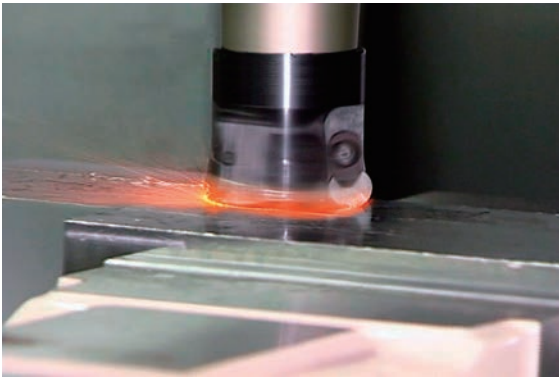



Milling Cutter

Product Lines	I02
Recommend Cutting Conditions	I04
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-Quick Check Table-	
Compatible arbor standard table	I06
JR series	I08
JWNXM series	I11
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JQ series	I22
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Arbors	I32

Product Lines






HRSA materials and Hardened Materials



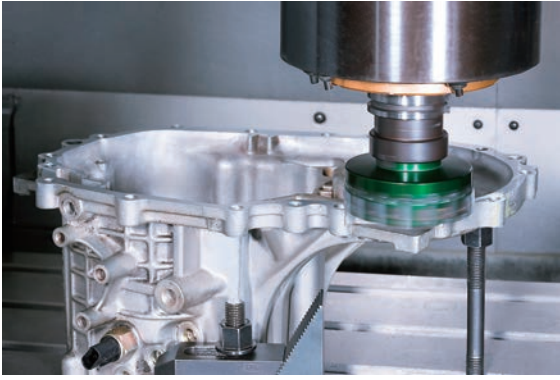
Series	Features	DC mm	KAPR °	APMX mm	Page
JR series 	High-speed machining of HRSA materials <ul style="list-style-type: none"> • High performance milling cutter line that uses round-shaped inserts for machining both aerospace and hardened steels • SX7, SiAlON grade, has the best performance for high speed machining of high temperature alloys 	φ32 - 80	-	- 3.2	I8



Gray / Ductile Cast Iron



Series	Features	DC mm	KAPR °	APMX mm	Page
JWNXM series 	Low resistance × multiple corners <ul style="list-style-type: none"> • Reduces occurrence of insert edge chipping which is common during cast iron machining • Ideal for machining through scale • Tooling cost is reduced by using the unique 6 corner insert. 	φ63 - 160	88°	- 5.5	A16 I11
JFDX series 	Low cost x versatility <ul style="list-style-type: none"> • Extremely economical 8-corner inserts • Covers various applications with 45, 75, and 88 degree angle milling cutters • Ceramic inserts with chipbreaker and wiper are also available 	φ63 - 160	45°,75°,88°	- 6	I12
JXTM series 	High rigidity <ul style="list-style-type: none"> • Large DOC is possible because of the fine pitch of inserts which results in higher productivity • LNX Insert comes with special chipbreaker to reduce tool pressure • Newly added Left-hand cutters 	φ80 - 125	88°	- 8	I21
JQ series 	Shoulder milling × Small diameter cutter <ul style="list-style-type: none"> • Capable of 90-degree shoulder milling • A variety of cutter diameters as small as φ20mm 	φ20 - 80	90°	- 8	I22
JSDW series 	Low tool pressure <ul style="list-style-type: none"> • Positive inserts reduce tool pressure and produce excellent surface finish in addition to long tool life • Best for milling thin parts thanks to reduced tool pressure 	φ80 - 160	45°,75°	- 6	I24

Aluminum



Series	Features	DC mm	KAPR °	APMX mm	Page
HFC series 	Maximum insert count for increased productivity <ul style="list-style-type: none"> • Highly efficient machining is achieved with more inserts • Lightweight aluminum cutter body to accommodate ATC weight limitations *ATC = automatic tool changer on CNC	φ50 - 125	90°	- 6.35	A17 I28
HPC series 	Small diameter cutter <ul style="list-style-type: none"> • A wide range of cutter diameters from φ20mm to φ100mm • Strong rigid steel bodies • With the fixed-type cutters, no timeconsuming presetting is required 	φ20 - 100	90°	- 5	A20 I29

Recommended Cutting Conditions

For HRSA materials and Hardened materials

Material	Grade	Dry	Wet	Cutting Speed (m/min)								Feed (mm/t)							
				60	200	350	500	650	800	950	1100	0.05	0.08	0.10	0.13	0.15	0.18		
S Heat Resistant Alloy	SX7	●																	
	SX3	●																	
	SX9	●																	
H Hardened Steel	WA1	●	○																
	HRC 45-55 HC7	●	○																
	HRC 55-65 WA1	●	○																
	HRC 55-65 HC7	●	○																

For Gray / Ductile Cast Iron

Material	Grade	Dry	Wet	Cutting Speed (m/min)											Feed (mm/t)					
				100	200	400	500	700	800	1000	1100	1300	1400	0.05	0.1	0.15	0.2	0.25	0.3	
K Gray Cast Iron	SX6	●	●																	
Gray Cast Iron	SP9	●	○																	
Ductile Cast Iron	SP9	●	○																	
Ductile Cast Iron	DM4	●	○																	
Steel	DM4	●	○																	

For Aluminum

Material	Grade	Dry	Wet	Cutting Speed (m/min)										Feed (mm/t)						
				300	900	1500	2100	2700	3300	3900	4500	5100	5700	0.05	0.10	0.15	0.20	0.25	0.30	
N Aluminum Alloy (Si ≤ 13)	PD1	○	●																	
Aluminum Alloy (Si ≤ 13)	TM1	○	●																	
Aluminum Alloy (Si ≥ 13)	PD1	○	●																	
Aluminum Alloy (Si ≥ 13)	TM1	○	●																	

Machine power requirements -Quick Check Table-

Calculation

※Assuming that normal cast iron is machined at a cutting speed of $V_c=800\text{m/min}$

Calculation

※Assuming that normal cast iron is machined at a cutting speed of 800 m/min ($V_c = 800\text{ m/min}$)

$$\text{Required mechanical power(kW)} = \text{○○\%} \times \text{○○kW}$$

Width of cutting $a_e = \text{---\%}$ of the cutter diameter

The value ---kW determined from the applicable table below

(Example of calculation)

Cutter used : JFDX ϕ 100-10 blades Width of cutting $a_e=30\text{mm}$ →This is 30% of the cutter diameter
Cutting conditions : $V_c=800\text{m/min}$ $f=0.2\text{mm/tooth}$ and $a_p=3.0\text{mm}$ →The value 40 kW in the table (JFDX ϕ 100 x 10 blades) is located.



The required power (kW)=30%×40kW= 12kW

JFDX series

JSDW series

JXTM series

JFDX ϕ 63 - 6 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	1	4	6	7	9
	2	7	11	14	17
	3	11	16	22	26
	4	14	22	29	35

JSDW ϕ 63 - 4 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	1	3	4	6	7
	2	6	9	12	14
	3	9	13	18	22
	4	12	18	24	29

JFDX ϕ 80 - 8 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	1	6	9	12	14
	2	12	18	24	29
	3	18	27	35	43
	4	23	36	47	57

JSDW ϕ 80 - 6 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	1	5	8	11	13
	2	11	16	22	26
	3	16	24	33	39
	4	21	32	43	52

JXTM ϕ 80 - 10 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	5	36	55	76	93
	6	43	66	91	111
	7	50	76	106	130
	8	57	87	121	148

JFDX ϕ 100-10 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	1	9	13	18	21
	2	17	27	35	42
	3	26	40	53	64
	4	35	54	70	85

JSDW ϕ 100 - 7 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	1	7	10	14	17
	2	14	20	27	33
	3	20	31	41	50
	4	27	41	55	66

JXTM ϕ 100 - 13 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	5	61	93	130	159
	6	73	112	156	190
	7	85	131	182	222
	8	97	149	208	254

JFDX ϕ 125 - 12 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	1	12	19	25	30
	2	24	37	49	59
	3	36	56	73	89
	4	48	74	98	118

JSDW ϕ 125 - 8 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	1	8	13	17	20
	2	17	25	34	41
	3	25	38	51	61
	4	33	50	68	82

JXTM ϕ 125 - 16 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	5	93	143	198	242
	6	111	171	238	291
	7	130	200	277	339
	8	148	228	317	387

JFDX ϕ 160 - 16 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	1	21	32	42	50
	2	41	63	83	100
	3	62	95	125	151
	4	82	127	166	201

JSDW ϕ 160 - 10 teeth

		Feed rete per tooth (mm/t)			
		0.1	0.2	0.3	0.4
Depth of cut (mm)	1	12	18	24	29
	2	24	36	49	59
	3	36	54	73	88
	4	48	72	97	117

Unit: kW

*Please make use of the above tables, understanding that they are approximations only to use as a guide.

Tips for utilizing the above tables

1. The assumption is that gray cast iron is machined at a cutting speed of 800m/min , with the cutter diameter shown as the width of cut ($a_e = 100\%$ of the cutter diameter).
2. The required power becomes approximately half (50%) if the cutting width a_e or depth of cut is halved. (The power is proportional to a_e or a_p .)
3. The required power is reduced to approximately 60% if the number of inserts is halved.
4. Machines that have an output of 22kW or greater are recommended.

