

MHR230R

规格
Size $\phi 0.2 \times R0.05 \sim \phi 6 \times R1$

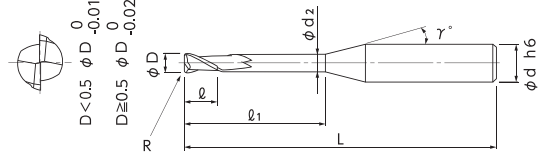
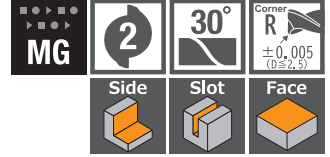


无限涂层 2刃长颈圆鼻铣刀

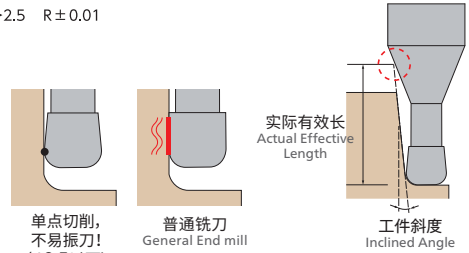
共有387种规格
Total 387 sizes

2刃长颈圆鼻铣刀。L/D最大20倍

2-flute long neck corner radius end mill. Maximum L/D=20



$D \leq 2.5$ $R \pm 0.005$
 $D > 2.5$ $R \pm 0.01$



单点切削，
不易振刀！
($\phi 2.5$ 以下)
Suppress chattering by
point milling (Dia.~2.5)

实际有效长
Actual Effective Length

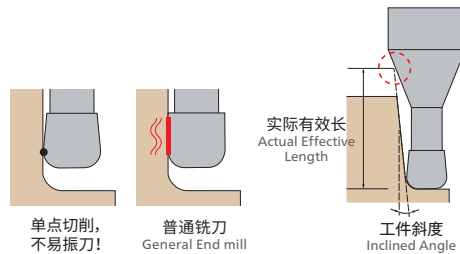
- 外周刃与工件的接触被降到了最低限度，可有效抑制振刀。
- 与球头铣刀相比，步距设定值可取较大值，实现高效加工。
- 角半径精度高达 $\pm 5\mu\text{m}$ (外径 $\phi 2.5$ 以下)。
- 升级版的无限涂层，可广泛应用于从高硬度钢、调质钢的直接切削到铜电极加工等各种不同的领域。
- Minimized chattering by peripheral cutting edge designed for minimal contact to work material.
- Realized high efficiency milling by obtaining larger radial depth of cutting comparing with Ball End Mill.
- Corner R accuracy: $\pm 5\mu\text{m}$ (Dia. ~2.5)
- Better performance in wide range of machining of direct carving on Hardened Steels, Prehardened Steels and Copper Electrode.

产品代码 Code No.	(D)外径 Dia.	(R)角半径 Corner Radius	(l ₁)颈长 Under Neck Length	(l)刃长 Length of Cut	(d ₂)颈径 Neck Dia.	(γ)颈角 Neck Taper Angle	(d)柄径 Shank Dia.	(L)全长 Overall Length	定价(日元) Retail Price	相对于工件斜度的有效长 Actual effective length depending on inclined angle of workpiece				
										30°	1°	1°30'	2°	3°
08-00221-02050	0.2	R0.05	0.5	0.15	0.18	12°	4	45	9,500	0.56	0.59	0.61	0.64	0.71
08-00220-02001			0.5				6	50	12,000	0.56	0.59	0.61	0.64	0.71
08-00221-02051			1				4	45	9,500	1.08	1.13	1.18	1.24	1.37
08-00220-02002			1				6	50	12,000	1.08	1.13	1.18	1.24	1.37
08-00221-02052			1.5				4	45	9,500	1.61	1.68	1.75	1.84	2.03
08-00221-02053			2				4	45	9,500	2.13	2.22	2.32	2.43	2.70
08-00221-03050	0.3	R0.05	1	0.25	0.28	12°	4	45	9,100	1.08	1.13	1.18	1.24	1.37
08-00220-03001			1				6	50	11,600	1.08	1.13	1.18	1.24	1.37
08-00221-03051			1.5				4	45	9,100	1.61	1.68	1.75	1.84	2.03
08-00221-03052			2				4	45	9,100	2.13	2.22	2.32	2.43	2.70
08-00220-03002			2				6	50	11,600	2.13	2.22	2.32	2.43	2.70
08-00221-03053			2.5				4	45	10,100	2.65	2.77	2.89	3.03	3.36
08-00221-03054	3	4	45	10,100	3.17	3.31	3.46	3.63	4.02					
08-00221-04050	0.4	R0.05	1	0.3	0.37	12°	4	45	6,100	1.11	1.16	1.21	1.27	1.40
08-00221-04051			1.5				4	45	6,100	1.63	1.70	1.78	1.86	2.06
08-00221-04052			2				4	45	6,100	2.15	2.25	2.35	2.46	2.73
08-00220-04005			2				6	50	7,700	2.15	2.25	2.35	2.46	2.73
08-00221-04053			3				4	45	6,100	3.19	3.34	3.49	3.66	4.05
08-00220-04006			3				6	50	7,700	3.19	3.34	3.49	3.66	4.05
08-00221-04054	4	4	45	6,100	4.24	4.43	4.63	4.86	5.38					
08-00220-04007	4	6	50	7,700	4.24	4.43	4.63	4.86	5.38					
08-00221-04100	R0.1	R0.1	1	0.3	0.37	12°	4	45	6,100	1.11	1.15	1.20	1.26	1.38
08-00221-04101			1.5				4	45	6,100	1.63	1.70	1.77	1.86	2.05
08-00221-04102			2				4	45	6,100	2.15	2.24	2.34	2.45	2.71
08-00220-04011			2				6	50	7,700	2.15	2.24	2.34	2.45	2.71
08-00221-04103			3				4	45	6,100	3.19	3.33	3.48	3.65	4.04
08-00220-04013			3				6	50	7,700	3.19	3.33	3.48	3.65	4.04
08-00221-04104	4	4	45	6,100	4.24	4.42	4.62	4.85	5.37					
08-00220-04012	4	6	50	7,700	4.24	4.42	4.62	4.85	5.37					

