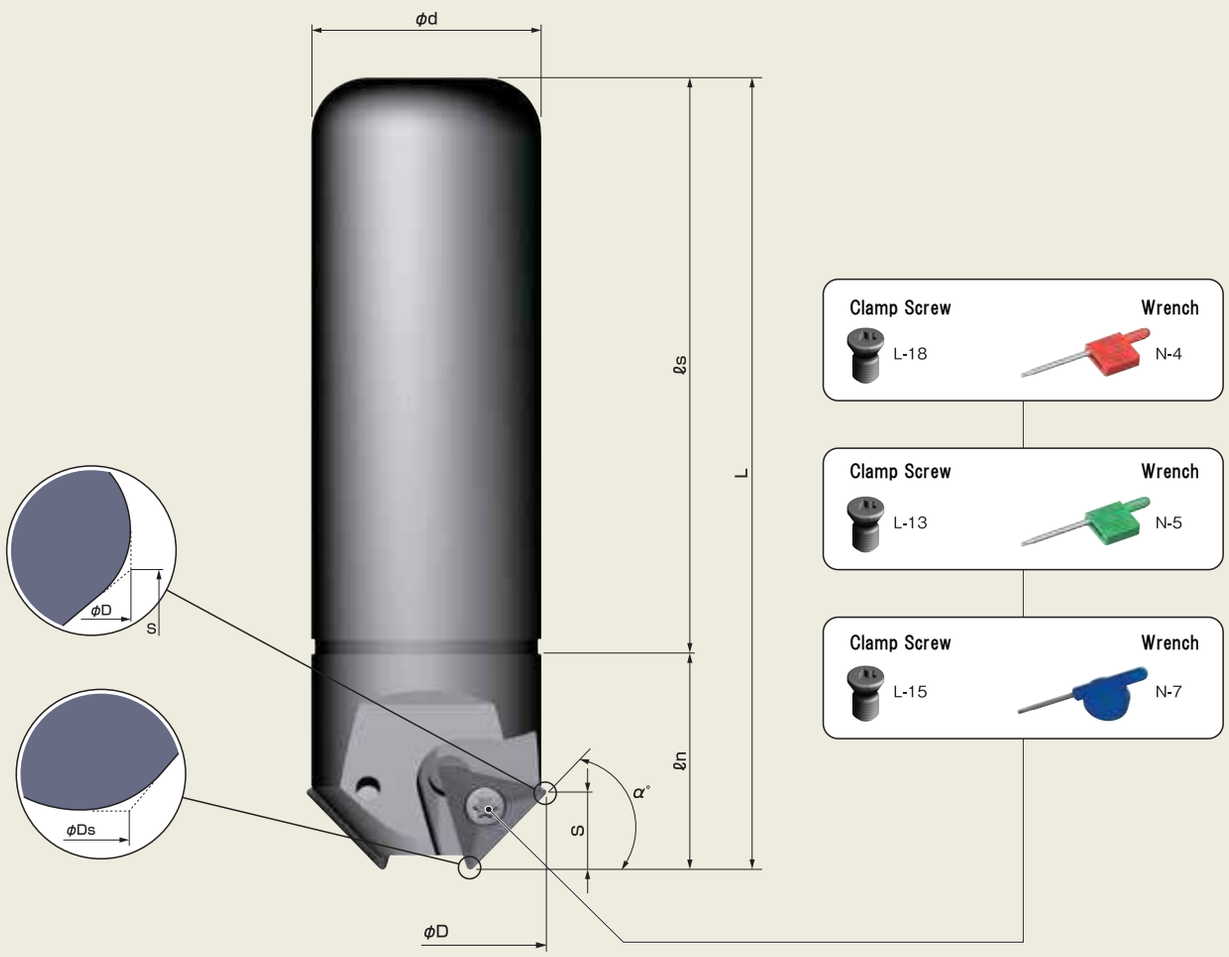
Cost Reduction !

- Original insert have 3 usable corners and decrease the production cost widely
- Due to the improvement of blade shape and new coating, it is machinable more than any other insert, and chip(cuttings) release has been drastically improving
- Micro-grained Carbide with new coating made longer life of insert

Corner chamfering

Bore chamfering

※ This tool cannot be used with drilling machines



Body

Product name	Model. No.	blades	Dimensions (mm)							α°	Inserts
			ϕD	ϕDs	ϕd	L	ℓs	ℓn	S		
Chibieco2	NKS3018T	2	18.6	7	16	95	80	15	3.3	30°	TXMT080206
	NKS4516T	2	16.5	7	16	95	80	15	4.7	45°	TXMT080206
	NKS6017T	2	17.7	11	16	95	80	15	5.8	60°	TXMT080206
Momieco2	NKM3025T	2	25.3	9	20	100	80	20	4.7	30°	TXMT110306
	NKM4522T	2	22.3	9	20	100	80	20	6.7	45°	TXMT110306
	NKM6023T	2	23.4	14	20	100	80	20	8.2	60°	TXMT110306
Ecomen2	NKL3036T	2	36.9	11	32	110	80	30	7.5	30°	TXMT16T306
	NKL4534T	2	34.1	13	32	110	80	30	10.5	45°	TXMT16T306
	NKL6034T	2	34.9	20	32	110	80	30	12.9	60°	TXMT16T306

※ Insert is not equipped as standard accessory. Please purchase it separately ※ Clamp screw is equipped as standard accessory

2Blade

Product Name	Model. No.	Capacity Bore chamfering	α°
Chibieco2	NKS3018T	φ7.3mm～φ18.0mm	30°
	NKS4516T	φ7.3mm～φ15.9mm	45°
	NKS6017T	φ11.3mm～φ17.1mm	60°
Momieco2	NKM3025T	φ9.3mm～φ24.7mm	30°
	NKM4522T	φ9.3mm～φ21.7mm	45°
	NKM6023T	φ14.3mm～φ22.8mm	60°
Ecomen2	NKL3036T	φ11.3mm～φ36.3mm	30°
	NKL4534T	φ13.4mm～φ33.8mm	45°
	NKL6034T	φ20.4mm～φ34.8mm	60°

Processing Example

[φ15 C5 Bore Chamfering]

- Body : NKL4534T
- Insert : TXMT16T306 AC15N

- Material・・・・・・・・・SUS304
- Rotation Speed・・・4,500r.p.m.
- Feed (Z-axis) ・・・・150/min
- Cutting Depth・・・・C5
- Cutting Oil・・・・・・・Yes

Result

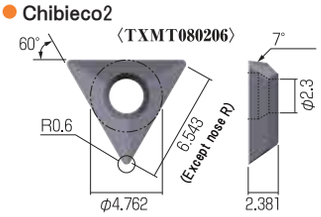
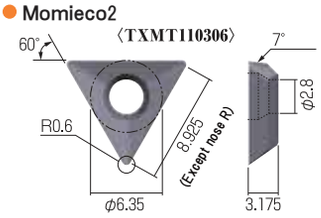
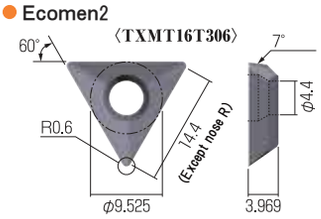
Good!
No secondary burrs and
No chattering after processing

Cutting Conditions

Chamfering					
Material	Feed per blade (fz)	Rotation speed (r.p.m.)	Recommended Insert	Coolant	Air blow
General Steel	0.03～0.15	3,000～	TXMT□□□□□□ AC15N	None (※)	—
Alloy Steel	0.03～0.15	3,000～	TXMT□□□□□□ AC15N	None (※)	—
Stainless Steel	0.03～0.15	3,000～	TXMT□□□□□□ AC15N	Yes	—
Aluminum,Resin,Brass	0.03～0.15	5,000～	TXMT□□□□□□ ZA10N	Yes	—
Castings	0.03～0.15	3,000～	TXMT□□□□□□ AC15N	—	Yes

※ Please used as needed.
- According to the shape of work, large or small chamfering, amount and position of blade, the cutting condition will have to be adjusted.
  In case of process with large amount chamfer, please take reducing cutting condition
- In case of chamfering process of stainless steel,please take the down cutting

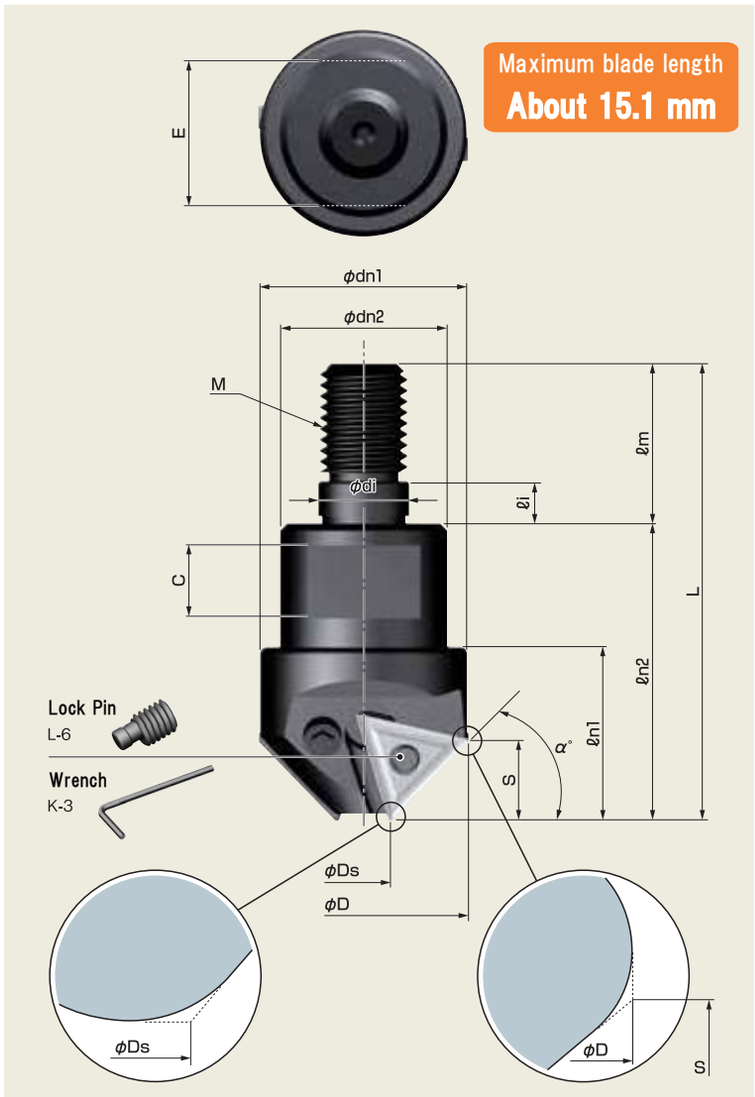
Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable Corner	Quantity per box
Chibieco2 	TXMT080206 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT080206 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12
Momieco2 	TXMT110306 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT110306 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12
Ecomen2 	TXMT16T306 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT16T306 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12

Chamfering Series

Chamfering Cutter

Applications use	Capacity												
	NK1536T-MD	NK2035T-MD	NK2535T-MD	NK3030T-MD	NK3532T-MD	NK4031T-MD	NK4530T-MD	NK5031T-MD	NK5532T-MD	NK6030T-MD	NK6533T-MD	NK7032T-MD	NK7533T-MD
α°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°
Bore chamfering	φ8~36mm	φ8~36mm	φ8~35mm	φ8~33mm	φ8~32mm	φ8~31mm	φ8~29mm	φ12~31mm	φ15~32mm	φ15~30mm	φ20~33mm	φ22~32mm	φ25~33mm



Modular Type!

- Angle 15° ~ 75° (by5° increments) Modular type cutter can be chosen according your application
- Insert available are rich and will meet with various applications you may need

Specific agency Items

Corner Chamfering

Bore Chamfering

Corner Chamfering

※ Please use Arbors to size and application, at local market

Body

Model. No.	Blades	Dimensions (mm)														α°
		φD	φDs	φdn1	φdn2	φdi	M	L	ℓn1	ℓn2	ℓm	ℓi	S	C	E	
NK1536T-MD	2	37.9	8	37.8	23	12.5	M12	63	24	41	22	5.5	4.0	10	17	15°
NK2035T-MD	2	37.1	8	36.8	23	12.5	M12	63	24	41	22	5.5	5.3	10	17	20°
NK2535T-MD	2	36.0	8	35.6	23	12.5	M12	63	24	41	22	5.5	6.5	10	17	25°
NK3030T-MD	2	34.8	8	34.1	23	12.5	M12	63	24	41	22	5.5	7.7	10	17	30°
NK3532T-MD	2	33.3	8	32.5	23	12.5	M12	63	24	41	22	5.5	8.9	10	17	35°
NK4031T-MD	2	31.7	8	30.6	23	12.5	M12	63	24	41	22	5.5	9.9	10	17	40°
NK4530T-MD	2	29.9	8	28.5	23	12.5	M12	63	24	41	22	5.5	10.9	10	17	45°
NK5031T-MD	2	31.9	12	30.6	23	12.5	M12	63	24	41	22	5.5	11.8	10	17	50°
NK5532T-MD	2	32.7	15	31.4	23	12.5	M12	63	24	41	22	5.5	12.7	10	17	55°
NK6030T-MD	2	30.5	15	28.9	23	12.5	M12	63	24	41	22	5.5	13.4	10	17	60°
NK6533T-MD	2	33.1	20	31.7	23	12.5	M12	63	24	41	22	5.5	14.0	10	17	65°
NK7032T-MD	2	32.6	22	31.2	23	12.5	M12	63	24	41	22	5.5	14.5	10	17	70°
NK7533T-MD	2	33.0	25	31.6	23	12.5	M12	63	24	41	22	5.5	15.0	10	17	75°

※ Inset is not equipped as standard accessory. Please purchase it separately.

※ Lock Pin is supplied as standard accessory

⚠ When mounting insert, please do not take reverse tightening.
Due to the eccentricity looking mechanism ,poor accuracy or breakage of insert may be occurred
When replacing insert, please confirm twhether you have been taking reserve tightening or not.

···P.114

2Blade

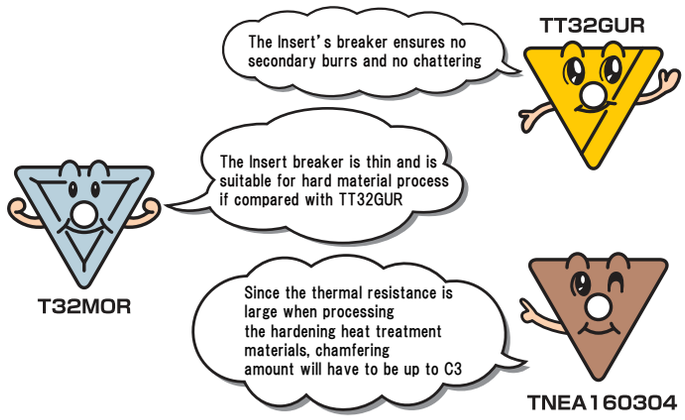
Processing Example

【 C5 chamfering 】

- Body : NK4530T-MD
- Insert : TT32GUR AC15N
  - Material·····SUS304
  - Rotation Speed··2,000r.p.m
  - Table feed·····200/min
  - Cuting Depth····C5
  - Cutting Oil·····None

Result

Good! No secondary burrs and
No chattering after processing



Cutting Conditions

T32MOR

Material \ Material Model	NK2001	NK1010	NK2020	NK3030	AC16N
Material / Feed PerBlade (fz)	Cutting speed (m / min)				
General Steel	0.08~0.2	200~250		150~200	150~200	100~200
Alloy Steel	0.08~0.2	200~250		150~200	150~200	100~200
Stainless Steel	0.08~0.2			100~150	100~150	100~200
Aluminum,Resin,Brass						
Castings	0.08~0.2	200~250 ※FCD	100~150			

TT32GURF

Material \ Material Model	TC16N
Material / Feed per blade (fz)	Cutting speed (m / min)
heat resistant alloy (Inconel)	0.02~0.05	150~200
titanium alloy	0.02~0.05	150~200

TNEA160304

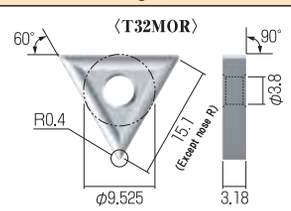
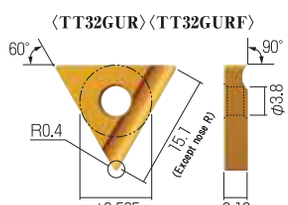
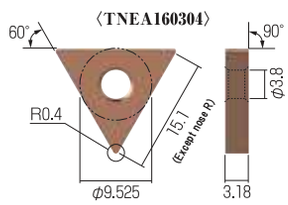
Material \ Material Model	TC16N
Material / Feed per blade (fz)	Cutting speed (m / min)
Hardened alloy steel SKD/HSS (HRC50~65)	0.08~0.2	150~200

TT32GUR

Material \ Material Model	NK2001	NK1010	NK2020	NK3030	NK5050	NK8080	AC15N	HSS	HSS TiN
Material / Feed PerBlade (fz)	Cutting speed (m / min)								
General Steel	0.08~0.2	200~250		150~200	150~200			150~200	13~23	15~25
Alloy Steel	0.08~0.2	200~250		150~200	150~200			150~200	10~20	13~22
Stainless Steel	0.08~0.2			120~180	150~200	120~180	150~200 ※SUS316	150~200	10~15	11~17
Aluminum,Resin,Brass	0.08~0.3		250~800			250~800	300~1,000		31~40	31~47
Castings	0.08~0.3	200~250 ※FCD								

- According to the shape of work, large or small chamfering, amount and position of blade, the cutting condition will have to be adjusted.
  In case of process with large amount chamfer, please take reducing cutting condition
- You have been to the workpiece by recommended Inset.
- In case of chamfering process of stainless steel,please take the down cutting

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈T32MOR〉 	T32MOR NK2001	Cermet	Honing edge	None	6	12
	T32MOR NK1010	Carbide K10	Sharp edge	None	6	12
	T32MOR NK2020	Carbide M20	Honing edge	None	6	12
	T32MOR NK3030	Carbide M20	Honing edge	TiN	6	12
	T32MOR AC16N	Fine particles Carbide	Honing edge	AlCrN	6	12
〈TT32GUR〉〈TT32GURF〉 	TT32GUR NK2001	Cermet	Honing edge	None	2	12
	TT32GUR NK1010	Carbide K10	Sharp edge	None	2	12
	TT32GUR NK2020	Carbide M20	Honing edge	None	2	12
	TT32GUR NK3030	Carbide M20	Honing edge	TiN	2	12
	TT32GUR NK5050	Carbide K10	Sharp edge	TiN	2	12
	TT32GUR NK8080	Carbide K10	Sharp edge	TiAlN	2	12
	TT32GUR AC15N	Fine particles Carbide	Honing edge	AlCrN	2	12
	TT32GURF TC16N	Fine particles Carbide	Sharp edge	TiSiN	2	12
	TT32GUR HSS	HSS	Sharp edge	None	2	12
	TT32GUR HSS TiN	HSS	Sharp edge	TiN	2	12
〈TNEA160304〉 	TNEA160304 TC16N	Fine particles Carbide	Honing edge	TiSiN	6	12

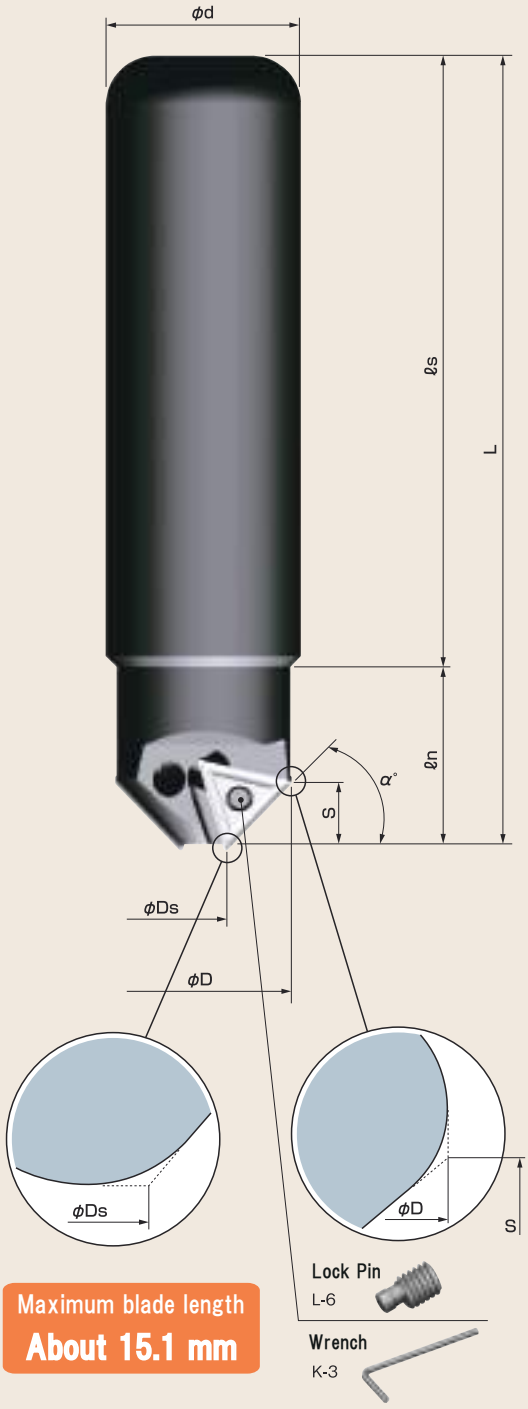
Chamfering Series

Chamfering Cutter

Applications use	Capacity												
	NK1536T	NK2035T	NK2535T	NK3030T	NK3532T	NK4031T	NK4530T	NK5031T	NK5532T	NK6030T	NK6533T	NK7032T	NK7533T
α°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°
Bore chamfering	ϕ8~36mm	ϕ8~36mm	ϕ8~35mm	ϕ8~33mm	ϕ8~32mm	ϕ8~31mm	ϕ8~29mm	ϕ12~31mm	ϕ15~32mm	ϕ15~30mm	ϕ20~33mm	ϕ22~32mm	ϕ25~33mm

Wide variety!

- Angle 15 ° ~ 75 ° (by5° increments) can be chosen according your application
- Insert available are rich and will meet with various applicationsyou may need

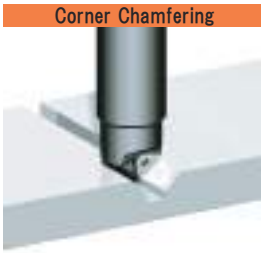


Maximum blade length
About 15.1 mm

Bore Chamfering

Corner Chamfering

Corner Chamfering



Body

Model. No.	Blades	Dimensions (mm)							α°
		ϕD	Minimum cutting diameter ϕDs	ϕd	L	ℓs	ℓn	S	
NK1536T-20	2	37.9	8	20	130	100	30	4.0	15°
NK1536T-25	2	37.9	8	25	130	100	30	4.0	15°
NK1536T	2	37.9	8	32	130	100	30	4.0	15°
NK1536TL	2	37.9	8	32	170	140	30	4.0	15°
NK2035T-20	2	37.1	8	20	130	100	30	5.3	20°
NK2035T-25	2	37.1	8	25	130	100	30	5.3	20°
NK2035T	2	37.1	8	32	130	100	30	5.3	20°
NK2035TL	2	37.1	8	32	170	140	30	5.3	20°
NK2535T-20	2	36.0	8	20	130	100	30	6.5	25°
NK2535T-25	2	36.0	8	25	130	100	30	6.5	25°
NK2535T	2	36.0	8	32	130	100	30	6.5	25°
NK2535TL	2	36.0	8	32	170	140	30	6.5	25°
NK3030T-20	2	34.8	8	20	130	100	30	7.7	30°
NK3030T-25	2	34.8	8	25	130	100	30	7.7	30°
NK3030T	2	34.8	8	32	130	100	30	7.7	30°
NK3030TL	2	34.8	8	32	170	140	30	7.7	30°
NK3532T-20	2	33.3	8	20	130	100	30	8.9	35°
NK3532T-25	2	33.3	8	25	130	100	30	8.9	35°
NK3532T	2	33.3	8	32	130	100	30	8.9	35°
NK3532TL	2	33.3	8	32	170	140	30	8.9	35°
NK4031T-20	2	31.7	8	20	130	100	30	9.9	40°
NK4031T-25	2	31.7	8	25	130	100	30	9.9	40°
NK4031T	2	31.7	8	32	130	100	30	9.9	40°
NK4031TL	2	31.7	8	32	170	140	30	9.9	40°
NK4530T-20	2	29.9	8	20	130	100	30	10.9	45°
NK4530T-25	2	29.9	8	25	130	100	30	10.9	45°
NK4530T	2	29.9	8	32	130	100	30	10.9	45°
NK4530TL	2	29.9	8	32	170	140	30	10.9	45°
NEW NK3-4536T	3	36.9	15	32	130	100	30	10.9	45°
NEW NK4-4543T	4	43.9	22	32	130	100	30	10.9	45°
NEW NK5-4559T	5	59.9	38	32	130	100	30	10.9	45°
NK5031T-20	2	31.9	12	20	130	100	30	11.8	50°
NK5031T-25	2	31.9	12	25	130	100	30	11.8	50°
NK5031T	2	31.9	12	32	130	100	30	11.8	50°
NK5031TL	2	31.9	12	32	170	140	30	11.8	50°
NK5532T-20	2	32.7	15	20	130	100	30	12.7	55°
NK5532T-25	2	32.7	15	25	130	100	30	12.7	55°
NK5532T	2	32.7	15	32	130	100	30	12.7	55°
NK5532TL	2	32.7	15	32	170	140	30	12.7	55°
NK6030T-20	2	30.5	15	20	130	100	30	13.4	60°
NK6030T-25	2	30.5	15	25	130	100	30	13.4	60°
NK6030T	2	30.5	15	32	130	100	30	13.4	60°
NK6030TL	2	30.5	15	32	170	140	30	13.4	60°
NK6533T-20	2	33.1	20	20	130	100	30	14.0	65°
NK6533T-25	2	33.1	20	25	130	100	30	14.0	65°
NK6533T	2	33.1	20	32	130	100	30	14.0	65°
NK6533TL	2	33.1	20	32	170	140	30	14.0	65°
NK7032T-20	2	32.6	22	20	130	100	30	14.5	70°
NK7032T-25	2	32.6	22	25	130	100	30	14.5	70°
NK7032T	2	32.6	22	32	130	100	30	14.5	70°
NK7032TL	2	32.6	22	32	170	140	30	14.5	70°
NK7533T-20	2	33.0	25	20	130	100	30	15.0	75°
NK7533T-25	2	33.0	25	25	130	100	30	15.0	75°
NK7533T	2	33.0	25	32	130	100	30	15.0	75°
NK7533TL	2	33.0	25	32	170	140	30	15.0	75°

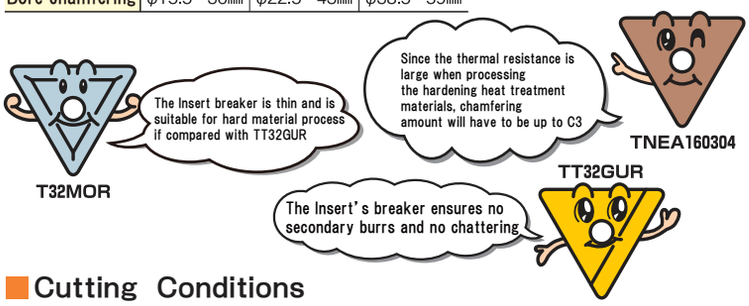
※ Inset is not Included. Please Order Spearately.
※ Lock pin Wrench we have Standard Equipment.

⚠ When mounting insert, please do not take reverse tightening.
Due to the eccentricity looking mechanism ,poor accuracy or breakage of insert may be occurred
When replacing insert, please confirm twhether you have been taking reserve tightening or not.

2Blade **3Blade** **4Blade** **5Blade**

Applications use	Capacity		
	NK3-4536T	NK4-4543T	NK5-4559T
Blades	3	4	5
α°	45°	45°	45°
Bore chamfering	φ15.5~36mm	φ22.5~43mm	φ38.5~59mm

Line-up of 3 blades, 4-blade and 5-blades at 45°



Processing Example

[C5 chamfering]

- Body : NK4530T
- Insert : TT32GUR AC15N
- Material·····SUS304
- Rotation Speed··2,000r.p.m
- Table feed·····200/min
- Cuting Depth····C5
- Cutting Oil·····None

Result

Good!
No secondary burrs and
No chattering after processing

Cutting Conditions

T32MOR

Material	Material Model	NK2001	NK1010	NK2020	NK3030	AC16N
	Feed PerBlade (fz)	Cutting speed (m / min)				
General Steel	0.08~0.2	200~250		150~200	150~200	100~200
Alloy Steel	0.08~0.2	200~250		150~200	150~200	100~200
Stainless Steel	0.08~0.2			100~150	100~150	100~200
Aluminum,Resin,Brass						
Castings	0.08~0.2	200~250 ※FCD	100~150			

TT32GURF

Material	Material Model	TC16N
	Feed per blade (fz)	Cutting speed (m / min)
heat resistant alloy (Inconel)	0.02~0.05	150~200
titanium alloy	0.02~0.05	150~200

TNEA160304

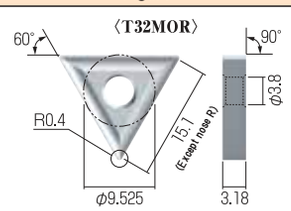
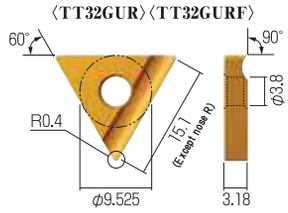
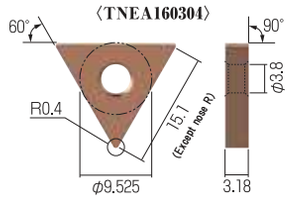
Material	Material Model	TC16N
	Feed per blade (fz)	Cutting speed (m / min)
Hardened alloy steel SKD/HSS (HRC50~65)	0.08~0.2	150~200

TT32GUR

Material	Material Model	NK2001	NK1010	NK2020	NK3030	NK5050	NK8080	AC15N	HSS	HSS TiN
	Feed PerBlade (fz)	Cutting speed (m / min)								
General Steel	0.08~0.2	200~250		150~200	150~200			150~200	13~23	15~25
Alloy Steel	0.08~0.2	200~250		150~200	150~200			150~200	10~20	13~22
Stainless Steel	0.08~0.2			120~180	150~200	120~180	150~200 ※SUS316	150~200	10~15	11~17
Aluminum,Resin,Brass	0.08~0.3		250~800			250~800	300~1,000		31~40	31~47
Castings	0.08~0.3	200~250 ※FCD								

- According to the shape of work, large or small chamfering, amount and position of blade, the cutting condition will have to be adjusted.
  In case of process with large amount chamfer, please take reducing cutting condition
- You have been to the workpiece by recommended Inset.
- In case of chamfering process of stainless steel,please take the down cutting

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈T32MOR〉 	T32MOR NK2001	Cermet	Honing edge	None	6	12
	T32MOR NK1010	Carbide K10	Sharp edge	None	6	12
	T32MOR NK2020	Carbide M20	Honing edge	None	6	12
	T32MOR NK3030	Carbide M20	Honing edge	TiN	6	12
	T32MOR AC16N	Fine particles Carbide	Honing edge	AlCrN	6	12
〈TT32GUR〉〈TT32GURF〉 	TT32GUR NK2001	Cermet	Honing edge	None	2	12
	TT32GUR NK1010	Carbide K10	Sharp edge	None	2	12
	TT32GUR NK2020	Carbide M20	Honing edge	None	2	12
	TT32GUR NK3030	Carbide M20	Honing edge	TiN	2	12
	TT32GUR NK5050	Carbide K10	Sharp edge	TiN	2	12
	TT32GUR NK8080	Carbide K10	Sharp edge	TiAlN	2	12
	TT32GUR AC15N	Fine particles Carbide	Honing edge	AlCrN	2	12
	TT32GURF TC16N	Fine particles Carbide	Sharp edge	TiSiN	2	12
	TT32GUR HSS	HSS	Sharp edge	None	2	12
	TT32GUR HSS TiN	HSS	Sharp edge	TiN	2	12
〈TNEA160304〉 	TNEA160304 TC16N	Fine particles Carbide	Honing edge	TiSiN	6	12

Chamfering Series

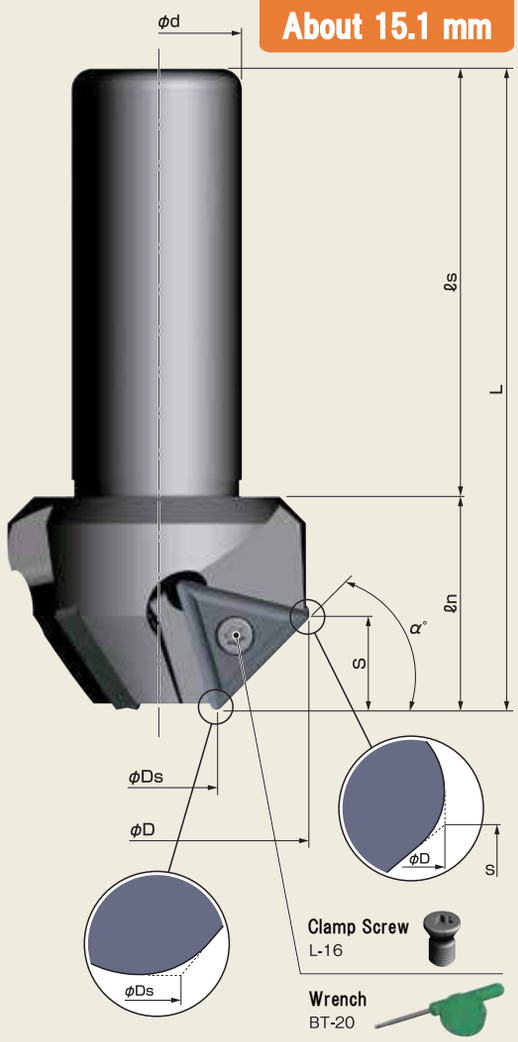
Youngmen

1Blade 3Blade

C15 Chamfering !

Economical and Heavy Cutting

Maximum blade length
About 15.1 mm



Corner Chamfering

Processing Example

[C15 Chamfering]

- Body : BNK4558T
- Insert : TNMX270412 AC15N
- Material·····SUS304
- Rotation Speed···800r.p.m
- Table feed·····100mm/min
- Cutting Depth····C15
- Cutting Oil·····None

Dry cutting

Result

Good!
By one pass process,C15 Chamfer
has been successfully made without chattering

Body

Model. No.	Blades	Dimensions (mm)							α°
		ϕD	ϕDs	ϕd	L	ℓs	ℓn	S	
BNK4546T-1	1	46.5	12	32	120	80	40	17.2	45°
BNK3062T	3	62.2	20	32	120	80	40	11.8	30°
BNK4558T	3	58.2	23.8	32	120	80	40	17.2	45°
BNK6058T	3	58.2	33.8	32	120	80	40	21.1	60°

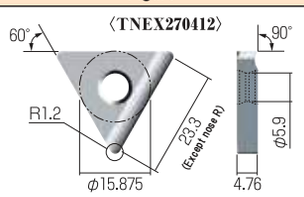
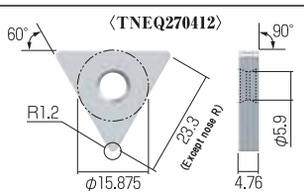
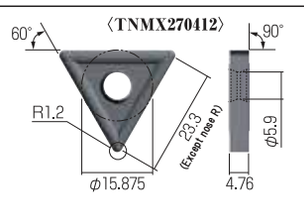
※ Insert is not equipped as standard accessory
※ Clamp screw and wrench are supplied as standard accessory

Cuttinng Conditions

		TNEX270412	TNEQ270412	TNMX270412
Material	Material Model	ZA10T	ZA10N	AC15N
	Feed per blade (fz)	Rotation speed (r.p.m.)		
General Steel	0.04~0.12			800~1500
Alloy Steel	0.04~0.12			800~1500
Stainless Steel	0.04~0.12			600~1200
Aluminum,Resin,Brass	0.06~0.18	2,500~4,000		
Cast Steel	0.04~0.12		800~1,500	

- According to the shape of work, clamp condition and large or small chamfering amount, the cutting condition will have to be adjusted.
- Yellow marked condition is recommended for the material listed
- In case of chamfering process of Stainless steel, kindly take down cutting

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable Corner	Quantity per box
	TNEX270412 ZA10T	Carbide K10	Sharp edge	None	2	3
	TNEQ270412 ZA10N	Carbide K10	Honing edge	None	6	3
	TNMX270412 AC15N	Fine particles Carbide	Honing edge	AlCrN	6	3

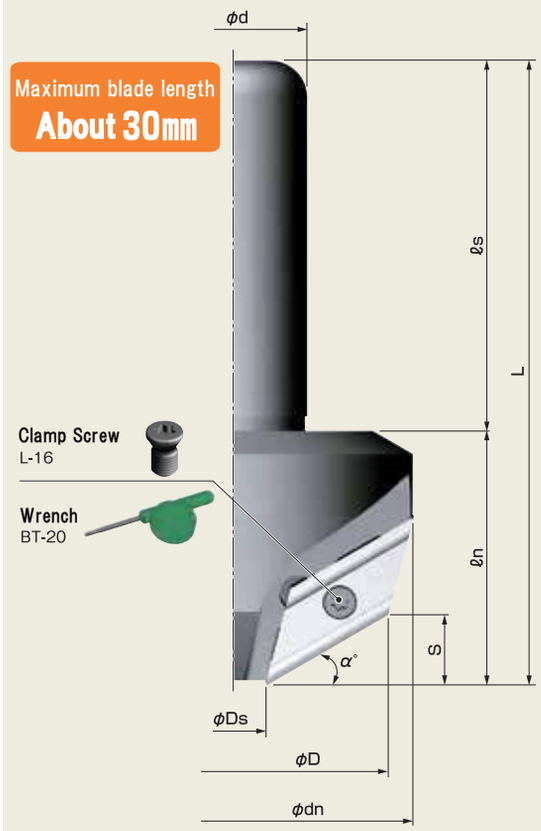
Chamfering Series

Gentlemen

1Blade 3Blade

Max,30mm Blade Length!

- 30mm blade length and originally designed breaker ensured maximum 30mm Chanfering process without chatterring
- Line-up 5°~85° Angle process are ensured



Corner Chamfering

Body

Model. No.	Blades	Dimensions (㎜)								α°
		ϕD	ϕDs	ϕd	ϕdn	L	ℓs	ℓn	S	
NK4554X-1	1	54.9	12.0	32		135	80	55	21.4	45
NK0574X	3	74.8	15.0	32	102.8	135	80	55	2.6	5
NK1074X	3	74.5	15.0	32	99.5	135	80	55	5.2	10
NK1571X	3	73.3	15.0	32	95.2	135	80	55	7.8	15
NK2070X	3	71.8	15.0	32	90.3	135	80	55	10.3	20
NK2568X	3	69.8	15.0	32	84.9	135	80	55	12.8	25
NK3080X	3	67.4	15.0	32	79.0	135	80	55	15.1	30
NK3563X	3	64.6	15.0	32	72.8	135	80	55	17.4	35
NK4060X	3	61.4	15.0	32	66.3	135	80	55	19.5	40
NK4557X	3	57.9	15.0	32		135	80	55	21.4	45
NK5056X	3	57.0	18.0	32		135	80	55	23.2	50
NK5556X	3	56.8	22.0	32		135	80	55	24.8	55
NK6054X	3	54.3	24.0	32		135	80	55	26.3	60
NK6553X	3	53.6	28.0	32		145	80	65	27.5	65
NK7052X	3	52.8	32.0	32		145	80	65	28.5	70
NK7550X	3	50.7	35.0	32		145	80	65	29.3	75
NK8048X	3	48.5	38.0	32		145	80	65	29.9	80
NK8547X	3	47.3	42.0	32		145	80	65	30.3	85

※ Inset is not equipped as standard accessory
※ Clamp screw and wrench are supplied as standard accessory

Processing Example

[C20 Chamfering]

- Body : NK4557X
- Insert : X63GUR AC15N
- Material ·····SUS304
- Rotation Speed ··800r.p.m
- Table feed ·····150mm/min
- Cutting Depth ···C20
- Cutting Oil ·····None

Dry cutting

Result

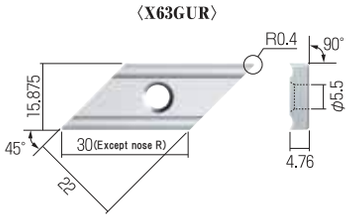
Good!
By one pass process,C20 Chamfer
has been successfully made without chattering

Cuttinng Conditions

X63GUR				
	material Model	NK1010	NK2020	AC15N
Material	Feed per blade (fz)	Rotation speed. (r p.m)		
General Steel	0.05~0.15		1,000~2,000	1,000~2,000
Alloy Steel	0.05~0.15		1,000~2,000	1,000~2,000
Stainless Steel	0.05~0.15		700~1,500	700~1,500
Aluminum,Resin,Brass	0.08~0.2	3,000~5,000		
Cast Steel	0.05~0.15	1,000~2,000		

- According to the shape of work, clamp condition and large or small chamfering amount, the cutting condition will have to be adjusted.
- Yellow marked condition is recommended for the material listed
- In case of chamfering process of Stainless steel, kindly take down cutting

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈X63GUR〉 	X63GUR NK1010	Carbide K10	Sharp edge	None	2	3
	X63GUR NK2020	Carbide M20	Honing edge	None	2	3
	X63GUR AC15N	Fine particles Carbide	Honing edge	AlCrN	2	3

Chamfering Series

Mentrube

For Drilling Machine

For Customers Purchased

Clamp Screw M-1 | Wrench MA-1

New type

Old type.

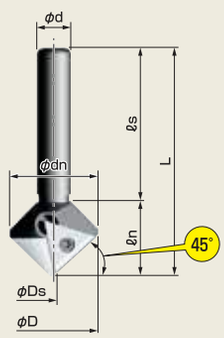
To customers who only purchase tools and parts

Lock pin L-6 | Wrench K-3

※ 1 piece TM32GUR HSS Insert is supplied as standard accessory
※ Clamp Screw, lock pin and wrench are supplied as standard accessory

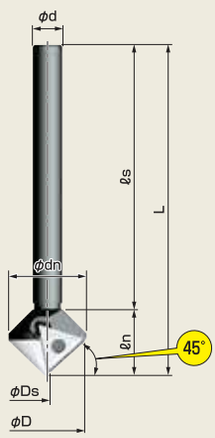
Please check it — ④ BM4538T、⑤ BM4552T、⑥ BM4566T There are new type and old type.

●Fantastic machining with HSS insert and breaker originally designed by us
Line-up 30°,45° and 60° fantastic angle processing are ensured



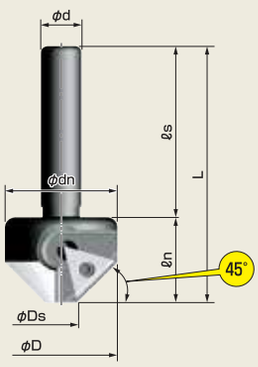
① BM4524T

TM32GUR : φ5mm～φ24mm
TM32GSR : φ5mm～φ21mm



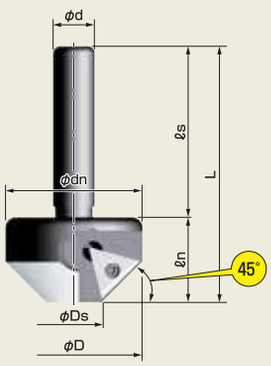
② BM4524TL

TM32GUR : φ5mm～φ24mm
TM32GSR : φ5mm～φ21mm



③ BM4531T

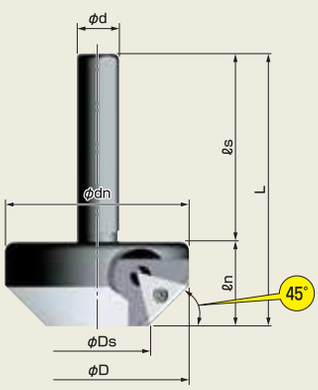
TM32GUR : φ12mm～φ31mm
TM32GSR : φ12mm～φ28mm



④ BM4538T

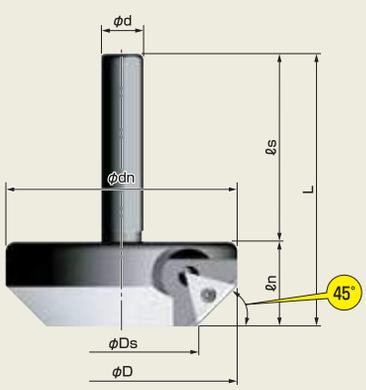
TM32GUR : φ19mm～φ38mm
TM32GSR : φ19mm～φ36mm

※Please purchase a commercially available product separately.



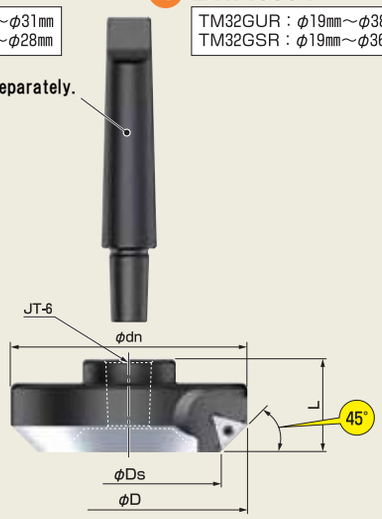
⑤ BM4552T

TM32GUR : φ33mm～φ52mm
TM32GSR : φ33mm～φ50mm



⑥ BM4566T

TM32GUR : φ47mm～φ66mm
TM32GSR : φ47mm～φ64mm



⑦ BM4580T-JT6

TM32GUR : φ61mm～φ80mm
TM32GSR : φ61mm～φ77mm

BM4594T-JT6

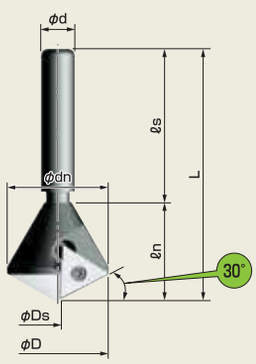
TM32GUR : φ75mm～φ94mm
TM32GSR : φ75mm～φ91mm

BM45100T-JT6

TM32GUR : φ81mm～φ100mm
TM32GSR : φ81mm～φ97mm

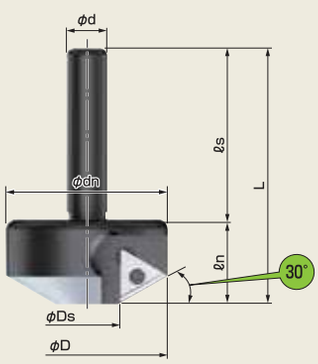
BM45108T-JT6

TM32GUR : φ89mm～φ108mm
TM32GSR : φ89mm～φ105mm



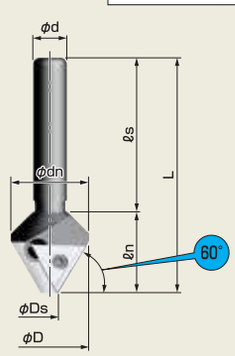
⑧ BM3029T

TM32GUR : φ6mm～φ29mm
TM32GSR : φ6mm～φ26mm



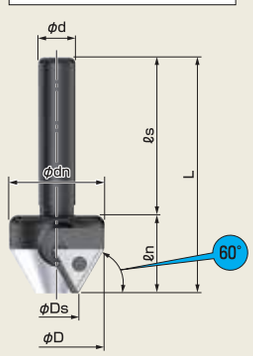
⑨ BM3047T

TM32GUR : φ21mm～φ46mm
TM32GSR : φ21mm～φ43mm



⑩ BM6021T

TM32GUR : φ7mm～φ21mm
TM32GSR : φ7mm～φ19mm



⑪ BM6030T

TM32GUR : φ15mm～φ29mm
TM32GSR : φ15mm～φ27mm

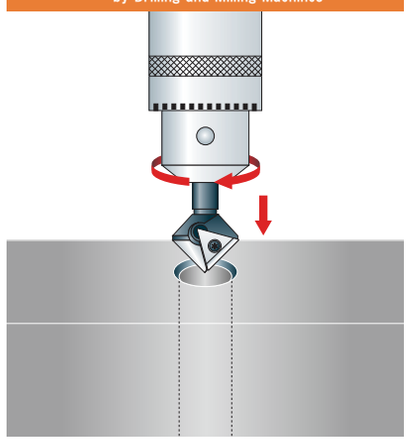
1Blade

Body

Model. No.	Figure	Blades	Dimensions (mm)							
			φD	φDs	φd	φdn	L	ℓs	ℓn	α°
BM4524T	①	1	25.20	4.49	10	26	67	45	22	45°
BM4524TL	②	1	25.20	4.49	10	26	110	88	22	45°
BM4531T	③	1	33.06	11.57	12	33	75	50	25	45°
BM4538T	④	1	39.83	18.17	12	40	75	50	25	45°
BM4552T	⑤	1	53.91	32.17	13	54	80	55	25	45°
BM4566T	⑥	1	67.94	46.17	13	68	80	55	25	45°
BM4580T-JT6	⑦	1	81.96	60.17		82	40			45°
NEW BM4594T-JT6	⑦	1	95.96	74.17		96	40			45°
BM45100T-JT6	⑦	1	101.96	80.16		101	40			45°
NEW BM45108T-JT6	⑦	1	109.96	88.17		110	40			45°
BM3029T	⑧	1	30.2	5.52	10	30	74	45	29	30°
BM3047T	⑨	1	47.39	21	12	47.5	75	50	25	30°
BM6021T	⑩	1	21.77	6.60	10	23	69	45	24	60°
BM6030T	⑪	1	30.38	15	12	30.4	75	50	25	60°

※ 1 piece TM32GUR HSS Insert is supplied as standard accessory
※ Clamp Screw, lock pin and wrench are supplied as standard accessory

Chamfering and Deburring
by Drilling and Milling Machines



Cuttinng Conditions

Model. No.	TM32GUR HSS	TM32GUR HSS TiAℓN	TM32GSR HSS	TM32GSR HSS TiAℓN	TM32GSR AC16N
	Rotation Speed (r.p.m.)				
BM4524T	160~320	200~400	160~320	200~400	200~400
BM4524TL	160~320	200~400	160~320	200~400	200~400
BM4531T	130~280	150~350	130~280	150~350	150~350
BM4538T	130~280	150~350	130~280	150~350	150~350
BM4552T	80~120	100~150	80~120	100~150	100~150
BM4566T	40~80	50~100	40~80	50~100	50~100
BM4580T-JT6	20~50	20~50	20~50	20~50	20~50
BM4594T-JT6	20~50	20~50	20~50	20~50	20~50
BM45100T-JT6	20~50	20~50	20~50	20~50	20~50
BM45108T-JT6	20~50	20~50	20~50	20~50	20~50
BM3029T	160~320	200~400	160~320	200~400	200~400
BM3047T	130~280	150~350	130~280	150~350	150~350
BM6021T	160~320	200~400	160~320	200~400	200~400
BM6030T	130~280	150~350	130~280	150~350	150~350

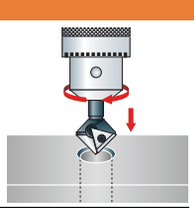
Model. No.	Capacity	
	Bore chamfering	
	TM32GUR	TM32GSR
BM4524T	φ5mm~φ24mm	φ5mm~φ21mm
BM4524TL	φ5mm~φ24mm	φ5mm~φ21mm
BM4531T	φ12mm~φ31mm	φ12mm~φ28mm
BM4538T	φ19mm~φ38mm	φ19mm~φ36mm
BM4552T	φ33mm~φ52mm	φ33mm~φ50mm
BM4566T	φ47mm~φ66mm	φ47mm~φ64mm
BM4580T-JT6	φ61mm~φ80mm	φ61mm~φ77mm
BM4594T-JT6	φ75mm~φ94mm	φ75mm~φ91mm
BM45100T-JT6	φ81mm~φ100mm	φ81mm~φ97mm
BM45108T-JT6	φ89mm~φ108mm	φ89mm~φ105mm
BM3029T	φ6mm~φ29mm	φ6mm~φ26mm
BM3047T	φ21mm~φ46mm	φ21mm~φ43mm
BM6021T	φ7mm~φ21mm	φ7mm~φ19mm
BM6030T	φ15mm~φ29mm	φ15mm~φ27mm

- Depending on the Machine's rigidity, above conditions may not be Suitable.
  In case of soft material like Aluminum,Copper etc ,reduce rotation speed accordingly
  In case the chattering is occurred, rotation speed will have to be reduced and use cutting oil
- Please use our original Insert for our tool
- According to the shape, clamp condition and volume of chamfering amount the above cutting condition have to be adjusted. For large amount chamfering, the rate will have to be reduced

Processing Example

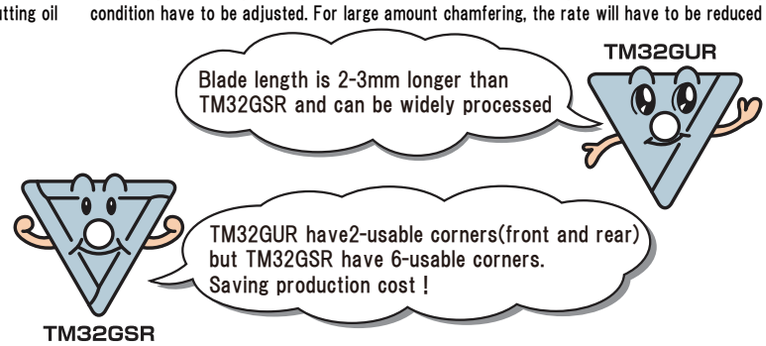
[φ12mm Bore mouth chamfering]

- Body : BM4524T
- Insert : TM32GUR HSS
- Material ····· SUS304
- Rotation Speed ·· 320r.p.m.
- Use machine ·· Bench type Drilling Machine



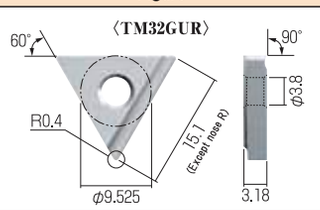
Result

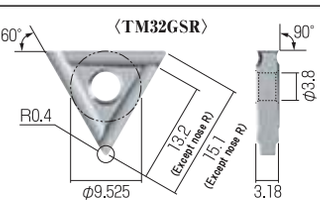
Good ! No deburring even after more than 1000 time processing



Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable Corner	Quantity per box
〈TM32GUR〉	TM32GUR HSS	HSS	Sharp edge	None	2	3
	TM32GUR HSS TiAℓN	HSS	Sharp edge	TiAℓN	2	3
〈TM32GSR〉	TM32GSR HSS	HSS	Sharp edge	None	6	3
	TM32GSR HSS TiAℓN	HSS	Sharp edge	TiAℓN	6	3
	NEW TM32GSR AC16N	Fine particles Carbide	Honing edge	AlCrN	6	3





Please do not take reverse tightening when mounting insert. Poor accuracy or breakage of insert could be occurred
Please make sure that reverse tightening is made or not

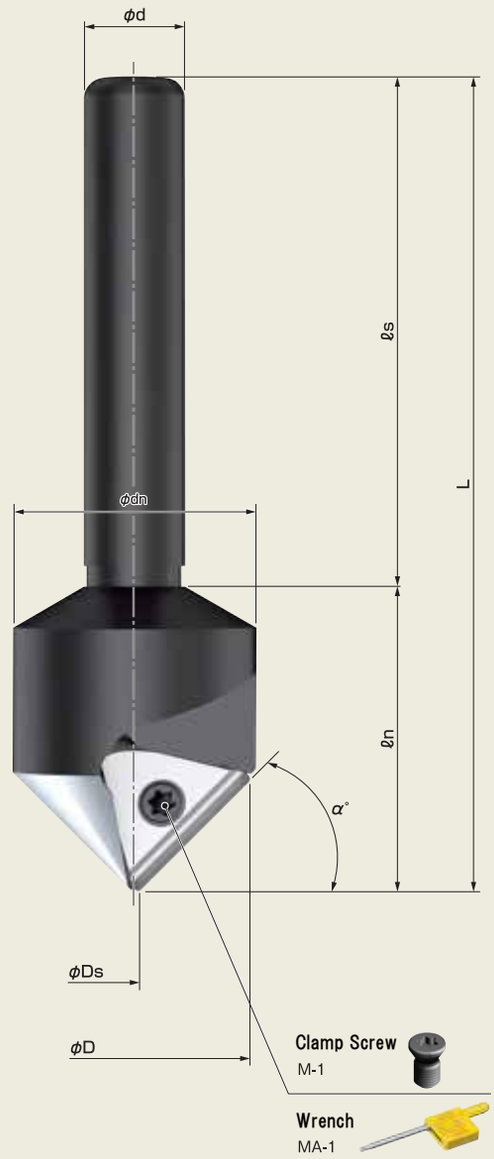
Chamfering Series

Mentrucee

1Blade

For Drilling Machine

- Ideal for small hole chamfering
- High Heiss steel durable to a main body material



Bore chamfering

Capacity Bore chamfering ϕ1mm～ϕ22mm

Body

Model. No.	Blades	Dimensions(mm)							α°
		ϕD	ϕDs	ϕd	ϕdn	L	ℓs	ℓn	
TBM4522T	1	22.9	1	10	24	80	50	30	45°

※ 1 piece TNEGXR160304XR HSS Insert is supplied as standard accessory
※ Clamp Screw, lock pin and wrench are supplied as standard accessory

Cuttinng Conditions

	TNEG160304XR HSS TNXT160304FR	TNEG160304ER HSS TNXT160304ER HSS TNXT160304ER HSS AlCrN
Material	Rotation Speed (r.p.m.)	
General Steel	160～320	200～500
Alloy Steel		
Aluminum,Resin,Brass		
Castings		

- Depending on the Machine's rigidity, above conditions may not be Suitable.
  In case of soft material like Aluminum,Copper etc ,reduce rotation speed accordingly
  In case the chattering is occurred, rotation speed will have to be reduced and use cutting oil
  Please use our original Insert for our tool
- According to the shape, clamp condition and volume of chamfering amount the above cutting condition have to be adjusted. For large amount chamfering, the rate will have to be reduced

Processing Example

[ϕ2mm Bore mouth chamfering]

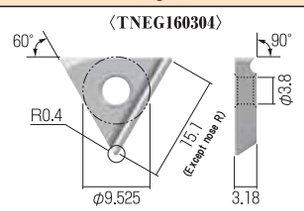
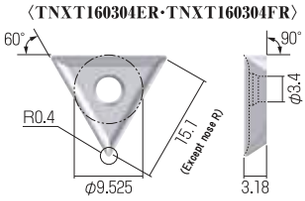
- Body : TBM4522T
- Insert : TNEG160304ER HSS
- Material····· S50C
- Rotation Speed··· 320r.p.m.
- Use machine·····Bench type Drilling Machine

Result

Good finish

Dry cutting

Insert

Figure	Model.No.					
〈TNEG160304〉 	TNEG160304XR HSS	HSS	Sharp edge	None	2	3
	TNEG160304ER HSS	HSS	Honing edge	None	2	3
〈TNXT160304ER･TNXT160304FR〉 	NEW TNXT160304FR HSS	HSS	Sharp edge	None	3	3
	NEW TNXT160304ER HSS	HSS	Honing edge	None	3	3
	NEW TNXT160304ER HSS AlCrN	HSS	Honing edge	AlCrN	3	3

Chamfering Series

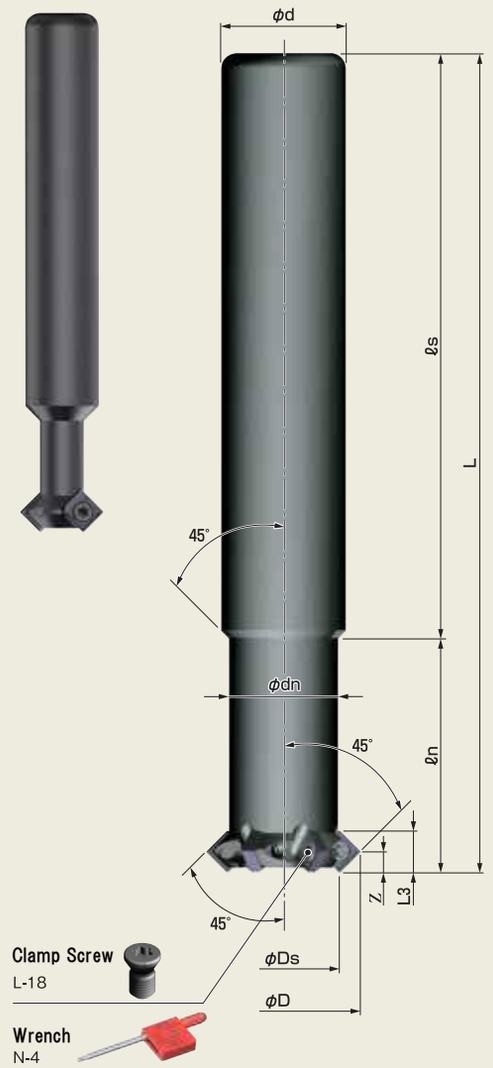
Chibi Ryanmen

2Blade 6Blade

Smallest Multi-Blade Tools!

