



Super End-Chipper

Multi-function Indexable End Mill

Applicable for center cutting, endmilling and grooving at low cutting resistance.

DIJET's Super End-Chipper end mills are designed for center cutting, endmilling and grooving at low cutting resistance but can be used on other general machining applications also.

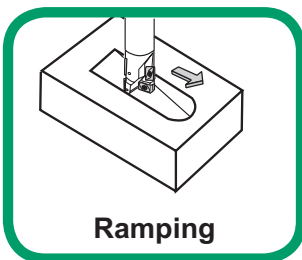


The multi-purpose indexable end mill for effective milling in all directions

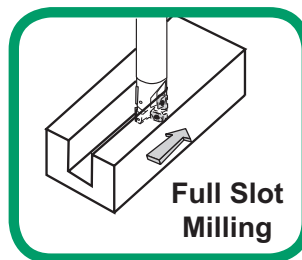
Features

1. Ramping, plunge milling, copy milling and drilling capabilities.
2. Excellent performance in open and closed slotting, facing and cavity milling.
3. Large depth of cut and low cutting forces at higher feed rates for high productivity.
4. Secure cutter geometry, insert geometry and grades combined for optimum solutions in any operation.

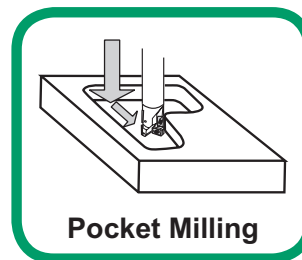
Versatility of "SUPER END-CHIPPER"



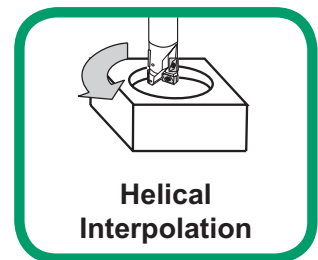
Ramping



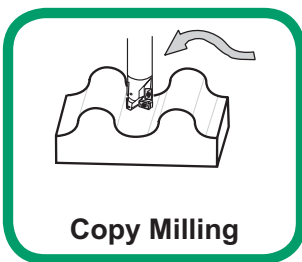
Full Slot Milling



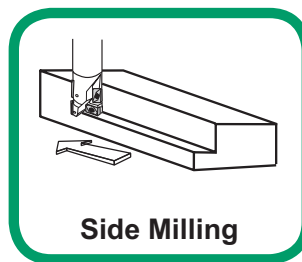
Pocket Milling



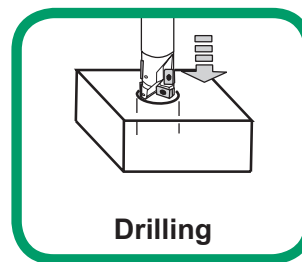
Helical Interpolation



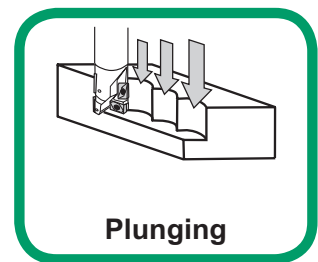
Copy Milling



Side Milling



Drilling



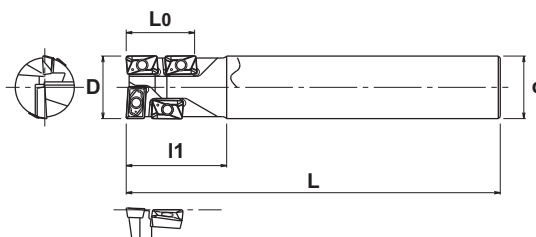
Plunging



Super End-Chipper

METRIC

END MILL SEC Type



Specifications

CATALOG NUMBER	STK	DIMENSIONS					INSERT				PARTS	
		D	L	L0	d	l1	Nose	Q	Periphery	Q	Screw	Wrench
SECM1616S16	•	16	130	16	16	50	ZDMT08T208L	1	ZPMT09T208R	3	TSW-2250	A-07SD
SECML1616S15	•	16	150	16	15	30						
SECML1616S16	•	16	150	16	16	65						
SECL1616S15	•	16	180	16	15	30						
SECL1616S16	•	16	180	16	16	75						
SECM2021S20	•	20	130	21	20	55	ZDMT100308L	1	ZCMT100308R	3	ESW-206	A-08SD
SECML2021S20	•	20	150	21	20	65						
SECL2021S20	•	20	185	21	20	75						
SECM2121S20	•	21	130	21	20	35	ZDMT100308L	1	ZCMT100308R	3	ESW-206	A-08SD
SECML2121S20	•	21	150	21	20	35						
SECL2121S20	•	21	185	21	20	35						
SECM2427S25	■	24	140	27	25	60	ZDMT13T3..L	1	ZPMT13T3..R	3	DSW-307H	A-10
SECML2427S25	■	24	180	27	25	70						
SECL2427S25	■	24	220	27	25	75						
SECM2527S25	•	25	140	27	25	60	ZDMT13T3..L	1	ZPMT13T3..R	3	DSW-307H	A-10
SECML2527S25	•	25	180	27	25	70						
SECL2527S25	•	25	220	27	25	75						
SECM2627S25	•	26	140	27	25	40	ZDMT13T3..L	1	ZPMT13T3..R	3	DSW-307H	A-10
SECML2627S25	•	26	180	27	25	40						
SECL2627S25	•	26	220	27	25	40						
SECEL2627S25	•	26	250	27	25	40						
SECXL2627S25	•	26	300	27	25	40						
SECM3034S32	•	30	150	34.5	32	70	ZPMT150408L	1	ZPMT160408R	3	TSW-408	A-15
SECL3034S32	•	30	180	34.5	32	100	ZPMT1604..L	1	ZPMT1604..R	3	TSW-408	A-15
SECM3234S32	•	32	150	34.5	32	70						
SECML3234S32	•	32	190	34.5	32	80						
SECL3234S32	•	32	230	34.5	32	90	ZPMT1604..L	1	ZPMT1604..R	3	TSW-408	A-15
SECM3334S32	•	33	150	34.5	32	50						
SECML3334S32	•	33	190	34.5	32	50						
SECL3334S32	•	33	230	34.5	32	50						
SECEL3334S32	•	33	300	34.5	32	50						
SECXL3334S32	•	33	350	34.5	32	50	ZPMT1805..L	1	ZPMT1705..R	3	DSW-4510H	A-20SD
SECM3540S32	•	35	160	40	32	60						
SECL3540S32	•	35	230	40	32	60						