订购方法
How to Order

请指定MHR230R 外径(D)×角半径(R)×颈长(l₁)×柄径(d)。
When you order, indicate MHR230R (D)×(R)×(l₁)×(d).

※(γ)为参考值。
※(γ) is reference value.



抑制颤振
Suppress chattering by
point milling (Dia.~2.5)

单位 [规格: mm / 价格: 日元]
Unit [Size: mm / Retail Price: JPY]

产品代码 Code No.	(D)外径 Dia.	(R)角半径 Corner Radius	(ℓ1)颈长 Under Neck Length	(ℓ)刃长 Length of Cut	(d2)颈径 Neck Dia.	(γ)颈角 Neck Taper Angle	(d)柄径 Shank Dia.	(L)全长 Overall Length	定价(日元) Retail Price	相对于工件斜度的有效长 Actual effective length depending on inclined angle of workpiece									
										30°	1°	1°30'	2°	3°					
08-00221-05050	0.5	R0.05	1	0.4	0.46	12°	4	45	4,900	1.13	1.18	1.24	1.29	1.43					
08-00221-05051			2				4	45	4,900	2.18	2.27	2.38	2.49	2.76					
08-00220-05005			2				6	50	6,300	2.18	2.27	2.38	2.49	2.76					
08-00221-05052			3				4	45	4,900	3.22	3.36	3.52	3.69	4.09					
08-00220-05006			3				6	50	6,300	3.22	3.36	3.52	3.69	4.09					
08-00221-05053			4				4	45	4,900	4.26	4.45	4.66	4.88	5.41					
08-00220-05007			4				6	50	6,300	4.26	4.45	4.66	4.88	5.41					
08-00221-05054			5				4	45	4,900	5.31	5.54	5.80	6.08	6.74					
08-00220-05008			5				6	50	6,300	5.31	5.54	5.80	6.08	6.74					
08-00221-05055			6				4	45	4,900	6.35	6.63	6.94	7.28	8.07					
08-00221-05100			R0.1				1	4	45	4,900	1.13	1.18	1.23	1.28	1.42				
08-00221-05101							2	4	45	4,900	2.17	2.27	2.37	2.48	2.74				
08-00220-05011		2					6	50	6,300	2.17	2.27	2.37	2.48	2.74					
08-00221-05102		3					4	45	4,900	3.22	3.36	3.51	3.68	4.07					
08-00220-05013		3					6	50	6,300	3.22	3.36	3.51	3.68	4.07					
08-00221-05103		4					4	45	4,900	4.26	4.45	4.65	4.87	5.40					
08-00220-05012		4					6	50	6,300	4.26	4.45	4.65	4.87	5.40					
08-00221-05104		5					4	45	4,900	5.30	5.54	5.79	6.07	6.72					
08-00220-05014		5					6	50	6,300	5.30	5.54	5.79	6.07	6.72					
08-00221-05105		6					4	45	4,900	6.35	6.63	6.93	7.27	8.05					
08-00221-06050		0.6					R0.05	2	0.5	0.56	12°	4	45	4,900	2.18	2.27	2.38	2.49	2.76
08-00220-06005								2				6	50	6,300	2.18	2.27	2.38	2.49	2.76
08-00221-06051			3					4				45	4,900	3.22	3.36	3.52	3.69	4.09	
08-00221-06052			4					4				45	4,900	4.26	4.45	4.66	4.88	5.41	
08-00220-06007	4		6	50	6,300	4.26		4.45				4.66	4.88	5.41					
08-00221-06053	6		4	45	4,900	6.35		6.63				6.94	7.28	8.07					
08-00220-06009	6		6	50	6,300	6.35		6.63				6.94	7.28	8.07					
08-00221-06054	8		4	50	4,900	8.43		8.81				9.22	9.67	10.72					
08-00221-06100	R0.1		2	4	45	4,900		2.17				2.27	2.37	2.48	2.74				
08-00221-06101			3	4	45	4,900		3.22				3.36	3.51	3.68	4.07				
08-00221-06102			4	4	45	4,900		4.26				4.45	4.65	4.87	5.40				
08-00220-06011			4	6	50	6,300		4.26				4.45	4.65	4.87	5.40				
08-00221-06103			6	4	45	4,900	6.35	6.63				6.93	7.27	8.05					
08-00220-06012			6	6	50	6,300	6.35	6.63				6.93	7.27	8.05					
08-00221-06104			8	4	50	4,900	8.43	8.80				9.21	9.66	10.71					
08-00221-06200			R0.2	2	4	45	4,900	2.17				2.26	2.36	2.46	2.71				
08-00221-06201				3	4	45	4,900	3.21				3.35	3.50	3.66	4.04				

