



Milling Cutter

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CSC



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ARBOR



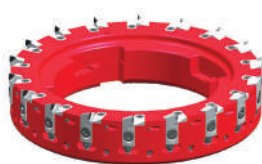
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FACE MILLING CUTTER

SFKN .. 88

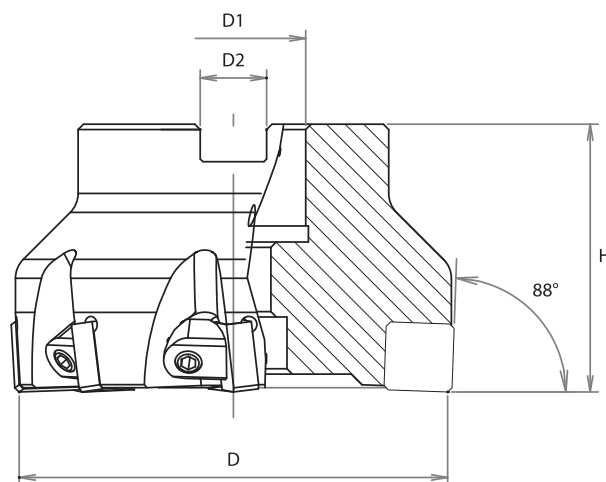


Axial rake angle : -7°

Radial rake angle

D40 : -12°

D50~125 : -10°



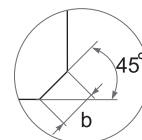
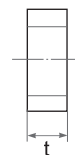
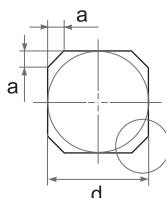
Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFKN 040-04-88 N4	40	16	8.4	40	4	SNCN 0904 ZZT
SFKN 050-05-88 N4	50	22	10.4	40	5	
SFKN 063-06-88 N4	63	22	10.4	40	6	SNCN 1204 ZZT SNCN 1204 ZN
SFKN 080-08-88 N4A	80	25.4	9.5	50	8	
SFKN 080-08-88 N4	80	27	12.4	50	8	
SFKN 100-10-88 N4A	100	31.75	12.7	50	10	
SFKN 100-10-88 N4	100	32	14.4	50	10	
SFKN 125-12-88 N4A	125	38.1	15.9	63	12	
SFKN 125-12-88 N4	125	40	16.4	63	12	

Dimensions (mm)	Spare parts		
D	Wedge	Wedge Screw	Wrench
40 - 50	SSW9	WS6 (M6)	LW3
63 - 125	SSW10	WS6 (M6)	LW3

Recommended Cutting Condition for Gray Cast Iron

Process	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm)	Surface Quality Ra(μm)
Roughing	190~210	800~2,000	0.08~0.15	2.0~5.0	6.3~12.5
Roughing	220~240	500~1,500	0.08~0.15	2.0~5.0	6.3~12.5
Roughing	250~280	300~1,200	0.08~0.15	2.0~5.0	6.3~12.5

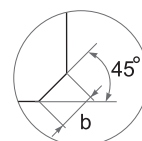
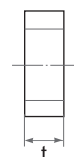
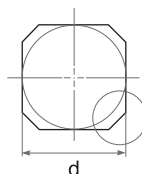
SNCN .. ZZT



Turning & Milling

Type		Dimensions (mm)				</															
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SNCN .. ZN



Type		Dimensions (mm)			NEWNEWNEW																	
ISO	ASA	d	t	b	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SNCN 1204 ZN	SNCN 43 ZN	12.70	4.76	1.10												●						

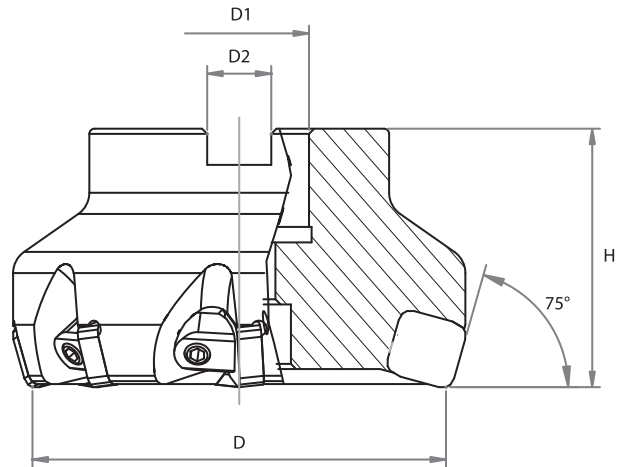
FACE MILLING CUTTER

SFKN .. 75



Axial rake angle : -6°

Radial rake angle : -10°



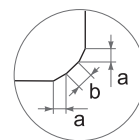
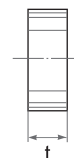
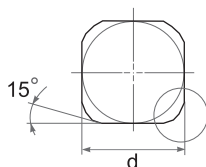
Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFKN 050-05-75 N4	50	22	10.4	40	5	SNCN 1204 ENTN SNGN 1204 □ □
SFKN 063-06-75 N4	63	22	10.4	40	6	
SFKN 080-08-75 N4A	80	25.4	9.5	50	8	
SFKN 080-08-75 N4	80	27	12.4	50	8	
SFKN 100-10-75 N4A	100	31.75	12.7	50	10	
SFKN 100-10-75 N4	100	32	14.4	50	10	
SFKN 125-12-75 N4A	125	38.1	15.9	63	12	
SFKN 125-12-75 N4	125	40	16.4	63	12	

Dimensions (mm)	Spare parts		
D	Wedge	Wedge Screw	Wrench
50	SSW9	WS6 (M6)	LW3
63 - 125	SSW10	WS6 (M6)	LW3

Recommended Cutting Condition for Gray Cast Iron

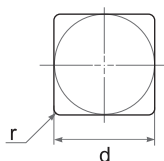
Process	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm)	Surface Quality Ra(μm)
Roughing	190~210	800~2,000	0.10~0.20	2.0~5.0	6.3~12.5
Roughing	220~240	500~1,500	0.10~0.20	2.0~5.0	6.3~12.5
Roughing	250~280	300~1,200	0.10~0.20	2.0~5.0	6.3~12.5

SNCN .. ENTN



Type		Dimensions (mm)																					
ISO	ASA	d	t	a	b	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SNCN 1204 ENTN	SNCN 43 ENTN	12.70	4.76	1.40	1.00										●	●	●						

SNGN



Type		Dimensions (mm)																					
ISO	ASA	d	t	r		ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SNGN 120412	SNGN 433	12.70	4.76	1.2													●						
SNGN 120416	SNGN 434	12.70	4.76	1.6													●						

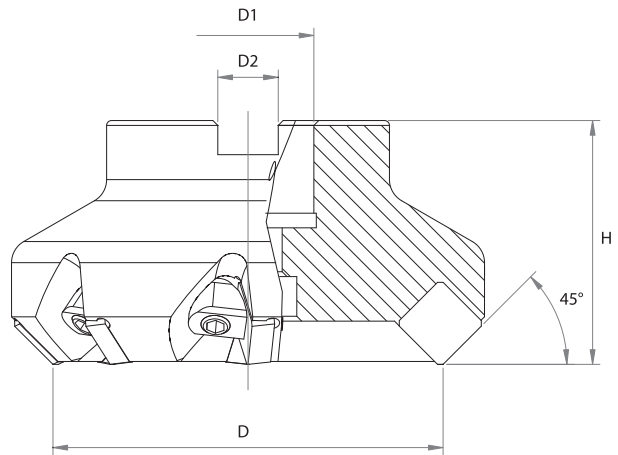
FACE MILLING CUTTER

SFKN .. 45



Axial rake angle : -6°

Radial rake angle : -12°



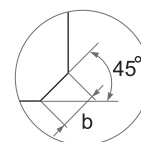
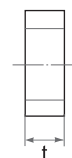
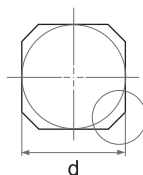
Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFKN 050-05-45 N4	50	22	10.4	40	5	SNCN 1204 AN SNCN 1204 ZN SNGN 1204 □ □
SFKN 063-06-45 N4	63	22	10.4	40	6	
SFKN 080-08-45 N4A	80	25.4	9.5	50	8	
SFKN 080-08-45 N4	80	27	12.4	50	8	
SFKN 100-10-45 N4A	100	31.75	12.7	50	10	
SFKN 100-10-45 N4	100	32	14.4	50	10	
SFKN 125-12-45 N4A	125	38.1	15.9	63	12	
SFKN 125-12-45 N4	125	40	16.4	63	12	

Dimensions (mm)	Spare parts		
D	Wedge	Wedge Screw	Wrench
50	SSW9	WS6 (M6)	LW3
63 - 125	SSW10	WS6 (M6)	LW3

Recommended Cutting Condition for Gray Cast Iron

Process	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm)	Surface Quality Ra(μm)
Roughing	190~210	800~2,000	0.15~0.30	2.0~5.0	3.2~12.5
Roughing	220~240	500~1,500	0.15~0.30	2.0~5.0	3.2~12.5
Roughing	250~280	300~1,200	0.15~0.30	2.0~5.0	3.2~12.5

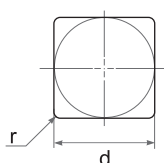
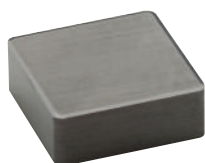
SNCN



Type		Dimensions (mm)			</															
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NEW NEW NEW

SNGN



Type		Dimensions (mm)			NEWNEWNEW																	
ISO	ASA	d	t	r	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SNGN 120412	SNGN 433	12.70	4.76	1.2												●						
SNGN 120416	SNGN 434	12.70	4.76	1.6												●						

NEW NEW NEW

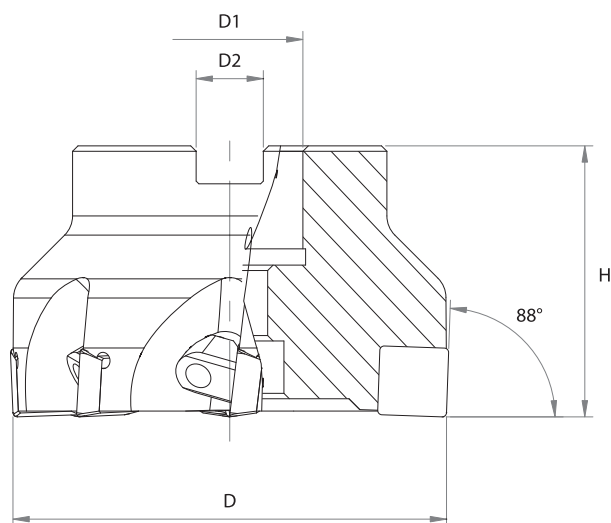
FACE MILLING CUTTER

SFKP .. 88



Axial rake angle : $+7^\circ$

Radial rake angle : $+3^\circ$



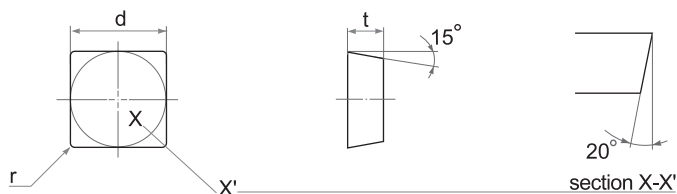
Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFKP 050-05-88 N4	50	22	10.4	40	5	SDCN 1204 □ □ T20
SFKP 063-06-88 N4	63	22	10.4	40	6	
SFKP 080-08-88 N4A	80	25.4	9.5	50	8	
SFKP 080-08-88 N4	80	27	12.4	50	8	
SFKP 100-10-88 N4A	100	31.75	12.7	50	10	
SFKP 100-10-88 N4	100	32	14.4	50	10	
SFKP 125-12-88 N4A	125	38.1	15.9	63	12	
SFKP 125-12-88 N4	125	40	16.4	63	12	

Dimensions (mm)	Spare parts		
D	Wedge	Wedge Screw	Wrench
50	SSW9	WS6 (M6)	LW3
63 - 125	SSW10	WS6 (M6)	LW3

Recommended Cutting Condition for Gray Cast Iron

Process	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm)	Surface Quality Ra(μm)
Roughing	190~210	800~2,000	0.08~0.15	2.0~5.0	6.3~12.5
Roughing	220~240	500~1,500	0.08~0.15	2.0~5.0	6.3~12.5
Roughing	250~280	300~1,200	0.08~0.15	2.0~5.0	6.3~12.5

SDCN .. T



Type		Dimensions (mm)			NEWNEWNEW																	
ISO	ASA	d	t	r	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SDCN 120408 T20	SDCN 432 T20	12.70	4.76	0.8												●						
SDCN 120412 T20	SDCN 433 T20	12.70	4.76	1.2												●						

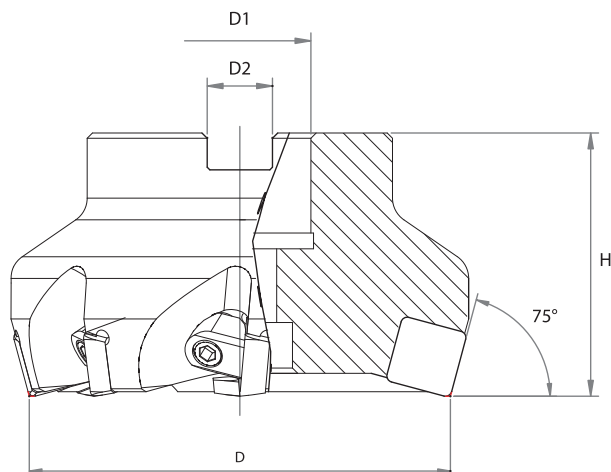
FACE MILLING CUTTER

SFKP .. 75



Axial rake angle : +5°

Radial rake angle : 0°



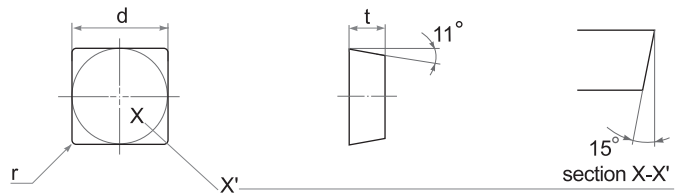
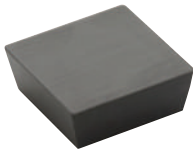
Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFKP 050-05-75 N4	50	22	10.4	40	5	SPCN 1204 □ □ T15 SPKN 1204SP EDTR
SFKP 063-06-75 N4	63	22	10.4	40	6	
SFKP 080-08-75 N4A	80	25.4	9.5	50	8	
SFKP 080-08-75 N4	80	27	12.4	50	8	
SFKP 100-10-75 N4A	100	31.75	12.7	50	10	
SFKP 100-10-75 N4	100	32	14.4	50	10	
SFKP 125-12-75 N4A	125	38.1	15.9	63	12	
SFKP 125-12-75 N4	125	40	16.4	63	12	

Dimensions (mm)	Spare parts		
D	Wedge	Wedge Screw	Wrench
50	SSW9	WS6 (M6)	LW3
63 - 125	SSW10	WS6 (M6)	LW3

Recommended Cutting Condition for Gray Cast Iron

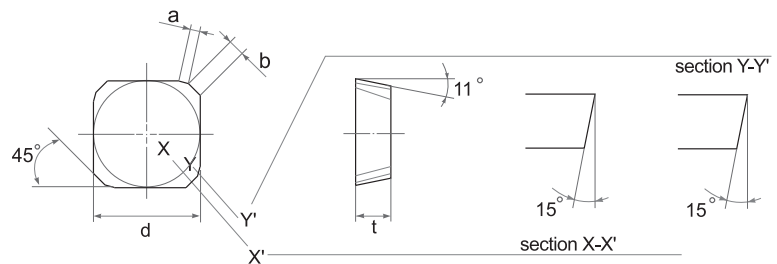
Process	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm)	Surface Quality Ra(μm)
Roughing	190~210	800~2,000	0.10~0.20	2.0~5.0	3.2~12.5
Roughing	220~240	500~1,500	0.10~0.20	2.0~5.0	3.2~12.5
Roughing	250~280	300~1,200	0.10~0.20	2.0~5.0	3.2~12.5

SPCN .. T



Type		Dimensions (mm)																			NEW	NEW	NEW
ISO	ASA	d	t	r	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800	
SPCN 120412 T15	SPCN 433 T15	12.70	4.76	1.2												●							
SPCN 120416 T15	SPCN 434 T15	12.70	4.76	1.6												●							

SPKN .. SP



Type		Dimensions (mm)				NEWNEWNEW																	
ISO	ASA	d	t	a	b	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SPKN 1204SP EDTR	SPKN 43SP EDTR	12.70	4.76	1.10	1.30												●						

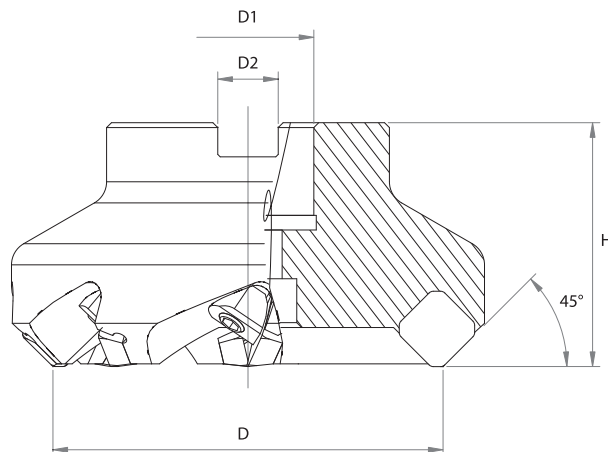
FACE MILLING CUTTER

SFKP .. 45



Axial rake angle : $+19^\circ$

Radial rake angle : -6°



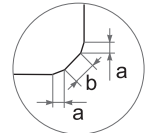
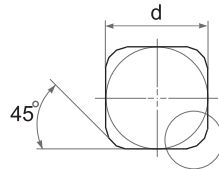
Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFKP 050-05-45 N4	50	22	10.4	40	5	SEAN 1204 AFTN W25 SEAN 1204 □ □ T25
SFKP 063-06-45 N4	63	22	10.4	40	6	
SFKP 080-08-45 N4A	80	25.4	9.5	50	8	
SFKP 080-08-45 N4	80	27	12.4	50	8	
SFKP 100-10-45 N4A	100	31.75	12.7	50	10	
SFKP 100-10-45 N4	100	32	14.4	50	10	
SFKP 050-05-45 N3	50	22	10.4	40	5	SEAN 1203 NWAFTN SEAN 1203 AFTN
SFKP 063-06-45 N3	63	22	10.4	40	6	
SFKP 080-08-45 N3A	80	25.4	9.5	50	8	
SFKP 080-08-45 N3	80	27	12.4	50	8	
SFKP 100-10-45 N3A	100	31.75	12.7	50	10	
SFKP 100-10-45 N3	100	32	14.4	50	10	

Dimensions (mm)	Spare parts		
D	Wedge	Wedge Screw	Wrench
50	SSW9	WS6 (M6)	LW3
63 - 100	SSW10	WS6 (M6)	LW3

Recommended Cutting Condition for Gray Cast Iron

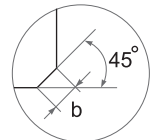
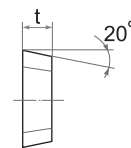
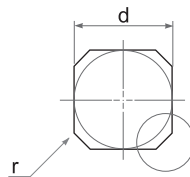
Process	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm)	Surface Quality Ra(μm)
Roughing	190~210	800~2,000	0.15~0.30	2.0~5.0	6.3~12.5
Roughing	220~240	500~1,500	0.15~0.30	2.0~5.0	6.3~12.5
Roughing	250~280	300~1,200	0.15~0.30	2.0~5.0	6.3~12.5

