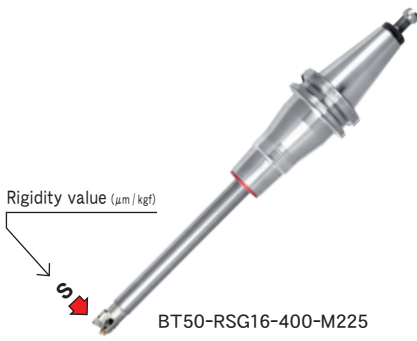


# RED SCREW arbor (RSG)

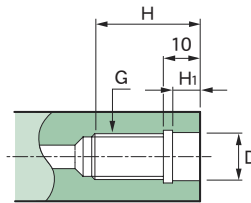
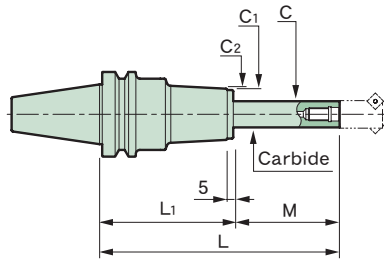
BT



Rigidity value ( $\mu\text{m} / \text{kgf}$ )



BT50-RSG16-400-M225



Dimensions for the screw-in end mill mounting.

Available for  
DIN/ CAT.

■ Option

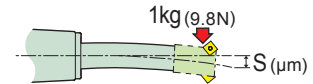
- Retention knob → P.64

■ Caution

- Some of the screw-in end mills cannot be attached to the RED screw arbor. Please check your screw-in end mills for conformance to the dimensions, or please contact MST.
  - Because cutting resistance is greater than the tool holder connection force associated with the machine spindle, please reduce the recommended cutting conditions by 50% for the RED screw arbors marked with \*.
- Otherwise, the tool holder shank may experience fretting corrosion or fall out of the machine spindle.

**S** The rigidity value

A rigidity value represents the amount of deflection for the entire holder and tool when a bending load of 1 kgf (9.8 N) is applied to the tip of the tool. The smaller the numerical value is, the higher the rigidity and the more accurate the machining.



CODE	L	M	L1	Kg	S
<b>BT40-RSG 8-105-M 25</b>	105	25	80	1.4	0.6
-135-M 25	135		110	1.8	0.7
-165-M 25	165		140	2.1	0.8
-130-M 50	130	50	80	1.4	1.5
-160-M 50	160		110	1.8	1.7
-190-M 50	190		140	2.1	1.8
-155-M 75	155	75	80	1.5	3.1
-185-M 75	185		110	1.9	3.4
-215-M 75	215		140	2.2	3.5
-170-M 90	170	90	80	1.5	4.5
-200-M 90	200		110	1.9	4.8
-230-M 90	230		140	2.2	4.9
-185-M105	185	105	80	1.6	6.2
-215-M105	215		110	2.0	6.7
-245-M105	245		140	2.3	6.8
<b>BT40-RSG10-125-M 25</b>	125	25	100	1.8	0.4
-155-M 25	155		130	2.2	0.5
-185-M 25	185		160	2.4	0.7
-150-M 50	150	50	100	1.9	0.8
-180-M 50	180		130	2.3	1.0
-210-M 50	210		160	2.5	1.2
-175-M 75	175	75	100	2.0	1.6
-205-M 75	205		130	2.4	1.8
-235-M 75	235		160	2.6	2.0
-200-M100	200	100	100	2.0	2.7
-230-M100	230		130	2.4	3.0
-260-M100	260		160	2.6	3.3
-220-M120	220	120	100	2.1	4.0
-250-M120	250		130	2.5	4.3
-280-M120	280		160	2.7	4.6
<b>BT40-RSG12-125-M 25</b>	125	25	100	2.0	0.3
-155-M 25	155		130	2.4	0.4
-185-M 25	185		160	2.7	0.5
-150-M 50	150	50	100	2.1	
-180-M 50	180		130	2.5	0.7
-210-M 50	210		160	2.8	0.9
-175-M 75	175	75	100	2.3	
-205-M 75	205		130	2.7	1.1
-235-M 75	235		160	3.0	1.3