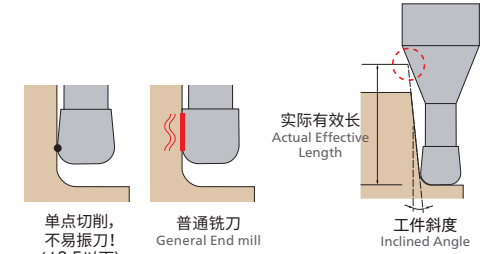


常规系列
无限涂层
长颈造型
Regular Line
MUGEN COATING
Long Neck Type

MHR230R

无限涂层 2刃长颈圆鼻铣刀

MUGEN COATING 2-Flute Long Neck Corner Radius End Mill



单点切削, 不易振刀! (φ2.5以下)
Suppress chattering by point milling (Dia.~2.5)

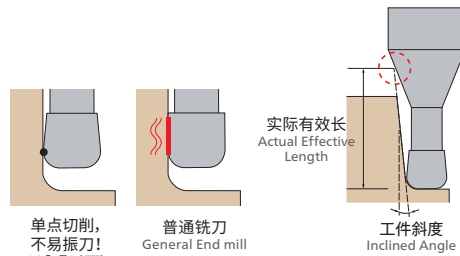
单位 [规格:mm/价格:日元]
Unit [Size:mm / Retail Price:JPY]