Enable front/reverse chamfering and V-grooving

TR10-12S **TR16-20S**



Corner Chamfering	Reverse chamfering	Side V-grooving

Model. No.	Capacity
	Bore chamfering
TR10-12S	φ6㎜～φ11.24㎜
TR16-20S	φ14.5㎜～φ19.8㎜

※ Steel: C2 is maximum
※ Stainless Steel: C1 is maximum

Body

Model. No.	Blades	Dimensions (㎜)								
		φD	φDs	φdn	φd	L	ℓs	ℓn	L3	Z
TR10-12S	2	11.24	6	6	10	70	55	15	5.45	2.72
TR16-20S	6	19.8	14.5	14	16	105	75	30	5.45	2.72

※ Inset is not supplied as standard accessory. Please order separately.
※ Clamp screw wrench are supplied as standard accessory

Cuttinng Conditions

		SPEW030102	SPMT030102	
Material	material Model	ZA10N	ZA20N	AC16N
	Feed per blade (fz)	Cutting speed (m / min)		
General Steel	0.08～0.2		100～200	100～200
Alloy Steel	0.08～0.2		100～200	100～200
Stainless Steel	0.08～0.2		100～200	100～200
Aluminum,Resin,Brass	0.08～0.3	250～800		
Cast Steel	0.08～0.3		100～200	100～200

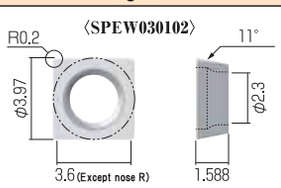
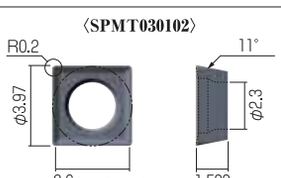
- According to the shape of work, clamp condition and large or small chamfering amount and position of blade, the cutting condition will have to be adjusted.
- In case of large amount chamfering process. please reduce the condition
- In case of chamfering process of Stainless steel, kindly take down cutting

Processing Example

[Corner Chamfering]
Body : TR16-20S
Insert : SPMT030102 AC16N
- Material ····· S50C
- Rotation Speed · 7,000r.p.m.
- Table feed ····· 4,000㎜/min
- Cutting Depth ·· 1㎜
- Cutting Oil ····· None

Result
Good!
Without secondary burrs and chattering

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
	SPEW030102 ZA10N	Carbide K10	Sharp edge	None	4	12
	SPMT030102 ZA20N	Carbide M20	Sharp edge	None	4	12
	NEW SPMT030102 AC16N	Fine particles Carbide	Sharp edge	AlCrN	4	12

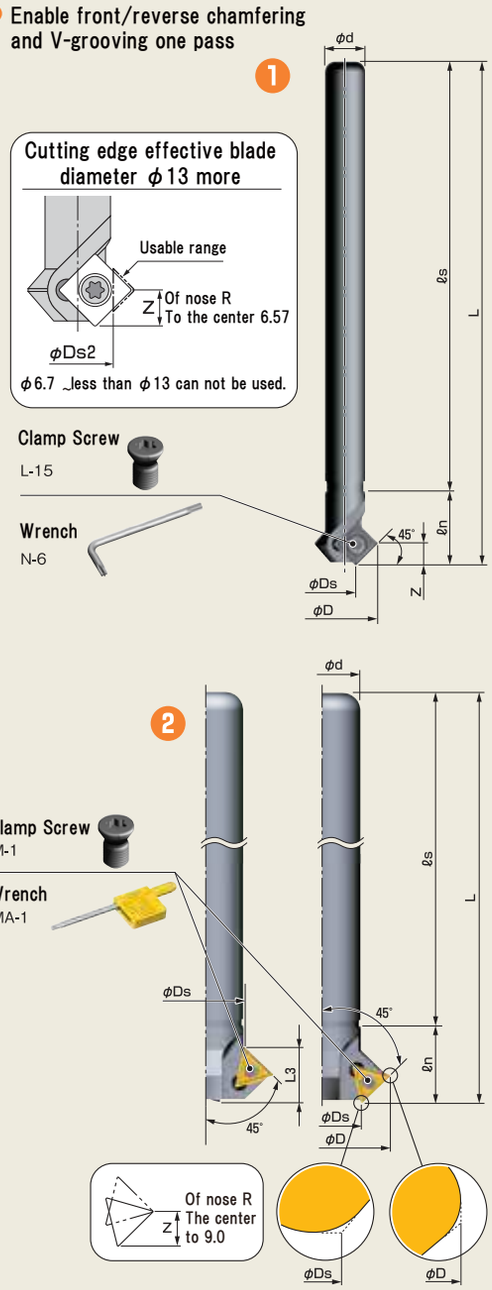
Chamfering Series

Ryanmencut-V

1Blade | Staggered 2Blade | Staggered 4Blade

One pass chamfering!

- Enable front/reverse chamfering and V-grooving one pass



Corner Chamfering | Reverse chamfering | Side V-grooveing

Model. No.	Capacity
	Bore chamfering
MRV12-19S	ϕ13mm～ϕ19.5mm
RV16-35T	ϕ18mm～ϕ35.9mm
RV25-46T	ϕ28mm～ϕ45.6mm

Body

Model. No.	Fig.	Blades	Dimensions (mm)									Inserts
			ϕD	ϕDs	ϕDs2	ϕd	L	ℓs	ℓn	L3	Z	
MRV12-19S	1	1	19.5	6.7	13	12	150	128	22	–	6.57	SPMT090304
RV16-35T	2	Staggered 2 blade	35.9	18		16	200	175	25	18.3	9.0	T22MOR
RV25-46T	2	Staggered 4 blade	45.6	28		25	200	175	25	17.9	9.0	T22MOR

※ Inset is not supplied as standard accessory. Please order spearately.
※ Clamp screw wrench are supplied as standard accessory.

Cuttinng Conditions

Chamfering		
Material	Feed per blade (fz)	Cutting speed (m / min)
General Steel	0.05～0.2	100～150
Alloy Steel	0.05～0.2	100～150
Stainless Steel	0.05～0.2	80～120
Aluminum,Resin, Brass	0.08～0.25	150～400
Cast Steel	0.05～0.2	100～150

Side V Groove Processing		
Material	Feed per blade (fz)	Cutting speed (m / min)
General Steel	0.03～0.1	100～150
Alloy Steel	0.03～0.1	100～150
Stainless Steel	0.03～0.1	80～120
Aluminum,Resin, Brass	0.05～0.15	150～400
Cast Steel	0.03～0.1	100～150

- According to the shape of work, clamp condition and large or small chamfering amount, the cutting condition will have to be adjusted.
- In case of large amount chamfering process, please reduce the condition
- In case of chamfering process of Stainless steel, kindly take down cutting

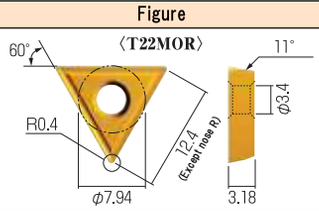
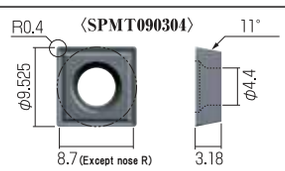
Processing Example

[C2 chamfering]

- Body : RV25-46T
- Insert : T22MOR NK5050
  - Material ····· SUS304
  - Rotation Speed ·· 800r,p,m
  - Table feed ····· 160mm/min
  - Cutting Depth ··· 2mm
  - Cutting Oil ····· None

Result

Good! Without secondary burrs and chattering

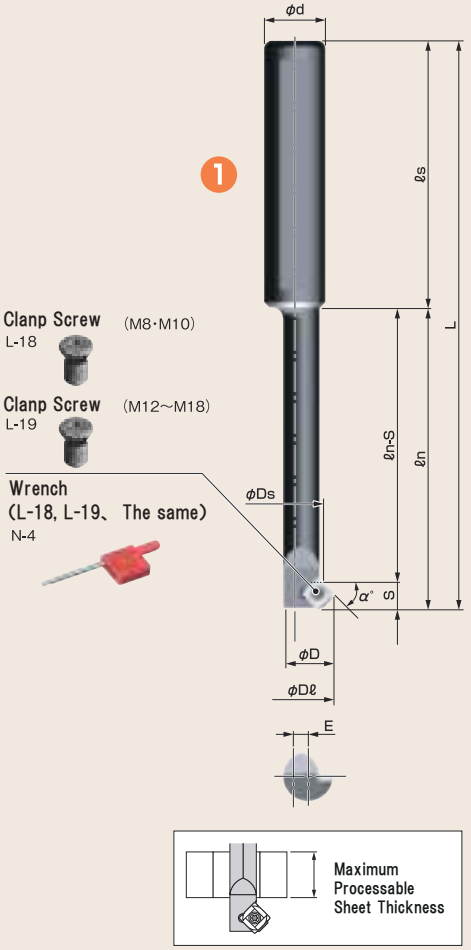
Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
	T22MOR NK5050	Carbide M10	Sharp edge	TiN	3	12
	SPMT090304 NK6060	Carbide M20	Honing edge	TiAℓN	4	12

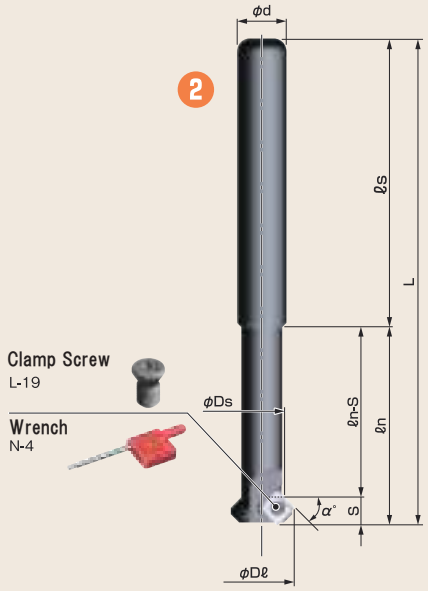
Chamfering Series

Uratorimen-C

Exclusive use for back chamfering

● This is a special tool for back spot hole chamfering and edge chamfering process





30°		
Model. No.	Hole diameter	Capacity Rear edge chamfering
UMH12-6.8S-M8-30	φ6.8	φ6.8mm~φ9.7mm
UMH12-8.5S-M10-30	φ8.5	φ8.5mm~φ11.7mm
UMH12-10S-M12-30	φ10.0	φ10.0mm~φ14.8mm
UMH12-12S-M14-30	φ12.0	φ12.0mm~φ16.8mm
UMH12-14S-M16-30	φ14.0	φ14.0mm~φ18.8mm
UMH16-16S-M18-30	φ16.0	φ16.0mm~φ20.8mm
UM12-16S-30		φ16.0mm Over ~

45°		
Model. No.	Hole diameter	Capacity Rear edge chamfering
UMH12-6.8S-M8	φ6.8	φ6.8mm~φ9.7mm
UMH12-8.5S-M10	φ8.5	φ8.5mm~φ11.7mm
UMH12-10S-M12	φ10.0	φ10.0mm~φ14.8mm
UMH12-12S-M14	φ12.0	φ12.0mm~φ16.8mm
UMH12-14S-M16	φ14.0	φ14.0mm~φ18.8mm
UMH16-16S-M18	φ16.0	φ16.0mm~φ20.8mm
UM12-16S		φ16.0mm Over ~

60°		
Model. No.	Hole diameter	Capacity Rear edge chamfering
UMH12-6.8S-M8-60	φ6.8	φ6.8mm~φ9.7mm
UMH12-8.5S-M10-60	φ8.5	φ8.5mm~φ11.4mm
UMH12-10S-M12-60	φ10.0	φ10.0mm~φ13.5mm
UMH12-12S-M14-60	φ12.0	φ12.0mm~φ15.5mm
UMH12-14S-M16-60	φ14.0	φ14.0mm~φ17.5mm
UMH16-16S-M18-60	φ16.0	φ16.0mm~φ19.5mm
UM12-14.5S-60		φ14.5mm Over ~

Body

Model. No.	Figure	Blades	Dimensions (mm) φD	φDℓ	φDs	φd	L	ℓs	ℓn	ℓn-S	S	T	E	Inserts	α°
UMH12-6.8S-M8-30	1	1	6.2	9.7	6.8	12	107	70	37	32.1	4.9	28	1.76	SP-SPET040102	30°
UMH12-8.5S-M10-30	1	1	7.5	11.7	8.5	12	117	70	47	42.0	5.0	38	2.11	SPET040102	
UMH12-10S-M12-30	1	1	9.0	14.8	10.0	12	129	70	59	52.2	6.8	47	2.92	SPET06T104	
UMH12-12S-M14-30	1	1	10.0	16.8	12.0	12	134	70	64	57.2	6.8	52	3.42	SPET06T104	
UMH12-14S-M16-30	1	1	12.0	18.8	14.0	12	139	70	69	62.2	6.8	57	3.41	SPET06T104	
UMH16-16S-M18-30	1	1	14.0	20.8	16.0	16	149	70	79	72.2	6.8	67	3.41	SPET06T104	
UM12-16S-30	2	1		16.0	11.0	12	118	70	48	41.1	6.9			SPET06T104	
UMH12-6.8S-M8	1	1	6.2	9.7	6.8	12	107	70	37	32.2	4.8	28	1.76	SP-SPET040102	45°
UMH12-8.5S-M10	1	1	7.5	11.7	8.5	12	117	70	47	42.0	5.0	38	2.11	SPET040102	
UMH12-10S-M12	1	1	9.0	14.8	10.0	12	129	70	59	52.1	6.9	47	2.92	SPET06T104	
UMH12-12S-M14	1	1	10.0	16.8	12.0	12	134	70	64	57.1	6.9	52	3.42	SPET06T104	
UMH12-14S-M16	1	1	12.0	18.8	14.0	12	139	70	69	62.1	6.9	57	3.41	SPET06T104	
UMH16-16S-M18	1	1	14.0	20.8	16.0	16	149	70	79	72.1	6.9	67	3.41	SPET06T104	
UM12-16S	2	1		16.0	11.0	12	118	70	48	41.0	7.0			SPET06T104	
UMH12-6.8S-M8-60	1	1	6.2	9.7	6.8	12	107	70	37	32.0	5.0	28	1.76	SP-SPET040102	60°
UMH12-8.5S-M10-60	1	1	7.5	11.4	8.5	12	117	70	47	42.0	5.0	38	1.96	SPET040102	
UMH12-10S-M12-60	1	1	9.0	13.5	10.0	12	129	70	59	52.7	6.3	47	2.27	SPET06T104	
UMH12-12S-M14-60	1	1	10.0	15.5	12.0	12	134	70	64	57.7	6.3	52	2.77	SPET06T104	
UMH12-14S-M16-60	1	1	12.0	17.5	14.0	12	139	70	69	62.7	6.3	57	2.76	SPET06T104	
UMH16-16S-M18-60	1	1	14.0	19.5	16.0	16	149	70	79	72.7	6.3	69	2.76	SPET06T104	
UM12-14.5S-60	2	1		14.5	11.0	12	118	70	48	41.7	6.3			SPET06T104	

※ Inset is not supplied as standard accessory. Please order separately.
※ Clamp screw and wrench are supplied as standard accessory.

1 Blade

Rear Spot surface chamfer process in bore process

Rear surface Edge chamfering process

Processing Example

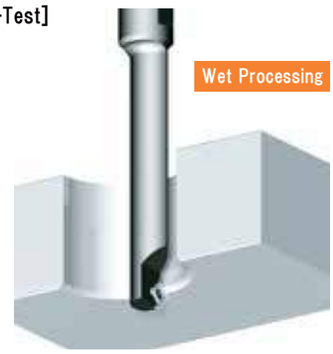
[Eccentric Rear Chamfering Cutter-Test]

Body : UMH12-8 5S-M10
Insert : SPET040102 AC16N

- Material ·····SKD11
- Rotation Speed ····800r.p.m.
- Cutting Speed ·····21m/min
- Table Feed ·····40㎜/min
- Blade Feed ·····0.05㎜/tooth
- Hole diameter ·····8.5㎜
- Cutting Depth ·····1㎜

Result

Good!
Without secondary burrs and chattering

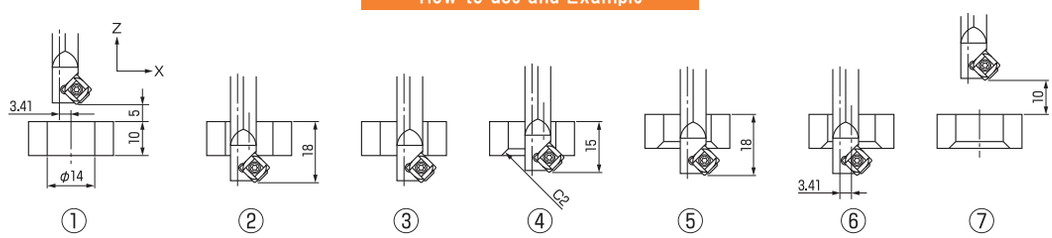


Cuttinng Conditions

Body Figure	1 UMH□□-□□□-M□-30 UMH□□-□□□-M□ UMH□□-□□□-M□-60			2 UM12-16S UM12-16S-30 UM12-14.5S-60			
Material	Material Model	NK1010	NK2020	AC16N	Material Model	NK1010	NK2020	AC16N
	Feed Per Blade (fz)	Cutting speed (m / min)			Feed Per Blade (fz)	Cutting Speed (m / min)		
General Steel	0.03~0.05		25~30	25~30	0.05~0.1		50~70	50~70
Alloy Steel	0.03~0.05		25~30	25~30	0.05~0.1		50~70	50~70
Stainless Steel	0.03~0.05		20~25	25~30	0.05~0.1		40~50	40~50
Aluminum, Resin,Brass	0.03~0.05	30~35			0.05~0.1	80~100		
Cast Steel	0.03~0.05	30~35			0.05~0.1	80~100		

- According to the shape of work, clamp condition, large or small chamfering amount and position of blade, the cutting condition will have to be reduced
- Coolant is recommended
- Yellow marked condition is recommended for the material listed

How to use and Example

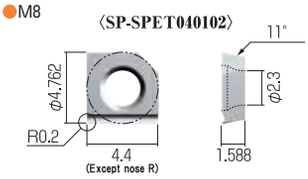
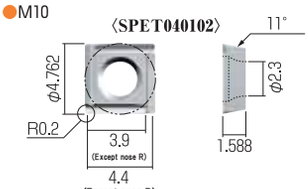
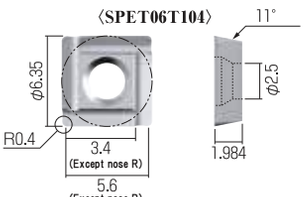


Example program (UMH12-14S-M16)

- N10
- G90 G00 G54 X-3.41 Y0 M19
- G43 Z5.0 H3 T11·····①
- G1 Z-18.0 F2000·····②
- X0·····③
- M3 S600
- G1 Z-14.9 F30·····④
- Z-18.0 F200·····⑤
- M19
- X-3.41·····⑥
- G0 Z10.0·····⑦
- G80 Z10.0
- G30 Z10.0

Max, processing thickness: T
Chamfer amount: C
Z = -(T+S-C)

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
●M8 〈SP-SPET040102〉 	SP-SPET040102 NK1010	Carbide K10	Sharp edge	None	1	12
	SP-SPET040102 NK2020	Carbide M20	Honing edge	None	1	12
	NEW SP-SPET040102 AC16N	Fine particles Carbide	Honing edge	AlCrN	1	12
●M10 〈SPET040102〉 	SPET040102 NK1010	Carbide K10	Sharp edge	None	4	12
	SPET040102 NK2020	Carbide M20	Honing edge	None	4	12
	NEW SPET040102 AC16N	Fine particles Carbide	Honing edge	AlCrN	4	12
●M12~18/UM12-16S 〈SPET06T104〉 	SPET06T104 NK1010	Carbide K10	Sharp edge	None	4	12
	SPET06T104 NK2020	Carbide M20	Honing edge	None	4	12
	NEW SPET06T104 AC16N	Fine particles Carbide	Honing edge	AlCrN	4	12

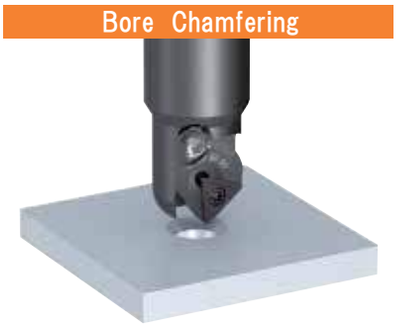
Chamfering Series

Multi-Angle Mini

Variable Angle Processing!

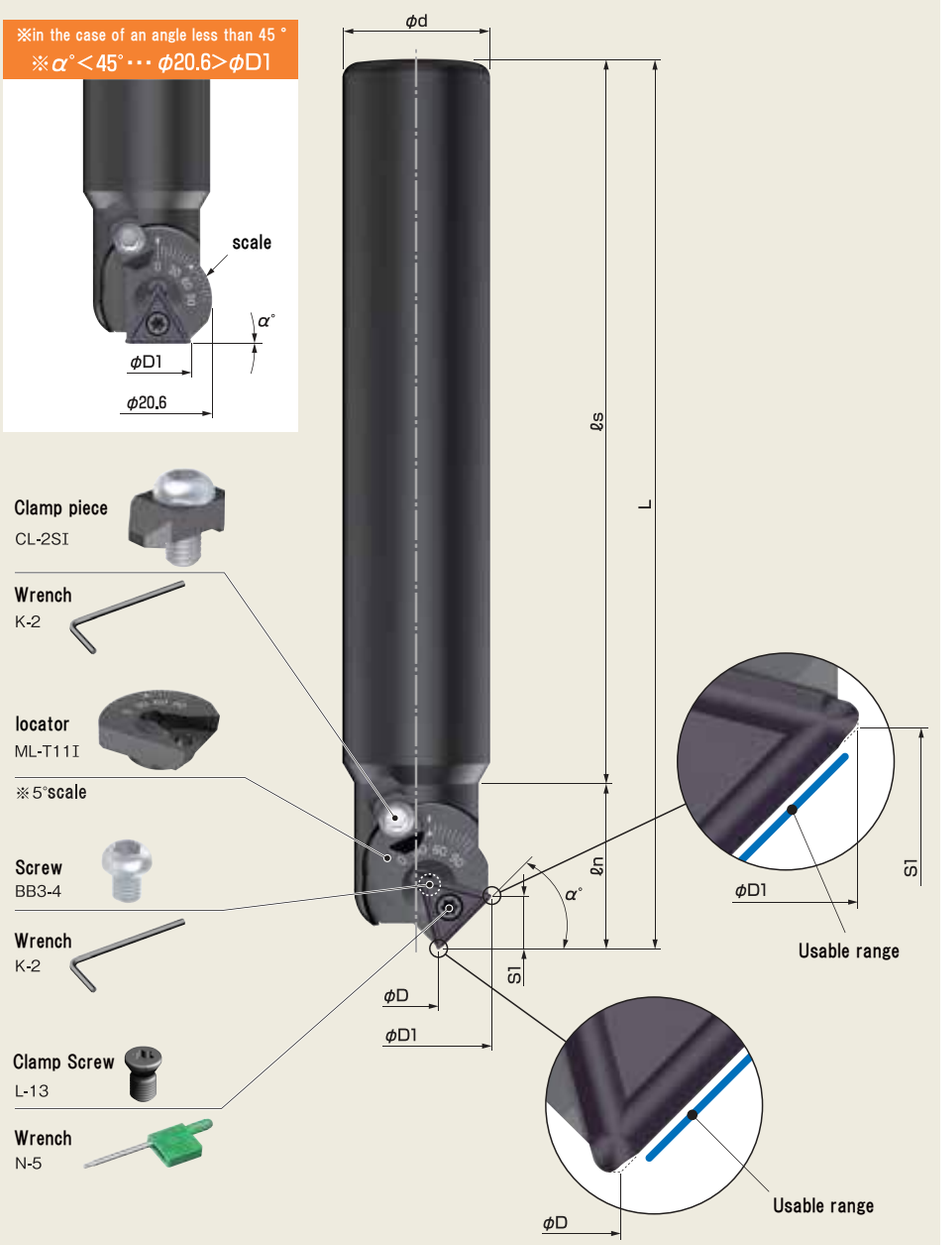
● 0°～90° Angle adjustment can be easily and securely made

Bore Chamfering



Corner Chamfering

※in the case of an angle less than 45 °
※α°＜45°･･･ φ20.6＞φD1

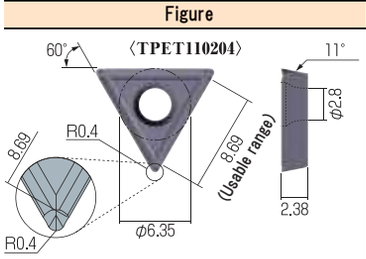


Body

Model. No.	blades	Dimensions (mm)						
		φD	φD1	φd	S1	L※1	ℓs	ℓn※3
MAM20-19TI	1	※2	※2	20	※2	(120)	97.1	(22.6)

● Insert is not equipped as standard accessory. Please purchase it separately
● Clamp screw, screw,wrench and locator are supplied as standard accessories
※1･･･Dimensions vary depending on the angle.
※2･･･Please refer to angle dimension table (P-34)
※3･･･It is the dimension when the scale is set to 45 degrees.

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
	TPET110204 ZA10N	Carbide K10	Sharp edge	None	3	3
	TPET110204 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	3

1Blade

Cutting Conditions

TPET110204

Material	Material Model / Feed per blade (fz)	ZA10N	AC15N
		Cutting speed (m/min)	
General steel	0.05~0.15		100~150
Alloy steel	0.05~0.15		100~150
Stainless steel	0.05~0.15		80~120
Aluminum, resin,brass	0.08~0.2	150~400	
Cast steel	0.05~0.15		100~150

● Coolant will be recommended

Processing Example

[C3 Chamfering]

■ Body : MAM20-19TI

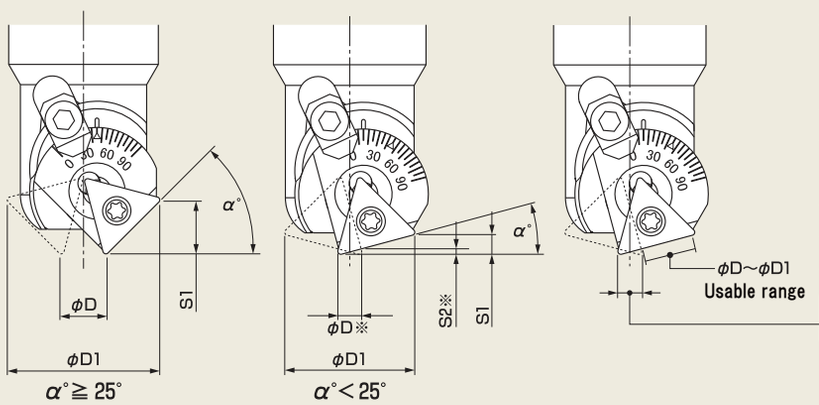
■ Insert : TPET110204 AC15N

- Material ····· SUS304
- Rotation Speed ···· 1,000r.p.m.
- Table feed ····· 100mm/min
- Depth of Cut ····· C3
- Cutting Oil ····· Yes

Result

Good!
No secondary burrs and, No chattering after processing

Wet Processing

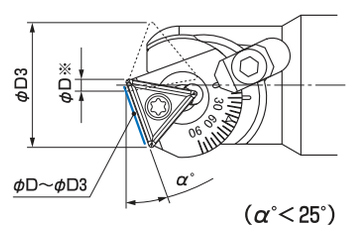


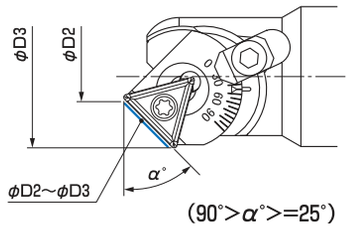
Angle Dimension Table 1

Angle α°	Usable range φD~φD3 φD※	φD3	φD1	S1	S2※	ℓn	L
5°	φ5.64	φ13.46	φ15.11	0.87	0.46	21.50	118.60
10°	φ4.41	φ14.55	φ16.12	1.73	0.70	21.84	118.94
15°	φ3.13	φ15.56	φ17.04	2.58	0.72	22.13	119.23
20°	φ1.79	φ16.48	φ17.87	3.41	0.48	22.35	119.45

Please note the blade back interference in the case of an angle less than 25 °

Usable range



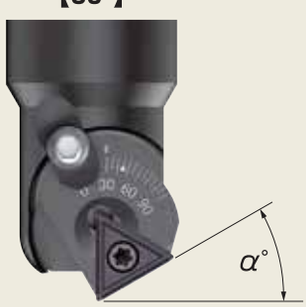


Angle Dimension Table 2

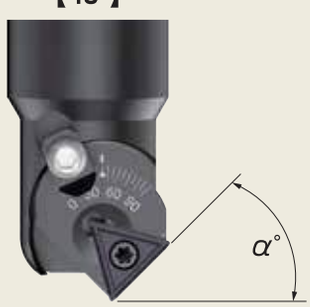
α°	φD	φD1	Usable range φD2~φD3 φD2	φD3	S1	ℓn	L
0°	φ6.81	φ14.01	φ6.81	φ12.29	–	21.10	118.20
25°	φ0.55	φ18.60	φ1.55	φ17.3	4.21	22.53	119.63
30°	φ1.98	φ19.21	φ2.96	φ18.01	4.98	22.64	119.74
35°	φ3.42	φ19.72	φ4.38	φ18.62	5.71	22.69	119.79
40°	φ4.87	φ20.11	φ5.8	φ19.11	6.39	22.67	119.77
45°	φ6.31	φ20.37	φ7.2	φ19.48	7.03	22.60	119.70
50°	φ7.73	φ20.52	φ8.57	φ19.74	7.62	22.47	119.57
55°	φ9.13	φ20.54	φ9.9	φ19.87	8.15	22.27	119.37
60°	φ10.49	φ20.44	φ11.18	φ19.87	8.62	22.02	119.12
65°	φ11.81	φ20.22	φ12.41	φ19.76	9.02	21.71	118.81
70°	φ13.06	φ19.88	φ13.57	φ19.52	9.36	21.35	118.45
75°	φ14.26	φ19.42	φ14.66	φ19.15	9.63	20.94	118.04
80°	φ15.38	φ18.85	φ15.66	φ18.67	9.83	20.47	117.57
85°	φ16.42	φ18.16	φ16.57	φ18.08	9.96	19.97	117.07
90°	–	φ17.38	–	φ17.38	10.01	19.42	116.52

Scale display

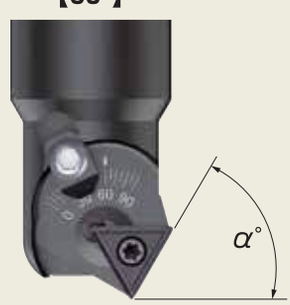
【30°】



【45°】



【60°】

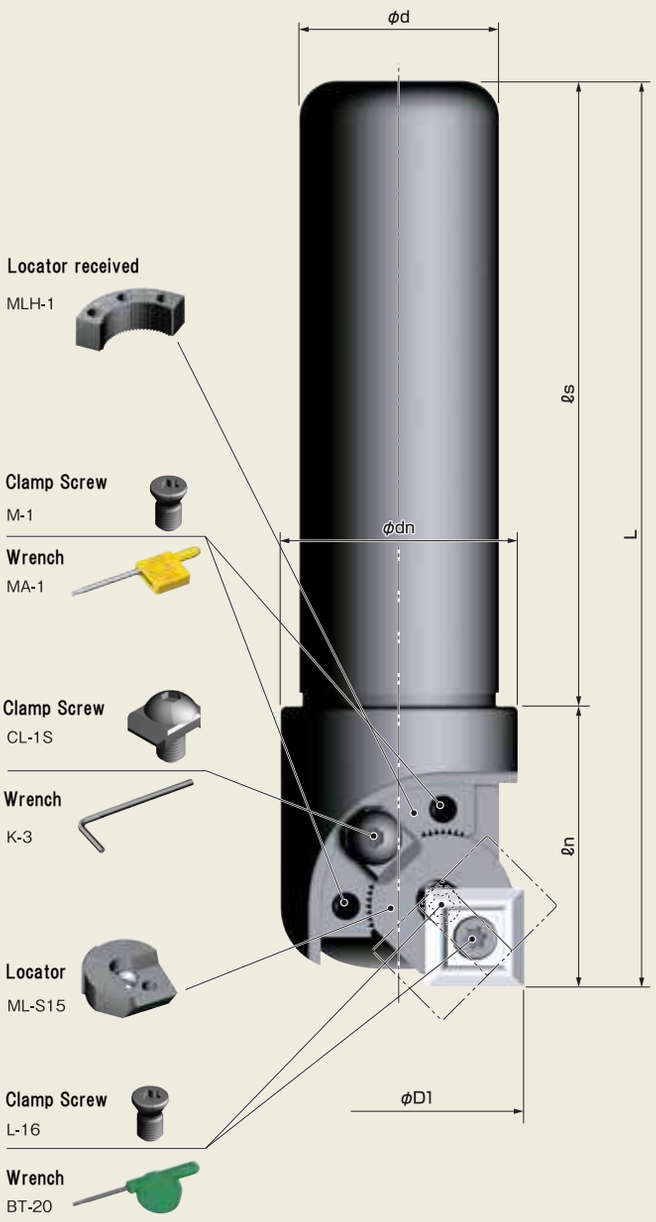


Chamfering Series

Multi-Angle mill

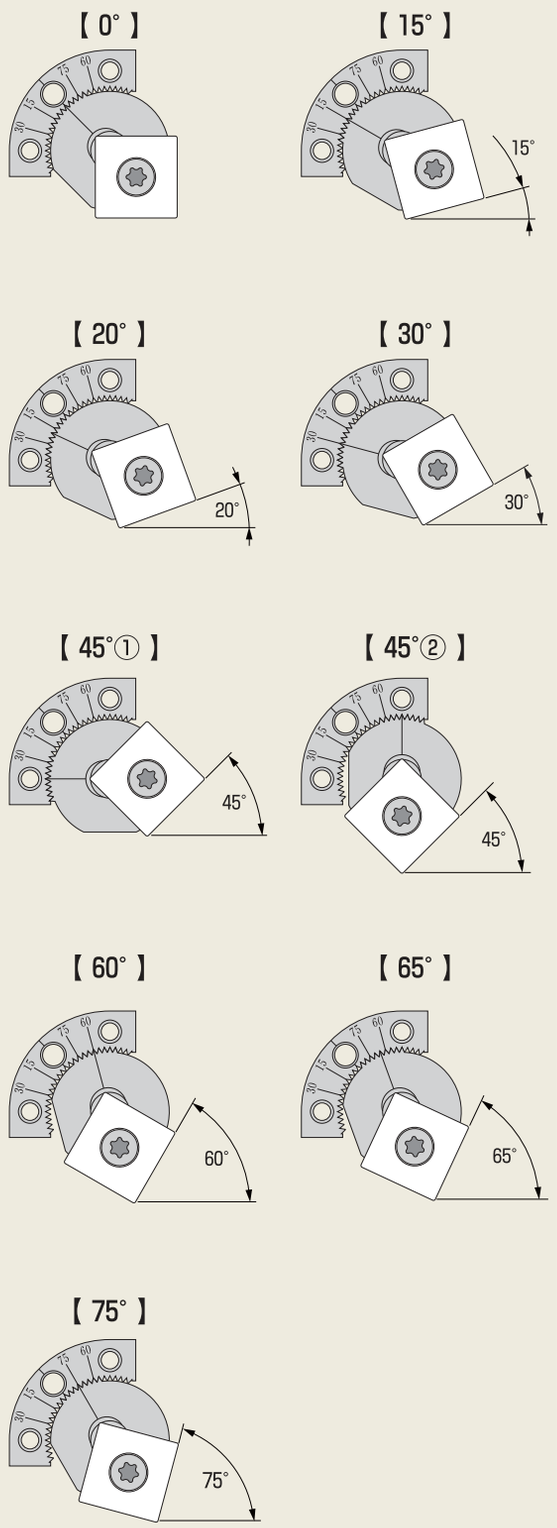
Variable Angle Processing!

● By the serration mechanism and our original double clamp system, holding parts is superior to prevent insert movement.
0°～90° Angle adjustment can be easily and securely made



Corner Chamfering | Back up processing | Side V-groove processing

Display for division of angle

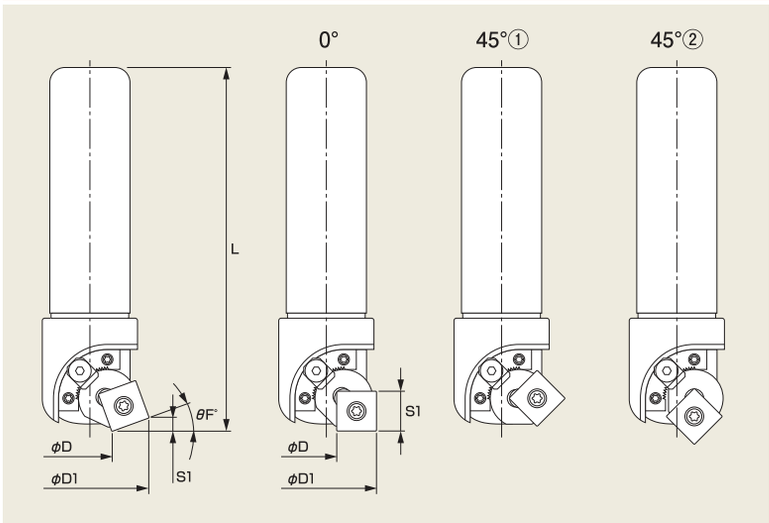


Body

Model No.	blades	Dimensions (mm)					
		φD1	φd	φdn	L	ℓs	ℓn
MAM32-50S	1	※1	32	38	145	100	45
MAM32-50SL	1	※1	32	38	200	155	45

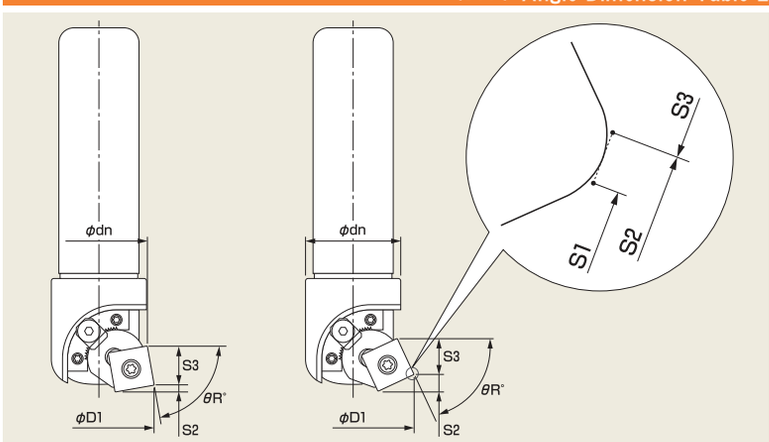
※ Insert is not equipped as standard accessory. Please purchase it separately
※ Clamp screw, wrench and locator are supplied as standard accessories
※ Please refer to angle dimension table (P-36)

〈θF°〉Angle Dimension Table 1 (MAM32-50S)



θF°	ϕD	ϕD1	S1	L
0°	ϕ8.3	ϕ40	15.9	145
5°	ϕ11.3	ϕ42.1	1.3	145.2
10°	ϕ13.6	ϕ44	2.7	145.2
15°	ϕ15.9	ϕ45.7	4.0	145.2
20°	ϕ18.1	ϕ47.1	5.3	145.1
25°	ϕ20.4	ϕ48.3	6.5	144.8
30°	ϕ22.6	ϕ49.3	7.7	144.5
35°	ϕ24.7	ϕ49.9	8.8	144.1
40°	ϕ26.7	ϕ50.3	9.9	143.6
45°①	ϕ28.7	ϕ50.5	10.9	143
45°②	ϕ14.3	ϕ36	10.9	150.2
50°	ϕ17.4	ϕ37.2	11.8	150.2
55°	ϕ20.5	ϕ38.2	12.6	150
60°	ϕ23.6	ϕ39.1	13.4	149.6
65°	ϕ26.7	ϕ39.7	14	149.2
70°	ϕ29.6	ϕ40.1	14.5	148.6
75°	ϕ32.4	ϕ40.4	14.9	147.8
80°	ϕ35.1	ϕ40.5	15.2	147
85°	ϕ37.6	ϕ40.3	15.4	146.1

〈θR°〉Angle Dimension Table 2 (θR°=90°−θF°)



θR°	ϕD1	ϕdn	S2	S3
85°	ϕ42.1	ϕ39.4	1.7	15.4
80°	ϕ44	ϕ38.6	3.1	15.2
75°	ϕ45.7	ϕ38.0	4.4	14.3
70°	ϕ47.1	ϕ38.0	5.6	12.5
65°	ϕ48.3	ϕ38.0	6.9	11.1
60°	ϕ49.3	ϕ38.0	8	9.7
55°	ϕ49.9	ϕ38.0	9.2	8.5
50°	ϕ50.3	ϕ38.0	10.2	7.4
45°	ϕ50.5	ϕ38.0	11.2	6.2

Cutting Conditions

Material	Material Model	SDET150404	SDMT150404	
		ZA10N	ZA20N	AC15N
	Feed per blade (fz)	Cutting speed (m/min)		
General Steel	0.05~0.15		100~150	100~150
Alloy Steel	0.05~0.15		100~150	100~150
Stainless Steel	0.05~0.15		80~120	80~120
Aluminum,Resin,Brass	0.08~0.2	150~400		
Castings	0.05~0.15		100~150	

● In case of Stainless steel processing, please take down cut

Processing Example

【Perimetery C5 Chamfering】

■ Body : MAM32-50S

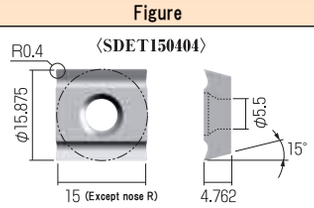
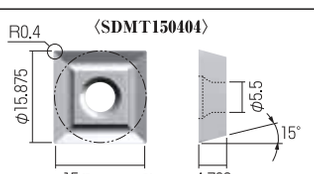
■ Body : SDMT150404 ZA20N

- Material·····S45C
- Rotation Speed···630.p.m.
- Table feed·····63mm/min
- Depth of Cut·····C5
- Cutting Oil·····None

Result

Good!
No secondary burrs and, No chattering after processing

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable Corner	Quantity per box
	SDET150404 ZA10N	Carbide K10	Sharp edge	None	2	3
	SDMT150404 ZA20N	Carbide M20	Honing edge	None	4	3
	SDMT150404 AC15N	Fine particles Carbide	Honing edge	AlCrN	4	3

Chamfering Series

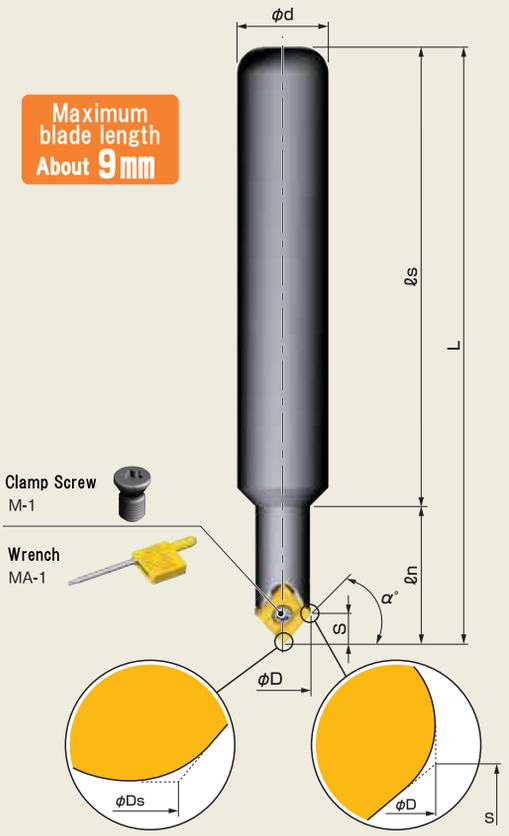
Men men

1 Blade

Applications use	Capacity												
	SNK1516C	SNK2016C	SNK2515C	SNK3015C	SNK3514C	SNK4013C	SNK4512C	SNK5014C	SNK5514C	SNK6015C	SNK6515C	SNK7014C	SNK7514C
α°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°
Bore chamfering	φ1.0~ φ16.0mm	φ2.0~ φ16.5mm	φ1.5~ φ15.5mm	φ1.5~ φ15.0mm	φ1.5~ φ14.0mm	φ1.5~ φ13.5mm	φ1.5~ φ12.5mm	φ5.0~ φ14.5mm	φ6.0~ φ14.5mm	φ7.5~ φ15.0mm	φ8.5~ φ15.0mm	φ9.5~ φ14.5mm	φ10.5~ φ14.0mm

Small Diameter type!