CODE	L	M	L1	Kg	S
<b>BT40-RSG12-200-M100</b>	200	100	100	2.4	1.4
-230-M100	230		130	2.8	1.6
-260-M100	260		160	3.1	1.9
-225-M125	225	125	100	2.6	2.1
-255-M125	255		130	3.0	2.4
-285-M125	285		160	3.3	2.8
<b>BT40-RSG16-125-M 25</b>	125	25	100	2.6	0.2
-150-M 50	150	50		2.8	0.3
-175-M 75	175	75		3.0	0.5
-200-M100	200	100		3.2	0.8
-225-M125*	225	125		3.4	1.2
<b>BT50-RSG 8-120-M 25</b>	120	25	95	4.0	0.6
-150-M 25	150		125	4.3	0.7
-180-M 25	180		155	4.8	
-145-M 50	145	50	95	4.0	1.5
-175-M 50	175		125	4.3	1.7
-205-M 50	205		155	4.8	
-170-M 75	170	75	95	4.1	3.1
-200-M 75	200		125	4.4	3.4
-230-M 75	230		155	4.9	
-185-M 90	185	90	95	4.1	4.4
-215-M 90	215		125	4.4	4.8
-245-M 90	245		155	4.9	
-200-M105	200	105	95	4.2	6.2
-230-M105	230		125	4.5	6.6
-260-M105	260		155	5.0	
<b>BT50-RSG10-140-M 25</b>	140	25	115	4.3	0.4
-170-M 25	170		145	4.6	0.5
-200-M 25	200		175	5.6	
-165-M 50	165	50	115	4.4	0.8
-195-M 50	195		145	4.7	0.9
-225-M 50	225		175	5.7	1.0
-190-M 75	190	75	115	4.5	1.6
-220-M 75	220		145	4.8	1.7
-250-M 75	250		175	5.8	1.8
-215-M100	215	100	115	4.5	2.7
-245-M100	245		145	4.8	2.9
-275-M100	275		175	5.8	

## Common dimensions

CODE	Cutter dia.	G	φD	H	H <sub>1</sub>	φC	φC <sub>1</sub>	φC <sub>2</sub>
RSG 8	16	M 8	8.5	18	6.5	15	30	32
RSG10	20	M10	10.5	22	6.5	19	36	38
RSG12	25	M12	12.5	22	6	24	43	45
RSG16	32/40	M16	17	25	6	29	52	54
RSG16-37	40	M16	17	25	6	37	71	73



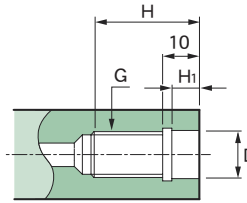
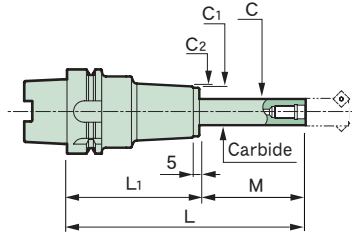
BT50-RSG16-37-265-M150