Compatible arbor standard table

HRSA materials and Hardened Materials

Series	Mountable standard		
	Type of standard arbor	Arbor diameter	
JRPMW	φ32 ※	φ25 Gripping diameter sleeve ※	Shank diameter φ25 ※
	φ32 ※	φ32 Gripping diameter sleeve ※	Shank diameter φ32 ※
	φ40 ※	φ32 Gripping diameter sleeve ※	Shank diameter φ32 ※
	φ50	FMC	φ22.0
	φ63	FMC	φ22.0
	φ80	FMA	φ25.4

※Shank-type body

Gray / Ductile Cast Iron

Series	Mountable standard		
	Type of standard arbor	Arbor diameter	
JWNXM	φ63	FMC	φ22.0
	φ80	FMA	φ25.4
	φ100	FMA	φ31.75
	φ125	FMA	φ38.1
	φ160	FMA	φ50.8
JFDX	φ63	FMC	φ22.0
	φ80	FMA	φ25.4
	φ100	FMA	φ31.75
	φ125	FMA	φ38.1
JSDW	φ63	FMC	φ22.0
	φ80	FMA	φ25.4
	φ100	FMA	φ31.75
	φ125	FMA	φ38.1
JXTM	φ80	FMA	φ25.4
	φ100	FMA	φ31.75
	φ125	FMA	φ38.1
JQTS	φ40		φ16.0
	φ50	FMC	φ22.0
	φ63	FMC	φ22.0
JQTE	φ20 ※	φ20 Gripping diameter sleeve ※	Shank diameter φ20 ※
	φ25 ※	φ25 Gripping diameter sleeve ※	Shank diameter φ25 ※
	φ32 ※	φ32 Gripping diameter sleeve ※	Shank diameter φ32 ※
	φ40 ※	φ32 Gripping diameter sleeve ※	Shank diameter φ32 ※

※Shank-type body

Aluminum

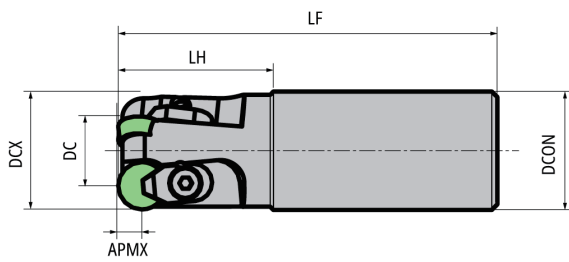
Series	Mountable standard		
	Type of standard arbor	Arbor diameter	
HFC	φ50	FMC	φ22
	φ63	FMC	φ22
	φ80	FMA	φ25.4
	φ100	FMA	φ25.4
	φ125	FMA	φ25.4
HPC	φ50	FMC	φ22.0
	φ63	FMC	φ22.0
	φ80	FMA	φ25.4
	φ80	FMC	φ27.0
	φ100	FMA	φ31.75
	φ100	FMC	φ32.0
	φ125	FMA	φ38.1
φ125	FMC	φ40.0	

※Shank-type body

For HRSA materials and Hardened Materials

JR series / Cutter

JRPMW Shank type



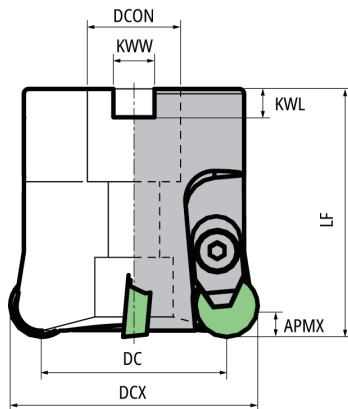
EDP	Item Number	Stock	Hand	Number of teeth	APMX mm	DC mm	DCON mm	DCX mm	GAMF °	GMAP °	LF mm	LH mm	Weight kg	Insert Gage
5720719	JRPMW032E250R03	●	R	3	~3.2	19.3	25	32	-7.5	+5	120	40	0.42	RP.1204..
5719919	JRPMW032E320R03	●	R	3	~3.2	19.3	32	32	-7.5	+5	120	40	0.6	RP.1204..
5719927	JRPMW040E320R03	●	R	3	~3.2	27.3	32	40	-7.5	+5	120	40	0.72	RP.1204..

※Weight : Includes inserts and parts

Spare Parts

Item Number	Clamp	Clamp screw	Wrench (for Clamp screw)
JRPMW032E250R03	AMS-5T	AOB-5S-T25	LLR-T25
JRPMW032E320R03	AMS-5T	AOB-5S-T25	LLR-T25
JRPMW040E320R03	AMS-5T	AOB-5S-T25	LLR-T25

JRPMW Arbor type



EDP	Item Number	Stock	Hand	Number of teeth	APMX mm	DC mm	DCON mm	DCX mm	GAMF °	GMAP °	KWL mm	KWW mm	LF mm	Weight kg	Insert Gage
5719935	JRPMW050S220R04	●	R	4	~3.2	37.3	22	50	-5	+5	6.3	10.4	50	0.35	RP.1204..
5726096	JRPMW063S220R04	●	R	4	~3.2	50.3	22	63	-5	+5	6.3	10.4	50	0.55	RP.1204..
5719943	JRPMW080S254R05	●	R	5	~3.2	67.3	25.4	80	-2.5	+5	6	9.5	50	0.87	RP.1204..

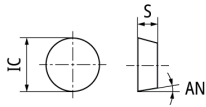
※Weight : Includes inserts and parts

Spare Parts

Item Number	Clamp	Shim	Clamp screw	Screw (for Shim)	Wrench (for Clamp screw)
JRPMW050S220R04	AMS-5T	ARP42A	AOB-5S-T25	M3*8	LLR-T25
JRPMW063S220R04	AMS-5T	ARP42A	AOB-5S-T25	M3*8	LLR-T25
JRPMW080S254R05	AMS-5T	ARP42A	AOB-5S-T25	M3*8	LLR-T25

JR series / Positive Inserts BIDEMICS_Ceramics_NTK CeramiX

RPGN



Steel

Stainless Steel

Cast Iron

Non-Ferrous Material

Heat Resistant Alloy

Hardened Material

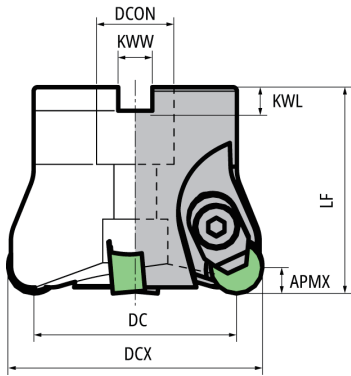
Others (non-metallic)

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramiX							Alumina Ceramics							Silicon Nitride Ceramics							Whisker Ceramics							
													PVD		PVD		PVD		PVD		PVD		PVD		PVD		PVD		PVD		PVD		PVD		PVD		CVD								
													JP2	JP1	JX1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5													
Metric	°	mm	mm	°	mm	mm	mm	mm	mm	mm	mm	mm	120	JP2	JP1	JX3	450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	WA1	WA5													
	RPGN120400E004	E004	-	12.7	4.76	11	-	-	-	-	-	-	-																																
	RPGN120400EM02X	EM02X	-	12.7	4.76	11	-	-	-	-	-	-	-																																
	RPGN120400T00520	T00520	-	12.7	4.76	11	-	-	-	-	-	-	-																																
	RPGN120400T00525	T00525	-	12.7	4.76	11	-	-	-	-	-	-	-																																
	RPGN120400T00820	T00820	-	12.7	4.76	11	-	-	-	-	-	-	-																																
	RPGN120400T01020	T01020	-	12.7	4.76	11	-	-	-	-	-	-	-																																

For HRSA materials and Hardened Materials

JR series / Cutter

JRNMW Arbor type



EDP	Item Number	Stock	Hand	Number of teeth	APMX mm	DC mm	DCON mm	DCX mm	GAMF °	GMAP °	KWL mm	KWW mm	LF mm	Weight kg	Insert Gage
5719950	JRNMW050S220R03	●	R	3	~3.2	37.3	22	50	-10	-5	6	10	50	0.42	RN..1207..
5719968	JRNMW063S220R04	●	R	4	~3.2	50.3	22	63	-10	-5	6	10	50	0.55	RN..1207..
5719976	JRNMW080S254R05	●	R	5	~3.2	67.3	25.4	80	-10	-5	6	9.5	50	0.85	RN..1207..