- This tool was developed for Small Diameter processing
- You can choose angle 15 °~75 ° (with 5 °increments)
- Rich Inserts can be selected for various workpiese Processing



Corner chamfering

Body

Model. No.	Blades	Dimensions (mm)							α°
		φD	Minimum Processing diameter(φDs)	φd	L	ℓs	ℓn	S	
SNK1516C	1	18.0	0.5	20	125	95	30	2.1	15
SNK2016C	1	18.2	1.1	20	125	95	30	2.8	20
SNK2515C	1	17.0	0.6	20	125	95	30	3.5	25
SNK3015C	1	16.3	0.7	20	125	95	30	4.5	30
SNK3514C	1	15.5	0.7	20	125	95	30	5.2	35
SNK4013C	1	14.6	0.8	20	125	95	30	5.9	40
SNK4512C	1	13.5	0.9	20	125	95	30	6.4	45
SNK5014C	1	15.5	4.0	20	125	95	30	7.0	50
SNK5514C	1	15.2	5.0	20	125	95	30	7.5	55
SNK6015C	1	15.6	6.7	20	125	95	30	7.3	60
SNK6515C	1	15.5	8.0	20	125	95	30	8.4	65
SNK7014C	1	15.1	9.0	20	125	95	30	8.7	70
SNK7514C	1	14.5	10.0	20	125	95	30	9.0	75

※ Inset is not equipped as standard accessory. Please purchase it spearately.
※ Clamp screw is equipped as standard accessory

Processing Example

[φ7mm Bore chamfering]

- Body : SNK6015C
- Insert : C32GUX AC15D
  - Material·····SUS304
  - Rotation Speed···3,000r.p.m.
  - Cutting Speed····150mm/m
  - Depth of Cut·····Z-4.0
  - Cutting Oil·····Yes

Result

Good finish

Dry cutting

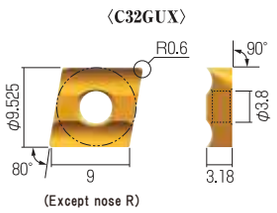
Cuttinng Conditions

	C32GUX											
Material / material Model	NK2001	NK1010	NK2020	NK3030	NK5050	NK6060	NK8080	AC15D	AC25D	HSS	HSS TiN
Feed per blade (fz)	Cutting speed (m / min)										
General Steel	0.08~0.2	200~250		150~200	150~200		150~200		150~200	150~200	13~23	15~25
Alloy Steel	0.08~0.2	200~250		150~200	150~200		150~200		150~200	150~200	10~20	13~22
Stainless Steel	0.08~0.2			120~180	150~200	120~180	150~200	150~200 ※SUS316	150~200	150~200	10~15	11~17
Aluminum,Resin,Brass	0.08~0.3		250~800			250~800		300~1,000			31~40	31~47
Castings	0.08~0.3	200~250 ※FCD										

- According to the shape of work, clamp condition and large or small chamfering amount, the cutting condition will have to be adjusted.
- Yellow marked condition is recommended for the material listed
- In case of chamfering process of Stainless steel, kindly take down cutting

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈C32GUX〉	C32GUX NK2001	Cermet	Honing edge	None	2	12
	C32GUX NK1010	Carbide K10	Sharp edge	None	2	12
	C32GUX NK2020	Carbide M20	Honing edge	None	2	12
	C32GUX NK3030	Carbide M20	Honing edge	TiN	2	12
	C32GUX NK5050	Carbide K10	Sharp edge	TiN	2	12
	C32GUX NK6060	Carbide M20	Honing edge	TiAℓN	2	12
	C32GUX NK8080	Carbide K10	Sharp edge	TiAℓN	2	12
	C32GUX AC15D	Fine particles Carbide	Honing edge	AlCrN	2	12
	C32GUX AC25D	Fine particles Carbide	Sharp edge	AlCrN	2	12
	C32GUX HSS	HSS	Sharp edge	None	2	12
	C32GUX HSS TiN	HSS	Sharp edge	TiN	2	12



(Except nose R)

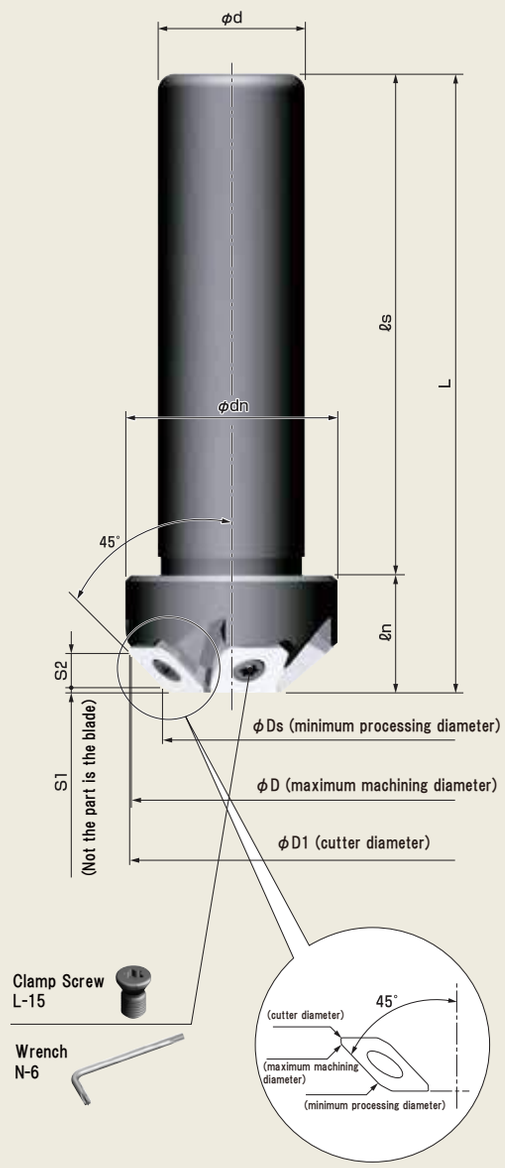
Chamfering Series

Kame Cutter

5Blade

Shortening working time!

- High Speed processing is ensured by the special shape tip



Corner Chamfering

Tip special shape

Body

Model. No.	Blades	Dimensions (mm)									
		φD	φD1	φDs	φd	φdn	L	ℓs	ℓn	S1	S2
KMC25-34S	5	34.9	36.4	24	25	36	105	85	20	1.2	5.3

※ Insert is not equipped as standard accessory. Please purchase it separately
※ Clamp screw is equipped as standard accessory

Cutting Conditions

Material	Rotation speed (r.p.m.)	Table feed	Recommended Insert	Coolant
General Steel	2,000～	2,000	S3H3MNZ NK2020	Yes
Alloy Steel	2,000～	2,000	S3H3MNZ NK2020	Yes
Stainless Steel	2,000～	500～1,000	S3H3MNZ AC15D	Yes
Aluminum,Resin,Brass	2,000～	2,000	S3H3GNZ NK1010	Yes
Castings	2,000～	2,000	S3H3GNZ NK1010	Yes

- In case of chamfering process of Stainless steel, kindly take down cutting

Processing Example

[C2 Chamfering]

- Body : KMC25-34S
- Insert : S3H3MNZ AC15D

- Material·····SUS304
- Rotation Speed···5,000r.p.m
- Table feed·····1,500mm/min
- Cutting Depth····C2
- Cutting Oil·····Yes

Wet Processing

Result

Good !
No secondary burrs and
No chattering after processing

Insert

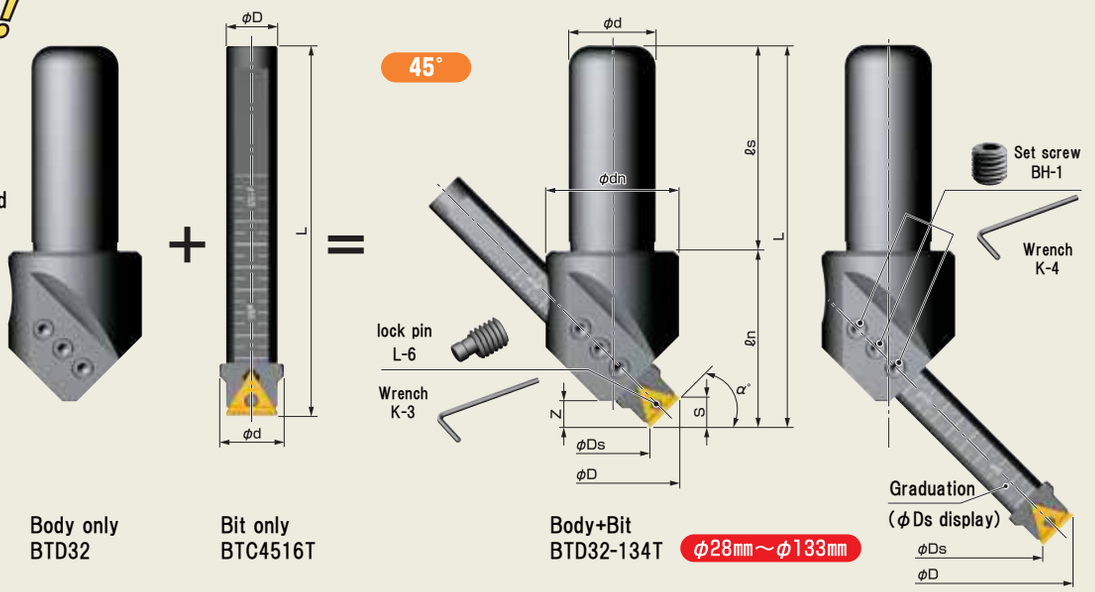
Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
⟨S3H3MNZ⟩⟨S3H3GNZ⟩	S3H3MNZ NK2001	Cermet	Honing edge	None	4	12
	S3H3GNZ NK1010	Carbide K10	Sharp edge	None	4	12
	S3H3MNZ NK2020	Carbide M20	Honing edge	None	4	12
	S3H3GNZ NK9090	Carbide K10	Sharp edge	None	4	12
	S3H3MNZ AC15D	Fine particles Carbide	Honing edge	AlCrN	4	12

Chamfering Series

Baitender

Bit Type!

- Expansion Bit type for wide range chamfering !
- Bore Chamfering Capacity: ϕ28～ϕ133
- T32-type insert can be used



Body only
BTD32

Bit only
BTC4516T

Body+Bit
BTD32-134T
φ28mm～φ133mm

Model. No.	Blades	Dimensions (mm)									α°
		φD	φDs	φdn	φd	L	ℓs	ℓn	Z	S	
BTD32-134T	1	49.85 134.6	28 112.8	49	32	190 232.8	125	65 107.8	9.8 52.6	10.9	45°
BTD32					49	32	180.2	125	55.2			

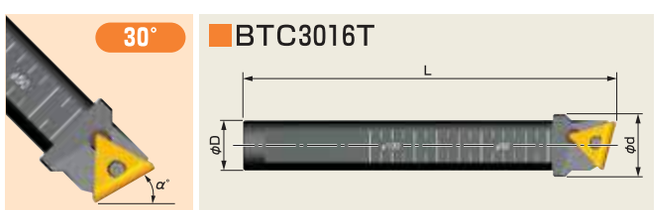
※ Inset is not supplied as standard accessory. Please order separately.
※ Lock Pin, set screw and wrench supplied as standard accessory

Option Bit 45°

Model. No.	Dimensions (mm)		
	φD	φd	L
BTC4516T	16	20	115

Option Bit

30° BTC3016T

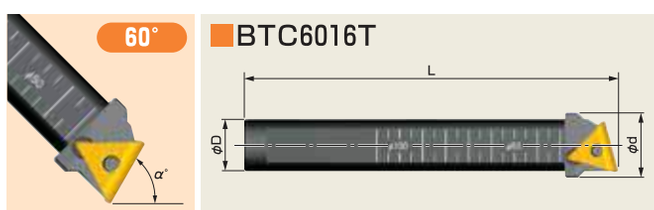


Model. No.	Dimensions (mm)		
	φD	φd	L
BTC3016T	16	20	119

BTC3016T(Option) is mounted φ28mm～φ138mm

Blades	Dimensions (mm)									α°
	φD	φDs	φdn	φd	L	ℓs	ℓn	Z	S	
1	54.82 139.6	28 112.8	49	32	190 232.4	125	65 107.4	9.8 52.6	7.7	30°

60° BTC6016T

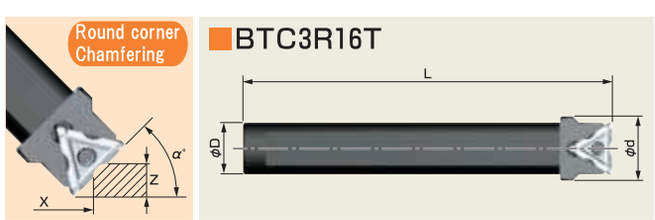


Model. No.	Dimensions (mm)		
	φD	φd	L
BTC6016T	16	20	115

BTC6016T(Option) is mounted φ28mm～φ126mm

Blades	Dimensions (mm)									α°
	φD	φDs	φdn	φd	L	ℓs	ℓn	Z	S	
1	43.37 128.2	28 112.8	49	32	190 232.5	125	65 107.5	9.8 52.5	13.3	60°

Round corner Chamfering BTC3R16T



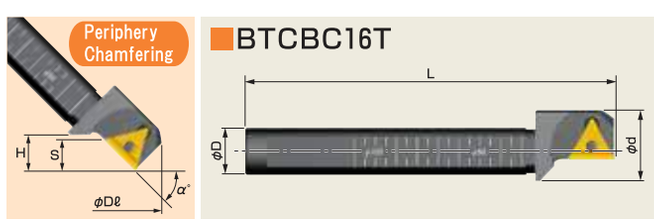
Estimated numeral setting
R1 X=18.95～61.32 Z=5.98
R2 X=18.43～60.80 Z=6.48
R3 X=17.93～60.30 Z=6.98
Regarding the X value, and is a reference value.

Model. No.	Dimensions (mm)		
	φD	φd	L
BTC3R16T	16	20	115

BTC3R16T(Option) is mounted R1～R3

Blades	Dimensions (mm)									α°
	φD	φDs	φdn	φd	L	ℓs	ℓn	Z	S	
1	49.9 134.6	28 112.8	49	32	190 232.4	125	65 107.4	9.8 52.6	10.9	45°

Periphery Chamfering BTCBC16T



Model. No.	Dimensions (mm)		
	φD	φd	L
BTCBC16T	16	24	126

BTCBC16T(Option) is mounted φ28mm～φ133mm

Blades	Dimensions (mm)											α°
	φD	φDs	φDℓ	φdn	φd	L	ℓs	ℓn	Z	H	S	
1	50.6 134.7	28 112.8	71.5 155.2	49	32	194 236.5	125	69 111.5	13.9 56.4	(12.9)	10.9	-45°

※ Inset is not supplied as standard accessory. Please order separately.
※ Lock Pin, set screw and wrench supplied as standard accessory

1Blade

Corner chamfering

Round corner Chamfering

Bore Chamfering

Periphery Chamfering

Processing Example

[φ50 Bore chamfering (C5)]

- Body : BTD32-134T
- Insert : TT32GUR NK2001
  - Material·····S45C
  - Rotation Speed··400r.p.m
  - Table feed·····24/min
  - Cuting Depth····C5
  - Cutting Oil·····None

Dry cutting

Result

Good! No secondary burrs and No chattering after processing

Cutting Conditions

T32MOR

Material	Material Model	NK2001	NK1010	NK2020	NK3030	AC16N
	Feed per blade (fz)	Cutting speed (m / min)				
General Steel	0.08~0.2	200~250		150~200	150~200	
Alloy Steel	0.08~0.2	200~250		150~200	150~200	
Stainless Steel	0.08~0.2			100~150	100~150	100~150
Aluminum,Resin,Brass						
Castings	0.08~0.2	200~250 ※FCD	100~150			

TT32GURF

Material	Material Model	TC16N
	Feed per blade (fz)	Cutting speed (m / min)
Heat-resistant alloy steel (Inconel)	0.02~0.05	150~200
Titanium alloy (64 Titanium alloy etc.)	0.02~0.05	150~200

TNEA160304

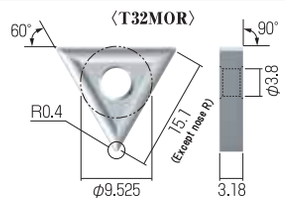
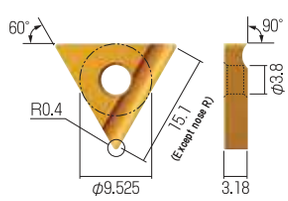
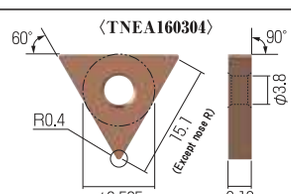
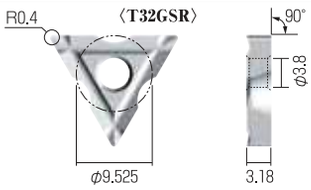
Material	Material Model	TC16N
	Feed per blade (fz)	Cutting speed (m / min)
Quenched alloy etc. SKD/HSS etc. (HRC50・65)	0.08~0.2	150~200

TT32GUR

Material	Material Model	NK2001	NK1010	NK2020	NK3030	NK5050	NK8080	AC15N	HSS	HSS TiN
	Feed per blade (fz)	Cutting speed (m / min)								
General Steel	0.08~0.2	200~250		150~200	150~200			150~200	13~23	15~25
Alloy Steel	0.08~0.2	200~250		150~200	150~200			150~200	10~20	13~22
Stainless Steel	0.08~0.2			120~180	150~200	120~180	150~200 ※SUS316	150~200	10~15	11~17
Aluminum,Resin,Brass	0.08~0.3		250~800			250~800	300~1,000		31~40	31~47
Castings	0.08~0.3	200~250 ※FCD								

- According to the shape of work, large or small chamfering, amount and position of blade, the cutting condition will have to be adjusted.
  In case of process with large amount chamfer, please reduce cutting condition
- Yellow marked condition is recommended for the material listed
- In case of chamfering process of Stainless steel, kindly take down cutting
- For Bore Chamfering, please reduce the cutting condition to 1/3

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈T32MOR〉 	T32MOR NK2001	Cermet	Honing edge	None	6	12
	T32MOR NK1010	Carbide K10	Sharp edge	None	6	12
	T32MOR NK2020	Carbide M20	Honing edge	None	6	12
	T32MOR NK3030	Carbide M20	Honing edge	TiN	6	12
	T32MOR AC16N	Fine particles Carbide	Honing edge	AlCrN	6	12
〈TT32GUR〉〈TT32GURF〉 	TT32GUR NK2001	Cermet	Honing edge	None	2	12
	TT32GUR NK1010	Carbide K10	Sharp edge	None	2	12
	TT32GUR NK2020	Carbide M20	Honing edge	None	2	12
	TT32GUR NK3030	Carbide M20	Honing edge	TiN	2	12
	TT32GUR NK5050	Carbide K10	Sharp edge	TiN	2	12
	TT32GUR NK8080	Carbide K10	Honing edge	TiAlN	2	12
	TT32GUR AC15N	Fine particles Carbide	Sharp edge	AlCrN	2	12
	TT32GURF TC16N	Fine particles Carbide	Honing edge	TiSiN	2	12
	TT32GUR HSS	HSS	Sharp edge	None	2	12
	TT32GUR HSS TiN	HSS	Sharp edge	TiN	2	12
〈TNEA160304〉 	TNEA160304 TC16N	Fine particles Carbide	Honing edge	TiSiN	6	12
R0.4 〈T32GSR〉 	T32GSR-1R NK2020	Carbide M20		None	3	3
	T32GSR-2R NK2020	Carbide M20		None	3	3
	T32GSR-3R NK2020	Carbide M20		None	3	3

When mounting insert, please do not take reverse tightening.
Due to the eccentricity looking mechanism ,poor accuracy or breakage of insert may be occurred
When replacing insert, please confirm twhether you have been taking reserve tightening or not.

Attention ···P.114

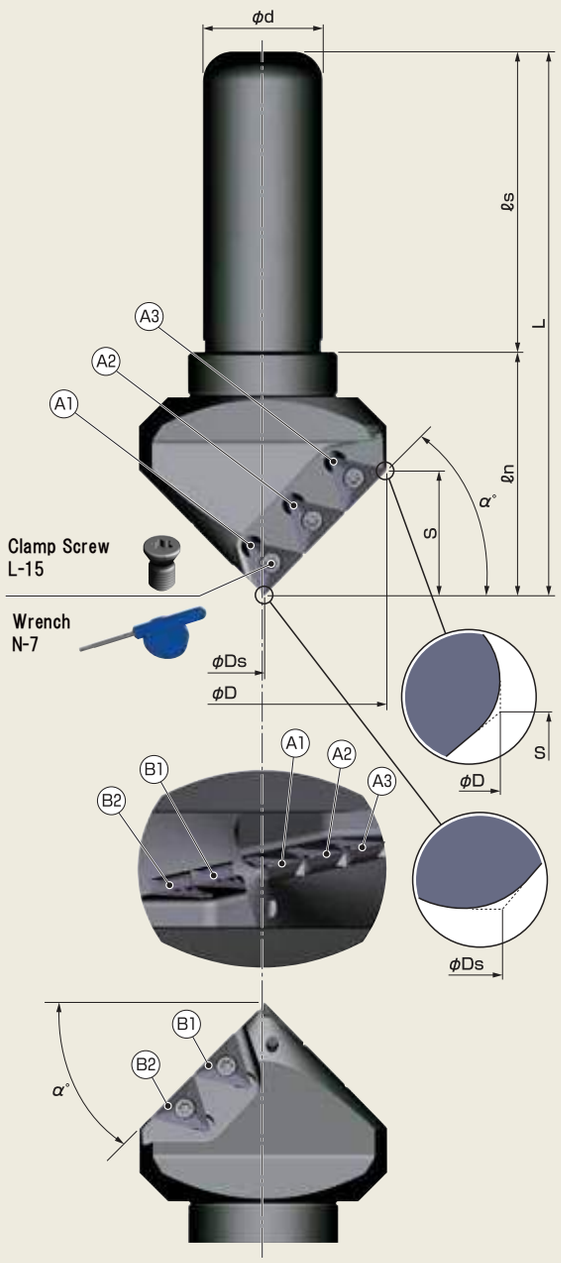
Chamfering Series

Choumen

5 Blade

Various sizes

Bore Chamfering process from ϕ1.0mm～ϕ81.4mm is possible !



B1・B2 is an auxiliary blade.
Cutting conditions, please be calculated with a single blade.

Bore Chamfering

Model. No.	Capacity
	Bore chamfering
TYOU3082T	ϕ1.0mm～ϕ81.4mm
TYOU4567T	ϕ1.2mm～ϕ66.6mm
TYOU6066T	ϕ20.4mm～ϕ66.8mm

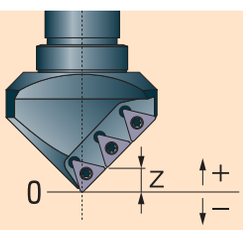
※ we recommend the 10C below for chamfering amount.

Model. No.	⚠ Remaining stage(step) Range
TYOU3082T	(ϕ26.59mm～ϕ28.46mm)and(ϕ54.33mm～ϕ56.20mm)
TYOU4567T	(ϕ21.63mm～ϕ23.76mm)and(ϕ44.15mm～ϕ46.27mm)
TYOU6066T	(ϕ34.93mm～ϕ36.02mm)and(ϕ50.95mm～ϕ52.04mm)

Body

Model. No.	Blades	Dimensions(mm)							α°
		φD	φDs	φd	L	ℓs	ℓn	S	
TYOU3082T	5	82.1	0.71	32	145	80	65	23.5	30°
TYOU4567T	5	67.0	0.88	32	145	80	65	33.1	45°
TYOU6066T	5	67.0	20.0	32	155	80	75	40.7	60°

※ Inset is not equipped as standard accessory. Please purchase it separately.
※ Clamp screw is equipped as standard accessory



Z-value compensate standard

※ Please note that this value may be getting little errors

α°=30° → +0.20
α°=45° → +0.44
α°=60° → +17.32

[Example]
In case of ϕ5mm Centering process at α°= 45°
Correct Z-value (-2.5)to -2.06

Cutting Conditions

Material	Material Model	ZA10N	AC15N
	Feed per blade (fz)	Cutting speed (m / min)	
General Steel	0.05～0.1		20～50
Alloy Steel	0.05～0.1		20～50
Stainless Steel	0.05～0.1		20～50
Aluminum,Resin,Brass	0.05～0.1	40～100	
Castings	0.05～0.1		20～50

- According to the shape of work, clamp condition and large or small chamfering amount, the cutting condition will have to be adjusted.
- Yellow marked condition is recommended for the material listed
- In case of chamfering process of Stainless steel, kindly take down cutting

Processing Example

[ϕ25 C10 Bore Chamfering]

- Body : TYOU4567T
- Insert : TXMT16T306
- Material・・・・・・・・・SUS304
- Rotation Speed・・・320r.p.m.
- Feed (Z-axis) ・・・・19.2/min
- Cutting Depth・・・・C10
- Cutting Oil・・・・・・・Yes

Result

Good! No secondary burrs and
No chattering after processing

Wet Processing

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈TXMT16T306〉	TXMT16T306 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT16T306 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12

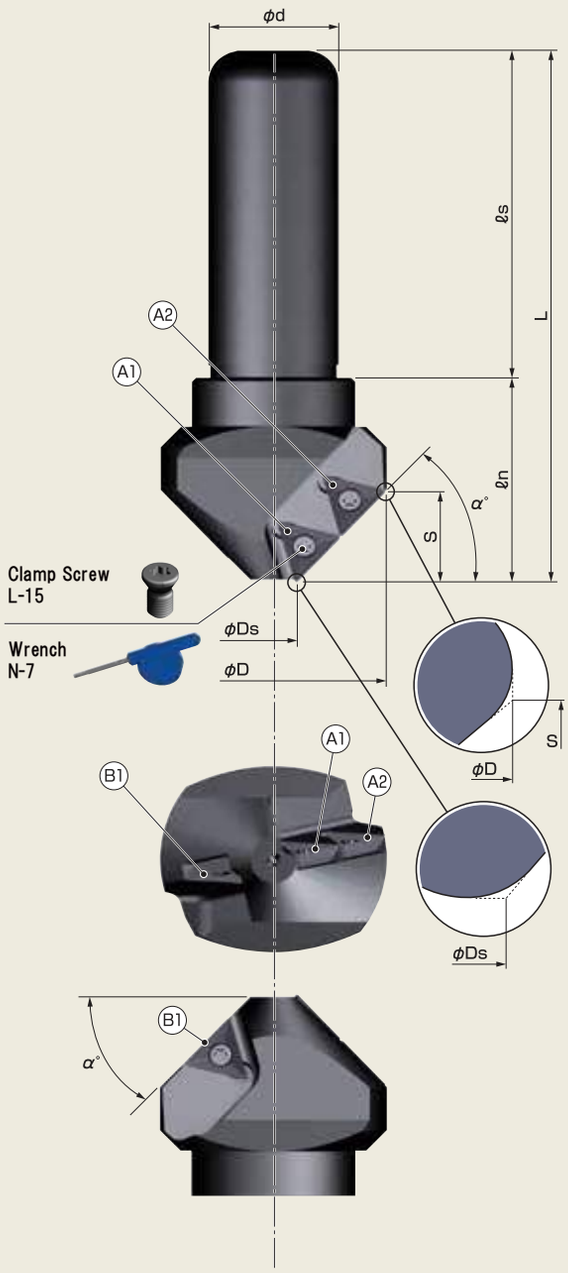
Chamfering Series

Choumen B

3Blade

Various sizes

Bore Chamfering Various large and small !



B1・B2 is an auxiliary blade.
Cutting conditions, please be calculated with a single blade.

Bore Chamfering

Model. No.	Capacity
	Bore chamfering
TYOU3068TB	φ14.87㎜～φ67.6㎜
TYOU4555TB	φ12.5㎜～φ55.4㎜
TYOU6058TB	φ28.36㎜～φ58.8㎜

※ we recommend the 10C below for chamfering amount.

Model. No.	⚠ Remaining stage(step) Range
TYOU3068TB	φ40.46㎜～φ42.33㎜
TYOU4555TB	φ33.25㎜～φ34.65㎜
TYOU6058TB	φ42.94㎜～φ44.03㎜

Body

Model. No.	Blades	Dimensions(㎜)							α°
		φD	φDs	φd	L	ℓs	ℓn	S	
TYOU3068TB	3	68.2	14.6	32	125	80	45	15.5	30°
TYOU4555TB	3	55.8	12.1	32	130	80	50	21.8	45°
TYOU6058TB	3	59.0	28.0	32	130	80	50	26.8	60°

※ Inset is not equipped as standard accessory. Please purchase it separately.
※ Clamp screw is equipped as standard accessory

Cutting Conditions

Material \ Material Model	ZA10N	AC15N
	Feed per blade (fz)	Cutting speed (m / min)
General Steel	0.05～0.1	20～50
Alloy Steel	0.05～0.1	20～50
Stainless Steel	0.05～0.1	20～50
Aluminum,Resin,Brass	0.05～0.1	40～100
Castings	0.05～0.1	20～50

- According to the shape of work, clamp condition and large or small chamfering amount, the cutting condition will have to be adjusted.
- Yellow marked condition is recommended for the material listed
- In case of chamfering process of Stainless steel, kindly take down cutting

Processing Example

[φ25 C10 Bore Chamfering]

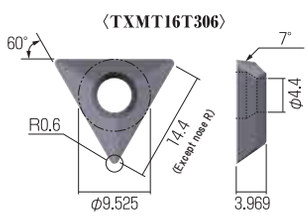
- Body : TYOU4555TB
- Insert : TXMT16T306 AC15N
- Material・・・・・・・・・SUS304
- Rotation Speed・・・400r.p.m.
- Feed (Z-axis) ・・・・Manual feed
- Cutting Depth・・・・C5mm
- Cutting Oil・・・・・・・none

Result

Good! No secondary burrs and
No chattering after processing

Wet Processing

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
	TXMT16T306 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT16T306 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12

MEMO

MEMO

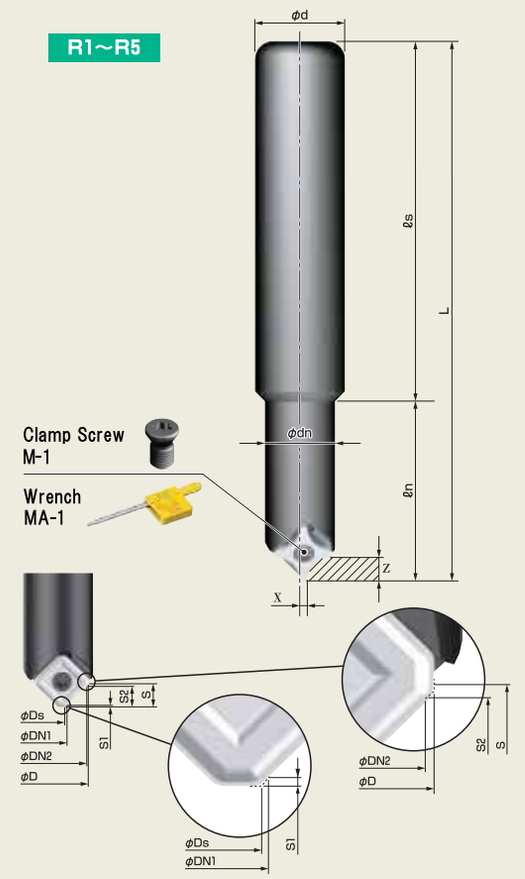
Round corner Chamfering Series

Mini-R

1Blade

Possible R-Chamfering And C-Chamfering process !

- 8 corners of inserts can be usable.
- Possible R-Chamfering And C-Chamfering process ensured by changing insert



Setting numerical values

Processing R	X-axis position (mm)	Z-axis position (mm)
R1	4.46	3.46
R2	3.99	3.94
R3	3.53	4.43
R4	3.09	4.91
R5	2.67	5.40

●numeric value might get some errors, please acknowledge.

R Chamfering

Insert

SNEQ090308 / S32MOZ		
	Feed per blade (fz)	Cutting speed (m/min)
General Steel	0.05~0.2	100~150
Alloy Steel	0.05~0.2	100~150
Stainless Steel	0.05~0.2	80~120
Aluminum,Resin,Brass	0.08~0.25	150~400
Cast Steel	0.05~0.2	100~150

C-Chamfering

Body

Model. No.	blades	Dimensions (mm)				
		ϕd	ϕdn	L	ℓs	ℓn
MR20-16S	1	20	15.6	120	80	40

※ Insert is not equipped as standard accessory. Please purchase it separately
※ Clamp screw, screw,wrench and locator are supplied as standard accessories

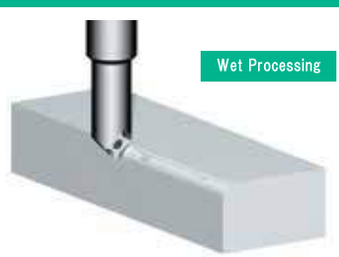
Processing Example (Mini-R)

[Periphery R3 Chamfering process]

- Body : MR20-16S
- Insert: : SNEQ090308-3RM ZA20N
  - Material ·····SUS304
  - Rotational speed···3,000r.p.m.
  - Table feed ·····150mm/min

Result

Surface Accuracy is good when the processing was made without rough cutting

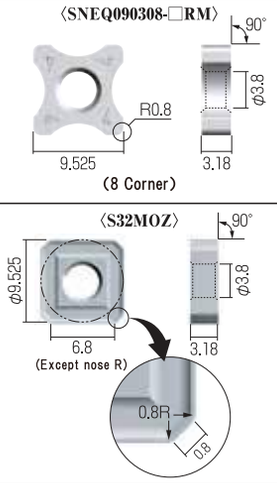


S32MOZ Insert Dimension Table

Model. No.	insert	blades	Dimensions (mm)								ability (mm)			
			ϕd	ϕdn	L	ℓs	ℓn	ϕDs	ϕD	S	ϕDN1	ϕDN2	S1	S2
MR20-16S	S32MOZ	1	20	15.6	119.61	80	39.61	5.15	15.12	5.1	5.53	14.66	0.23	4.89

Insert ※XRM, you can not use

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈SNEQ090308-□RM〉	SNEQ090308-1RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-2RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-3RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-4RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-5RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
〈S32MOZ〉	S32MOZ NK2001	Cermet	Honing edge	None	8	12
	S32MOZ NK2050	Cermet	Honing edge	None	8	12
	S32MOZ AB01F	Cermet	Honing edge	AlCrN	8	12
	S32MOZ NK1010	Carbide K10	Sharp edge	None	8	12
	S32MOZ NK2020	Carbide M20	Honing edge	None	8	12
	S32MOZ NK3030	Carbide M20	Honing edge	TiN	8	12
	S32MOZ AC15T	Fine particles Carbide	Honing edge	AlCrN	8	12



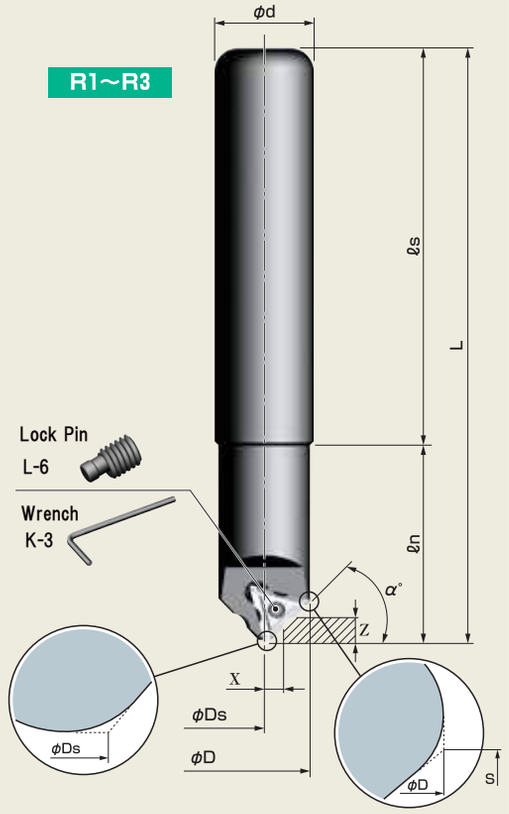
Round corner Chamfering Series

R Cindo-Cutter

1Blade

Easy Radius change !!

● Possible R-Chamfering And C-Chamfering process ensured by changing insert



Setting numerical values

Processing R	X-axis position (mm)	Z-axis position (mm)
R1	6.40	5.81
R2	5.90	6.30
R3	5.40	6.78

● numeric value might get some errors, please acknowledge.

R Chamfering

C-Chamfering

Insert

T32GSR		
Material	Feed PerBlade (fz)	Cutting speed (m / min)
General Steel	0.08~0.2	150~200
Alloy Steel	0.08~0.2	150~200
Stainless Steel	0.08~0.2	120~180
Aluminum,Resin,Brass	0.08~0.3	200~800
Castings	0.08~0.2	150~200

Processing Example

[Periphery R3 Chamfering process]

■ Body : CR25-05T

■ Insert : T32GSR-3R NK2020

- ●Table feed ·····Bakelite
- ●Material ·····4,000r.p.m.
- ●Rotational speed ···800mm/min

Dry cutting

Result

Good discharge of chips, surface accuracy also good Results came out.

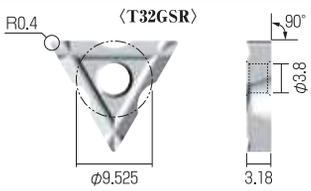
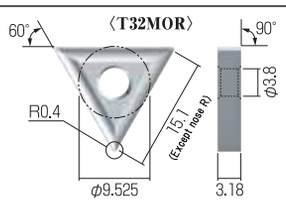
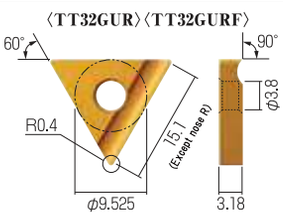
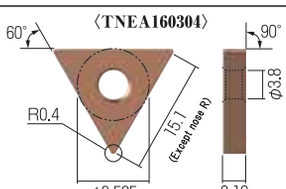
Body

Model. No.	blades	Dimensions (mm)							α°
		φD	φDs	φd	L	ℓs	ℓn	S	
CR25-05T	1	25	3.8	25	150	100	50	10.6	45°

※ Inset is not Included. Please Order Spearately.
※ Lock pin Wrench we have Standard Equipment.

⚠ When mounting insert, please do not take reverse tightening.
Due to the eccentricity looking mechanism ,poor accuracy or breakage of insert may be occurred
When replacing insert, please confirm twhether you have been taking reserve tightening or not.

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈T32GSR〉 	T32GSR-1R NK2020	Carbide M20		None	3	3
	T32GSR-2R NK2020	Carbide M20		None	3	3
	T32GSR-3R NK2020	Carbide M20		None	3	3
〈T32MOR〉 	T32MOR NK2001	Cermet	Honing edge	None	6	12
	T32MOR NK1010	Carbide K10	Sharp edge	None	6	12
	T32MOR NK2020	Carbide M20	Honing edge	None	6	12
	T32MOR NK3030	Carbide M20	Honing edge	TiN	6	12
	T32MOR AC16N	Fine particles Carbide	Honing edge	AlCrN	6	12
〈TT32GUR〉〈TT32GURF〉 	TT32GUR NK2001	Cermet	Honing edge	None	2	12
	TT32GUR NK1010	Carbide K10	Sharp edge	None	2	12
	TT32GUR NK2020	Carbide M20	Honing edge	None	2	12
	TT32GUR NK3030	Carbide M20	Honing edge	TiN	2	12
	TT32GUR NK5050	Carbide K10	Sharp edge	TiN	2	12
	TT32GUR NK8080	Carbide K10	Sharp edge	TiAℓN	2	12
	TT32GUR AC15N	Fine particles Carbide	Honing edge	AlCrN	2	12
	TT32GURF TC16N	Fine particles Carbide	Sharp edge	TiSiN	2	12
	TT32GUR HSS	HSS	Sharp edge	None	2	12
	TT32GUR HSS TiN	HSS	Sharp edge	TiN	2	12
〈TNEA160304〉 	TNEA160304 TC16N	Fine particles Carbide	Honing edge	TiSiN	6	12

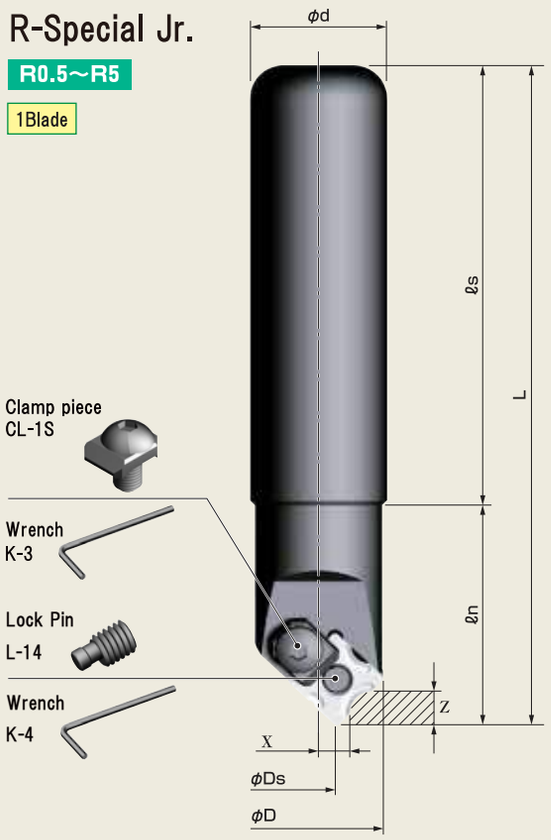
Round corner Chamfering Series

R-Special Jr. / R-Special

R-Special Jr.

R0.5～R5

1Blade



Easy Radius change !!

●Various Radius chamfering can be made by just exchanging Inserts

Setting numerical values

Processing R	X-axis position (mm)	Z-axis position (mm)
R0.5	8.05	4.42
R0.75	7.93	4.55
R1	7.80	4.67
R1.5	7.55	4.92
R2	7.30	5.17
R2.5	7.06	5.42
R3	6.81	5.67
R3.5	6.56	5.91
R4	6.31	6.16
R4.5	6.06	6.41
R5	5.82	6.66

● numeric value might get some errors, please acknowledge.

R Chamfering

Body

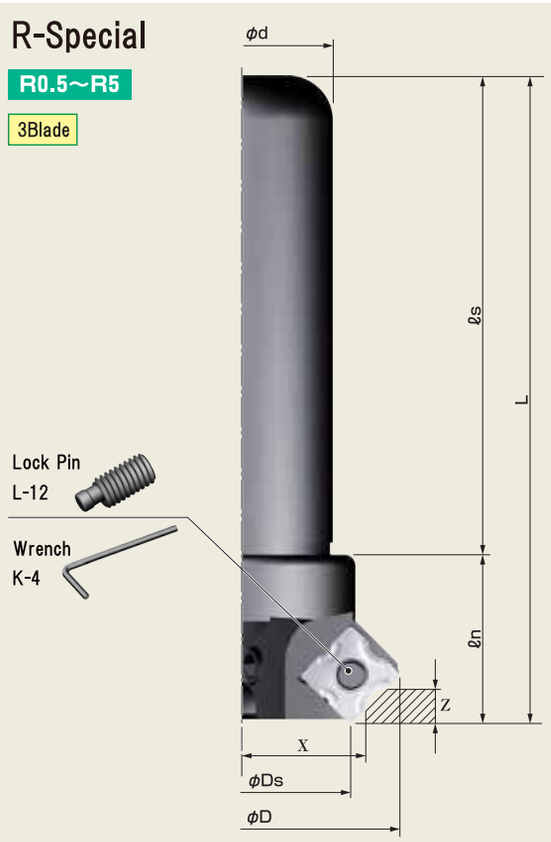
Model. No.	Blades	Dimensions (mm)					
		ϕD	ϕDs	ϕd	L	ℓs	ℓn
NK20-05R	1	25	8.4	20	120	80	40
NK25-05R	1	25	8.4	25	120	80	40

※ Inset is not supplied as standard accessory. Please order separately.
※ look pin and wrench are supplied as standard accessory.

R-Special

R0.5～R5

3Blade



Easy Radius change !!

●Various Radius chamfering can be made by just exchanging Inserts

Setting numerical values

Processing R	X-axis position (mm)	Z-axis position (mm)
R0.5	23.54	4.42
R0.75	23.42	4.54
R1	23.29	4.66
R1.5	23.04	4.91
R2	22.79	5.16
R2.5	22.54	5.41
R3	22.29	5.66
R3.5	22.04	5.91
R4	21.78	6.16
R4.5	21.53	6.41
R5	21.28	6.65

● numeric value might get some errors, please acknowledge.

R Chamfering

Body

Model. No.	Blades	Dimensions (mm)					
		ϕD	ϕDs	ϕd	L	ℓs	ℓn
NK20-40R-3	3	56	39.3	20	115	85	30
NK25-40R-3	3	56	39.3	25	115	85	30
NK32-40R-3	3	56	39.3	32	115	85	30

⚠ When mounting insert, please do not take reverse tightening.
Due to the eccentricity looking mechanism ,poor accuracy or breakage of insert may be occurred
When replacing insert, please confirm twhether you have been taking reserve tightening or not.

1Blade R-Special Jr. | 3Blade R-Special

Processing Example (R-Special Jr.)

[R5 Chamfering process of ϕ20 hole Result]

- Body: NK25-05R
- Insert: N43GXR8-5R NK2020
  - Material ·····S45C
  - Rotational speed ···2,500r.p.m.
  - Table feed ·····400mm/min

Dry cutting

Result

Surface Accuracy is good when the processing was made without rough cutting

Processing Example (R-Special)

[Periphery R4 Chamfering process]

- Body: NK32-40R-3
- Insert: N43GXR8-4R AC16N
  - Material ·····SKD11
  - Rotational speed ···1,200r.p.m.
  - Table feed ·····576mm/min

Dry cutting

Result

Surface Accuracy is good when the processing was made without rough cutting

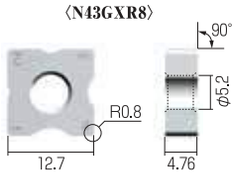
Cuttinng Conditions

N43GXR					
Material	Material Model	NK2001	NK1010	NK2020	AC16N
	Feed Per Blade (fz)	Cutting Speed (m / min)			
General Steel	0.1~0.2	100~250		100~200	
Alloy Steel	0.1~0.2	100~250		100~200	150~200
Stainless Steel	0.1~0.2			80~160	150~200
Aluminum,Resin,Brass	0.1~0.3		150~300	150~300	
Castings	0.1~0.3	80~150 ※FCD	80~150	80~150	

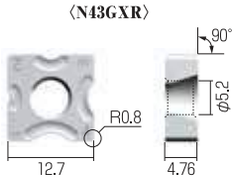
- According to the shape of work, clamp condition and large or small chamfering amount, the cutting condition will have to be adjusted.
- Yellow marked condition is recommended for the material listed
- In case of chamfering process of Stainless steel, kindly take down cutting

Insert

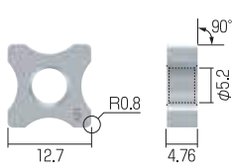
〈N43GXR8〉



〈N43GXR〉



〈N43GXR8 Semistandard Insert〉



※ R0.5~R3.5 insert can be used for R Bit
※ Semi standard Insert have no breaker

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
	N43GXR8 NK2001	Cermet	R1·2·3·4	None	8	3/12
	N43GXR8-1R NK2001	Cermet	The Same R Each corner	None	8	3/12
	N43GXR8-2R NK2001	Cermet	The Same R Each corner	None	8	3/12
	N43GXR8-3R NK2001	Cermet	The Same R Each corner	None	8	3/12
	N43GXR8-4R NK2001	Cermet	The Same R Each corner	None	8	3/12
	Semi standard	Cermet	The Same R Each corner	None	8	3/12
	NEW N43GXR8-5R NK2001					
	N43GXR NK1010	Carbide K10	R1·2·3·4	None	4	3/12
	NEW N43GXR8 NK2020	Carbide M20	R1·2·3·4	None	8	3/12
	NEW N43GXR8-1R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	NEW N43GXR8-2R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	NEW N43GXR8-3R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	NEW N43GXR8-4R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	Semistandard NEW N43GXR8-0.5R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	Semistandard NEW N43GXR8-0.75R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	Semistandard NEW N43GXR8-1.5R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	Semistandard NEW N43GXR8-2.5R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	Semistandard NEW N43GXR8-3.5R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	Semistandard NEW N43GXR8-4.5R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	Semistandard NEW N43GXR8-5R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	NEW N43GXR8 AC16N	Fine particles Carbide	R1·2·3·4	AlCrN	8	3/12
	NEW N43GXR8-1R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	NEW N43GXR8-2R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	NEW N43GXR8-3R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	NEW N43GXR8-4R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	Semistandard NEW N43GXR8-0.5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	Semistandard NEW N43GXR8-0.75R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	Semistandard NEW N43GXR8-1.5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	Semistandard NEW N43GXR8-2.5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	Semistandard NEW N43GXR8-3.5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	Semistandard NEW N43GXR8-4.5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	Semistandard NEW N43GXR8-5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12

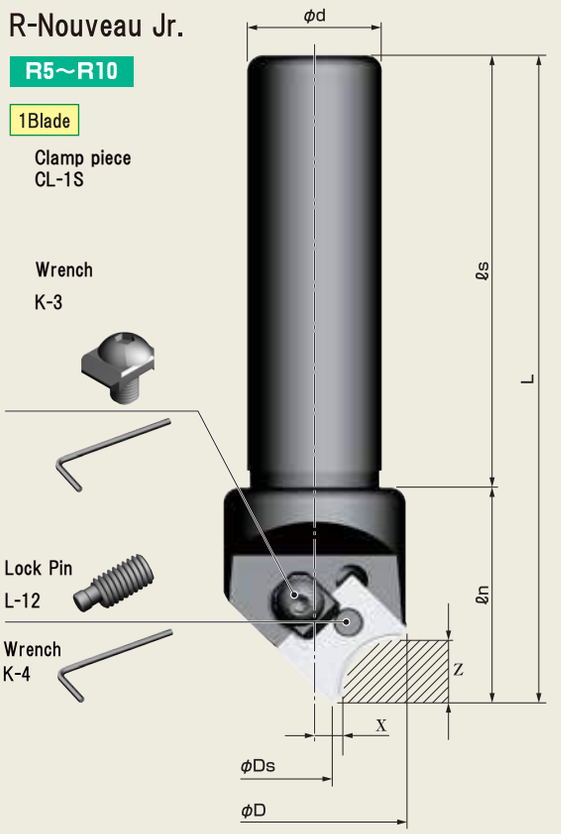
Round corner Chamfering Series

R-Nouveau Jr./R-Nouveau

R-Nouveau Jr.

R5～R10

1Blade



Easy Radius change !!

●Various Radius chamfering can be made by just exchanging Inserts

Setting numerical values

Processing R	X-axis position (mm)	Z-axis position (mm)
R5	6.00	6.70
R6	5.41	7.21
R7	5.64	8.42
R8	6.00	9.65
R9	5.41	10.16
R10	6.00	11.62

●numeric value might get some errors, please acknowledge.

R Chamfering

Body

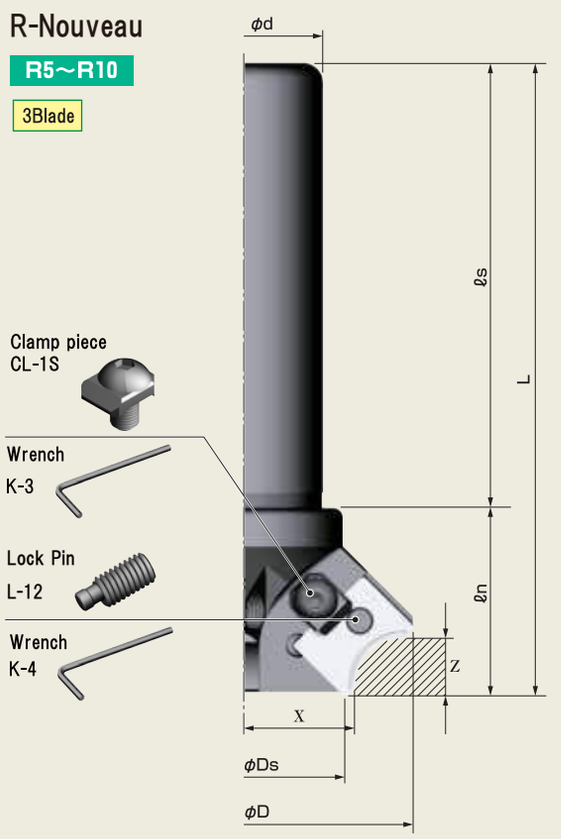
Model. No.	Blades	Dimensions (mm)					
		ϕD	ϕDs	ϕd	L	ℓs	ℓn
NK20-10R	1	35.4	8.9	20	120	80	40
NK25-10R	1	35.4	8.9	25	120	80	40

※ Inset is not supplied as standard accessory. Please order separately.
※ look pin and wrench are supplied as standard accessory.

R-Nouveau

R5～R10

3Blade



Easy Radius change !!

●Various Radius chamfering can be made by just exchanging Inserts

Setting numerical values

Processing R	X-axis position (mm)	Z-axis position (mm)
R5	22.80	6.80
R6	22.25	7.32
R7	22.49	8.56
R8	22.80	9.80
R9	22.25	10.32
R10	22.80	11.80

●numeric value might get some errors, please acknowledge.

R Chamfering

Body

Model. No.	Blades	Dimensions (mm)					
		ϕD	ϕDs	ϕd	L	ℓs	ℓn
NK25-70R	3	69.2	42.3	25	130	90	40
NK32-70R	3	69.2	42.3	32	130	90	40
NK32-70RL	3	69.2	42.3	32	200	150	50

※ Inset is not supplied as standard accessory. Please order separately.
※ look pin and wrench are supplied as standard accessory.

⚠ When mounting insert, please do not take reverse tightening.
Due to the eccentricity looking mechanism ,poor accuracy or breakage of insert may be occurred
When replacing insert, please confirm twhether you have been taking reserve tightening or not.

1Blade R-Nouveau Jr. | 3Blade R-Nouveau

Processing Example (R-Nouveau Jr.)

[Periphery R10 Chamfering process]

- Body : NK25-10R
- Insert : N54GCR-10R NK2020
  - Material ····· Aluminum
  - Rotational speed ··· 4,000r.p.m.
  - Table feed ····· 800mm/min

Dry cutting

Result

Surface Accuracy is good when the processing was made without rough cutting

Processing Example (R-Nouveau)

- Body : NK32-70R
- Insert : N54GCR-10R NK2020
  - Material ····· S50C
  - Rotational speed ··· 1,300r.p.m.
  - Table feed ····· 700mm/min

Dry cutting

Result

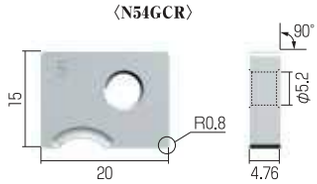
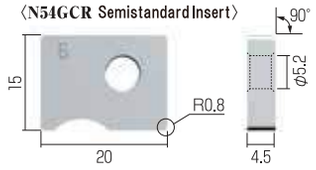
Surface Accuracy is good when the processing was made without rough cutting

Insert

N54GCR			
Material	Feed PerBlade (fz)	NK2020	NK6060
		Cutting speed(m / min)	
General Steel	0.1~0.3	100~250	
Alloy Steel	0.1~0.3	100~250	150~250
Stainless Steel	0.1~0.25	80~160	150~250
Aluminum,Resin,Brass	0.1~0.3	150~400	
Castings	0.1~0.3	80~200	

- According to the shape of work, clamp condition and large or small chamfering amount, the cutting condition will have to be adjusted.
- Yellow marked condition is recommended for the material listed
- In case of chamfering process of Stainless steel, kindly take down cutting

Insert

Figure		Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈N54GCR〉 		N54GCR-5R NK2020	Carbide M20		None	1	3
		N54GCR-8R NK2020	Carbide M20		None	1	3
		N54GCR-10R NK2020	Carbide M20		None	1	3
		N54GCR-5R NK6060	Carbide M20		TiAlN	1	3
		N54GCR-8R NK6060	Carbide M20		TiAlN	1	3
		N54GCR-10R NK6060	Carbide M20		TiAlN	1	3
〈N54GCR Semistandard Insert〉 	Semistandard	N54GCR-6R NK2020	Carbide M20		None	1	3
	Semistandard	N54GCR-7R NK2020	Carbide M20		None	1	3
	Semistandard	N54GCR-9R NK2020	Carbide M20		None	1	3

※ Semi standard Insert have no breaker

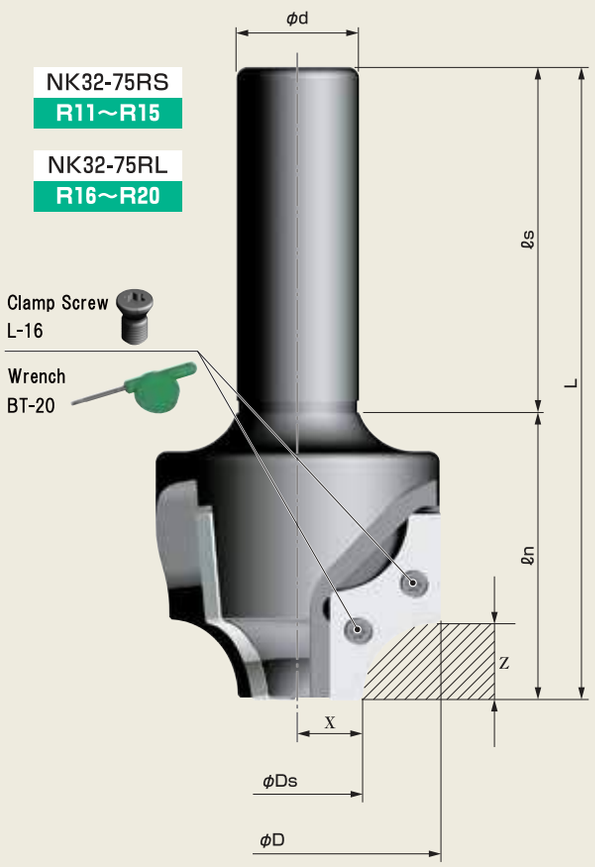
Round corner Chamfering Series

R-Giga

3Blade

Easy Radius change !!