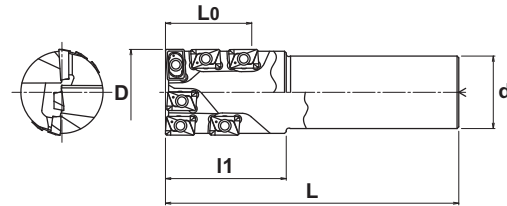
Note: All cutters are supplied without inserts.



METRIC

Super End-Chipper

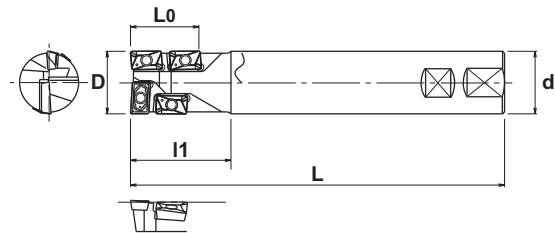
END MILL SEC Type



Specifications

CATALOG NUMBER	STK	DIMENSIONS						INSERT				PARTS	
		D	L	L0	d	I1	I2	Nose	Q	Periphery	Q	Screw	Wrench
SECM4040S32	■	40	160	40	32	60	-	ZPMT2005..L	1	ZPMT1705..R	3	DSW-4510H	A-20SD
SECL4040S32	■	40	240	40	32	60	-	ZPMT2005..L	1	ZPMT1705..R	3	DSW-4510H	A-20SD
SECM5050S42	■	50	170	50	42	70	-	ZPMT1805..L	1	ZPMT1705..R	5	DSW-4510H	A-20SD
SECL5050S42	■	50	250	50	42	70	-	ZPMT1805..L	1	ZPMT1705..R	5	DSW-4510H	A-20SD

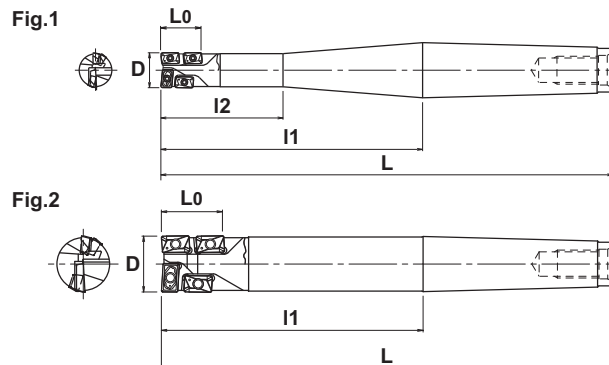
Note: All cutters are supplied without inserts.



Specifications - Weldon Shank

CATALOG NUMBER	STK	DIMENSIONS						INSERT				PARTS	
		D	L	L0	d	I1	I2	Nose	Q	Periphery	Q	Screw	Wrench
SEC-25040-W25	•	25	140	27	25	40	-	ZDMT13T3..L	1	ZPMT13T3..R	3	DSW-307H	A-10
SEC-25075-W25	•	25	220	27	25	75	-	ZDMT13T3..L	1	ZPMT13T3..R	3	DSW-307H	A-10
SEC-32050-W32	•	32	150	34.5	32	50	-	ZPMT1604..L	1	ZPMT1604..R	3	TSW-408	A-15
SEC-32090-W32	•	32	230	34.5	32	90	-	ZPMT1604..L	1	ZPMT1604..R	3	TSW-408	A-15

Note: All cutters are supplied without inserts.



Specifications - Morse Taper Shank

CATALOG NUMBER	STK	DIMENSIONS						FIG.	INSERT				PARTS	
		D	L	L0	d	I1	I2		Nose	Q	Periphery	Q	Screw	Wrench
SEC-20150-MT4	•	20	258	21	MT4	150	70	1	ZDMT100308L	1	ZCMT100308R	3	ESW-206	A-08SD
SEC-25120-MT4	•	25	228	27	MT4	120	-	2	ZDMT13T3..L	1	ZPMT13T3..R	3	DSW-307H	A-10
SEC-32150-MT4	•	32	259	34.5	MT4	150	-	2	ZPMT1604..L	1	ZPMT1604..R	3	TSW-408	A-15

Note: All cutters are supplied without inserts.

