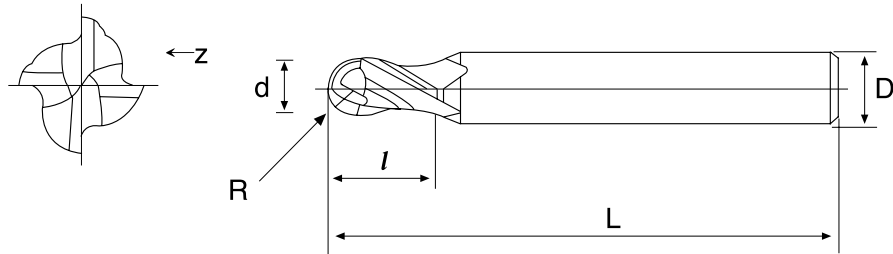


Super high lubrication & Super low friction coefficient

BALL TYPE - 4 flutes

WC=88 Co=12 HRA = 92.4 Rupture=3950N/mm² Grain Size=0.5μm

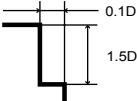
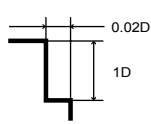
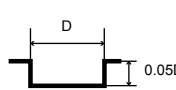


● SUBT 4 Flutes - RS ●



MODE	Diameter d	Radius of Ball Nose R	Flute Length l	Shank Diameter D	Flute Quantity Z	Full Length L
SUBT4 104	1	0.5	2	4	4	50
SUBT4 154	1.5	0.75	3	4	4	50
SUBT4 204	2	1	4	4	4	50
SUBT4 254	2.5	1.25	5	4	4	50
SUBT3 304	3	1.5	6	3	4	50
SUBT4 304	3	1.5	6	4	4	50
SUBT4 354	3.5	1.75	7	4	4	50
SUBT4 404	4	2	8	4	4	50
SUBT 0104	1	0.5	2	6	4	50
SUBT 0154	1.5	0.75	3	6	4	50
SUBT 0204	2	1	4	6	4	50
SUBT 0254	2.5	1.25	5	6	4	50
SUBT 0304	3	1.5	6	6	4	50
SUBT 0354	3.5	1.75	7	6	4	50
SUBT 0404	4	2	8	6	4	50
SUBT 0454	4.5	2.25	9	6	4	50
SUBT 0504	5	2.5	10	6	4	50
SUBT 0554	5.5	2.75	11	6	4	50
SUBT 0604	6	3	12	6	4	50
SUBT 0704	7	3.5	14	8	4	60
SUBT 0804	8	4	16	8	4	60
SUBT 0904	9	4.5	18	10	4	75
SUBT 1004	10	5	20	10	4	75
SUBT 1104	11	5.5	22	12	4	75
SUBT 1204	12	6	24	12	4	75
SUBT 1404	14	7	28	16	4	100
SUBT 1604	16	8	32	16	4	100
SUBT 1804	18	9	36	20	4	100
SUBT 2004	20	10	40	20	4	100

SURTA ■ Standard Cutting Conditions

Work Material	Carbon Steels, Alloy Steels (~30HRC) S50C, SCM, Cast iron FC250 etc AISI 1049, Cast iron			Alloy Steels, Tool Steels (30~45HRC) Prehardened Steels, SKD61, NAK etc AISI H13			Austenitic stainless Steels SUS304, SUS316 etc AISI 304, AISI 316			Hardened Steels (45~50HRC) SKD61, SKD11, NAK, STAVAX etc AISI H13		
Cutting Speed	50~100m/min			50~70m/min			30~60m/min			20~40m/min		
Diameter (mm)	Speed (min ⁻¹)	Feed Rate (mm/min)		Speed (min ⁻¹)	Feed Rate (mm/min)		Speed (min ⁻¹)	Feed Rate (mm/min)		Speed (min ⁻¹)	Feed Rate (mm/min)	
		Side Milling	Slotting		Side Milling	Slotting		Side Milling	Slotting		Side Milling	Slotting
2	11,000	180	180	7,200	110	110	6,000	90	90	4,800	45	45
3	8,500	200	160	5,300	130	100	4,400	110	66	3,200	55	44
4	7,200	360	290	4,400	220	180	3,000	180	110	2,400	67	54
5	6,000	380	300	3,600	230	180	2,400	190	110	1,900	70	56
6	5,300	420	340	3,200	240	190	2,200	210	130	1,600	75	60
8	4,000	450	360	2,400	240	190	1,600	220	130	1,200	65	50
10	3,200	390	310	1,900	190	150	1,300	190	110	1,000	65	50
12	2,700	330	260	1,600	160	130	1,000	150	90	800	65	50
Depth of cut (D)	   											

1. Please use Si coating tools for work materials of 50~60HRC.
2. In cutting Austenitic stainless Steels, the use of non-water-soluble cutting fluid is especially effective.
3. If the rigidity of the machine or the work material installation is very low, or chattering is generated, please reduce the revolution and the feed rate proportionately.
4. When drilling, please set the feed rate at 1/3 or below of the above value.

SURTA ■ High-Speed Milling Conditions

Work Material	Carbon Steels, Alloy Steels (~30HRC) S50C, SCM, Cast iron FC250 etc AISI 1049, Cast iron		Alloy Steels ,Tool Steels (30~45HRC) Prehardened Steels, SKD61, NAK etc AISI H13		Hardened Steels (45~50HRC) SKD61,SKD11, NAK,STAVAX etc AISI H13	
Cutting Speed	250m/min		150m/min		100m/min	
Diameter (mm)	Speed (min ⁻¹)	Feed Rate (mm/min)	Speed (min ⁻¹)	Feed Rate (mm/min)	Speed (min ⁻¹)	Feed Rate (mm/min)
2	40,000	1,600	23,800	950	15,900	240
3	26,500	1,590	15,900	900	10,600	240
4	23,800	1,590	11,900	900	7,900	240
5	15,900	1,590	9,600	900	6,300	240
6	13,200	1,590	8,000	900	5,300	240
8	9,900	1,290	6,000	750	4,000	220
10	7,900	1,100	4,800	650	3,200	200
12	6,600	1,000	4,000	560	2,600	200
Ad Milling Amount (mm)	Ad=0.05D		Ad=0.03D		Ad=0.02D	

- 1.Please use Si coating tools for work materials of 50~60HRC.
- 2.In cutting Austenitic stainless steels, the use of non-water-soluble cutting fluid is especially effective.
- 3.If the rigidity of the machine or the work material installation is very low, or chattering is generated, please reduce the revolution and the feed rate proportionately.
- 4.When drilling, please set the feed rate at 1/3 or below of the above value.