SEAN



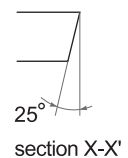
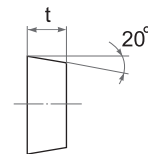
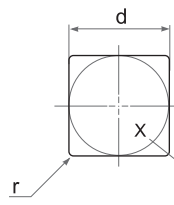
Type		Dimensions (mm)				NEW NEW NEW																	
ISO	ASA	d	t	a	b	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SEAN 1203 AFTN	SEAN 42 AFTN	12.70	3.18	0.50	1.80										●	●	●						

SEAN .. NW



Type		Dimensions (mm)																			
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SEAN .. T



Type		Dimensions (mm)			NEW NEW NEW																	
ISO	ASA	d	t	r	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SEAN 120412 T25	SEAN 433 T25	12.70	4.76	1.2												●						
SEAN 120416 T25	SEAN 434 T25	12.70	4.76	1.6												●						

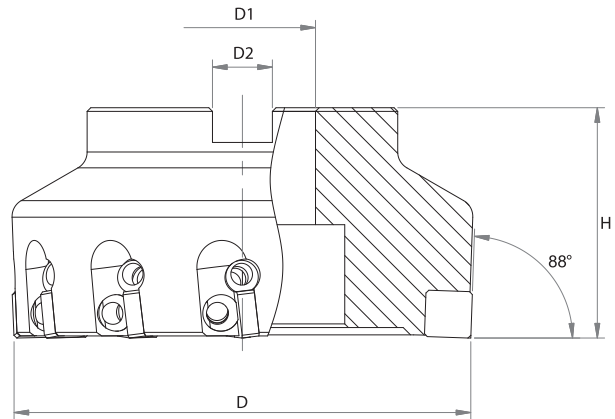
FACE MILLING CUTTER

SFAN .. 88



Axial rake angle : -7°

Radial rake angle : -10°



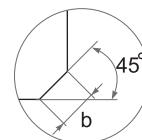
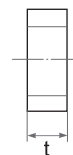
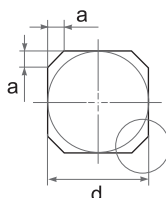
Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFAN 063-06-88 N4	63	22	10.4	40	6	SNCN 1204 ZZT SNCN 1204 ZN
SFAN 080-08-88 N4A	80	25.4	9.5	50	8	
SFAN 080-08-88 N4	80	27	12.4	50	8	
SFAN 100-10-88 N4A	100	31.75	12.7	50	10	
SFAN 100-10-88 N4	100	32	14.4	50	10	
SFAN 125-12-88 N4A	125	38.1	15.9	63	12	
SFAN 125-12-88 N4	125	40	16.4	63	12	

Dimensions (mm)	Spare parts				
D	Wedge	Wedge Screw	Adjust Wedge	Adjust Wedge Screw	Wrench
63 - 125	SW16	WS6 (M6)	SAW 20	WS6 (M6)	LW2.5 / LW3

Recommended Cutting Condition for Gray Cast Iron

Process	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm)	Surface Quality Ra(μm)
Roughing	190~210	800~2,000	0.08~0.15	2.0~5.0	6.3~12.5
Roughing	220~240	500~1,500	0.08~0.15	2.0~5.0	6.3~12.5
Roughing	250~280	300~1,200	0.08~0.15	2.0~5.0	6.3~12.5
Finishing	190~210	200~900	0.05~0.10	0.1~0.5	0.8
Finishing	220~240	200~700	0.05~0.10	0.1~0.5	0.8
Finishing	250~280	200~500	0.05~0.10	0.1~0.5	0.8

SNCN .. ZZT

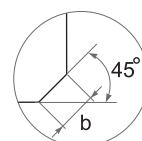
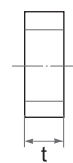
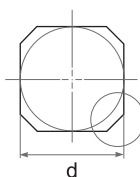


Turning & Milling

Type		Dimensions (mm)																						
ISO	ASA	d	t	a	b	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800	
SNCN 1204 ZZT	SNCN 43 ZZT	12.70	4.76	3.25	1.10		●										●	●		●				

NEW NEW NEW

SNCN .. ZN



Type		Dimensions (mm)																		
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NEW NEW NEW

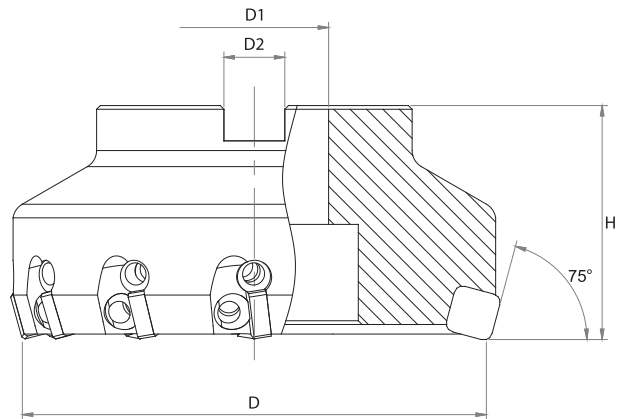
FACE MILLING CUTTER

SFAN .. 75



Axial rake angle : -6°

Radial rake angle : -10°



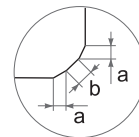
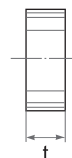
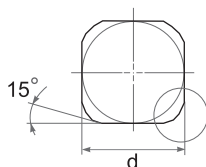
Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFAN 063-06-75 N4	63	22	10.4	40	6	SNCN 1204 ENTN SNGN 1204 □ □
SFAN 080-08-75 N4A	80	25.4	9.5	50	8	
SFAN 080-08-75 N4	80	27	12.4	50	8	
SFAN 100-10-75 N4A	100	31.75	12.7	50	10	
SFAN 100-10-75 N4	100	32	14.4	50	10	
SFAN 125-12-75 N4A	125	38.1	15.9	63	12	
SFAN 125-12-75 N4	125	40	16.4	63	12	

Dimensions (mm)	Spare parts				
D	Wedge	Wedge Screw	Adjust Wedge	Adjust Wedge Screw	Wrench
63 - 125	SW16	WS6 (M6)	SAW 20	WS6 (M6)	LW2.5 / LW3

Recommended Cutting Condition for Gray Cast Iron

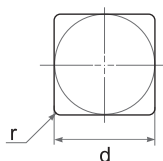
Process	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm)	Surface Quality Ra(μm)
Roughing	190~210	800~2,000	0.08~0.15	2.0~5.0	6.3~12.5
Roughing	220~240	500~1,500	0.08~0.15	2.0~5.0	6.3~12.5
Roughing	250~280	300~1,200	0.08~0.15	2.0~5.0	6.3~12.5
Finishing	190~210	200~900	0.08~0.15	0.1~0.5	0.8
Finishing	220~240	200~700	0.08~0.15	0.1~0.5	0.8
Finishing	250~280	200~500	0.08~0.15	0.1~0.5	0.8

SNCN .. ENTN



Type		Dimensions (mm)				NEWNEWNEW																	
ISO	ASA	d	t	a	b	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SNCN 1204 ENTN	SNCN 43 ENTN	12.70	4.76	1.40	1.00										●	●	●						

SNGN

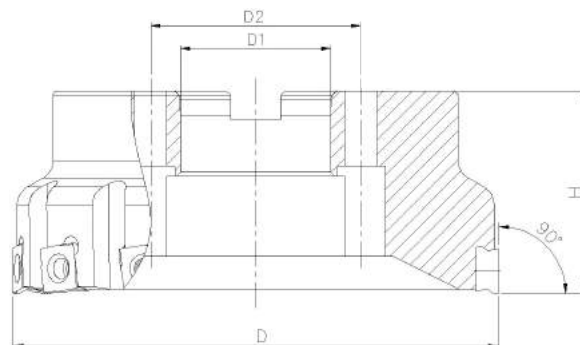


Type		Dimensions (mm)																				
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FACE MILLING CUTTER

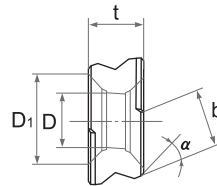
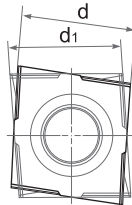
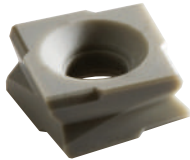
Turning & Milling

SFSX .. 00 .. EC

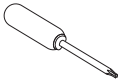


Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFSX 050-05-00-A5EC	50	22		40	5	SPHX1205 NR
SFSX 050-05-00-A5ECA	50.8	19.05		44.5	5	
SFSX 063-07-00-A5EC	63	22	-	40	7	
SFSX 063-07-00-A5ECA	63.5	19.05		44.5	7	
SFSX 080-08-00-A5EC	80	27	-	50	8	
SFSX 080-08-00-A5ECA	76.2	25.4		44.5	8	
SFSX 100-12-00-A5EC	100	32	-	50	12	
SFSX 100-12-00-A5ECA	101.6	38.1		44.5	12	
SFSX 125-15-00-A5EC	125	40	-	63	15	
SFSX 125-15-00-A5ECA	127.0	38.1		60.5	15	
SFSX 160-18-00-A5EC	160	40	66.7	63	18	
SFSX 160-18-00-A5ECA	152.4	50.8	101.6	60.5	18	
SFSX 200-24-00-A5EC	200	60	101.6	63	24	
SFSX 200-24-00-A5ECA	203.2	63.5	101.6	60.5	24	
SFSX 250-30-00-A5EC	250	60	101.6	63	30	
SFSX 250-30-00-A5ECA	254.0	63.5	101.6	60.5	30	
SFSX 080-06-00-AT6EC	80	27	-	50	6	SPHX15T6 NR
SFSX 080-06-00-AT6ECA	76.2	25.4		44.5	6	
SFSX 100-08-00-AT6EC	100	32	-	50	8	
SFSX 100-08-00-AT6ECA	101.6	31.75		44.5	8	
SFSX 125-10-00-AT6EC	125	40	-	63	10	
SFSX 125-10-00-AT6ECA	127	38.1		60.5	10	
SFSX 160-14-00-AT6EC	160	40	66.7	63	14	
SFSX 160-14-00-AT6ECA	152.4	50.8		60.5	14	

SPHX



Type	Dimensions (mm)							NEW NEW NEW																	
ISO	d	d ₁	t	D	D ₁	α	b	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SPHX 1205NR 480T	11.67	11.33	5.50	5.10	8.41	45	8.0												●		●				
SPHX 1205NL 480T	11.67	11.33	5.50	5.10	8.41	45	8.0																		
SPHX 1205ER 855T	12.09	11.33	5.50	5.10	8.41	35	5.50												●		●				
SPHX 1205EL 855T	12.09	11.33	5.50	5.10	8.41	35	5.50												●						
SPHX 15T6NR 880T	14.58	14.33	6.60	6.10	10.18	45	8.80												●		●				
SPHX 15T6ER 865T	15.50	14.33	6.60	6.10	10.18	35	6.50												●		●				

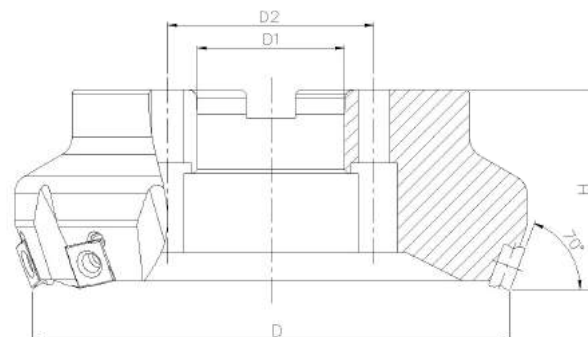
Dimensions (mm)	Spare parts	
D	Screw	Wrench
		
50 - 250 (SPHX1205 NR)	C94010	T15
80 - 160 (SPHX15T6 NR)	CL3C	CLS3C

Recommended Cutting Conditions

Work - Piece	Cutting Speed V _c (m/min)	Feed f _z (mm/z)	Depth a _p (mm) max
Gray Cast Irons	500~1,400	0.15~0.25	~5.0
Ductile Cast Irons	450~900	0.10~0.20	~3.0

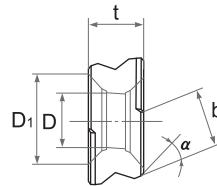
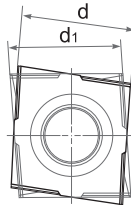
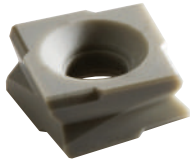
FACE MILLING CUTTER

SFSX .. 70 .. EC

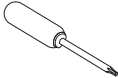


Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFSX 050-05-70-A5EC	50	22		40	5	SPHX1205 ER
SFSX 050-05-70-A5ECA	50.8	19.05		44.5	5	
SFSX 063-07-70-A5EC	63	22	-	40	7	
SFSX 063-07-70-A5ECA	63.5	19.05		44.5	7	
SFSX 080-08-70-A5EC	80	27	-	50	8	
SFSX 080-08-70-A5ECA	76.2	25.4		44.5	8	
SFSX 100-12-70-A5EC	100	32	-	50	12	
SFSX 100-12-70-A5ECA	101.6	38.1		44.5	12	
SFSX 125-15-70-A5EC	125	40	-	63	15	
SFSX 125-15-70-A5ECA	127.0	38.1		60.5	15	
SFSX 160-18-70-A5EC	160	40	66.7	63	18	
SFSX 160-18-70-A5ECA	152.4	50.8	101.6	60.5	18	
SFSX 200-24-70-A5EC	200	60	101.6	63	24	
SFSX 200-24-70-A5ECA	203.2	63.5	101.6	60.5	24	
SFSX 250-30-70-A5EC	250	60	101.6	63	30	
SFSX 250-30-70-A5ECA	254.0	63.5	101.6	60.5	30	
SFSX 080-07-70-AT6EC	80	27	-	50	7	SPHX15T6 ER
SFSX 080-07-70-AT6ECA	76.2	25.4		44.5	7	
SFSX 100-09-70-AT6EC	100	32	-	50	9	
SFSX 100-09-70-AT6ECA	101.6	31.75		44.5	9	
SFSX 125-12-70-AT6EC	125	40	-	63	12	
SFSX 100-09-70-AT6ECA	127	38.1		60.5	12	
SFSX 160-16-70-AT6EC	160	40	66.7	63	16	
SFSX 100-09-70-AT6ECA	152.4	50.8	-	60.5	16	

SPHX



Type	Dimensions (mm)							NEW NEW NEW																	
ISO	d	d ₁	t	D	D ₁	α	b	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SPHX 1205NR 480T	11.67	11.33	5.50	5.10	8.41	45	8.0												●		●				
SPHX 1205NL 480T	11.67	11.33	5.50	5.10	8.41	45	8.0																		
SPHX 1205ER 855T	12.09	11.33	5.50	5.10	8.41	35	5.50												●		●				
SPHX 1205EL 855T	12.09	11.33	5.50	5.10	8.41	35	5.50												●						
SPHX 15T6NR 880T	14.58	14.33	6.60	6.10	10.18	45	8.80												●		●				
SPHX 15T6ER 865T	15.50	14.33	6.60	6.10	10.18	35	6.50												●		●				

Dimensions (mm)	Spare parts	
D	Screw	Wrench
		
50 - 250 (SPHX1205 ER)	C94010	T15
80 - 160 (SPHX15T6 ER)	CL3C	CLS3C

Recommended Cutting Conditions

Work - Piece	Cutting Speed V _c (m/min)	Feed f _z (mm/z)	Depth a _p (mm) max
Gray Cast Irons	500~1,400	0.15~0.30	~4.0
Ductile Cast Irons	450~900	0.10~0.25	~2.5

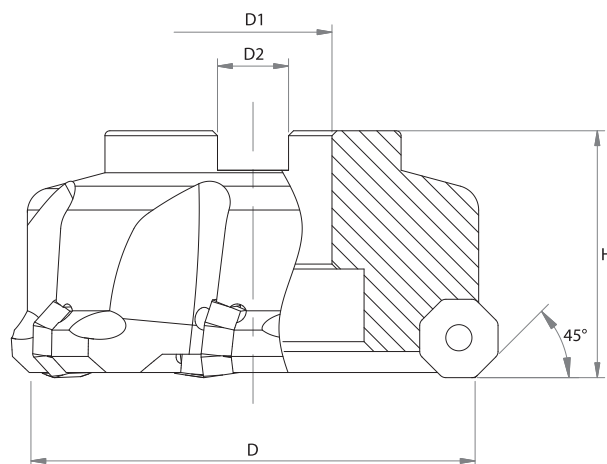
FACE MILLING CUTTER

SFSP .. OT



Axial rake angle : $+3^{\circ}$

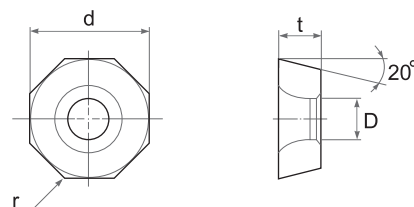
Radial rake angle : $+7^{\circ}$



Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFSP 063-05-45-A4 OT	63	22	10.40	40	5	OEGB 0704 □ □
SFSP 080-06-45-A4 OT	80	27	12.40	50	6	
SFSP 100-07-45-A4 OT	100	32	14.40	50	7	

Dimensions (mm)	Spare parts	
D	Screw	Wrench
63 - 100	SWS 21480072	T20

OEGB



Type	Dimensions (mm)																		
	d	t	D	r	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800
ISO																			
OEGB 070408	15.87	4.76	5.18	0.8															
OEGB 070416	15.87	4.76	5.18	1.6											●	●			

NEW **NEW** **NEW**

FACE MILLING CUTTER

SFKN .. HX



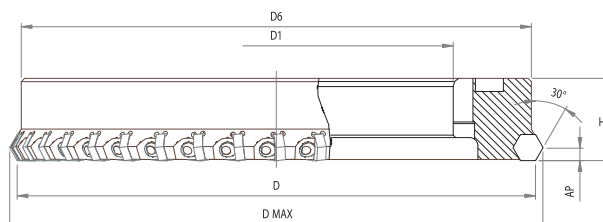
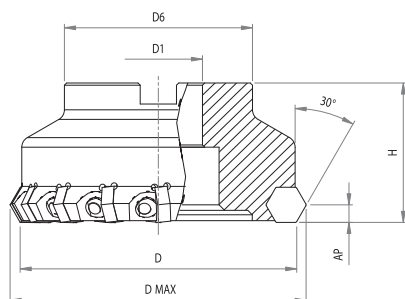
D : 80~200



D : 250~315

Axial rake angle : -6°

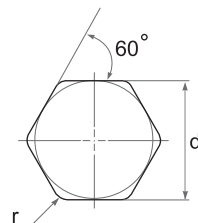
Radial rake angle : -7°



Type	Dimensions (mm)						AP max	Insert
	D	D(max)	D1	D6	H			
SFKN 080-08-30 N5HXA	80	88.7	25.4	50	50	8	8	HNEN 090520 HNEN 090530 HNEN 090508 ANSN
SFKN 080-08-30 N5HX	80	88.7	27	58	50	8	8	
SFKN 100-10-30 N5HXA	100	108.7	31.75	60	50	10	8	
SFKN 100-10-30 N5HX	100	108.7	32	60	50	10	8	
SFKN 125-16-30 N5HXA	125	133.7	38.1	80	63	16	8	
SFKN 125-16-30 N5HX	125	133.7	40	85	63	16	8	
SFKN 160-20-30 N5HXA	160	168.7	50.8	99	63	20	8	
SFKN 160-20-30 N5HX	160	168.7	40	85	63	20	8	
SFKN 200-26-30 N5HXA	200	208.7	47.625	128.57	63	26	8	
SFKN 200-26-30 N5HX	200	208.7	60	140	63	26	8	
SFKN 250-30-30 N5HXA	250	258.7	160.02	-	50	30	8	
SFKN 315-40-30 N5HXA	315	323.7	215.02	-	50	40	8	