产品代码 Code No.	(D)外径 Dia.	(R)角半径 Corner Radius	(ℓ ₁)颈长 Under Neck Length	(ℓ)刃长 Length of Cut	(d ₂)颈径 Neck Dia.	(γ)颈角 Neck Taper Angle	(d)柄径 Shank Dia.	(L)全长 Overall Length	定价(日元) Retail Price	相对于工件斜度的有效长 Actual effective length depending on inclined angle of workpiece				
										30°	1°	1°30'	2°	3°
08-00221-06202	0.6	R0.2	4	0.5	0.56	12°	4	45	4,900	4.26	4.44	4.64	4.86	5.37
08-00221-06203			6				4	45	4,900	6.34	6.62	6.92	7.25	8.02
08-00221-06204			8				4	50	4,900	8.43	8.80	9.20	9.64	10.67
08-00221-07050	0.7	R0.05	4	0.55	0.66	12°	4	45	5,300	4.26	4.45	4.66	4.88	5.41
08-00220-07005			4				6	50	6,600	4.26	4.45	4.66	4.88	5.41
08-00221-07051			6				4	45	5,300	6.35	6.63	6.94	7.28	8.07
08-00220-07006		6	6	50	6,600	6.35	6.63	6.94	7.28	8.07				
08-00221-07100		4	4	45	5,300	4.26	4.45	4.65	4.87	5.40				
08-00220-07011		6	50	6,600	4.26	4.45	4.65	4.87	5.40					
08-00221-07101		6	4	45	5,300	6.35	6.63	6.93	7.27	8.05				
08-00220-07012	6	6	50	6,600	6.35	6.63	6.93	7.27	8.05					
08-00221-08050	0.8	R0.05	4	0.65	0.76	12°	4	45	5,700	4.26	4.45	4.66	4.88	5.41
08-00220-08005			4				6	50	7,200	4.26	4.45	4.66	4.88	5.41
08-00221-08051			6				4	45	5,700	6.35	6.63	6.94	7.28	8.07
08-00220-08006		6	6	50	7,200	6.35	6.63	6.94	7.28	8.07				
08-00221-08052		8	4	50	5,700	8.43	8.81	9.22	9.67	10.72				
08-00220-08007		8	6	50	7,200	8.43	8.81	9.22	9.67	10.72				
08-00221-08100		4	4	45	5,700	4.26	4.45	4.65	4.87	5.40				
08-00220-08011		4	6	50	7,200	4.26	4.45	4.65	4.87	5.40				
08-00221-08101		6	4	45	5,700	6.35	6.63	6.93	7.27	8.05				
08-00220-08012		6	6	50	7,200	6.35	6.63	6.93	7.27	8.05				
08-00221-08102		8	4	50	5,700	8.43	8.80	9.21	9.66	10.71				
08-00220-08013		8	6	50	7,200	8.43	8.80	9.21	9.66	10.71				
08-00221-08200	4	4	45	5,700	4.26	4.44	4.64	4.86	5.37					
08-00220-08021	4	6	50	7,200	4.26	4.44	4.64	4.86	5.37					
08-00221-08201	6	4	45	5,700	6.34	6.62	6.92	7.25	8.02					
08-00220-08022	6	6	50	7,200	6.34	6.62	6.92	7.25	8.02					
08-00221-08202	8	4	50	5,700	8.43	8.80	9.20	9.64	10.67					
08-00220-08023	8	6	50	7,200	8.43	8.80	9.20	9.64	10.67					
08-00221-09100	0.9	R0.1	4	0.7	0.85	12°	4	45	6,300	4.28	4.47	4.68	4.90	5.43
08-00220-09011			4				6	50	7,500	4.28	4.47	4.68	4.90	5.43
08-00221-09101			8				4	50	6,300	8.46	8.83	9.24	9.69	10.74
08-00220-09012			8				6	50	7,500	8.46	8.83	9.24	9.69	10.74
08-00221-10050	1	R0.05	2	0.8	0.95	12°	4	50	4,800	2.20	2.30	2.40	2.52	2.79
08-00221-10051			3				4	50	4,800	3.24	3.39	3.54	3.72	4.12
08-00220-10001			3				6	50	6,600	3.24	3.39	3.54	3.72	4.12
08-00221-10052			4				4	50	4,800	4.29	4.48	4.68	4.91	5.44

订购方法
How to Order

请指定MHR230R 外径(D)×角半径(R)×颈长(ℓ₁)×柄径(d)。
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※(γ)为参考值。
※(γ) is reference value.



Suppress chattering by point milling (Dia.~2.5)

单位 [规格: mm / 价格: 日元]
Unit [Size: mm / Retail Price: JPY]