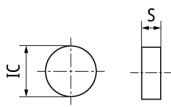
※Weight : Includes inserts and parts

Spare Parts

Item Number	Clamp	Clamp screw	Wrench (for Clamp screw)
JRNMW050S220R03	AMS-6T	AOB-6S-T30	LLR-T30
JRNMW063S220R04	AMS-6T	AOB-6S-T30	LLR-T30
JRNMW080S254R05	AMS-6T	AOB-6S-T30	LLR-T30

JR series / Negative Inserts BIDEMICS_Ceramics_NTK CeramiX

RNGN

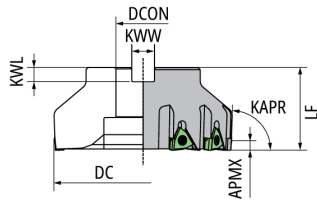


Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number	EPSR CECC	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramiX	Alumina Ceramics				Silicon Nitride Ceramics				Whisker Ceramics							
												PVD	PVD	PVD	PVD		HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5
												120	JP2	JX1	JX3		450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1
Metric			°	mm	mm	°	mm	mm	mm	mm	mm																					
	RNGN120700E002	E002	-	12.7	7.94	-	-	-	-	-	-	-																				
	RNGN120700E004	E004	-	12.7	7.94	-	-	-	-	-	-	-	●	●																		
	RNGN120700E007	E007	-	12.7	7.94	-	-	-	-	-	-	-																				
	RNGN120700K20015	K20015	-	12.7	7.94	-	-	-	-	-	-	-																				
	RNGN120700S02025	S02025	-	12.7	7.94	-	-	-	-	-	-	-																				
	RNGN120700T00520	T00520	-	12.7	7.94	-	-	-	-	-	-	-																				
	RNGN120700T00525	T00525	-	12.7	7.94	-	-	-	-	-	-	-																				
	RNGN120700T00820	T00820	-	12.7	7.94	-	-	-	-	-	-	-																				
	RNGN120700T01020	T01020	-	12.7	7.94	-	-	-	-	-	-	-																				
	RNGN120700T02025	T02025	-	12.7	7.94	-	-	-	-	-	-	-																				
	RNGN120700Z01520	Z01520	-	12.7	7.94	-	-	-	-	-	-	-																				
	RNGN120700Z02025	Z02025	-	12.7	7.94	-	-	-	-	-	-	-																				

For Gray / Ductile Cast Iron JWNXM series / Cutter Lead angle 88 degree

JWNXM Arbor type



EDP	Item Number	Stock	Hand	Number of teeth	APMX mm	APMX2 mm	DC mm	DCON mm	GAMF °	GMAP °	KAPR °	KWL mm	KWW mm	LF mm	Weight kg	Insert Gage
5974084	JWNXM063C2200R06-A	●	R	6	~5.5	4.5	63	22	+4	+5	88	6.3	10.4	50	0.9	WNX44..
5974092	JWNXM080A2540R08-A	●	R	8	~5.5	4.5	80	25.4	+7	+5	88	6	9.5	50	1.1	WNX44..
5972724	JWNXM100A3175R10-A	●	R	10	~5.5	4.5	100	31.75	+10	+5	88	8	12.7	50	1.8	WNX44..
5974100	JWNXM125A3810R12-A	●	R	12	~5.5	4.5	125	38.1	+10	+5	88	10	15.9	58	3	WNX44..
5974118	JWNXM160A5080R16-A	●	R	16	~5.5	4.5	160	50.8	+10	+5	88	11	19	60	4.9	WNX44..

※Weight : Includes inserts and parts

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
JWNXM063C2200R06-A	FSI26-4.0*12-LH	LLR-T15
JWNXM080A2540R08-A	FSI26-4.0*12-LH	LLR-T15
JWNXM100A3175R10-A	FSI26-4.0*12-LH	LLR-T15
JWNXM125A3810R12-A	FSI26-4.0*12-LH	LLR-T15
JWNXM160A5080R16-A	FSI26-4.0*12-LH	LLR-T15

JWNXM series / Inserts Ceramics

WNX44

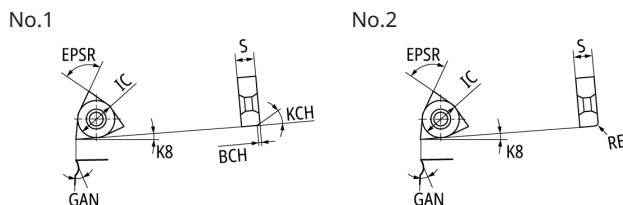
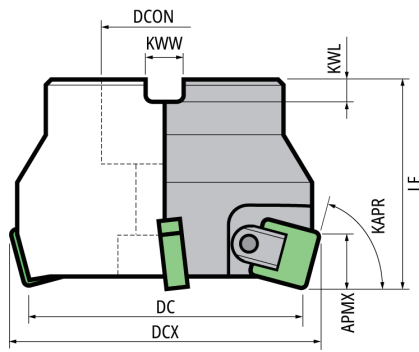


Figure	Item Number	Chip-breaker	Wiper	APMX mm	BCH mm	BS mm	EPSR °	GAN °	IC mm	K8 °	KCH °	RE mm	S mm	Silicon Nitride Ceramics	
														SX6	SP9
1	WNX44-C10T01020	Yes	Straight	5.5	1	(0.6)	80	20	12.7	10	30	-	6.35	●	●
2	WNX44-R12T01020	Yes	No	4.5	-	-	80	20	12.7	10	-	1.2	6.35	●	●

For Gray / Ductile Cast Iron

JFDX.. series / Cutter Lead angle 75 degree

JFDX-75

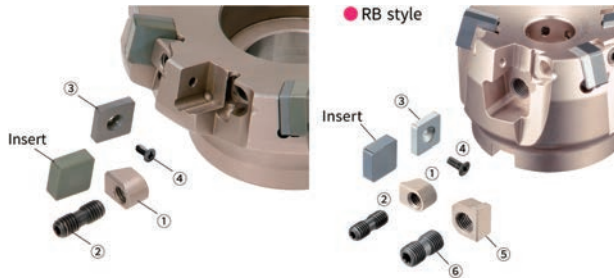


EDP	Item Number	Stock	Hand	Number of teeth	APMX mm	DC mm	DCON mm	DCX mm	GAMF °	GMAP °	KAPR °	KWL mm	KWW mm	LF mm	Weight kg	Insert Gage	
5729884	JFDX063-75-06R	●	R	6	~6	63	22	70	-10	-6	75	6	10.4	50	0.79	SN..1204..	FDX1204..
5909767	JFDX063-75-06RB	●	R	6	~6	63	22	70	-10	-6	75	6	10.4	50	0.97	SN..1204..	FDX1204..
5729892	JFDX080-75-08R	●	R	8	~6	80	25.4	87	-10	-6	75	6	9.5	50	1.06	SN..1204..	FDX1204..
5909775	JFDX080-75-08RB	●	R	8	~6	80	25.4	87	-10	-6	75	6	9.5	50	1.36	SN..1204..	FDX1204..
5729900	JFDX100-75-10R	●	R	10	~6	100	31.75	107	-10	-6	75	8	12.7	50	1.39	SN..1204..	FDX1204..
5909791	JFDX100-75-10RB	●	R	10	~6	100	31.75	107	-10	-6	75	8	12.7	50	1.83	SN..1204..	FDX1204..
5729918	JFDX125-75-12R	●	R	12	~6	125	38.1	132	-10	-6	75	10	15.9	58	2.56	SN..1204..	FDX1204..
5909809	JFDX125-75-12RB	●	R	12	~6	125	38.1	132	-10	-6	75	10	15.9	58	3.34	SN..1204..	FDX1204..
5909817	JFDX160-75-16RB	●	R	16	~6	160	50.8	166	-10	-6	75	11	19	60	5.47	SN..1204..	FDX1204..

※Weight : Includes inserts and parts

※RB type : One insert pocket can be adjusted for height

Spare Parts



Item Number	Wedge ①	Wedge ⑤	Shim ③	Clamp screw ②	Screw (for Shim) ④	Screw (for Wedge) ⑥	Wrench (for Clamp screw)	Wrench (for Wedge)
JFDX063-75-06R	HLW175	-	ASN423	WS0616-T15	M3*8	-	T-15A	-
JFDX063-75-06RB	HLW175	HLW177	ASN423	WS0616-T15	M3*8	WS0816-T25	T-15A	LLR-T25
JFDX080-75-08R	HLW175	-	ASN423	WS0616-T15	M3*8	-	T-15A	-
JFDX080-75-08RB	HLW175	HLW177	ASN423	WS0616-T15	M3*8	WS0816-T25	T-15A	LLR-T25
JFDX100-75-10R	HLW175	-	ASN423	WS0616-T15	M3*8	-	T-15A	-
JFDX100-75-10RB	HLW175	HLW177	ASN423	WS0616-T15	M3*8	WS0816-T25	T-15A	LLR-T25
JFDX125-75-12R	HLW175	-	ASN423	WS0616-T15	M3*8	-	T-15A	-
JFDX125-75-12RB	HLW175	HLW177	ASN423	WS0616-T15	M3*8	WS0816-T25	T-15A	LLR-T25
JFDX160-75-16RB	HLW175	HLW177	ASN423	WS0616-T15	M3*8	WS0816-T25	T-15A	LLR-T25

JFDX.. series / Insert Ceramics

■ SNGN/SNGF

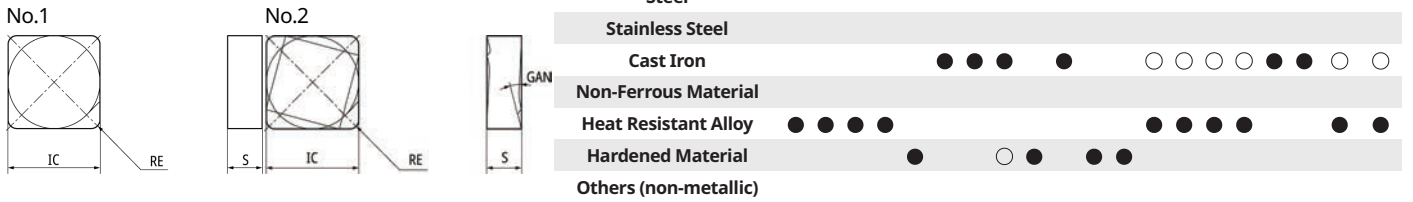
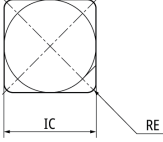

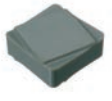
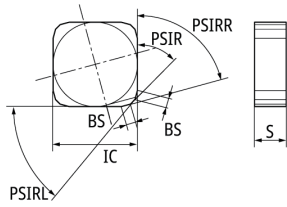