Dimensions (mm)	Spare parts		
D	Wedge	Wedge Screw	Wrench
80 - 315	DT-SW16	WS6	LW3

HNEN

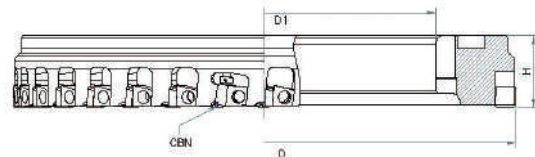


Type	Dimensions (mm)																		
	d	t	r	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900
ISO																			
HNEN 090520	16.20	5.56	2.0											●	●				
HNEN 090530	16.20	5.56	3.0											●	●				
HNEN 090508 ANSN	15.87	5.64	0.8											●	●				

NEW NEW NEW

FACE MILLING CUTTER

SFKP .. MF



Type	Dimensions (mm)					Insert
	D	D ₁	H	Ceramic	CBN	
SFKP 250-20-00 N4MF	250	160.02	50	18	2	SPCN120412(Ceramic)+CBN(Wiper)
SFKP 315-32-00 N4MF	315	215.02	50	28	4	SPCN120412(Ceramic)+CBN(Wiper)

Dimensions (mm)	Spare parts			
D	Wedge	Adjust Screw	Wedge Screw	Wrench
250 - 315	DT-DW01	AJM 5F	WS8	LW4

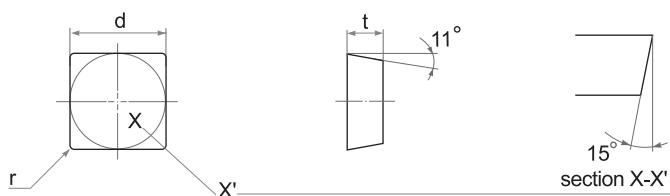
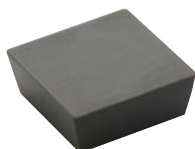
Recommended Cutting Condition for Gray Cast Iron

Process	Hardness (HB)	Cutting Speed V _c (m/min)	Feed f _z (mm/z)	Depth a _p (mm)
Finishing	190~210	200~800	0.08~0.15	0.1~0.5
Finishing	220~240	200~600	0.08~0.15	0.1~0.5
Finishing	250~280	200~400	0.08~0.15	0.1~0.5

Recommended Cutting Condition for Ductile Cast Iron

Process	Tensile Strength	Cutting Speed V _c (m/min)	Feed f _z (mm/z)	Depth a _p (mm)
Finishing	400~500	300~600	0.08~0.15	0.1~0.5
Finishing	500~700	200~500	0.08~0.15	0.1~0.5

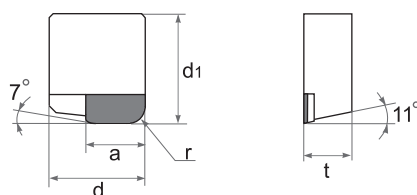
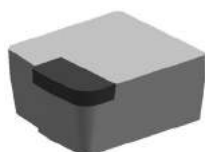
SPCN .. T



Type		Dimensions (mm)			NEW NEW NEW																	
ISO	ASA	d	t	r	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SPCN 120412 T15	SPCN 433 T15	12.70	4.76	1.2												●						

NEW NEW NEW

SPC .. ZZ



Type		Dimensions (mm)					PCBN	
ISO	ASA	d	d1	t	a	r	SBN1000	SBN2000
SPC 1206 ZZR2X	SPC 44 ZZR2X	12.70	14.50	6.35	7.80	2.0	●	

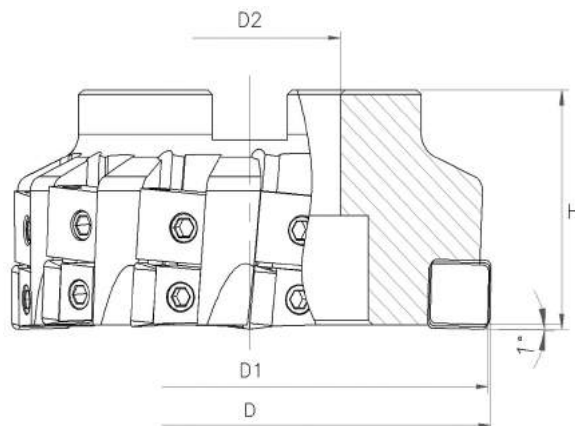
FACE MILLING CUTTER

SFMS (MULTI-STEP) .. LRF



Axial rake angle : +5°

Radial rake angle : +6°

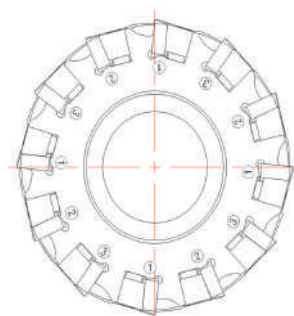


Type	Dimensions (mm)				Insert per set		Insert
	D	D1	D2	H			
SFMS 80-09-P4N.LRF	76.20	75.20	25.40	47.60	3	9	SPCN 1204 □ □ T15
SFMS 100-12-P4N.LRF	101.60	100.60	38.10	47.60	3	12	
SFMS 125-15-P4N.LRF	127.00	126.00	38.10	47.60	3	15	
SFMS 160-18-P4N.LRF	152.40	151.40	50.80	47.60	3	18	

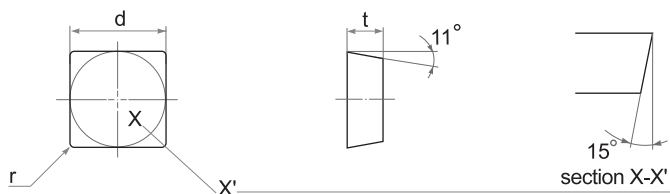
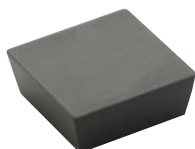
Dimensions (mm)	Spare parts			
D	Wedge	Wedge Screw	ADJ Wedge	ADJ Wedge Screw
80 - 160	DT-SW14	WS6	DT-SW15	WS6

Recommended Cutting Condition for Gray Cast Iron

Process	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm)	Surface Quality Ra(μm)
Light Rough & Finish	190~310	240~1,200	0.08~0.60	2.0~3.80	6.3~12.5



SPCN .. T



Turning & Milling

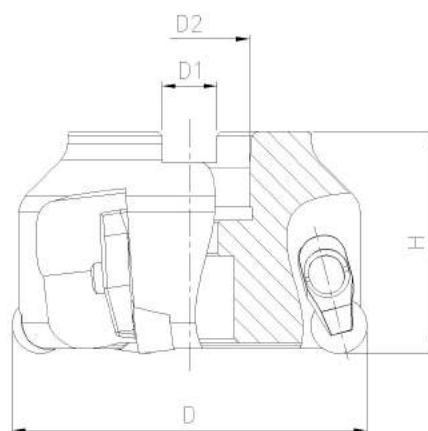
Type		Dimensions (mm)			NEWNEWNEW																	
ISO	ASA	d	t	r	ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
SPCN 120412 T15	SPCN 433 T15	12.70	4.76	1.2												●						
SPCN 120416 T15	SPCN 434 T15	12.70	4.76	1.6												●						

NEW NEW NEW

FACE MILLING CUTTER

Turning & Milling

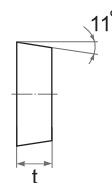
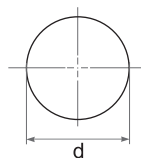
SFCN .. 00 .. R



Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFCN 050-04-00 R4	50	10.4	22	50	4	RNGN 120400
SFCN 050-04-00 R4A	50.8	10.4	19.05	50	4	
SFCN 063-04-00 R4	63	10.4	22	50	4	
SFCN 063-04-00 R4A	63.5	10.4	19.05	50	4	
SFCN 080-05-00 R4	80	12.4	27	50	5	
SFCN 080-05-00 R4A	76.2	12.4	25.4	50	5	
SFCN 100-06-00 R4	100	12.7	32	50	6	
SFCN 100-06-00 R4A	101.6	12.7	31.75	50	6	
SFCN 050-04-00 R7	50	10.4	22	50	4	RNGN 120700
SFCN 050-04-00 R7A	50.8	10.4	19.05	50	4	
SFCN 063-04-00 R7	63	10.4	22	50	4	
SFCN 063-04-00 R7A	63.5	10.4	19.05	50	4	
SFCN 080-05-00 R7	80	12.4	27	50	5	
SFCN 080-05-00 R7A	76.2	12.4	25.4	50	5	
SFCN 100-06-00 R7	100	12.7	32	50	6	
SFCN 100-06-00 R7A	101.6	12.7	31.75	50	6	

Dimensions (mm)	Spare parts			
	Clamp	Clamp Screw	Spring	Wrench
50 - 100	AMS6T	AOB-5S	SP5	LW3

RNGN



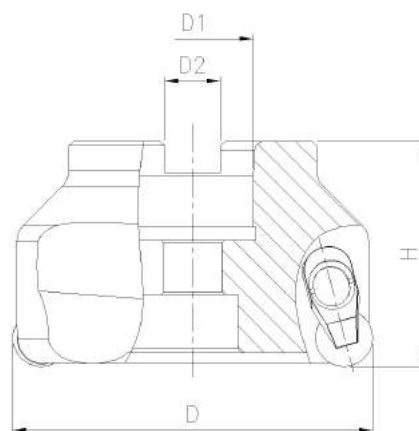
Turning & Milling

Type		Dimensions (mm)		Grade			
ISO	ASA	d	t	NEW SW400	NEW SW800	SN800	NEW SN900
RNGN 120400	RNGN 43	12.7	4.76		●	●	●
RNGN 120700	RNGN 45	12.7	7.94		●	●	●

FACE MILLING CUTTER

Turning & Milling

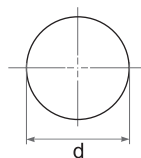
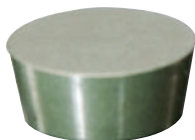
SFCP .. 00 .. R



Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFCP 050-04-00 R4	50	10.4	22	50	4	RPGN 120400
SFCP 050-04-00 RA4	50.8	10.4	19.05	50	4	
SFCP 063-04-00 R4	63	10.4	22	50	4	
SFCP 063-04-00 R4A	63.5	10.4	19.05	50	4	
SFCP 080-05-00 R4	80	12.4	27	50	5	
SFCP 080-05-00 R4A	76.2	12.4	25.4	50	5	
SFCP 100-06-00 R4	100	12.7	32	50	6	
SFCP 100-06-00 R4A	101.6	12.7	31.75	50	6	

Dimensions (mm)	Spare parts			
D	Clamp	Clamp Screw	Spring	Wrench
50 - 100	AMS6T	AOB-5S	SP5	LW3

RPGN

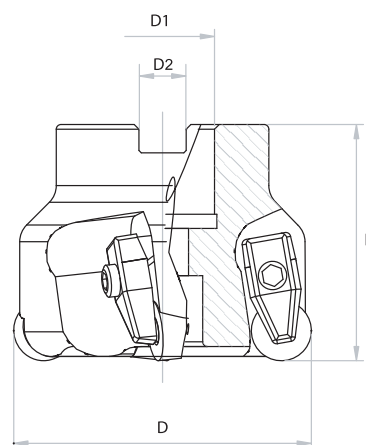


Type		Dimensions (mm)		Grade			
ISO	ASA	d	t	NEW SW400	NEW SW800	SN800	NEW SN900
RPGN120400	RPGN 43	12.7	4.76		●	●	●

FACE MILLING CUTTER

Turning & Milling

SFXN



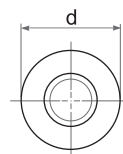
Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFXN 050-03-00 RX7A	50	19.05	7.9	50	3	RNGX 1207 DP
SFXN 050-03-00 RX7	50	22	10.4	50	3	
SFXN 063-04-00 RX7A	63	19.05	12.7	50	4	
SFXN 063-04-00 RX7	63	22	10.4	50	4	
SFXN 080-05-00 RX7A	80	25.4	9.5	50	5	
SFXN 080-05-00 RX7	80	27	12.4	50	5	
SFXN 100-06-00 RX7A	100	31.75	12.7	50	6	
SFXN 100-06-00 RX7	100	32	14.4	50	6	

Dimensions (mm)	Spare parts			
D	Clamp	Screw	Spring	Wrench
50 - 100	SCL 5M	SLS4	SP4	LW3

Recommended Cutting Conditions

Work - Piece	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm) max
Iron-base, Heat-resistant alloys	135~328	300~900	0.05~0.13	6.35
Cobalt-base, Heat-resistant alloys	150~425	270~1,200	0.05~0.13	6.35
Nickel base, Heat-resistant alloys	140~475	270~1,200	0.05~0.13	6.35
PH Stainless steels	135~450	520~700	0.08~0.10	6.35

RNGX .. DP



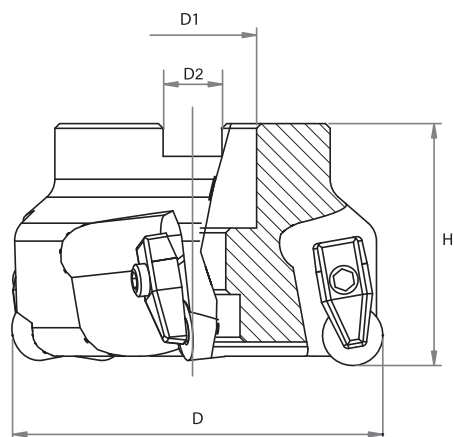
Turning & Milling

Type		Dimensions (mm)		ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
ISO	ASA	d	t																		
RNGX 1207 DP	RNGX 45 DP	12.70	7.94												●		●	●			

NEW **NEW** **NEW**

FACE MILLING CUTTER

SFXP



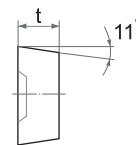
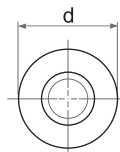
Type	Dimensions (mm)					Insert
	D	D1	D2	H		
SFXP 050-03-00 RP4A	50	19.05	7.9	50	3	RPGX 1204 DP
SFXP 050-03-00 RP4	50	22	10.4	50	3	
SFXP 050-04-00 RP4A	50	19.05	7.9	50	4	
SFXP 050-04-00 RP4	50	22	10.4	50	4	
SFXP 063-04-00 RP4A	63	19.05	7.9	63	4	
SFXP 063-04-00 RP4	63	22	10.4	63	4	
SFXP 080-05-00 RP4A	80	25.4	9.5	50	5	
SFXP 080-05-00 RP4	80	27	12.4	50	5	
SFXP 100-06-00 RP4A	100	31.75	12.7	50	6	
SFXP 100-06-00 RP4	100	32	14.4	50	6	

Dimensions (mm)	Spare parts			
D	Clamp	Screw	Spring	Wrench
50 - 100	SCL 5M	SLS4	SP4	LW3

Recommended Cutting Conditions

Work - Piece	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm) max
Iron-base, Heat-resistant alloys	135~328	300~900	0.05~0.13	6.35
Cobalt-base, Heat-resistant alloys	150~425	270~1,200	0.05~0.13	6.35
Nickel base, Heat-resistant alloys	140~475	270~1,200	0.05~0.13	6.35
PH Stainless steels	135~450	520~700	0.08~0.10	6.35

RPGX .. DP



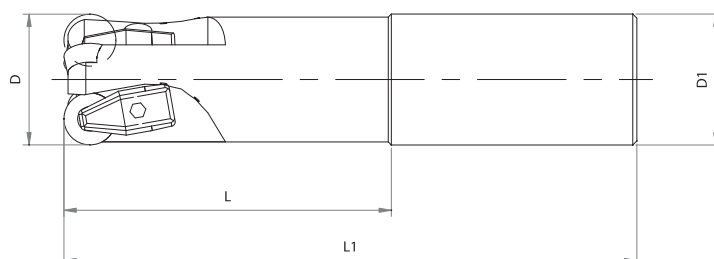
Turning & Milling

Type		Dimensions (mm)		ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
ISO	ASA	d	t																		
RPGX 1204 DP	RPGX 43 DP	12.70	4.76												●			●			

NEW **NEW** **NEW**

BALL ENDMILL

SEXP



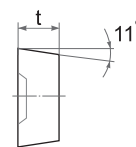
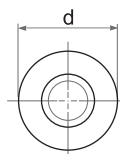
Type	Dimensions (mm)					Insert
	D	D1	L	L1		
SEXP 032-02-80140 X4	32	32	80	140	2	RPGX 1204 DP
SEXP 032-03-40100 X4A	32	31.75	40	100	3	
SEXP 032-03-40100 X4	32	32	40	100	3	
SEXP 032-03-80140 X4A	32	31.75	80	140	3	
SEXP 032-03-80140 X4	32	32	80	140	3	
SEXP 038-03-50100 X4A	38	38.1	50	100	3	
SEXP 038-03-50100 X4	38	32	50	100	3	
SEXP 038-03-90140 X4A	38	38.1	90	140	3	
SEXP 038-03-90140 X4	38	32	90	140	3	

Dimensions (mm)	Spare parts			
D	Clamp	Screw	Spring	Wrench
32 - 38	SCL 5M	SLS4	SP4	LW3

Recommended Cutting Conditions

Work - Piece	Hardness (HB)	Cutting Speed Vc(m/min)	Feed fz(mm/z)	Depth ap(mm) max
Iron-base, Heat-resistant alloys	135~328	300~900	0.05~0.13	6.35
Cobalt-base, Heat-resistant alloys	150~425	270~1,200	0.05~0.13	6.35
Nickel base, Heat-resistant alloys	140~475	270~1,200	0.05~0.13	6.35
PH Stainless steels	135~450	520~700	0.08~0.10	6.35

RPGX .. DP



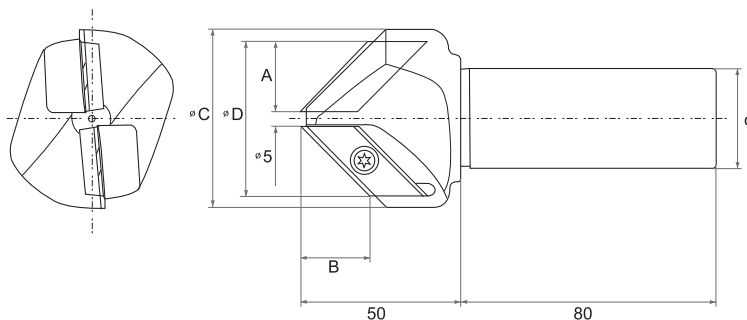
Turning & Milling

Type		Dimensions (mm)		ST100	ST300	ST500	ST700	TC100	TC300	SD200	SZ200	SZ300	SN26	SN300	SN400	SN500	SN600	SN800	SN900	SW400	SW800
ISO	ASA	d	t																		
RPGX 1204 DP	RPGX 43 DP	12.70	4.76												●			●			

NEW NEW NEW

CHAMFER CUTTER

CSC

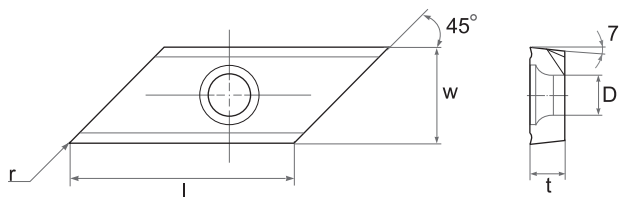


Type	Dimensions (mm)							Insert	Spare parts	
	θ	A	B	$\varnothing C$	$\varnothing D$	d			Screw	Wrench
CSC 0503 1R-30	30°	14.5	25.5	40	34.0	32.0	1	XCET 310404ER	SDT050	T-20
CSC 0503 1R-30-A	30°	14.5	25.5	40	34.0	25.4	1			
CSC 0503 1R-45	45°	20.5	20.5	56	46.0	32.0	2			
CSC 0503 1R-45-A	45°	21.0	21.0	56	46.9	25.4	2			
CSC 0503 1R-60	60°	25.5	14.5	72	55.0	32.0	2			
CSC 0503 1R-60-A	60°	25.5	14.5	72	56.0	25.4	2			

Recommended Cutting Conditions

Work piece	Carbon Steel (S55C) Stainless Steel 250HB $\geq$ Cast Iron (FC250)	Alloy Steel (SCM440) 300HB $\geq$ High Alloy Steel (SKD61) 300HB $\geq$
Feed (mm/tooth)	0.1~0.25	0.1~0.2
rpm	3000(1000~7000)	

XCET



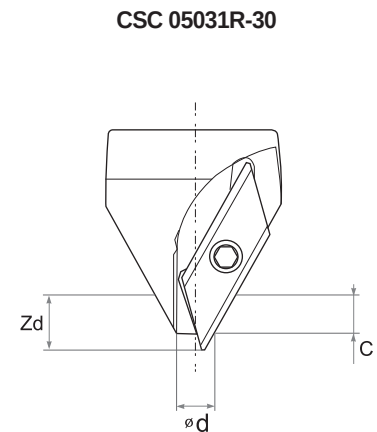
Type	Dimensions (mm)					Grade		
ISO	l	w	t	D	r	TX515	TX520	SCW200
XCET 310404 ER	22.00	12.70	4.50	5.60	0.4		●	●

*SCW200 is a coated carbide grade for P20 range machining.

