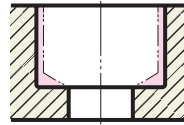


NIKKEN CARBIDE MILL REAMER



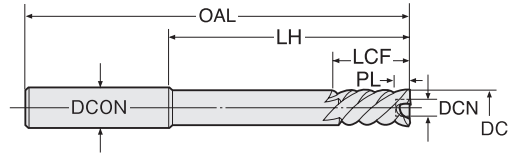
FMS

For STEPPED HOLE
Mill Reamer (Straight Shank)



Explanation of the Code No.

- FMS - 15.0
- DIAMETER
- MILLREAMER SERIES
- FMS : STRAIGHT SHANK FOR STEPPED HOLE



MILLING BLADE

LH-HELIX 30-35°

P.135

*See P.4 for icons.

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

Code No.	STOCK	DC H7	OAL	DCON	PL	DCN	LCF	LH
FMS- 3.97	△	3.97	60	4	0.6	2.0	18	35
- 3.98	△	3.98						
- 3.99	△	3.99						
- 4.0	●	4.0						
- 4.01	△	4.01	60	4	0.6	2.0	18	35
- 4.02	△	4.02						
- 4.03	△	4.03						
- 4.04	△	4.04						
- 4.05	△	4.05	75	5	0.6	2.0	22	45
- 4.1	△	4.1						
- 4.2	△	4.2						
- 4.3	△	4.3						
- 4.4	△	4.4	75	5	0.6	2.5	22	45
- 4.5	△	4.5						
- 4.6	△	4.6						
- 4.7	△	4.7						
- 4.8	△	4.8	75	5	0.6	2.5	22	45
- 4.9	△	4.9						
- 4.97	△	4.97						
- 4.98	△	4.98						
- 4.99	△	4.99	75	5	0.6	2.5	22	45
- 5.0	●	5.0						
- 5.01	△	5.01						
- 5.02	△	5.02						
- 5.03	△	5.03	100	6	0.6	2.5	25	65
- 5.04	△	5.04						
- 5.05	△	5.05						
- 5.1	△	5.1						
- 5.2	△	5.2	100	6	0.6	3.0	25	65
- 5.3	△	5.3						
- 5.4	△	5.4						
- 5.5	△	5.5						
- 5.6	△	5.6	100	6	0.6	3.0	25	65
- 5.7	△	5.7						
- 5.8	△	5.8						
- 5.9	△	5.9						
- 5.97	△	5.97	100	6	0.6	3.0	25	65
- 5.98	△	5.98						
- 5.99	△	5.99						
- 6.0	●	6.0						
- 6.01	△	6.01	100	6	0.6	3.0	25	65
- 6.02	△	6.02						
- 6.03	△	6.03						
- 6.04	△	6.04						
- 6.05	△	6.05	110	8	0.6	3.5	25	70
- 6.1	△	6.1						
- 6.2	△	6.2						
- 6.3	△	6.3						
- 6.4	△	6.4	110	8	0.6	3.5	25	70
- 6.5	△	6.5						
- 6.6	△	6.6						
- 6.7	△	6.7						
- 6.8	△	6.8	110	8	0.6	3.5	25	70
- 6.9	△	6.9						
- 6.97	△	6.97						
- 6.98	△	6.98						
- 6.99	△	6.99	110	8	0.6	3.5	25	70
- 7.0	●	7.0						

Code No.	STOCK	DC H7	OAL	DCON	PL	DCN	LCF	LH
FMS- 7.01	△	7.01	110	8	0.6	3.5	25	70
- 7.02	△	7.02						
- 7.03	△	7.03						
- 7.04	△	7.04						
- 7.05	△	7.05	125	8	0.6	4.0	25	85
- 7.1	△	7.1						
- 7.2	△	7.2						
- 7.3	△	7.3						
- 7.4	△	7.4	125	8	0.6	4.0	25	85
- 7.5	△	7.5						
- 7.6	△	7.6						
- 7.7	△	7.7						
- 7.8	△	7.8	125	8	0.6	4.0	25	85
- 7.9	△	7.9						
- 7.97	△	7.97						
- 7.98	△	7.98						
- 7.99	△	7.99	125	8	0.6	4.0	25	85
- 8.0	●	8.0						
- 8.01	△	8.01						
- 8.02	△	8.02						
- 8.03	△	8.03	135	10	0.6	4.5	25	90
- 8.04	△	8.04						
- 8.05	△	8.05						
- 8.1	△	8.1						
- 8.2	△	8.2	135	10	0.6	4.5	25	90
- 8.3	△	8.3						
- 8.4	△	8.4						
- 8.5	△	8.5						
- 8.6	△	8.6	135	10	0.6	4.5	25	90
- 8.7	△	8.7						
- 8.8	△	8.8						
- 8.9	△	8.9						
- 8.97	△	8.97	135	10	0.6	4.5	25	90
- 8.98	△	8.98						
- 8.99	△	8.99						
- 9.0	●	9.0						
- 9.01	△	9.01	135	10	0.6	4.5	25	90
- 9.02	△	9.02						
- 9.03	△	9.03						
- 9.04	△	9.04						
- 9.05	△	9.05	150	10	0.6	5.0	29	100
- 9.1	△	9.1						
- 9.2	△	9.2						
- 9.3	△	9.3						
- 9.4	△	9.4	150	10	0.6	5.0	29	100
- 9.5	△	9.5						
- 9.6	△	9.6						
- 9.7	△	9.7						
- 9.8	△	9.8	150	10	0.6	5.0	29	100
- 9.9	△	9.9						
- 9.97	△	9.97						
- 9.98	△	9.98						
- 9.99	△	9.99	150	10	0.6	5.0	29	100
-10.0	●	10.0						
-10.01	△	10.01						
-10.02	△	10.02						
-10.03	△	10.03	150	10	0.6	5.0	29	100
-10.04	△	10.04						