● Various Radius chamfering can be made by just exchanging Inserts



This is not standard production model.
Please check the delivery time when ordering

Setting numerical values

Processing R	X-axis position (mm)	Z-axis position (mm)
R11	17.50	11.77
R12	17.50	12.70
R13	17.50	13.63
R14	17.50	14.56
R15	17.50	15.48
R16	17.50	16.41
R17	17.50	17.34
R18	17.50	18.27
R19	17.50	19.20
R20	17.50	20.12

● numeric value might get some errors, please acknowledge.

R Chamfering

Cuttinng Conditions

Material / Material model number		NK2020
General Steel	0.1～0.3	100～250
Alloy Steel	0.1～0.3	100～250
Stainless Steel	0.1～0.25	80～160
Aluminum,Resin,Brass	0.1～0.3	150～400
Castings	0.1～0.3	80～200

● According to the shape of work, clamp condition and large or small chamfering amount, the cutting condition will have to be adjusted.
● Yellow marked condition is recommended for the material listed
● In case of chamfering process of Stainless steel, kindly take down cutting

Processing Example

[Periphery R20 Chamfering process]

■ Body ：NK32-75RL
■ Insert ：XNEW3004-20R NK2020

● Material ····· S50C
● Rotational speed ··· 750r.p.m.
● Table feed ····· 225㎜/min

Result

Surface Accuracy is good when the processing was made without rough cutting

Wet Processing

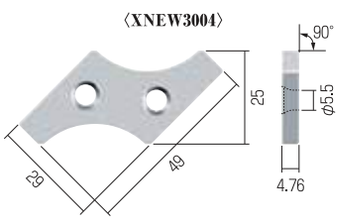
Body

Model. No.		Blades	Dimensions (㎜)					
			ϕD	ϕDs	ϕd	L	ℓs	ℓn
NK32-75RS	R11～R15	3	75.5	35	32	165	90	75
NK32-75RL	R16～R20	3	75.5	35	32	165	90	75

※ Insert is not equipped as standard accessory. Please purchase it separately
※ Clamp screw, screw,wrench and locator are supplied as standard accessories

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈XNEW3004〉	XNEW3004-11R NK2020	Carbide M20	Honing edge	None	2	3
	XNEW3004-12R NK2020	Carbide M20	Honing edge	None	2	3
	XNEW3004-13R NK2020	Carbide M20	Honing edge	None	2	3
	XNEW3004-14R NK2020	Carbide M20	Honing edge	None	2	3
	XNEW3004-15R NK2020	Carbide M20	Honing edge	None	2	3
	XNEW3004-16R NK2020	Carbide M20	Honing edge	None	2	3
	XNEW3004-17R NK2020	Carbide M20	Honing edge	None	2	3
	XNEW3004-18R NK2020	Carbide M20	Honing edge	None	2	3
This is not standard production model. Please check the delivery time when ordering	XNEW3004-19R NK2020	Carbide M20	Honing edge	None	2	3
	XNEW3004-20R NK2020	Carbide M20	Honing edge	None	2	3

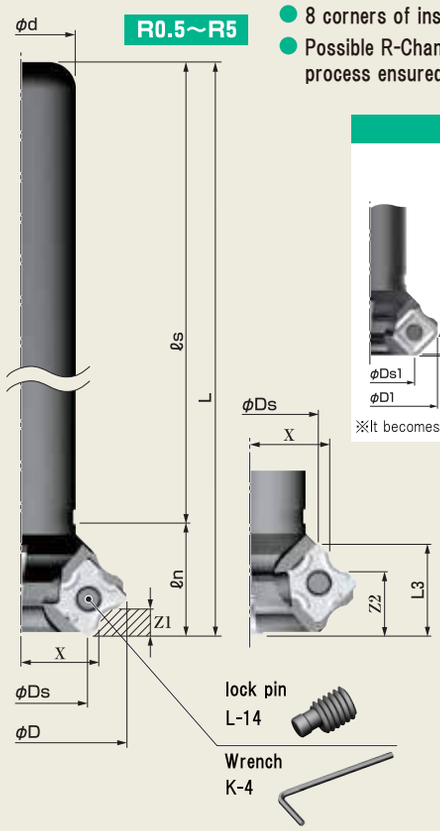


Round corner Chamfering Series

Ryanmencut-R [N TYPE]

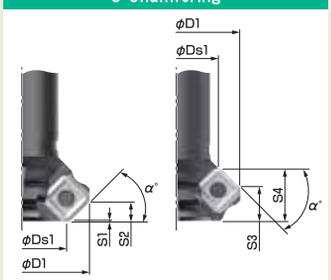
Staggered 4 Blade

Possible R-Chamfering And C-Chamfering process !



- 8 corners of inserts can be usable.
- Possible R-Chamfering And C-Chamfering process ensured by changing insert

C-Chamfering



※It becomes the size when mounting N43 MOZ.

C-Chamfering

R Chamfering

Cutting Conditions

Material	Material model number / Feed per blade (fz)	NK2001	NK1010	NK2020	AC16N
		Cutting speed (m/min)			
General Steel	0.1～0.2	100～250		100～200	
Alloy Steel	0.1～0.2	100～250		100～200	150～200
Stainless Steel	0.1～0.2			80～160	150～200
Aluminum,Resin,Brass	0.1～0.3		150～300	150～300	
Cast Steel	0.1～0.3	80～150 ※FCD	80～150	80～150	

- According to the shape of work, clamp condition and large or small chamfering amount, the cutting condition will have to be adjusted.
- Yellow marked condition is recommended for the material listed
- In case of chamfering process of Stainless steel, kindly take down cutting

Processing Example

[Periphery R5 Chamfering process]

- Body : RR25-48N
- Insert: : N43GXR8-5R NK2020
  - Material ····· SUS304
  - Rotational speed ··· 3,000r.p.m.
  - Table feed ····· 200mm/min

Wet Processing

Result

Surface Accuracy is good when the processing was made without rough cutting

Body

Model. No.	blades	Dimensions (mm)						
		ϕD	ϕDs	ϕd	L	ℓs	ℓn	L3
RR25-48N	4	48	31.3	25	200	175	25	20.5

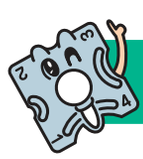
※ Insert is not equipped as standard accessory. Please purchase it separately
※ Clamp screw, screw,wrench and locator are supplied as standard accessories

Setting numerical values

Processing R	X-axis position (mm)	Z1-axis position (mm)	Z2-axis position (mm)
R0.5	19.55	4.42	16.08
R0.75	19.42	4.54	15.96
R1	19.30	4.66	15.84
R1.5	19.05	4.91	15.59
R2	18.80	5.16	15.34
R2.5	18.55	5.41	15.09
R3	18.29	5.66	14.84
R3.5	18.04	5.91	14.59
R4	17.79	6.16	14.34
R4.5	17.54	6.41	14.09
R5	17.29	6.65	13.85

- numeric value might get some errors, please acknowledge.

C chamfer insert
For details, see P105



R chamfer insert
For details, see P102

Insert	Processing type	RR25-48N						
		ϕD1	ϕDs1	S1	S2	S3	S4	α°
N43MOZ	C-Chamfering	32.99	46.32	–	6.62	12.22	18.84	45°

- C-Chamfering··· RR25-48N(N43MOZ : ϕ33.57～ϕ45.73)
- numeric value might get some errors, please acknowledge.

When mounting insert, please do not take reverse tightening.
Due to the eccentricity looking mechanism ,poor accuracy or breakage of insert may be occurred
When replacing insert, please confirm twhether you have been taking reserve tightening or not.

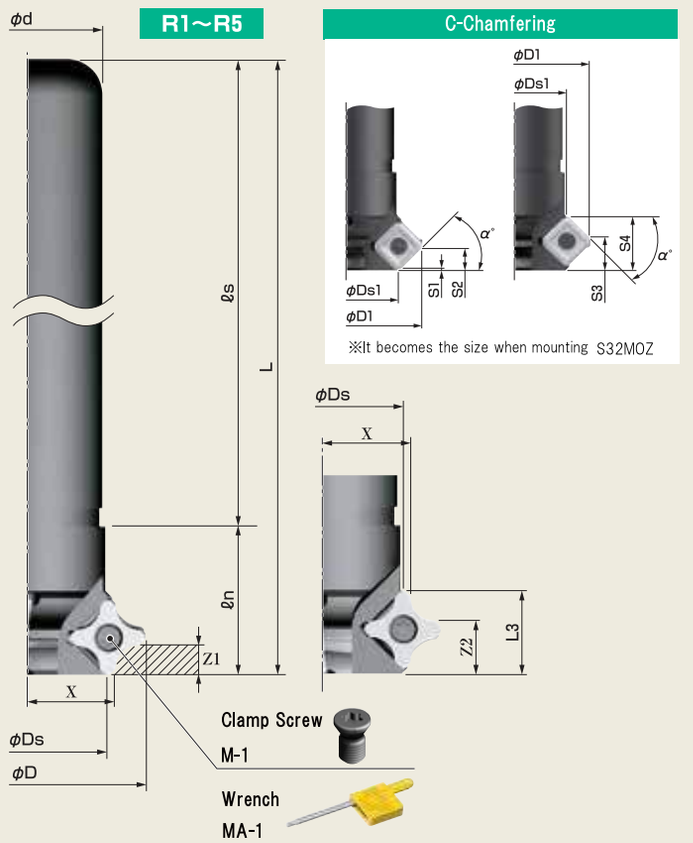
···P.114

Round corner Chamfering Series

Ryanmencut-R [S TYPE]

Possible R-Chamfering And C-Chamfering process !

- 8 corners of inserts can be usable.
- Possible R-Chamfering And C-Chamfering process ensured by changing insert



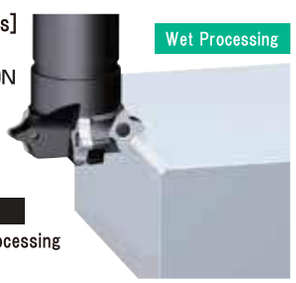
Cutting Conditions

Material	Feed per blade (fz)	Cutting speed (m/min)
General Steel	0.05～0.2	100～150
Alloy Steel	0.05～0.2	100～150
Stainless Steel	0.05～0.2	80～120
Aluminum,Resin,Brass	0.08～0.25	150～400
Cast Steel	0.05～0.2	100～150

Processing Example

[Periphery R4 Chamfering process]

- Body : RR25-40S-4R
- Insert: : SNEQ090308-4RM ZA20N
  - Material ····· SUS304
  - Rotational speed ··· 3,000r.p.m.
  - Table feed ····· 200㎜/min



Result

Surface Accuracy is good when the processing was made without rough cutting

Body

Model. No.	Blades	Dimensions(㎜)						
		φD	φDs	φd	L	ℓs	ℓn	L3
RR16-30S-4R	2	30	17.9	16	200	175	25	16
RR16-30S-5R	2	30	17.9	16	200	175	25	16
RR25-40S-4R	4	40	27.8	25	200	175	25	16
RR25-40S-5R	4	40	27.8	25	200	175	25	16

※ Insert is not equipped as standard accessory. Please purchase it separately
※ Clamp screw, screw,wrench and locator are supplied as standard accessories

Setting numerical values

Insert	Processing R	RR16-30S			RR25-40S		
		X-axis position (mm)	Z1-axis position (mm)	Z2-axis position (mm)	X-axis position (mm)	Z1-axis position (mm)	Z2-axis position (mm)
SNEQ090308-1RY ZA20N	1R	9.48	1.53	14.47	14.44	1.53	14.47
SNEQ090308-2RY ZA20N	2R	9.48	2.52	13.48	14.44	2.52	13.48
SNEQ090308-3RY ZA20N	3R	9.48	3.52	12.48	14.44	3.52	12.48
SNEQ090308-4RY ZA20N	4R	9.48	4.51	11.49	14.44	4.51	11.49
SNEQ090308-XRY ZA20N	1·2·3·4R	–	–	–	–	–	–
SNEQ090308-1RM ZA20N	1R	11.44	3.55	12.45	16.42	3.55	12.45
SNEQ090308-2RM ZA20N	2R	10.94	4.04	11.96	15.92	4.04	11.96
SNEQ090308-3RM ZA20N	3R	10.45	4.54	11.46	15.42	4.54	11.46
SNEQ090308-4RM ZA20N	4R	9.95	5.04	10.96	14.92	5.04	10.96
SNEQ090308-5RM ZA20N	5R	9.46	5.50	10.5	14.42	5.5	10.5
SNEQ090308-XRM ZA20N	1·2·3·4R	–	–	–	–	–	–

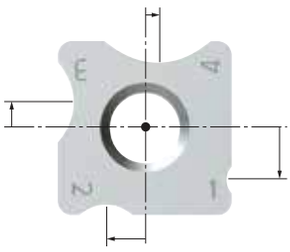
Insert	Processing type	RR16-30S							RR25-40S						
		φD1	φDs1	S1	S2	S3	S4	α°	φD1	φDs1	S1	S2	S3	S4	α°
S32MOZ	C-Chamfering	29.19	18.70	0.40	5.64	10.36	15.60	45°	39.19	28.61	0.40	5.64	10.36	15.60	45°

- C-Chamfering···
  RR16-30S(S32MOZ : φ19.16～φ28.72) RR25-40S(S32MOZ : φ29.08～φ38.72)
- numeric value might get some errors, please acknowledge.

⚠ Notes on using RY Insert | Please install on the reverse side, front side correctly.

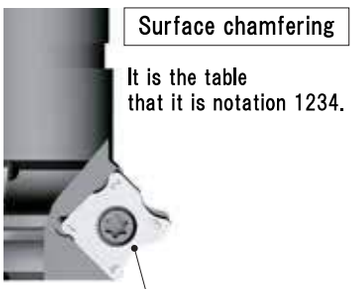
Staggered 2Blade | Staggered 4Blade

〈SNEQ090308-XRY〉



Misaligned from center R

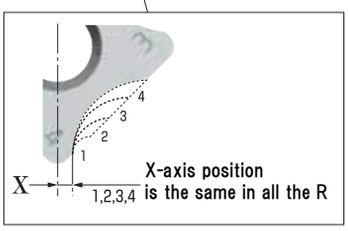
●Economical can use both sides

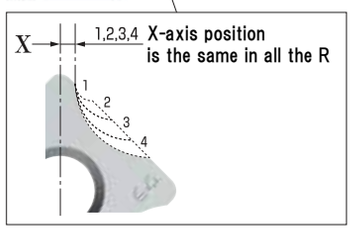


Surface chamfering

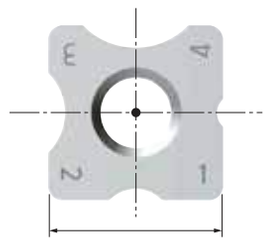
It is the table that it is notation 1234.

Back chamfering



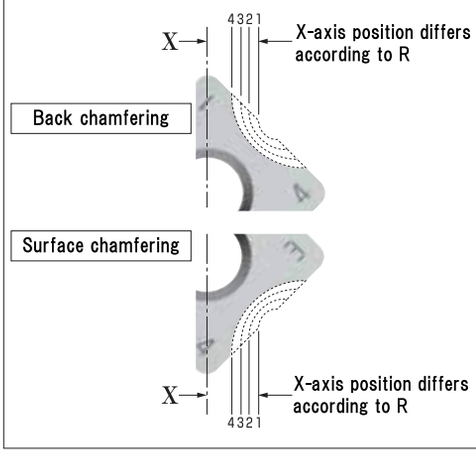


〈SNEQ090308-XRM〉

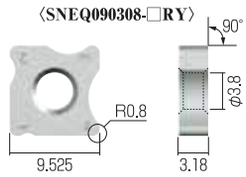
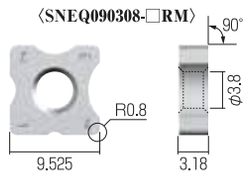
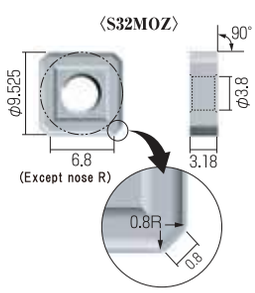


center R

●Economical can use both sides



Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈SNEQ090308-□RY〉  Misaligned from center R	SNEQ090308-1RY ZA20N	Carbide M20	The Same R Each corner	None	4+4	12
	SNEQ090308-2RY ZA20N	Carbide M20	The Same R Each corner	None	4+4	12
	SNEQ090308-3RY ZA20N	Carbide M20	The Same R Each corner	None	4+4	12
	SNEQ090308-4RY ZA20N	Carbide M20	The Same R Each corner	None	4+4	12
	SNEQ090308-XRY ZA20N	Carbide M20	R1・2・3・4	None	4+4	12
〈SNEQ090308-□RM〉  center R	SNEQ090308-1RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-2RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-3RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-4RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-5RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-XRM ZA20N	Carbide M20	R1 2 3 4	None	8	12
〈S32MOZ〉 	S32MOZ NK2001	Cermet	Honing edge	None	8	12
	S32MOZ NK2050	Cermet	Honing edge	None	8	12
	S32MOZ AB01F	Cermet	Honing edge	AlCrN	8	12
	S32MOZ NK1010	Carbide K10	Sharp edge	None	8	12
	S32MOZ NK2020	Carbide M20	Honing edge	None	8	12
	S32MOZ NK3030	Carbide M20	Honing edge	TiN	8	12
	S32MOZ AC15T	Fine particles Carbide	Honing edge	AlCrN	8	12

Round corner Chamfering Series

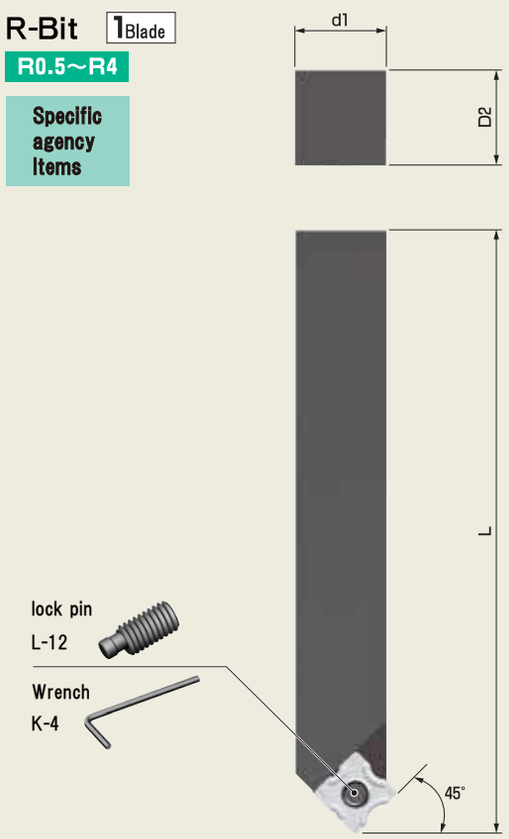
R-Bit / 10R-Bit

1 Blade

R-Bit 1Blade

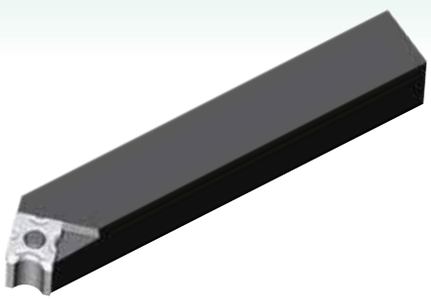
R0.5～R4

Specific agency Items



!! For general-purpose lathe

R0.5～R4 Chamfering process can be made by lathe



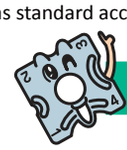
Round corner Chamfering

BODY

Product name	Model No.	blades	Dimensions (mm)			Inserts
			d1	D2	L	
R-Bit Specific agency Items	20XR	1	19	20	126	N43GXR NK1010 N43GXR8-0.5R～4R

※ Inset is not supplied as standard accessory. Please purchase it separately.

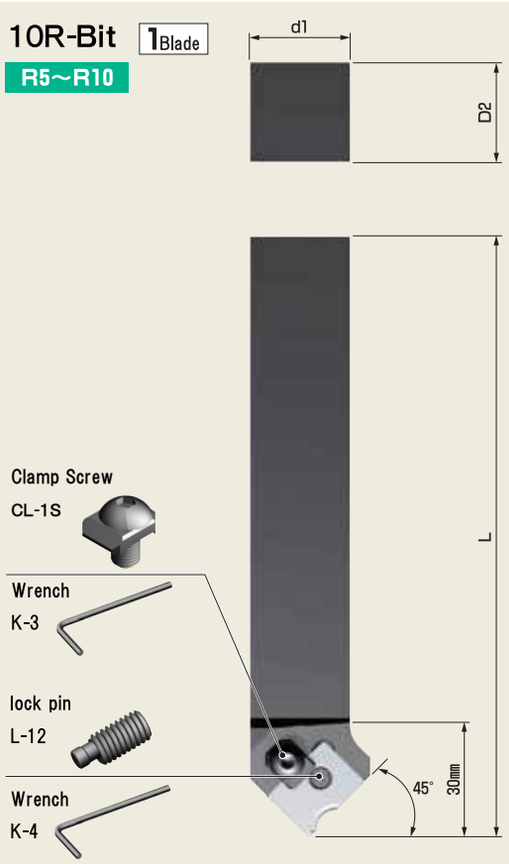
※ Lock Pin and wrench are supplied as standard accessory



Insert information P.102

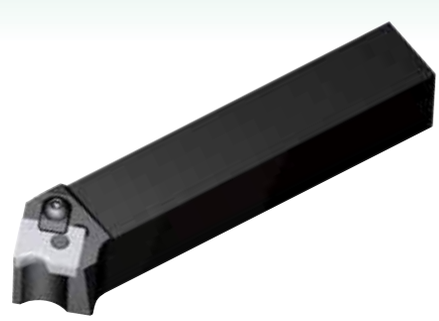
10R-Bit 1Blade

R5～R10



!! For general-purpose lathe

●R5～R10 Chamfering process can be made by lathe



Round corner Chamfering

BODY

Product name	Model No.	blades	Dimensions (mm)			Inserts
			d1	D2	L	
10R-Bit	25CR	1	25	25	150	N54GCR-5R～10R

Insert information P.103

⚠ When mounting insert, please do not take reverse tightening.
Poor accuracy or finish or breakage of insert may be occurred due to the Eccentricity looking mechanism
When replacing insert, please make sure that the reserve tightening Was not made.

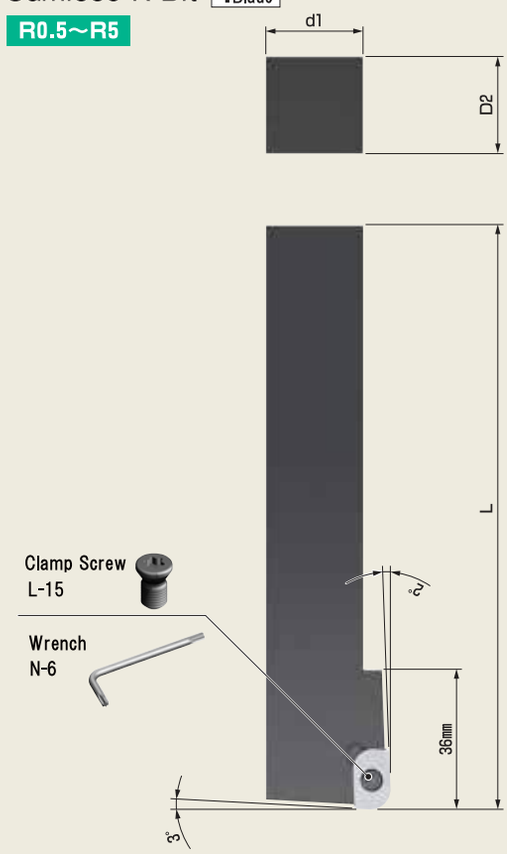
···P.114

Round corner Chamfering Series

Sumicco R-Bit / Dekasumi R-Bit 1Blade

Sumicco R-Bit 1Blade

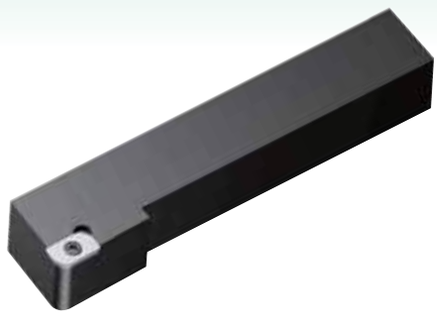
R0.5～R5



!! For general-purpose lathe

●R0.5～R5 Corner round chamfering process can be made by Lathe

Corner R shoulder processing



BODY

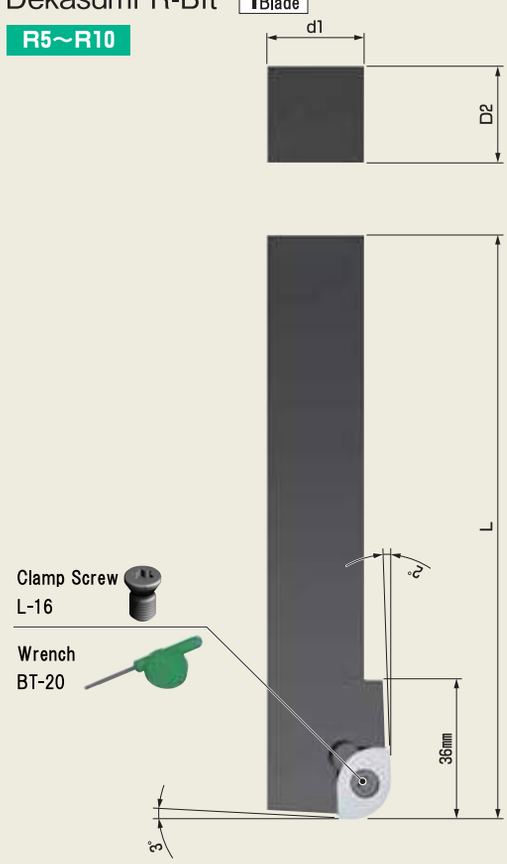
Product name	Model No.	blades	Dimensions (mm)			Inserts
			d1	D2	L	
Sumicco R-Bit	25SKB	1	25	25	150	A52GNR-0.5R～5R

※ Inset is not supplied as standard accessory. Please purchase it separately.
※ Lock Pin and wrench are supplied as standard accessory

Insert information P.107

Dekasumi R-Bit 1Blade

R5～R10



!! For general-purpose lathe

●R5～RE10 Corner round chamfering process can be made by Lathe

Corner R shoulder processing

BODY

Product name	Model No.	blades	Dimensions (mm)			Inserts
			d1	D2	L	
Dekasumi R-Bit	25DCB	1	25	25	150	ADEW19T3-5R～10R

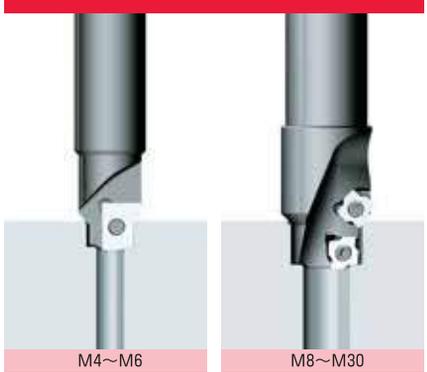
※ Inset is not supplied as standard accessory. Please purchase it separately.
※ Lock Pin and wrench are supplied as standard accessory

Insert information P.107

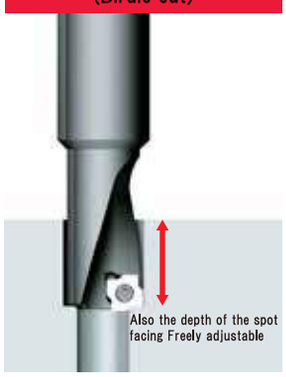
Countersink and Chamfering of Cap Screw
Back Counter Bore Series

Eaglecut / Birdiecut

Cap Bolt Spot Facing Process (Eagle cut)



Cap Bolt Spot Facing Process (Birdie cut)



Shortening the process!

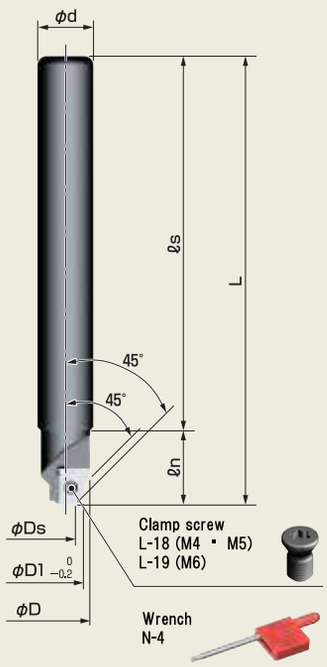
● By using our original Geometric insert,we successfully secured shortening time and saving manufacturing cost tremendously

geometric Insert

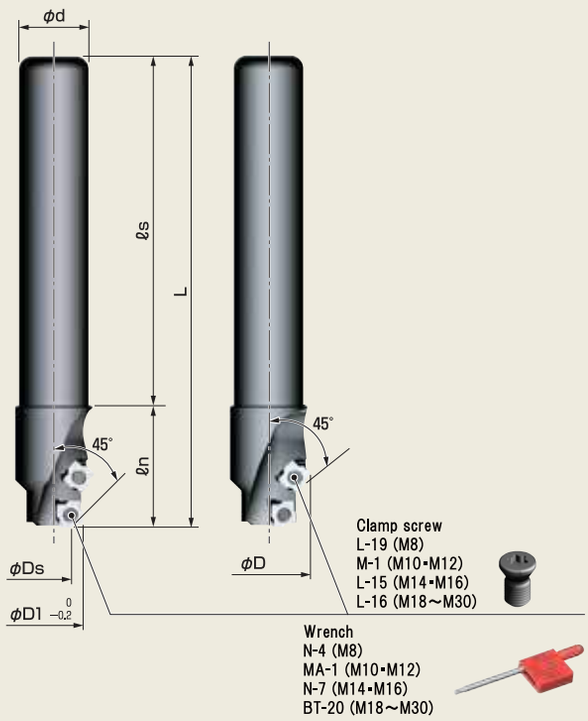
Lower stage when using corner
Upper stage when using corner

Our own geometric Insert realized cost down and shorten the working time very much

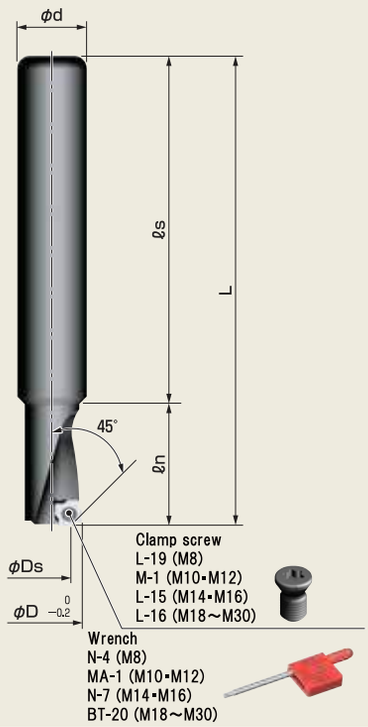
① Eaglecut
M4～M6



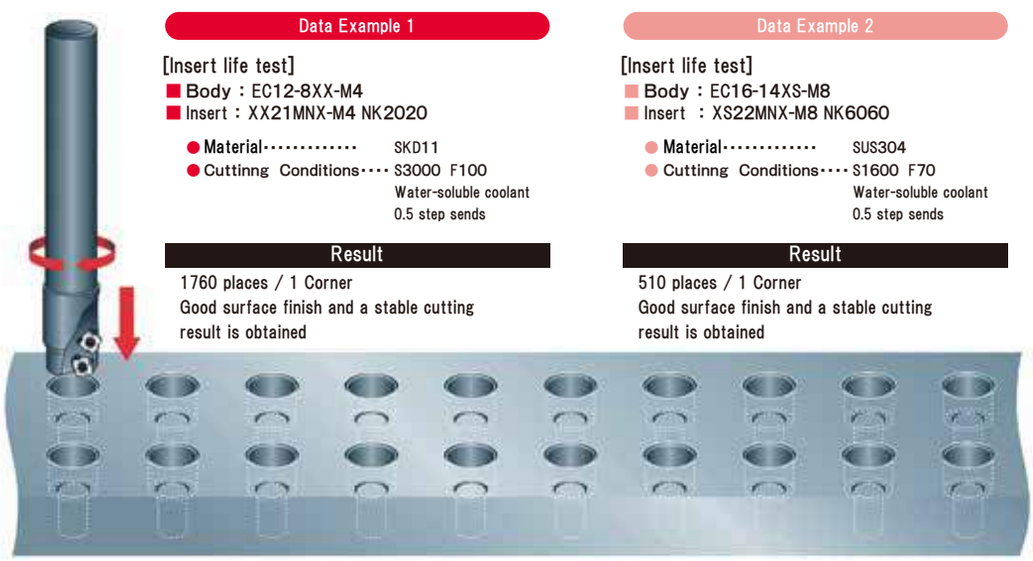
② Eaglecut
M8～M30



③ Birdiecut
M8～M30



Processing Example



Data Example 1

[Insert life test]
- Body : EC12-8XX-M4
- Insert : XX21MNX-M4 NK2020

● Material····· SKD11
● Cuttinng Conditions···· S3000 F100
Water-soluble coolant
0.5 step sends

Result

1760 places / 1 Corner
Good surface finish and a stable cutting result is obtained

Data Example 2

[Insert life test]
- Body : EC16-14XS-M8
- Insert : XS22MNX-M8 NK6060

● Material····· SUS304
● Cuttinng Conditions···· S1600 F70
Water-soluble coolant
0.5 step sends

Result

510 places / 1 Corner
Good surface finish and a stable cutting result is obtained

1Blade Eaglecut (M4・M6) | **2Blade** Birdiecut (M8・M30) | **1Blade** Birdiecut

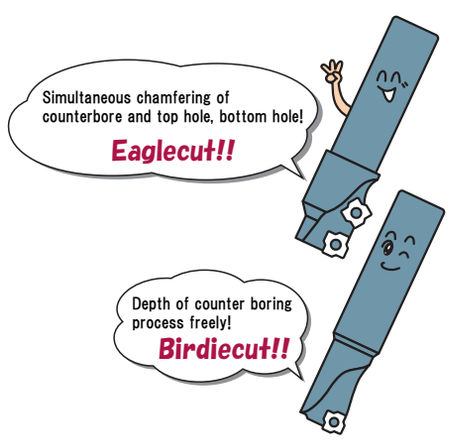
	Model No.	Fig.	blades	Dimensions (mm)							Inserts	
				ϕD	ϕD1	ϕDs	ϕd	L	ℓs	ℓn		
Eaglecut	EC12-8XX-M4	❶	1	10.5	8	4	12	96	80	16	XX21MNX	
	EC12-9.5XX-M5	❶	1	11	9.5	5	12	99	80	19	XX21MNX	
	EC12-11XX-M6	❶	1	13	11	6	12	102	80	22	XX31MNX	
	EC16-14XS-M8	❷	2	19	14	8.4	16	108	80	28	XS22MNX	
	EC20-17.5XS-M10	❷	2	24	17.5	10.2	20	115	80	35	XS22MNX	
	EC25-20XS-M12	❷	2	26.6	20	13	25	120	80	40	XS22MNX	
	EC25-23XS-M14	❷	2	30.5	23	15	25	126	80	46	XS32MNX	
	EC32-26XS-M16	❷	2	33.7	26	17	32	132	80	52	XS32MNX	
	EC32-29XS-M18	❷	2	38	29	18.4	32	138	80	58	XS42MNX	
	EC32-32XS-M20	❷	2	41.7	32	20.4	32	144	80	64	XS42MNX	
	EC32-35XS-M22	❷	2	44.6	35	22.8	32	150	80	70	XS42MNX	
	EC32-39XS-M24	❷	2	50.2	39	24.2	32	158	80	78	XS53MNX	
	EC32-43XS-M27	❷	2	54.1	43	28.2	32	166	80	86	XS53MNX	
	EC32-48XS-M30	❷	2	60.5	48	31.2	32	176	80	96	XS53MNX	
Birdiecut	BC16-14XS-M8	❸	1	14		8.4	16	108	80	28	XS22MNX	
	BC20-17.5XS-M10	❸	1	17.5		10.2	20	115	80	35	XS22MNX	
	BC20-20XS-M12	❸	1	20		13	20	120	80	40	XS22MNX	
	BC25-23XS-M14	❸	1	23		15	25	126	80	46	XS32MNX	
	BC32-26XS-M16	❸	1	26		17	32	132	80	52	XS32MNX	
	BC32-29XS-M18	❸	1	29		18.4	32	138	80	58	XS42MNX	
	BC32-32XS-M20	❸	1	32		20.4	32	144	80	64	XS42MNX	
	BC32-35XS-M22	❸	1	35		22.8	32	150	80	70	XS42MNX	
	BC32-39XS-M24	❸	1	39		24.2	32	158	80	78	XS53MNX	
	BC32-43XS-M27	❸	1	43		28.2	32	166	80	86	XS53MNX	
	BC32-48XS-M30	❸	1	48		31.2	32	176	80	96	XS53MNX	

※ Above Tools are supplied with NK2020 Insert

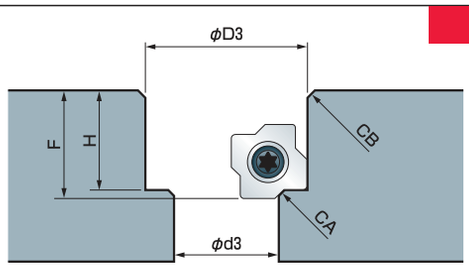
Cutting Conditions

Material	material Model	NK2020	NK6060
	Feed per blade (fz)	Cutting speed (m / min)	
General steel	0.05~0.1	50~100	50~100
Alloy steel	0.05~0.1	50~100	50~100
Stainless steel	0.05~0.1	40~80	40~80
Aluminum, resin,brass	×	×	×
Cast steel	0.05~0.1	50~100	50~100

- According to workpiece shape, large or small chamfering amount and position of blade the cutting conditions will have to be adjusted
- When chamfering in large amount, please take lowering cutting condition
- Coolant will be recommended
- Inset recommended for the workpiece

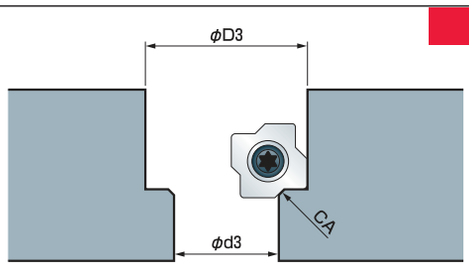


Eaglecut Processing Dimensional drawing



	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30
ϕd3	ϕ4.5mm	ϕ5.5mm	ϕ6.6mm	ϕ9mm	ϕ11mm	ϕ14mm	ϕ16mm	ϕ18mm	ϕ20mm	ϕ22mm	ϕ24mm	ϕ26mm	ϕ30mm	ϕ33mm
ϕD3	ϕ8mm	ϕ9.5mm	ϕ11mm	ϕ14mm	ϕ17.5mm	ϕ20mm	ϕ23mm	ϕ26mm	ϕ29mm	ϕ32mm	ϕ35mm	ϕ39mm	ϕ43mm	ϕ48mm
CA	C0.3	C0.3	C0.3	C0.5	C0.5	C0.5	C0.5	C0.5	C0.5	C0.5	C1	C1	C1	C1
CB	C0.5	C0.5	C0.5	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1
H	4.4mm	5.4mm	6.5mm	8.6mm	10.8mm	13mm	15.2mm	17.5mm	19.5mm	21.5mm	23.5mm	25.5mm	29mm	32mm
F	4.95mm	5.95mm	7.1mm	9.4mm	11.7mm	14mm	16.2mm	18.5mm	20.8mm	22.8mm	25.1mm	27.4mm	30.9mm	33.9mm

Birdiecut Processing Dimensional drawing



	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30
ϕd3	ϕ9mm	ϕ11mm	ϕ14mm	ϕ16mm	ϕ18mm	ϕ20mm	ϕ22mm	ϕ24mm	ϕ26mm	ϕ30mm	ϕ33mm
ϕD3	ϕ14mm	ϕ17.5mm	ϕ20mm	ϕ23mm	ϕ26mm	ϕ29mm	ϕ32mm	ϕ35mm	ϕ39mm	ϕ43mm	ϕ48mm
CA	C0.5	C0.5	C0.5	C0.5	C0.5	C0.5	C0.5	C1	C1	C1	C1

Insert information P.104

Countersink and Chamfering of Cap Screw
Back Counter Bore Series

Nyoro nyoro

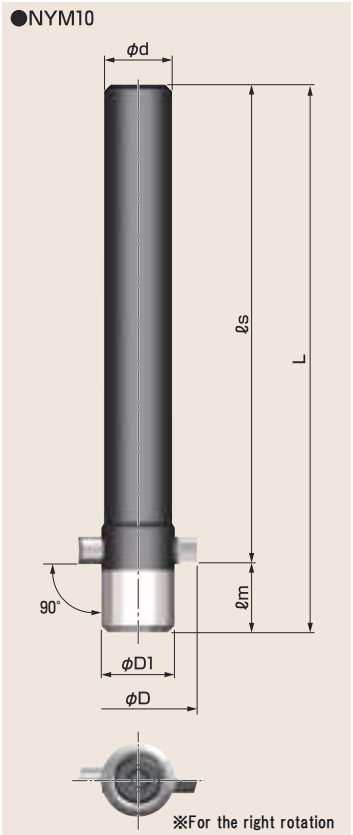
2 Blade

Drilling machine for spot facing tool

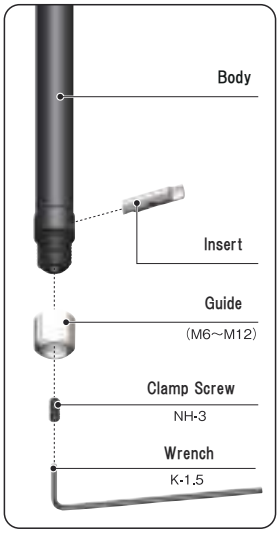
- It has designed to fit the size of the cap bolt.
- M4,M5,M6,M8,M10,M12 6 kinds of available

Body SKH51 Adoption
M6,M8,M10,M12,Guide section only

●NYM10



Spot facing processing



Body

Model. No.	blades	Dimensions(mm) φD	φD1	φd	ℓs	ℓm	L
NYM4	2	8	4.3	5	39	6	45
NYM5		9.5	5.3	5.3	39	6	45
NYM6		11	6.4	6.4	52	8	60
NYM8		14	8.8	8.8	60	10	70
NYM10		17.5	10.8	10	70	10	80
NYM12		20	13.8	10	73	12	85

guide(option) Model. No.
NG-6
NG-8
NG-10
NG-12

Inserts
NBI04 HSS
NBI05 HSS
NBI06 HSS
NBI08 HSS
NBI10 HSS
NBI12 HSS

- Inset is not supplied as standard accessory. Please order spearately.
- Clamp screw wrench are supplied as standard accessory.

Cuttinng Conditions

Model. No.	size	Rotation Speed (r.p.m.)	Insert
NYM4	M4	600~1,000	NB04 HSS
NYM5	M5	500~1,000	NB05 HSS
NYM6	M6	400~800	NB06 HSS
NYM8	M8	350~700	NB08 HSS
NYM10	M10	300~600	NB10 HSS
NYM12	M12	200~500	NB12 HSS

- Depending on the Machine's rigidity, above conditions may not be Suitable.
- In case the chattering is occurred, rotation speed will have to be reduced and use cutting oil
- Please use our original Insert for our tool

Processing Example

【Spot facing processing】

Body : NYM8
Insert : NB08HSS

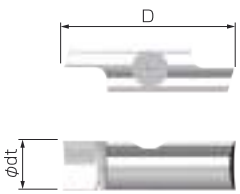
- Material ····· SKD11
- Rotation Speed ···· 500r.p.m.
- Use machine ···· Bench type Drilling Machine

Result

Good!
Without secondary burrs and chattering

Dry cutting

Insert

Figure	Model. No.	D	φdt	Material	Blade Shape	Coating	Usable Corner	Quantity per box
	NBI04 HSS	8	3	HSS	Sharp edge	None	1Corner 2Blade	3
	NBI05 HSS	9.5	3	HSS	Sharp edge	None	1Corner 2Blade	3
	NBI06 HSS	11	4	HSS	Sharp edge	None	1Corner 2Blade	3
	NBI08 HSS	14	4	HSS	Sharp edge	None	1Corner 2Blade	3
	NBI10 HSS	17.5	4	HSS	Sharp edge	None	1Corner 2Blade	3
	NBI12 HSS	20	4	HSS	Sharp edge	None	1Corner 2Blade	3

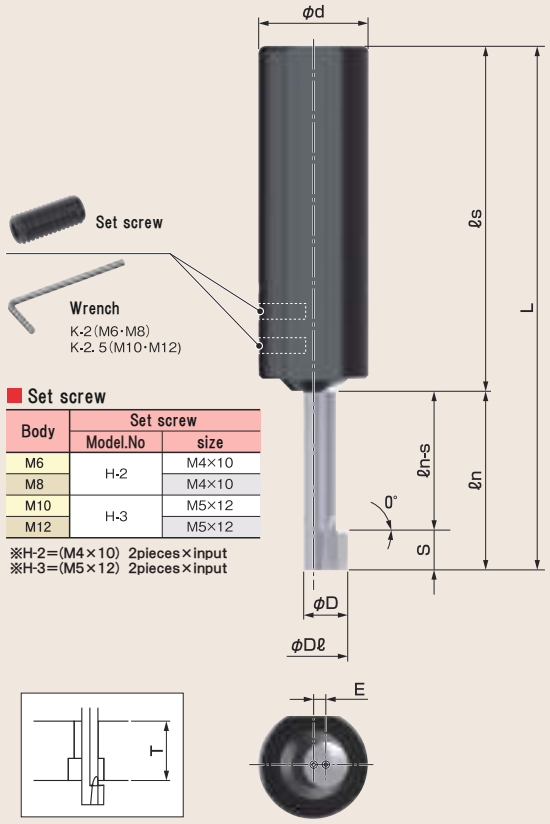
Countersink and Chamfering of Cap Screw
Back Counter Bore Series

Urazaguru-solid

1Blade

Bit type Back Counter Bore Cutter!

- Back Counter Bore processing are ensured without turning workpiece
- Designed for Cap bolt sizes
- M6,M8,M10 and M12 Back Counter Bore Cutters are available



Set screw

Body	Set screw	
	Model.No	size
M6	H-2	M4×10
M8		M4×10
M10	H-3	M5×12
M12		M5×12

※H-2=(M4×10) 2pieces×input
※H-3=(M5×12) 2pieces×input

Cuttinng Conditions

Material	Material Model	Coating	
		None	AlCrN
	Feed per blade (fz)	Cutting speed (m / min)	
General steel	0.08~0.12	—	30~50
Alloy steel	0.08~0.12	—	30~50
Stainless Steel	0.02~0.05	—	20~40
Aluminum, resin,brass	0.08~0.12	60~90	—
Cast steel	0.08~0.12	30~50	—

● Coolant will be recommended

Back Counter Bore processing

Body

Model. No.	Blades	Dimensions (mm)									
		φD	φDℓ	φd	L	ℓs	ℓn	ℓn-s	S	T	E
NEW UZHS-M6	1	5.6	11	20	106	80	26	20.5	5.5	15	2.7
NEW UZHS-M8	1	8	14	25	113	80	33	25.5	7.5	20	3
NEW UZHS-M10	1	10	17.5	32	140	100	40	30.5	9.5	25	3.75
NEW UZHS-M12	1	13	20	32	152	100	52	40.5	11.5	35	3.5

※ Inset is not supplied as standard accessory. Please order separately.
※ Set screw and wrench are supplied as standard accessory.

Processing Example

[Eccentric Back Counter Bore Cutter-TEST]

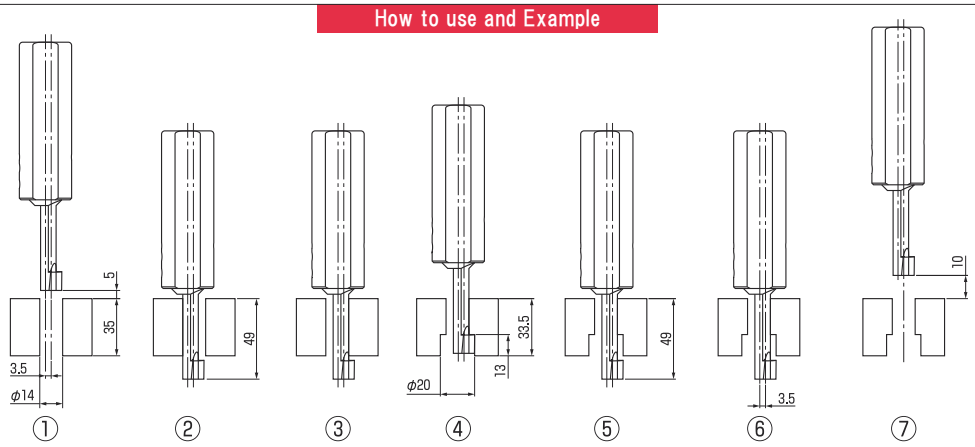
- Body : UZHS-M12
- Insert : UZHS-M12B
  - Material ····· S50C
  - Rotation Speed ··· 320r.p.m.
  - Cutting Speed ···· 20m/min
  - Table Feed ····· 10mm/min
  - Blade Feed ····· 0.03mm/tooth
  - Hole diameter ···· 14mm
  - Cutting Depth ···· 13mm

Result

Good! Without secondary burrs and chattering

Dry cutting

How to use and Example



※Correction will be necessary according to the specification of the machines to be used when using this cutter

Example program [UZHS-M12]

- N10
- G90 G00 G54 X-3.5 Y0 M19
- G43 Z5.0 H3 T11 ····· ①
- Z-49.0 F200 ····· ②
- X0 ····· ③
- M3 S320
- M8
- G01 Z-33.5 F22 ····· ④
- Z-49.0 F200 ····· ⑤
- M19
- G00 X-3.5 ····· ⑥
- Z10.0 ····· ⑦
- G91 G30 Z0

Max. processing thickness: T
Chamfer amount: LZ Z = -(T+S-LZ)

Insert

Figure	Model.No.	D	L	Material	Coating	Usable corner	Quantity per box
	UZHS-M6B	5.6	46	Fine particles Carbide	None	1	1
	UZHS-M8B	8	53	Fine particles Carbide	None	1	1
	UZHS-M10B	10	65	Fine particles Carbide	None	1	1
	UZHS-M12B	13	80	Fine particles Carbide	None	1	1
	UZHS-M6BC	5.6	46	Fine particles Carbide	AlCrN	1	1
	UZHS-M8BC	8	53	Fine particles Carbide	AlCrN	1	1
	UZHS-M10BC	10	65	Fine particles Carbide	AlCrN	1	1
	UZHS-M12BC	13	80	Fine particles Carbide	AlCrN	1	1

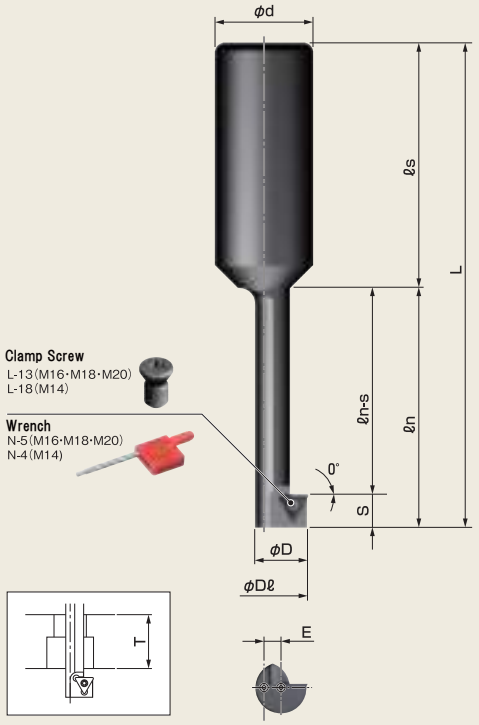
Countersink and Chamfering of Cap Screw
Back Counter Bore Series

Urazaguru

1Blade

TA type Back Counter Bore Cutter!

- Back Counter Bore processing are ensured without turning workpiece
- Designed for Cap bolt sizes
- M14,M16,M18 and M20 Back Counter Bore Cutters are available



Cuttinng Conditions

Material \ Material Model	AC15N	ZA10N
Material	Feed per blade (fz)	Cutting speed (m / min)
General steel	0.03~0.05	15~20	–
Alloy steel	0.03~0.05	15~20	–
Aluminum, resin,brass	0.03~0.05	–	35~80
Cast steel	0.03~0.05	30~40	–

● Coolant will be recommended

Back Counter Bore processing

Body

Model. No.	Blades	Dimensions(mm)									
		φD	φDℓ	φd	L	ℓs	ℓn	ℓn-s	S	T	E
NEW UZH25-16T-M14CS	1	14	23	25	133	80	53	45	8	40	4.55
NEW UZH25-18T-M16CS	1	16	26	25	146	80	66	55	11	50	5.04
NEW UZH32-20T-M18CS	1	18	29	32	158	80	78	67	11	61	5.54
NEW UZH32-22T-M20CS	1	20	32	32	168	80	88	77	11	71	6.03

※ Inset is not supplied as standard accessory. Please order separately.
※ Clamp screw and wrench are supplied as standard accessory.