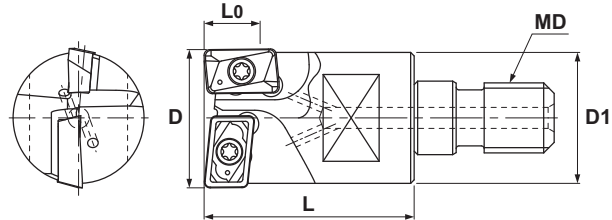


Super End-Chipper

METRIC

MODULAR HEADS

MEC Type



Specifications

CATALOG NUMBER	STK	DIMENSIONS					HEAD TORQUE Nm	INSERT	PARTS	
		D	L	L0	D1	MD			Screw	Wrench
MEC-2016-M8	•	16	23	8	14.8	M8	16	ZDMT08T208L (1) ZPMT09T208R (1)	TSW-2250	A-07SD
MEC-2020-M10	•	20	30	9	18.7	M10	16	ZDMT100308L (1) ZCMT100308R (1)	ESW-206	A-08SD
MEC-2021-M10	•	21	30	9	19.6	M10	16	ZDMT100308L (1) ZCMT100308R (1)	ESW-206	A-08SD
MEC-2024-M12	■	24	35	12.5	22.2	M12	20	ZDMT13T3..L (1) ZPMT13T3..R (1)	DSW-307	A-10
MEC-2025-M12	•	25	35	12.5	23.2	M12	20	ZDMT13T3..L (1) ZPMT13T3..R (1)	DSW-307	A-10
MEC-2026-M12	•	26	35	12.5	24.1	M12	20	ZDMT13T3..L (1) ZPMT13T3..R (1)	DSW-307	A-10
MEC-2030-M16	•	30	43	15	28.2	M16	25	ZPMT150408L(1) ZPMT160408R (1)	TSW-408	A-15
MEC-2032-M16	•	32	43	15	30.2	M16	25	ZPMT1604..L (1) ZPMT1604..R (1)	TSW-408	A-15
MEC-2033-M16	•	33	43	15	31	M16	25	ZPMT1604..L (1) ZPMT1604..R (1)	TSW-408	A-15
MEC-2035-M16	•	35	43	16	32	M16	25	ZPMT1805..L (1) ZPMT1705..R (1)	DSW-4510H	A-20SD

Note: All cutters are supplied without inserts.



METRIC

Super End-Chipper

Super End-Chipper

MODULAR HEAD HOLDER

(carbide with coolant hole)

MSN Type



Fig. 1

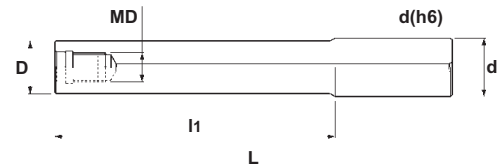
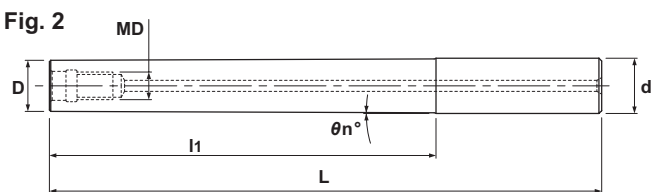


Fig. 2



Specifications

CATALOG NUMBER	STK	DIMENSIONS						FIG.	APPLICABLE HOLDERS
		D	l1	L	d	θ_n°	MD		
MSN-M8-20-S16C	•	15.5	20	75	16	-	M8	1	MEC-2016-M8
MSN-M8-40-S16C	•	15.5	40	95	16	-	M8	1	
MSN-M8-80-S16C	•	15.5	80	135	16	-	M8	1	
MSN-M8-120-S16C	•	15.5	120	175	16	-	M8	1	
MSN-M10-20-S20C	•	19.5	20	80	20	-	M10	1	MEC-2020-M10, MEC-2021-M10
MSN-M10-40-S20C	•	19.5	40	100	20	-	M10	1	
MSN-M10-40T-S20C	•	19.5	40	100	20	0°29'	M10	2	
MSN-M10-70-S32C	•	19.5	70	130	20	-	M10	1	
MSN-M10-90-S20C	•	19.5	90	150	20	-	M10	1	
MSN-M10-90T-S20C	•	19.5	90	150	20	0°17'	M10	2	
MSN-M10-140-S20C	•	19.5	140	200	20	-	M10	1	
MSN-M10-140T-S20C	•	19.5	140	200	20	0°12'	M10	2	
MSN-M12-25-S25C	•	24	25	90	25	-	M12	1	MEC-2024-M12, MEC-2025-M12, MEC-2026-M12
MSN-M12-55-S25C	•	24	55	120	25	-	M12	1	
MSN-M12-105-S25C	•	24	105	170	25	-	M12	1	
MSN-M12-155-S25C	•	24	155	220	25	-	M12	1	
MSN-M16-25-S32C	•	29	25	90	32	-	M16	1	MEC-2030-M16, MEC-2032-M16, MEC-2033-M16, MEC-2035-M16
MSN-M16-55-S32C	•	29	55	120	32	-	M16	1	
MSN-M16-105-S32C	•	29	105	170	32	-	M16	1	
MSN-M16-155-S32C	•	29	155	220	32	-	M16	1	
MSN-M16-195-S32C	•	29	195	260	32	-	M16	1	
MSN-M16-225-S32C	•	29	225	290	32	-	M16	1	
MSN-M16-245-S32C	•	29	245	310	32	-	M16	1	
MSN-M16-295-S32C	■	29	295	360	32	-	M16	1	

