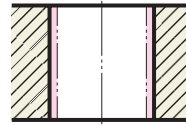


NIKKEN CARBIDE RADICAL REAMER



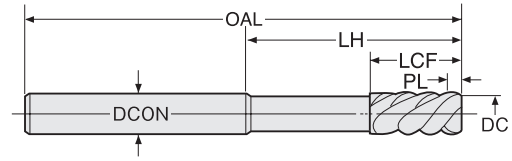
PF-RDSS Carbide PF Radical Reamer (Straight Shank)



Explanation of the Code No.

PF- RDSS - 12.0

- DIAMETER
- RADICAL MILLREAMER SERIES
- RDSS : STRAIGHT SHANK FOR THROUGH HOLE
- NONE:SOLID CARBIDE PF:PRESS FIT



LH-HELIX 45°

TICN2 COAT

P.132

*See P.4 for icons.

STOCK: ●=STANDARD STOCK ITEM(IN JAPAN) △=PRODUCTION BY ORDER

Code No.	STOCK	DC H7	OAL	DCON	PL	LCF	LH
PF-RDSS-10.5	●	10.5	115	12	7.0	22	65
-11.0	●	11.0					
-11.5	●	11.5					
-12.0	●	12.0					
-12.5	●	12.5	130	12	7.0	22	75
-13.0	●	13.0					
-13.5	●	13.5	130	16	7.0	22	75
-14.0	●	14.0					
-15.0	●	15.0	140	16	7.0	22	80
-16.0	●	16.0	150	16	7.0	24	90
-17.0	●	17.0	155	20	7.0	24	90
-18.0	●	18.0					

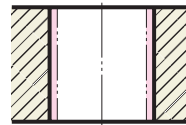
Code No.	STOCK	DC H7	OAL	DCON	PL	LCF	LH
PF-RDSS-19.0	●	19.0	155	20	7.0	24	90
-20.0	●	20.0	160	20	7.0	24	95
-21.0	●	21.0	170	20	8.0	24	105
-22.0	●	22.0	170	20	8.0	28	105
-23.0	●	23.0	180	25	8.0	28	110
-24.0	●	24.0					
-25.0	●	25.0	190	25	8.0	28	120
-26.0	●	26.0					
-27.0	●	27.0	200	32	8.0	34	120
-28.0	●	28.0					
-29.0	●	29.0	200	32	8.0	34	120
-30.0	●	30.0					

★PL means chamfering length to Φ DC.

NIKKEN CARBIDE RADICAL MILL REAMER LONG TYPE



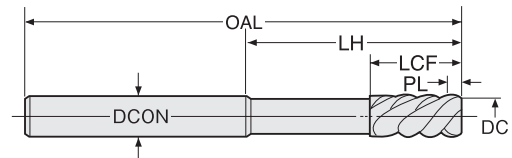
RDS Carbide Radical Reamer (Long Type)



Explanation of the Code No.

RDS - 12.0

- DIAMETER
- RADICAL MILLREAMER SERIES
- RDS : STRAIGHT SHANK FOR THROUGH HOLE



LH-HELIX 45°

TICN2 COAT

P.132

*See P.4 for icons.

STOCK: ●=STANDARD STOCK ITEM(IN JAPAN) △=PRODUCTION BY ORDER

Code No.	STOCK	DC H7	OAL	DCON	PL	LCF	LH
RDS-4.3	△	4.3	75	5	5.7	22	45
-4.4	△	4.4					
-4.5	△	4.5					
-4.6	△	4.6					
-4.7	△	4.7					
-4.8	△	4.8					
-4.9	△	4.9					
-4.97	△	4.97					
-4.98	△	4.98					
-4.99	△	4.99					
-5.0	△	5.0	75	5	5.7	22	45
-5.01	△	5.01					
-5.02	△	5.02					
-5.03	△	5.03					
-5.04	△	5.04					
-5.05	△	5.05					
-5.1	△	5.1					
-5.2	△	5.2					
-5.3	△	5.3					
-5.4	△	5.4					
-5.5	△	5.5	100	6	5.7	25	65
-5.6	△	5.6					
-5.7	△	5.7					

Code No.	STOCK	DC H7	OAL	DCON	PL	LCF	LH
RDS-5.8	△	5.8	100	6	5.7	25	65
-5.9	△	5.9					
-5.97	△	5.97					
-5.98	△	5.98					
-5.99	△	5.99					
-6.0	△	6.0					
-6.01	△	6.01					
-6.02	△	6.02	100	6	5.7	25	65
-6.03	△	6.03					
-6.04	△	6.04					
-6.05	△	6.05					
-6.1	△	6.1					
-6.2	△	6.2					
-6.3	△	6.3					
-6.4	△	6.4					
-6.5	△	6.5					
-6.6	△	6.6					
-6.7	△	6.7					
-6.8	△	6.8					
-6.9	△	6.9					
-6.97	△	6.97	110	8	7.0	25	70
-6.98	△	6.98					
-6.99	△	6.99					

★PL means chamfering length to Φ DC.