Processing Example

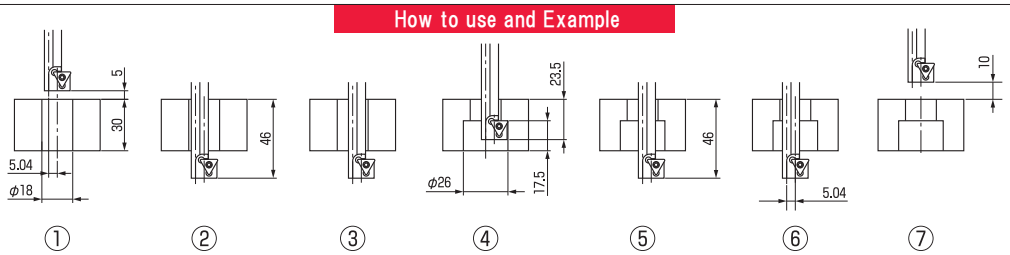
[Eccentric Back Counter Bore Cutter-TEST]

- Body : UMZH25-16S-M14CS
- Insert: SPET06T104 NK2020
  - Material ····· S50C
  - Rotation Speed ··· 415r.p.m.
  - Cutting Speed ···· 30m/min
  - Table Feed ····· 12.45mm/min
  - Blade Feed ····· 0.03mm/tooth
  - Hole diameter ···· 16mm
  - Cutting Depth ···· 15.2mm

Result

Good!
Without secondary burrs and chattering

How to use and Example



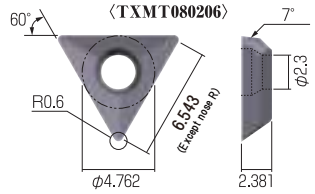
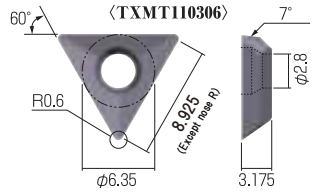
※Correction will be necessary according to the specification of the machines to be used when using this cutter

Example program [UZH25-18T-M16CS(M16)]

- N10
- G90 G00 G54 X-5.04 Y0 M19
- G43 Z5.0 H3 T11 ····· ①
- Z-46.0 F200 ····· ②
- X0 ····· ③
- M3 S415
- M8
- G01 Z-23.5 F12 ····· ④
- Z-46.0 F200 ····· ⑤
- M19
- G00 X-5.04 ····· ⑥
- Z10.0 ····· ⑦
- G91 G30 Z0

Max. processing thickness: T
Chamfer amount: LZ Z = -(T+S-C)

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
●M14 	TXMT080206 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT080206 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12
●M16·M18·M20 	TXMT110306 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT110306 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12

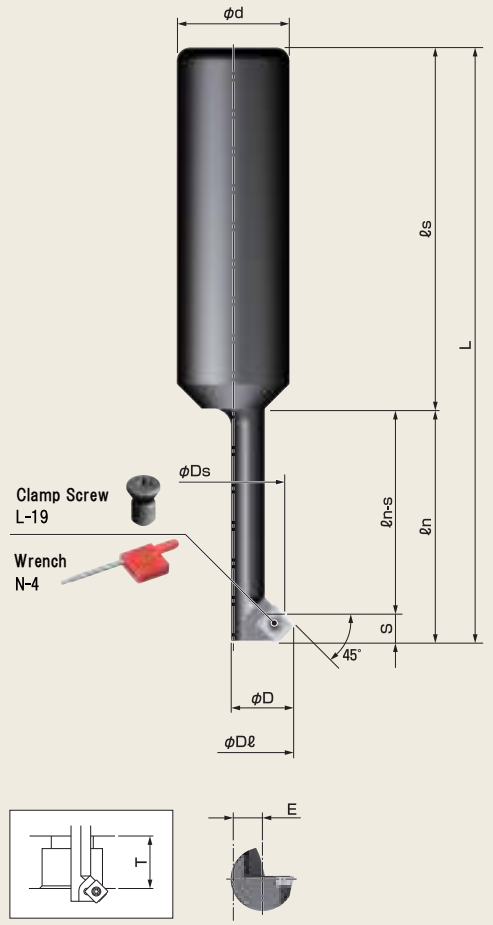
Countersink and Chamfering of Cap Screw Back Counter Bore Series

Urazagurimen-C

1Blade

Exclusive Cutter for Back Counter Bore processing!

- Chamfering can be done for Counter Boring mouth
- Designed for Cap bolt sizes
- M14,M16,M18 and M20 Back Counter Bore Cutters are available



Model. No.	Hole diameter	Capacity
		Bore chamfering
UMZH25-16S-M14CS	φ16mm	φ23mm～φ27mm
UMZH25-18S-M16CS	φ18mm	φ26mm～φ30mm
UMZH32-20S-M18CS	φ20mm	φ29mm～φ33mm
UMZH32-22S-M20CS	φ22mm	φ32mm～φ36mm

Reverse chamfering

Cuttinng Conditions

Material	Material Model	NK1010	NK2020	NK6060
	Feed per blade (fz)	Cutting speed (m / min)		
General steel	0.03～0.05	–	25～30	25～30
Alloy steel	0.03～0.05	–	25～30	25～30
Stainless steel	0.03～0.05	–	20～25	25～30
Aluminum, resin,brass	0.03～0.05	30～40	–	–
Cast steel	0.03～0.05	10～30	–	–

● Coolant will be recommended

Body

Model. No.	Blades	Dimensions (mm)										
		φD	φDℓ	φDs	φd	L	ℓs	ℓn	ℓn-s	S	T	E
UMZH25-16S-M14CS	1	14	27	23	25	132	80	52	45.5	6.5	40	6.52
UMZH25-18S-M16CS	1	16	30	26	25	142	80	62	55.5	6.5	50	7.01
UMZH32-20S-M18CS	1	18	33	29	32	154	80	74	67.5	6.5	61	7.51
UMZH32-22S-M20CS	1	20	36	32	32	164	80	84	77.5	6.5	71	8.01

※ Inset is not supplied as standard accessory. Please order separately.
※ Clamp screw and wrench are supplied as standard accessory.

Processing Example

[Eccentric Back Counter Bore mouth Chamfering-Test]

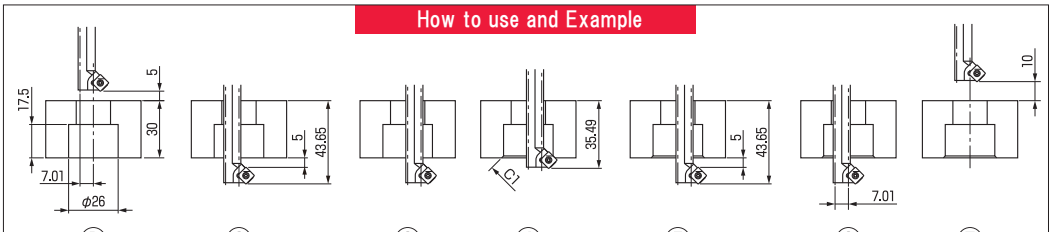
- Body : UMZH25-16S-M14CS
- Insert: SPET06T104 NK2020
  - Material ····· 50C
  - Rotation Speed ··· 420r.p.m.
  - Cutting Speed ···· 30m/min
  - Table Feed ····· 21/min
  - Blade Feed ····· 0.05mm/tooth
  - Hole diameter ···· 23mm
  - Cutting Depth ···· 1mm

Result

Good!
Without secondary burrs and chattering

Dry cutting

How to use and Example



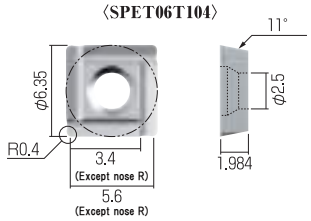
※Correction will be necessary according to the specification of the machines to be used when using this cutter

Example program [UMZH25-18S-M16CS(M16)]

- N10
- G90 G00 G54 X-7.01 Y0 M19
- G43 Z5.0 H3 T11·····①
- Z−43.65·····②
- X0·····③
- M3 S370
- G01 Z−35.49 F19·····④
- Z−43.65 F200·····⑤
- M19
- G00 X−7.01·····⑥
- Z10.0·····⑦
- G91 G30 Z0

Max. processing thickness: T
Chamfer amount: C Z = -(T+S-C)

Insert

Figure	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
⟨SPET06T104⟩ 	SPET06T104 NK1010	Carbide K10	Sharp edge	None	4	12
	SPET06T104 NK2020	Carbide M20	Honing edge	None	4	12
	SPET06T104 NK6060	Carbide M20	Honing edge	TiAℓN	4	12

Face/Shoulder Milling Series

Aeromill / NEW Tiko Cutter

Smaller Shank !

- Consider to use this Aeromill for Non-Rigidity Machines like Tapping Center !
- Choose various workpiece with Negative and Positive type Face Milling Cutters !

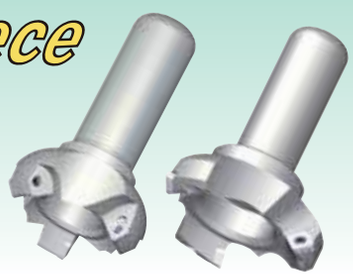
Aeromill
φ30mm・φ40mm

Face Milling (Aeromill)

φ30mm・φ40mm

Thin workpiece processing!

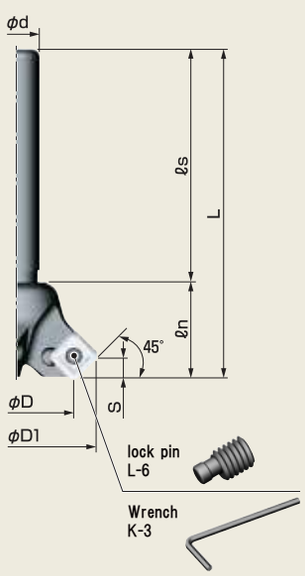
NEW Tiko Cutter
φ60mm・φ80mm



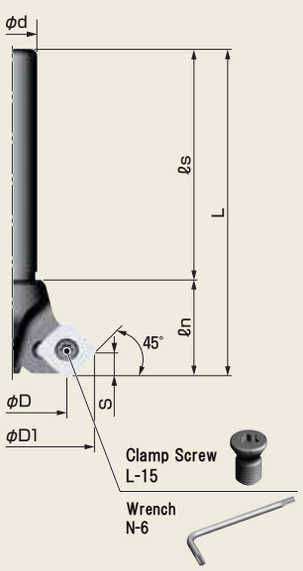
Face Milling (NEW Tiko Cutter, NS type)

φ60mm・φ80mm

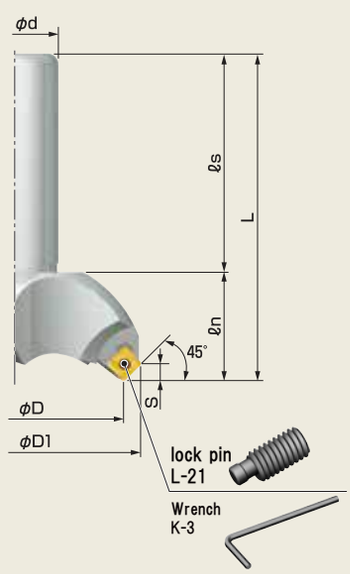
1 Aeromill
NS type (Negative S)



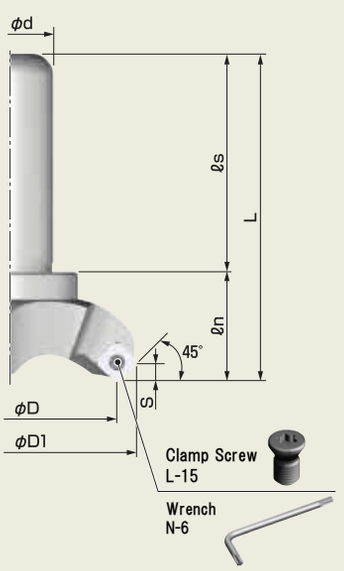
2 Aeromill
PS type (Positive S)



3 NEW Tiko Cutter
NS type (Negative S)



4 NEW Tiko Cutter
PS type (Positive S)



Body

Product name	Model No.		Fig.	blades	Dimensions (mm) φD	φD1	φd	L	ℓs	ℓn	S	Weight (g)	Inserts
Aeromill	NS	ARN12-30S	1	3	30	42	12	85	60	25	5.0	132	S32MOZ / S32GUR
		ARN16-40S	1	3	40	52	16	85	60	25	5.0	210	S32MOZ / S32GUR
	PS	ARP12-30S	2	3	30	43.2	12	85	60	25	6.0	116	S3H3MNZ / S3H3GNZ
		ARP16-40S	2	3	40	53.6	16	85	60	25	6.0	224	S3H3MNZ / S3H3GNZ
NEW Tiko Cutter	NS	TKN20-60S-03	3	3	60	73	20	120	80	40	5.0	668	S32MOZ / S32GUR
		TKN20-80S-03	3	3	80	93	20	120	80	40	5.0	826	S32MOZ / S32GUR
		TKN32-60S-03	3	3	60	73	32	120	80	40	5.0	968	S32MOZ / S32GUR
		TKN32-80S-03	3	3	80	93	32	120	80	40	5.0	1,126	S32MOZ / S32GUR
	PS	TKP20-60S-03	4	3	60	74	20	120	80	40	6.0	600	S3H3MNZ / S3H3GNZ
		TKP20-80S-03	4	3	80	94	20	120	80	40	6.0	780	S3H3MNZ / S3H3GNZ
		TKP32-60S-03	4	3	60	74	32	120	80	40	6.0	900	S3H3MNZ / S3H3GNZ
		TKP32-80S-03	4	3	80	94	32	120	80	40	6.0	1,070	S3H3MNZ / S3H3GNZ

※ Insert is not supplied as standard accessory
※ Clamp Screw, Lock Pin and wrench are supplied as standard accessories

⚠ Do not take reverse tightening when mounting or replacing insert
Due to the eccentricity locking mechanism, poor accuracy or breakage of Insert may be occurring.(Excepting PS type)

···P.114

3Blade

Cutting Conditions

S32MOZ

Material	Material Model / Feed per blade (fz)	NK2001	NK2050	AB01F	NK1010	NK2020	NK3030	AC15T
		Cutting speed (m / min)						
General Steel	0.1~0.3	200~300	200~300	200~300		150~200	150~250	
Alloy Steel	0.1~0.3	200~250	200~250	200~250		150~200	150~250	
Stainless Steel	0.1~0.25					120~180	150~200	150
Aluminum, Resin,Brass								
Castings	0.1~0.3	200~250 ※FCD		200~250 ※FCD	150~200			

● Chamfered Insert nose increase feed speed per I-blade and make a good surface finishing
● Yellow marked rate is recommended for the workpiece listed

S32GUR

Material	Material Model / Feed per blade (fz)	NK2001	NK1010	NK2020	NK3030	NK5050	NK6060	NK8080	DIA
		Cutting speed (m / min)							
General Steel	0.08~0.2	200~300		150~200					
Alloy Steel	0.08~0.2	200~250		150~200					
Stainless Steel	0.08~0.2			120~180	150~200		150~250	150~250 ※SUS316	
Aluminum, Resin,Brass	0.08~0.3		250~800			200~800		200~800	500~2,000
Castings	0.08~0.2	200~250 ※FCD	100~150						

● Insert breaker ensures sharp processing and R shaped nose ensure less cutting resistance, and recommended the workpiece which are easily chattered and a distortion arises
● Yellow marked rate is recommended for the workpiece listed

Material	Material Model / Feed per blade (fz)	S3H3MNZ NK2001	S3H3MNZ NK2020	S3H3MNZ AC15D	S3H3GNZ NK1010	S3H3GNZ NK9090
		Cutting speed (m / min)				
General Steel	0.08~0.2	200~300	150~200			
Alloy Steel	0.08~0.2	200~300	150~200			
Stainless Steel	0.1			150		
Aluminum, Resin,Brass	0.1~0.2				500~1,000	500~1,000
Castings						

● Chamfered Insert nose increase feed speed per I-blade and make a good surface finishing
● Yellow marked rate is recommended for the workpiece listed

Processing Example (Aeromill)

[Face Milling (PS type)]

■ Body : ARP16-40S
■ Insert : S3H3MNZ NK1010
- Material・・・・・・・・ A5052
- Rotation Speed・・ 1,000r.p.m.
- Table feed・・・・・・・ 300mm/min
- Depth of Cut・・・・ 0.5mm
- Cutting Oil・・・・・・ None

Result
Machined surface good.

Processing Example (NEW TikoCutter)

[Face Milling (PS type)]

■ Body : TKP32-80S-03
■ Insert : S3H3MNZ NK1010
- Material・・・・・・・・ S50C
- Rotation Speed・・ 1,060r.p.m.
- Table feed・・・・・・・ 636mm/min
- Depth of Cut・・・・ 3mm
- Cutting Oil・・・・・・ None

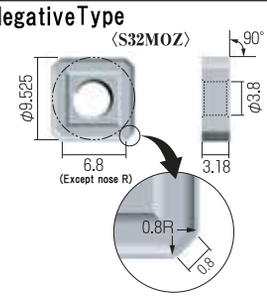
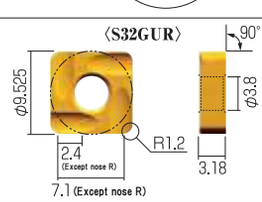
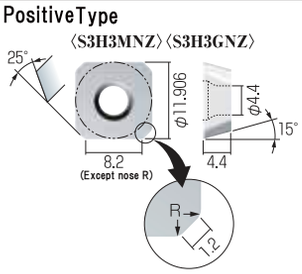
Result
Machined surface good.

[Face Milling (NS type)]

■ Body : TKN32-60S-03
■ Insert : S32MOZ AC15T
- Material・・・・・・・・ SUS304
- Rotation Speed・・ 1,000r.p.m.
- Table feed・・・・・・・ 300mm/min
- Depth of Cut・・・・ 2mm
- Cutting Oil・・・・・・ None

Result
Machined surface good.

Insert

Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● NegativeType <S32MOZ> 	S32MOZ NK2001	Cermet	Honing edge	None	8	12
	S32MOZ NK2050	Cermet	Honing edge	None	8	12
	S32MOZ AB01F	Cermet	Honing edge	AlCrN	8	12
	S32MOZ NK1010	Carbide K10	Sharp edge	None	8	12
	S32MOZ NK2020	Carbide M20	Honing edge	None	8	12
	S32MOZ NK3030	Carbide M20	Honing edge	TiN	8	12
	S32MOZ AC15T	Fine particles Carbide	Honing edge	AlCrN	8	12
<S32GUR> 	S32GUR NK2001	Cermet	Honing edge	None	8	12
	S32GUR NK1010	Carbide K10	Sharp edge	None	8	12
	S32GUR NK2020	Carbide M20	Honing edge	None	8	12
	S32GUR NK3030	Carbide M20	Honing edge	TiN	8	12
	S32GUR NK5050	Carbide K10	Sharp edge	TiN	8	12
	S32GUR NK6060	Carbide M20	Honing edge	TiAlN	8	12
	S32GUR NK8080	Carbide K10	Sharp edge	TiAlN	8	12
<S32GUR DIA>	S32GUR DIA	DIA	Sharp edge	None	1	1
● PositiveType <S3H3MNZ><S3H3GNZ> 	S3H3MNZ NK2001	Cermet	Honing edge	None	4	12
	S3H3GNZ NK1010	Carbide K10	Sharp edge	None	4	12
	S3H3MNZ NK2020	Carbide M20	Honing edge	None	4	12
	S3H3GNZ NK9090 (Mirror polished finish)	Carbide K10	Sharp edge	None	4	12
	S3H3MNZ AC15D	Fine particles Carbide	Honing edge	AlCrN	4	12

Face/Shoulder Milling Series

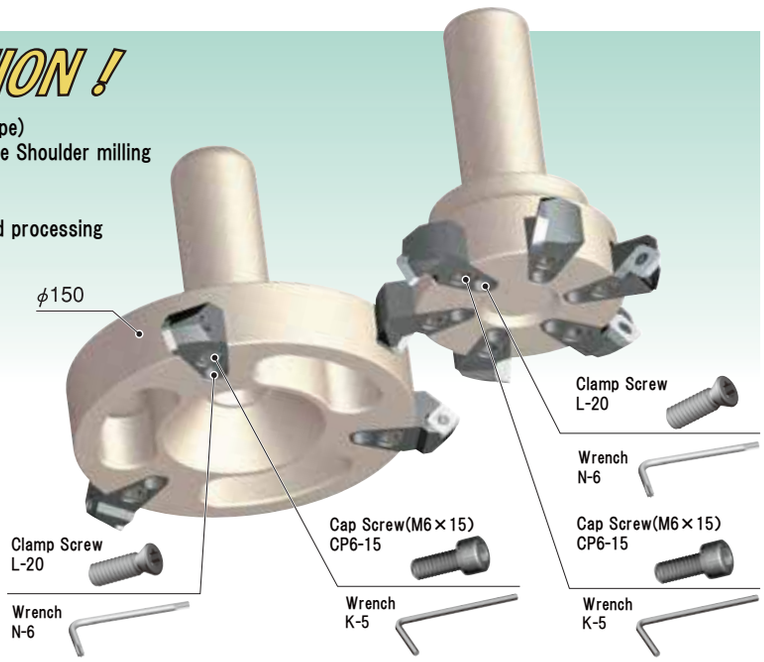
New Nice Cut

NEW INNOTIVE EVOLUTION !

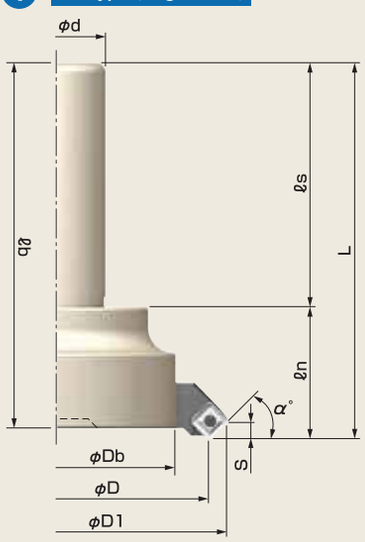
- NS (negative S type) ・ PS (positive S type) ・ NT (negative T type)
  Multi-Structure realized Negative/Positive face milling and Negative Shoulder milling
- Exchangeable processing diameter by changing
  BASE and again exchangeable processing type by changing ARM
- 3-blades and 6-blades are available and can be used for high speed processing

Face Milling
[NS・PS type]

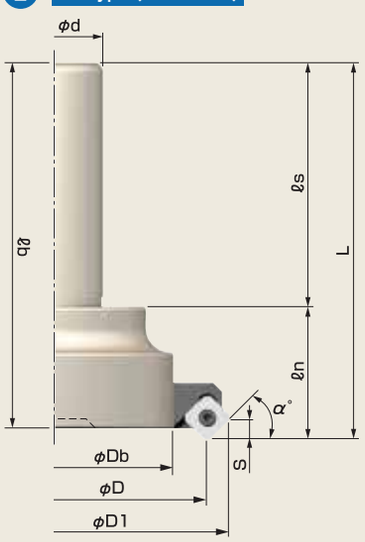
Shoulder Milling
[NT type]



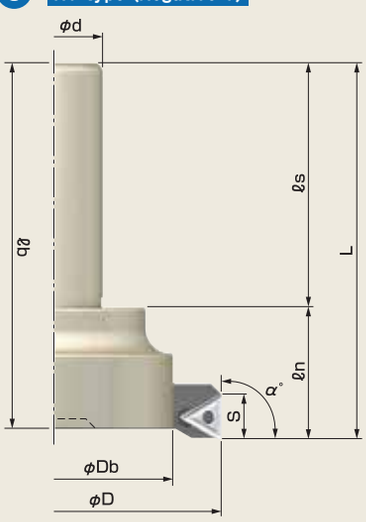
1 NS type (Negative S)



2 PS type (Positive S)



3 NT type (Negative T)



Body

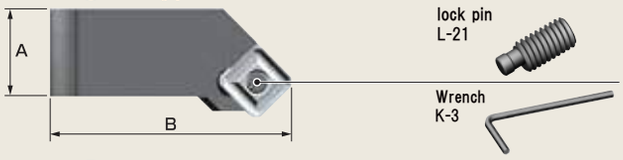
	Model No.	Fig.	Blades	Dimensions (mm) ϕD	ϕD1	ϕDb	ϕd	L	ℓs	ℓn	ℓb	S	(g)	α°	Inserts	base	arm
NS	NKN20-100S-03	1	3	100	112	78	20	123.5	80	43.5	120	5.0	1,525	45	S32MOZ / S32GUR		AMNS-03
	NKN32-100S-03	1	3	100	112	78	32	123.5	80	43.5	120	5.0	1,825	45	S32MOZ / S32GUR	NK32078-03	AMNS-03
	NKN20-130S-03	1	3	130	142	108	20	123.5	80	43.5	120	5.0	2,755	45	S32MOZ / S32GUR		AMNS-03
	NKN32-130S-03	1	3	130	142	108	32	123.5	80	43.5	120	5.0	3,055	45	S32MOZ / S32GUR	NK32108-03	AMNS-03
	NKN32-150S-03	1	3	150	162.5	128	32	120	85	35	116.5	5.0	2,505	45	S32MOZ / S32GUR	NK32128-03	AMNS-03
	NKN32-100S-06	1	6	100	112	78	32	123.5	80	43.5	120	5.0	1,890	45	S32MOZ / S32GUR	NK32078-06	AMNS-06
	NKN32-130S-06	1	6	130	142	108	32	123.5	80	43.5	120	5.0	3,120	45	S32MOZ / S32GUR	NK32108-06	AMNS-06
PS	NKP32-100S-03	2	3	100	115	78	32	123.5	80	43.5	120	6.2	1,834	45	S3H3MNZ / S3H3GNZ	NK32078-03	AMPS-03
	NKP32-130S-03	2	3	130	145	108	32	123.5	80	43.5	120	6.2	3,064	45	S3H3MNZ / S3H3GNZ	NK32108-03	AMPS-03
	NKP32-150S-03	2	3	150	164.7	128	32	120	85	35	116.5	6.2	2,514	45	S3H3MNZ / S3H3GNZ	NK32128-03	AMPS-03
	NKP32-100S-06	2	6	100	115	78	32	123.5	80	43.5	120	6.2	1,908	45	S3H3MNZ / S3H3GNZ	NK32078-06	AMPS-06
	NKP32-130S-06	2	6	130	145	108	32	123.5	80	43.5	120	6.2	3,138	45	S3H3MNZ / S3H3GNZ	NK32108-06	AMPS-06
NT	NKN32-110T-03	3	3	110		78	32	123.5	80	43.5	120	14.5	1,849	90	T33MOZ / T33MOR / T33GUR	NK32078-03	AMNT-03
	NKN32-140T-03	3	3	140		108	32	123.5	80	43.5	120	14.5	3,079	90	T33MOZ / T33MOR / T33GUR	NK32108-03	AMNT-03
	NKN32-160T-03	3	3	160		128	32	120	85	35	116.5	14.5	2,529	90	T33MOZ / T33MOR / T33GUR	NK32128-03	AMNT-03
	NKN32-110T-06	3	6	110		78	32	123.5	80	43.5	120	14.5	1,938	90	T33MOZ / T33MOR / T33GUR	NK32078-06	AMNT-06
	NKN32-140T-06	3	6	140		108	32	123.5	80	43.5	120	14.5	3,168	90	T33MOZ / T33MOR / T33GUR	NK32108-06	AMNT-06

※ Insert is not equipped as standard accessories. Please order separately
※ Clamp screw, lock pin, cap screw and wrench are supplied as standard accessories

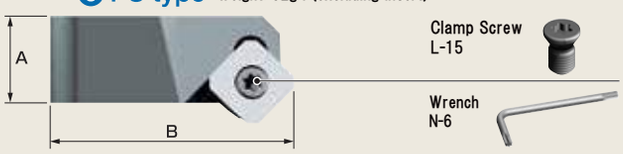
⚠ When mounting or replacing insert, please do not take reverse tightening.
Due to the eccentricity looking mechanism, poor accuracy or breakage of insert may be occurred by reverse tightening (NS, NT)
···P.114

3Blade 6Blade

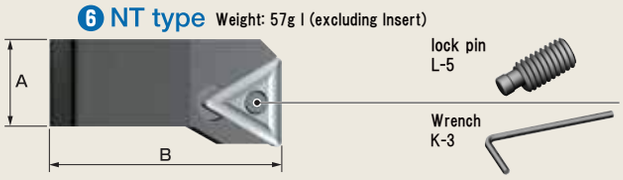
4 NS type Weight: 49g | (excluding Insert)



5 PS type Weight: 52g | (excluding Insert)



6 NT type Weight: 57g | (excluding Insert)



● Arm for New NICECUT cannot be used for Old model

Base

3Blade φ100mm φ110mm
NK32078-03
Weight: 1,678g

3Blade φ130mm φ140mm
NK32108-03
Weight: 2,908g

3Blade φ150mm φ160mm
NK32128-03
Weight: 2,358g

6Blade φ100mm φ110mm
NK32078-06
Weight: 1,556g

6Blade φ130mm φ140mm
NK32108-06
Weight: 2,826g

Standard Equipment

● Clamp Screw···	L-20×(The number of blades)
● Cap Screw(M6×15)···	CP6-15×(The number of blades)
● Wrench···	N-6×1 K-5×1

Processing Example

[Face Milling]

- Body : NKP32-100S-06
- Insert : S3H3MNZ NK2020
- Material·····SUS304
- Work length·····700mm
- Rotation Speed···500r.p.m
- Feed (X-axis)····300mm
- Cutting Depth····1mm

Result

Good!
No secondary burrs and
no chattering process

Dry cutting

Arm

Model No.	Fig.	Blades	Dimensions (mm) A	Dimensions (mm) B	Type	Quantity per box
AMNS-03	4	3	15.0	40.5	NS	(Three 1 set)
AMPS-03	5	3	15.0	41.8	PS	(Three 1 set)
AMNT-03	6	3	15.0	39.5	NT	(Three 1 set)
AMNS-06	4	6	15.0	40.5	NS	(Six 1 set)
AMPS-06	5	6	15.0	41.8	PS	(Six 1 set)
AMNT-06	6	6	15.0	39.5	NT	(Six 1 set)

※ arm(3pcs/set or 6pcs/set) is supplied per set. Individual pieces Arm cannot be supplied
※ A set of arm will have to be purchased
※ Insert, wrench is not equipped as standard accessories. Please order separately
※ Clamp screw, lock pin, as standard accessories

Cutting Conditions

S32MOZ

Material	Material Model	NK2001	NK2050	AB01F	NK1010	NK2020	NK3030	AC15T
	Feed per blade (fz)	Cutting speed (m / min)						
General Steel	0.1~0.3	200~300	200~300		200~300	150~200	150~250	
Alloy Steel	0.1~0.3	200~250	200~250		200~250	150~200	150~250	
Stainless Steel	0.1~0.25					120~180	150~200	150
Aluminum, Resin,Brass								
Castings	0.1~0.3	200~250 ※FCD		200~250 ※FCD	150~200			

● Our original Insert have"Chamfered nose" which ensure a good surface finishing even feed speed per blade are increased
● Yellow marked rate is recommended for the workpiece listed

S32GUR

Material	Material Model	NK2001	NK1010	NK2020	NK3030	NK5050	NK6060	NK8080	DIA
	Feed per blade (fz)	Cutting speed (m / min)							
General Steel	0.08~0.2	200~300		150~200					
Alloy Steel	0.08~0.2	200~250		150~200					
Stainless Steel	0.08~0.2			120~180	150~200		150~250	150~250 ※SUS316	
Aluminum, Resin,Brass	0.08~0.3		250~800			200~800		200~800	500~2,000
Castings	0.08~0.2	200~250 ※FCD	100~150						

● Original Insert breaker realize a sharp prosessing. Insert nose chamfered minimize cutting resistance. Suitable for thin materials(easy to deform or chatter) processing
● Yellow marked rate is recommended for the workpiece listed

T33MOR

Material	Material Model	NK2001	NK1010	NK2020	NK3030	NK6060
	Feed per blade (fz)	Cutting speed (m / min)				
General Steel	0.1~0.2	200~220		150~180	150~220	
Alloy Steel	0.1~0.2	200~220		150~180	150~220	
Stainless Steel	0.1~0.15			120~160	150~180	150~200
Aluminum, Resin,Brass						
Castings	0.1~0.2	200~220 ※FCD	150~180			

● Original Insert breaker realize a sharp prosessing. Insert nose chamfered minimize cutting resistance.
● Yellow marked rate is recommended for the workpiece listed

T33MOZ

Material	Material Model	NK2001	NK1010	NK2020	NK3030	NK6060
	Feed per blade (fz)	Cutting speed (m / min)				
General Steel	0.1~0.3	200~220		150~180	150~200	
Alloy Steel	0.1~0.3	200~220		150~180	150~200	
Stainless Steel	0.1~0.25			120~160	120~180	150~200
Aluminum, Resin,Brass						
Castings	0.1~0.3	200~220 ※FCD	150~180			

● Our original Insert have"Chamfered nose" which ensure a good surface finishing even feed speed per blade are increased
● Yellow marked rate is recommended for the workpiece listed

T33GUR

Material	Material Model	NK2001	NK1010	NK2020	NK3030	NK5050	NK6060	NK8080
	Feed per blade (fz)	Cutting speed (m / min)						
General Steel	0.08~0.2	200~220		150~180				
Alloy Steel	0.08~0.2	200~220		150~180				
Stainless Steel	0.08~0.2			120~180	150~180		150~220	150~220 ※SUS316
Aluminum, Resin,Brass	0.08~0.3		250~750			200~750		200~750
Castings	0.08~0.2	200~220 ※FCD						150~220

● Original Insert breaker realize a sharp prosessing. Insert nose chamfered minimize cutting resistance. Suitable for thin materials(easy to deform or chatter) processing
● Yellow marked rate is recommended for the workpiece listed

S3H3MNZ / S3H3GNZ

Material	Material Model	NK2001	NK2020	AC15D	NK1010	NK9090
	Feed per blade (fz)	Cutting speed (m / min)				
General Steel	0.08~0.2	200~300	150~200			
Alloy Steel	0.08~0.2	200~300	150~200			
Stainless Steel	0.1			150		
Aluminum, Resin,Brass	0.1~0.2				500~1,000	500~1,000
Castings						

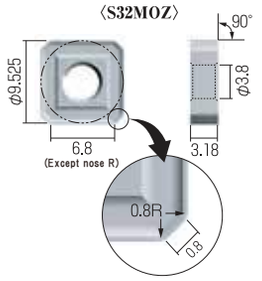
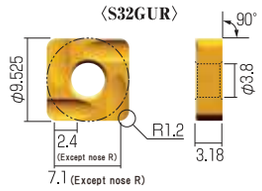
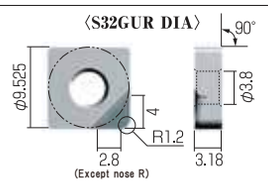
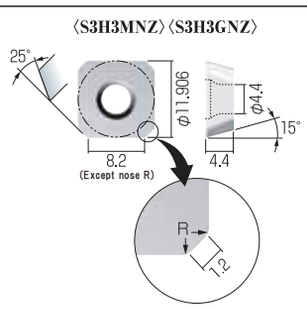
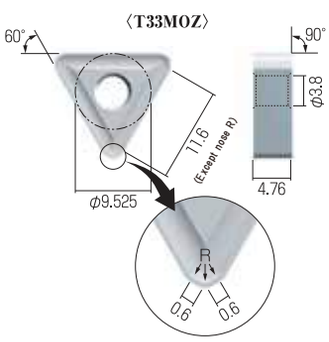
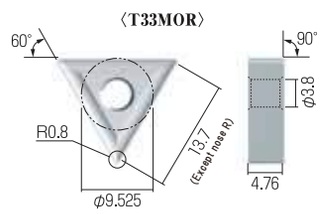
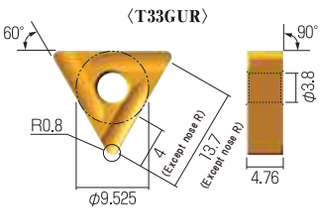
● Our original Insert have"Chamfered nose" which ensure a good surface finishing even feed speed per blade are increased
● Yellow marked rate is recommended for the workpiece listed

Insert information P.67

Face/Shoulder Milling Series

New Nice Cut

Insert

Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈S32MOZ〉 	S32MOZ NK2001	Cermet	Honing edge	None	8	12
	S32MOZ NK2050	Cermet	Honing edge	None	8	12
	S32MOZ AB01F	Cermet	Honing edge	AlCrN	8	12
	S32MOZ NK1010	Carbide K10	Sharp edge	None	8	12
	S32MOZ NK2020	Carbide M20	Honing edge	None	8	12
	S32MOZ NK3030	Carbide M20	Honing edge	TiN	8	12
	S32MOZ AC15T	Fine particles Carbide	Honing edge	AlCrN	8	12
〈S32GUR〉 	S32GUR NK2001	Cermet	Honing edge	None	8	12
	S32GUR NK1010	Carbide K10	Sharp edge	None	8	12
	S32GUR NK2020	Carbide M20	Honing edge	None	8	12
	S32GUR NK3030	Carbide M20	Honing edge	TiN	8	12
	S32GUR NK5050	Carbide K10	Sharp edge	TiN	8	12
	S32GUR NK6060	Carbide M20	Honing edge	TiAlN	8	12
	S32GUR NK8080	Carbide K10	Sharp edge	TiAlN	8	12
〈S32GUR DIA〉 	S32GUR DIA	DIA	Sharp edge	None	1	1
〈S3H3MNZ〉〈S3H3GNZ〉 	S3H3MNZ NK2001	Cermet	Honing edge	None	4	12
	S3H3GNZ NK1010	Carbide K10	Sharp edge	None	4	12
	S3H3MNZ NK2020	Carbide M20	Honing edge	None	4	12
	S3H3GNZ NK9090 (Mirror polished finish)	Carbide K10	Sharp edge	None	4	12
	S3H3MNZ AC15D	Fine particles Carbide	Honing edge	AlCrN	4	12
〈T33MOZ〉 	T33MOZ NK2001	Cermet	Honing edge	None	6	12
	T33MOZ NK1010	Carbide K10	Sharp edge	None	6	12
	T33MOZ NK2020	Carbide M20	Honing edge	None	6	12
	T33MOZ NK3030	Carbide M20	Honing edge	TiN	6	12
	T33MOZ NK6060	Carbide M20	Honing edge	TiAlN	6	12
〈T33MOR〉 	T33MOR NK2001	Cermet	Honing edge	None	6	12
	T33MOR NK1010	Carbide K10	Sharp edge	None	6	12
	T33MOR NK2020	Carbide M20	Honing edge	None	6	12
	T33MOR NK3030	Carbide M20	Honing edge	TiN	6	12
	T33MOR NK6060	Carbide M20	Honing edge	TiAlN	6	12
〈T33GUR〉 	T33GUR NK2001	Cermet	Honing edge	None	6	12
	T33GUR NK1010	Carbide K10	Sharp edge	None	6	12
	T33GUR NK2020	Carbide M20	Honing edge	None	6	12
	T33GUR NK3030	Carbide M20	Honing edge	TiN	6	12
	T33GUR NK5050	Carbide K10	Sharp edge	TiN	6	12
	T33GUR NK6060	Carbide M20	Honing edge	TiAlN	6	12
	T33GUR NK8080	Carbide K10	Sharp edge	TiAlN	6	12

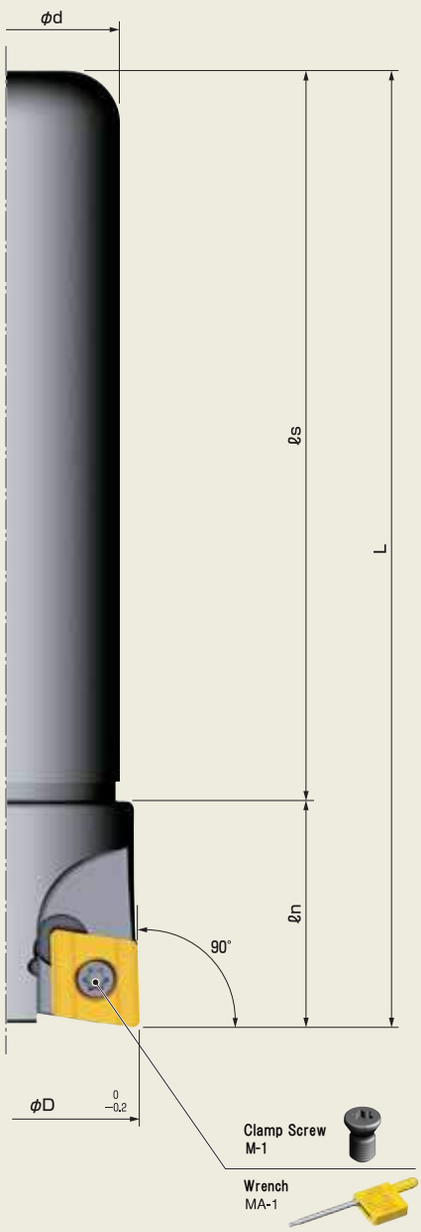
Face/Shoulder Milling Series

Shurillin

2Blade ~ 5Blade

Economical Milling Cutters ! Selectable R0.2, R0.4, and R0.8 nose insert and usable 4-corners

φ20mm～φ50mm



Shoulder Milling (NC type)

The high feed by multi-blade Capable of high-speed cutting!

Shurillin

Body

Model. No.	blades	Dimensions (mm)					Weight (g)
		φD	φd	L	ℓs	ℓn	
NC2-1620	2	20	16	100	80	20	152
NC3-2530	3	30	25	105	80	25	394
NC4-3240	4	40	32	105	80	25	656
NC5-3250	5	50	32	105	80	25	752

※ Insert is not equipped as standard accessories. Please order separately
※ Clamp screw, and wrench are supplied as standard accessories

Cutting Conditions

Material	Material Model	NK1010	NK2020	NK3030
	Feed per blade (fz)	Cutting speed (m / min)		
General Steel	0.08～0.2		100～200	100～200
Alloy Steel	0.08～0.2		100～200	100～200
Stainless Steel	0.08～0.2		100～150	100～150
Aluminum,Resin,	0.08～0.3	150～400		
Castings	0.08～0.2		100～200	100～200

Processing Example

[Shoulder Milling (NT)]

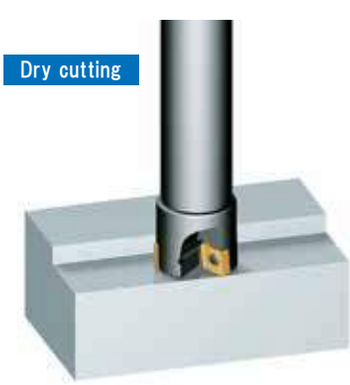
- Body : NC3-2530
- Insert : C32GUR-0.8R NK3030

- Material·····SUS304
- Work length·····300mm
- Rotation Speed···2,000r.p.m
- Feed (X-axis)····800mm/min
- Cutting Depth····1mm

Result

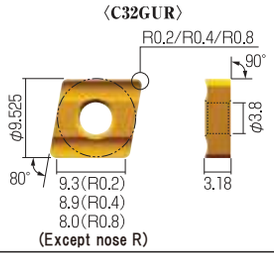
Good!
No secondary burrs and no chattering process

Dry cutting



Insert

Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈C32GUR〉	C32GUR-0.2R NK2020	Carbide M20	Honing edge	None	4	12
	C32GUR-0.4R NK2020	Carbide M20	Honing edge	None	4	12
	C32GUR-0.8R NK2020	Carbide M20	Honing edge	None	4	12
	C32GUR-0.2R NK1010	Carbide K10	Sharp edge	None	4	12
	C32GUR-0.2R NK3030	Carbide M20	Honing edge	TiN	4	12
	C32GUR-0.4R NK3030	Carbide M20	Honing edge	TiN	4	12
	C32GUR-0.8R NK3030	Carbide M20	Honing edge	TiN	4	12

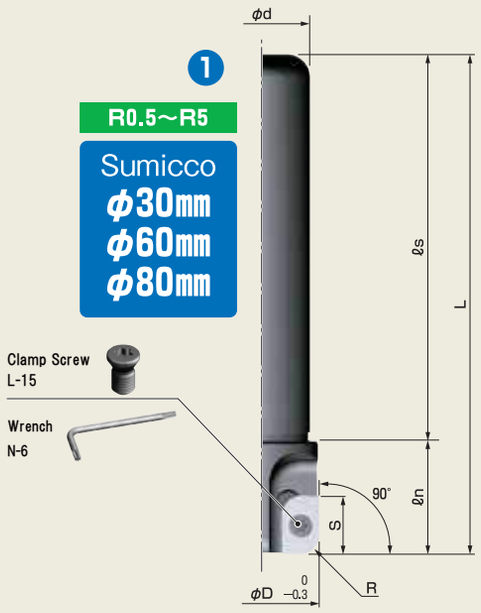


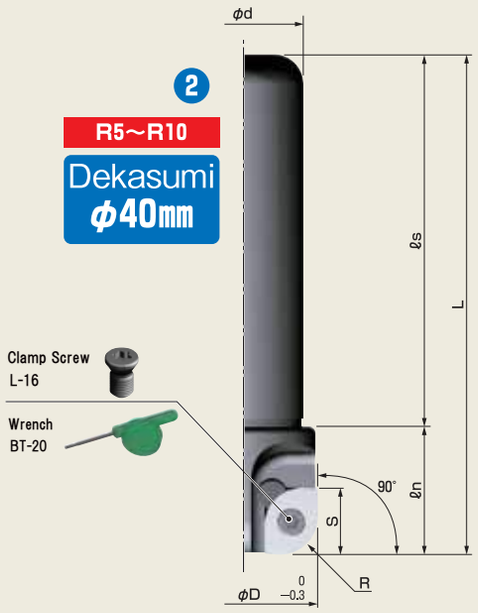
Face/Shoulder Milling Series

Sumicco / Dekasumi

Corner R processing!

● by the chip exchange,
It allows a wide variety of
Corner R processing.





Shoulder Milling (R)

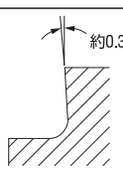
⚠ Cautions

Sumicco
ASR Type(R0.5・R2.5)

Sumicco
ALR Type(R2.5・R5)

Dekasumi
ASR Type(R5・R7)

Dekasumi
ALR Type(R8・R10)



(Sumicco-Dekasumi are common.)
The peripheral cutting edge have about 0.3～0.5°
(Sumicco and Dekasumi are same)

● Please choose the body to match the Insert to be used.

Body

Product name	Model No.	Fig.	blades	Dimensions(mm) φD	φd	L	ℓs	ℓn	S	Inserts	Weight (g)
Sumicco	SK25-30ASR	①	2	30	25	130	100	30	15	A52GNR-0.5R～2.5R	478
	SK25-30ASRL	①	2	30	25	200	170	30	15	A52GNR-0.5R～2.5R	748
	SK25-30ALR	①	2	30	25	130	100	30	15	A52GNR-2.5R～5R	474
	SK25-30ALRL	①	2	30	25	200	170	30	15	A52GNR-2.5R～5R	746
	SK32-60ASR	①	4	60	32	105	80	25	15	A52GNR-0.5R～2.5R	798
	SK32-60ASRL	①	4	60	32	175	150	25	15	A52GNR-0.5R～2.5R	1,240
	SK32-60ALR	①	4	60	32	105	80	25	15	A52GNR-2.5R～5R	784
	SK32-60ALRL	①	4	60	32	175	150	25	15	A52GNR-2.5R～5R	1,240
	SK32-80ASR	①	4	80	32	105	80	25	15	A52GNR-0.5R～2.5R	1,100
	SK32-80ASRL	①	4	80	32	175	150	25	15	A52GNR-0.5R～2.5R	1,560
	SK32-80ALR	①	4	80	32	105	80	25	15	A52GNR-2.5R～5R	1,120
	SK32-80ALRL	①	4	80	32	175	150	25	15	A52GNR-2.5R～5R	1,550
Dekasumi	DC32-40ASR	②	2	40	32	135.0	100	35.0	18.1	ADEW19T3-5R～7R	820
	DC32-40ASRL	②	2	40	32	185.0	150	35.0	18.1	ADEW19T3-5R～7R	1,140
	DC32-40ALR	②	2	40	32	134.6	100	34.6	17.6	ADEW19T3-8R～10R	813
	DC32-40ALRL	②	2	40	32	184.6	150	34.6	17.6	ADEW19T3-8R～10R	1,140

※ Insert is not equipped as standard accessories. Please order separately
※ Clamp screw, and wrench are supplied as standard accessories

Cutting Conditions

Sumicco

Material \ Material Model	NK1010	NK2020	AC16N
Feed per blade (fz)	Cutting speed (m / min)		
General Steel	0.1～0.2	100～150	150～200
Alloy Steel	0.1～0.2	100～150	150～200
Stainless Steel	0.1～0.2	80～120	120～160
Aluminum,Resin,	0.1～0.3	250～600	
Castings	0.1～0.2	80～150	

● Work shape, clamping state, tool protrusion length, please adjust the conditions by cutting amount
● You have been to the workpiece by recommended Insert.

Dekasumi

Material \ Material Model	NK1010	NK2020	AC16N
Feed per blade (fz)	Cutting speed (m / min)		
General Steel	0.1～0.2	100～150	150～200
Alloy Steel	0.1～0.2	100～150	150～200
Stainless Steel	0.1～0.2	80～120	120～160
Aluminum,Resin,	0.1～0.3	250～600	
Castings	0.1～0.2	80～150	

● Work shape, clamping state, tool protrusion length, please adjust the conditions by cutting amount
● You have been to the workpiece by recommended Insert.

2Blade Sumicco Dekasumi | 4Blade Sumicco

Processing Example Sumicco

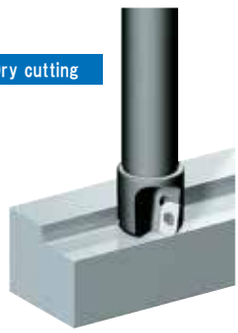
[Shoulder Milling (R3)]

- Body : SK25-30ALR
- Insert : A52GNR-3R NK2020
- Material·····SKD11
- Work length·····200mm
- Rotation Speed···1,600r.p.m
- Feed (X-axis)····320mm/min
- Down cut air blow
- Cutting Oil····None

Result

Good!
No secondary burrs and
no chattering process

Dry cutting



Processing Example Dekasumi

[Shoulder Milling (R10)]

- Body : DC32-40ALR
- Insert : ADEW 19T3-R NK2020
- Material·····S50C
- Rotation Speed···1,500r.p.m
- Feed (X-axis)····450mm/min
- Cutting Depth····11mm
- Cutting Oil····None

Result

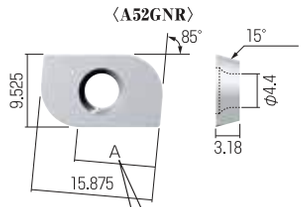
Good!
No secondary burrs and
no chattering process

Dry cutting

Insert

Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Sumicco ※ R0.5 Stocks in size.	A52GNR-0.5R NK1010 A52GNR-1R NK1010 A52GNR-1.5R NK1010 A52GNR-2R NK1010 A52GNR-2.5R NK1010 A52GNR-3R NK1010 A52GNR-3.5R NK1010 A52GNR-4R NK1010 A52GNR-4.5R NK1010 A52GNR-5R NK1010	Carbide K10	Sharp edge	None	2	12
	A52GNR-0.5R NK2020 A52GNR-1R NK2020 A52GNR-1.5R NK2020 A52GNR-2R NK2020 A52GNR-2.5R NK2020 A52GNR-3R NK2020 A52GNR-3.5R NK2020 A52GNR-4R NK2020 A52GNR-4.5R NK2020 A52GNR-5R NK2020	Carbide M20	Honing edge	None	2	12
	A52GNR-0.5R AC16N A52GNR-1R AC16N A52GNR-1.5R AC16N A52GNR-2R AC16N A52GNR-2.5R AC16N A52GNR-3R AC16N A52GNR-3.5R AC16N A52GNR-4R AC16N A52GNR-4.5R AC16N A52GNR-5R AC16N	Fine Particles Carbide	Honing edge	AlCrN	2	12
● Dekasumi ※ R1 Stocks in size.	ADEW19T3-5R NK1010 ADEW19T3-6R NK1010 ADEW19T3-7R NK1010 ADEW19T3-8R NK1010 ADEW19T3-9R NK1010 ADEW19T3-10R NK1010	Carbide K10	Sharp edge	None	2	4
	ADEW19T3-5R NK2020 ADEW19T3-6R NK2020 ADEW19T3-7R NK2020 ADEW19T3-8R NK2020 ADEW19T3-9R NK2020 ADEW19T3-10R NK2020	Carbide M20	Honing edge	None	2	4
	ADEW19T3-5R AC16N ADEW19T3-6R AC16N ADEW19T3-7R AC16N ADEW19T3-8R AC16N ADEW19T3-9R AC16N ADEW19T3-10R AC16N	Fine Particles Carbide	Honing edge	AlCrN	2	4

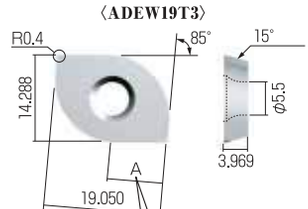
〈A52GNR〉



Blade length of the Insert (Except nose R)

Model.No.	A
0.5R	15mm
1R	14.4mm
1.5R	13.9mm
2R	13.3mm
2.5R	12.8mm
3R	12.2mm
3.5R	11.7mm
4R	11.1mm
4.5R	10.5mm
5R	10mm

〈ADEW19T3〉



Blade length of the Insert (Except nose R)

Model.No.	A
R5	13.2mm
R6	12mm
R7	11mm
R8	9.8mm
R9	8.7mm
R10	7.7mm

Face/Shoulder Milling Series

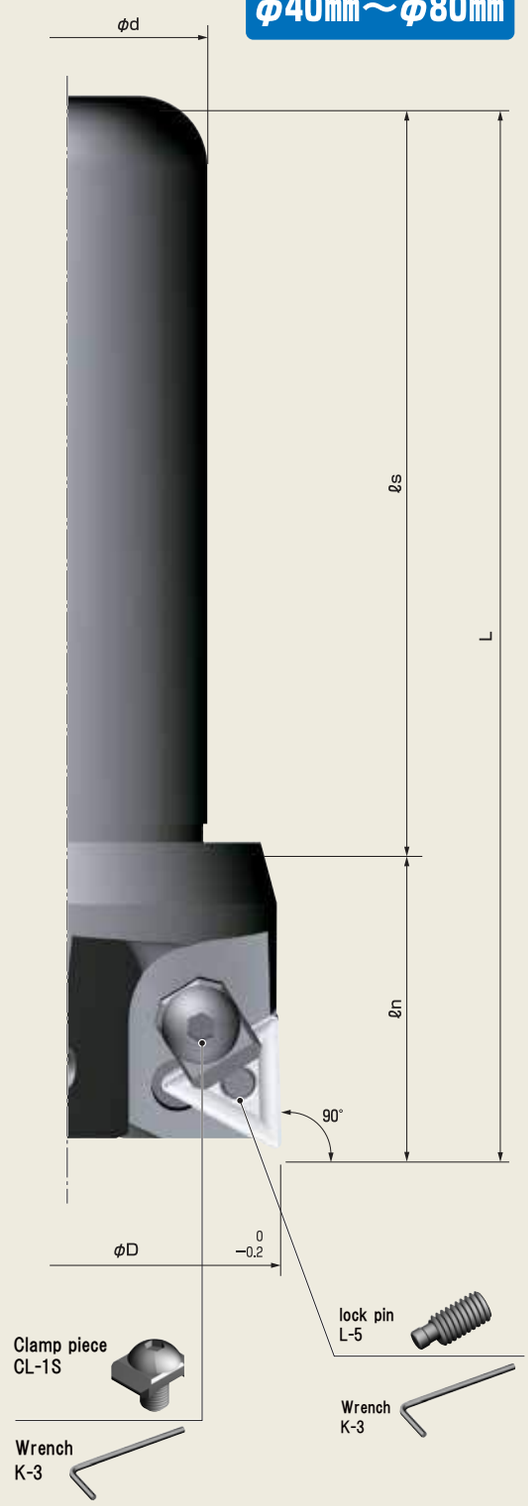
Skat Cut

Right angle processing!