产品代码 Code No.	(D)外径 Dia.	(R)角半径 Corner Radius	(ℓ ₁)颈长 Under Neck Length	(ℓ)刃长 Length of Cut	(d ₂)颈径 Neck Dia.	(γ)颈角 Neck Taper Angle	(d)柄径 Shank Dia.	(L)全长 Overall Length	定价(日元) Retail Price	相对于工件斜度的有效长 Actual effective length depending on inclined angle of workpiece				
										30°	1°	1°30'	2°	3°
08-00220-10002	1	R0.05	4	0.8	0.95	12°	6	50	6,600	4.29	4.48	4.68	4.91	5.44
08-00221-10053			5				4	50	4,800	5.33	5.57	5.82	6.11	6.77
08-00220-10003			5				6	50	6,600	5.33	5.57	5.82	6.11	6.77
08-00221-10054			6				4	50	5,300	6.37	6.66	6.97	7.31	8.10
08-00220-10004			6				6	50	6,600	6.37	6.66	6.97	7.31	8.10
08-00221-10055			8				4	50	5,300	8.46	8.83	9.25	9.70	10.75
08-00220-10006			8				6	50	6,600	8.46	8.83	9.25	9.70	10.75
08-00221-10056			10				4	50	5,300	10.54	11.01	11.53	12.09	13.41
08-00220-10008			10				6	50	6,600	10.54	11.01	11.53	12.09	13.41
08-00221-10057			12				4	50	5,300	12.63	13.19	13.81	14.49	16.06
08-00220-10009			12				6	50	6,600	12.63	13.19	13.81	14.49	16.06
08-00221-10058			16				4	60	6,900	16.80	17.55	18.37	19.27	21.37
08-00220-10009		16	6				60	7,700	20.97	21.91	22.93	24.06	26.68	
08-00221-10100		20	4				50	4,800	2.20	2.29	2.40	2.51	2.77	
08-00221-10101		3	4				50	4,800	3.24	3.38	3.54	3.71	4.10	
08-00220-10010		3	6				50	6,600	3.24	3.38	3.54	3.71	4.10	
08-00221-10102		4	4				50	4,800	4.28	4.47	4.68	4.90	5.43	
08-00220-10011		4	6				50	6,600	4.28	4.47	4.68	4.90	5.43	
08-00221-10103		5	4				50	4,800	5.33	5.56	5.82	6.10	6.76	
08-00220-10014		5	6				50	6,600	5.33	5.56	5.82	6.10	6.76	
08-00221-10104		6	4				50	5,300	6.37	6.65	6.96	7.30	8.08	
08-00220-10015		6	6				50	6,600	6.37	6.65	6.96	7.30	8.08	
08-00221-10105		8	4				50	5,300	8.46	8.83	9.24	9.69	10.74	
08-00220-10012		8	6				50	6,600	8.46	8.83	9.24	9.69	10.74	
08-00221-10106		10	4				50	5,300	10.54	11.01	11.52	12.08	13.39	
08-00220-10016		10	6				50	6,600	10.54	11.01	11.52	12.08	13.39	
08-00221-10107		12	4				50	5,300	12.63	13.19	13.80	14.48	16.05	
08-00220-10013		12	6				50	6,600	12.63	13.19	13.80	14.48	16.05	
08-00221-10108		16	4				60	6,900	16.80	17.55	18.36	19.26	21.36	
08-00220-10108		16	6				60	7,700	20.97	21.90	22.93	24.05	26.66	
08-00221-10109		20	4				50	4,800	2.19	2.28	2.38	2.49	2.74	
08-00221-10200		2	4				50	4,800	3.24	3.37	3.52	3.69	4.07	
08-00221-10201	3	6	50	6,600	3.24	3.37	3.52	3.69	4.07					
08-00220-10024	3	4	50	4,800	4.28	4.46	4.66	4.88	5.40					
08-00221-10202	4	4	50	4,800	4.28	4.46	4.66	4.88	5.40					
08-00220-10021	4	6	50	6,600	4.28	4.46	4.66	4.88	5.40					
08-00221-10203	5	4	50	4,800	5.32	5.55	5.80	6.08	6.72					
08-00220-10025	5	6	50	6,600	5.32	5.55	5.80	6.08	6.72					

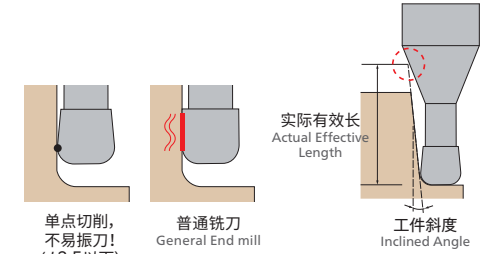


常规系列
无限涂层
长颈造型
Regular Line
MUGEN COATING
Long Neck Type

MHR230R

无限涂层 2刃长颈圆鼻铣刀

MUGEN COATING 2-Flute Long Neck Corner Radius End Mill



单点切削, 不易振刀! (φ2.5以下)
Suppress chattering by point milling (Dia.~2.5)

实际有效长 Actual Effective Length
工件斜度 Inclined Angle

单位 [规格:mm / 价格:日元]
Unit [Size : mm / Retail Price : JPY]