CODE	L	M	L <sub>1</sub>	Kg	S
<b>BT50-RSG10-235-M120</b>	235	120	115	4.6	3.9
-265-M120	265		145	4.9	4.2
-295-M120	295		175	5.9	
-255-M140	255	140	115	4.7	5.5
-285-M140	285		145	5.0	5.8
-315-M140	315		175	6.0	
<b>BT50-RSG12-140-M 25</b>	140	25	115	4.6	0.2
-170-M 25	170		145	5.0	0.3
-200-M 25	200		175	5.8	0.4
-165-M 50	165	50	115	4.7	0.5
-195-M 50	195		145	5.1	0.6
-225-M 50	225		175	5.9	
-190-M 75	190	75	115	4.9	0.8
-220-M 75	220		145	5.3	1.0
-250-M 75	250		175	6.1	
-215-M100	215	100	115	5.0	1.3
-245-M100	245		145	5.4	1.5
-275-M100	275		175	6.2	1.6
-240-M125	240	125	115	5.2	2.1
-270-M125	270		145	5.6	2.3
-300-M125	300		175	6.4	2.4
-265-M150	265	150	115	5.3	3.0
-295-M150	295		145	5.7	3.3
-325-M150	325		175	6.5	3.4
-290-M175	290	175	115	5.5	4.2
-320-M175	320		145	5.9	4.6
-350-M175	350		175	6.7	
<b>BT50-RSG16-140-M 25</b>	140	25	115	4.8	0.2
-170-M 25	170		145	5.4	
-200-M 25	200		175	6.6	
-165-M 50	165	50	115	5.0	0.3
-195-M 50	195		145	5.6	0.4
-225-M 50	225		175	6.8	
-190-M 75	190	75	115	5.3	0.5
-220-M 75	220		145	5.9	0.6
-250-M 75	250		175	7.0	
-215-M100	215	100	115	5.5	0.7
-245-M100	245		145	6.1	0.9
-275-M100	275		175	7.2	
-240-M125	240	125	115	5.7	1.1
-270-M125	270		145	6.3	1.3

CODE	L	M	L <sub>1</sub>	Kg	S
<b>BT50-RSG16-300-M125</b>	300	125	175	7.4	1.3
-265-M150	265	150	115	5.9	1.6
-295-M150	295		145	6.5	1.8
-325-M150	325		175	7.7	
-290-M175	290	175	115	6.1	2.2
-320-M175	320		145	6.7	2.4
-350-M175	350		175	7.9	2.5
-315-M200	315	200	115	6.3	3.0
-345-M200	345		145	6.9	3.2
-375-M200	375		175	8.1	3.3
-340-M225	340	225	115	6.5	3.9
-370-M225	370		145	7.1	4.1
-400-M225	400		175	8.3	4.2
<b>BT50-RSG16- 37-190-M 75</b>	190	75	115	6.8	0.2
-215-M100	215	100			0.3
<b>NEW</b> -240-M125	240	125		7.6	0.4
-265-M150	265	175			0.6
-290-M175	290	200		8.3	0.9
-315-M200	315	225			1.1
-340-M225	340	250		9.0	1.5
-365-M250	365	250			1.9
-390-M275	390	275		9.7	2.4
-415-M300	415	300			2.9

# RED SCREW arbor (RSG)

HSK-A



Dimensions for the screw-in end mill mounting.

■ Std. Access.

- Coolant duct (Fixed type) → P.64

■ Note

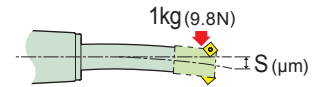
- Swing type coolant ducts are available upon request. For details, please contact us.

■ Caution

- Some of the screw-in end mills cannot be attached to the RED screw arbor. Please check your screw-in end mills for conformance to the dimensions, or please contact MST.
- Because cutting resistance is greater than the tool holder connection force associated with the machine spindle, please reduce the recommended cutting conditions by 50% for the RED screw arbors marked with ※. Otherwise, the tool holder shank may experience fretting corrosion or fall out of the machine spindle.

↓ S The rigidity value

A rigidity value represents the amount of deflection of the entire holder and tool when a bending load of 1 kgf (9.8 N) is applied to the tip of the tool. The smaller the numerical value is, the higher the rigidity and the more accurate the machining.