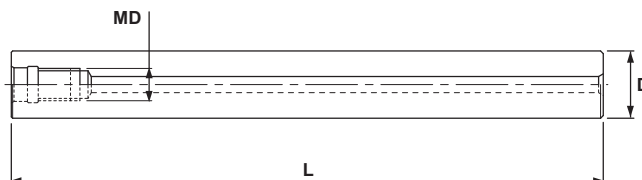
Note: See pages A-175 thru A-177 for weights and coolant hole sizes.


METRIC

MODULAR HEAD HOLDER

(carbide with coolant hole)

MSN Type - Straight



Specifications

CATALOG NUMBER	STK	DIMENSIONS			APPLICABLE HOLDERS
		D	L	MD	
MSN-M8-97S-S15C	•	15	97	M8	MEC-2016-M8
MSN-M8-147S-S15C	•	15	147	M8	
MSN-M8-107S-S16C	•	16	107	M8	
MSN-M8-157S-S16C	•	16	157	M8	
MSN-M10-130S-S18C	•	18	130	M10	MEC-2020-M10, MEC-2021-M10
MSN-M10-190S-S18C	•	18	190	M10	
MSN-M10-130S-S20C	•	20	130	M10	
MSN-M10-190S-S20C	•	20	190	M10	
MSN-M10-250S-S20C	•	20	250	M10	
MSN-M12-185S-S23C	•	23	185	M12	MEC-2024-M12 MEC-2025-M12, MEC-2026-M12
MSN-M12-265S-S23C	•	23	265	M12	
MSN-M12-145S-S25C	•	25	145	M12	
MSN-M12-215S-S25C	•	25	215	M12	
MSN-M12-285S-S25C	•	25	285	M12	
MSN-M16-160S-S28C	•	28	160	M16	MEC-2030-M16, MEC-2032-M16, MEC-2033-M16, MEC-2035-M16
MSN-M16-230S-S28C	•	28	230	M16	
MSN-M16-310S-S28C	•	28	310	M16	
MSN-M16-157S-S32C	•	32	157	M16	
MSN-M16-217S-S32C	•	32	217	M16	
MSN-M16-287S-S32C	•	32	287	M16	
MSN-M16-357S-S32C	•	32	357	M16	

Note: See pages A-175 thru A-177 for weights and coolant hole sizes.

NOTES ON MOUNTING HEADS:

Clean the contact surface of head and carbide holder. After tightening, confirm that there is no gap between head and holder.

See Page A-177 for steel holder



METRIC

Super End-Chipper

INSERTS

Specifications

FIG.	CATALOG NUMBER	STK	DIMENSIONS					FIG.	STOCK	
			A	B	T	R	α		COATED	
									JC5015	JC5040
<p>Fig. 1</p>	ZDMT08T208L	•	6	7.9	2.78	0.8	15°	1	•	•
	ZPMT09T208R	•	5.4	9	2.78	0.8	11°	2	•	•
	ZDMT100308L	•	6.35	10.4	3.4	0.8	15°	1	•	•
	ZCMT100308R	•	6.35	10.4	3.4	0.8	7°	2	•	•
	ZDMT13T308L	•	7.938	12.9	3.97	0.8	15°	1	•	•
	ZDMT13T320L	•	7.938	12.9	3.97	2.0	15°	1	•	•
	ZPMT13T308R	•	7.938	13.3	3.97	0.8	11°	2	•	•
	ZPMT13T320R	•	7.938	13.3	3.97	2.0	11°	2	•	•
	ZPMT150408L	•	9.525	15.45	4.76	0.8	11°	1	•	•
	ZPMT160408L	•	9.525	16.45	4.76	0.8	11°	1	•	•
	ZPMT160416L	•	9.525	16.45	4.76	1.6	11°	1	•	•
	ZPMT160420L	•	9.525	16.45	4.76	2.0	11°	1	•	•
	*ZPMT160430L	•	9.525	16.45	4.76	3.0	11°	1	•	•
	*ZPMT160432L	•	9.525	16.45	4.76	3.2	11°	1	•	•
<p>Fig. 2</p>	ZPMT160408R	•	9.525	16	4.76	0.8	11°	2	•	•
	ZPMT160416R	•	9.525	16	4.76	1.6	11°	2	•	•
	ZPMT160420R	•	9.525	16	4.76	2.0	11°	2	•	•
	*ZPMT160430R	•	9.525	16	4.76	3.0	11°	2	•	•
	*ZPMT160432R	•	9.525	16	4.76	3.2	11°	2	•	•
	ZPMT170508R	•	11	17	5.56	0.8	11°	2	•	•
	ZPMT170516R	•	11	17	5.56	1.6	11°	2	•	•
	ZPMT170520R	•	11	17	5.56	2.0	11°	2	•	•
	*ZPMT170530R	•	11	17	5.56	3.0	11°	2	•	•
	ZPMT180508L	•	11	18	5.56	0.8	11°	1	•	•
	ZPMT180516L	•	11	18	5.56	1.6	11°	1	•	•
	ZPMT180520L	•	11	18	5.56	2.0	11°	1	•	•
	*ZPMT180530L	•	11	18	5.56	3.0	11°	1	•	•
	ZPMT200508L	•	11	20.4	5.56	0.8	11°	1	•	•
ZPMT200516L	•	11	20.4	5.56	1.6	11°	1	•	•	
ZPMT200520L	•	11	20.4	5.56	2.0	11°	2	•	•	
*ZPMT200530L	•	11	20.4	5.56	3.0	11°	2	•	•	