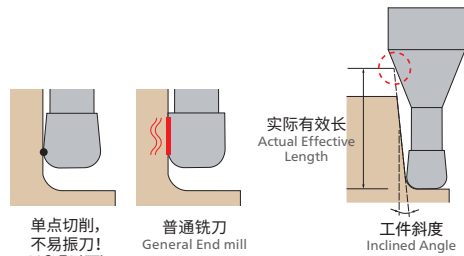
产品代码 Code No.	(D)外径 Dia.	(R)角半径 Corner Radius	(ℓ1)颈长 Under Neck Length	(ℓ)刃长 Length of Cut	(d2)颈径 Neck Dia.	(γ)颈角 Neck Taper Angle	(d)柄径 Shank Dia.	(L)全长 Overall Length	定价(日元) Retail Price	相对于工件斜度的有效长 Actual effective length depending on inclined angle of workpiece				
										30°	1°	1°30'	2°	3°
08-00221-10204	1	R0.2	6	0.8	0.95	12°	4	50	5,300	6.37	6.64	6.94	7.28	8.05
08-00220-10026			6				50	6,600	6.37	6.64	6.94	7.28	8.05	
08-00221-10205			8				4	50	5,300	8.45	8.82	9.23	9.67	10.71
08-00220-10022			8				6	50	6,600	8.45	8.82	9.23	9.67	10.71
08-00221-10206			10				4	50	5,300	10.54	11.00	11.51	12.06	13.36
08-00220-10027			10				6	50	6,600	10.54	11.00	11.51	12.06	13.36
08-00221-10207			12				4	50	5,300	12.62	13.18	13.79	14.46	16.01
08-00220-10023			12				6	50	6,600	12.62	13.18	13.79	14.46	16.01
08-00221-10208			16				4	60	6,900	16.79	17.54	18.35	19.24	21.32
08-00221-10209			20				4	60	7,700	20.97	21.89	22.91	24.03	26.63
08-00221-10300		R0.3	2				4	50	4,800	2.19	2.28	2.37	2.47	2.71
08-00221-10301			3				4	50	4,800	3.23	3.36	3.51	3.67	4.04
08-00220-10034			3				6	50	6,600	3.23	3.36	3.51	3.67	4.04
08-00221-10302			4				4	50	4,800	4.28	4.45	4.65	4.86	5.36
08-00220-10031			4				6	50	6,600	4.28	4.45	4.65	4.86	5.36
08-00221-10303			5				4	50	4,800	5.32	5.54	5.79	6.06	6.69
08-00220-10035			5				6	50	6,600	5.32	5.54	5.79	6.06	6.69
08-00221-10304			6				4	50	5,300	6.36	6.63	6.93	7.26	8.02
08-00220-10036			6				6	50	6,600	6.36	6.63	6.93	7.26	8.02
08-00221-10305			8				4	50	5,300	8.45	8.81	9.21	9.65	10.67
08-00220-10032	8	6	50	6,600	8.45	8.81	9.21	9.65	10.67					
08-00221-10306	10	4	50	5,300	10.53	10.99	11.49	12.04	13.33					
08-00220-10037	10	6	50	6,600	10.53	10.99	11.49	12.04	13.33					
08-00221-10307	12	4	50	5,300	12.62	13.17	13.77	14.44	15.98					
08-00220-10033	12	6	50	6,600	12.62	13.17	13.77	14.44	15.98					
08-00221-10308	16	4	60	6,900	16.79	17.53	18.34	19.22	21.29					
08-00221-10309	20	4	60	7,700	20.96	21.89	22.90	24.01	26.60					
08-00220-12011	1.2	R0.1	5	1	1.14	12°	6	50	6,800	5.35	5.59	5.84	6.13	6.79
08-00221-12100			6				4	50	5,400	6.39	6.68	6.99	7.32	8.11
08-00221-12101			8				4	50	5,400	8.48	8.86	9.27	9.72	10.77
08-00221-12102			10				4	50	5,400	10.57	11.03	11.55	12.11	13.42
08-00220-12013			10				6	50	6,800	10.57	11.03	11.55	12.11	13.42
08-00221-12103		12	4				50	5,400	12.65	13.21	13.83	14.50	16.08	
08-00220-12015		15	6				60	10,000	15.78	16.48	17.25	18.09	20.06	
08-00221-12104		16	4				60	5,400	16.82	17.57	18.39	19.29	21.39	
08-00221-12105		20	4				60	8,200	20.99	21.93	22.95	24.08	26.70	
08-00220-12021		R0.2	5				6	50	6,800	5.35	5.58	5.83	6.11	6.75

订购方法
How to Order

请指定MHR230R 外径(D)×角半径(R)×颈长(ℓ1)×柄径(d)。
When you order, indicate MHR230R (D)×(R)×(ℓ1)×(d).

※(γ)为参考值。
※(γ) is reference value.

常规系列
无限涂层
长颈造型
Regular Line
MUGEN COATING
Long Neck Type



单点切削, 不易振刀! (φ2.5以下)
Suppress chattering by point milling (Dia.~2.5)

单位 [规格: mm / 价格: 日元]
Unit [Size: mm / Retail Price: JPY]