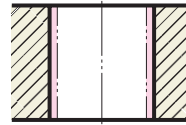
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NIKKEN CARBIDE RADICAL MILL REAMER LONG TYPE



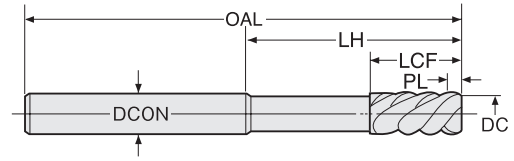
RDS

Carbide Radical Reamer (Long Type)



Explanation of the Code No.

RDS - 12.0
 ↓ DIAMETER
 ● RADICAL MILLREAMER SERIES
 RDS : STRAIGHT SHANK LONG TYPE FOR THROUGH HOLE



LH-HELIX 45°

TICN2 COAT

P.132

*See P.4 for icons.

STOCK: ●=STANDARD STOCK ITEM(IN JAPAN) △=PRODUCTION BY ORDER

Code No.	STOCK	DC H7	OAL	DCON	PL	LCF	LH					
RDS- 7.0	△	7.0	110	8	7.0	25	70					
- 7.01	△	7.01	110	8	7.0	25	70					
- 7.02	△	7.02										
- 7.03	△	7.03										
- 7.04	△	7.04	110	8	7.0	25	70					
- 7.05	△	7.05										
- 7.1	△	7.1										
- 7.2	△	7.2	125	8	7.0	25	85					
- 7.3	△	7.3										
- 7.4	△	7.4										
- 7.5	△	7.5										
- 7.6	△	7.6										
- 7.7	△	7.7										
- 7.8	△	7.8										
- 7.9	△	7.9										
- 7.97	△	7.97										
- 7.98	△	7.98										
- 7.99	△	7.99										
- 8.0	△	8.0	125	8	7.0	25	85					
- 8.01	△	8.01										
- 8.02	△	8.02										
- 8.03	△	8.03										
- 8.04	△	8.04										
- 8.05	△	8.05										
- 8.1	△	8.1										
- 8.2	△	8.2										
- 8.3	△	8.3										
- 8.4	△	8.4										
- 8.5	△	8.5										
- 8.6	△	8.6										
- 8.7	△	8.7	135	10	7.0	25	90					
- 8.8	△	8.8										
- 8.9	△	8.9										
- 8.97	△	8.97										
- 8.98	△	8.98										
- 8.99	△	8.99										
- 9.0	△	9.0										
- 9.01	△	9.01						135	10	7.0	25	90
- 9.02	△	9.02										
- 9.03	△	9.03										
- 9.04	△	9.04										
- 9.1	△	9.1										
- 9.2	△	9.2										
- 9.3	△	9.3										
- 9.4	△	9.4										
- 9.5	△	9.5										
- 9.6	△	9.6										
- 9.7	△	9.7										
- 9.8	△	9.8	150	10	7.0	29	100					
- 9.9	△	9.9										
- 9.97	△	9.97										
- 9.98	△	9.98										
- 9.99	△	9.99										
-10.0	△	10.0										
-10.01	△	10.01										
-10.02	△	10.02										
-10.03	△	10.03										

Code No.	STOCK	DC H7	OAL	DCON	PL	LCF	LH
RDS-10.04	△	10.04	150	10	7.0	29	100
-10.05	△	10.05					
-10.1	△	10.1					
-10.2	△	10.2	155	12	7.0	29	105
-10.3	△	10.3					
-10.4	△	10.4					
-10.5	△	10.5					
-10.6	△	10.6					
-10.7	△	10.7					
-10.8	△	10.8					
-10.9	△	10.9					
-10.97	△	10.97					
-10.98	△	10.98					
-10.99	△	10.99					
-11.0	△	11.0	155	12	7.0	29	105
-11.01	△	11.01					
-11.02	△	11.02					
-11.03	△	11.03					
-11.04	△	11.04					
-11.05	△	11.05					
-11.1	△	11.1					
-11.2	△	11.2					
-11.3	△	11.3					
-11.4	△	11.4					
-11.5	△	11.5					
-11.6	△	11.6					
-11.7	△	11.7	160	12	7.0	29	105
-11.8	△	11.8					
-11.9	△	11.9					
-11.97	△	11.97					
-11.98	△	11.98					
-11.99	△	11.99					
-12.0	△	12.0					
-12.01	△	12.01					
-12.02	△	12.02					
-12.03	△	12.03					
-12.04	△	12.04					
-12.05	△	12.05					
-12.1	△	12.1	160	12	7.0	29	105
-12.2	△	12.2					
-12.3	△	12.3					
-12.4	△	12.4					
-12.5	△	12.5					
-12.6	△	12.6					
-12.7	△	12.7					
-12.8	△	12.8					
-12.9	△	12.9					
-12.97	△	12.97					
-12.98	△	12.98					
-12.99	△	12.99					
-13.0	△	13.0	165	12	7.0	29	110
-13.01	△	13.01					
-13.02	△	13.02					
-13.03	△	13.03					
-13.04	△	13.04					
-13.05	△	13.05					
-13.1	△	13.1					
-13.2	△	13.2					

★PL means chamfering length to ΦDC.