CARBIDE
FOR STEPPED HOLE



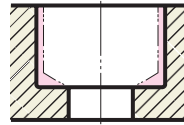
★PL means chamfering length to ΦDC.

NIKKEN CARBIDE MILL REAMER



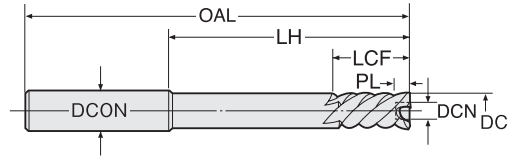
FMS

For STEPPED HOLE
Mill Reamer (Straight Shank)



Explanation of the Code No.

- FMS -15.0
- DIAMETER
- MILLREAMER SERIES
- FMS : STRAIGHT SHANK FOR STEPPED HOLE



MILLING BLADE

LH-HELIX 30-35°

P.135

*See P.4 for icons.

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

Code No.	STOCK	DC H7	OAL	DCON	PL	DCN	LCF	LH						
FMS-10.05	△	10.05	150	10	0.6	5.0	29	100						
-10.1	△	10.1												
-10.2	△	10.2												
-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												
-11.01	△	11.01	155	12	0.6	5.0	29	105						
-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												
-11.8	△	11.8	160	12	0.6	6.0	29	105						
-11.9	△	11.9												
-11.97	△	11.97												
-11.98	△	11.98												
-11.99	△	11.99												
-12.0	●	12.0												
-12.01	△	12.01							160	12	0.6	6.0	29	105
-12.02	△	12.02												
-12.03	△	12.03												
-12.04	△	12.04												
-12.05	△	12.05												
-12.1	△	12.1												
-12.2	△	12.2												
-12.3	△	12.3												
-12.4	△	12.4												
-12.5	△	12.5												
-12.6	△	12.6												
-12.7	△	12.7	165	12	0.6	6.0	29	110						
-12.8	△	12.8												
-12.9	△	12.9												
-12.97	△	12.97												
-12.98	△	12.98												

Code No.	STOCK	DC H7	OAL	DCON	PL	DCN	LCF	LH																		
FMS-12.99	△	12.99	165	12	0.6	6.0	29	110																		
-13.0	●	13.0																								
-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																								
-13.3	△	13.3																								
-13.4	△	13.4																								
-13.5	△	13.5																								
-13.6	△	13.6																								
-13.7	△	13.7																								
-13.8	△	13.8	170	16	0.6	7.0	29	115																		
-13.9	△	13.9																								
-13.97	△	13.97																								
-13.98	△	13.98																								
-13.99	△	13.99																								
-14.0	●	14.0																								
-14.01	△	14.01																								
-14.02	△	14.02																								
-14.03	△	14.03																								
-14.04	△	14.04																								
-14.05	△	14.05																								
-14.5	△	14.5	180	16	0.6	7.0	29	120																		
-15.0	△	15.0																								
-15.5	△	15.5							185	16	0.6	7.0	30	125												
-16.0	△	16.0																								
-16.5	△	16.5																								
-17.0	△	17.0																								
-17.5	△	17.5													195	20	0.6	9.0	30	130						
-18.0	△	18.0																								
-18.5	△	18.5																								
-19.0	△	19.0																								
-19.5	△	19.5	205	20	0.6	10.0	30	140																		
-20.0	△	20.0																								
-21.0	△	21.0							215	20	0.6	11	33.5	150												
-22.0	△	22.0																								
-23.0	△	23.0																			230	25	0.6	12	33.5	160
-24.0	△	24.0																								
-25.0	△	25.0																								
-26.0	△	26.0																								
-27.0	△	27.0													240	32	0.6	15	39	160						
-28.0	△	28.0																								
-29.0	△	29.0																								
-30.0	△	30.0																								

★PL means chamfering length to ϕ DC.

★DCN is the front end bore diameter without bottom teeth, thus please make sure predrilled hole should be larger than ϕ DCN.

★Please use right-handed helix reamer when there are not enough space for the chips. P.55

★Please slightly decrease feed rate before reaching the bottom of the hole without using G86.