TECHNICAL DATA

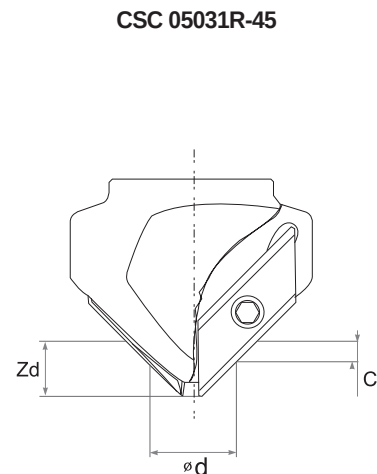
30° Chamfer

Hole Dia Ød	Dimensions (mm)							
	0.5	1	1.5	2	2.5	3	3.5	4
5	0.8	1.3	1.8	2.3	2.8			
6	1.7	2.2	2.7	3.2	3.7			
6.8	2.4	2.9	3.4	3.9	4.4			
8	3.4	3.9	4.4	4.9	5.4			
8.5	3.8	4.3	4.8	5.3	5.8			
10	5.1	5.6	6.1	6.6	7.1	7.6	8.1	8.6
10.2	5.3	5.8	6.3	6.8	7.3	7.8	8.3	8.8
12	6.9	7.4	7.9	8.4	8.9	9.4	9.9	10.4
16	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.8
17.5	11.6	12.1	12.6	13.1	13.6	14.1	14.6	15.1
20	13.7	14.2	14.7	15.2	15.7	16.2	16.7	17.2
21	14.6	15.1	15.6	16.1	16.6	17.1	17.6	18.1
24	17.2	17.7	18.2	18.7	19.2	19.7	20.2	20.7
30	22.4	22.9	23.4	23.9	24.4	24.9	25.4	
33	24.9	25.4						



45° Chamfer

Hole Dia Ød	Dimensions (mm)						
	0.5	1	1.5	2	3	4	5
5	0.7	1.2	1.7	2.2	3.2		
6	1.2	1.7	2.2	2.7	3.7		
6.8	1.6	2.1	2.6	3.1	4.1		
8	2.2	2.7	3.2	3.7	4.7		
8.5	2.4	2.9	3.4	3.9	4.9		
10	3.2	3.7	4.2	4.7	5.7	6.7	7.7
10.2	3.3	3.8	4.3	4.8	5.8	6.8	7.8
12	4.2	4.7	5.2	5.7	6.7	7.7	8.7
14	5.2	5.7	6.2	6.7	7.7	8.7	9.7
16	6.2	6.7	7.2	7.7	8.7	9.7	10.7
17.5	6.9	7.4	7.9	8.4	9.4	10.4	11.4
20	8.2	8.7	9.2	9.7	10.7	11.7	12.7
21	8.7	9.2	9.7	10.2	11.2	12.2	13.2
24	10.2	10.7	11.2	11.7	12.7	13.7	14.7
30	13.2	13.7	14.2	14.7	15.7	16.7	17.7
33	14.7	15.2	15.7	16.2	17.2	18.2	19.2
36	16.2	16.7	17.2	17.7	18.7	19.7	
42	19.2	19.7	20.2				

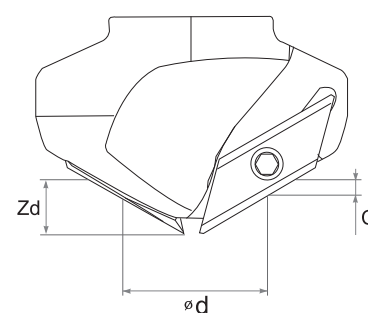


CHAMFER CUTTER

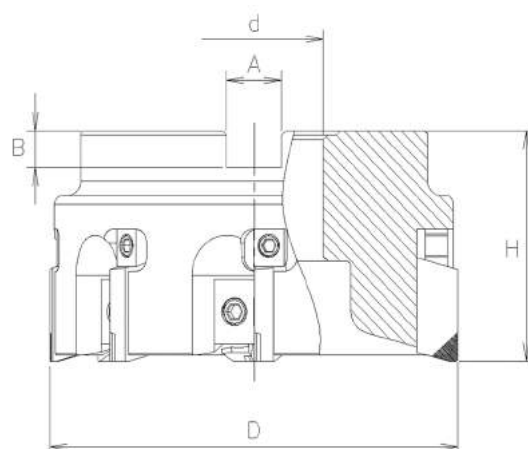
60° Chamfer

Hole Dia Ød	Dimensions (mm)						
	0.5	1	1.5	2	2.5	3	3.5
5	0.6	1.1	1.6	2.1			
6	0.9	1.4	1.9	2.4			
6.8	1.1	1.6	2.1	2.6			
8	1.4	1.9	2.4	2.9			
8.5	1.6	2.1	2.6	3.1			
10	2.0	2.5	3.0	3.5	4.0	4.5	5.0
10.2	2.1	2.6	3.1	3.6	4.1	4.6	5.1
12	2.6	3.1	3.6	4.1	4.6	5.1	5.6
16	3.7	4.2	4.7	5.2	5.7	6.2	6.7
17.5	4.2	4.7	5.2	5.7	6.2	6.7	7.2
20	4.9	5.4	5.9	6.4	6.9	7.4	7.9
21	5.2	5.7	6.2	6.7	7.2	7.7	8.2
24	6.1	6.6	7.1	7.6	8.1	8.6	9.1
30	7.8	8.3	8.8	9.3	9.8	10.3	10.8
33	8.7	9.2	9.7	10.2	10.7	11.2	11.7
36	9.5	10.0	10.5	11.0	11.5	12.0	12.5
38	10.1	10.6	11.1	11.6	12.1	12.6	13.1
42	11.2	11.7	12.2	12.7	13.2	13.7	14.2
46	12.4	12.9	13.4	13.9	14.4		
48	13.0	13.5	14.0	14.5			
52	14.1						

CSC 05031R-60

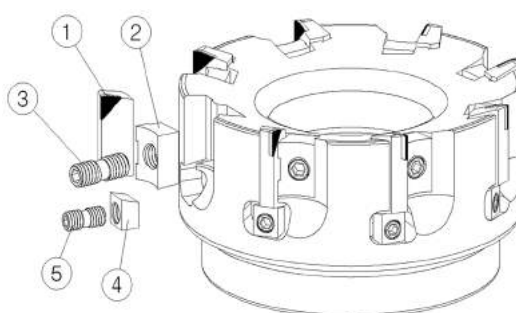


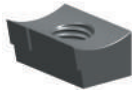
HPA - I



Type	Dimensions (mm)						Weight (kg)	Insert	Arbor
	ØD	Ød	A	B	H				
HPA 025R-I09	63	22	10	6	50	6	0.5	HPA-I09	FMA 22
HPA 03R-I09	80	25.4	9.5	6	50	8	0.7		FMA 25.4
HPA 04R-I09	100	31.75	12.7	8	63	10	1.4		FMA 31.75
HPA 05R-I09	125	38.1	15.9	10	63	12	1.8		FMA 38.1
HPA 06R-I09	160	50.8	19.05	11	63	14	2.4		FMA 50.8
HPA 08R-I09	200	47.625	25.4	14	63	16	3.5		FMA 47.625
HPA 10R-I09	250	47.625	25.4	14	63	18	4.8		FMA 47.625

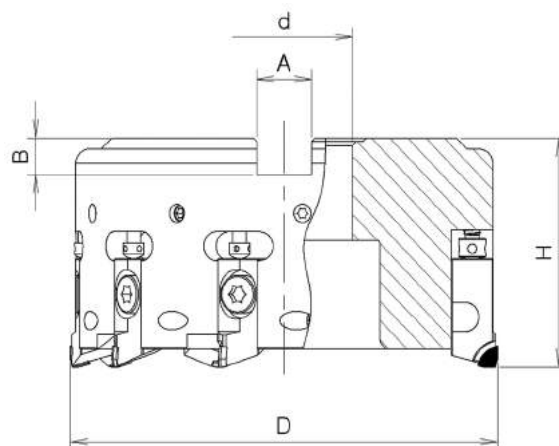
COMPONENT



Spare parts				
① Insert	② Wedge	③ Wedge Screw	④ Adjust Wedge	⑤ Adjust Wedge Screw
				
HPA-I09	DT-ST01	WS6-16	DT-ST02	WS5-11

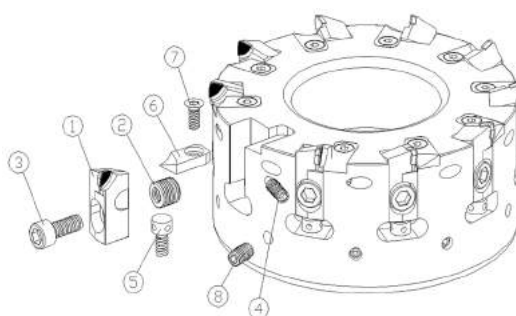
ALUMINUM CUTTER

HPA - H



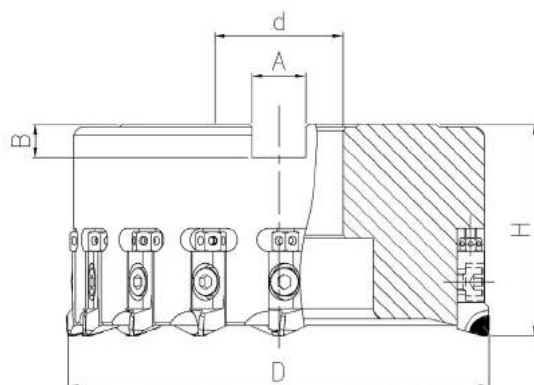
Type	Dimensions (mm)						Weight (kg)	Insert	Arbor
	ØD	Ød	A	B	H				
HPA 025R-H10	63	22	10	6	50	4	0.5	ROUGH HPA 10CA-R WIPER HPA 10CA-W	FMA 22
HPA 03R-H10	80	25.4	9.5	6	50	6	0.7		FMA 25.4
HPA 04R-H10	100	31.75	12.7	8	50	7	2.2		FMA 31.75
HPA 05R-H10	125	38.1	15.9	10	63	10	1.4		FMA 38.1
HPA 06R-H10	160	50.8	19.05	11	63	12	2.5		FMA 50.8
HPA 08R-H10	200	47.625	25.4	14	63	14	3.5		FMA 47.625
HPA 10R-H10	250	47.625	25.4	14	63	18	4.9		FMA 47.625

COMPONENT



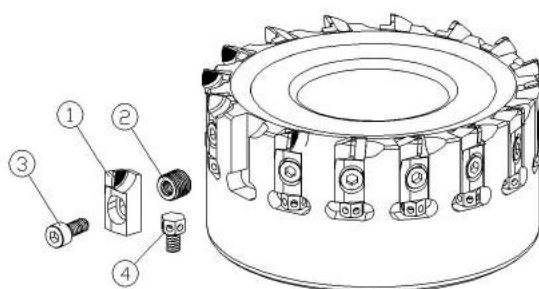
Spare parts				
① Cartridge	① Cartridge	② Double Screw	③ Clamp Screw	④ Side Clamp Screw
HPA 10CA-R	HPA 10CA-W	H108	M6x15	M6x16
⑤ Adjust Screw	⑥ Chip Cover	⑦ Chip Cover Screw	⑧ Balancing Screw	
AJM 5F	HC-R/L	M4x10	M6x10	

HPA - M



Type	Dimensions (mm)						Weight (kg)	Insert	Arbor
	ØD	Ød	A	B	H				
HPA 03R-M10	80	25.4	9.5	6	50	10	0.8	ROUGH HPA 08CA-R WIPER HPA 08CA-W	FMA 25.4
HPA 04R-M10	100	31.75	12.7	8	50	12	1.2		FMA 31.75
HPA 05R-M10	125	38.1	15.9	10	63	14	2.2		FMA 38.1
HPA 06R-M10	160	50.8	19.05	11	63	18	2.8		FMA 50.8
HPA 08R-M10	200	47.625	25.4	14	63	24	4.5		FMA 47.625
HPA 10R-M10	250	47.625	25.4	14	63	30	7		FMA 47.625

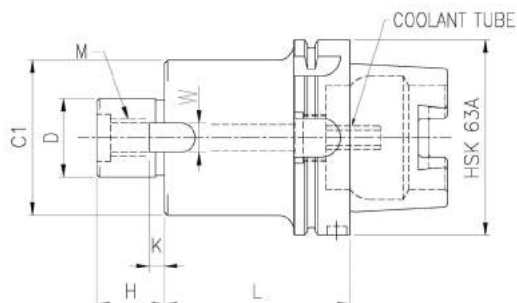
COMPONENT



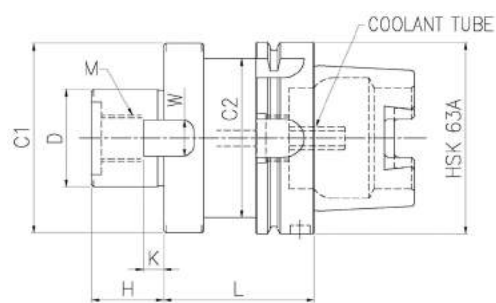
Spare parts				
① Cartridge	① Cartridge	② Double Screw	③ Clamp Screw	④ Adjust Screw
				
HPA 08CA-R	HPA 08CA-W	H107	M5×12	AJM 5F

ALUMINUM CUTTER

ARBOR

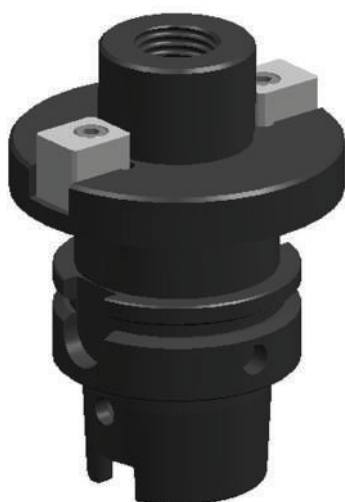


Model A

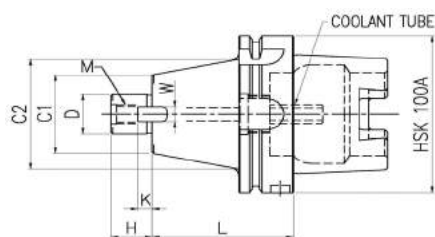


Model B

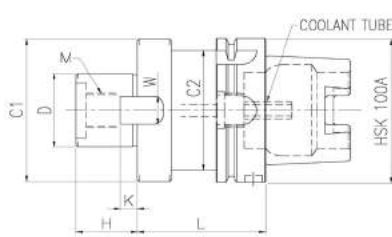
Type	Dimensions (mm)							M	Weight (kg)	Model	Cutter
	D	L	H	C ₁	C ₂	W	K				
HSK 63A-FMA22-50	22	50	19	50	50	9.5	5	M10	1.2	A	HPA 025R
HSK 63A-FMA25.4-60	25.4	60	22	50	50	9.5	5	M12	1.3	A	HPA 03R
HSK 63A-FMA25.4-90	25.4	90	22	50	50	9.5	5	M12	1.9	A	HPA 03R
HSK 63A-FMA25.4-120	25.4	120	22	50	50	9.5	5	M12	2.3	A	HPA 03R
HSK 63A-FMA31.75-60	31.75	60	30	60	53	12.7	7	M16	1.7	B	HPA 04R
HSK 63A-FMA31.75-90	31.75	90	30	60	53	12.7	7	M16	2.5	B	HPA 04R
HSK 63A-FMA31.75-120	31.75	120	30	60	53	12.7	7	M16	3.3	B	HPA 04R
HSK 63A-FMA38.1-60	38.1	60	34	80	53	15.9	9	M20	2.1	B	HPA 05R
HSK 63A-FMA38.1-90	38.1	90	34	80	53	15.9	9	M20	3	B	HPA 05R
HSK 63A-FMA38.1-120	38.1	120	34	80	53	15.9	9	M20	4.4	B	HPA 05R