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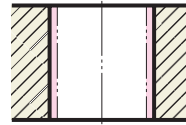
CARBIDE FOR THROUGH HOLE

NIKKEN CARBIDE RADICAL MILL REAMER LONG TYPE



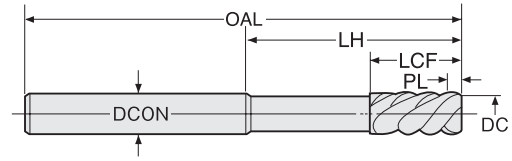
RDS

Carbide Radical Reamer (Long Type)



Explanation of the Code No.

- RDS - 12.0
 - DIAMETER
 - RADICAL MILLREAMER SERIES
 - RDS : STRAIGHT SHANK LONG TYPE FOR THROUGH HOLE



LH-HELIX 45°

TICN2 COAT

P.132

*See P.4 for icons.

STOCK: ●=STANDARD STOCK ITEM(IN JAPAN) △=PRODUCTION BY ORDER

Code No.	STOCK	DC H7	OAL	DCON	PL	LCF	LH
RDS-13.3	△	13.3	170	16	7.0	29	115
-13.4	△	13.4					
-13.5	△	13.5					
-13.6	△	13.6					
-13.7	△	13.7					
-13.8	△	13.8					
-13.9	△	13.9					
-13.97	△	13.97					
-13.98	△	13.98	170	16	7.0	29	115
-13.99	△	13.99					
-14.0	△	14.0					

Code No.	STOCK	DC H7	OAL	DCON	PL	LCF	LH
RDS-14.01	△	14.01	170	16	7.0	29	115
-14.02	△	14.02					
-14.03	△	14.03					
-14.04	△	14.04					
-14.05	△	14.05					
-15.0	△	15.0	180	16	7.0	29	120
-16.0	△	16.0	185	16	7.0	30	125
-17.0	△	17.0	185	16	7.0	30	125
-18.0	△	18.0	195	20	7.0	30	130
-19.0	△	19.0	195	20	7.0	30	130
-20.0	△	20.0	205	20	7.0	30	140

★PL means chamfering length to φDC.

NIKKEN CARBIDE RADICAL MILL REAMER DLC COATING



For aluminum parts, high-silicon aluminum alloys and nonferrous metals.

■ DLC=DIAMOND LIKE CARBON

Low coefficient of friction and high coating film hardness is obtained with carbon thin film that has adhesive strength approximating that of Diamonds.

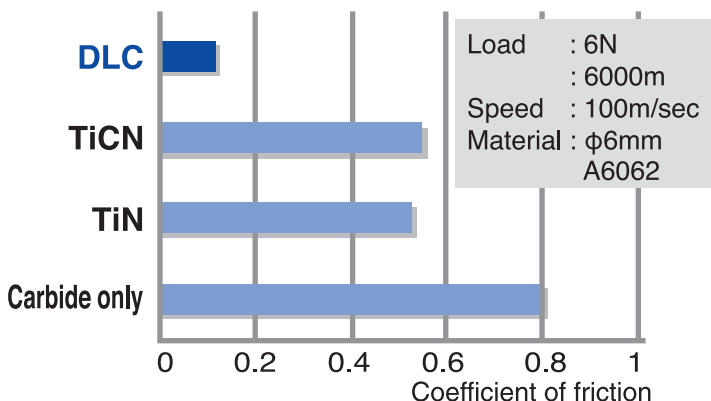
■ AMORPHOUS STRUCTURE

This is not crystalline structure like a Diamond, so peeling may not be occurred.

- ➔ It is equivalent to a hard silicon compound, and deposition of formed cutting edge will be prevented.
- It is better toughness than Diamond.
- This is the low cost reamer than Diamond reamer.

Average coefficient of friction for various coatings against A6062

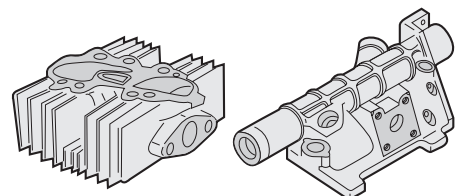
*Testing was finished at approximately 100 m, since there was significant ball wear for the coatings other than DLC.



* From the ball-on-disk wear test

■ Cutting example

RMSS-10.0-DLC
Material : A6061
Drilled hole : φ9.8
Cutting speed : 30m/min
Feed/rev : 0.12mm/rev
Soluble coolant
Roughness = Rz1μm
Finished diameter : within 3μm



●SAMPLE WORK