产品代码 Code No.	(D)外径 Dia.	(R)角半径 Corner Radius	(ℓ1)颈长 Under Neck Length	(ℓ)刃长 Length of Cut	(d2)颈径 Neck Dia.	(γ)颈角 Neck Taper Angle	(d)柄径 Shank Dia.	(L)全长 Overall Length	定价(日元) Retail Price	相对于工件斜度的有效长 Actual effective length depending on inclined angle of workpiece				
										30°	1°	1°30'	2°	3°
08-00221-12200	1.2	R0.2	6	1	1.14	12°	4	50	5,400	6.39	6.67	6.97	7.30	8.08
08-00221-12201			8				4	50	5,400	8.48	8.85	9.25	9.70	10.74
08-00221-12202			10				4	50	5,400	10.56	11.03	11.53	12.09	13.39
08-00220-12022			10				6	50	6,800	10.56	11.03	11.53	12.09	13.39
08-00221-12203			12				4	50	5,400	12.65	13.20	13.81	14.48	16.05
08-00220-12023			15				6	60	10,300	15.78	16.47	17.24	18.07	20.03
08-00221-12204			16				4	60	5,400	16.82	17.56	18.38	19.27	21.35
08-00221-12205			20				4	60	8,200	20.99	21.92	22.94	24.06	26.66
08-00220-12031		R0.3	5				6	50	6,800	5.34	5.57	5.82	6.09	6.72
08-00221-12300			6				4	50	5,400	6.39	6.66	6.96	7.29	8.05
08-00221-12301			8				4	50	5,400	8.47	8.84	9.24	9.68	10.70
08-00221-12302			10				4	50	5,400	10.56	11.02	11.52	12.07	13.36
08-00220-12032			10				6	50	6,800	10.56	11.02	11.52	12.07	13.36
08-00221-12303			12				4	50	5,400	12.64	13.20	13.80	14.46	16.01
08-00220-12033			15				6	60	10,000	15.77	16.46	17.22	18.05	20.00
08-00221-12304	16		4	60	5,400	16.81	17.55	18.36	19.25	21.32				
08-00221-12305	20	4	60	8,200	20.99	21.91	22.92	24.04	26.63					
08-00221-15100	1.5	R0.1	4	1.2	1.45	12°	4	50	5,100	4.28	4.47	4.68	4.90	5.43
08-00221-15101			6				4	50	5,100	6.37	6.65	6.96	7.30	8.08
08-00220-15011			6				6	50	6,800	6.37	6.65	6.96	7.30	8.08
08-00221-15102			8				4	50	5,400	8.46	8.83	9.24	9.69	10.74
08-00221-15103			10				4	50	5,400	10.54	11.01	11.52	12.08	13.39
08-00221-15104			12				4	50	5,400	12.63	13.19	13.80	14.48	16.05
08-00220-15013			12				6	50	6,800	12.63	13.19	13.80	14.48	16.05
08-00221-15105			16				4	60	5,400	16.80	17.55	18.36	19.26	21.36
08-00221-15106			18				4	60	5,400	18.88	19.72	20.64	21.65	Free
08-00220-15015			18				6	60	6,800	18.88	19.72	20.64	21.65	24.01
08-00221-15107		20	4				60	5,400	20.97	21.90	22.93	24.05	Free	
08-00221-15200		R0.2	4				4	50	5,100	4.28	4.46	4.66	4.88	5.40
08-00221-15201			6				4	50	5,100	6.37	6.64	6.94	7.28	8.05
08-00220-15021			6				6	50	6,800	6.37	6.64	6.94	7.28	8.05
08-00221-15202			8				4	50	5,400	8.45	8.82	9.23	9.67	10.71
08-00221-15203	10		4	50	5,400	10.54	11.00	11.51	12.06	13.36				
08-00221-15204	12		4	50	5,400	12.62	13.18	13.79	14.46	16.01				
08-00220-15023	12	6	50	6,800	12.62	13.18	13.79	14.46	16.01					
08-00221-15205	16	4	60	5,400	16.79	17.54	18.35	19.24	21.32					
08-00221-15206	18	4	60	5,400	18.88	19.72	20.63	21.64	23.98					



- P** 碳素钢 Carbon Steel
- P** 合金钢 Alloy Steel
- P** 调质钢 Prehardened Steel
- H** ~52高硬度钢 HRC Hardened Steel

- M** 不锈钢 Stainless Steel

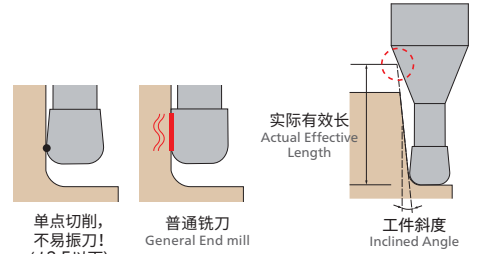
- N** 铝合金 Aluminium Alloy
- N** 铜合金 Copper
- O** 树脂 Resin

常规系列
无限涂层
长颈造型
Regular Line
MUGEN COATING
Long Neck Type

MHR230R

无限涂层 2刃长颈圆鼻铣刀

MUGEN COATING 2-Flute Long Neck Corner Radius End Mill



Suppress chattering by point milling (Dia.~2.5)

单位 [规格:mm / 价格:日元]
Unit [Size : mm / Retail Price : JPY]