** Note: Body must be modified to 1.5 radius or 1.2 chamfer at corner to use these inserts.



Super End-Chipper

METRIC

INSERTS

Specifications - Polished Inserts for Aluminum

FIG.	UNCOATED	CATALOG NUMBER	DIMENSIONS					FIG.	UNCOATED
			A	B	T	R	α		
Fig. 1 	•	ZDMT08T208LP	6	7.9	2.78	0.8	15°	1	•
	•	ZPMT09T208RP	5.4	9	2.78	0.8	11°	2	•
	•	ZDMT100308LP	6.35	10.4	3.4	0.8	15°	1	•
	•	ZCMT100308RP	6.35	10.4	3.4	0.8	7°	2	•
	•	ZDMT13T308LP	7.938	12.9	3.97	0.8	15°	1	•
	•	ZDMT13T320LP	7.938	12.9	3.97	2.0	15°	1	•
	•	ZPMT13T308RP	7.938	13.3	3.97	0.8	11°	2	•
	•	ZPMT13T320RP	7.938	13.3	3.97	2.0	11°	2	•
	•	ZPMT150408LP	9.525	15.45	4.76	0.8	11°	1	•
	•	ZPMT160408LP	9.525	16.45	4.76	0.8	11°	1	•
Fig. 2 	•	ZPMT160416LP	9.525	16.45	4.76	1.6	11°	1	•
	•	ZPMT160420LP	9.525	16.45	4.76	2.0	11°	1	•
	•	*ZPMT160430LP	9.525	16.45	4.76	3.0	11°	1	•
	•	*ZPMT160432LP	9.525	16.45	4.76	3.2	11°	1	•
	•	ZPMT160408RP	9.525	16	4.76	0.8	11°	2	•
	•	ZPMT160416RP	9.525	16	4.76	1.6	11°	2	•
	•	ZPMT160420RP	9.525	16	4.76	2.0	11°	2	•
	•	*ZPMT160430RP	9.525	16	4.76	3.0	11°	2	•
	•	*ZPMT160432RP	9.525	16	4.76	3.2	11°	2	•

** Note: Body must be modified to 1.5 radius or 1.2 chamfer at corner to use these inserts.

**METRIC**

Super End-Chipper

Recommended Cutting Data for End Mill Style

	Work Material	Insert Grade	Parameter	16mm				
				Slotting		Shoulder Cutting		Drilling (Plunging)
Slotting 	Carbon Steel (C50, C55) 150-280HB	JC5040	N (min ⁻¹)	2,790	2,590	2,980	2,980	2,790
			Vf (mm/min)	560	310	630	450	420
Shoulder Cutting 	Alloy Steel (1.7225) 150-280HB	JC5040	N (min ⁻¹)	2,790	2,590	2,890	2,980	2,790
			Vf (mm/min)	500	280	570	410	380
Drilling (Plunging) 	Mold Steel (1.2311, P20) 280-400HB	JC5040 JC5015	N (min ⁻¹)	2,190	1,990	2,390	2,390	2,190
			Vf (mm/min)	390	250	480	330	260
Shoulder Cutting 	Tool & Die Steel (1.2344, 1.2379) 150-255HB	JC5040	N (min ⁻¹)	2,190	1,990	2,390	2,390	2,190
			Vf (mm/min)	390	250	480	330	260
Drilling (Plunging) 	Stainless Steel (SUS304, SUS316) 150-250HB	JC5015 (JC5040)	N (min ⁻¹)	1,990	1,790	2,190	2,190	1,990
			Vf (mm/min)	350	220	430	290	240
Shoulder Cutting 	Cast Iron (GG25, GG30) 160-260HB	JC5015 (JC5040)	N (min ⁻¹)	2,980	2,790	3,180	3,180	2,980
			Vf (mm/min)	720	500	760	570	520
Drilling (Plunging) 	Nodular Cast Iron (GGG60, GGG70) 170-300HB	JC5015 (JC5040)	N (min ⁻¹)	2,790	2,590	2,980	2,980	2,790
			Vf (mm/min)	560	310	630	450	420
Shoulder Cutting 	Aluminum 50-110HB	FZ15	N (min ⁻¹)	6,000	6,000	6,000	6,000	6,000
			Vf (mm/min)	1,440	1,100	1,800	1,100	1,100