Figure	Shape	Item Number	CECC	EPSR	IC	S	RE	GAN	Material Compatibility																											
									(ISO)	°	mm	mm	mm	°	BIDEMICS				Alumina Ceramics					Silicon Nitride Ceramics				Whisker Ceramics								
															PVD		PVD		450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	SX3	SX5	SX7	SX9	SX6	SP9	CVD	WA1	WA5	
															JP2	JX1	JX3	NTK CeramIX																		
1		SNGN120408S02025	S02025	90	12.7	4.76	0.8	-																												
1		SNGN120408T00520	T00520	90	12.7	4.76	0.8	-																												
1		SNGN120408T00820	T00820	90	12.7	4.76	0.8	-																												
1		SNGN120408T01020	T01020	90	12.7	4.76	0.8	-																												
1		SNGN120408T01025	T01025	90	12.7	4.76	0.8	-																												
1		SNGN120408T02020	T02020	90	12.7	4.76	0.8	-																												
1		SNGN120408T02025	T02025	90	12.7	4.76	0.8	-																												
1		SNGN120408Z02025	Z02025	90	12.7	4.76	0.8	-																												
1		SNGN120412S02025	S02025	90	12.7	4.76	1.2	-																												
1		SNGN120412T00520	T00520	90	12.7	4.76	1.2	-																												
1		SNGN120412T00820	T00820	90	12.7	4.76	1.2	-																												
1		SNGN120412T01020	T01020	90	12.7	4.76	1.2	-																												
1		SNGN120412T01025	T01025	90	12.7	4.76	1.2	-																												
1		SNGN120412T02020	T02020	90	12.7	4.76	1.2	-																												
1		SNGN120412T02025	T02025	90	12.7	4.76	1.2	-																												
1		SNGN120412Z02025	Z02025	90	12.7	4.76	1.2	-																												
1		SNGN120416S02025	S02025	90	12.7	4.76	1.6	-																												
1		SNGN120416T00520	T00520	90	12.7	4.76	1.6	-																												
1		SNGN120416T01020	T01020	90	12.7	4.76	1.6	-																												
1		SNGN120416T01025	T01025	90	12.7	4.76	1.6	-																												
1		SNGN120416T02020	T02020	90	12.7	4.76	1.6	-																												
-		SNGN120416T02025	T02025	90	12.7	4.76	1.6	-																												
1		SNGN120416Z02025	Z02025	90	12.7	4.76	1.6	-																												
2		SNGF120412T01025RC	T01025	90	12.7	4.76	1.2	14																												
2		SNGF120412T01025RCM	T01025	90	12.7	4.76	1.2	14																												

※Recommended Cutting Conditions
 Cutting Speed $V_c = - 1000 \text{m/min}$
 Feed $f = - 0.1 \text{mm/t}$

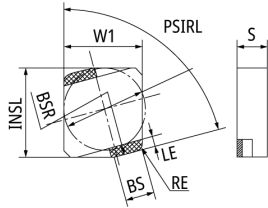
■ SNGN-EN Inserts Ceramics Wiper : The insert must be installed in all insert pockets



Item Number	Chip-breaker	Wiper	BS	IC	KAPR	PSIR	PSIRL	PSIRR	S	Silicon Nitride Ceramics	
			mm	mm	°	°	°	°	mm	SX6	CVD SP9
SNGN1204ENT01025	No	Straight	(1.4)	12.7	75	45	75	75	4.76	●	●

■ FDX-75 Inserts CBN Wiper : Can install 1 or 2 CBN Wiper inserts with ceramic insert

No.1



No.2

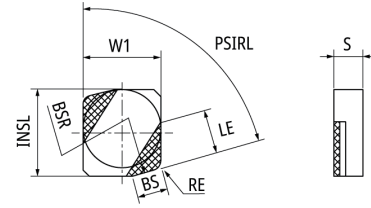


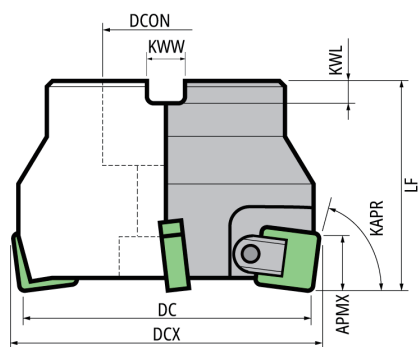
Figure	Item Number	Chip-breaker	Wiper	BS	BSR	INSL	LE	PSIRL	RE	S	W1	CBN	
				mm	mm	mm	mm	°	mm	mm	mm	B30	B52
1	FDX1204-75-50R	No	Arch	(4.5)	250	13.8	1.5	75	1.2	4.76	12.2	●	●
2	FDX1204-75-51R	No	Arch	(5.0)	250	13.8	(.276)	75	1.2	4.76	12.7	★	★
2	FDX1204-75-52R	No	Arch	(5.0)	250	13.8	(.276)	75	1.6	4.76	12.7	★	★

※FDX1204-75-51R/52R : For RB type. Bottom wiper insert that can also be machined around the periphery.
Use for pockets with adjustable insert height.
Selecting the same corner radius as the ceramic insert enables high-efficiency machining.

For Gray / Ductile Cast Iron

JFDX.. series / Cutter Lead angle 88 degree

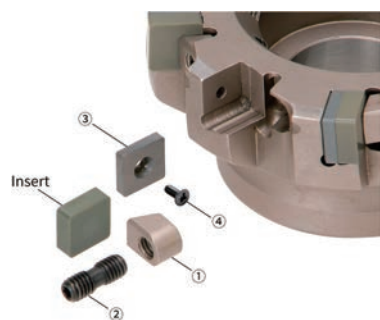
JFDX-88



EDP	Item Number	Stock	Hand	Number of teeth	APMX	DC	DCON	DCX	GAMF	GMAP	KAPR	KWL	KWW	LF	Weight	Insert Gage	
					mm	mm	mm	mm	°	°	°	mm	mm	mm	kg		
5729926	JFDX063-88-06R	●	R	6	~6	63	22	64	-10	-6	88	6	10.4	50	0.79	SN..1204..	FDX1204..
5729934	JFDX080-88-08R	●	R	8	~6	80	25.4	81	-10	-6	88	6	9.5	50	1.03	SN..1204..	FDX1204..
5729942	JFDX100-88-10R	●	R	10	~6	100	31.75	101	-10	-6	88	8	12.7	50	1.38	SN..1204..	FDX1204..
5729959	JFDX125-88-12R	●	R	12	~6	125	38.1	126	-10	-6	88	10	15.9	58	2.61	SN..1204..	FDX1204..

※Weight : Includes inserts and parts

Spare Parts



Item Number	Wedge ①	Shim ③	Clamp screw ②	Screw (for Shim) ④	Wrench (for Clamp screw)
JFDX063-88-06R	HLW175	ASN423	WS0616-T15	M3*8	T-15A
JFDX080-88-08R	HLW175	ASN423	WS0616-T15	M3*8	T-15A
JFDX100-88-10R	HLW175	ASN423	WS0616-T15	M3*8	T-15A
JFDX125-88-12R	HLW175	ASN423	WS0616-T15	M3*8	T-15A

JFDX.. series / Inserts Ceramics

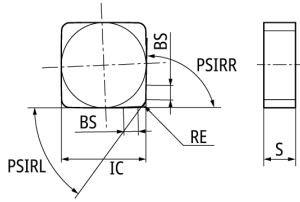
SNGN/SNGF

No.1	No.2		Steel
			Stainless Steel
			Cast Iron
			Non-Ferrous Material
			Heat Resistant Alloy
			Hardened Material
			Others (non-metallic)

Figure	Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	RE mm	GAN °	BIDEMICS							Alumina Ceramics					Silicon Nitride Ceramics				Whisker Ceramics															
									PVD 120	PVD JP2	PVD JX1	PVD JX3	NTK CeramIX 450	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	CVD	SP9	WA1	WA5										
1		SNGN120408S02025	S02025	90	12.7	4.76	0.8	-																																
1		SNGN120408T00520	T00520	90	12.7	4.76	0.8	-																																
1		SNGN120408T00820	T00820	90	12.7	4.76	0.8	-																																
1		SNGN120408T01020	T01020	90	12.7	4.76	0.8	-																																
1		SNGN120408T01025	T01025	90	12.7	4.76	0.8	-																																
1		SNGN120408T02020	T02020	90	12.7	4.76	0.8	-																																
1		SNGN120408T02025	T02025	90	12.7	4.76	0.8	-																																
1		SNGN120408Z02025	Z02025	90	12.7	4.76	0.8	-																																
1		SNGN120412S02025	S02025	90	12.7	4.76	1.2	-																																
1		SNGN120412T00520	T00520	90	12.7	4.76	1.2	-																																
1		SNGN120412T00820	T00820	90	12.7	4.76	1.2	-																																
1		SNGN120412T01020	T01020	90	12.7	4.76	1.2	-																																
1		SNGN120412T01025	T01025	90	12.7	4.76	1.2	-																																
1		SNGN120412T02020	T02020	90	12.7	4.76	1.2	-																																
1		SNGN120412T02025	T02025	90	12.7	4.76	1.2	-																																
1		SNGN120412Z02025	Z02025	90	12.7	4.76	1.2	-																																
1		SNGN120416S02025	S02025	90	12.7	4.76	1.6	-																																
1		SNGN120416T00520	T00520	90	12.7	4.76	1.6	-																																
1		SNGN120416T01020	T01020	90	12.7	4.76	1.6	-																																
1		SNGN120416T01025	T01025	90	12.7	4.76	1.6	-																																
1		SNGN120416T02020	T02020	90	12.7	4.76	1.6	-																																
-		SNGN120416T02025	T02025	90	12.7	4.76	1.6	-																																
1		SNGN120416Z02025	Z02025	90	12.7	4.76	1.6	-																																
2		SNGF120412T01025RC	T01025	90	12.7	4.76	1.2	14																																
2		SNGF120412T01025RCM	T01025	90	12.7	4.76	1.2	14																																