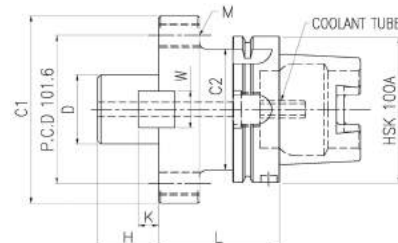
ARBOR



Model A



Model B

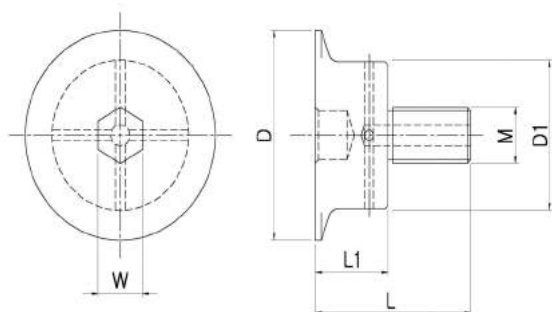


Model C

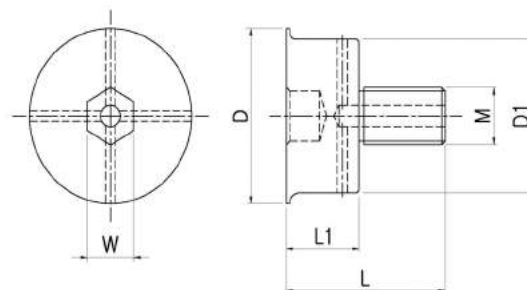
Type	Dimensions (mm)							M	Weight (kg)	Model	Cutter
	D	L	H	C ₁	C ₂	W	K				
HSK 100A-FMA25.4-75	25.4	75	22	50	70	9.5	5	M12	3.2	A	HPA 03R
HSK 100A-FMA25.4-105	25.4	105	22	50	70	9.5	5	M12	3.9	A	HPA 03R
HSK 100A-FMA25.4-135	25.4	135	22	50	70	9.5	5	M12	4.6	A	HPA 03R
HSK 100A-FMA31.75-75	31.75	75	30	60	70	12.7	7	M16	3.5	A	HPA 04R
HSK 100A-FMA31.75-105	31.75	105	30	60	70	12.7	7	M16	4.3	A	HPA 04R
HSK 100A-FMA31.75-135	31.75	135	30	60	70	12.7	7	M16	5.1	A	HPA 04R
HSK 100A-FMA38.1-75	38.1	75	34	80	80	15.9	9	M20	4.4	A	HPA 05R
HSK 100A-FMA38.1-105	38.1	105	34	80	80	15.9	9	M20	5.7	A	HPA 05R
HSK 100A-FMA38.1-135	38.1	135	34	80	80	15.9	9	M20	7.0	A	HPA 05R
HSK 100A-FMA50.8-75	50.8	75	36	99	83	19.05	10	M24	5.7	B	HPA 06R
HSK 100A-FMA50.8-105	50.8	105	36	99	83	19.05	10	M24	7.7	B	HPA 06R
HSK 100A-FMA50.8-135	50.8	135	36	99	83	19.05	10	M24	9.7	B	HPA 06R
HSK 100A-FMA47.625-75	47.625	75	38	128.57	83	25.4	12.5	M16		C	HPA 08R

ALUMINUM CUTTER

MOUNT'G BOLT



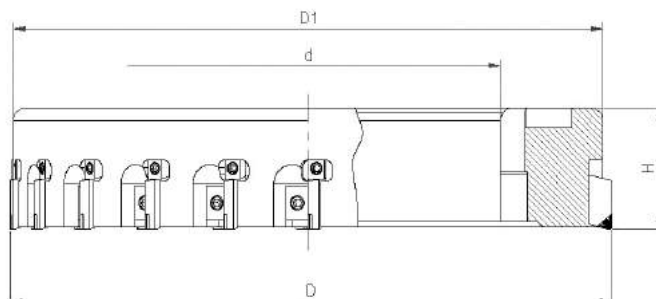
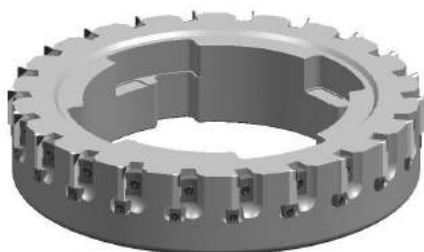
Model A



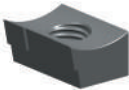
Model B

Type	Dimensions (mm)					M	Model	Cutter	Arbor
	D	D1	L	L1	W				
ICM-M10	28	16.5	41	11	8	M10	A	HPA 025R-I09	FMA 22
HCM-M10	25	18	43	10	8	M10	B	HPA 025R-H10	
ICM-M12	44	26	42	15.4	10	M12	A	HPA 03R-I09	FMA 25.4
HCM-M12	40	34	47.5	25.5	12	M12	B	HPA 03R-H10	
ICM-M16	60	43	49	23	14	M16	A	HPA 04R-I09	FMA 31.75
HCM-M16	49	43	48	22	14	M16	B	HPA 04R-H10	
ICM-M20	79	53.6	58.8	27.8	14	M20	A	HPA 05R-I09	FMA 38.1
HCM-M20	60	54	63	32	14	M20	B	HPA 05R-H10	
ICM-M24	110	65	60	22	17	M24	A	HPA 06R-I09	FMA 50.8
HCM-M24	71	65	60	22	17	M24	B	HPA 06R-H10	

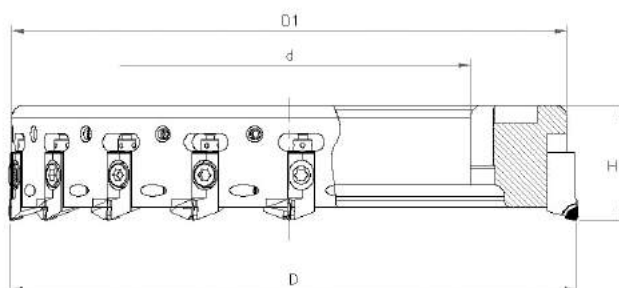
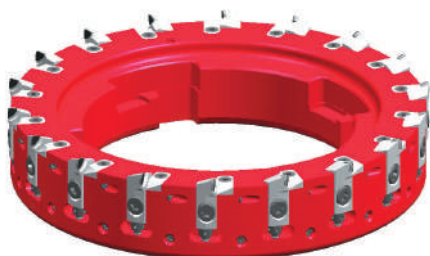
QCB - I



Type	Dimensions (mm)					Insert
	D	D ₁	d	H		
QCB D200-I09	200	195	120.02	50	18	HPA-I09
QCB D250-I09	250	245	160.02	50	22	
QCB D315-I09	315	310	215.02	50	28	

Spare parts				
① Insert	② Wedge	③ Wedge Screw	④ Adjust Wedge	⑤ Adjust Wedge Screw
				
HPA-I09	DT-ST01	WS6-16	DT-ST02	WS5-11

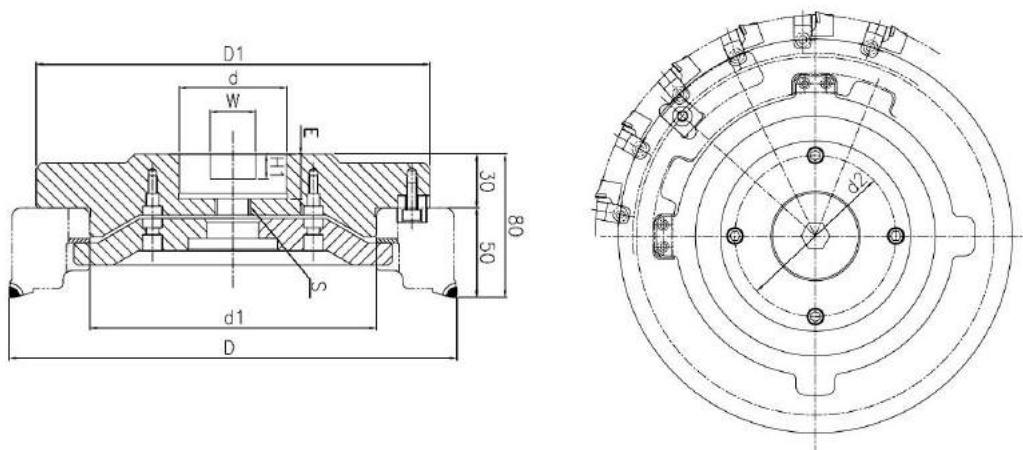
QCB - H



Type	Dimensions (mm)					Insert
	D	D1	d	H		
QCB D200-H10	200	195	120.02	50	14	HPA 10CA-R HPA 10CA-W
QCB D250-H10	250	245	160.02	50	18	
QCB D315-H10	315	310	215.02	50	22	

Spare parts				
① Cartridge	① Cartridge	② Double Screw	③ Clamp Screw	④ Side Clamp Screw
HPA 10CA-R	HPA 10CA-W	H108	M6x15	M6x16
⑤ Adjust Screw	⑥ Chip Cover	⑦ Chip Cover Screw	⑧ Balancing Screw	
AJM 5F	HC-R/L	M4x10	M6x10	

ARBOR



Type	Dimensions (mm)								Center Bolt
	D	D1	d	d1	W	H1	S	E	
QCBA-D200	200	195	47.625	119.97	25.4	14	M20	25	TMBA-M20
QCBA-D250	250	245	60	159.97	25.4	14	M20	25	
QCBA-D315	315	310	60	214.97	25.4	14	M20	25	