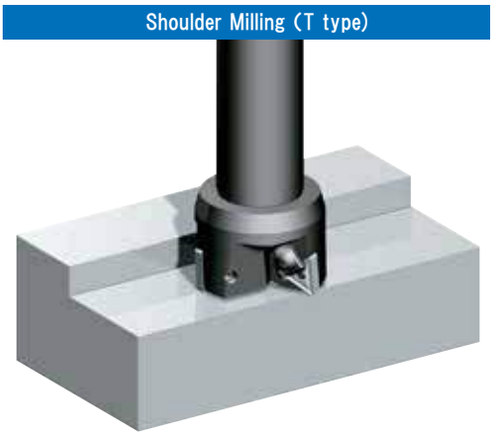
The back and from corners are usable due to nagative/positive Insert

Durability has been increased due to the double clamp mechannism

ϕ40mm～ϕ80mm



Shoulder Milling (T type)



Processing Example

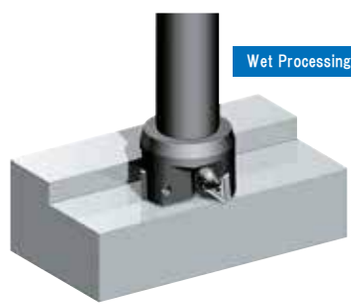
[Shoulder Milling]

- Body : NK9050T
- Insert : T33GURNK1010
- Material・・・・・・・・・A5052
- Rotation Speed・・・6,000r.p.m
- Feed (X-axis)・・・・1,200mm/min
- Cutting Depth・・・・2mm

Result

Good!
No secondary burrs and
no chattering process

Wet Processing



Cutting Conditions

T33MOZ						
Material	Material Model	NK2001	NK1010	NK2020	NK3030	NK6060
		Cutting speed (m / min)				
General Steel	0.1～0.3	200～220		150～180	150～200	
Alloy Steel	0.1～0.3	200～220		150～180	150～200	
Stainless Steel	0.1～0.25			120～160	120～180	150～200
Aluminum, Resin,Brass						
Castings	0.1～0.3	200～220 ※FCD	150～180			

- Our original Insert have “chamfereed nose”which ensure a good surface finishing even feed speed per blade are increased
- Yellow marked condition is recommended for the material listed

T33MOR						
Material	Material Model	NK2001	NK1010	NK2020	NK3030	NK6060
	Feed per blade (fz)	Cutting speed (m / min)				
General Steel	0.1～0.2	200～220		150～180	150～220	
Alloy Steel	0.1～0.2	200～220		150～180	150～220	
Stainless Steel	0.1～0.15			120～160	150～180	150～200
Aluminum, Resin,Brass						
Castings	0.1～0.2	200～220 ※FCD	150～180			

- Original Inser Insert breaker realize a sharp processing. Insert nose chamfered minimize cutting resistance
- Yellow marked condition is recommended for the material listed

T33GUR								
Material	Material Model	NK2001	NK1010	NK2020	NK3030	NK5050	NK6060	NK8080
	Feed per blade (fz)	Cutting speed (m / min)						
General Steel	0.08～0.2	200～220		150～180				
Alloy Steel	0.08～0.2	200～220		150～180				
Stainless Steel	0.08～0.2			120～180	150～180		150～220	150～220 ※SUS316
Aluminum, Resin,Brass	0.08～0.3		250～750			200～750		200～750
Castings	0.08～0.2	200～220 ※FCD						150～220

- Original Inser Insert breaker realize a sharp processing. Insert nose chamfered minimize cutting resistance Suitable for thin materials(easy to deform or chatter)processing.
- Yellow marked condition is recommended for the material listed

⚠ When mounting or replacing insert, please do not take reverse tightening.
Due to the eccentricity looking mechanism, poor accuracy or breakage of insert may be occurred by reverse tightening (NS, NT)

…P.114

Face/Shoulder Milling Series

Skat Cut

3Blade

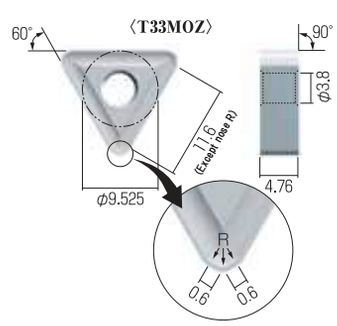
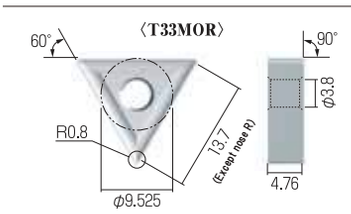
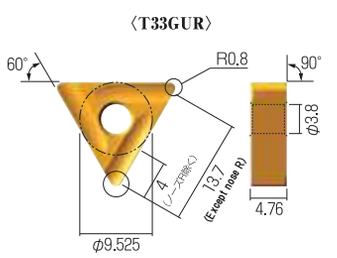
Body

Model. No.	blades	Dimensions (mm)					Weight (g)
		φD	φd	L	ℓs	ℓn	
NK9040T-20	3	40	20	120	85	35	0.52
NK9040T-25	3	40	25	120	85	35	0.64
NK9040T	3	40	32	120	85	35	0.7
NK9050T-20	3	50	20	120	85	35	0.54
NK9050T-25	3	50	25	120	85	35	0.68
NK9050T	3	50	32	120	85	35	0.8
NK9050T-42	3	50	42	120	85	35	1.1
NK9060T	3	60	32	120	85	35	0.95
NK9060T-42	3	60	42	120	85	35	1.3
NK9070T	3	70	32	120	85	35	1.2
NK9070T-42	3	70	42	120	85	35	1.4
NK9080T	3	80	32	120	85	35	1.2

※ Inset is not included. Please order spearately.

※ lock pin wrench clamp piece we have standard equipment.

Insert

Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
	T33MOZ NK2001	Cermet	Honing edge	None	6	12
	T33MOZ NK1010	Carbide K10	Sharp edge	None	6	12
	T33MOZ NK2020	Carbide M20	Honing edge	None	6	12
	T33MOZ NK3030	Carbide M20	Honing edge	TiN	6	12
	T33MOZ NK6060	Carbide M20	Honing edge	TiAℓN	6	12
	T33MOR NK2001	Cermet	Honing edge	None	6	12
	T33MOR NK1010	Carbide K10	Sharp edge	None	6	12
	T33MOR NK2020	Carbide M20	Honing edge	None	6	12
	T33MOR NK3030	Carbide M20	Honing edge	TiN	6	12
	T33MOR NK6060	Carbide M20	Honing edge	TiAℓN	6	12
	T33GUR NK2001	Cermet	Honing edge	None	6	12
	T33GUR NK1010	Carbide K10	Sharp edge	None	6	12
	T33GUR NK2020	Carbide M20	Honing edge	None	6	12
	T33GUR NK3030	Carbide M20	Honing edge	TiN	6	12
	T33GUR NK5050	Carbide K10	Sharp edge	TiN	6	12
	T33GUR NK6060	Carbide M20	Honing edge	TiAℓN	6	12
	T33GUR NK8080	Carbide K10	Sharp edge	TiAℓN	6	12

Face/Shoulder Milling Series

Easy Ordering

Product Number notation example simple order

① Base ・・・・・・・・・・ Aluminum Body
② Processing diameter ・・・・・ϕ200㎜
③ Blades・・・・・・・・・・ 6Blade
④ Arm・・・・・・・・・・・・ NS type
⑤ Base Color ・・・・・・・RED

In the case of, please notation as described below with reference to the ①～⑤ of "Easy Order" below.

① Base	② Processing diameter		③ Blades	④ Arm		⑤ Base color	
KK	200	—	6	NS	—	RD	A

Product model number, "KK200-6NS-RD ※ This item only We will stock. It will be."

※ In the case of base only, please put the last A product model number.

① Base : Please choose the body type.

Model number notation ①・・・・・Steel Body is "NK", aluminum body will be "KK".

Steel Body (NK type)	Aluminum body (KK type)
It's more commonly used for is, it will be the low-cost steel body.	It weighs 1/3 compared to steel cutters and are available at lower horsepower machines Aluminum body type.
	Or

② Processing diameter (ϕ): Please choose the processing diameter from between the ϕ120~500.

Model number notation ②・・・・・It will be 120-500.

③ Blade number : Please choose the number of blade from the 3-36 sheets.

※ blade number you can send quickly a lot made and feed speed.

Model number notation ③・・・・・It will be 3-36.

④ Arm : Please choose the Arm type.

Model number notation ④・・・・・It becomes the "NS" or "PS" or "NT".

NS type	PS type	NT type
FujiGen chattering is hardly out by its own negative-positive method, it can be a good cut into thin processing. Insert both sides is possible economic use of the "face processing Negachippu" is → [S type]	The "face processing Pojichippu" that enables optimum cutting in stainless by new materials and coating Inserts → [P Type]	The "shoulder processing" and → [T type]
Or	Or	

⑤ Base Color: Please choose only the aluminum Body Color.

※ Steel body color is only black.

Gold	Silver	Red	Blue	Black
GL	SV	RD	BL	BK

Model number notation ⑤・・・・・Steel Body is "BK"
Aluminum body will be "GL" or "SV" or "RD" or "BL" or "BK". ◦

NICECUT®

According to the machining and the size of the customer's necessity will be provided!

Conventional nice cut series that had been our patronage (arbor type)
It becomes the order system, now that it can be widely available.
A combination of the diameter and number of blades
You can order We wish you the customer. According to the machining and the size of the customer's necessity will be provided!

Weight Table

Body type	Steel Body				
Cutter diameter	φ120・φ140	φ150・φ190	φ200・φ240	φ250・φ290	φ300・φ340
Cutter height (L)	45	60		70	
Arbor diameter / Number of blades	25.4	38.1	50.8	47.625	
3	2.6kg	7.1kg	11.2kg	19.3kg	28.7kg
4	2.6kg	7.1kg	11.2kg	19.4kg	28.7kg
5	2.6kg	7.1kg	11.2kg	19.4kg	28.7kg
6	2.6kg	7.1kg	11.3kg	19.4kg	28.7kg
7	2.6kg	7.1kg	11.3kg	19.4kg	28.7kg
8	2.6kg	7.1kg	11.3kg	19.4kg	28.8kg
9	2.7kg	7.1kg	11.3kg	19.4kg	28.8kg
10		7.1kg	11.3kg	19.4kg	28.8kg
11		7.1kg	11.3kg	19.4kg	28.8kg
12		7.2kg	11.3kg	19.5kg	28.8kg
13			11.3kg	19.5kg	28.8kg
14			11.4kg	19.5kg	28.8kg
15			11.4kg	19.5kg	28.8kg
16				19.5kg	28.8kg
17				19.5kg	28.9kg
18				19.5kg	28.9kg
19				19.5kg	28.9kg
20				19.6kg	28.9kg
21				19.6kg	28.9kg
22					28.9kg
23					28.9kg
24					28.9kg
Body type	Aluminum body				
Cutter diameter	φ120・φ140	φ150・φ190	φ200・φ240	φ250・φ290	φ300・φ340
Cutter height (L)	45	60		70	
Arbor diameter / Number of blades	25.4	38.1	50.8	47.625	
3	1.0kg	2.6kg	4.1kg	7.0kg	10.4kg
4	1.1kg	2.7kg	4.1kg	7.1kg	10.4kg
5	1.1kg	2.7kg	4.2kg	7.1kg	10.5kg
6	1.1kg	2.7kg	4.2kg	7.1kg	10.5kg
7	1.2kg	2.8kg	4.2kg	7.2kg	10.5kg
8	1.2kg	2.8kg	4.3kg	7.2kg	10.6kg
9	1.2kg	2.8kg	4.3kg	7.2kg	10.6kg
10		2.9kg	4.3kg	7.3kg	10.6gk
11		2.9kg	4.4kg	7.3kg	10.6kg
12		2.9kg	4.4kg	7.3kg	10.7kg
13			4.4kg	7.4kg	10.7kg
14			4.5kg	7.4kg	10.7kg
15			4.5kg	7.4kg	10.8kg
16				7.5kg	10.8kg
17				7.5kg	10.8kg
18				7.5kg	10.9kg
19				7.6kg	10.9kg
20				7.6kg	10.9kg
21				7.6kg	11.0kg
22					11.0kg
23					11.0kg
24					11.1kg

※Cutter diameter, it will can offer to φ10 unit.
※Cutter diameter φ350 more Arbor size and other will necessary separately estimates.
※Arbor diameter, it is determined by the cutter diameter, the Company in accordance with the face mill arbor A type.

※ Depending on the cutter diameter, there are times when it is not possible to put a Number of blades of hope.
※ If you have any questions, please feel free to contact us. TEL. (06) 6911-3588

- can not be canceled after your order, please understand.
- for non-standard products, made to order products. Delivery times, each time please verify.

Cutting conditions to P.66
Insert for more information to P.67

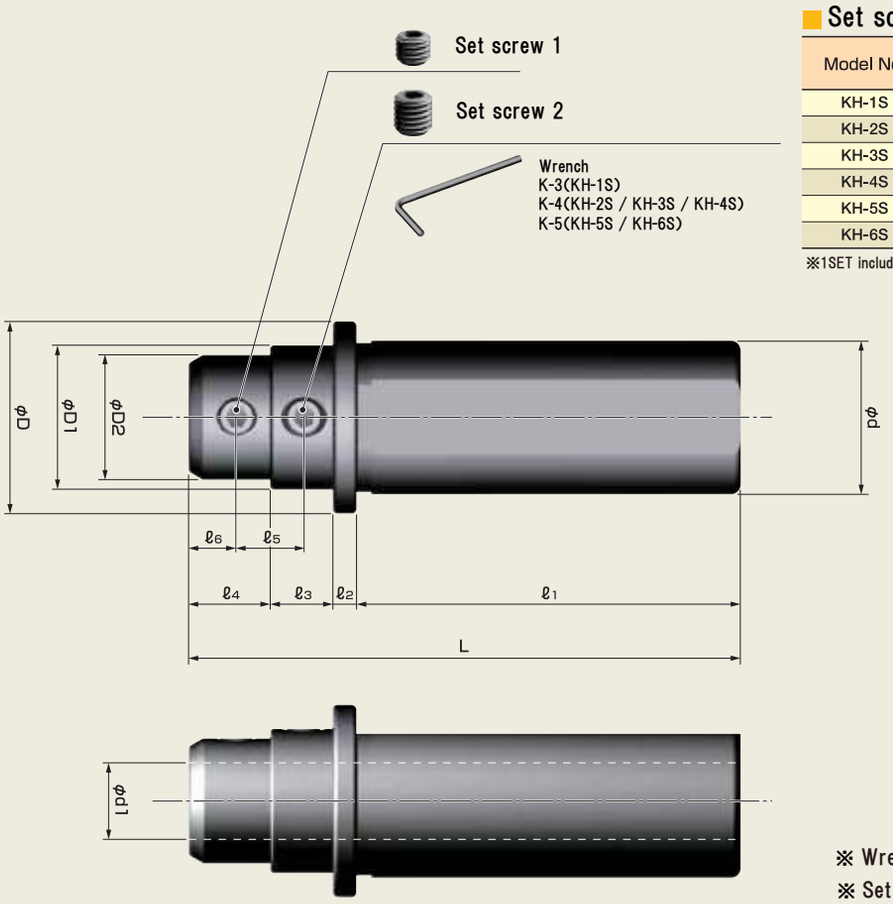
Sleeve Series

Oilsshar

Use lathe

Greatly increase life of Insert !

- Suitable for Inner Diameter and boring process with Turning Center etc
- Sleeve with step structure cutting oil spread in whole places of insert during processing of inner diameter and the life of insert has been increasing more Than 20%。
- Adjustable screw is located at the front.
  You can easily adjust the Boring bar length without removing from holder.



Set screw

Model No.	Dimensions (mm)	
	Set screw 1	Set screw 2
KH-1S	M6×8	M6×10
KH-2S	M8×6	M8×6
KH-3S	M8×8	M8×8
KH-4S	M8×10	M8×8
KH-5S	M10×8	M10×8
KH-6S	M10×8	M10×10

※1SET include (each of set screw-1 and set screw-2)

※ Wrench is not equipped as standard accessory
※ Set surew are supplied as standard accessory

Body

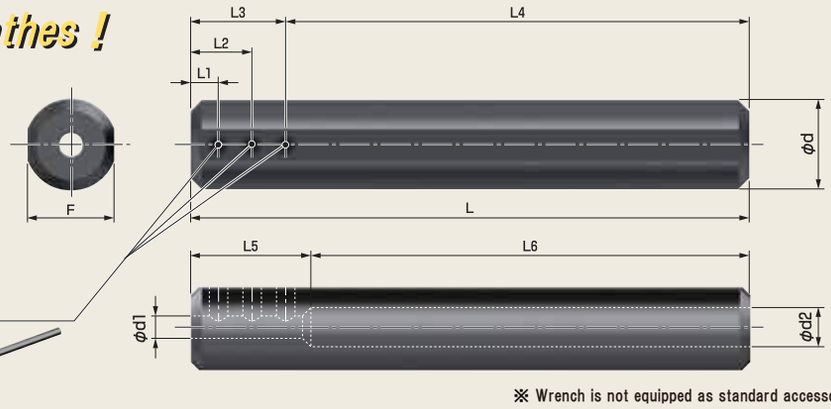
Model No.	Dimensions (mm)													Set surew
	φD	φD1	φD2	φd	φd1	L	ℓ1	ℓ2	ℓ3	ℓ4	ℓ5	ℓ6	F	
KJD32S08	40	28	24	32	8	115	80	5	15	15	14	10	30	KH-1S
KJD32S10	40	25	—	32	10	115	80	5	30	—	14	10	30	KH-2S
KJD32S12	40	25	—	32	12	115	80	5	30	—	14	10	30	KH-2S
KJD32S16	40	30	26	32	16	115	80	5	13	17	14	10	30	KH-2S
KJD32S20	40	32	—	32	20	115	80	5	30	—	13	11	30	KH-2S
KJD40S08	47	28	24	40	8	120	80	5	15	20	16	12	38	KH-1S
KJD40S10	47	32	28	40	10	120	80	5	15	20	15	13	38	KH-3S
KJD40S12	47	32	28	40	12	120	80	5	15	20	15	13	38	KH-3S
KJD40S16	47	34	31	40	16	120	80	5	15	20	15	13	38	KH-4S
KJD40S20	47	35	—	40	20	120	80	5	35	—	15	13	38	KH-5S
KJD40S25	48	40	—	40	25	120	80	15	25	—	17.5	15	38	KH-6S

Sleeve Series Esleeve

Use lathe

Small diameter sleeve for lathes !

- Possible to holl small diameter tool bitsor drills
- Suitable for small diameter boring or drilling



※ Wrench is not equipped as standard accessory
※ Set surew are supplied as standard accessory

Body

Model No.	Dimensions(mm)											
	ϕd	ϕd1	ϕd2	L	L1	L2	L3	L4	L5	L6	F	Set screw
ESL0416	16	4	10	100	5	11	17	83	20	80	15	ESH-1S
ESL0516	16	5	10	100	5	11	17	83	20	80	15	ESH-1S
ESL0616	16	6	10	100	5	11	17	83	20	80	15	ESH-1S
ESL0816	16	8	10	100	6	16	26	74	40	60	15	ESH-2S
ESL1016	16	10	12	100	6	16	26	74	40	60	15	ESH-2S
ESL0420	20	4	10	100	5	11	17	83	20	80	19	ESH-1S
ESL0520	20	5	10	100	5	11	17	83	20	80	19	ESH-1S
ESL0620	20	6	10	100	5	11	17	83	20	80	19	ESH-1S
ESL0820	20	8	10	100	6	16	26	74	40	60	19	ESH-2S
ESL1020	20	10	12	100	6	16	26	74	40	60	19	ESH-2S
ESL1220	20	12	14	100	6	16	26	74	40	60	19	ESH-2S

Set screw

Model No.	Dimensions(mm)	
	Set screw	1SET
ESH-1S	M4×4	3
ESH-2S	M6×6	3

※1SET include (set screw×3)

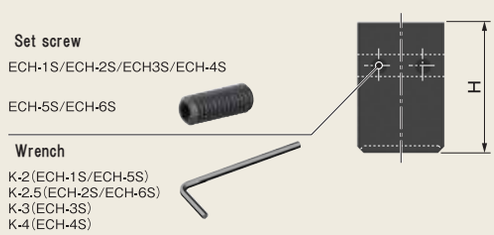
Sleeve Series Outdriller

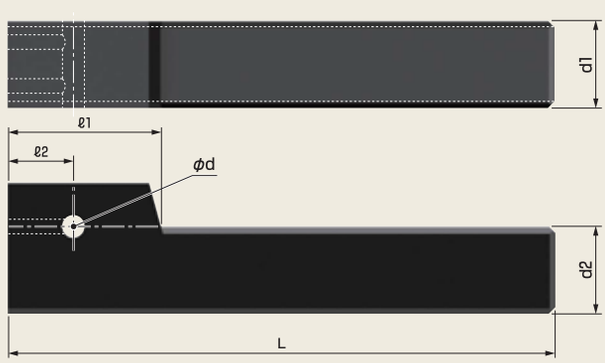
Use lathe

Center hole machining is possible!

- Shaped as outer tool bit, but used for innertool bit senter drill etc
- Possible to use holders for outer cutting and shorten setup change time
- Useful when the number of inner and diameter cutting tool holder is limited

Center hole processing





※ Wrench is not equipped as standard accessory
※ Set surew are supplied as standard accessory

Body

Model No.	Dimensions(mm)							
	ϕd	d1	d2	L	ℓ1	ℓ2	H	Set screw
ESB2020K05	5	20	20	125	35	15	30	ECH-1S
ESB2020K06	6	20	20	125	35	15	30	ECH-2S
ESB2020K08	8	20	20	125	35	15	30	ECH-3S
ESB2020K10	10	20	20	125	35	15	30	ECH-4S
ESB2020K12	12	20	20	125	35	15	30	ECH-4S
ESB2525M05	5	25	25	150	35	15	35	ESH-5S
ESB2525M06	6	25	25	150	35	15	35	ESH-6S
ESB2525M08	8	25	25	150	35	15	35	ESH-3S
ESB2525M10	10	25	25	150	35	15	35	ESH-4S
ESB2525M12	12	25	25	150	35	15	35	ESH-4S

Set screw

Model No.	Dimensions(mm)	
	Set screw	1SET
ECH-1S	M4×10	2
ECH-2S	M5×10	2
ECH-3S	M6×10	2
ECH-4S	M8×10	2
ECH-5S	M4×10	3
ECH-6S	M5×10	3

※1SET include (set screw×2or3)

Sleeve Series Colesleeve

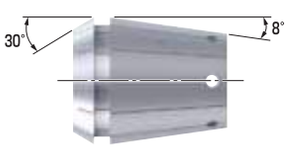
Use lathe

Applying General Spring Collet,-Usabul Various Sizes Drills!

- Concentric with ER collet
- Used with lathe,mount inner tool bit holder
- Inner lubrication is possible by using center-thruringh collet

ER20 type

ER25/ER32 type

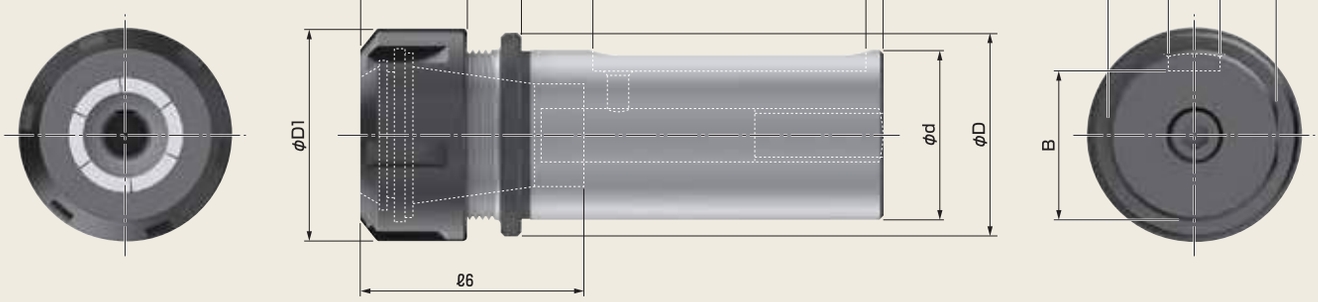


※ER collet is not inoludent Pliese obtasin from market (DIN6499/ISO15488)

Set screw

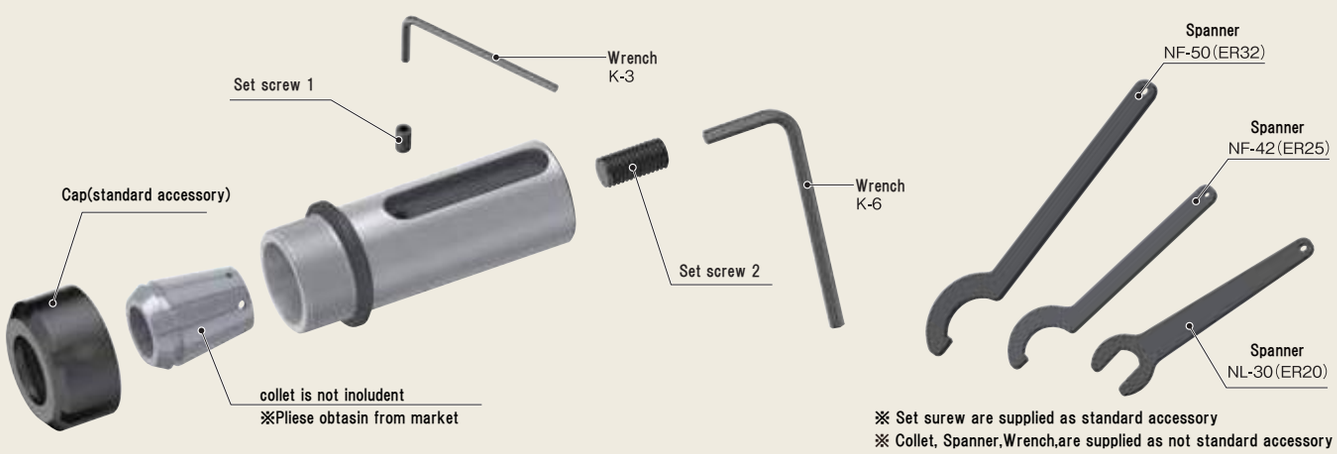
Model No.	Dimensions (mm)	
	Set screw1	Set screw2
ERSH-1S	M6×6	M12×25
ERSH-2S	M6×10	M12×25

※1SET include (Set screw1×1+Set screw2×1)



Body

Model No.	Dimensions (mm)															
	ϕD	ϕD1	ϕd	L	ℓ1	ℓ2	ℓ3	ℓ4	ℓ5	ℓ6	A	B	F	Collet	Set screw	Spanner
NEW CER20-C32-120	38	34	32	121	85	36	14	54	21.7	51	12	27	31	ER20	ERSH-1S	NL-30
NEW CER20-C40-120	48	34	40	121	85	36	14	54	21.7	51	12	35	39	ER20	ERSH-2S	NL-30
NEW CER25-C32-120	38	42	32	121	85	36	14	54	24	51	12	27	31	ER25	ERSH-1S	NF-42
NEW CER25-C40-120	48	42	40	121	85	36	14	54	24	51	12	35	39	ER25	ERSH-2S	NF-42
NEW CER32-C40-120	48	50	40	123	85	38	14	54	25	52	12	35	39	ER32	ERSH-2S	NF-50



※ Set surew are supplied as standard accessory
※ Collet, Spanner,Wrench,are supplied as not standard accessory

Portable Chamfering Machine Series

Choi-Pro

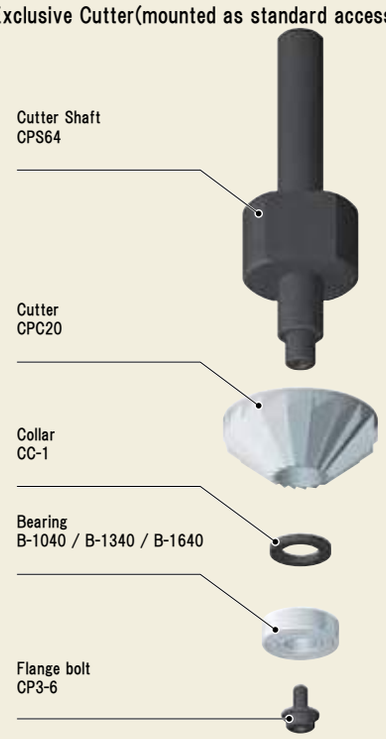
18Blade

Adopt 3 types of bearings Reduced running costs

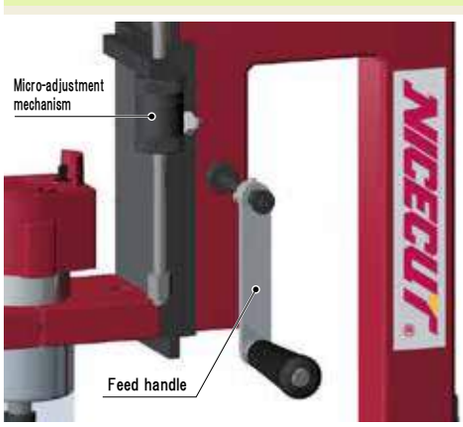
By using three different types of beveling, the position of the blade is changed, and you can use the cutter surface part without any leeway.

※Chamfering amount up to C1.5 in any case of ①②③

Exclusive Cutter(mounted as standard accessory)



2 kings up/down adjustment mechanism can select smooth chamfering amount



High Rotation Motor & Multi-Blade Cutter !

- Combination of High Rotation Moator, Multi- Blade Cutter and Bearing Guide ensured smooth surface processing
- One spot hold Open-Close mechanism ensured simple inside chamfering process

Chamfer Processing **C1.5**

Body

Model. NO.	CP-0
Power supply	100V
Generating	200W
Rotational speed	15,000r.p.m.
Max workpiece height	150㎜
Dimension	W300×D480×H560㎜
Weight	24㎏

Portable Chamfering Machine Series

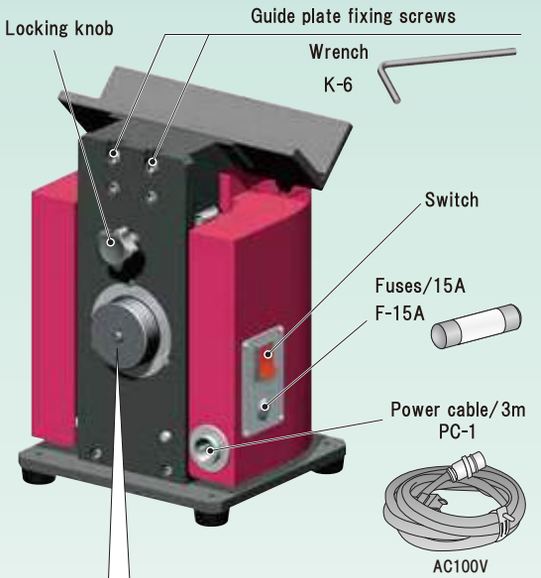
Nice-Corner F3

insert Standard equipment!!
You can use it immediately.

- Realized high speed cutting with 8000 rpm
- You can find chamfering amount with a single glance and can adjust chamfering amount simply
- Chamfer processing without scratching materials can be realized by using linear slide guide (Option)

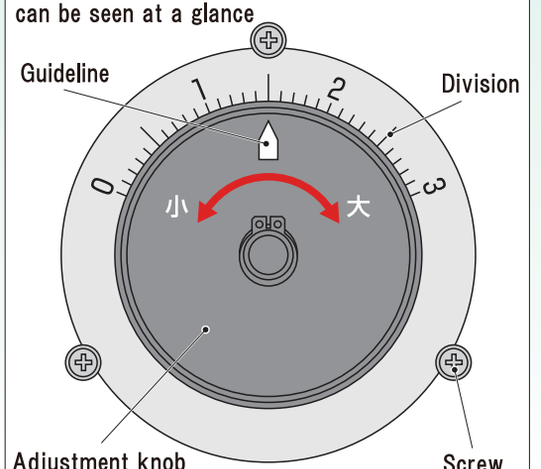
~C3

Exhaust port newly designed eliminates Chip(powders) from machine(Body)



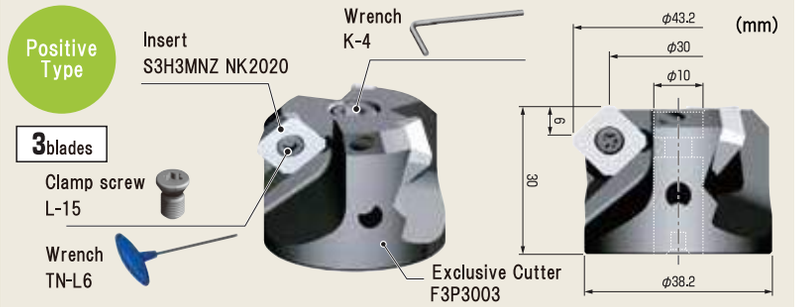
Adjustment knob

Easy adjustment by chamfering amount notation can be seen at a glance



Positive Type

3blades



※ In case you need cutter only,please order insert separately

BODY

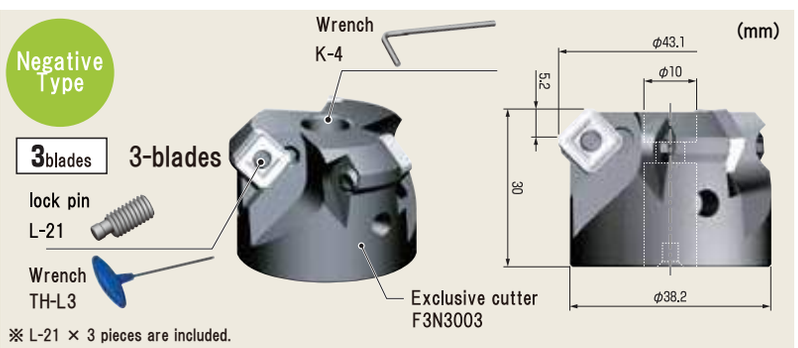
Model number	Fixed plate	Fixed plate (thin plate)	Slide plate	Slide plate (thin plate)
	F3	F3-250T	F3-400S	F3-400ST
Power Supply	AC100Vor120V/240V	AC100Vor120V/240V	AC100Vor120V/240V	AC100Vor120V/240V
Rotation speed	8,000r.p.m.	8,000r.p.m.	8,000r.p.m.	8,000r.p.m.
Dimension	W230×D250×H327mm	W230×D250×H327mm	W230×D400×H362mm	W230×D400×H362mm
Weight (Kg)	23(Except power cable)	23(Except power cable)	28(Except power cable)	28(Except power cable)
Guide plate	F3L-250	F3L-250T	F3S-400	F3S-400T
Insert	S3H3MNZ NK2020	S3H3MNZ NK2020	S3H3MNZ NK2020	S3H3MNZ NK2020

List of Standard Accessories

Product Name	Model number	Quantity
Exclusive cutter	F3P3003	1
Clamp screw	L-15	3
Wrench	K-4 / K-6 / N-6	One each
Fuses	F-15A	1 (one spare)
power cable	PC-1	1
Insert	S3HMNZ NK2020	3

Negative Type

3blades



※ L-21 × 3 pieces are included.

※ Insert and wrench TH-L3, K-4 separately, please purchase.

BODY

Model number	Fixed plate	Fixed plate (thin plate)	Slide plate	Slide plate (thin plate)
	F3-N	F3-250T-N	F3-400S-N	F3-400ST-N
Power Supply	AC100Vor120V/240V	AC100Vor120V/240V	AC100Vor120V/240V	AC100Vor120V/240V
Rotation speed	8,000r.p.m.	8,000r.p.m.	8,000r.p.m.	8,000r.p.m.
Dimension	W230×D250×H327mm	W230×D250×H327mm	W230×D400×H362mm	W230×D400×H362mm
Weight (Kg)	23(Except power cable)	23(Except power cable)	28(Except power cable)	28(Except power cable)
Guide plate	F3L-250	F3L-250T	F3S-400	F3S-400T
Insert	S3H3MNZ NK2020	S3H3MNZ NK2020	S3H3MNZ NK2020	S3H3MNZ NK2020

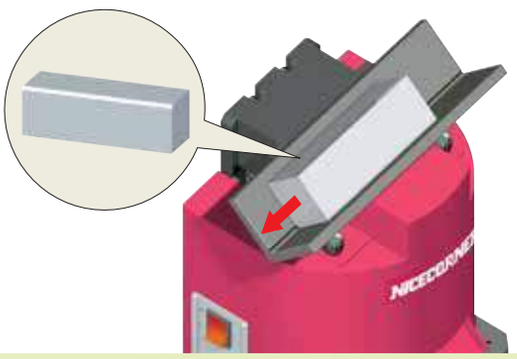
List of Standard Accessories

Product Name	Model number	Quantity
Exclusive cutter	F3N3003	1
lock pin	L-21	3
Wrench	K-4 / K-6 / TH-L3	One each
Fuses	F-15A	1 (one spare)
power cable	PC-1	1
Insert	S32MOZ NK2001	3

When mounting or replacing inserts, poor accuracy and breakage of inserts may occur die to reserve tightening and/or the eccentric locking system …P.114

3Blade

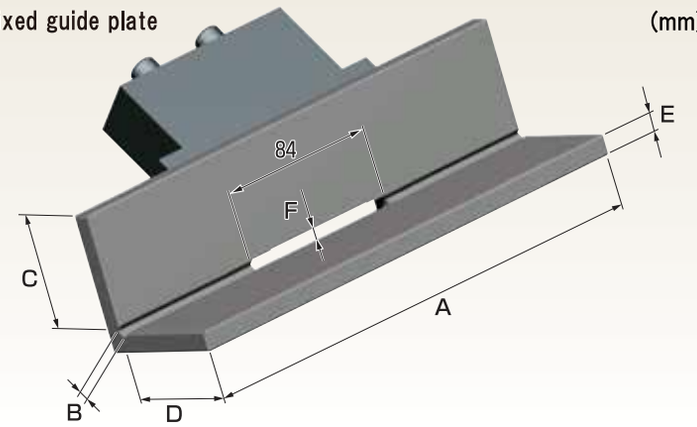
Corner Chamfering Process



Slight-chamfering to C3(3mm)
※ Depending on work material.

Fixed guide plate

(mm)



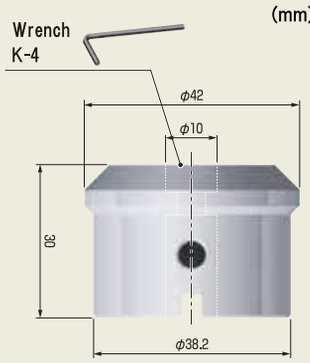
Model number	A	B	C	D	E	F	Maximum possible plate length	Maximum possible thickness	Maximum C chamfer
F3L-250	250mm	5mm	55mm	55mm	10mm	5.5mm	—	6mm or more	MAX C3
F3L-250T	250mm	2mm	55mm	55mm	10mm	2mm	—	2.5mm or more	MAX C1

Exclusive use Electrodeposition grindstone (Options)

(mm)

F3T DIA

F3T CBN

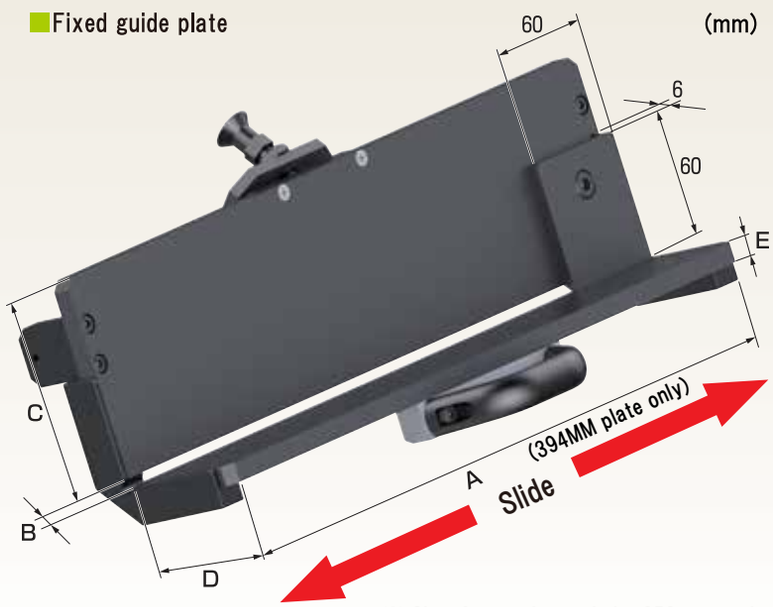


※ wrench K-4 separately, please purchase.

Subject cuttings	Model number
Ceramics General Glasses General Carbide material	F3T DIA (DIA #100)
HSS Hardness HRC45 or more of steel	F3T CBN (CBN #100)

Fixed guide plate

(mm)



※ Chamfer can be made by 250mm work

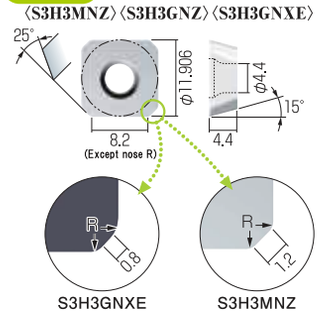
Model number	A	B	C	D	E	F	Maximum possible plate length	Maximum possible thickness	Maximum C chamfer
F3S-400	400mm	5mm	100mm	60mm	10mm	5mm	250mm	6mm or more	MAX C3
F3S-400T	400mm	2mm	100mm	60mm	10mm	2mm	250mm	2.5mm or more	MAX C1

Applicable Insert

Workpiece material	P-Type	N-Type
General steel	S3H3MNZ NK2020	S32M0Z NK2001
Alloy steel,SKD,SCM	S3H3MNZ NK2020	S32M0Z NK2001
Aluminum,resin,brass	S3H3GNZ NK1010	S32GUR NK1010
Cast steel,FC,FCD	S3H3GNZ NK1010	S32M0Z NK1010

※ In case of Stainless Steel materials,blade retention time may become Short

Insert

Figure	Model number	Material	Blade shape	Coating	Usable corners	Quantity per box
PositiveType 〈S3H3MNZ〉〈S3H3GNZ〉〈S3H3GNXE〉  S3H3GNXE S3H3MNZ S3H3GNZ	S3H3MNZ NK2001	Cermet	Honing edge	None	4	12
	S3H3GNZ NK1010	Carbide K10	Sharp edge	None	4	12
	S3H3MNZ NK2020	Carbide M20	Honing edge	None	4	12
	S3H3GNZ NK9090 (Mirror polished finish)	Carbide K10	Sharp edge	None	4	12
	S3H3MNZ AC15D	Fine particles Carbide	Honing edge	AlCrN	4	12
	S3H3GNXE AC16N	Fine particles Carbide	Honing edge	AlCrN	4	12

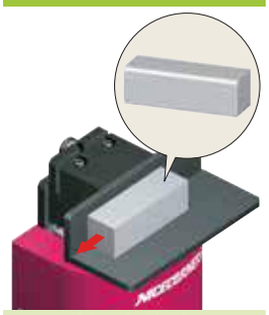
⚠ Insert details for N-type F3N3003, please refer to P.105

Portable Chamfering Machine Series

Nice-Corner FR

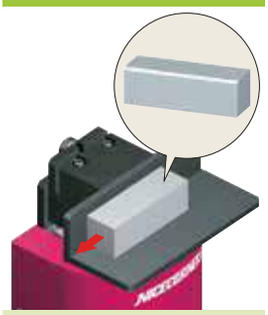
insert Standard equipment!!
You can use it immediately.

Corner Rounding Process



R1 to R=3(mm)
※ Depending on work material.

Corner Chamfering Process



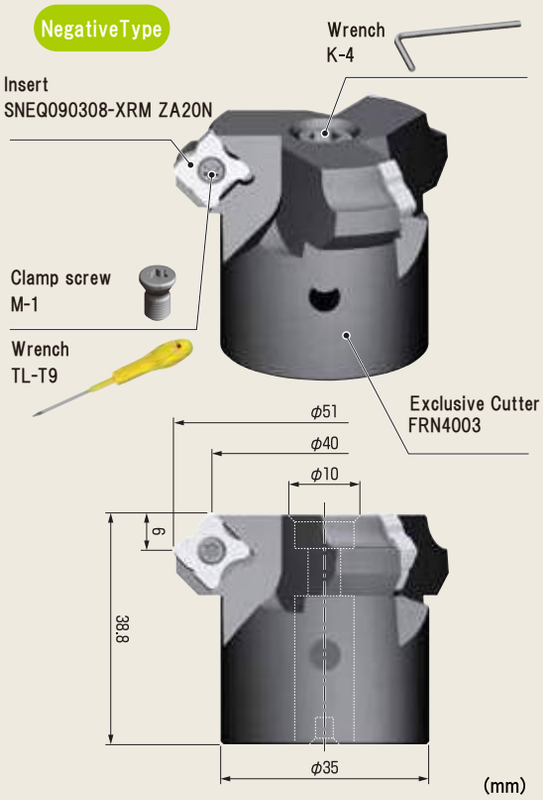
Slight-chamfering to C3(3mm)
※ Depending on work material.

- Realized high speed cutting with 8000 rpm
- You can find chamfering amount with a single glance and can adjust chamfering amount simply
- Chamfer processing without scratching materials can be realized by using linear slide guide (Option)

Shooter
Exhaust port newly designed eliminates Chip(powders) from machine(Body)

Exclusive Cutter built in(Standard) 3 Blade

NegativeType



(mm)

※ In case you need cutter only,please order insert separately

BODY

Model number	Fixed plate	Slide plate
	FR	FR-400S
Power Supply	AV100Vor120V/240V	AV100Vor120V/240V
Rotation speed	8,000r.p.m.	8,000r.p.m.
Dimension	W240×D250×H360	W290×D400×H400
Weight	27kg(Except power cable)	32kg(Except power cable)
Guide plate	FRL-250	FRS-400
Insert	SNEQ090308-XRM ZA20N	SNEQ090308-XRM ZA20N

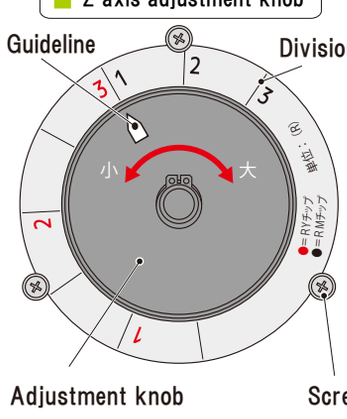
When mounting or replacing inserts, poor accuracy and breakage of inserts may occur die to reserve tightening and/or the eccentric locking system ···P.114

List of Standard Accessories

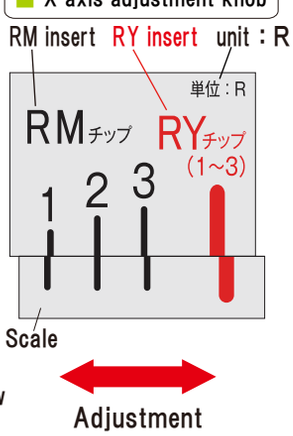
Product Name	Model number	Quantity
Exclusive cutter	FRN4003	1
Clamp screw	M-1	3
Wrench	K-4 / K-6 / TL-T9	One each
Fuses	F-15A	1 (one spare)
Power cable	PC-1	1
Insert	SNEQ090308-XRM ZA20N	3

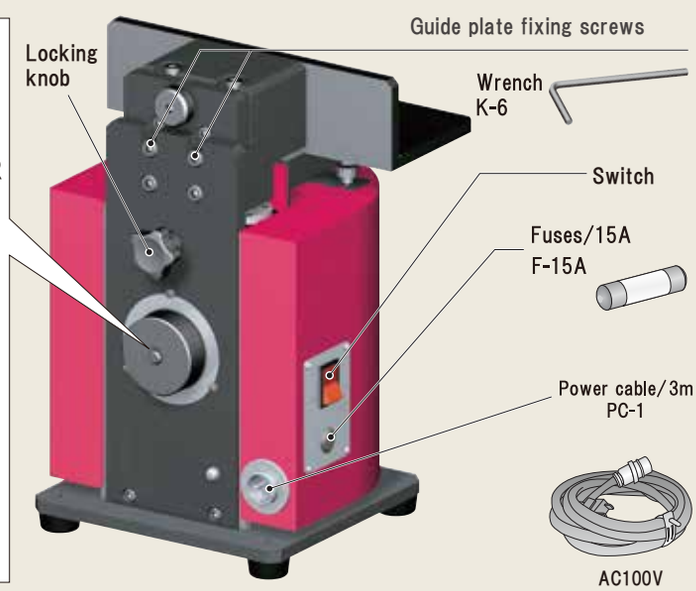
Adjustment of R (C) chamfering amount in two division has been simplified.

Z axis adjustment knob



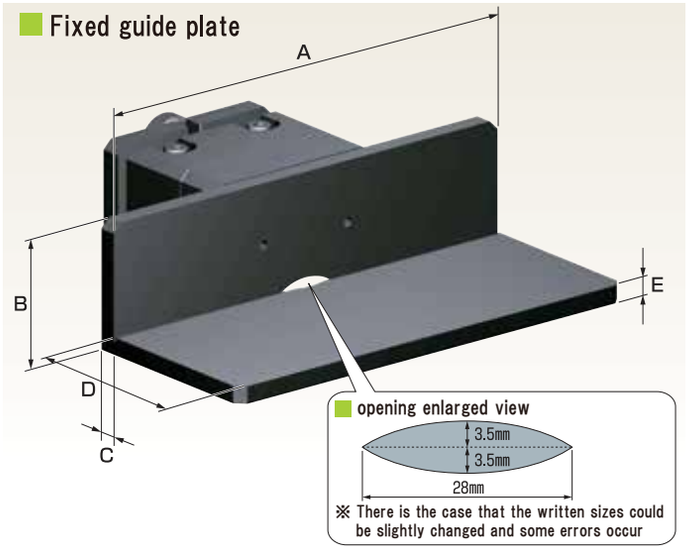
X axis adjustment knob





3 Blade

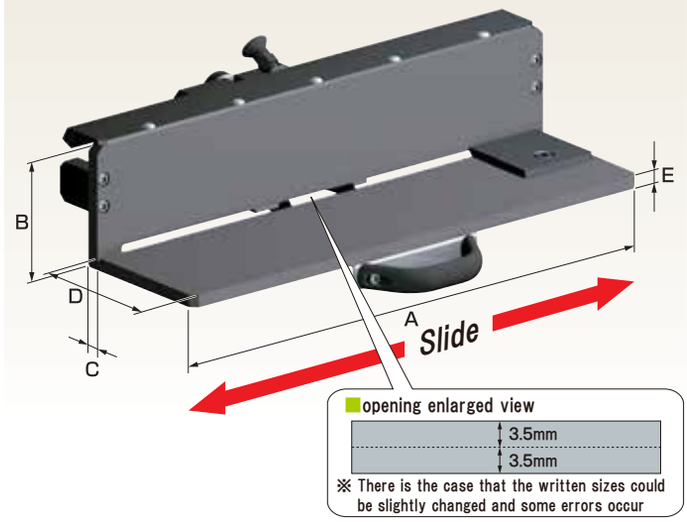
Fixed guide plate



Model number	A	B	C	D	E	Maximum C chamfer	Maximum R chamfer
FRL-250	250mm	70mm	10mm	100mm	10mm	MAX C3	MAX R3

※ workable thickness will be more than 4mm.