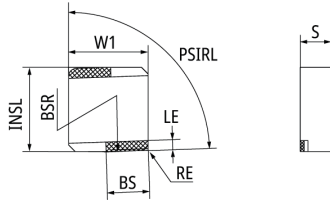
※Recommended Cutting Conditions
 Cutting Speed V_c = - 1000m/min
 Feed f = - 0.1mm/t

SNEN-ZN Inserts Ceramic Wiper : The insert must be installed in all insert pockets



Item Number	Chip-breaker	Wiper	BS	IC	KAPR	PSIRL	PSIRR	RE	S	Silicon Nitride Ceramics	
			mm	mm	°	°	°	mm	mm	SX6	CVD SP9
SNEN1204ZNT01025	No	Straight	(2.0)	12.7	89	89	89	1.2	4.76	●	●

FDX-88 Inserts CBN Wiper : Can install 1 or 2 CBN Wiper inserts with ceramic insert

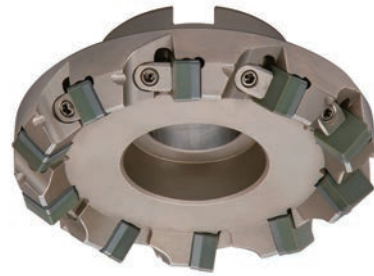
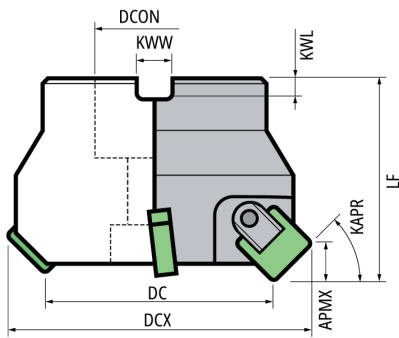


Item Number	Chip-breaker	Wiper	BS	BSR	INSL	LE	PSIRL	RE	S	W1	CBN	
			mm	mm	mm	mm	°	mm	mm	mm	B30	B52
FDX1204-88-50R	No	Arch	6.15	250	12.95	1.5	88	1.2	4.76	12.2	●	●

For Gray / Ductile Cast Iron

JFDX.. series / Cutter Lead angle 45 degree

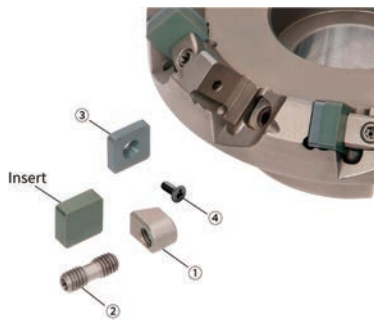
JFDX-45



EDP	Item Number	Stock	Hand	Number of teeth	APMX	DC	DCON	DCX	GAMF	GMAP	KAPR	KWL	KWW	LF	Weight	Insert Gage	
					mm	mm	mm	mm	°	°	°	mm	mm	mm	kg		
5727458	JFDX063-45-06R	●	R	6	-6	63	22	72	-10	-6	45	6	10.4	50	0.93	SN..1204..	FDX1204..
5727441	JFDX080-45-08R	●	R	8	-6	80	25.4	95	-10	-6	45	6	9.5	50	1.21	SN..1204..	FDX1204..
5727433	JFDX100-45-10R	●	R	10	-6	100	31.75	120	-10	-6	45	8	12.7	50	1.66	SN..1204..	FDX1204..
5727425	JFDX125-45-12R	●	R	12	-6	125	38.1	146	-10	-6	45	10	15.9	58	2.8	SN..1204..	FDX1204..

※Weight : Includes inserts and parts

Spare Parts



Item Number	Wedge ①	Shim ③	Clamp screw ②	Screw (for Shim) ④	Wrench (for Clamp screw)
JFDX063-45-06R	HLW175	ASN423	WS0616-T15	M3*8	T-15A
JFDX080-45-08R	HLW175	ASN423	WS0616-T15	M3*8	T-15A
JFDX100-45-10R	HLW175	ASN423	WS0616-T15	M3*8	T-15A
JFDX125-45-12R	HLW175	ASN423	WS0616-T15	M3*8	T-15A

JFDX.. series / Inserts Ceramics

SNGN/SNGF

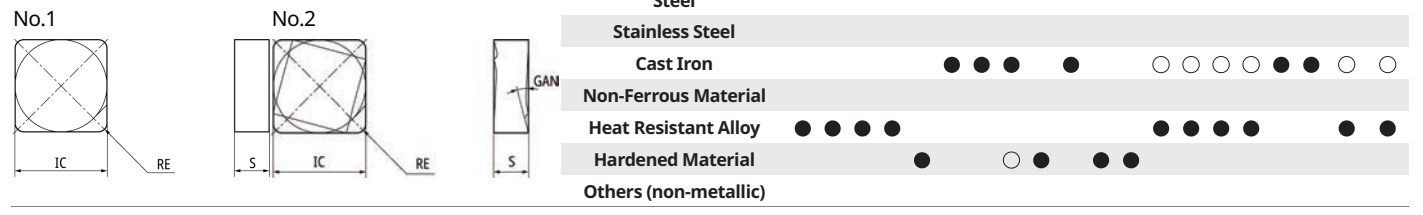
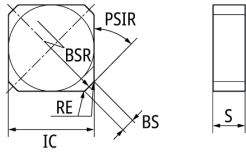


Figure	Shape	Item Number	CECC	EPSR	IC	S	RE	GAN	Materials																										
									Steel											Alumina Ceramics					Silicon Nitride Ceramics				Whisker Ceramics						
									Stainless Steel					Cast Iron						Non-Ferrous Material										Heat Resistant Alloy		Hardened Material		Others (non-metallic)	
									BIDEMICS											Alumina Ceramics				Silicon Nitride Ceramics				Whisker Ceramics							
		(ISO)	°	mm	mm	mm	°	120 PVD	JP2 PVD	JX1	JX3	450 PVD	NTK CeramIX	HC1	HW2	HC2	HC4	HC6	HC7	ZC7 PVD	SX3	SX5	SX7	SX9	SX6	SP9 CVD	WA1	WA5							
1		SNGN120408S02025	S02025	90	12.7	4.76	0.8	-																											
1		SNGN120408T00520	T00520	90	12.7	4.76	0.8	-																											
1		SNGN120408T00820	T00820	90	12.7	4.76	0.8	-																											
1		SNGN120408T01020	T01020	90	12.7	4.76	0.8	-																											
1		SNGN120408T01025	T01025	90	12.7	4.76	0.8	-																											
1		SNGN120408T02020	T02020	90	12.7	4.76	0.8	-																											
1		SNGN120408T02025	T02025	90	12.7	4.76	0.8	-																											
1		SNGN120408Z02025	Z02025	90	12.7	4.76	0.8	-																											
1		SNGN120412S02025	S02025	90	12.7	4.76	1.2	-																											
1		SNGN120412T00520	T00520	90	12.7	4.76	1.2	-																											
1		SNGN120412T00820	T00820	90	12.7	4.76	1.2	-																											
1		SNGN120412T01020	T01020	90	12.7	4.76	1.2	-																											
1		SNGN120412T01025	T01025	90	12.7	4.76	1.2	-																											
1		SNGN120412T02020	T02020	90	12.7	4.76	1.2	-																											
1		SNGN120412T02025	T02025	90	12.7	4.76	1.2	-																											
1		SNGN120412Z02025	Z02025	90	12.7	4.76	1.2	-																											
1		SNGN120416S02025	S02025	90	12.7	4.76	1.6	-																											
1		SNGN120416T00520	T00520	90	12.7	4.76	1.6	-																											
1		SNGN120416T01020	T01020	90	12.7	4.76	1.6	-																											
1		SNGN120416T01025	T01025	90	12.7	4.76	1.6	-																											
1		SNGN120416T02020	T02020	90	12.7	4.76	1.6	-																											
-		SNGN120416T02025	T02025	90	12.7	4.76	1.6	-																											
1		SNGN120416Z02025	Z02025	90	12.7	4.76	1.6	-																											
2		SNGF120412T01025RC	T01025	90	12.7	4.76	1.2	14																											
2		SNGF120412T01025RCM	T01025	90	12.7	4.76	1.2	14																											

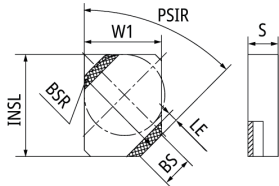
※Recommended Cutting Conditions
 Cutting Speed V_c = - 1000m/min
 Feed f = - 0.1mm/t

SNGN-AN Inserts Ceramic Wiper : The insert must be installed in all insert pockets



Item Number	Chip-breaker	Wiper	BS	BSR	IC	PSIR	RE	S	Silicon Nitride Ceramics	
			mm	mm	mm	°	mm	mm	SX6	CVD SP9
SNGN1204ANWT01020	No	Arch	2	150	12.7	45	0.5	4.76	●	●

FDX-45 Inserts CBN Wiper : Can install 1 or 2 CBN Wiper inserts with ceramic insert

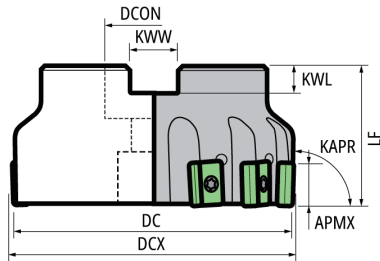


Item Number	Chip-breaker	Wiper	BS	BSR	INSL	LE	PSIR	S	W1	CBN	
			mm	mm	mm	mm	°	mm	mm	B30	B52
FDX1204-45-50R	No	Arch	(4.8)	250	16	1.5	45	4.76	12.2	●	●

For Gray / Ductile Cast Iron

JXTM series / Cutter Lead angle 88 degree

JXTM-88 Arbor type



EDP	Item Number	Stock	Hand	Number of teeth	APMX	DC	DCON	DCX	GAMF	GMAP	KAPR	KWL	KWW	LF	Weight	Insert Gage
					mm	mm	mm	mm	°	°	°	mm	mm	mm	kg	
5729652	JXTM080-88-10R	●	R	10	~8	80	25.4	83	0	-4	88	6	9.5	50	1.1	LNx324M..
5729660	JXTM100-88-13R	●	R	13	~8	100	31.75	103	0	-4	88	8	12.7	50	1.8	LNx324M..
5729678	JXTM125-88-16R	●	R	16	~8	125	38.1	128	0	-4	88	10	15.9	58	3.1	LNx324M..