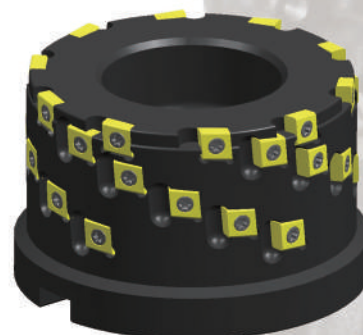
CYLINDER BLOCK



• FACE OIL PAN CUTTER



• BEARING CAP CUTTER



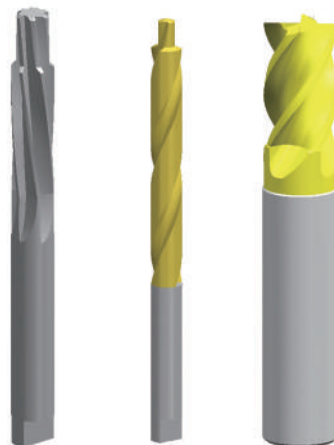
• LOCK NOTCH CUTTER



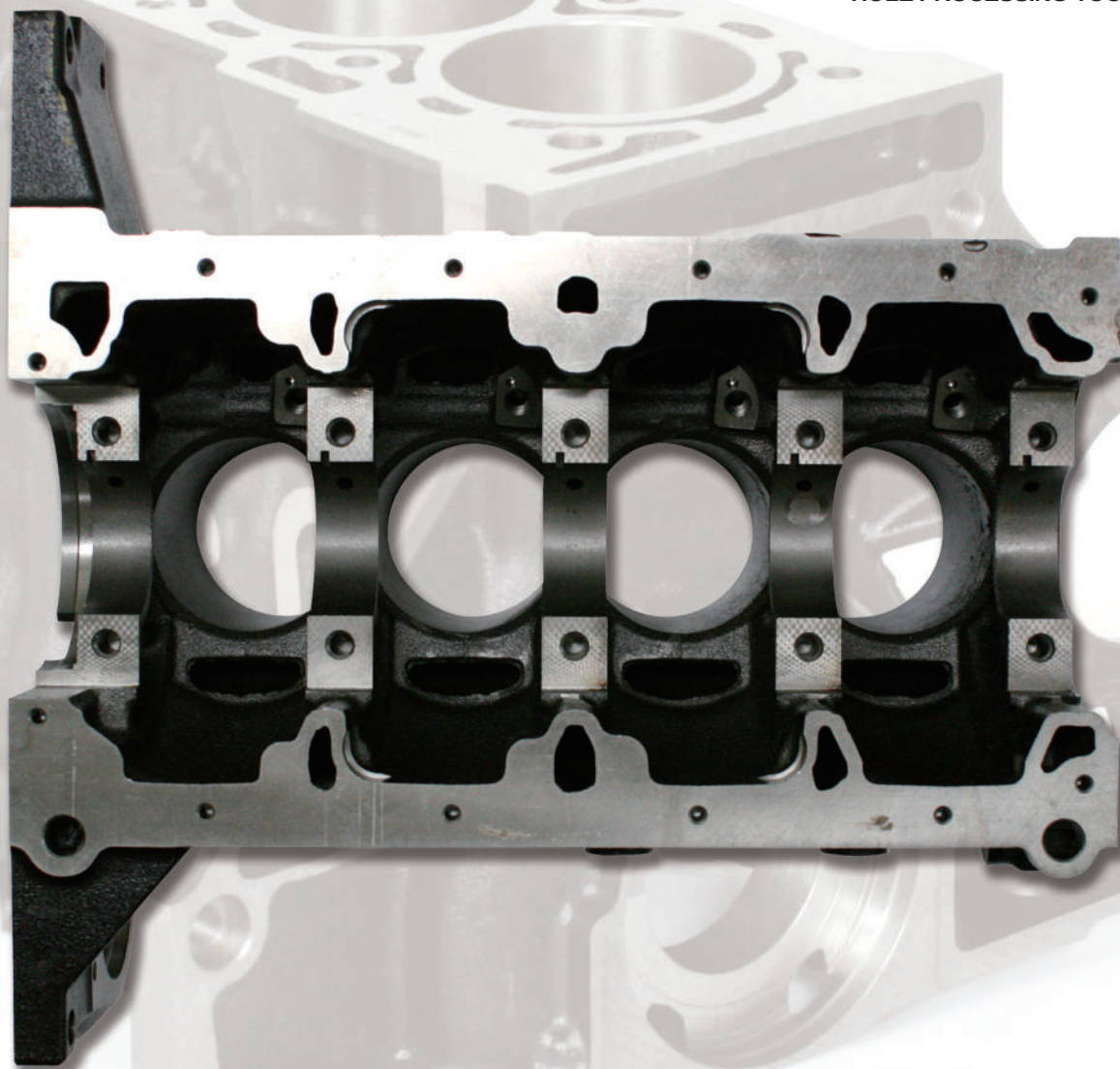
• FACE NOZZLE PISTON COOLING ENDMILL



• BLOCK HEADS CUTTER



• MANUFACTURING INDEX HOLE PROCESSING TOOL



CYLINDER BLOCK



• CYLINDER BORE SEMI & FINISH BORING TOOL



• CYLINDER BORE HONING HOLDER



• CYLINDER BORE ROUGH BORING TOOL

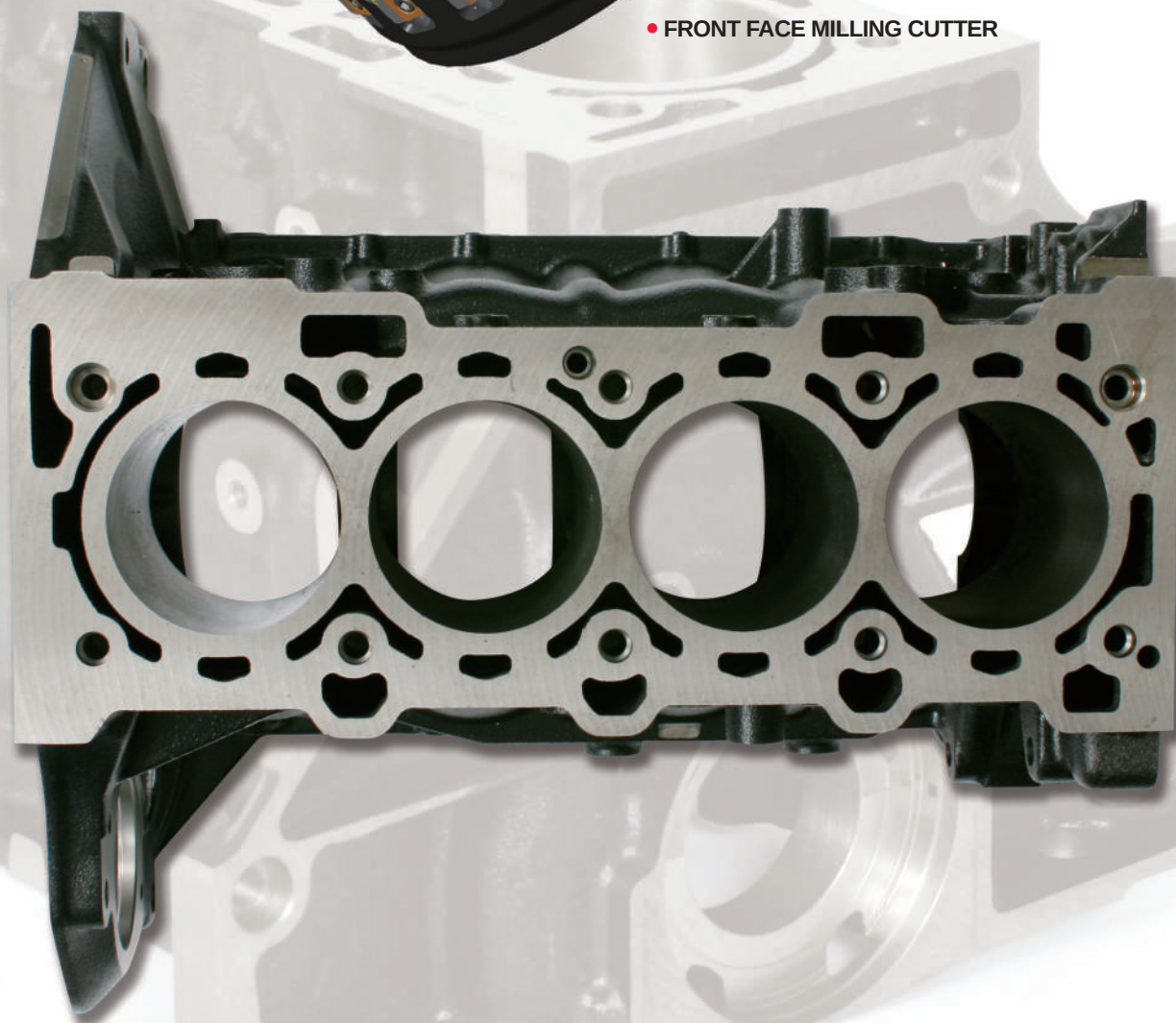


• TOP FACE MILLING CUTTER





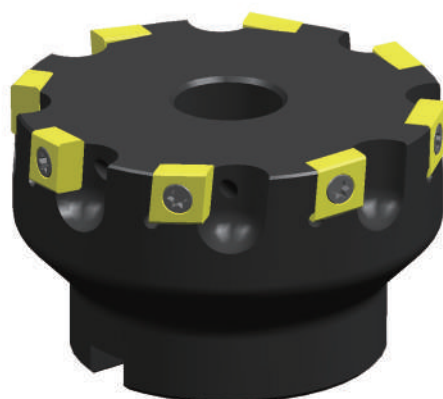
• FRONT FACE MILLING CUTTER



CYLINDER BLOCK



• REAR FACE MILLING CUTTER



• FACE MOUNTING BOSSES MILLING CUTTER



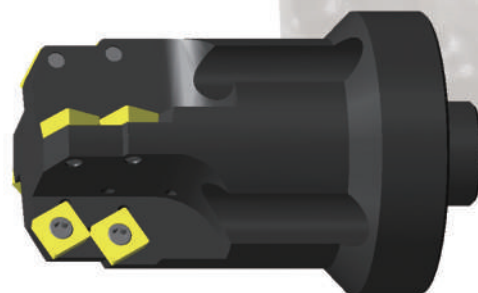
• OIL MAIN CHANNEL DRILL



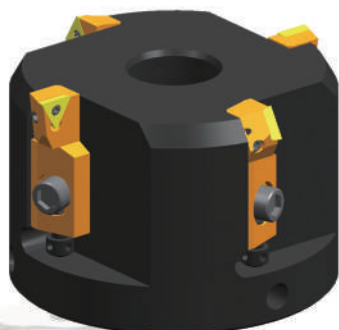
• FACE HOLE TRANSMISSION DRILL



• SLOT SPEED SENSOR ENDMILL



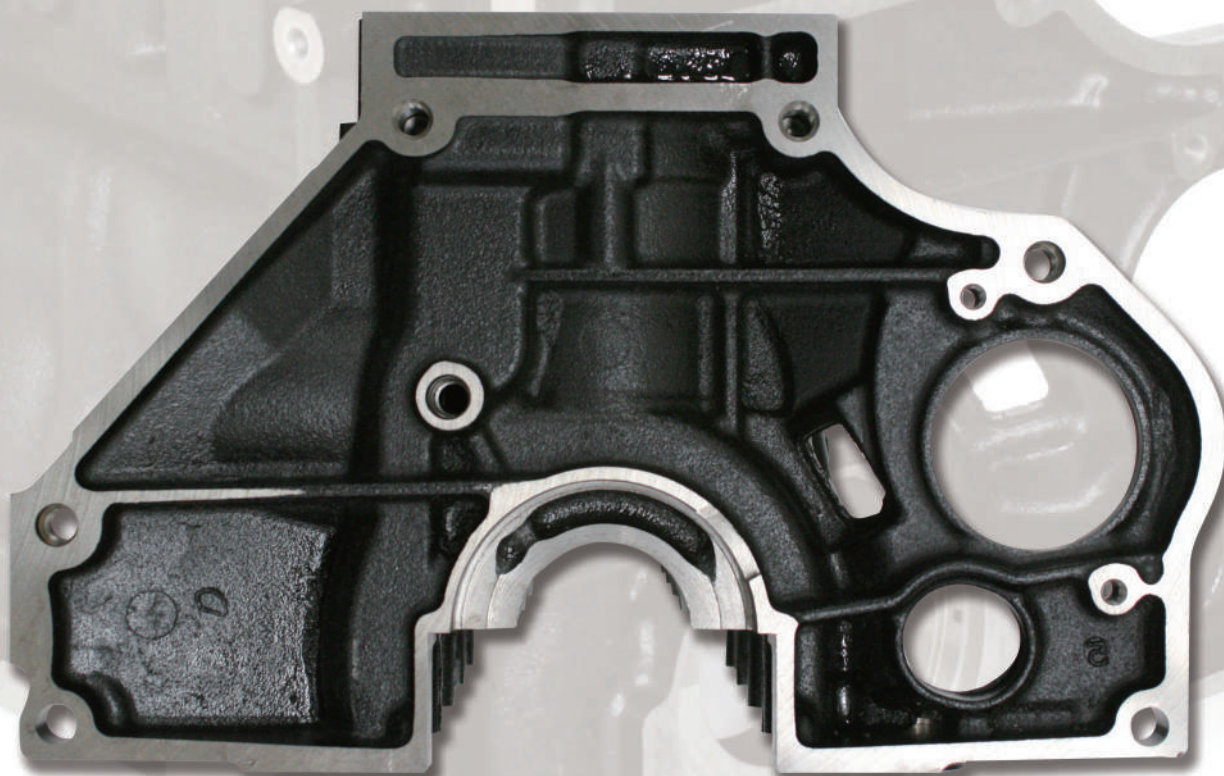
• CUT OUT STARTER BORING TOOL



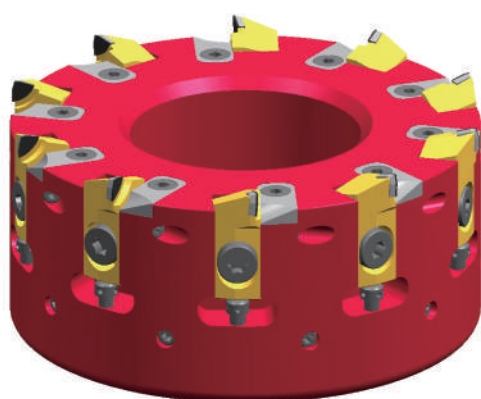
• STOP FACE SEALING CRANK
SHAFT BORING TOOL



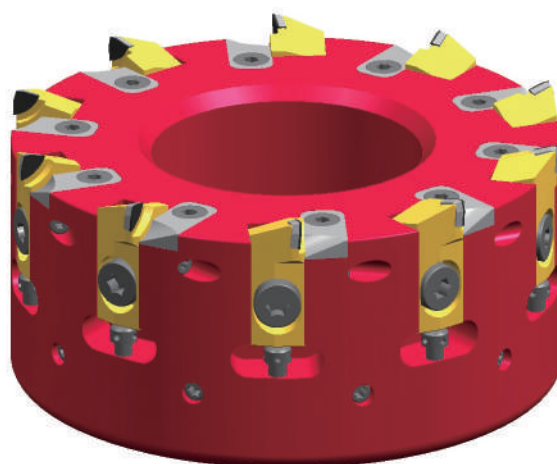
• CRANK HONING HOLDER



CYLINDER HEAD



• EXHAUST FACE MILLING CUTTER



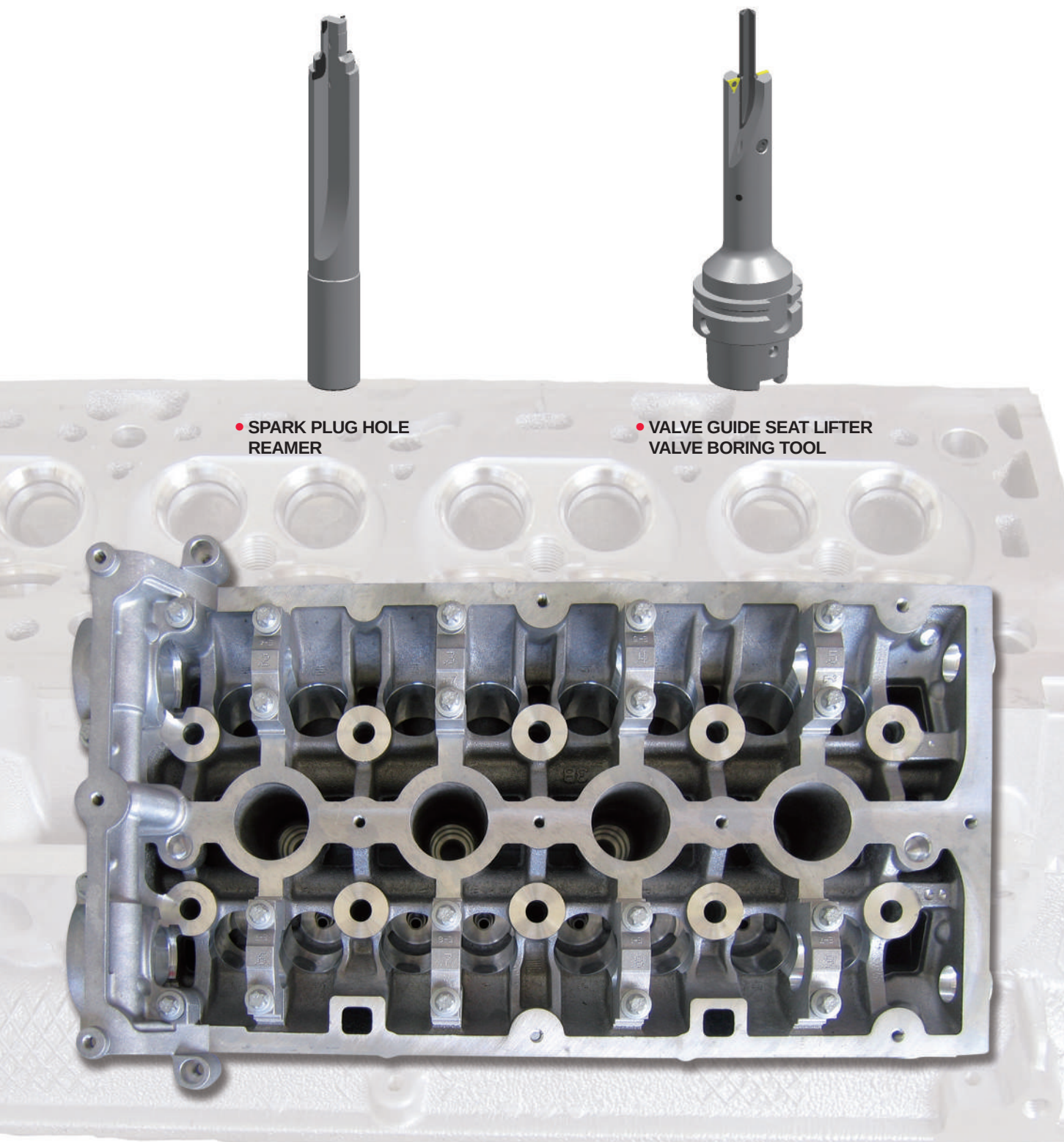
• TOP FACE MILLING CUTTER



• SEAT LIFTER-VALVE IN & EX BORING TOOL



• SEAT LIFTER-VALVE IN & EX BORING TOOL



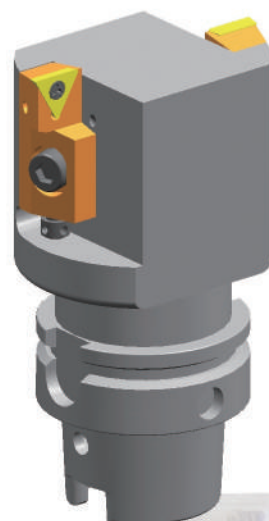
• SPARK PLUG HOLE
REAMER

• VALVE GUIDE SEAT LIFTER
VALVE BORING TOOL

CYLINDER HEAD



• CAMSHAFT BEARING CHAMFER



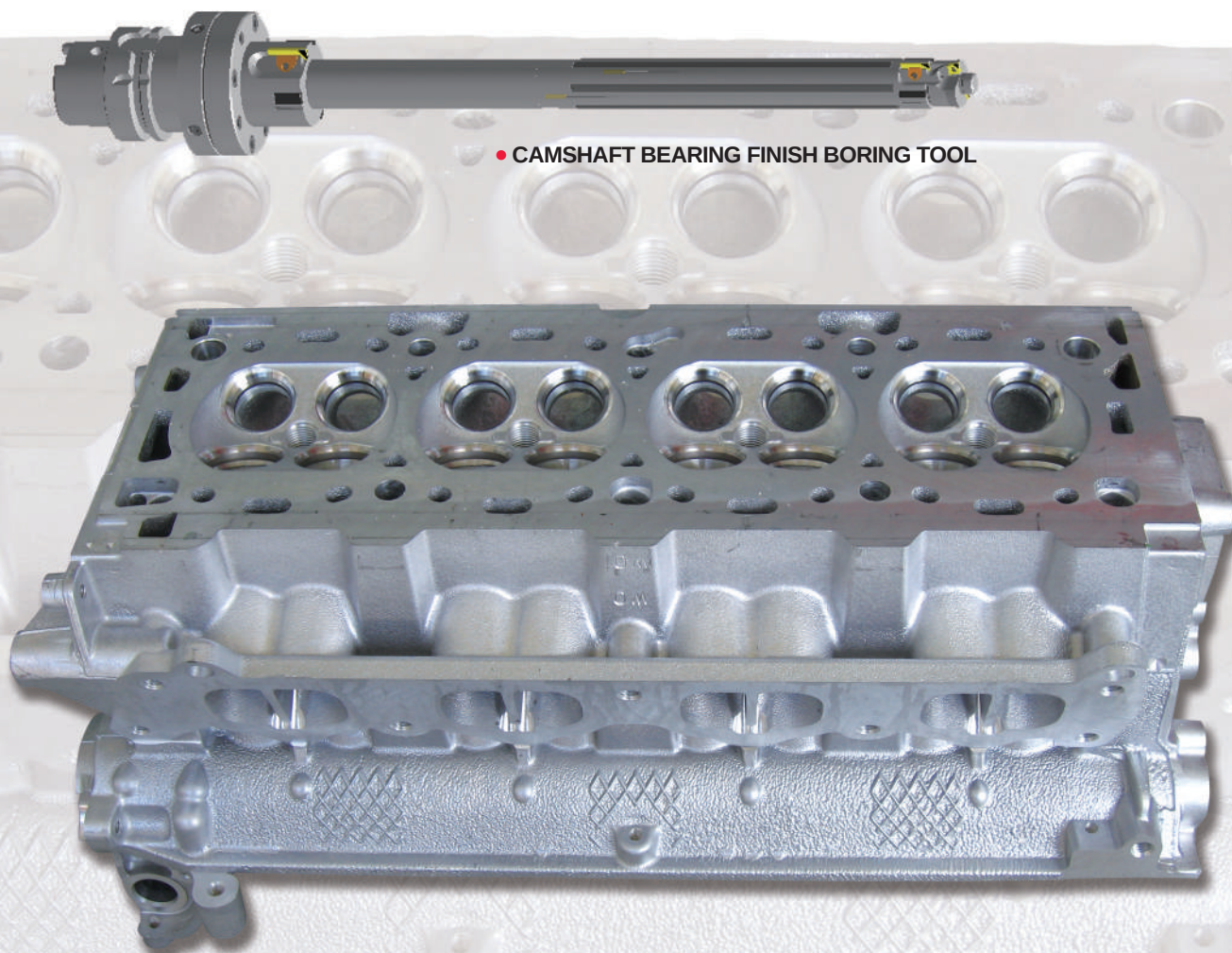
• VALVE SEAT GUIDE FINISH BORING TOOL



• VALVE SEAT GUIDE BORING TOOL



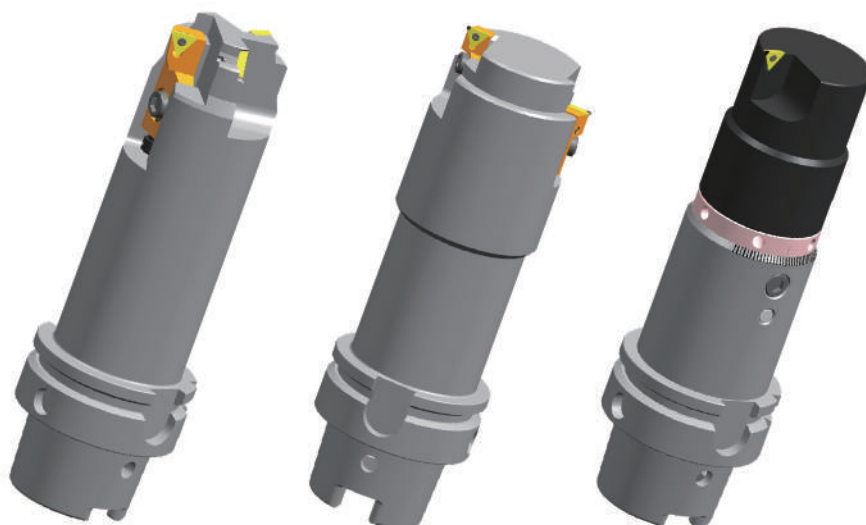
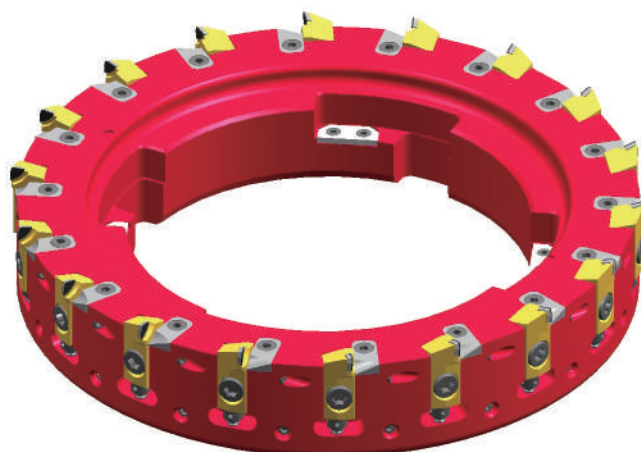
• CAMSHAFT BEARING FINISH BORING TOOL



T/MISSION CASE



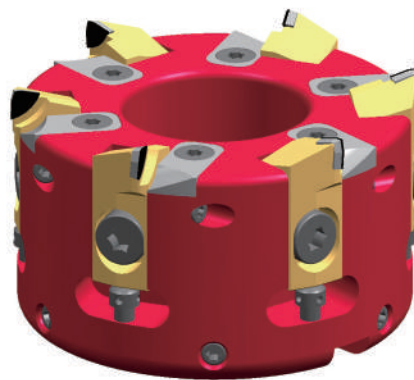
• GEAR SHIFT SHAFT LOCK HOLE BORING TOOL



• DIFF HOUSING & OIL SEAL HOLE BORING TOOL



• CLUTCH RELEASE LEVER
HOLE REAMER

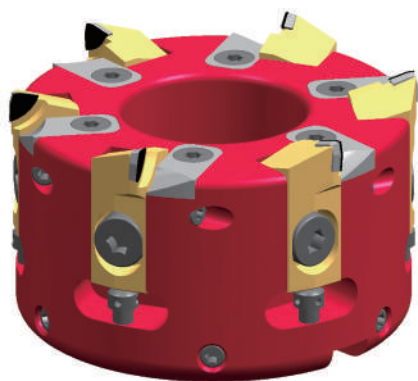
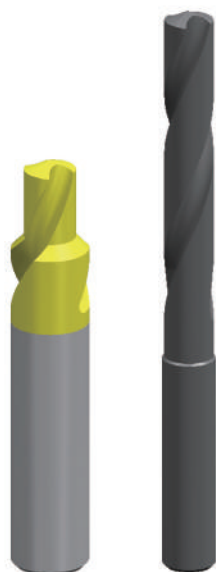