CODE	L	M	L <sub>1</sub>	Kg	S
<b>A63-RSG 8-105-M 25</b>	105	25	80	1.3	0.6
-135-M 25	135		110	1.4	0.7
-165-M 25	165		140	1.9	0.8
-130-M 50	130	50	80	1.3	1.5
-160-M 50	160		110	1.4	1.7
-190-M 50	190		140	1.9	
-155-M 75	155	75	80	1.4	3.1
-185-M 75	185		110	1.5	3.4
-215-M 75	215		140	2.0	
-170-M 90	170	90	80	1.4	4.4
-200-M 90	200		110	1.5	4.8
-230-M 90	230		140	2.0	4.9
-185-M105	185	105	80	1.5	6.2
-215-M105	215		110	1.6	6.6
-245-M105	245		140	2.1	6.7
<b>A63-RSG10-125-M 25</b>	125	25	100	1.6	0.4
-155-M 25	155		130	1.9	0.5
-185-M 25	185		160	2.3	0.6
-150-M 50	150	50	100	1.7	0.8
-180-M 50	180		130	2.0	1.0
-210-M 50	210		160	2.4	1.2
-175-M 75	175	75	100	1.8	1.6
-205-M 75	205		130	2.1	1.8
-235-M 75	235		160	2.5	2.0
-200-M100	200	100	100	1.8	2.7
-230-M100	230		130	2.1	2.9
-260-M100	260		160	2.5	3.2
-220-M120	220	120	100	1.9	4.0
-250-M120	250		130	2.2	4.2
-280-M120	280		160	2.6	4.5
-240-M140	240	140	100	2.0	5.6
-270-M140	270		130	2.3	5.9
-300-M140	300		160	2.7	6.2

CODE	L	M	L <sub>1</sub>	Kg	S
<b>A63 -RSG12-125-M 25</b>	125	25	100	1.9	0.3
-155-M 25	155		130	2.3	0.4
-185-M 25	185		160	2.7	0.5
-150-M 50	150	50	100	2.0	
-180-M 50	180		130	2.4	0.6
-210-M 50	210		160	2.8	0.8
-175-M 75	175	75	100	2.2	0.9
-205-M 75	205		130	2.6	1.0
-235-M 75	235		160	3.0	1.3
-200-M100	200	100	100	2.3	1.4
-230-M100	230		130	2.7	1.6
-260-M100	260		160	3.1	1.9
-225-M125	225	125	100	2.5	2.1
-255-M125	255		130	2.9	2.4
-285-M125	285		160	3.3	2.7
-250-M150	250	150	100	2.6	3.1
-280-M150	280		130	3.0	3.4
-310-M150	310		160	3.4	3.8
<b>A63 -RSG16-140-M 25</b>	140	25	115	2.6	0.2
-165-M 50	165	50		2.8	0.4
-190-M 75	190	75		3.0	0.6
-215-M100	215	100		3.2	0.9
-240-M125※	240	125		3.4	1.3
-265-M150※	265	150		3.7	1.9
-290-M175※	290	175		3.9	2.5
<b>A100-RSG 8-120-M 25</b>	120	25	95	2.6	0.6
-150-M 25	150		125	2.9	0.8
-180-M 25	180		155	3.4	
-145-M 50	145	50	95	2.6	1.5
-175-M 50	175		125	2.9	1.7
-205-M 50	205		155	3.4	
-170-M 75	170	75	95	2.7	3.1
-200-M 75	200		125	3.0	3.4

## Common dimensions

CODE	Cutter dia.	G	φD	H	H <sub>1</sub>	φC	φC <sub>1</sub>	φC <sub>2</sub>
RSG 8	16	M 8	8.5	18	6.5	15	30	32
RSG10	20	M10	10.5	22	6.5	19	36	38
RSG12	25	M12	12.5	22	6	24	43	45
RSG16	32/40	M16	17	25	6	29	52	54
RSG16-37	40	M16	17	25	6	37	71	73