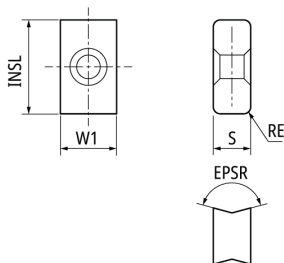
※Weight : Includes inserts and parts

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
JXTM080-88-10R	LRIS-4*12	LLR-25S
JXTM100-88-13R	LRIS-4*12	LLR-25S
JXTM125-88-16R	LRIS-4*12	LLR-25S

JXTM series / Inserts Ceramics

LNx

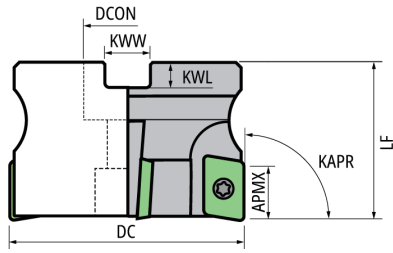


Item Number	Chip-breaker	Wiper	EPSR	INSL	RE	S	W1	Silicon Nitride Ceramics	
								SX6	CVD SP9
LNx324M-08T01020	Yes	No	150	15.875	0.8	6.35	9.525	●	●
LNx324M-12T01020	Yes	No	150	15.875	1.2	6.35	9.525	●	●
LNx324M-16T01020	Yes	No	150	15.875	1.6	6.35	9.525	●	●

For Gray / Ductile Cast Iron

JQ series / Cutter Lead angle 90 degree

JQTS Arbor type



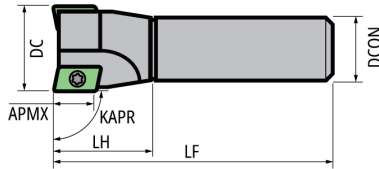
EDP	Item Number	Stock	Hand	Number of teeth	APMX mm	DC mm	DCON mm	GAMF °	GMAP °	KAPR °	KWL mm	KWW mm	LF mm	Weight kg	Insert Gage
5730155	JQTS040-90-4R	●	R	4	~8	40	16	-13	+6	90	5.6	8.4	40	0.2	APCW1604..
5730189	JQTS050-90-5R	●	R	5	~8	50	22	-13	+6	90	6.3	10.4	40	0.32	APCW1604..
5730197	JQTS063-90-6R	●	R	6	~8	63	22	-12	+6	90	6.3	10.4	50	1.4	APCW1604..
5765573	JQTS080-90-8R	●	R	8	~8	80	25.4	-12	+6	90	6	9.5	50	1.9	APCW1604..

※Weight : Includes inserts and parts

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
JQTS040-90-4R	FSI22-4.0*11	T-15A
JQTS050-90-5R	FSI22-4.0*11	T-15A
JQTS063-90-6R	FSI22-4.0*11	T-15A
JQTS080-90-8R	FSI22-4.0*11	T-15A

JQTE Shank type



EDP	Item Number	Stock	Hand	Number of teeth	APMX mm	DC mm	DCON mm	GAMF °	GMAP °	KAPR °	LF mm	LH mm	Weight kg	Insert Gage
5730114	JQTE020-90-1R	●	R	1	~8	20	20	-8	+3	90	100	30	0.22	APCW1604..
5730122	JQTE025-90-2R	●	R	2	~8	25	25	-13	+6	90	100	30	0.32	APCW1604..
5730130	JQTE032-90-3R	●	R	3	~8	32	32	-13	+6	90	120	35	0.53	APCW1604..
5730148	JQTE040-90-4R	●	R	4	~8	40	32	-13	+6	90	120	37	0.64	APCW1604..

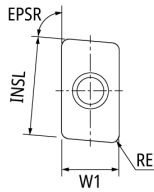
※Weight : Includes inserts and parts

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
JQTE020-90-1R	FSI23-4.0*7	T-15A
JQTE025-90-2R	FSI23-4.0*7	T-15A
JQTE032-90-3R	FSI22-4.0*11	T-15A
JQTE040-90-4R	FSI22-4.0*11	T-15A

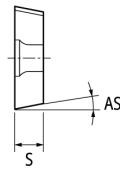
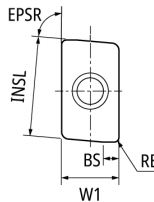
JQ series / Inserts Ceramics

APCW



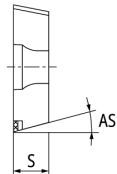
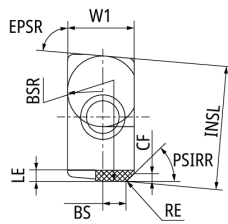
Item Number	Chip-breaker	Wiper	EPSR	INSL	RE	S	W1	Silicon Nitride Ceramics	
			°	mm	mm	mm	mm	SX6	CVD SP9
APCW160408T01020	No	No	85	16.46	0.8	4.76	9.525	●	●
APCW160412T01020	No	No	85	16.46	1.2	4.76	9.525	●	●
APCW160420T01020	No	No	85	16.46	2	4.76	9.525	●	●

APCW-PD Insert Ceramics Wiper



Item Number	Chip-breaker	Wiper	AS	BS	EPSR	INSL	RE	S	W1	Silicon Nitride Ceramics	
			°	mm	°	mm	mm	mm	mm	SX6	CVD SP9
APCW1604PDRT01020	No	Straight	15	2.6	85	16.46	0.8	4.76	9.525	●	●

APCW-PD Insert CBN Wiper : Can install 1 or 2 CBN Wiper inserts with ceramic insert

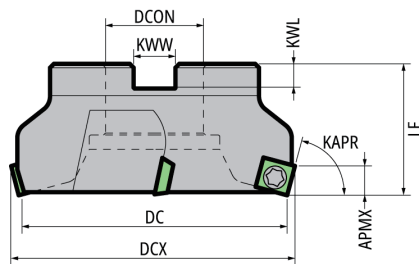


Item Number	Chip-breaker	Wiper	AS	BS	BSR	CF	EPSR	INSL	LE	PSIRR	RE	S	W1	CBN	
			°	mm	mm	mm	°	mm	mm	°	mm	mm	mm	B30	B52
APCW1604PDRS01020	No	Arch	15	(3.2)	250	1	85	16.579	1.5	45	0.4	4.76	9	●	●

For Gray / Ductile Cast Iron

JSDW series / Cutter Lead angle 75 degree

JSDW-75 Arbor type



EDP	Item Number	Stock	Hand	Number of teeth	APMX mm	DC mm	DCON mm	DCX mm	GAMF °	GMAP °	KAPR °	KWL mm	KWW mm	LF mm	Weight kg	Insert Gage	
5729991	JSDW063-75-04R	●	R	4	~6	63	22	70.6	0	+12	75	6.3	10.4	50	0.82	SDCW1204..	SDW1204..
5730007	JSDW080-75-05R	●	R	5	~6	80	25.4	83.3	0	+12	75	6	9.5	50	1.04	SDCW1204..	SDW1204..
5730015	JSDW100-75-06R	●	R	6	~6	100	31.75	108.7	0	+12	75	8	12.7	50	1.33	SDCW1204..	SDW1204..
5730106	JSDW125-75-07R	●	R	7	~6	125	38.1	134.1	0	+12	75	10	15.9	58	2.54	SDCW1204..	SDW1204..