• CPS COVER ATTACHED FACE
MILLING CUTTER

T/MISSION CASE



• COUNTER SHAFT BRG. HOLE BORING TOOL



• ENGINE MOUNTING HOLE BORING TOOL



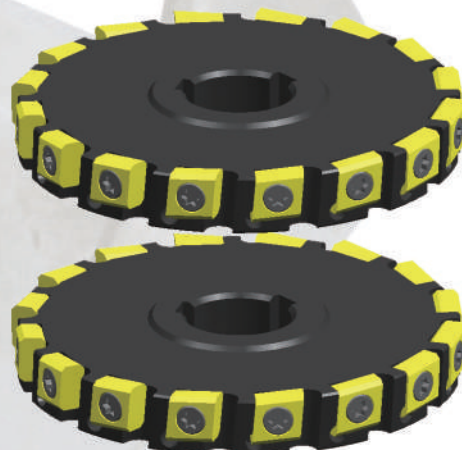
BRAKE HOUSING



• DISC PATH MILLING CUTTER

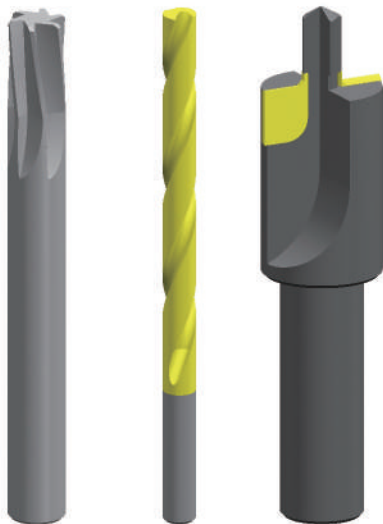


• MAIN BORE PROCESSING TOOL

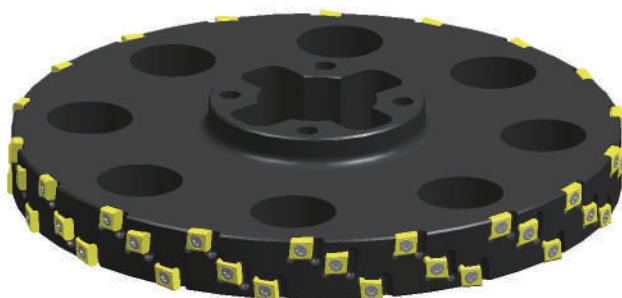


• LUG CUTTER

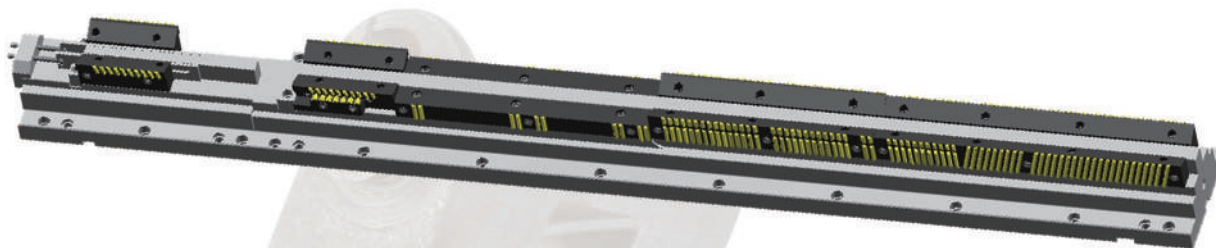
BRAKE CARRIER



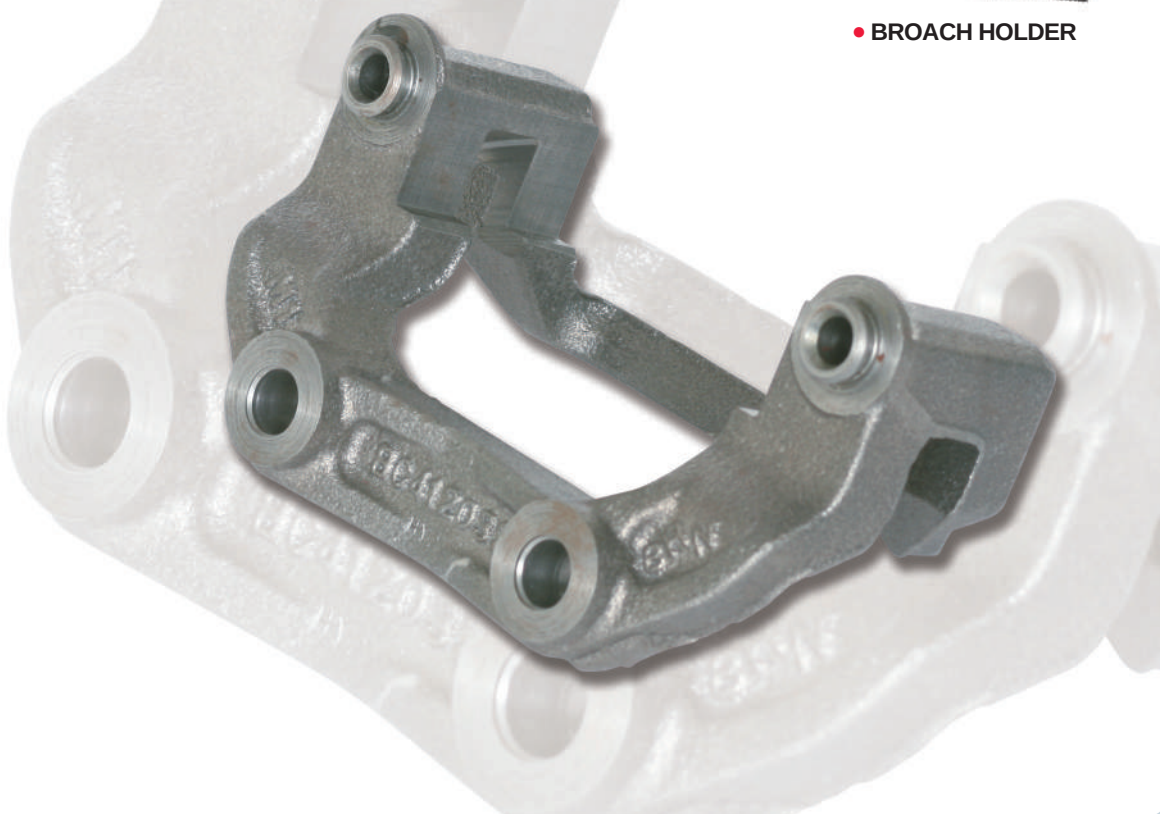
• HOLE PROCESSING TOOL



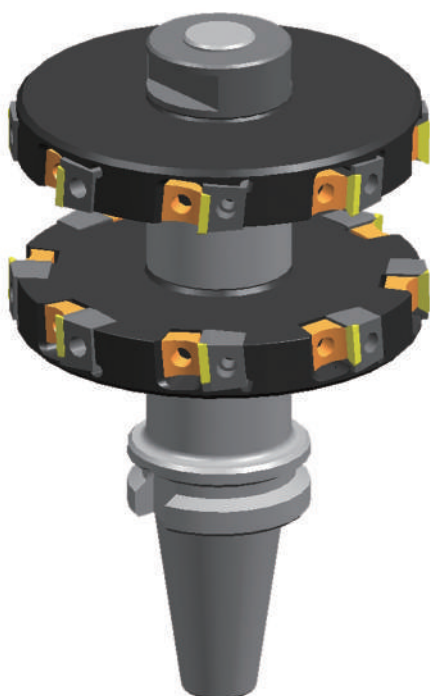
• CARRIER CUTTER



• BROACH HOLDER



KNUCKLE





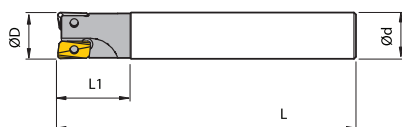
CONNECTING ROD



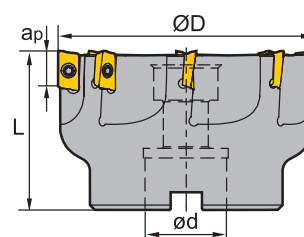


ENDMILL CUTTER

ARE01

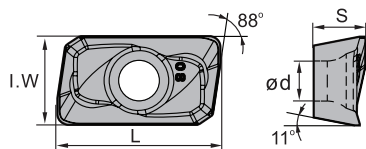


ARE02



Type		Dimensions (mm)				⚙️
		ØD	Ød	L1	L	
ARE01	ARE01-016-120-AP11-2F	16	16	25	120	2
	ARE01-016-180-AP11-2F	16	16	30	180	2
	ARE01-020-120-AP11-2F	20	20	30	120	2
	ARE01-020-180-AP11-2F	20	20	30	180	2
	ARE01-025-150-AP11-3F	25	25	35	150	3
	ARE01-025-200-AP11-3F	25	25	35	200	3
	ARE01-025-150-AP16-2F	25	25	35	150	2
	ARE01-025-200-AP16-2F	25	25	35	200	2
	ARE01-032-160-AP16-3F	32	32	40	160	3
	ARE01-032-200-AP16-3F	32	32	40	200	3
ARE02	ARE02-050-A22-AP16-5F	50	22	-	40	5
	ARE02-063-A22-AP16-6F	63	22	-	50	6

Diameter ØD	Insert	Screw	Wrench		
Ø16~Ø25	AP11	DTKA 02555	T-7	-	
Ø25~Ø63	AP16	DTKA 04100	-	T-15	



■ SPG200

- PVD Coating
- P20, M20

Insert shape	Type	Dimensions (mm)					Grade
		L	I.W	S	d	r	SPG200
	APMT1135PDR	11.25	6.2	3.5	2.8	0.8	●
	APMT160408PDER	17.25	9.25	4.76	4.4	0.8	●

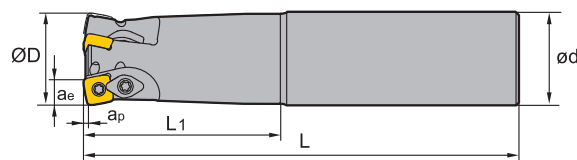
● Stock

HIGH FEED CUTTER

HFC01



S type insert, straight shank

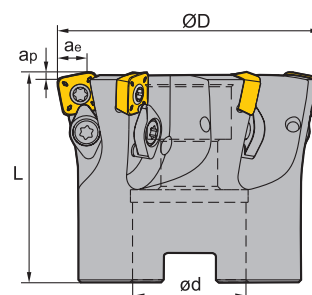


Type		Dimensions (mm)				
		ØD	Ød	L ₁	L	
HFC01	HFC01-33-200-SD12-2F	33	32	50	200	2
	HFC01-33-250-SD12-2F	33	32	50	250	2

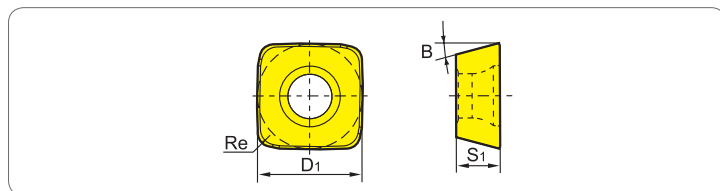
HFC01



S type insert, Arbor mounting



Type		Dimensions (mm)				
		ØD	Ød	L1	L	
HFC01	HFC01-50-A22-SD12-3F	50	22	-	50	3
	HFC01-63-A22-SD12-4F	63	22	-	50	4



SPG210

- PVD Coating
- P20, M20

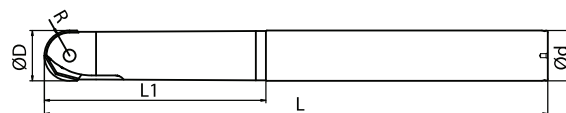
Insert shape	Type	Dimensions (mm)				Grade
		B	Re	S1	D1	SPG210
	SDMT09T312-DM	15°	1.2	3.97	9.525	●
	SDMT120412-DM	15°	2.0	4.76	12.7	●

● Stock

Tool Type	Insert Screw	Clamp Screw	Clamp	Wrench	
HFC01 □ □-SD12□ □	DTKA 04100	DS 5003-1	DYR 08	T-15	T-20

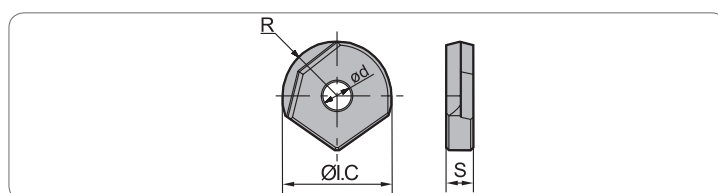
FINISH BALL CUTTER

FBC



Type		Dimensions (mm)				
		R	ØD	Ød	L1	L
FBC	FBC 012-130	6	12	12	50	130
	FBC 012-150	6	12	12	60	150
	FBC 016-150	8	16	16	60	150
	FBC 016-180	8	16	16	80	180
	FBC 020-180	10	20	20	75	180
	FBC 020-220	10	20	20	90	220
	FBC 025-200	12.5	25	25	90	200
	FBC 025-250	12.5	25	25	110	250
	FBC 030-200	15	30	30	90	200
	FBC 030-250	15	30	30	110	250
	FBC 030-300	15	30	30	125	300

Diameter	Screw	Wrench
Ø12	DBF 1210	T-15
Ø16	DBF 1611	T-15
Ø20	DBF 20135	T-15
Ø25	DBF 2520	T-20
Ø30	DBF 3025	L-4



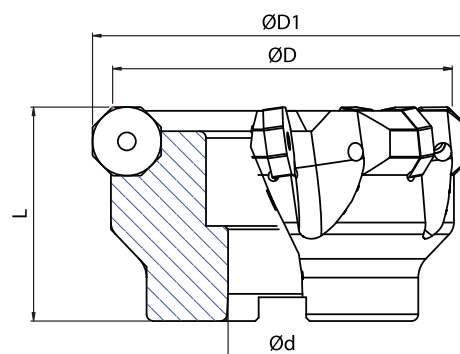
SPG250

- PVD Coating
- P20, M20, K20

Insert shape	Type	Dimensions (mm)					Grade
		R	ØI.C	S	Ød	ØD	SPG250
	DFBI1203-M/F	6	12	3	4	Ø12	●
	DFBI1604-M/F	8	16	4	5	Ø16	●
	DFBI2005-M/F	10	20	5	5	Ø20	●
	DFBI2506-M/F	12.5	25	6	6	Ø25	●
	DFBI3007-M/F	15	30	7	8.25	Ø30	●

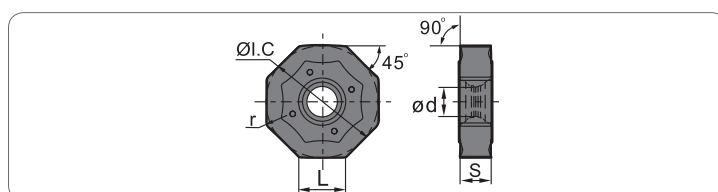
● Stock

OMR07



Type		Dimensions (mm)				
		ØD	ØD ₁	Ød	L	
OMR07	OMR07-080-B27-ON08-06	80	92	27	50	6
	OMR07-100-B32-ON08-07	100	111	32	63	7
	OMR07-125-B40-ON08-08	125	138	40	63	8

Diameter ØD	Insert	Screw	Wrench	
				
Ø63~Ø315	ONHU 08 □ □ □ □ -PF/PM	DTKA512-60	T-20	



■ SCK150

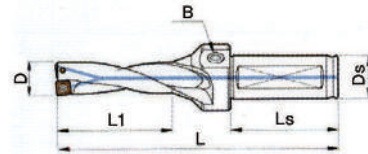
- CVD Coating
- K15

Insert shape	Type	Dimensions (mm)					Grade
		L	ØI.C	S	Ød	r	SCK150
	ONHU08T508-PF	8.37	20.2	5.77	5.3	0.83	
	ONHU08T508-PM	8.37	20.2	5.79	5.3	0.83	●

● Stock

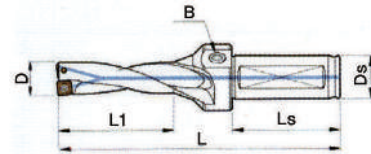
INDEXIBLE DRILL

JTR 2×D



SPEC	D	L ₁	L	D _s	L _s	B	Insert	Screw	Wrench	
JTR-12520D	12.5	28	105	20	50	PT-1/8	SPGT050204-PM	TSB-20045	TXL-6	
JTR-13020D	13.0	29	106	20	50	PT-1/8				
JTR-13520D	13.5	30	107	20	50	PT-1/8				
JTR-14020D	14.0	31	108	20	50	PT-1/8				
JTR-14520D	14.5	32	109	20	50	PT-1/8				
JTR-15020D	15.0	33	110	20	50	PT-1/8				
JTR-15520D	15.5	34	120	25	56	PT-1/8	SPGT060204-PM	TSB-22052		TXL-6
JTR-16020D	16.0	35	121	25	56	PT-1/8				
JTR-16520D	16.5	36	122	25	56	PT-1/8				
JTR-17020D	17.0	37	123	25	56	PT-1/8				
JTR-17520D	17.5	38	124	25	56	PT-1/8				
JTR-18020D	18.0	39	125	25	56	PT-1/8				
JTR-18520D	18.5	40	126	25	56	PT-1/8				
JTR-19020D	19.0	41	127	25	56	PT-1/8				
JTR-19520D	19.5	42	128	25	56	PT-1/8				
JTR-20020D	20.0	43	129	25	56	PT-1/8				
JTR-20520D	20.5	44	130	25	56	PT-1/8				
JTR-21020D	21.0	45	131	25	56	PT-1/8				
JTR-21520D	21.5	46	132	25	56	PT-1/8	SPGT07T308-PM	TSB-25065	TXL-8	
JTR-22020D	22.0	47	133	32	60	PT-1/4				
JTR-22520D	22.5	48	143	32	60	PT-1/4				
JTR-23020D	23.0	49	144	32	60	PT-1/4				
JTR-23520D	23.5	50	145	32	60	PT-1/4				
JTR-24020D	24.0	51	146	32	60	PT-1/4				
JTR-24520D	24.5	52	147	32	60	PT-1/4				
JTR-25020D	25.0	53	148	32	60	PT-1/4				
JTR-25520D	25.5	54	149	32	60	PT-1/4				
JTR-26020D	26.0	55	150	32	60	PT-1/4				
JTR-26520D	26.5	56	151	32	60	PT-1/4				
JTR-27020D	27.0	57	152	32	60	PT-1/4				
JTR-27520D	27.5	58	153	32	60	PT-1/4	SPGT090408-PM	TSB-35090		TXL-15
JTR-28020D	28.0	59	154	32	60	PT-1/4				
JTR-28520D	28.5	60	155	32	60	PT-1/4				
JTR-29020D	29.0	61	156	32	60	PT-1/4				
JTR-29520D	29.5	64	159	32	60	PT-1/4				
JTR-30020D	30.0	65	160	32	60	PT-1/4				
JTR-31020D	31.0	67	162	32	60	PT-1/4				
JTR-32020D	32.0	69	164	32	60	PT-1/4				
JTR-33020D	33.0	71	166	32	60	PT-1/4				
JTR-34020D	34.0	73	168	40	70	PT-1/4				
JTR-35020D	35.0	75	170	40	70	PT-1/4				
JTR-36020D	36.0	77	172	40	70	PT-1/4			SPGT110408-PM	
JTR-37020D	37.0	79	189	40	70	PT-1/4				
JTR-38020D	38.0	81	191	40	70	PT-1/4				
JTR-39020D	39.0	83	193	40	70	PT-1/4				
JTR-40020D	40.0	85	195	40	70	PT-1/4				
JTR-41020D	41.0	87	197	40	70	PT-1/4				
JTR-42020D	42.0	89	199	40	70	PT-1/4				
JTR-43020D	43.0	91	201	40	70	PT-1/4				
JTR-44020D	44.0	93	203	40	70	PT-1/4	SPGT140512-PM	TSB-50125	TXL-20	
JTR-45020D	45.0	95	205	40	70	PT-1/4				
JTR-46020D	46.0	97	207	40	70	PT-1/4				
JTR-47020D	47.0	99	209	40	70	PT-1/4				
JTR-48020D	48.0	101	211	40	70	PT-1/4				
JTR-49020D	49.0	103	213	40	70	PT-1/4				
JTR-50020D	50.0	105	215	40	70	PT-1/4				