Slide guide plate ※ Chamfer can be made by 250mm work



Model number	A	B	C	D	E	Maximum C chamfer	Maximum R chamfer
FRS-400	400mm	90mm	10mm	105mm	10mm	MAX C3	MAX R3

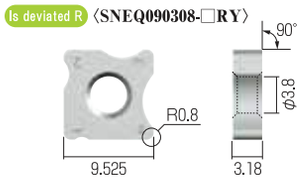
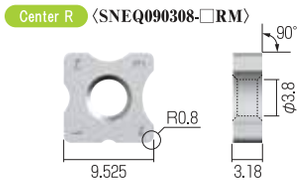
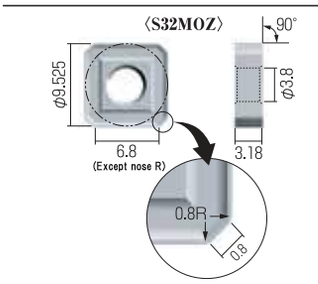
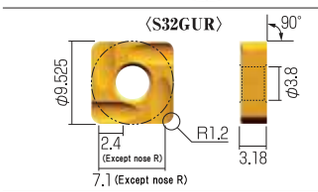
※ workable thickness will be more than 4mm.

Applicable Insert

Workpiece material	Recommended Insert	
	For R chamfering	For C chamfering
General steel	SNEQ090308	S32MOZ NK2001
Alloy steel,SKD,SCM	SNEQ090308	S32MOZ NK2001
Aluminum,resin,brass	SNEQ090308	S32GUR NK1010
Castings,FC,FCD	SNEQ090308	S32MOZ NK1010

※ In case of Stainless Steel materials,blade retention time may become Short

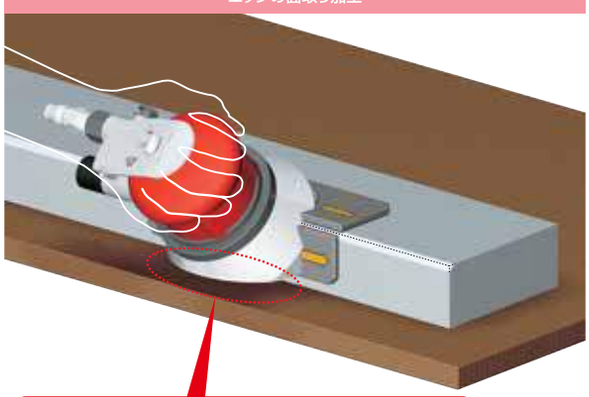
Insert

Figure	Model number	Material	Blade shape	Coating	Usable corners	Quantity per box
Is deviated R 〈SNEQ090308-□RY〉  ※CA20N is dedicated to aluminum.	SNEQ090308-1RY ZA20N	Carbide M20	The Same R Each corner	None	4	12
	SNEQ090308-2RY ZA20N	Carbide M20	The Same R Each corner	None	4	12
	SNEQ090308-3RY ZA20N	Carbide M20	The Same R Each corner	None	4	12
	SNEQ090308-XRY ZA20N	Carbide M20	R1・2・3・4	None	4	12
	NEW SNEQ090308-1RY CA20N	Carbide M20	The Same R Each corner	DLC	4	12
	NEW SNEQ090308-2RY CA20N	Carbide M20	The Same R Each corner	DLC	4	12
	NEW SNEQ090308-3RY CA20N	Carbide M20	The Same R Each corner	DLC	4	12
Center R 〈SNEQ090308-□RM〉  ※CA20N is dedicated to aluminum.	SNEQ090308-1RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-2RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-3RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-XRM ZA20N	Carbide M20	R1・2・3・4	None	8	12
	NEW SNEQ090308-1RM CA20N	Carbide M20	The Same R Each corner	DLC	8	12
	NEW SNEQ090308-2RM CA20N	Carbide M20	The Same R Each corner	DLC	8	12
	NEW SNEQ090308-3RM CA20N	Carbide M20	The Same R Each corner	DLC	8	12
〈S32MOZ〉 	S32MOZ NK2001	Cermet	Honing edge	None	8	12
	S32MOZ NK2050	Cermet	Honing edge	None	8	12
	S32MOZ AB01F	Cermet	Honing edge	AlCrN	8	12
	S32MOZ NK1010	Carbide K10	Sharp edge	None	8	12
	S32MOZ NK2020	Carbide M20	Honing edge	None	8	12
	S32MOZ NK3030	Carbide M20	Honing edge	TiN	8	12
	S32MOZ AC15T	Fine particles Carbide	Honing edge	AlCrN	8	12
〈S32GUR〉 	S32GUR NK2001	Cermet	Honing edge	None	8	12
	S32GUR NK1010	Carbide K10	Sharp edge	None	8	12
	S32GUR NK2020	Carbide M20	Honing edge	None	8	12
	S32GUR NK3030	Carbide M20	Honing edge	TiN	8	12
	S32GUR NK5050	Carbide K10	Sharp edge	TiN	8	12
	S32GUR NK6060	Carbide M20	Honing edge	TiAlN	8	12
	S32GUR NK8080	Carbide K10	Sharp edge	TiAlN	8	12

Handy Series

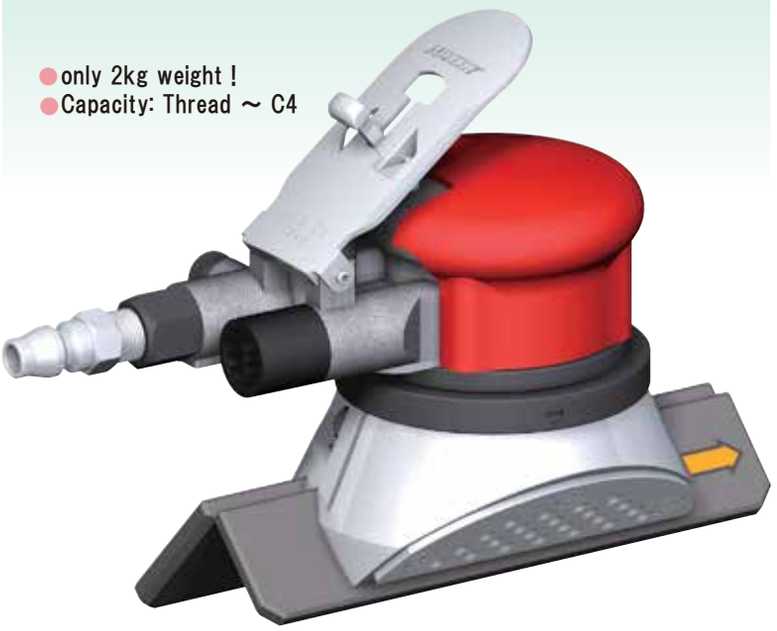
Han-Chan-man

エッジの面取り加工



Unique and advanced Air operated Portable Handy Chamfering machine !

- only 2kg weight !
- Capacity: Thread ～ C4



Specification

Air Pressure	0.49・0.68MPa(5・7kg/cm)
Non-Load Rotational	10,000r.p.m.
Air Consumption	0.19m /min
Capacity	・C4
Work Thickness	more than 6mm
Weight	2kg

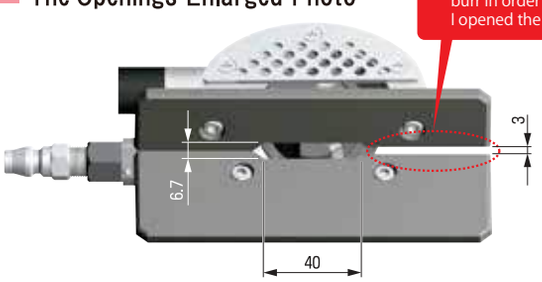
Processing Example

[Chamfering of one corner per 20m in the processing of 1C]

- Insert : SDMW11T4AFEN12 ZA20D
- Material・・・・・・・・・・・・・ SUS304

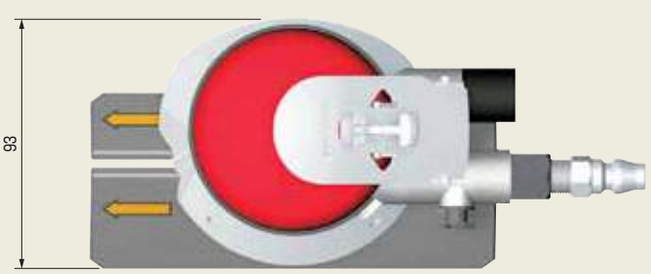
(mm)

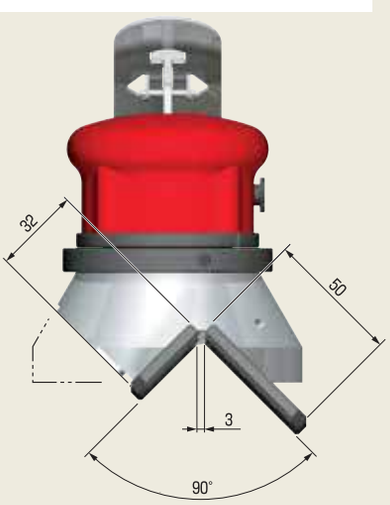
The Openings Enlarged Photo

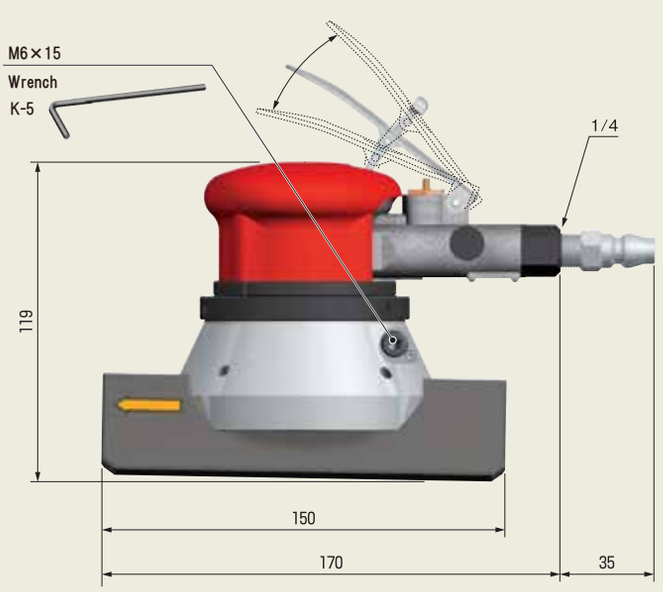


For burr-removal, we make a space Cutter area of Guide Plate groove is widen

※ The dimension could be little different







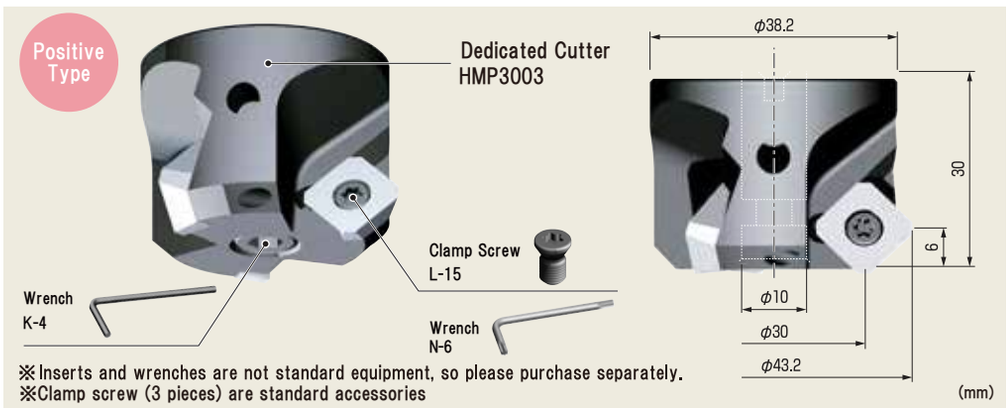
Body

Model No.	Blade	Dimensions(mm)	Guide plate overall length (mm)	Inserts	Weight
HAM4-150CP3003	3	W93×D205×H119	150	SDMW type or SDEW type	2kg

※ Insert is not equipped as standard accessory
※ Clamp screw and wrench are supplied as standard accessory

Standard Equipment

Dedicated Cutter (equipped with Body)



※Inserts and wrenches are not standard equipment, so please purchase separately.
※Clamp screw (3 pieces) are standard accessories

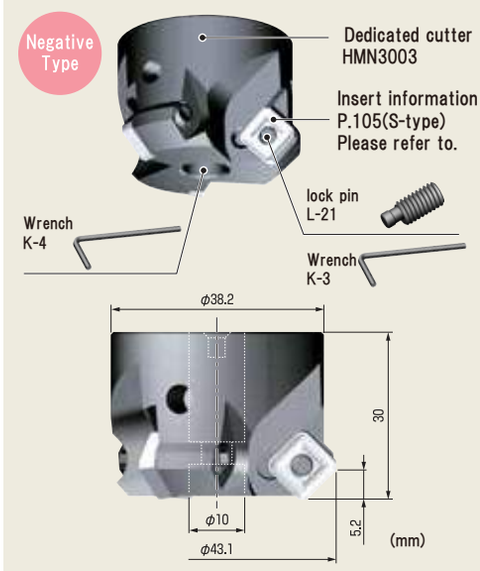
Accessories

Mini oil (one)

Model No.	MO-20

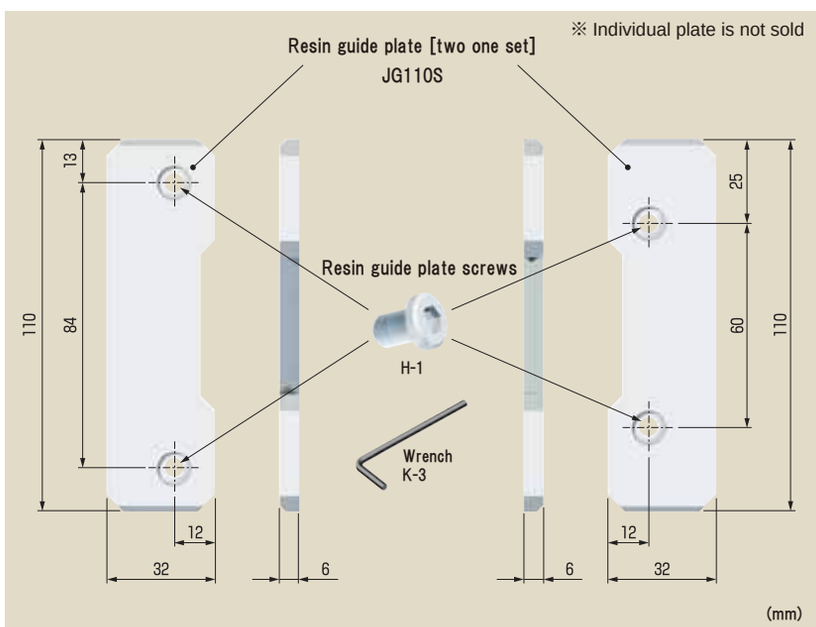
Options

Dedicated Cutter(option) 3Blade



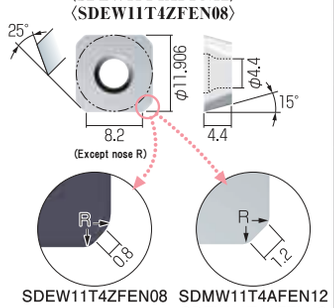
※ Inserts and wrenches are not standard equipment, so please purchase separately.
※ lock pin (3 pieces) are standard accessories

Resin Guide Plate(Option)



Insert

Figure	Model number	Material	Blade shape	Coating	Usable corners	Quantity per box
⟨SDMW11T4AFEN12⟩ ⟨SDEW11T4AFFN12⟩ ⟨SDEW11T4ZFEN08⟩	SDMW11T4AFEN12 ZB01N	Cermet	Honing edge	None	4	10
	SDEW11T4AFFN12 ZA10D	Carbide K10	Sharp edge	None	4	10
	SDMW11T4AFEN12 ZA20D	Carbide M20	Honing edge	None	4	10
	SDEW11T4AFFN12 ZA10DL (Mirror polished finish)	Carbide K10	Sharp edge	None	4	10
	SDMW11T4AFEN12 AC15D	Fine particles Carbide	Honing edge	AlCrN	4	10
	SDEW11T4ZFEN08 AC16N	Fine particles Carbide	Sharp edge	AlCrN	4	10



Handy Series

Mini Han-Chan

Corner Chamfering

Unique and advanced Air operated Portable Handy Chamfering machine !

- only 0.4kg weight !
- Capacity: Thread ～ C4

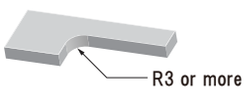
Specification

Air Pressure	0.49・0.68MPa(5・7f/cm²)
Non-Load Rotational	23,000r.p.m.
Air Consumption	0.5m³/min
Capacity	Until the C1.5
Work Thickness	7.5mm・ (In case of setting the material flat)
Weight	About 0.4kg

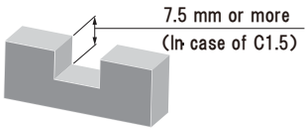
Chamferable material dimensions (Example based on processing shape)

- Hole diameter

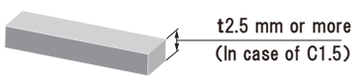
- Radius



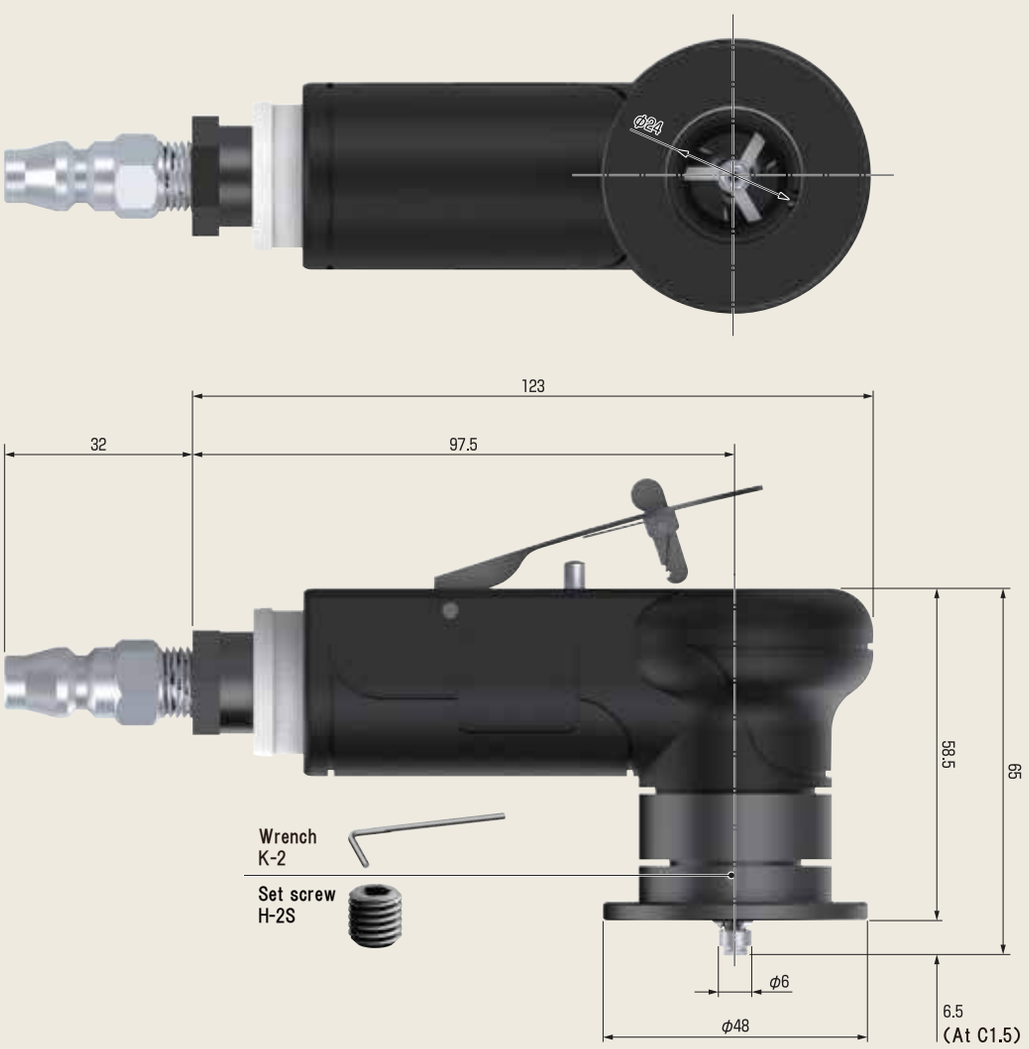
- Groove Depth



- Plate thickness



(mm)



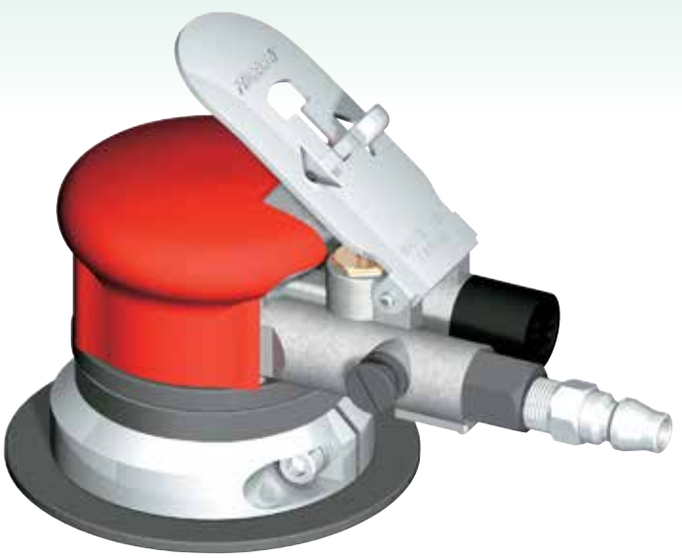
Handy Series

Han-Chan-man R

Round corner Chamfering

!! Round corner Chamfering machine Handy type Air-driven

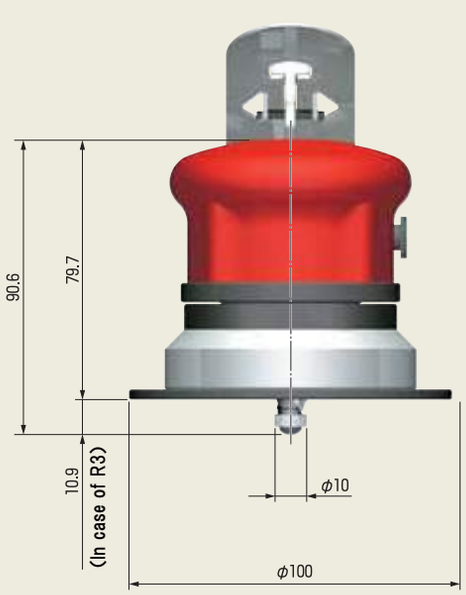
- Lightweight (about 1.3) It is possible to process up to R3 (C3) in the handy type.
- low-cost small Insert.

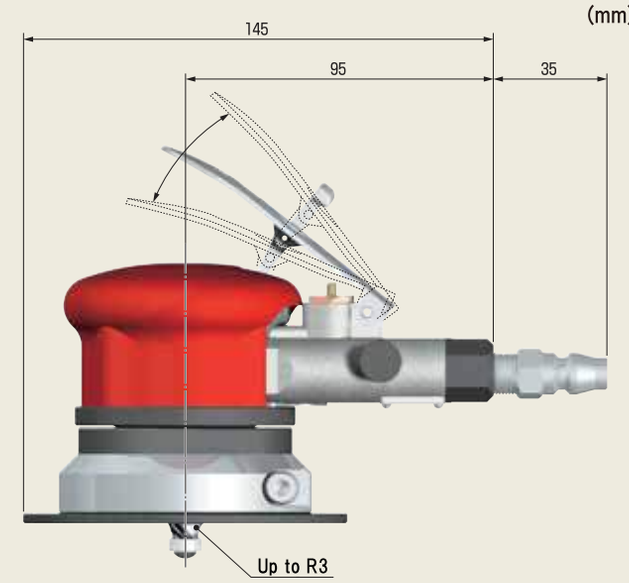


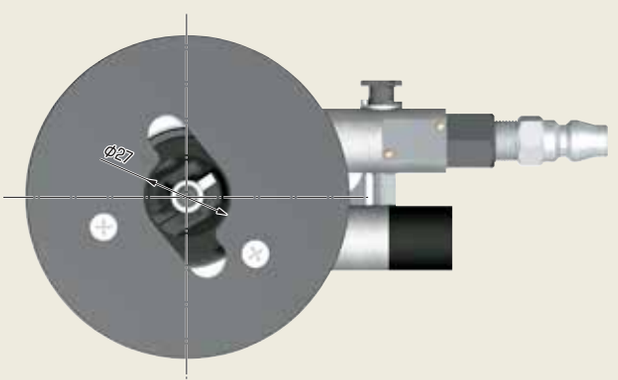
Specification

Air Pressure	0.49 • 0.68MPa(5 • 7f/cm^2)
Non-Load Rotational	10,000r.p.m.
Air Consumption	0.19m^3/min
Capacity	Until the R3 (～C3)
Work Thickness	12mm • (In the case of flat material placement with R3)setting
Weight	About 1.3kg

(mm)







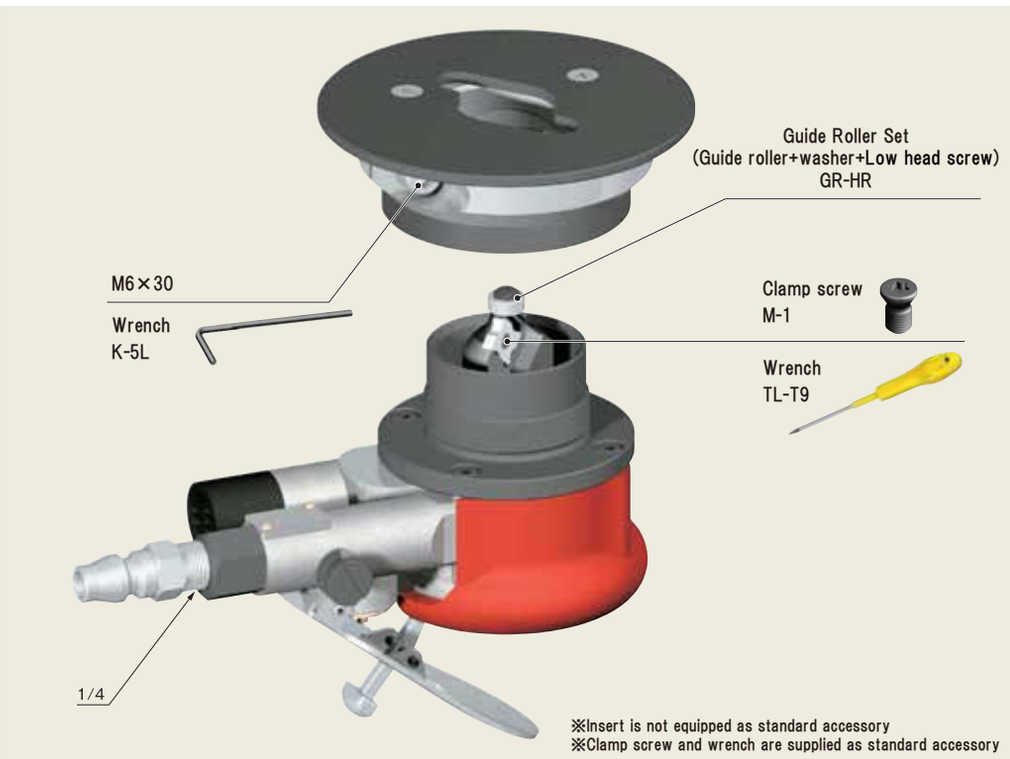
1Blade

Body

Model No.	Blades	Dimensions(mm)	Inserts	Weight
HAM3R-100S	1	W100×D180×H90.6	SNEQ090308 / S32MOZ / S32GUR	1.3kg

※ Insert is not equipped as standard accessory
※ Clamp screw and wrench are supplied as standard accessory

Standard Equipment



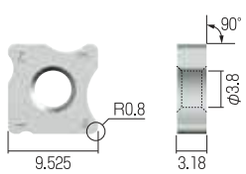
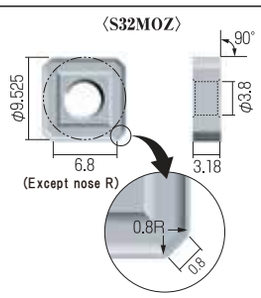
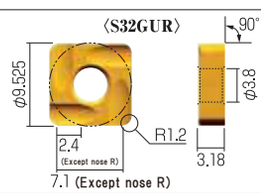
※Insert is not equipped as standard accessory
※Clamp screw and wrench are supplied as standard accessory

Accessory

Mini Oil (1piece)

Model number	MO-20

Insert

Figure	Model number	Material	Blade shape	Coating	Usable corner	Quantity per box
〈SNEQ090308-□RY〉  ※CA20N is dedicated to aluminum.	SNEQ090308-1RY ZA20N	Carbide M20	The Same R Each corner	None	4	12
	SNEQ090308-2RY ZA20N	Carbide M20	The Same R Each corner	None	4	12
	SNEQ090308-3RY ZA20N	Carbide M20	The Same R Each corner	None	4	12
	SNEQ090308-XRY ZA20N (R4 can not be used)	Carbide M20	R1・2・3・4	None	3	12
	NEW SNEQ090308-1RY CA20N	Carbide M20	The Same R Each corner	DLC	4	12
	NEW SNEQ090308-2RY CA20N	Carbide M20	The Same R Each corner	DLC	4	12
	NEW SNEQ090308-3RY CA20N	Carbide M20	The Same R Each corner	DLC	4	12
〈S32MOZ〉 	S32MOZ NK2001	Cermet	Honing edge	None	8	12
	S32MOZ NK2050	Cermet	Honing edge	None	8	12
	S32MOZ AB01F	Cermet	Honing edge	AlCrN	8	12
	S32MOZ NK1010	Carbide K10	Sharp edge	None	8	12
	S32MOZ NK2020	Carbide M20	Honing edge	None	8	12
	S32MOZ NK3030	Carbide M20	Honing edge	TiN	8	12
	S32MOZ AC15T	Fine particles Carbide	Honing edge	AlCrN	8	12
〈S32GUR〉 	S32GUR NK2001	Cermet	Honing edge	None	8	12
	S32GUR NK1010	Carbide K10	Sharp edge	None	8	12
	S32GUR NK2020	Carbide M20	Honing edge	None	8	12
	S32GUR NK3030	Carbide M20	Honing edge	TiN	8	12
	S32GUR NK5050	Carbide K10	Sharp edge	TiN	8	12
	S32GUR NK6060	Carbide M20	Honing edge	TiAlN	8	12
	S32GUR NK8080	Carbide K10	Sharp edge	TiAlN	8	12

Handy Series

Han-Chan-man R-HYPER

Round corner Chamfering

High-Power !! Air operated Portable Handy Chamfering Machine

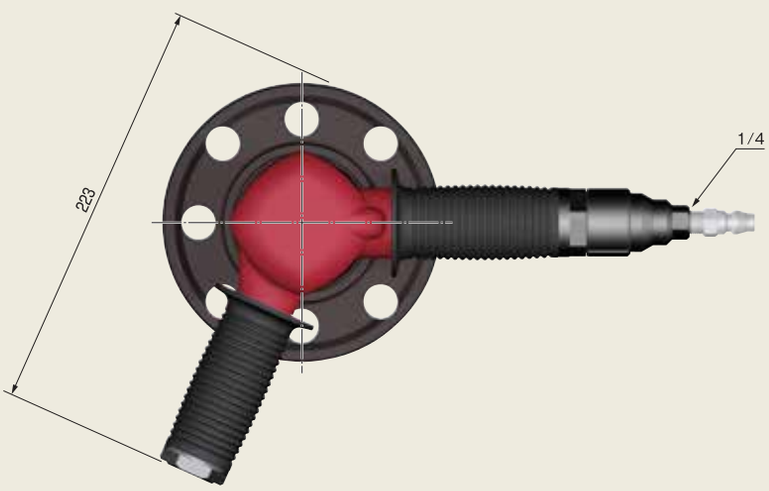
- Only 3.4kg weight Handy type
- Capacity: R3(C3), R4(C4), R5(C5)

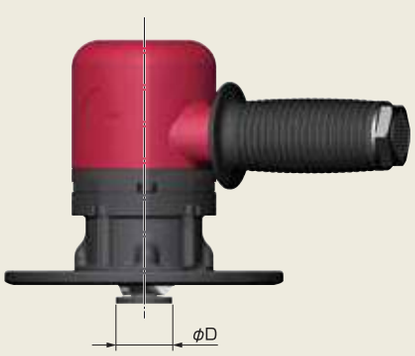
Specification

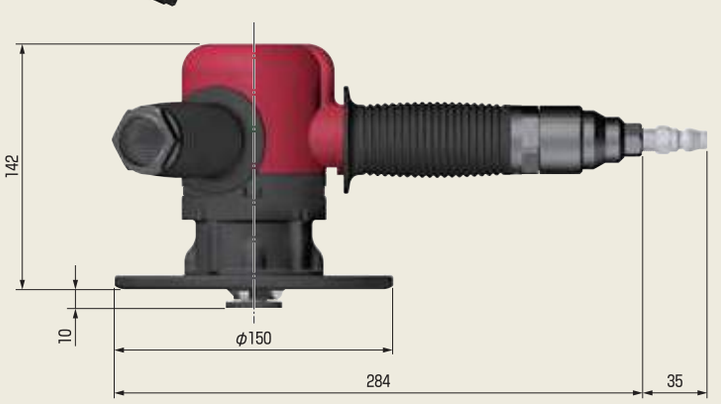
Model number	HAM3R-150N	HAM4R-150N	HAM5R-150N
Air Pressure	0.49 • 0.68MPa(5 • 7f/cm²)		
Non-Load Rotational	10,000r.p.m.		
Air Consumption	0.96m³/min		
Capacity	Until the R3 (C3)	Until the R4 (C4)	Until the R5 (C5)
Work Thickness	12mm •		
Weight	About 3.4kg		

※The amount of chamfer of this product is dedicated size.

(mm)







Body

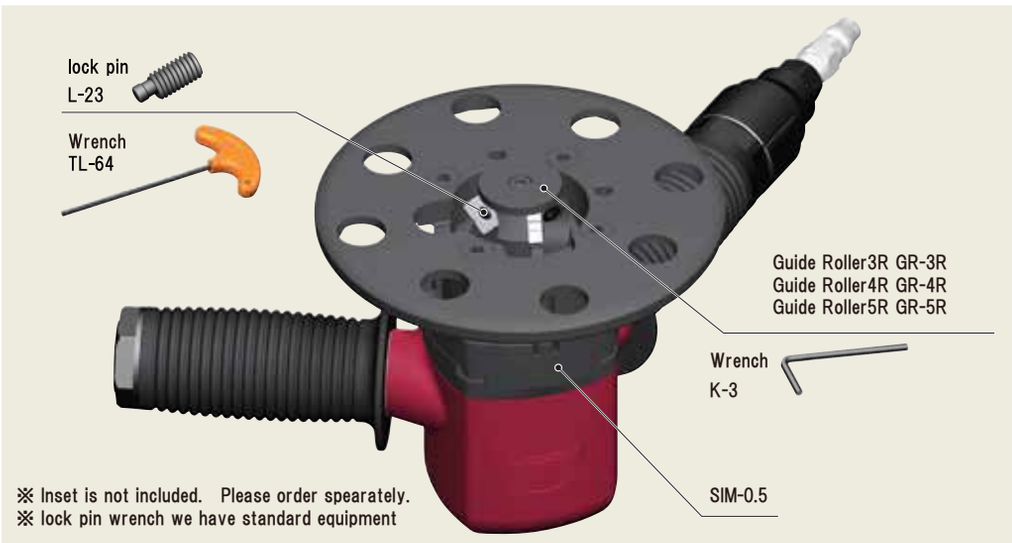
Model No.	Blades	φD	Dimensions(mm)	Inserts	Weight
NEW HAM3R-150N	3	30.7mm	W223×D319×H142	N43GXR / N43MOZ / N43GUR	3.4Kg
NEW HAM4R-150N	3	29.7mm	W223×D319×H142	N43GXR / N43MOZ / N43GUR	3.4Kg
NEW HAM5R-150N	3	28.7mm	W223×D319×H142	N43GXR / N43MOZ / N43GUR	3.4Kg

※ Insert is not equipped as standard accessory
※ Clamp screw and wrench are supplied as standard accessory

During the insert mounting, because of the eccentric lock system, and poor accuracy due to the reverse lock, may lead to insert damage.
During the insert replacement, please be sure to confirm whether the reverse lock is not.

…P.114

Standard Equipment



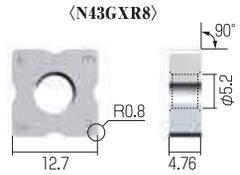
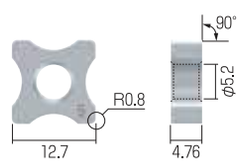
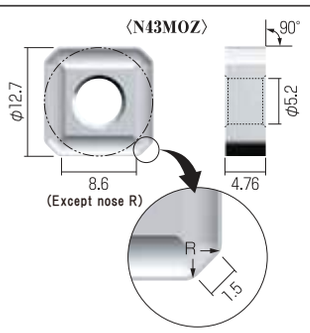
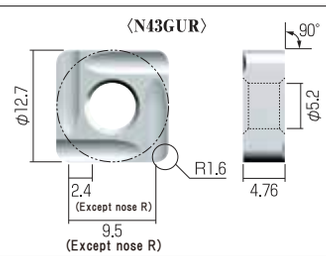
※ Inset is not included. Please order spearately.
※ lock pin wrench we have standard equipment

Accessory

Mini oil (one)

Model number	MO-20

Insert

Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
〈N43GXR8〉  〈N43GXR Semi-Standard〉  ※ Semi-Standard Insert have no braker ※ CA20N is dedicated to aluminum.	N43GXR8-3R NK2001	Cermet	The Same R Each corner	None	8	3/12
	N43GXR8-4R NK2001	Cermet	The Same R Each corner	None	8	3/12
	NEW Semi standard N43GXR8-5R NK2001	Cermet	The Same R Each corner	None	8	3/12
	NEW N43GXR8-3R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	NEW N43GXR8-4R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	NEW Semi standard N43GXR8-5R NK2020	Carbide M20	The Same R Each corner	None	8	3/12
	NEW N43GXR8-3R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	NEW N43GXR8-4R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	NEW Semi standard N43GXR8-5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3/12
	NEW N43GXR8-3R CA20N	Carbide M20	The Same R Each corner	DLC	8	3/12
	NEW N43GXR8-4R CA20N	Carbide M20	The Same R Each corner	DLC	8	3/12
	NEW Semi standard N43GXR8-5R CA20N	Carbide M20	The Same R Each corner	DLC	8	3/12
〈N43MOZ〉 	N43MOZ NK2001	Cermet	Honing edge	None	8	12
	N43MOZ NK1010	Carbide K10	Sharp edge	None	8	12
	N43MOZ NK2020	Carbide M20	Honing edge	None	8	12
	N43MOZ NK3030	Carbide M20	Honing edge	TiN	8	12
	N43MOZ NK6060	Carbide M20	Honing edge	TiAlN	8	12
〈N43GUR〉 	N43GUR NK2001	Cermet	Honing edge	None	8	12
	N43GUR NK1010	Carbide K10	Sharp edge	None	8	12
	N43GUR NK2020	Carbide M20	Honing edge	None	8	12
	N43GUR NK3030	Carbide M20	Honing edge	TiN	8	12
	N43GUR NK6060	Carbide M20	Honing edge	TiAlN	8	12
	N43GUR NK8080	Carbide K10	Sharp edge	TiAlN	8	12

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Inserts

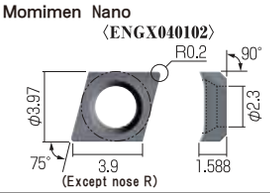
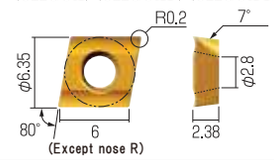
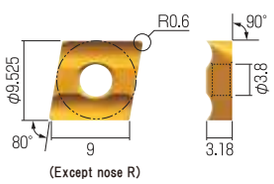
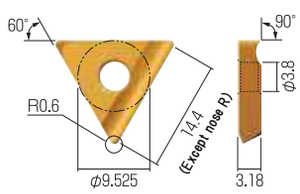
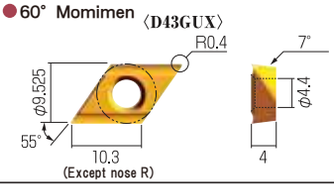
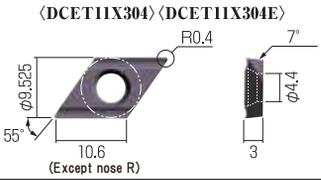
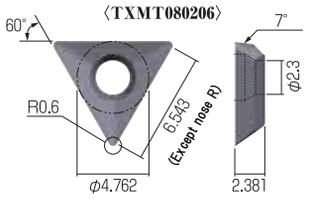
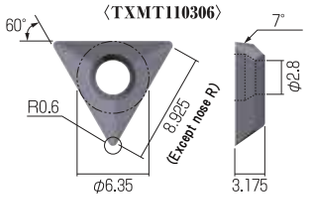
Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Momimen Nano 〈ENGX040102〉 	NEW ENGX040102F ZC16N	Fine particles Carbide	Sharp edge	None	2	12
	ENGX040102 AC15N	Fine particles Carbide	Honing edge	AlCrN	2	12
● Chibimomi 〈C22GUX〉〈C22GUXF〉〈C22GUXT〉 	C22GUX NK1010	Carbide K10	Sharp edge	None	2	12
	C22GUX NK2020	Carbide M20	Honing edge	None	2	12
	C22GUX NK3030	Carbide M20	Honing edge	TiN	2	12
	C22GUX NK5050	Carbide K10	Sharp edge	TiN	2	12
	C22GUX NK6060	Carbide M20	Honing edge	TiAlN	2	12
	C22GUX NK8080	Carbide K10	Sharp edge	TiAlN	2	12
	C22GUXF AC16N	Fine particles Carbide	Sharp edge	AlCrN	2	12
	C22GUXT AC16N	Fine particles Carbide	Honing edge	AlCrN	2	12
● Momimen/Men men 〈C32GUX〉 	C32GUX NK2001	Cermet	Honing edge	None	2	12
	C32GUX NK1010	Carbide K10	Sharp edge	None	2	12
	C32GUX NK2020	Carbide M20	Honing edge	None	2	12
	C32GUX NK3030	Carbide M20	Honing edge	TiN	2	12
	C32GUX NK5050	Carbide K10	Sharp edge	TiN	2	12
	C32GUX NK6060	Carbide M20	Honing edge	TiAlN	2	12
	C32GUX NK8080	Carbide K10	Sharp edge	TiAlN	2	12
	C32GUX AC15D	Fine particles Carbide	Honing edge	AlCrN	2	12
	C32GUX AC25D	Fine particles Carbide	Sharp edge	AlCrN	2	12
	C32GUX HSS	HSS	Sharp edge	None	2	12
	C32GUX HSS TiN	HSS	Sharp edge	TiN	2	12
● Dekamomi 〈T32GUX〉〈T32GUXF〉〈T32GUXT〉 	T32GUX NK2001	Cermet	Honing edge	None	2	12
	T32GUX NK1010	Carbide K10	Sharp edge	None	2	12
	T32GUX NK2020	Carbide M20	Honing edge	None	2	12
	T32GUX NK3030	Carbide M20	Honing edge	TiN	2	12
	T32GUX NK5050	Carbide K10	Sharp edge	TiN	2	12
	T32GUX NK6060	Carbide M20	Honing edge	TiAlN	2	12
	T32GUX NK8080	Carbide K10	Sharp edge	TiAlN	2	12
	T32GUXF AC16N	Fine particles Carbide	Sharp edge	AlCrN	2	12
	T32GUXT AC16N	Fine particles Carbide	Honing edge	AlCrN	2	12
	T32GUX HSS	HSS	Sharp edge	None	2	12
	T32GUX HSS TiN	HSS	Sharp edge	TiN	2	12
● 60° Momimen 〈D43GUX〉 	D43GUX NK1010	Carbide K10	Sharp edge	None	2	12
	D43GUX NK5050	Carbide K10	Sharp edge	TiN	2	12
	D43GUX NK8080	Carbide K10	Sharp edge	TiAlN	2	12
● 60° Momimen (SC1660DS) 〈DCET11X304〉〈DCET11X304E〉 	DCET11X304 ZA10N	Carbide K10	Sharp edge	None	2	12
	DCET11X304 AC15N	Fine particles Carbide	Sharp edge	AlCrN	2	12
	DCET11X304E AC16N	Fine particles Carbide	Honing edge	AlCrN	2	12
● Chibieco /Chibieco2 〈TXMT080206〉 	TXMT080206 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT080206 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12
● Momieco/Momieco2 〈TXMT110306〉 	TXMT110306 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT110306 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12

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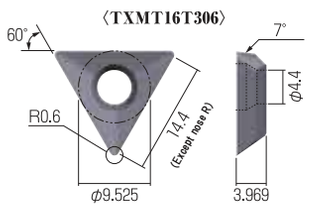
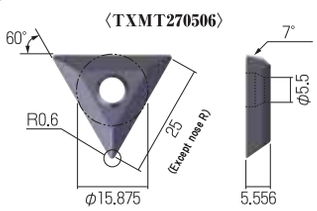
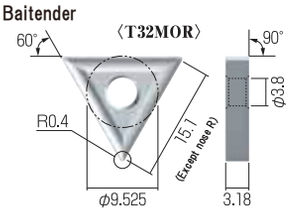
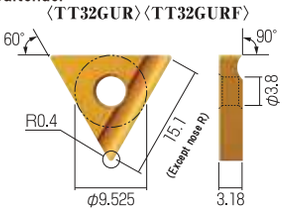
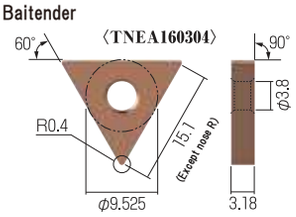
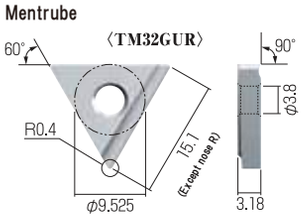
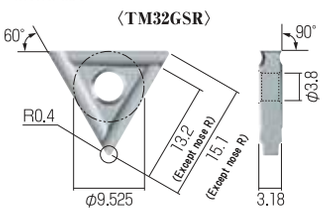
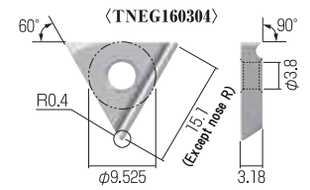
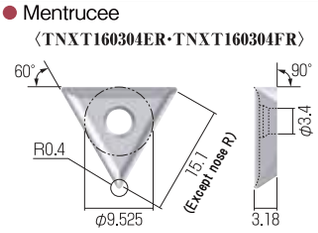
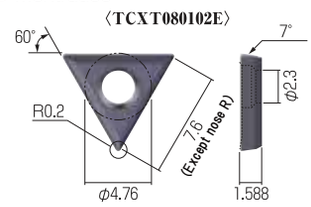
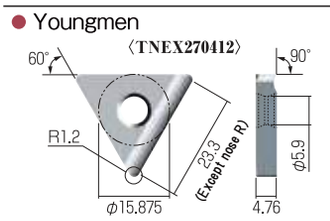
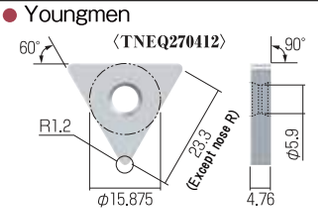
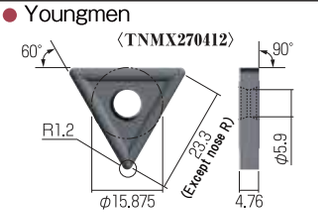
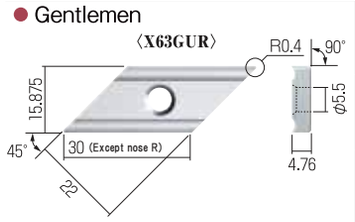
Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Ecomen/Ecomen2/Choumen 	TXMT16T306 ZA10N	Carbide K10	Sharp edge	None	3	12
	TXMT16T306 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	12
● Dodekaeco 	NEW TXMT270506 ZA10N	Carbide K10	Sharp edge	None	3	3
	NEW TXMT270506 AC16N	Fine particles Carbide	Honing edge	AlCrN	3	3
● Chamfering Cutter/RCindo-Cutter Baitender 	T32MOR NK2001	Cermet	Honing edge	None	6	12
	T32MOR NK1010	Carbide K10	Sharp edge	None	6	12
	T32MOR NK2020	Carbide M20	Honing edge	None	6	12
	T32MOR NK3030	Carbide M20	Honing edge	TiN	6	12
	T32MOR AC16N	Fine particles Carbide	Honing edge	AlCrN	6	12
● Chamfering Cutter/RCindo-Cutter Baitender 	TT32GUR NK2001	Cermet	Honing edge	None	2	12
	TT32GUR NK1010	Carbide K10	Sharp edge	None	2	12
	TT32GUR NK2020	Carbide M20	Honing edge	None	2	12
	TT32GUR NK3030	Carbide M20	Honing edge	TiN	2	12
	TT32GUR NK5050	Carbide K10	Sharp edge	TiN	2	12
	TT32GUR NK8080	Carbide K10	Sharp edge	TiAlN	2	12
	TT32GUR AC15N	Fine particles Carbide	Honing edge	AlCrN	2	12
	TT32GURF TC16N	Fine particles Carbide	Sharp edge	TiSiN	2	12
	TT32GUR HSS	HSS	Sharp edge	None	2	12
	TT32GUR HSS TiN	HSS	Sharp edge	TiN	2	12
● Chamfering Cutter/RCindo-Cutter Baitender 	TNEA160304 TC16N	Fine particles Carbide	Honing edge	TiSiN	6	12
● Mentrube 	TM32GUR HSS	HSS	Sharp edge	None	2	3
	TM32GUR HSS TiAlN	HSS	Sharp edge	TiAlN	2	3
● Mentrube 	TM32GSR HSS	HSS	Sharp edge	None	6	3
	TM32GSR HSS TiAlN	HSS	Sharp edge	TiAlN	6	3
	NEW TM32GSR AC16N	Fine particles Carbide	Honing edge	AlCrN	6	3

Inserts

Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Mentrucee 	TNEG160304XR HSS	HSS	Sharp edge	None	2	3
	TNEG160304ER HSS	HSS	Honing edge	None	2	3
● Mentrucee 	NEW TNXT160304FR HSS	HSS	Sharp edge	None	3	3
	NEW TNXT160304ER HSS	HSS	Honing edge	None	3	3
	NEW TNXT160304ER HSS AlCrN	HSS	Honing edge	AlCrN	3	3
● Mentrudee 	NEW TCXT080102F ZC16N	Fine particles Carbide	Sharp edge	None	3	3
	NEW TCXT080102E AC16N	Fine particles Carbide	Honing edge	AlCrN	3	3
● Youngmen 	TNEX270412 ZA10T	Carbide K10	Sharp edge	None	2	3
● Youngmen 	TNEQ270412 ZA10N	Carbide K10	Honing edge	None	6	3
● Youngmen 	TNMX270412 AC15N	Fine particles Carbide	Honing edge	AlCrN	6	3
● Gentlemen 	X63GUR NK1010	Carbide K10	Sharp edge	None	2	3
	X63GUR NK2020	Carbide M20	Honing edge	None	2	3
	X63GUR AC15N	Fine particles Carbide	Honing edge	AlCrN	2	3

Inserts

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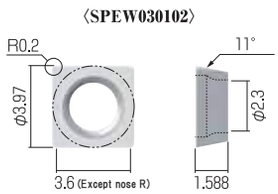
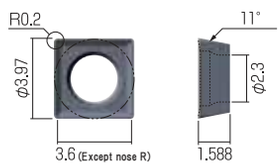
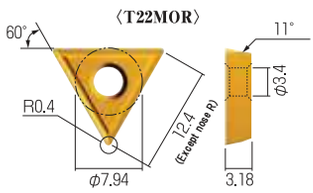
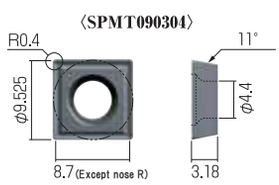
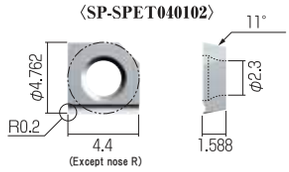
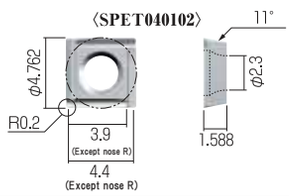
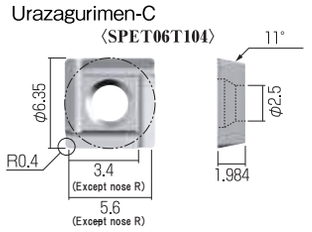
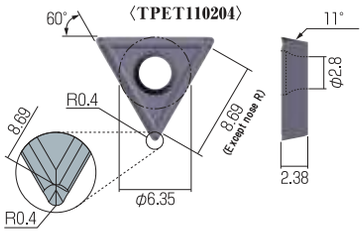
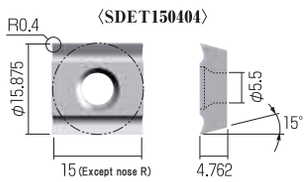
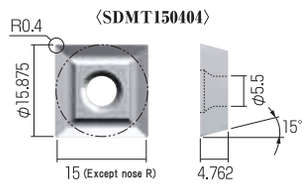
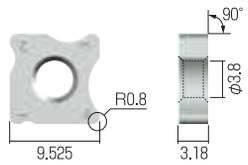
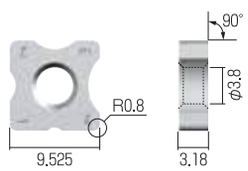
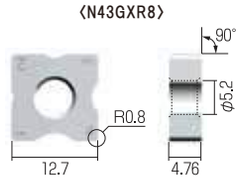
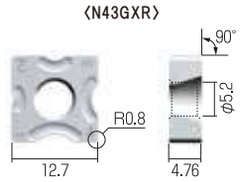
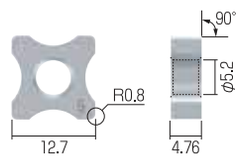
Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Chibi Ryanmen 〈SPEW030102〉 	SPEW030102 ZA10N	Carbide K10	Sharp edge	None	4	12
● Chibi Ryanmen 〈SPMT030102〉 	SPMT030102 ZA20N	Carbide M20	Sharp edge	None	4	12
	NEW SPMT030102 AC16N	Fine particles Carbide	Sharp edge	AlCrN	4	12
● Ryanmencut-V 〈T22MOR〉 	T22MOR NK5050	Carbide K10	Sharp edge	TiN	3	12
● Ryanmencut-V 〈SPMT090304〉 	SPMT090304 NK6060	Carbide M20	Honing edge	TiAlN	4	12
● Uratorimen-C (M8) 〈SP-SPET040102〉 	SP-SPET040102 NK1010	Carbide K10	Sharp edge	None	1	12
	SP-SPET040102 NK2020	Carbide M20	Honing edge	None	1	12
	NEW SP-SPET040102 AC16N	Fine particles Carbide	Honing edge	AlCrN	1	12
● Uratorimen-C (M10) 〈SPET040102〉 	SPET040102 NK1010	Carbide K10	Sharp edge	None	4	12
	SPET040102 NK2020	Carbide M20	Honing edge	None	4	12
	NEW SPET040102 AC16N	Fine particles Carbide	Honing edge	AlCrN	4	12
● Uratorimen-C (M12~18/UM12-16S) Urazagurimen-C 〈SPET06T104〉 	SPET06T104 NK1010	Carbide K10	Sharp edge	None	4	12
	SPET06T104 NK2020	Carbide M20	Honing edge	None	4	12
	NEW SPET06T104 AC16N	Fine particles Carbide	Honing edge	AlCrN	4	12