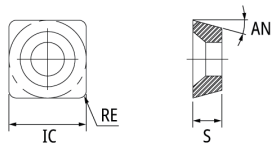
※Weight : Includes inserts and parts
 ※APMX : Carbide inserts Max 4mm

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
JSDW063-75-04R	FSI21-5.0*12.45	T-20
JSDW080-75-05R	FSI21-5.0*12.45	T-20
JSDW100-75-06R	FSI21-5.0*12.45	T-20
JSDW125-75-07R	FSI21-5.0*12.45	T-20

JSDW series / Inserts Ceramics

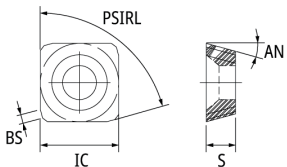
SDCW



Steel	
Stainless Steel	●●●●●
Cast Iron	○●●●●○●●○
Non-Ferrous Material	
Heat Resistant Alloy	●●●●●●●●●●
Hardened Material	●○●●●
Others (non-metallic)	

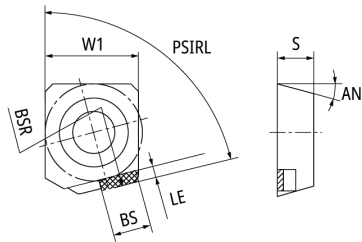
Shape	Item Number	CECC	EPSR	IC	S	AN	RE	D1	D2	INSL	S1	W1	BIDEMICS				NTK CeramIX	Alumina Ceramics					Silicon Nitride Ceramics					Whisker Ceramics							
													PVD	PVD	JX1	JX3		PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	CVD	PVD	WA1	WA5
Metric			°	mm	mm	°	mm	mm	mm	mm	mm	mm	120	JP2	JX1	JX3	450	PVD	HC1	HW2	HC2	HC4	HC6	HC7	ZC7	PVD	SX3	SX5	SX7	SX9	SX6	CVD	PVD	WA1	WA5
	SDCW120408T01020	T01020	90	12.7	4.76	15	0.8	5.5	-	-	-	-																					●	●	

SDCW-EE Insert Ceramic Wiper



Item Number	Chip-breaker	Wiper	AN	BS	IC	PSIRL	S	Silicon Nitride Ceramics		Carbide
								SX6	CVD SP9	PVD DM4
SDCW1204EERT01020	No	Straight	15	(1.4)	12.7	75	4.76	●	●	●

SDW Insert CBN Wiper : Can install 1 or 2 CBN Wiper inserts with ceramic insert

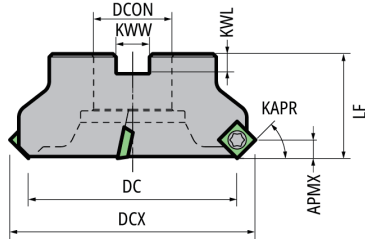


Item Number	Chip-breaker	Wiper	AN	BS	BSR	LE	PSIRL	S	W1	CBN	
										B30	B52
SDW1204-75-50R	No	Arch	15	(4.9)	250	1.5	75	4.76	12.2	●	●

For Gray / Ductile Cast Iron

JSDW series / Cutter Lead angle 45 degree

JSDW-45 Arbor type



EDP	Item Number	Stock	Hand	Number of teeth	APMX	DC	DCON	DCX	GAMF	GMAP	KAPR	KWL	KWW	LF	Weight	Insert Gage	
					mm	mm	mm	mm	°	°	°	mm	mm	mm	kg		
5729967	JSDW080-45-06R	●	R	6	~6	80	25.4	95	0	+12	45	6	9.5	50	1.1	SDCW1204..	SDW1204..
5729975	JSDW100-45-07R	●	R	7	~6	100	31.75	120.4	0	+12	45	8	12.7	50	1.39	SDCW1204..	SDW1204..
5729983	JSDW125-45-08R	●	R	8	~6	125	38.1	145.8	0	+12	45	10	15.9	58	2.55	SDCW1204..	SDW1204..

※Weight : Includes inserts and parts
 ※APMX : Carbide inserts Max 4mm

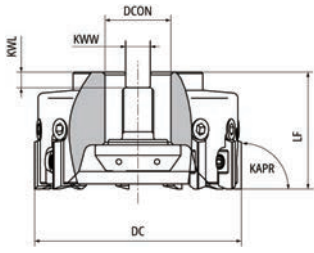
Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
JSDW080-45-06R	FSI21-5.0*12.45	T-20
JSDW100-45-07R	FSI21-5.0*12.45	T-20
JSDW125-45-08R	FSI21-5.0*12.45	T-20

For high-efficiency finishing aluminum alloys

HFC series / Cutter Adjustable type

JHF



EDP	Item Number	Stock	Hand	Number of teeth	DC mm	DCON mm	GAMF °	GMAP °	KAPR °	KWL mm	KWW mm	LF mm	kg	MAX RPM min-1	Insert Gage
5929278	JHF050C2200R07	●	R	7	50	22	+5	0	90	6.3	10.4	45	0.23	20000	HFT..
5929260	JHF063C2200R10	●	R	10	63	22	+5	0	90	6.3	10.4	45	0.38	20000	HFT..
5929252	JHF080A2540R12	●	R	12	80	25.4	+5	0	90	6	9.5	45	0.48	18000	HFT..
5929245	JHF100A2540R16	●	R	16	100	25.4	+5	0	90	6	9.5	45	0.74	18000	HFT..
5929237	JHF125A2540R22	●	R	22	125	25.4	+5	0	90	6	9.5	45	1.1	15000	HFT..

※Weight : Includes inserts and parts

Spare Parts

Item Number	Wedge	Clamp screw	Screw (for Axial set)	Wrench (for Clamp screw)	Wrench (for Axial set)	Clamping bolt
JHF050C2200R07	HLW179	WS0512	CS0510A	LW-2.5	LW-4	CS1040A
JHF063C2200R10	HLW179	WS0512	CS0510A	LW-2.5	LW-4	CS1040A
JHF080A2540R12	HLW179	WS0512	CS0510A	LW-2.5	LW-4	MBC-M12
JHF100A2540R16	HLW179	WS0512	CS0510A	LW-2.5	LW-4	MBC-M12
JHF125A2540R22	HLW179	WS0512	CS0510A	LW-2.5	LW-4	MBC-M12

HFC series / Inserts PCD

HFT

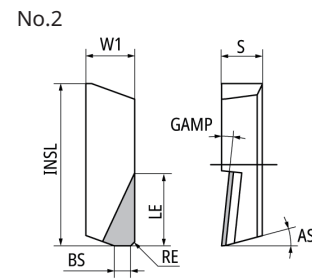
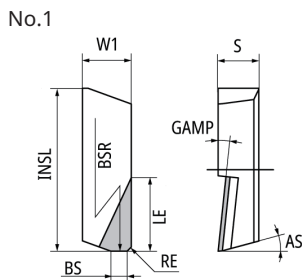
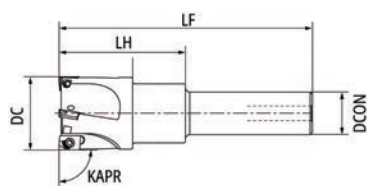


Figure	Item Number	Chip-breaker	Wiper	AS °	BS mm	BSR mm	GMAP °	INSL mm	LE mm	RE mm	S mm	W1 mm	PCD PD1
1	HFT802006C05	No	Arch	5	2	150	6	20	7.5	.02 chamfer	5	6	●
1	HFT802006R04	No	Arch	5	2	150	6	20	7.5	0.4	5	6	●
2	HFT702010W05	No	Arch	5	2	-	10	20	6.5	Double chamfer	5	6	●

For high-efficiency finishing aluminum alloys

HPC series / Cutter Fixed type

RD



EDP	Item Number	Stock	Hand	Number of teeth	DC mm	DCON mm	GAMF °	GMAP °	KAPR °	KWL mm	KWW mm	LF mm	LH mm	Weight kg	MAX RPM min-1	Insert Gage
5520341	RD020T20070R03	○	R	3	20	20	+4	+9	90	-	-	100	30	0.23	18000	HDA..
5520333	RD025T25070R03	○	R	3	25	25	+4	+9	90	-	-	110	40	0.37	18000	HDA..
5518519	RD030T20060R04	○	R	4	30	20	+4	+9	90	-	-	120	60	0.33	18000	HDA..
5518501	RD032T20060R04	○	R	4	32	20	+4	+9	90	-	-	120	60	0.36	18000	HDA..
5518493	RD035T20060R04	○	R	4	35	20	+4	+9	90	-	-	120	60	0.36	18000	HDA..

※Weight : Includes inserts and parts

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
RD020T20070R03	FSI0306A	(6300-T10-80)
RD025T25070R03	FSI0307A	(6300-T10-80)
RD030T20060R04	FSI0307A	(6300-T10-80)
RD032T20060R04	FSI0307A	(6300-T10-80)
RD035T20060R04	FSI0307A	(6300-T10-80)

HPC series / Inserts PCD_Carbide

HDA

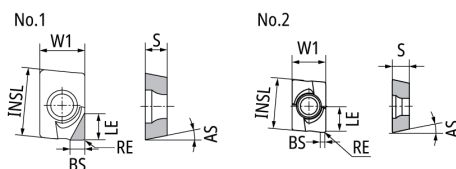


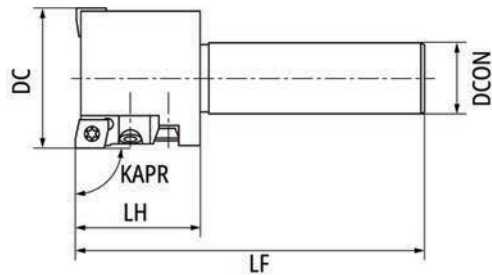
Figure	Item Number	Chip-breaker	Wiper	AS mm	BS mm	GAMF °	GMAP °	INSL mm	LE mm	RE mm	S mm	W1 mm	PCD PD1	Carbide PVD TM1
1	HDA4015R04	No	Arch	14	(1.5)	+4	+9	10	4	0.4	3.4	6.7	●	
2	HDA4505R04	Yes	Arch	14	(0.9)	+4	+9	10	MIN 5.0	0.4	3.4	6.7		○