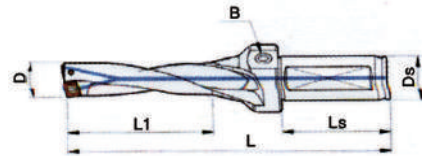
JTR 3×D



SPEC	D	L1	L	Ds	Ls	B	Insert	Screw	Wrench	
JTR-12530D	12.5	41	118	20	50	PT-1/8	SPGT050204-PM	TSB-20045		
JTR-13030D	13.0	42	119	20	50	PT-1/8				
JTR-13530D	13.5	44	121	20	50	PT-1/8				
JTR-14030D	14.0	45	122	20	50	PT-1/8				
JTR-14530D	14.5	47	124	20	50	PT-1/8				
JTR-15030D	15.0	48	125	20	50	PT-1/8				
JTR-15530D	15.5	50	136	25	56	PT-1/8	SPGT060204-PM	TSB-22052	TXL-6	
JTR-16030D	16.0	51	137	25	56	PT-1/8				
JTR-16530D	16.5	53	139	25	56	PT-1/8				
JTR-17030D	17.0	54	140	25	56	PT-1/8				
JTR-17530D	17.5	56	142	25	56	PT-1/8				
JTR-18030D	18.0	57	143	25	56	PT-1/8				
JTR-18530D	18.5	59	145	25	56	PT-1/8				
JTR-19030D	19.0	60	146	25	56	PT-1/8				
JTR-19530D	19.5	62	148	25	56	PT-1/8				
JTR-20030D	20.0	63	149	25	56	PT-1/8				
JTR-20530D	20.5	65	151	25	56	PT-1/8				
JTR-21030D	21.0	66	152	25	56	PT-1/8				
JTR-21530D	21.5	68	154	25	56	PT-1/8				
JTR-22030D	22.0	69	155	32	60	PT-1/4	SPGT07T308-PM	TSB-25065	TXL-8	
JTR-22530D	22.5	71	166	32	60	PT-1/4				
JTR-23030D	23.0	72	167	32	60	PT-1/4				
JTR-23530D	23.5	74	169	32	60	PT-1/4				
JTR-24030D	24.0	75	170	32	60	PT-1/4				
JTR-24530D	24.5	77	172	32	60	PT-1/4				
JTR-25030D	25.0	78	173	32	60	PT-1/4				
JTR-25530D	25.5	80	175	32	60	PT-1/4				
JTR-26030D	26.0	81	176	32	60	PT-1/4				
JTR-26530D	26.5	83	178	32	60	PT-1/4				
JTR-27030D	27.0	84	179	32	60	PT-1/4				
JTR-27530D	27.5	86	181	32	60	PT-1/4				
JTR-28030D	28.0	87	182	32	60	PT-1/4				SPGT090408-PM
JTR-28530D	28.5	89	184	32	60	PT-1/4				
JTR-29030D	29.0	90	185	32	60	PT-1/4				
JTR-29530D	29.5	94	189	32	60	PT-1/4				
JTR-30030D	30.0	95	190	32	60	PT-1/4				
JTR-31030D	31.0	98	193	32	60	PT-1/4				
JTR-32030D	32.0	101	196	32	60	PT-1/4				
JTR-33030D	33.0	104	199	32	60	PT-1/4				
JTR-34030D	34.0	107	202	40	70	PT-1/4	SPGT110408-PM	TSB-40100		
JTR-35030D	35.0	110	205	40	70	PT-1/4				
JTR-36030D	36.0	113	208	40	70	PT-1/4				
JTR-37030D	37.0	116	226	40	70	PT-1/4				
JTR-38030D	38.0	119	229	40	70	PT-1/4				
JTR-39030D	39.0	122	232	40	70	PT-1/4				
JTR-40030D	40.0	125	235	40	70	PT-1/4				
JTR-41030D	41.0	128	238	40	70	PT-1/4	SPGT140512-PM	TSB-50125		TXL-20
JTR-42030D	42.0	131	241	40	70	PT-1/4				
JTR-43030D	43.0	134	244	40	70	PT-1/4				
JTR-44030D	44.0	137	247	40	70	PT-1/4				
JTR-45030D	45.0	140	250	40	70	PT-1/4				
JTR-46030D	46.0	143	253	40	70	PT-1/4				
JTR-47030D	47.0	146	256	40	70	PT-1/4				
JTR-48030D	48.0	149	259	40	70	PT-1/4				
JTR-49030D	49.0	152	262	40	70	PT-1/4				
JTR-50030D	50.0	155	265	40	70	PT-1/4				

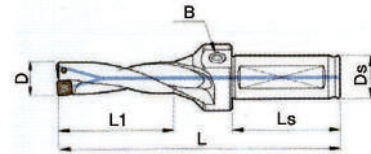
INDEXIBLE DRILL

JTR 4×D



SPEC	D	L ₁	L	D _s	L _s	B	Insert	Screw	Wrench		
JTR-12540D	12.5	53	130	20	50	PT-1/8	SPGT050204-PM	TSB-20045	TXL-6		
JTR-13040D	13.0	55	132	20	50	PT-1/8					
JTR-13540D	13.5	57	134	20	50	PT-1/8					
JTR-14040D	14.0	59	136	20	50	PT-1/8					
JTR-14540D	14.5	61	138	20	50	PT-1/8					
JTR-15040D	15.0	63	140	20	50	PT-1/8					
JTR-15540D	15.5	65	151	25	56	PT-1/8	SPGT060204-PM	TSB-22052		TXL-6	
JTR-16040D	16.0	67	153	25	56	PT-1/8					
JTR-16540D	16.5	69	155	25	56	PT-1/8					
JTR-17040D	17.0	71	157	25	56	PT-1/8					
JTR-17540D	17.5	73	159	25	56	PT-1/8					
JTR-18040D	18.0	75	161	25	56	PT-1/8					
JTR-18540D	18.5	77	163	25	56	PT-1/8					
JTR-19040D	19.0	79	165	25	56	PT-1/8					
JTR-19540D	19.5	81	167	25	56	PT-1/8					
JTR-20040D	20.0	83	169	25	56	PT-1/8					
JTR-20540D	20.5	85	171	25	56	PT-1/8					
JTR-21040D	21.0	87	173	25	56	PT-1/8					
JTR-21540D	21.5	89	175	25	56	PT-1/8	SPGT07T308-PM	TSB-25065	TXL-8		
JTR-22040D	22.0	91	177	32	60	PT-1/4					
JTR-22540D	22.5	93	188	32	60	PT-1/4					
JTR-23040D	23.0	95	190	32	60	PT-1/4					
JTR-23540D	23.5	97	192	32	60	PT-1/4					
JTR-24040D	24.0	99	194	32	60	PT-1/4					
JTR-24540D	24.5	101	196	32	60	PT-1/4					
JTR-25040D	25.0	103	198	32	60	PT-1/4					
JTR-25540D	25.5	105	200	32	60	PT-1/4					
JTR-26040D	26.0	107	202	32	60	PT-1/4					
JTR-26540D	26.5	109	204	32	60	PT-1/4					
JTR-27040D	27.0	111	206	32	60	PT-1/4					
JTR-27540D	27.5	113	208	32	60	PT-1/4	SPGT090408-PM	TSB-35090		TXL-15	
JTR-28040D	28.0	115	210	32	60	PT-1/4					
JTR-28540D	28.5	117	212	32	60	PT-1/4					
JTR-29040D	29.0	119	214	32	60	PT-1/4					
JTR-29540D	29.5	123	218	32	60	PT-1/4					
JTR-30040D	30.0	125	220	32	60	PT-1/4					
JTR-31040D	31.0	129	224	32	60	PT-1/4					
JTR-32040D	32.0	133	228	32	60	PT-1/4					
JTR-33040D	33.0	137	232	32	60	PT-1/4					
JTR-34040D	34.0	141	236	40	70	PT-1/4	SPGT110408-PM	TSB-40100	TXL-20		
JTR-35040D	35.0	145	240	40	70	PT-1/4					
JTR-36040D	36.0	149	244	40	70	PT-1/4					
JTR-37040D	37.0	153	263	40	70	PT-1/4					
JTR-38040D	38.0	157	267	40	70	PT-1/4					
JTR-39040D	39.0	161	271	40	70	PT-1/4					
JTR-40040D	40.0	165	275	40	70	PT-1/4					
JTR-41040D	41.0	169	279	40	70	PT-1/4	SPGT140512-PM	TSB-50125			TXL-20
JTR-42040D	42.0	173	283	40	70	PT-1/4					
JTR-43040D	43.0	177	287	40	70	PT-1/4					
JTR-44040D	44.0	181	291	40	70	PT-1/4					
JTR-45040D	45.0	185	295	40	70	PT-1/4					
JTR-46040D	46.0	189	299	40	70	PT-1/4					
JTR-47040D	47.0	193	303	40	70	PT-1/4					
JTR-48040D	48.0	197	307	40	70	PT-1/4					
JTR-49040D	49.0	201	311	40	70	PT-1/4	SPGT140512-PM	TSB-50125		TXL-20	
JTR-50040D	50.0	205	315	40	70	PT-1/4					

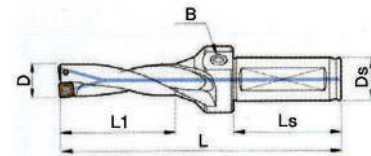
JSFD 2×D



SPEC	D	L1	L	Ds	Ls	B	Insert	Screw	Wrench
JSFD-16020D	16	37	114	20	50	PT-1/8	WCMX030208R-PG	ZSB-20045 (TSB-20045)	TXL-6
JSFD-17020D	17	39	116	20	50	PT-1/8			
JSFD-18020D	18	41	118	20	50	PT-1/8			
JSFD-19020D	19	43	120	20	50	PT-1/8			
JSFD-20020D	20	45	122	20	50	PT-1/8			
JSFD-21020D	21	47	134	25	60	PT-1/8	WCMX040208R-PG	ZSB-25055 (TSB-25055)	TXL-8
JSFD-22020D	22	49	136	25	60	PT-1/8			
JSFD-23020D	23	51	138	25	60	PT-1/8			
JSFD-24020D	24	53	140	25	60	PT-1/8			
JSFD-25020D	25	55	142	25	60	PT-1/8			
JSFD-26020D	26	57	157	32	70	PT-1/4	WCMX050308R-PG	ZSB-30070 (TSB-30070)	TXL-8
JSFD-27020D	27	59	159	32	70	PT-1/4			
JSFD-28020D	28	61	161	32	70	PT-1/4			
JSFD-29020D	29	63	163	32	70	PT-1/4			
JSFD-30020D	30	65	165	32	70	PT-1/4			
JSFD-31020D	31	67	167	32	70	PT-1/4	WCMX06T308R-PG	ZSB-35090 (TSB-35090)	TXL-15
JSFD-32020D	32	69	169	32	70	PT-1/4			
JSFD-33020D	33	71	171	32	70	PT-1/4			
JSFD-34020D	34	73	173	32	70	PT-1/4			
JSFD-35020D	35	75	175	32	70	PT-1/4			
JSFD-36020D	36	77	177	32	70	PT-1/4			
JSFD-37020D	37	79	179	32	70	PT-1/4			
JSFD-38020D	38	81	181	32	70	PT-1/4			
JSFD-39020D	39	83	183	32	70	PT-1/4			
JSFD-40020D	40	85	185	32	70	PT-1/4			
JSFD-41020D	41	87	187	32	70	PT-1/4			
JSFD-42020D	42	89	199	40	80	PT-1/4	WCMX080412R-PG	ZSB-40110 (TSB-40110)	TXL-15
JSFD-43020D	43	91	201	40	80	PT-1/4			
JSFD-44020D	44	93	203	40	80	PT-1/4			
JSFD-45020D	45	95	205	40	80	PT-1/4			
JSFD-46020D	46	97	207	40	80	PT-1/4			
JSFD-47020D	47	99	209	40	80	PT-1/4			
JSFD-48020D	48	101	211	40	80	PT-1/4			
JSFD-49020D	49	103	213	40	80	PT-1/4			
JSFD-50020D	50	105	215	40	80	PT-1/4			
JSFD-51020D	51	107	217	40	80	PT-1/4			
JSFD-52020D	52	109	219	40	80	PT-1/4			
JSFD-53020D	53	111	221	40	80	PT-1/4			
JSFD-54020D	54	113	223	40	80	PT-1/4			
JSFD-55020D	55	115	225	40	80	PT-1/4			
JSFD-56020D	56	117	227	40	80	PT-1/4			
JSFD-57020D	57	119	229	40	80	PT-1/4			
JSFD-58020D	58	121	231	40	80	PT-1/4			

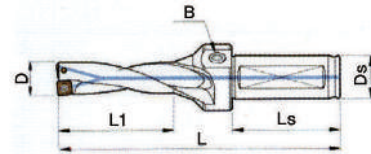
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JSFD 3×D

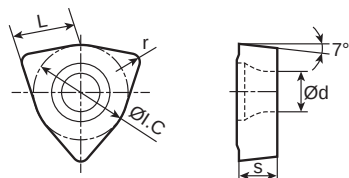


SPEC	D	L ₁	L	D _s	L _s	B	Insert	Screw	Wrench
JSFD-16030D	16	53	130	20	50	PT-1/8	WCMX030208R-PG	ZSB-20045 (TSB-20045)	TXL-6
JSFD-17030D	17	56	133	20	50	PT-1/8			
JSFD-18030D	18	59	136	20	50	PT-1/8			
JSFD-19030D	19	62	139	20	50	PT-1/8			
JSFD-20030D	20	65	142	20	50	PT-1/8			
JSFD-21030D	21	68	155	25	60	PT-1/8	WCMX040208R-PG	ZSB-25055 (TSB-25055)	TXL-8
JSFD-22030D	22	71	158	25	60	PT-1/8			
JSFD-23030D	23	74	161	25	60	PT-1/8			
JSFD-24030D	24	77	164	25	60	PT-1/8			
JSFD-25030D	25	80	167	25	60	PT-1/8			
JSFD-26030D	26	83	183	32	70	PT-1/4	WCMX050308R-PG	ZSB-30070 (TSB-30070)	TXL-8
JSFD-27030D	27	86	186	32	70	PT-1/4			
JSFD-28030D	28	89	189	32	70	PT-1/4			
JSFD-29030D	29	92	192	32	70	PT-1/4			
JSFD-30030D	30	95	195	32	70	PT-1/4			
JSFD-31030D	31	98	198	32	70	PT-1/4	WCMX06T308R-PG	ZSB-35090 (TSB-35090)	TXL-15
JSFD-32030D	32	101	201	32	70	PT-1/4			
JSFD-33030D	33	104	204	32	70	PT-1/4			
JSFD-34030D	34	107	207	32	70	PT-1/4			
JSFD-35030D	35	110	210	32	70	PT-1/4			
JSFD-36030D	36	113	213	32	70	PT-1/4			
JSFD-37030D	37	116	216	32	70	PT-1/4			
JSFD-38030D	37	119	219	32	70	PT-1/4			
JSFD-39030D	39	122	222	32	70	PT-1/4			
JSFD-40030D	40	125	225	32	70	PT-1/4			
JSFD-41030D	41	128	228	32	70	PT-1/4	WCMX080412R-PG	ZSB-40110 (TSB-40110)	TXL-15
JSFD-42030D	42	131	241	40	80	PT-1/4			
JSFD-43030D	43	134	244	40	80	PT-1/4			
JSFD-44030D	44	137	247	40	80	PT-1/4			
JSFD-45030D	45	140	250	40	80	PT-1/4			
JSFD-46030D	46	143	253	40	80	PT-1/4			
JSFD-47030D	47	146	256	40	80	PT-1/4			
JSFD-48030D	48	149	259	40	80	PT-1/4			
JSFD-49030D	49	152	262	40	80	PT-1/4			
JSFD-50030D	50	155	265	40	80	PT-1/4			
JSFD-51030D	51	158	268	40	80	PT-1/4			
JSFD-52030D	52	161	271	40	80	PT-1/4			
JSFD-53030D	53	164	274	40	80	PT-1/4			
JSFD-54030D	54	167	277	40	80	PT-1/4			
JSFD-55030D	55	170	280	40	80	PT-1/4			
JSFD-56030D	56	173	283	40	80	PT-1/4			
JSFD-57030D	57	176	286	40	80	PT-1/4			
JSFD-58030D	58	179	289	40	80	PT-1/4			

JSFD 4×D



SPEC	D	L1	L	Ds	Ls	B	Insert	Screw	Wrench
JSFD-16040D	16	69	146	20	50	PT-1/8	WCMX030208R-PG	ZSB-20045 (TSB-20045)	TXL-6
JSFD-17040D	17	73	150	20	50	PT-1/8			
JSFD-18040D	18	77	154	20	50	PT-1/8			
JSFD-19040D	19	81	158	20	50	PT-1/8			
JSFD-20040D	20	85	162	20	50	PT-1/8			
JSFD-21040D	21	89	176	25	60	PT-1/8	WCMX040208R-PG	ZSB-25055 (TSB-25055)	TXL-8
JSFD-22040D	22	93	180	25	60	PT-1/8			
JSFD-23040D	23	97	184	25	60	PT-1/8			
JSFD-24040D	24	101	188	25	60	PT-1/8			
JSFD-25040D	25	105	192	25	60	PT-1/8			
JSFD-26040D	26	109	209	32	70	PT-1/4	WCMX050308R-PG	ZSB-30070 (TSB-30070)	
JSFD-27040D	27	113	213	32	70	PT-1/4			
JSFD-28040D	28	117	214	32	70	PT-1/4			
JSFD-29040D	29	121	221	32	70	PT-1/4			
JSFD-30040D	30	125	225	32	70	PT-1/4			
JSFD-31040D	31	129	229	32	70	PT-1/4	WCMX06T308R-PG	ZSB-35090 (TSB-35090)	
JSFD-32040D	32	133	233	32	70	PT-1/4			
JSFD-33040D	33	137	237	32	70	PT-1/4			
JSFD-34040D	34	141	241	32	70	PT-1/4			
JSFD-35040D	35	145	245	32	70	PT-1/4			
JSFD-36040D	36	149	249	32	70	PT-1/4			
JSFD-37040D	37	153	253	32	70	PT-1/4			
JSFD-38040D	37	157	257	32	70	PT-1/4			
JSFD-39040D	39	161	261	32	70	PT-1/4			
JSFD-40040D	40	165	265	32	70	PT-1/4			
JSFD-41040D	41	169	269	32	70	PT-1/4			
JSFD-42040D	42	173	283	40	80	PT-1/4	WCMX080412R-PG	ZSB-40110 (TSB-40110)	
JSFD-43040D	43	177	287	40	80	PT-1/4			
JSFD-44040D	44	181	291	40	80	PT-1/4			
JSFD-45040D	45	185	295	40	80	PT-1/4			
JSFD-46040D	46	189	299	40	80	PT-1/4			
JSFD-47040D	47	193	303	40	80	PT-1/4			
JSFD-48040D	48	197	307	40	80	PT-1/4			
JSFD-49040D	49	201	311	40	80	PT-1/4			
JSFD-50040D	50	205	315	40	80	PT-1/4			
JSFD-51040D	51	209	319	40	80	PT-1/4			
JSFD-52040D	52	213	323	40	80	PT-1/4			
JSFD-53040D	53	217	327	40	80	PT-1/4			
JSFD-54040D	54	221	331	40	80	PT-1/4			
JSFD-55040D	55	225	335	40	80	PT-1/4			
JSFD-56040D	56	229	339	40	80	PT-1/4			
JSFD-57040D	57	233	343	40	80	PT-1/4			
JSFD-58040D	58	237	347	40	80	PT-1/4			

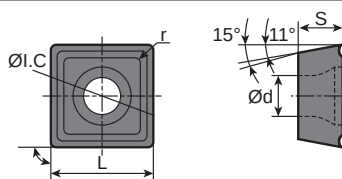


■ SPG200

- PVD Coating
- P20, M20

Insert shape	Type	Dimensions (mm)					Grade
		L	ØI.C	s	d	r	SPG200
	WCMX030208R-PG	3.8	5.56	2.38	2.8	0.8	●
	WCMX040208R-PG	4.3	6.35	2.38	3.1	0.8	●
	WCMX050308R-PG	5.4	7.94	3.18	3.2	0.8	●
	WCMX06T308R-PG	6.5	9.525	3.97	3.7	0.8	●
	WCMX080412R-PG	8.7	12.7	4.76	4.3	1.2	●

● Stock



■ SPG207

- PVD Coating
- P20, M20

Insert shape	Type	Dimensions (mm)					Grade
		L	ØI.C	s	d	r	SPG207
	SPGT050204-PM	5.0	5.0	2.38	2.2	0.4	●
	SPGT060204-PM	6.0	6.0	2.38	2.6	0.4	●
	SPGT07T308-PM	7.94	7.94	3.97	2.8	0.8	●
	SPGT090408-PM	9.8	9.8	4.3	4.2	0.8	●
	SPGT110408-PM	11.5	11.5	4.76	4.4	0.8	●
	SPGT140512-PM	14.3	14.3	5.2	5.75	1.2	●

● Stock