Work Material	Insert Grade	Parameter	20mm, 21mm					24mm, 25mm, 26mm				
			Slotting		Shoulder Cutting		Drilling (Plunging)	Slotting		Shoulder Cutting		Drilling (Plunging)
Carbon Steel (C50, C55) 150-280HB	JC5040	N (min ⁻¹)	2,390	2,230	2,550	2,550	2,390	1,910	1,780	2,040	2,040	1,910
		Vf (mm/min)	600	380	680	510	480	520	350	610	400	470
		Ap (mm)	Up to 4	4-10	Up to 5	5-21	Up to 3	Up to 5	5-12	Up to 7	7-27	Up to 4
Alloy Steel (1.7225) 150-280HB	JC5040	N (min ⁻¹)	2,390	2,230	2,550	2,550	2,390	1,910	1,780	2,040	2,040	1,910
		Vf (mm/min)	540	350	630	460	430	480	320	550	360	380
		Ap (mm)	Up to 4	4-10	Up to 5	5-21	Up to 3	Up to 5	5-12	Up to 7	7-27	Up to 4
Mold Steel (1.2311, P20) 280-400HB	JC5040 JC5015	N (min ⁻¹)	1,910	1,750	2,070	2,070	1,910	1,530	1,400	1,650	1,650	1,530
		Vf (mm/min)	430	275	520	370	340	380	250	440	290	300
		Ap (mm)	Up to 3	3-10	Up to 5	5-21	Up to 3	Up to 4	4-12	Up to 7	7-27	Up to 4
Tool & Die Steel (1.2344, 1.2379) 150-255HB	JC5040	N (min ⁻¹)	1,910	1,750	2,070	2,070	1,910	1,530	1,400	1,650	1,650	1,530
		Vf (mm/min)	430	275	520	370	370	380	250	440	290	300
		Ap (mm)	Up to 3	3-10	Up to 5	5-21	Up to 3	Up to 4	4-12	Up to 7	7-27	Up to 4
Stainless Steel (SUS304, SUS316) 150-250HB	JC5015 (JC5040)	N (min ⁻¹)	1,750	1,590	1,910	1,910	1,750	1,400	1,270	1,530	1,530	1,400
		Vf (mm/min)	385	240	430	305	260	320	200	380	270	210
		Ap (mm)	Up to 3	3-10	Up to 5	5-21	Up to 3	Up to 4	4-12	Up to 7	7-27	Up to 4
Cast Iron (GG25, GG30) 160-260HB	JC5015 (JC5040)	N (min ⁻¹)	2,500	2,390	2,700	2,700	2,500	2,040	1,910	2,160	2,160	2,040
		Vf (mm/min)	750	530	810	610	630	700	470	750	540	600
		Ap (mm)	Up to 4	4-10	Up to 5	5-21	Up to 3	Up to 5	5-12	Up to 7	7-27	Up to 4
Nodular Cast Iron (GGG60, GGG70) 170-300HB	JC5015 (JC5040)	N (min ⁻¹)	2,390	2,230	2,550	2,550	2,390	1,910	1,780	2,040	2,040	1,910
		Vf (mm/min)	600	400	700	500	480	570	390	650	460	480
		Ap (mm)	Up to 4	4-10	Up to 5	5-21	Up to 3	Up to 5	5-12	Up to 7	7-27	Up to 4
Aluminum 50-110HB	FZ15	N (min ⁻¹)	4,780	4,780	4,780	4,780	4,780	3,820	3,820	3,820	3,820	3,820
		Vf (mm/min)	1,440	1,100	1,900	1,100	1,100	1,340	960	1,900	960	1,150
		Ap (mm)	Up to 4	4-10	Up to 5	5-21	Up to 3	Up to 5	5-12	Up to 7	7-27	Up to 4



Super End-Chipper

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Recommended Cutting Data for End Mill Style

Slotting 	Work Material	Insert Grade	Parameter	30mm, 32mm, 33mm				
				Slotting		Shoulder Cutting		Drilling (Plunging)
	Carbon Steel (C50, C55) 150-280HB	JC5040	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,490 450 Up to 6 -	1,390 310 6-16 -	1,590 550 Up to 8 Up to 16	1,590 400 8-34 Up to 6	1,490 370 Up to 5 -
	Alloy Steel (1.7225) 150-280HB	JC5040	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,490 420 Up to 6 -	1,390 280 6-16 -	1,590 480 Up to 8 Up to 16	1,590 350 8-34 Up to 6	1,490 300 Up to 5 -
	Mold Steel (1.2311, P20) 280-400HB	JC5040 JC5015	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,290 320 Up to 5 -	1,190 240 5-16 -	1,290 390 Up to 8 Up to 16	1,290 260 8-34 Up to 6	1,290 250 Up to 5 -
	Tool & Die Steel (1.2344, 1.2379) 150-255HB	JC5040	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,190 300 Up to 5 -	1,100 220 5-16 -	1,290 390 Up to 8 Up to 16	1,290 260 8-34 Up to 6	1,190 240 Up to 5 -
	Stainless Steel (SUS304, SUS316) 150-250HB	JC5015 (JC5040)	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,100 275 Up to 5 -	1,000 200 5-16 -	1,190 360 Up to 8 Up to 16	1,190 240 8-34 Up to 6	1,100 165 Up to 5 -
	Cast Iron (GG25, GG30) 160-260HB	JC5015 (JC5040)	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,690 680 Up to 8 -	1,590 480 8-16 -	1,790 700 Up to 8 Up to 16	1,790 540 8-34 Up to 6	1,690 500 Up to 5 -
	Nodular Cast Iron (GGG60, GGG70) 170-300HB	JC5015 (JC5040)	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,490 520 Up to 8 -	1,390 350 8-16 -	1,590 560 Up to 8 Up to 16	1,590 400 8-34 Up to 6	1,490 370 Up to 5 -
	Aluminum 50-110HB	FZ15	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	3,000 1,200 Up to 8 -	3,000 900 8-16 -	3,000 1,500 Up to 8 Up to 16	3,000 900 8-34 Up to 6	3,000 900 Up to 5 -