For high-efficiency finishing aluminum alloys

HPC series Cutter / Fixed type

RA-K

No.1



No.2

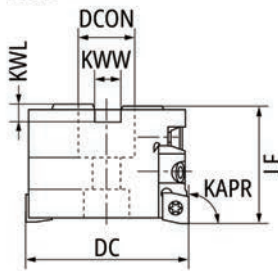


Figure	EDP	Item Number	Stock Hand	Number of teeth	DC mm	DCON mm	GAMF °	GMAP °	KAPR °	KWL mm	KWW mm	LF mm	LH mm	Weight kg	MAX RPM min-1	Insert Gage	
1	5449384	RA040T20060R04K	○	R	4	40	20	-3~+6	+6	90	-	-	105	45	0.45	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
1	5449400	RA040T25080R04K	○	R	4	40	25	-3~+6	+6	90	-	-	125	45	0.6	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
2	5449509	RA050C22.00R05K	○	R	5	50	22	-3~+6	+6	90	6.3	10.4	45	-	0.4	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
1	5449442	RA050T20060R05K	○	R	5	50	20	-3~+6	+6	90	-	-	105	45	0.6	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
1	5449467	RA050T25080R05K	○	R	5	50	25	-3~+6	+6	90	-	-	125	45	0.75	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
1	5449483	RA050T32080R05K	○	R	5	50	32	-3~+6	+6	90	-	-	125	45	0.9	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
2	5449525	RA063C22.00R06K	○	R	6	63	22	-3~+6	+6	90	6.3	10.4	45	-	0.73	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
2	5477252	RA080A25.40R07K	○	R	7	80	25.4	-3~+6	+6	90	6	9.5	43	-	0.95	15000	HAL./HRL./HAT.. HRT./HAN../HLA..
2	5486212	RA100A31.75R09K	-	R	9	100	31.75	-3~+6	+6	90	8	12.7	45	-	1.6	10000	HAL./HRL./HAT.. HRT./HAN../HLA..

※Weight : Includes inserts and parts

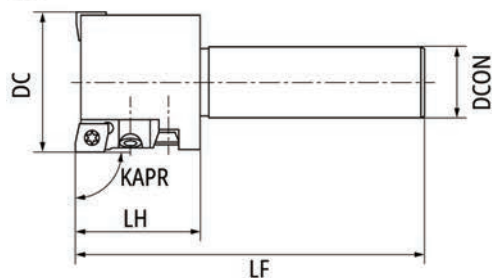
Spare Parts

Item Number	Clamp screw	Screw (for Axial set)	Screw (for Wedge)	Wrench (for Clamp screw)	Wrench (for Axial set)	Cartridge	Clamping bolt
RA040T20060R04K	FSI035104A	CS0510A	CS0510T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	-
RA040T25080R04K	FSI035104A	CS0510A	CS0510T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	-
RA050C22.00R05K	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	CS1040A
RA050T20060R05K	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	-
RA050T25080R05K	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	-
RA050T32080R05K	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	-
RA063C22.00R06K	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	CS1040A
RA080A25.40R07K	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	MBC-M12
RA100A31.75R09K	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	MBC-M16

HPC series Cutter / Adjustable type

RA

No.1



No.2

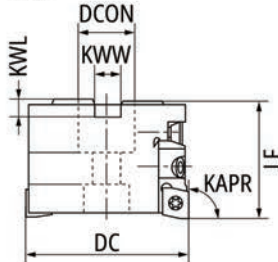


Figure	EDP	Item Number	Stock Hand	Number of teeth	DC mm	DCON mm	GAMF °	GMAP °	KAPR °	KWL mm	KWW mm	LF mm	LH mm	Weight kg	MAX RPM min-1	Insert Gage	
1	5441050	RA040T20060R04	○	R	4	40	20	-3~+6	+6	90	-	-	105	45	0.45	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
1	5441043	RA040T25080R04	○	R	4	40	25	-3~+6	+6	90	-	-	125	45	0.6	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
2	5441001	RA050C22.00R05	○	R	5	50	22	-3~+6	+6	90	6.3	10.4	45	-	0.4	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
1	5441035	RA050T20060R05	○	R	5	50	20	-3~+6	+6	90	-	-	105	45	0.6	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
1	5441027	RA050T25080R05	○	R	5	50	25	-3~+6	+6	90	-	-	125	45	0.75	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
1	5441019	RA050T32080R05	○	R	5	50	32	-3~+6	+6	90	-	-	125	45	0.9	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
2	5440995	RA063C22.00R06	○	R	6	63	22	-3~+6	+6	90	6.3	10.4	45	-	0.73	18000	HAL./HRL./HAT.. HRT./HAN../HLA..
2	5456223	RA080A25.40R07	○	R	7	80	25.4	-3~+6	+6	90	6	9.5	43	-	0.95	15000	HAL./HRL./HAT.. HRT./HAN../HLA..
2	5486220	RA100A31.75R09	○	R	9	100	31.75	-3~+6	+6	90	8	12.7	45	-	1.6	10000	HAL./HRL./HAT.. HRT./HAN../HLA..

※Weight : Includes inserts and parts

Spare Parts

Item Number	Clamp screw	Screw (for Axial set)	Screw (for Cartridge)	Wrench (for Clamp screw)	Wrench (for Axial set)	Cartridge	Clamping bolt
RA040T2006R04	FSI035104A	CS0510A	CS0510T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	-
RA040T2508R04	FSI035104A	CS0510A	CS0510T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	-
RA050C22.00R05	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	CS1040A
RA050T2006R05	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	-
RA050T2508R05	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	-
RA050T3208R05	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	-
RA063C22.00R06	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	CS1040A
RA080A25.40R07	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	MBC-M12
RA100A31.75R09	FSI035104A	CS0510A	CS0512T	(6300-T15-80)	(6300-4.0-130)	RA06P03NC	MBC-M16

HPC series / Inserts PCD_Carbide

HAL/HRL/HAT/HRT/HAN/HLA

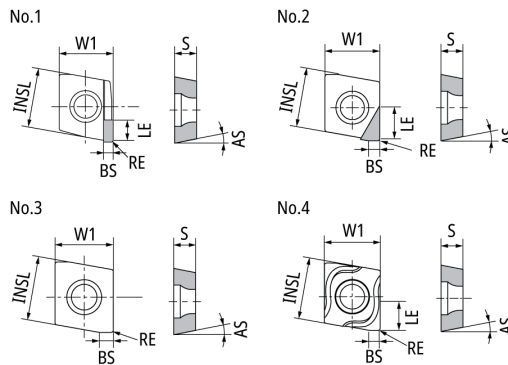
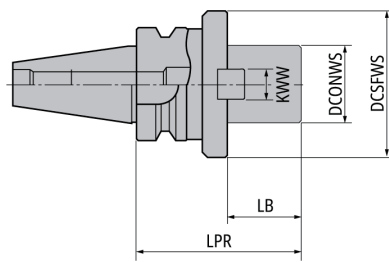


Figure	Item Number	Chip-breaker	Wiper	AS	BS	GAMF	GMAP	INSL	LE	RE	S	W1	PCD	Carbide
				mm	mm	°	°	mm	mm	mm	mm	mm	mm	PD1
1	HAL3515C05	No	Arch	11	(1.5)	0	+6	11.2	3.5	.02 chamfer	4	10		
1	HAL3515R04	No	Arch	11	(1.5)	0	+6	11.2	3.5	0.4	4	10	●	
1	HRL3515R04	No	Arch	11	(1.5)	0	+6	11.2	MIN 3.5	0.4	4	10	○	
2	HAT6021C05	No	Arch	11	(2.1)	0	+6	10.95	6	.02 chamfer	4	10		
2	HAT6021R04	No	Arch	11	(2.1)	0	+6	10.95	6	0.4	4	10	●	
2	HRT6021R04	No	Arch	11	(2.1)	0	+6	11.2	MIN 6.0	0.4	4	10.2	○	
3	HAN9521R04N	No	Arch	11	(2.1)	-3	+6	11	MIN 6.0	0.4	4	10		○
4	HLA8521R04	Yes	Arch	11	(2.1)	+6	+6	11.078	MIN 6.0	0.4	4	10.078		○

※HRL3515R04: Re grindable
 ※HRT6021R04: Re grindable

Arbors / Coolant through

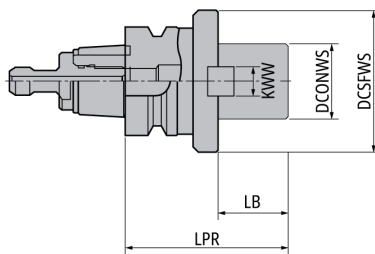
BT30..



EDP	Item Number	Stock	Hand	DCONWS mm	DCSFMS mm	KWW mm	LB mm	Weight kg
5612502	BT30-FMNA25.4-40	●	N	25.4	50	9.5	22	0.7
5612510	BT30-FMNA31.75-39	●	N	31.75	60	12.7	30	0.8
5649199	BT30-FMNC22-32	●	N	22	46	10.4	18	0.6

※Clamp bolt is sold separately.
 ※Use a stud bolt suitable for the machine.

NC5..



EDP	Item Number	Stock	Hand	DCONWS mm	DCSFMS mm	KWW mm	LB mm	Weight kg
5612528	NC5-46-FMNA25.4-40F	●	N	25.4	50	9.5	22	0.7
5612536	NC5-46-FMNA31.75-39F	●	N	31.75	60	12.7	30	0.8
5649207	NC5-46-FMNC22-32F	●	N	22	46	10.4	18	0.6

※Clamp bolt is sold separately.
 ※Clamp bolt is sold separately.