Inserts

Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Multi-Angle Mini 	TPET110204 ZA10N	Carbide K10	Sharp edge	None	3	3
	TPET110204 AC15N	Fine particles Carbide	Honing edge	AlCrN	3	3
● Multi-Angle Mini 	SDET150404 ZA10N	Carbide K10	Sharp edge	None	2	3
● Multi-Angle Mini 	SDMT150404 ZA20N	Carbide M20	Honing edge	None	4	3
	SDMT150404 AC15N	Fine particles Carbide	Honing edge	AlCrN	4	3

Inserts

NICECUT®

Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Han-Chan-man R/Nice-Corner FR Ryanmencut-R(RR16-30S・RR25-40S) 〈SNEQ090308-□RY〉  ※CA20A is for aluminum only.	SNEQ090308-1RY ZA20N	Carbide M20	The Same R Each corner	None	4/8	12
	SNEQ090308-2RY ZA20N	Carbide M20	The Same R Each corner	None	4/8	12
	SNEQ090308-3RY ZA20N	Carbide M20	The Same R Each corner	None	4/8	12
	SNEQ090308-4RY ZA20N	Carbide M20	The Same R Each corner	None	4/8	12
	SNEQ090308-XRY ZA20N	Carbide M20	R1・2・3・4	None	4/8	12
	NEW SNEQ090308-1RY CA20N	Carbide M20	The Same R Each corner	DLC	4	12
	NEW SNEQ090308-2RY CA20N	Carbide M20	The Same R Each corner	DLC	4	12
	NEW SNEQ090308-3RY CA20N	Carbide M20	The Same R Each corner	DLC	4	12
● Ryanmencut-R(RR16-30S・RR25-40S) Mini-R/Nice-Corner FR 〈SNEQ090308-□RM〉  ※CA20A is for aluminum only.	SNEQ090308-1RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-2RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-3RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-4RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-5RM ZA20N	Carbide M20	The Same R Each corner	None	8	12
	SNEQ090308-XRM ZA20N ※It can not be used for mini-R.	Carbide M20	R1・2・3・4	None	8	12
	NEW SNEQ090308-1RM CA20N	Carbide M20	The Same R Each corner	DLC	8	12
	NEW SNEQ090308-2RM CA20N	Carbide M20	The Same R Each corner	DLC	8	12
	NEW SNEQ090308-3RM CA20N	Carbide M20	The Same R Each corner	DLC	8	12
● R-Special/R-Special Jr./R-Bit Ryanmencut-R(RR25-48N) Nice-Corner VR/Han-Chan-manR-HYPER 〈N43GXR8〉  〈N43GXR〉  〈N43GXR8 Semistandard Insert〉  ※ For the Semi-Standard Insert, breaker does not contain. ※CA20A is for aluminum only.	N43GXR8 NK2001	Cermet	R1・2・3・4	None	8	3or12
	N43GXR8-1R NK2001	Cermet	The Same R Each corner	None	8	3or12
	N43GXR8-2R NK2001	Cermet	The Same R Each corner	None	8	3or12
	N43GXR8-3R NK2001	Cermet	The Same R Each corner	None	8	3or12
	N43GXR8-4R NK2001	Cermet	The Same R Each corner	None	8	3or12
	Semi Standard NEW N43GXR8-5R NK2001	Cermet	The Same R Each corner	None	8	3or12
	N43GXR NK1010	Carbide K10	R1・2・3・4	None	4	3or12
	NEW N43GXR8 NK2020	Carbide M20	R1・2・3・4	None	8	3or12
	NEW N43GXR8-1R NK2020	Carbide M20	The Same R Each corner	None	8	3or12
	NEW N43GXR8-2R NK2020	Carbide M20	The Same R Each corner	None	8	3or12
	NEW N43GXR8-3R NK2020	Carbide M20	The Same R Each corner	None	8	3or12
	NEW N43GXR8-4R NK2020	Carbide M20	The Same R Each corner	None	8	3or12
	Semi Standard: NEW N43GXR8-0.5R NK2020	Carbide M20	The Same R Each corner	None	8	3or12
	Semi Standard: NEW N43GXR8-0.75R NK2020	Carbide M20	The Same R Each corner	None	8	3or12
	Semi Standard: NEW N43GXR8-1.5R NK2020	Carbide M20	The Same R Each corner	None	8	3or12
	Semi Standard: NEW N43GXR8-2.5R NK2020	Carbide M20	The Same R Each corner	None	8	3or12
	Semi Standard: NEW N43GXR8-3.5R NK2020	Carbide M20	The Same R Each corner	None	8	3or12
	Semi Standard: NEW N43GXR8-4.5R NK2020	Carbide M20	The Same R Each corner	None	8	3or12
	Semi Standard: NEW N43GXR8-5R NK2020	Carbide M20	The Same R Each corner	None	8	3or12
	NEW N43GXR8 AC16N	Fine particles Carbide	R1・2・3・4	AlCrN	8	3or12
	NEW N43GXR8-1R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3or12
	NEW N43GXR8-2R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3or12
	NEW N43GXR8-3R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3or12
	NEW N43GXR8-4R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3or12
	Semi Standard: NEW N43GXR8-0.5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3or12
	Semi Standard: NEW N43GXR8-0.75R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3or12
	Semi Standard: NEW N43GXR8-1.5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3or12
	Semi Standard: NEW N43GXR8-2.5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3or12
	Semi Standard: NEW N43GXR8-3.5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3or12
	Semi Standard: NEW N43GXR8-4.5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3or12
	Semi Standard: NEW N43GXR8-5R AC16N	Fine particles Carbide	The Same R Each corner	AlCrN	8	3or12
	NEW N43GXR8-3R CA20N	Carbide M20	The Same R Each corner	DLC	8	3or12
	NEW N43GXR8-4R CA20N	Carbide M20	The Same R Each corner	DLC	8	3or12
	Semi Standard NEW N43GXR8-5R CA20N	Carbide M20	The Same R Each corner	DLC	8	3or12

Inserts

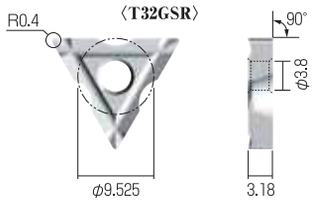
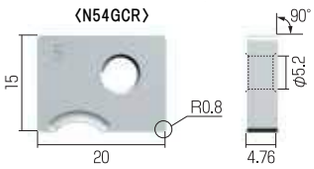
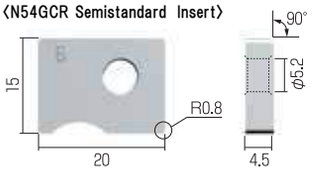
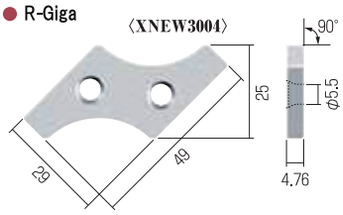
Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● RCindo-Cutter 	T32GSR-1R NK2020	Carbide M20		None	3	3
	T32GSR-2R NK2020	Carbide M20		None	3	3
	T32GSR-3R NK2020	Carbide M20		None	3	3
● R-Nouveau/R-Nouveau Jr./10R-bit 〈N54GCR〉  〈N54GCR Semistandard Insert〉  ※ For the Semistandard Insert, breaker does not contain.	N54GCR-5R NK2020	Carbide M20		None	1	3
	N54GCR-8R NK2020	Carbide M20		None	1	3
	N54GCR-10R NK2020	Carbide M20		None	1	3
	N54GCR-5R NK6060	Carbide M20		TiAℓN	1	3
	N54GCR-8R NK6060	Carbide M20		TiAℓN	1	3
	N54GCR-10R NK6060	Carbide M20		TiAℓN	1	3
	Semistandard N54GCR-6R NK2020	Carbide M20		None	1	3
	Semistandard N54GCR-7R NK2020	Carbide M20		None	1	3
	Semistandard N54GCR-9R NK2020	Carbide M20		None	1	3
● R-Giga 〈XNEW3004〉  Order production	XNEW3004-11R NK2020	Carbide M20		None	2	3
	XNEW3004-12R NK2020	Carbide M20		None	2	3
	XNEW3004-13R NK2020	Carbide M20		None	2	3
	XNEW3004-14R NK2020	Carbide M20		None	2	3
	XNEW3004-15R NK2020	Carbide M20		None	2	3
	XNEW3004-16R NK2020	Carbide M20		None	2	3
	XNEW3004-17R NK2020	Carbide M20		None	2	3
	XNEW3004-18R NK2020	Carbide M20		None	2	3
	XNEW3004-19R NK2020	Carbide M20		None	2	3
	XNEW3004-20R NK2020	Carbide M20		None	2	3

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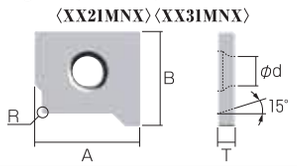
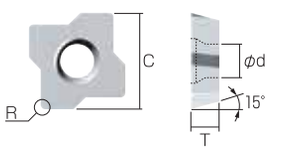
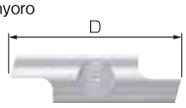
Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Eaglecut(M4・M6) 〈XX21MNX〉〈XX31MNX〉  	XX21MNX-M4 NK2020	Carbide M20	Honing edge	None	1	12
	XX21MNX-M5 NK2020	Carbide M20	Honing edge	None	1	12
	XX31MNX-M6 NK2020	Carbide M20	Honing edge	None	1	12
	XX21MNX-M4 NK6060	Carbide M20	Honing edge	TiAℓN	1	12
	XX21MNX-M5 NK6060	Carbide M20	Honing edge	TiAℓN	1	12
	XX31MNX-M6 NK6060	Carbide M20	Honing edge	TiAℓN	1	12
● Eaglecut(M4・M6) Birdiecut ［XS22MNX］［XS42MNX］ ［XS32MNX］［XS53MNX］  	XS22MNX-M8 NK2020	Carbide M20	Honing edge	None	4	12
	XS22MNX-M10 NK2020	Carbide M20	Honing edge	None	4	12
	XS22MNX-M12 NK2020	Carbide M20	Honing edge	None	4	12
	XS32MNX-M14 NK2020	Carbide M20	Honing edge	None	4	12
	XS32MNX-M16 NK2020	Carbide M20	Honing edge	None	4	12
	XS42MNX-M18 NK2020	Carbide M20	Honing edge	None	4	12
	XS42MNX-M20 NK2020	Carbide M20	Honing edge	None	4	12
	XS42MNX-M22 NK2020	Carbide M20	Honing edge	None	4	12
	XS53MNX-M24 NK2020	Carbide M20	Honing edge	None	4	12
	XS53MNX-M27 NK2020	Carbide M20	Honing edge	None	4	12
	XS53MNX-M30 NK2020	Carbide M20	Honing edge	None	4	12
	XS22MNX-M8 NK6060	Carbide M20	Honing edge	TiAℓN	4	12
	XS22MNX-M10 NK6060	Carbide M20	Honing edge	TiAℓN	4	12
	XS22MNX-M12 NK6060	Carbide M20	Honing edge	TiAℓN	4	12
	XS32MNX-M14 NK6060	Carbide M20	Honing edge	TiAℓN	4	12
	XS32MNX-M16 NK6060	Carbide M20	Honing edge	TiAℓN	4	12
	XS42MNX-M18 NK6060	Carbide M20	Honing edge	TiAℓN	4	12
	XS42MNX-M20 NK6060	Carbide M20	Honing edge	TiAℓN	4	12
	XS42MNX-M22 NK6060	Carbide M20	Honing edge	TiAℓN	4	12
	XS53MNX-M24 NK6060	Carbide M20	Honing edge	TiAℓN	4	12
	XS53MNX-M27 NK6060	Carbide M20	Honing edge	TiAℓN	4	12
	XS53MNX-M30 NK6060	Carbide M20	Honing edge	TiAℓN	4	12
● Nyoro nyoro  	NBI04 HSS	HSS	Sharp edge	None	1 corner 2 piece blade	3
	NBI05 HSS	HSS	Sharp edge	None	1 corner 2 piece blade	3
	NBI06 HSS	HSS	Sharp edge	None	1 corner 2 piece blade	3
	NBI08 HSS	HSS	Sharp edge	None	1 corner 2 piece blade	3
	NBI10 HSS	HSS	Sharp edge	None	1 corner 2 piece blade	3
	NBI12 HSS	HSS	Sharp edge	None	1 corner 2 piece blade	3
● Urazaguru-solid 	UZHS-M6B	Fine particles Carbide		None	1	1
	UZHS-M8B	Fine particles Carbide		None	1	1
	UZHS-M10B	Fine particles Carbide		None	1	1
	UZHS-M12B	Fine particles Carbide		None	1	1
	UZHS-M6BC	Fine particles Carbide		AlCrN	1	1
	UZHS-M8BC	Fine particles Carbide		AlCrN	1	1
	UZHS-M10BC	Fine particles Carbide		AlCrN	1	1
	UZHS-M12BC	Fine particles Carbide		AlCrN	1	1

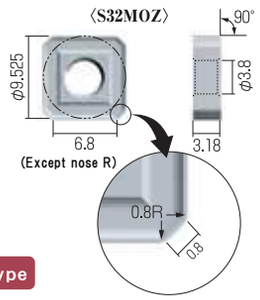
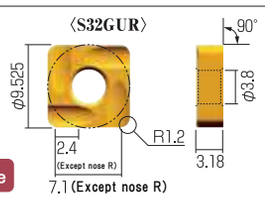
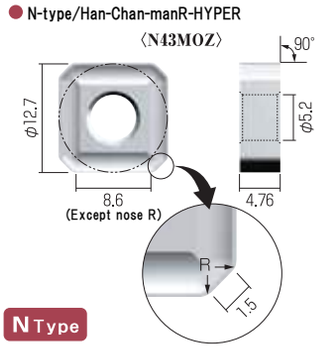
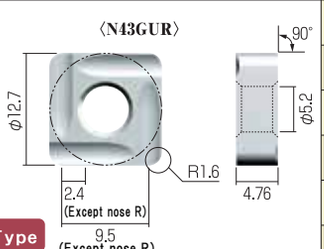
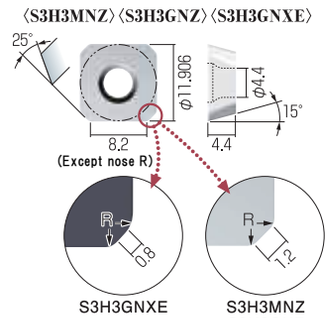
Model.No.	A	B	T	R	ϕd
XX21MNX-M4	8mm	6.548mm	1.59mm	R0.2	2.3mm
XX21MNX-M5	8mm	6.841mm	1.59mm	R0.2	2.3mm
XX31MNX-M6	9mm	8.084mm	1.59mm	R0.2	2.5mm

Model.No.	C	T	R	ϕd
XS22MNX-M8	6.35mm	2.38mm	R0.4	2.5mm
XS22MNX-M10	7.938mm	2.38mm	R0.4	3.4mm
XS22MNX-M12	7.938mm	2.38mm	R0.4	3.4mm
XS32MNX-M14	9.525mm	3.18mm	R0.8	4.4mm
XS32MNX-M16	9.525mm	3.18mm	R0.8	4.4mm
XS42MNX-M18	12.7mm	3.18mm	R0.8	5.5mm
XS42MNX-M20	12.7mm	3.18mm	R0.8	5.5mm
XS42MNX-M22	12.7mm	3.18mm	R0.8	5.5mm
XS53MNX-M24	15.875mm	4.76mm	R0.8	5.5mm
XS53MNX-M27	15.875mm	4.76mm	R0.8	5.5mm
XS53MNX-M30	15.875mm	4.76mm	R0.8	5.5mm

型　番	D	ϕdt
NBI04 HSS	8mm	3mm
NBI05 HSS	9.5mm	
NBI06 HSS	11mm	4mm
NBI08 HSS	14mm	
NBI10 HSS	17.5mm	
NBI12 HSS	20mm	

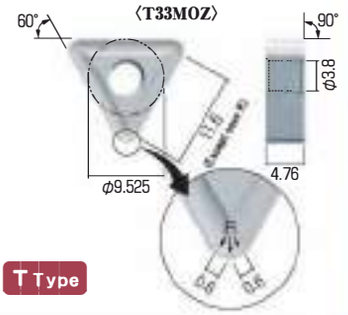
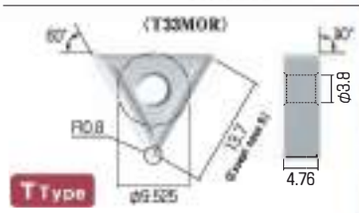
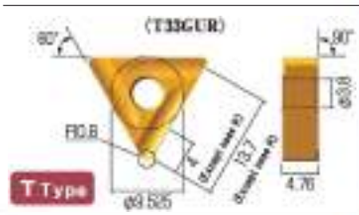
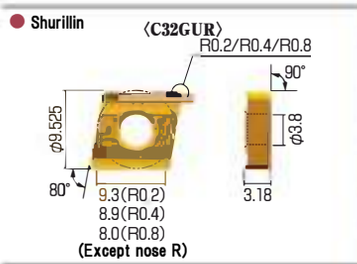
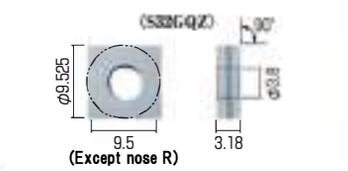
Model.No.	ϕD	L
UZHS-M6B	5.6mm	46mm
UZHS-M8B	8mm	53mm
UZHS-M10B	10mm	65mm
UZHS-M12B	13mm	80mm
UZHS-M6BC	5.6mm	46mm
UZHS-M8BC	8mm	53mm
UZHS-M10BC	10mm	65mm
UZHS-M12BC	13mm	80mm

Inserts

Fig.	Model.No.	Material	Blade Shape	Coating	Use Corner Number	Number 1 Case Input
● S-Type/Aeromill(negative) Nice-Corner V3/Nice-Corner F3 Han-Chan-man/Ryanmencut-R Han-Chan-man R/New Nice Cut Nice-Corner FR 〈S32MOZ〉  S Type	S32MOZ NK2001	Cermet	Honing edge	None	8	12
	S32MOZ NK2050	Cermet	Honing edge	None	8	12
	S32MOZ AB01F	Cermet	Honing edge	AlCrN	8	12
	S32MOZ NK1010	Carbide K10	Sharp edge	None	8	12
	S32MOZ NK2020	Carbide M20	Honing edge	None	8	12
	S32MOZ NK3030	Carbide M20	Honing edge	TiN	8	12
	S32MOZ AC15T	Fine particles Carbide	Honing edge	AlCrN	8	12
〈S32GUR〉  S Type	S32GUR NK2001	Cermet	Honing edge	None	8	12
	S32GUR NK1010	Carbide K10	Sharp edge	None	8	12
	S32GUR NK2020	Carbide M20	Honing edge	None	8	12
	S32GUR NK3030	Carbide M20	Honing edge	TiN	8	12
	S32GUR NK5050	Carbide K10	Sharp edge	TiN	8	12
	S32GUR NK6060	Carbide M20	Honing edge	TiAℓN	8	12
	S32GUR NK8080	Carbide K10	Sharp edge	TiAℓN	8	12
〈S32GUR DIA〉 S Type	S32GUR DIA	Sintering diamond	Sharp edge	None	1	1
● N-type/Han-Chan-manR-HYPER 〈N43MOZ〉  N Type	N43MOZ NK2001	Cermet	Honing edge	None	8	12
	N43MOZ NK1010	Carbide K10	Sharp edge	None	8	12
	N43MOZ NK2020	Carbide M20	Honing edge	None	8	12
	N43MOZ NK3030	Carbide M20	Honing edge	TiN	8	12
	N43MOZ NK6060	Carbide M20	Honing edge	TiAℓN	8	12
〈N43GUR〉  N Type	N43GUR NK2001	Cermet	Honing edge	None	8	12
	N43GUR NK1010	Carbide K10	Sharp edge	None	8	12
	N43GUR NK2020	Carbide M20	Honing edge	None	8	12
	N43GUR NK3030	Carbide M20	Honing edge	TiN	8	12
	N43GUR NK6060	Carbide M20	Honing edge	TiAℓN	8	12
	N43GUR NK8080	Carbide K10	Sharp edge	TiAℓN	8	12
● Aeromill(positive)/Kame Cutter New Nice Cut/Nice-Corner F3 〈S3H3MNZ〉〈S3H3GNZ〉〈S3H3GNXE〉  	S3H3MNZ NK2001	Cermet	Honing edge	None	4	12
	S3H3GNZ NK1010	Carbide K10	Sharp edge	None	4	12
	S3H3MNZ NK2020	Carbide M20	Honing edge	None	4	12
	S3H3GNZ NK9090 (Mirror polished finish)	Carbide K10	Sharp edge	None	4	12
	S3H3MNZ AC15D	Fine particles Carbide	Honing edge	AlCrN	4	12
	S3H3GNXE AC16N	Fine particles Carbide	Honing edge	AlCrN	4	12

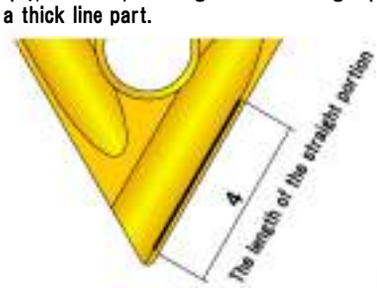
Inserts

NICECUT®

Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Skat Cut/New Nice Cut 	T33MOZ NK2001	Cermet	Honing edge	None	6	12
	T33MOZ NK1010	Carbide K10	Sharp edge	None	6	12
	T33MOZ NK2020	Carbide M20	Honing edge	None	6	12
	T33MOZ NK3030	Carbide M20	Honing edge	TiN	6	12
	T33MOZ NK6060	Carbide M20	Honing edge	TiAℓN	6	12
	T33MOR NK2001	Cermet	Honing edge	None	6	12
	T33MOR NK1010	Carbide K10	Sharp edge	None	6	12
	T33MOR NK2020	Carbide M20	Honing edge	None	6	12
	T33MOR NK3030	Carbide M20	Honing edge	TiN	6	12
	T33MOR NK6060	Carbide M20	Honing edge	TiAℓN	6	12
	T33GUR NK2001	Cermet	Honing edge	None	6	12
	T33GUR NK1010	Carbide K10	Sharp edge	None	6	12
	T33GUR NK2020	Carbide M20	Honing edge	None	6	12
	T33GUR NK3030	Carbide M20	Honing edge	TiN	6	12
	T33GUR NK5050	Carbide K10	Sharp edge	TiN	6	12
	T33GUR NK6060	Carbide M20	Honing edge	TiAℓN	6	12
	T33GUR NK8080	Carbide K10	Sharp edge	TiAℓN	6	12
● Shurillin 	C32GUR-0.2R NK2020	Carbide M20	Honing edge	None	4	12
	C32GUR-0.4R NK2020	Carbide M20	Honing edge	None	4	12
	C32GUR-0.8R NK2020	Carbide M20	Honing edge	None	4	12
	C32GUR-0.2R NK1010	Carbide K10	Sharp edge	None	4	12
	C32GUR-0.2R NK3030	Carbide M20	Honing edge	TiN	4	12
	C32GUR-0.4R NK3030	Carbide M20	Honing edge	TiN	4	12
	C32GUR-0.8R NK3030	Carbide M20	Honing edge	TiN	4	12
● Nice-Corner V2 	S32GQZ NK2001	Cermet		None	16	12
	S32GQZ NK2020	Carbide M20		None	16	12
	S32GQZ NK6060	Carbide M20		TiAℓN	16	12

⚠ S32GUR (diamond except), N43GUR, the length of the straight portion of T33GUR is,It becomes a thick line part.

Example) T33GUR



Inserts

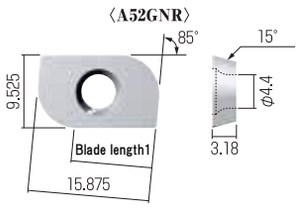
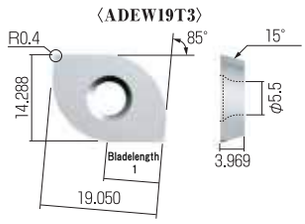
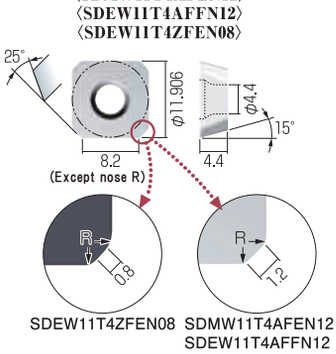
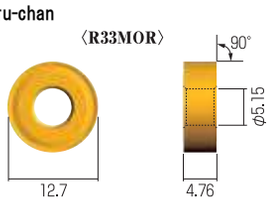
Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Sumicco/Sumicco R-Bit 〈A52GNR〉  ※ I stocks for each R0.5.	A52GNR-0.5R NK1010 A52GNR-1R NK1010 A52GNR-1.5R NK1010 A52GNR-2R NK1010 A52GNR-2.5R NK1010 A52GNR-3R NK1010 A52GNR-3.5R NK1010 A52GNR-4R NK1010 A52GNR-4.5R NK1010 A52GNR-5R NK1010	Carbide K10	Sharp edge	None	2	12
	A52GNR-0.5R NK2020 A52GNR-1R NK2020 A52GNR-1.5R NK2020 A52GNR-2R NK2020 A52GNR-2.5R NK2020 A52GNR-3R NK2020 A52GNR-3.5R NK2020 A52GNR-4R NK2020 A52GNR-4.5R NK2020 A52GNR-5R NK2020	Carbide M20	Honing edge	None	2	12
	A52GNR-0.5R AC16N A52GNR-1R AC16N A52GNR-1.5R AC16N A52GNR-2R AC16N A52GNR-2.5R AC16N A52GNR-3R AC16N A52GNR-3.5R AC16N A52GNR-4R AC16N A52GNR-4.5R AC16N A52GNR-5R AC16N	Fine particles Carbide	Honing edge	AlCrN	2	12
■ Blade length (Except nose R) Insert / Blade length 1 0.5R 15mm 1R 14.4mm 1.5R 13.9mm 2R 13.3mm 2.5R 12.8mm 3R 12.2mm 3.5R 11.7mm 4R 11.1mm 4.5R 10.5mm 5R 10mm						
● Dekasumi/Dekasumi R-Bit 〈ADEW19T3〉  ※ I stocks for each R1	ADEW19T3-5R NK1010 ADEW19T3-6R NK1010 ADEW19T3-7R NK1010 ADEW19T3-8R NK1010 ADEW19T3-9R NK1010 ADEW19T3-10R NK1010	Carbide K10	Sharp edge	None	2	4
	ADEW19T3-5R NK2020 ADEW19T3-6R NK2020 ADEW19T3-7R NK2020 ADEW19T3-8R NK2020 ADEW19T3-9R NK2020 ADEW19T3-10R NK2020	Carbide M20	Honing edge	None	2	4
	ADEW19T3-5R AC16N ADEW19T3-6R AC16N ADEW19T3-7R AC16N ADEW19T3-8R AC16N ADEW19T3-9R AC16N ADEW19T3-10R AC16N	Fine particles Carbide	Honing edge	AlCrN	2	4
■ Blade length (Except nose R) Insert / Blade length 1 5R 13.2mm 6R 12mm 7R 11mm 8R 9.8mm 9R 8.7mm 10R 7.7mm						
● Han-Chan-man 〈SDMW11T4AFEN12〉 〈SDEW11T4AFFN12〉 〈SDEW11T4ZFEN08〉  SDEW11T4ZFEN08 SDMW11T4AFEN12 SDEW11T4AFFN12	SDMW11T4AFEN12 ZB01N	Cermet	Honing edge	None	4	10
	SDEW11T4AFFN12 ZA10D	Carbide K10	Sharp edge	None	4	10
	SDMW11T4AFEN12 ZA20D	Carbide M20	Honing edge	None	4	10
	SDEW11T4AFFN12 ZA10DL	Carbide K10	Sharp edge	None	4	10
	SDMW11T4AFEN12 AC15D (Mirror polished finish)	Fine particles Carbide	Honing edge	AlCrN	4	10
	SDEW11T4ZFEN08 AC16N	Fine particles Carbide	Honing edge	AlCrN	4	10
● Maru-chan 〈R33MOR〉  	R33MOR NK2001	Cermet	Honing edge	None	360 ° both sides	12
	R33MOR NK1010	Carbide K10	Sharp edge	None	360 ° both sides	12
	R33MOR NK5050	Carbide K10	Sharp edge	TiN	360 ° both sides	12

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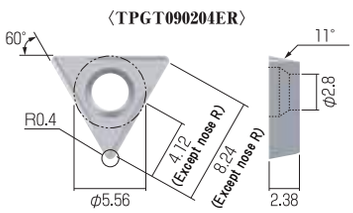
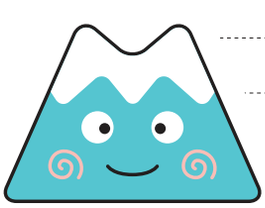
Fig.	Model.No.	Material	Blade Shape	Coating	Usable corner	Quantity per box
● Mini Han-Chan 	TPGT090204ER ZB01N	Cermet	Honing edge	None	3	12

MEMO



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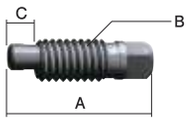
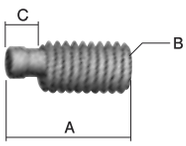
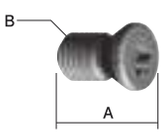
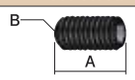
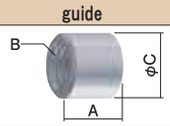
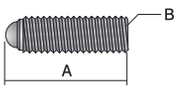
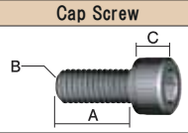
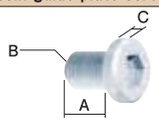
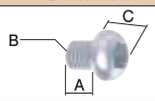
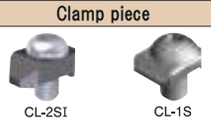
MEMO

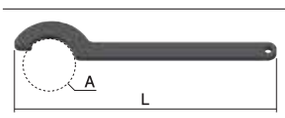
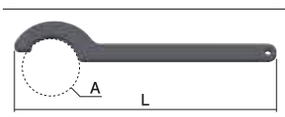
Spare Parts List

Lock pin	Model No.	A	B	C	Winding direction	Wrench	Fit body
	L-1	20㎜	M6×1	4㎜	R	NL-4	NK4560S / Nice-CornerV2 / Nice-CornerV3
	L-2	24㎜	M8×1	5.5㎜	R	NL-4	NK4536N / Nice-CornerVR
	L-4	27㎜	M8×1	5.5㎜	R	NL-4	NK4560N
	L-9	22㎜	M6×1	4㎜	R	NL-4	NK Face Mill B / FK Face Mill B / NK6.Face Mill / BK8.Deka-Cutter BK12.Deka-Cutter / KK6.Karu-Cutter / KK8.Karu-Cutter
※ L-3・L-8 I was changed to L-5.	L-5	14㎜	M6×1	5.5㎜	L	K-3	Skat Cut / New Nice Cut
	L-6	9.5㎜	M6×0.75	3.5㎜	R	K-3	Momimen / Chanmferring Cutter / RCindo-Cutter Aeromill(negative S Type) /Baitender
	L-10	14㎜	M6×0.75	3.5㎜	R	K-3	Dekamomi
	L-11	16.5㎜	M8×1	5.5㎜	L	K-4	Maru-chan
	L-12	16.5㎜	M8×1	5.5㎜	R	K-4	R-Nouveau Jr. /R-Special/R-Nouveau / R-bit/10R-bit
	L-14	13㎜	M8×1	5.5㎜	R	K-4	R-Special Jr. / Ryanmencut・R(RR25-48N)
	L-17	13㎜	M8×1	5.5㎜	L	K-4	Maru-chan
	L-21	14㎜	M6×1	4㎜	L	K-3	New Nice Cut / New Tiko Cutter / Han-Chan-man / Nice-Corner F3
	L-23	13㎜	M8×1.25	5㎜	R	TL-64	Han-Chan-man R-HYPER
Clamp Screw	**Model No.**	**A**	**B**	**C**	**Winding direction**	**Wrench**	**Fit body**
	L-13	4.8㎜	M2.5×0.45		R	N-5	Chibimomi / Momieco / Momieco2/Urazaguru
	L-15	6.5㎜	M4×0.7		R	N-6/N-7	60° Momimen/Ecomen/Ecomen2/Kame Cutter/Choumen/ ChoumenB/ Sumicco R-Bit/Eaglecut(M14・M16)/Birdiecut(M14・M16)/Sumicco/ Aeromill(positive S type)/Nice-Corner F3/New Nice Cut/Han-Chan-man
	L-16	9.5㎜	M5×0.8		R	BT-20	Youngmen / Gentlemen / R-Giga / Dekasumi R-Bit Eaglecut(M18～M30)/ Birdiecut(M18～M30) Dekasumi / Multi-Angle mill/Dodekaeco ～
	L-18	3.3㎜	M2×0.4		R	N-4	Momimen nano / Chibieco / Chibieco2 /Mentrudee/Chibi Ryanmen/ Uratorimen-C(M8～M10)/Eaglecut(M4・M5)/Urazaguru/Urazagurimen-C
	L-19	4.5㎜	M2.2×0.45		R	N-4	Uratorimen-C(M12～M18・UM12-16S) / Eaglecut(M6・M8) /Birdiecut(M8)
	L-20	12㎜	M4×0.7		R	N-6	New Nice Cut
	M-1	6.3㎜	M3×0.5		R	MA-1	Mentrube/Mentrucee/Ryanmencut-V/Eaglecut(M10・M12) Birdiecut(M10・M12)/Shurillin/Multi-Angle mill/Men men Ryanmencut-R(RR16-30S・RR25-40S)/Mini-R/Han-Chan-man R
Set screw	**Model No.**	**A**	**B**	**C**	**Winding direction**	**Wrench**	**Fit body**
	NH-3	6㎜	M3×6		R	K-1.5	Nyoro nyoro
guide	**Model No.**	**A**	**B**	**C**	**Winding direction**	**Wrench**	**Fit body**
	NG-6	7㎜	M5×0.8	6.4㎜	R		Nyoro nyoro
	NG-8	9㎜	M6×1	8.8㎜			
	NG-10	9㎜	M8×1.25	10.8㎜			
	NG-12	11㎜	M10×1.5	13.8㎜			
With ball screw	**Model No.**	**A**	**B**	**C**	**Winding direction**	**Wrench**	**Fit body**
	B-1	18㎜	M6×1		R	K-3	NK Face Mill / FK Face Mill
	B-2	21㎜	M8×1.25		R	K-4	NK Face Mill B/FK Face Mill B/NK6.Face Mill/BK8.Deka-Cutter BK12.Deka-Cutter/KK6.Karu-Cutter/KK8.Karu-Cutter
	B-1s	12.5㎜	M6×1		R	K-3	Tiko Cutter/KK3.Karu-Cutter/KK5.Karu-Cutter
Cap Screw	**Model No.**	**A**	**B**	**C**	**Winding direction**	**Wrench**	**Fit body**
	CP6-15	15㎜	M6	6㎜	R	K-5	New Nice Cut
Resin guide plate screws	**Model No.**	**A**	**B**	**C**	**Winding direction**	**Wrench**	**Fit body**
	H-1	8㎜	M5×0.8	1.5㎜	R	K-3	Han-Chan-man
Button bolt	**Model No.**	**A**	**B**	**C**	**Winding direction**	**Wrench**	**Fit body**
	BB3-4	4㎜	M3×0.5	2㎜	R	K-2	Multi-Angle mini
Clamp piece	**Model No.**	**Dimensions**			**Winding direction**	**Wrench**	**Fit body**
 CL-2SI CL-1S	CL-2SI					K-2	Multi-Angle mill
	CL-1S					K-3	R-Nouveau Jr. / R-Nouveau / R-SpecialJr. / 10R-Bit Skat Cut / Multi-Angle mill
Locator	**Model No.**	**Dimensions**			**Winding direction**	**Wrench**	**Fit body**
ML-T11I ML-S15	ML-T11I						Multi-Angle mini
	ML-S15						Multi-Angle mill

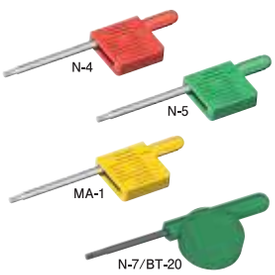
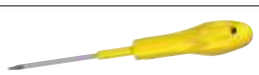
Spare Parts List

Locator received	Model No.	Dimensions		Wrench	Fit body
	MLH-1				Multi-Angle mill

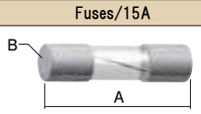
Set screw	Model No.	Dimensions		Wrench	Fit body
		screw 1	screw 2		
(1 each)	KH-1S	M6×8	M6×10	K-3	Oilsshar
	KH-2S	M8×6	M8×6	K-4	
	KH-3S	M8×8	M8×8	K-4	
	KH-4S	M8×10	M8×8	K-4	
	KH-5S	M10×8	M10×8	K-5	
	KH-6S	M10×8	M10×10	K-5	
	BH-1		M8×10	K-4	Baitender
(2 piece)	H-2	M4×10		K-2	Urazaguru-solid
	H-3	M5×12		K-2.5	
(3 piece)	ESH-1S	M4×4		K-2	Esleeve
	ESH-2S	M6×4		K-3	
(2 piece)	ECH-1S	M4×10		K-2	Outdriller
	ECH-2S	M5×10		K-2.5	
	ECH-3S	M6×10		K-3	
	ECH-4S	M8×10		K-4	
(3 piece)	ECH-5S	M4×10		K-2	
	ECH-6S	M5×10		K-2.5	
screw 1 screw 2 (1 each)	ERSH-1S	M6×6	M12×25	K-3/K-6	Colesleeve
	ERSH-2S	M6×10	M12×25	K-3/K-6	
	H-2S	M4×5		K-2	Mini Han-Chan-man

spanner	Model No.	A	L	Wrench	Fit body
	NL-4	4㎜	90		NK4560S/NK4536N/NK4560N NK Face Mill B/FK Face Mill B/NK6.Face Mill/BK8.Deka-Cutter BK12.Deka-Cutter/KK6.Karu-Cutter/KK8.Karu-Cutter/ /Nice-CornerV2/Nice-CornerV3/Nice-CornerVR
	NF-50	ϕ50㎜	244		Colesleeve
	NF-42	ϕ42㎜	219		Colesleeve
	NL-30	30㎜	265		Colesleeve
	NS-4	4㎜	40		Mini Han-Chan-man

Spare Parts List

Wrench	Model No.	Shape	Dimensions		Fit body
	K-1.5	Hexagonal	1.5		Nyoro nyoro
	K-2	Hexagonal	2		Multi-Angle mill/Urazaguru-solid/Choi-Pro
	K-2.5	Hexagonal	2.5		Urazaguru-solid/Choi-Pro
	K-3	Hexagonal	3		Momimen/Dekamomi/Chanmferring Cutter/RCindo-Cutter R-Nouveau Jr./R-Nouveau/10R-Bit/Aeromill(negative S Type) Skat Cut/Multi-Angle mill/New Tiko Cutter/Nice-Corner F3/Oilsshar/ Colesleeve/Baitender/Han-Chan-man R-HYPER/Choi-Pro
	K-4	Hexagonal	4		R-NouveauJr./R-SpecialJr./R-Special/R-Nouveau/R-Bit/10R-Bit Han-Chan-man/Nice-CornerF3/Oilsshar/Ryanmencut-R(RR25-48N)
	K-5	Hexagonal	5		New Nice Cut/Han-Chan-man/Oilsshar/Han-Chan-manR
	K-5L	Hexagonal	5		Han-Chan-man/Han-Chan-manR
	K-6	Hexagonal	6		Colesleeve/Nice-Corner V2/Nice-Corner V3/Nice-Corner VR
	TL-64	Hexagonal	4		Han-Chan-man R-HYPER
	N-4	T-6			Momimen nano/Chibieco /Chibieco2/Chibi Ryanmen/Mentrudee/ Eaglecut(M4～M8)/Birdiecut(M8)/Urazaguru/Urazagurimen-C
	N-5	T-8			Chibimomi / Momieco / Momieco2/Urazaguru
	N-7	T-15			Eaglecut(M14・M16)/Birdiecut(M14・M16) Ecomen/Ecomen2/Choumen/ChoumenB
	MA-1	T-9			Mentrube/Mentrucee/Ryanmencut-V/Eaglecut(M10・M12) Birdiecut(M10・M12)/Shurillin/Multi-Angle mill/Men men Ryanmencut-R(RR16-30S・RR25-40S)/Mini-R
	BT-20	T-20			Youngmen/Gentlemen/R-Giga/Dekasumi/R-Bit Eaglecut(M18～M30)/Birdiecut(M18～M30) Dekasumi/Multi-Angle mill/Dodekaeco
	N-6	T-15			60° Momimen/Sumicco R-Bit/Aeromill(positive S type)/Sumicco New Nice Cut/Han-Chan-man/Kame Cutter
	TH-L3	6角	3		Nice-Corner F3(negative S Type)
	TN-L6	T-15			Nice-Corner F3(positive S type)
	TL-T8	T-8			Mini Han-Chan-man
	TL-T9	T-9			Han-Chan-man R/Nice-Corner FR

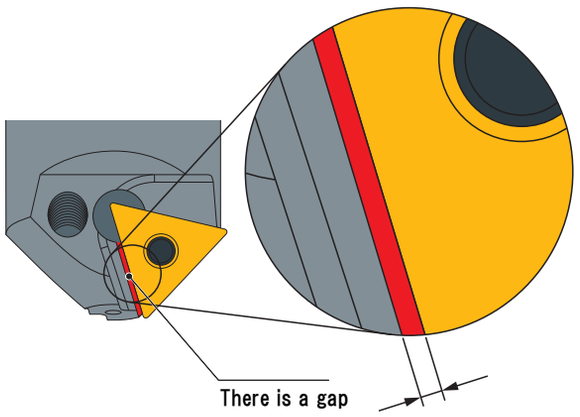
Power cord	Model No.	Dimensions			Fit body
	PC-1	3m			V2 / V3 / VR / F3 / FR
	PC-0	1.8m			Choi-Pro

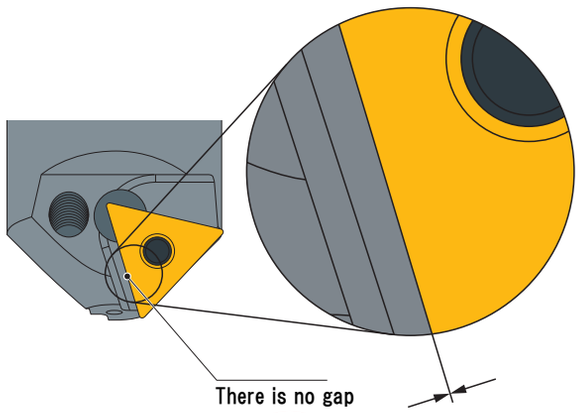
Fuses/15A	Model No.	A	B	electric current	Fit body
	F-15A	19㎜	φ5㎜	15A	V2 / V3 / VR / F3 / FR
	F-10A	20㎜	φ5㎜	10A	Choi-Pro

Exhaust hose	Model No.	Dimensions			Fit body
	HS	450㎜			Mini Han-Chan-man

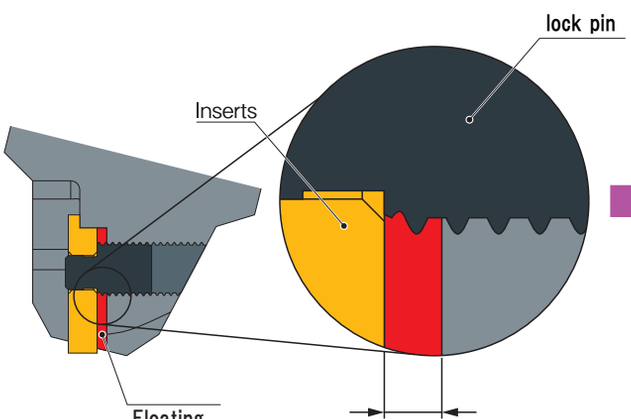
Be careful about reverse tightening of lock pin

Please correctly mounted as described below.
Reverse tightening of the lock pin may cause chipping and chipping problems.

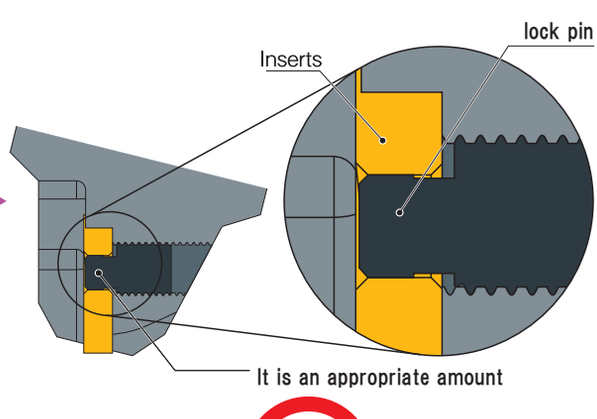




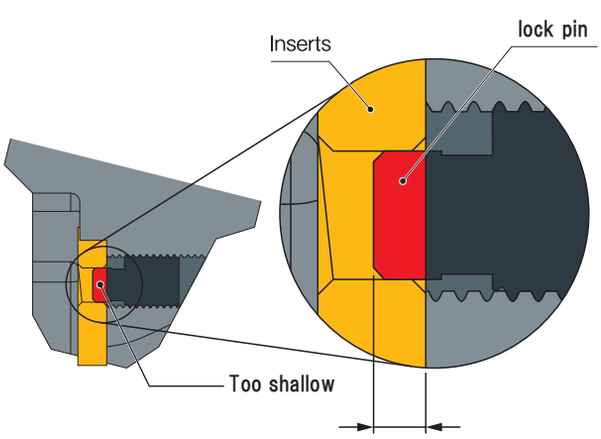
Please strangled in the right direction.



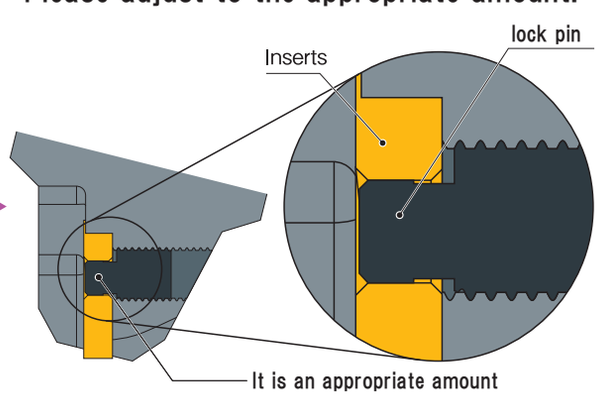
The lock pin is floating from the seat surface



Turn the lock pin with a wrench
Please adjust to the appropriate amount.



The lock pin catch is shallow
I can not clamp properly.



Turn the lock pin with a wrench
Please adjust to the appropriate amount.

Basic Theory !!

Basic Theory !!

Calculating formula of cutting speed

● Cutting speed (Vc) = $\frac{3.14 \times \text{cutter diameter (D)} \times \text{rotational speed (n)}}{1000}$

● Rotation speed (n) = $\frac{1000 \times \text{cutting speed (Vc)}}{\text{Cutter diameter (D)} \times 3.14}$

Rotational speed Simplified chart

(r.p.m.)

Cutter diameter(D)	Cutting speed (m/min)								
	30	100	120	150	180	200	220	250	300
10	955	3185	3822	4777	5732	6369	7006	7962	9554
20	478	1592	1911	2389	2866	3185	3503	3981	4777
30	318	1062	1274	1592	1911	2123	2335	2654	3185
40	239	796	955	1194	1433	1592	1752	1990	2389
50	191	637	764	955	1146	1274	1401	1592	1911
60	159	531	637	796	955	1062	1168	1327	1592
70	136	455	546	682	819	910	1001	1137	1365
80	119	398	478	597	717	796	876	995	1194
90	106	354	425	531	637	708	778	885	1062
100	380	318	382	478	573	637	701	796	955
120	80	265	318	398	478	531	584	663	796
130	73	245	294	367	441	490	539	612	735
150	64	212	255	318	382	425	467	531	637
160	60	199	239	299	358	398	438	498	597
180	53	177	212	265	318	354	389	442	531
200	48	159	191	239	287	318	350	398	478
270	35	118	142	177	212	236	259	295	354
315	30	101	121	152	182	202	222	253	303

※ numeric data decimal point below It is expressed in rounding off.

Feed formula

● Feed per blade (fz) = $\frac{\text{Table feed (Vf)}}{\text{rotational speed (n)} \times \text{Blades(Z)}}$

● Table feed (F) = rotational speed (n)×Blades(Z)×Feed per blade (fz)

Trouble Shooting

Series	Type of Trouble	Problem	Problem Origin/Solution(s)
Chamfering/R chamfering/Faith shoulder	Leaving secondary burrs	Feed rate is too high	●Increase rotation ●Decrease the feed rate
		Poor process by edge wearing	Change corner of insert edge
		Aluminum/Stainless Steel process with honing insert	Change to sharp edge type insert
		Aluminum/Stainless Steel process with MOR・MOZ type insert	Change to GUR type insert
		Cutting heat with dry cutting	Use cutting oil
	Chipping of Insert	Reverse mounting of eccentricity locking system tools	Correct direction when mounting
		No Screw for holding Insert	Mount clamp screw for clamp screw type cutters
		Poor cutting edge with GUR Insert	Change it to MOR type Insert
		Low rotation (Chipping of edge of corner)	Increase the rotation rate
		Low insert rigidity	●NK2050→NK2001→NK6060→NK3030→ NK2020→AC15→HSS ●NK8080→NK5050→NK1010→HSS
	Excssive insert wear	Lower hardness of insert	Reverse above
		Hardness wear due to high heat generation on insert edge	● Increase rotation rate ● Change coolant supply or increase oil volume ● Use Cermet coating insert
		Crushing of the insert edge on Stainless Steel processing	Increase the rotation rate
	Chattering	Cutting condition is too high	Decrease the rotation rate or the feed rate
		Extension of tool is large	Minimize extension of tool
		Point shape is inappropriate	● sharp edge → honing edge ● honing edge → sharp edge
		Using MOR type Insert	Use GUR type Insert
	Bad surface finish	Poor accuracy on cuting edge	Repairing or adjustment of accuracy
		Honing Edge (Aluminum)	Use Sharp edge type insert
		Using MOR/MOZ type Insert	Use GUR type Insert
		Dry Cutting (high heat generation)	Use coolant
	Poor process accuracy	Reverse clamping(mounting)	Correct clamping direction
	Poor process accuracy (R Chamfering)	Reverse Insert mounting	Correct mounting direction
		Reverse Insert position(front or back)	Correct Insert clamp position
		Programing Error	Confirm numerically-control
	Plucking workpiece Poor surface finish (Aluminum)	Dry cutting (high heat generation)	Change to Wet cutting (coolant)
		Honing edge insert(Aluminum)	Use sharp edge type insert
	Insert mount trouble Insert is flying	Poor clamping on lock pin wear	Exchange to new lock pin
		Poor accuracy clamp position	Mount Lock pin position correctly
Portable Chamfering Machine	Poor thin material process	Take guide clearance in large	Change the guide for thin material use
	Poor processing by using slide guide	Cannot standardize surface process by using slide guide	Adjustment and repairing

INTER METAL SISTEMA, S.L.

Repair request

NICECUT®

Request date

About repair

For repair and maintenance requests, please contact the retailer you purchased.
For models that have passed seven years since the sale was discontinued, parts may not be in stock and repairs may not be possible.
Partial repair, repair of specified parts can not be received because the operation can not be confirmed.

Company name	
Name of person in charge	
Your address	
Contact information	

Product type	

Repair contents	Please fill in other matters and symptoms.
[Air tools] ☐ When the coupler is connected, it operates even though the switch is not pressed. ☐ Rotation and power are decreasing. ☐ Air is leaking from the main unit ☐ The body is broken. ☐ Slide cap does not tighten or does not come off [Tabletop chamfering machine] ☐ Motor does not turn ☐ Motor reverse rotation. ☐ Noise from the motor. ☐ The power lamp does not light even if the outlet plug is plugged. ☐ It is electric leakage. [Slide guide plate] ☐ Abnormal noise during the rail operation. ☐ I do not slide smoothly. ☐ There are scratches and dents on the guide plate. [Common] ☐ Abnormal noise, offensive odor. ☐ It does not operate even put the switch. ☐ Bad finish of the chamfered than before ☐ Adjustment mechanism does not move or Adjustment parts do not come off ☐ Tick marks disappear or it becomes difficult to see. ☐ Cutter breakage ☐ The screw is licking ☐ Component is damaged Please fill in the right such as the contents in the range to understand	

We will estimate the repair request product we have received by disassembling.
Please note that you can not return the product in the state of keeping it.
If you wish to your return without a repair, but will be your return in the assembly repair

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25SKB	Sumicco R-Bit	56

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■ Numeric value listed in this catalog, because there are times when some errors, please understand.

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