Work Material	Insert Grade	Parameter	40mm					50mm				
			Slotting		Shoulder Cutting		Drilling (Plunging)	Slotting		Shoulder Cutting		Drilling (Plunging)
Carbon Steel (C50, C55) 150-280HB	JC5040	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,190 360 Up to 9 -	1,110 260 9-20 -	1,270 440 Up to 9 Up to 20	1,270 310 9-40 Up to 8	1,110 270 Up to 5 -	950 280 Up to 9 -	890 210 9-25 -	1,020 360 Up to 9 Up to 25	1,020 250 9-50 Up to 10	890 220 Up to 5 -
Alloy Steel (1.7225) 150-280HB	JC5040	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,190 330 Up to 9 -	1,110 230 9-20 -	1,270 380 Up to 9 Up to 20	1,270 280 9-40 Up to 8	1,110 220 Up to 5 -	950 280 Up to 9 -	890 180 9-25 -	1,020 310 Up to 9 Up to 25	1,020 230 9-50 Up to 10	890 180 Up to 5 -
Mold Steel (1.2311, P20) 280-400HB	JC5040 JC5015	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,030 260 Up to 8 -	950 190 8-20 -	1,030 310 Up to 9 Up to 20	1,030 210 9-40 Up to 8	1,030 200 Up to 5 -	830 200 Up to 8 -	760 150 8-25 -	830 250 Up to 9 Up to 25	830 170 9-50 Up to 10	830 160 Up to 5 -
Tool & Die Steel (1.2344, 1.2379) 150-255HB	JC5040	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	950 240 Up to 8 -	880 190 8-20 -	1,030 310 Up to 9 Up to 20	1,030 210 9-40 Up to 8	950 190 Up to 5 -	760 190 Up to 8 -	700 140 8-25 -	830 250 Up to 9 Up to 25	830 170 9-50 Up to 10	760 150 Up to 5 -
Stainless Steel (SUS304, SUS316) 150-250HB	JC5015 (JC5040)	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	880 220 Up to 8 -	800 160 8-20 -	950 280 Up to 9 Up to 20	950 190 9-40 Up to 8	880 130 Up to 5 -	700 170 Up to 8 -	640 130 8-25 -	760 210 Up to 9 Up to 25	760 150 9-50 Up to 10	700 100 Up to 5 -
Cast Iron (GG25, GG30) 160-260HB	JC5015 (JC5040)	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,350 540 Up to 9 -	1,270 380 9-20 -	1,430 570 Up to 9 Up to 20	1,430 430 9-40 Up to 8	1,350 400 Up to 5 -	1,080 430 Up to 9 -	1,020 310 9-25 -	1,140 450 Up to 9 Up to 25	1,140 340 9-50 Up to 10	1,080 320 Up to 5 -
Nodular Cast Iron (GGG60, GGG70) 170-300HB	JC5015 (JC5040)	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	1,190 410 Up to 9 -	1,110 280 9-20 -	1,270 440 Up to 9 Up to 20	1,270 320 9-40 Up to 8	1,110 270 Up to 5 -	950 330 Up to 9 -	890 220 9-25 -	1,020 360 Up to 9 Up to 25	1,020 250 9-50 Up to 10	890 220 Up to 5 -
Aluminum 50-110HB	FZ15	N (min ⁻¹) Vf (mm/min) Ap (mm) Ae (mm)	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -

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Super End-Chipper

Nominal Cutting Speed and Feed Values for MEC - with Carbide MSN

Work Material	Insert Grade	16mm				20mm, 21mm				24mm, 25mm, 26mm				30mm, 32mm, 33mm			
		L1 mm	Ap mm	N min ⁻¹	F mm/min	L1 mm	Ap mm	N min ⁻¹	F mm/min	L1 mm	Ap mm	N min ⁻¹	F mm/min	L1 mm	Ap mm	N min ⁻¹	F mm/min
Carbon Steel (S50C, S55C) Under 250HB	JC5040	70	0.6	3,580	2,140	70	0.7	2,860	1,430	90	1.0	2,290	1,150	100	1.5	1,790	900
		120	0.5	3,180	1,590	120	0.5	2,860	1,430	140	0.6	2,290	1,150	150	1.0	1,790	900
		160	0.3	2,980	1,490	190	0.3	2,400	1,200	210	0.3	1,900	950	210	0.6	1,490	745
Mold Steel (1.2311, P20) 30-43HRC	JC5040 JC5015 (above 40 HRC)	70	0.6	3,180	1,590	70	0.7	2,550	1,150	90	1.0	2,040	920	100	1.5	1,600	720
		120	0.5	3,180	1,590	120	0.5	2,550	1,150	140	0.6	2,040	920	150	1.0	1,600	720
		160	0.3	2,980	1,490	190	0.3	2,400	1,200	210	0.3	1,900	860	210	0.6	1,490	670
Die Steel (1.2344, 1.2379) Under 255HB	JC5040	70	0.6	3,180	1,590	70	0.7	2,550	1,150	90	1.0	2,040	920	100	1.5	1,600	720
		120	0.5	3,180	1,590	120	0.5	2,550	1,150	140	0.6	2,040	920	150	1.0	1,600	720
		160	0.3	2,980	1,490	190	0.3	2,400	1,200	210	0.3	1,900	860	210	0.6	1,490	670
Stainless Steel (SUS304) Under 250HB	JC5015	70	0.6	3,180	1,590	90	0.7	2,550	1,150	90	1.0	2,040	920	100	1.5	1,600	720
		120	0.5	2,980	1,490	120	0.5	2,400	1,080	140	0.6	1,900	860	150	1.0	1,490	670
		160	0.3	2,980	1,490	190	0.3	2,400	1,080	210	0.3	1,900	860	210	0.6	1,490	670
Hardened Die Steel (SKD61, SKD11) 40-50HRC	JC5015	70	0.4	1,400	350	70	0.5	1,110	280	90	0.7	890	270	100	0.8	700	210
		120	0.3	1,200	300	120	0.3	950	240	140	0.4	765	230	150	0.5	600	180
		160	-	-	-	190	-	-	-	210	-	-	-	210	0.3	600	180
Gray & Nodular Cast Iron (FC, FC) Under 300HB	JC5015	70	0.6	2,980	1,800	70	0.7	2,400	1,440	90	1.0	1,900	1,140	100	1.5	1,500	900
		120	0.5	2,980	1,650	120	0.5	2,400	1,440	140	0.6	1,900	1,140	150	1.0	1,500	900
		160	0.3	2,500	1,380	190	0.3	2,070	1,240	210	0.3	1,600	960	210	0.6	1,250	750
Aluminum Alloy 50-110HB	FZ15	70	2.0	8,000	4,000	70	2	6,400	3,200	90	2.5	5,100	2,550	100	3.0	4,000	2,000
		120	1.5	8,000	3,600	120	1.5	6,400	3,200	140	1.5	5,100	2,550	150	2.0	4,000	2,000
		160	1.0	6,700	3,000	190	1	5,600	2,520	210	1.0	4,300	2,150	210	1.5	3,350	1,500

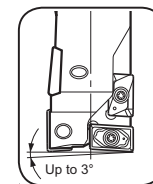
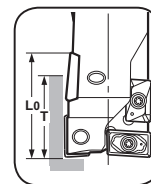
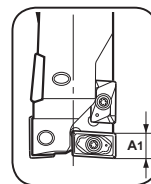
Work Material	Insert Grade	35mm			
		L1 mm	Ap mm	N min ⁻¹	F mm/min
Carbon Steel (S50C, S55C) Under 250HB	JC5040	100	1.5	1,640	820
		150	1.0	1,640	820
		210	0.6	1,360	680
Mold Steel (1.2311, P20) 30-43HRC	JC5040 JC5015 (above 40 HRC)	100	1.5	1,460	660
		150	1.0	1,460	660
		210	0.6	1,360	610
Die Steel (1.2344, 1.2379) Under 255HB	JC5040	100	1.5	1,460	660
		150	1.0	1,460	660
		210	0.6	1,360	610
Stainless Steel (SUS304) Under 250HB	JC5015	100	1.5	1,460	660
		150	1.0	1,360	610
		210	0.6	1,360	610
Hardened Die Steel (SKD61, SKD11) 40-50HRC	JC5015	100	0.8	640	190
		150	0.5	550	170
		210	0.3	550	170
Gray & Nodular Cast Iron (FC, FC) Under 300HB	JC5015	100	1.5	1,360	820
		150	1.0	1,360	820
		210	0.6	1,140	680

Additional cutting data for longer tools.

Type	Ap	N	Vf
ML	80%	90%	80%
L	30%	70%	70%
EL	1mm	50%	60%

Additional ramping information.

Diameter (mm)	A 1 mm	T (mm)
Ø16	5.2	0 - 5.2 or 11.8 - 15.5
Ø20 - Ø21	5.5	0 - 5.5 or 14.0 - 17.5
Ø25 - Ø26	7.0	0 - 7.0 or 16.8 - 23.2
Ø30 - Ø32 - Ø33	8.6	0 - 8.6 or 20.3 - 28.1
Ø35 - Ø40	9.8	0 - 9.8 or 26.8 - 30.7
Ø506	9.8	0 - 9.8 or 26.5 - 30.6 or 37.4 - 41.6



- NOTE:**
1. Speeds and Feeds should be adjusted according to the machine and work rigidity.
 2. If chattering occurs, reduce the DOC or RPM by 30% and keep the feed per tooth the same.
 3. In case of full slotting, it is recommended to reduce the RPM and IPM to 70% of the above.
 4. Ramping up to 3 degrees is recommended.