CODE	L	M	L <sub>1</sub>	 Kg		CODE	L	M	L <sub>1</sub>	 Kg	
<b>A100-RSG 8-230-M 75</b>	230	75	155	3.5	3.4	<b>A100-RSG16-140-M 25</b>	140	25	115	4.0	0.2
-185-M 90	185	90	95	2.7	4.5	-170-M 25	170		145	4.5	
-215-M 90	215		125	3.0	4.9	-200-M 25	200		175	5.7	
-245-M 90	245		155	3.5	4.8	-165-M 50	165	50	115	4.2	0.3
-200-M105	200	105	95	2.8	6.3	-195-M 50	195		145	4.7	0.4
-230-M105	230		125	3.1	6.7	-225-M 50	225		175	5.9	
-260-M105	260		155	3.6	6.6	-190-M 75	190	75	115	4.5	0.5
<b>A100-RSG10-140-M 25</b>	140	25	115	3.1	0.4	-220-M 75	220		145	5.0	0.6
-170-M 25	170		145	3.5	0.5	-250-M 75	250		175	6.1	
-200-M 25	200		175	4.4		-215-M100	215	100	115	4.7	0.8
-165-M 50	165	50	115	3.2	0.8	-245-M100	245		145	5.2	0.9
-195-M 50	195		145	3.6	1.0	-275-M100	275		175	6.3	
-225-M 50	225		175	4.5		-240-M125	240	125	115	4.9	1.1
-190-M 75	190	75	115	3.3	1.6	-270-M125	270		145	5.4	1.3
-220-M 75	220		145	3.7	1.8	-300-M125	300		175	6.5	
-250-M 75	250		175	4.6		-265-M150	265	150	115	5.1	1.6
-215-M100	215	100	115	3.3	2.7	-295-M150	295		145	5.6	1.8
-245-M100	245		145	3.7	2.9	-325-M150	325		175	6.7	
-275-M100	275		175	4.6		-290-M175	290	175	115	5.3	2.2
-235-M120	235	120	115	3.4	4.0	-320-M175	320		145	5.8	2.4
-265-M120	265		145	3.8	4.2	-350-M175	350		175	7.0	2.5
-295-M120	295		175	4.7		-315-M200	315	200	115	5.5	3.0
-255-M140	255	140	115	3.5	5.6	-345-M200	345		145	6.0	3.2
-285-M140	285		145	3.9	5.8	-375-M200	375		175	7.2	3.3
-315-M140	315		175	4.8		-340-M225	340	225	115	5.7	3.9
<b>A100-RSG12-140-M 25</b>	140	25	115	3.4	0.3	-370-M225	370		145	6.3	4.2
-170-M 25	170		145	3.7	0.4	-400-M225	400		175	7.4	
-200-M 25	200		175	4.7		<b>A100-RSG16- 37-190-M 75</b>	190	75	115	6.3	0.2
-165-M 50	165	50	115	3.5	0.5	<b>NEW</b> -215-M100	215	100			0.3
-195-M 50	195		145	3.8	0.6	-240-M125	240	125		7.1	0.4
-225-M 50	225		175	4.8		-265-M150	265	150			0.6
-190-M 75	190	75	115	3.7	0.8	-290-M175	290	175		7.8	0.9
-220-M 75	220		145	4.0	1.0	-315-M200	315	200			1.1
-250-M 75	250		175	5.0		-340-M225	340	225		8.5	1.5
-215-M100	215	100	115	3.8	1.4	-365-M250	365	250			1.9
-245-M100	245		145	4.1	1.6	-390-M275	390	275		9.2	2.4
-275-M100	275		175	5.1		-415-M300	415	300			2.9
-240-M125	240	125	115	4.0	2.1						
-270-M125	270		145	4.3	2.4						
-300-M125	300		175	5.3							
-265-M150	265	150	115	4.1	3.0						
-295-M150	295		145	4.4	3.4						
-325-M150	325		175	5.4							
-290-M175	290	175	115	4.3	4.3						
-320-M175	320		145	4.6	4.6						
-350-M175	350		175	5.6							