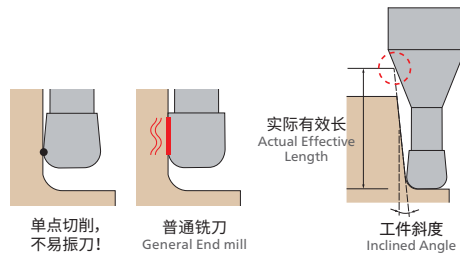
产品代码 Code No.	(D)外径 Dia.	(R)角半径 Corner Radius	(ℓ1)颈长 Under Neck Length	(ℓ)刃长 Length of Cut	(d2)颈径 Neck Dia.	(γ)颈角 Neck Taper Angle	(d)柄径 Shank Dia.	(L)全长 Overall Length	定价(日元) Retail Price	相对于工件斜度的有效长 Actual effective length depending on inclined angle of workpiece				
										30°	1°	1°30'	2°	3°
08-00220-15025	1.5	R0.2	18	1.2	1.45	12°	6	60	6,800	18.88	19.72	20.63	21.64	23.98
08-00221-15207			4				60	5,400	20.97	21.89	22.91	24.03	Free	
08-00221-15300		R0.3	4				4	50	5,100	4.28	4.45	4.65	4.86	5.36
08-00221-15301			6				4	50	5,100	6.36	6.63	6.93	7.26	8.02
08-00220-15031			6				6	50	6,800	6.36	6.63	6.93	7.26	8.02
08-00221-15302			8				4	50	5,400	8.45	8.81	9.21	9.65	10.67
08-00221-15303			10				4	50	5,400	10.53	10.99	11.49	12.04	13.33
08-00221-15304			12				4	50	5,400	12.62	13.17	13.77	14.44	15.98
08-00220-15032			12				6	50	6,800	12.62	13.17	13.77	14.44	15.98
08-00221-15305			16				4	60	5,400	16.79	17.53	18.34	19.22	21.29
08-00221-15306			18				4	60	5,400	18.88	19.71	20.62	21.62	23.95
08-00220-15033			18				6	60	6,800	18.88	19.71	20.62	21.62	23.95
08-00221-15307		20	4				60	5,400	20.96	21.89	22.90	24.01	Free	
08-00221-15500		R0.5	4				4	50	5,100	4.27	4.44	4.62	4.83	5.30
08-00221-15501			6				4	50	5,100	6.35	6.62	6.90	7.22	7.96
08-00220-15051			6				6	50	6,800	6.35	6.62	6.90	7.22	7.96
08-00221-15502			8				4	50	5,400	8.44	8.79	9.18	9.61	10.61
08-00221-15503			10				4	50	5,400	10.52	10.97	11.46	12.01	13.26
08-00221-15504			12				4	50	5,400	12.61	13.15	13.75	14.40	15.92
08-00220-15052			12				6	50	6,800	12.61	13.15	13.75	14.40	15.92
08-00221-15505	16		4	60	5,400	16.78	17.51	18.31	19.18	21.23				
08-00221-15506	18		4	60	5,400	18.87	19.69	20.59	21.58	23.88				
08-00220-15053	18		6	60	6,800	18.87	19.69	20.59	21.58	23.88				
08-00221-15507	20	4	60	5,400	20.95	21.87	22.87	23.97	Free					
08-00221-20100	2	R0.1	4	1.6	1.91	12°	4	50	5,100	4.38	4.57	4.78	5.02	5.55
08-00221-20101			6				4	50	5,100	6.47	6.75	7.07	7.41	8.21
08-00221-20102			8				4	50	5,400	8.55	8.93	9.35	9.80	10.86
08-00220-20011			8				6	50	6,900	8.55	8.93	9.35	9.80	10.86
08-00221-20103			10				4	50	5,400	10.64	11.11	11.63	12.19	13.52
08-00221-20104			12				4	50	5,400	12.73	13.29	13.91	14.59	16.17
08-00220-20014			12				6	50	6,900	12.73	13.29	13.91	14.59	16.17
08-00221-20105			16				4	60	5,400	16.90	17.65	18.47	19.37	Free
08-00220-20012			16				6	60	6,900	16.90	17.65	18.47	19.37	21.48
08-00221-20106			20				4	60	5,400	21.07	22.01	23.03	24.16	Free
08-00220-20015			20				6	60	6,900	21.07	22.01	23.03	24.16	26.79
08-00221-20107			24				4	70	5,400	25.24	26.36	27.59	Free	Free
08-00220-20013	24	6	70	6,900	25.24	26.36	27.59	28.95	32.10					

订购方法
How to Order

请指定MHR230R 外径(D)×角半径(R)×颈长(ℓ1)×柄径(d)。
When you order, indicate MHR230R (D)×(R)×(ℓ1)×(d).

※(γ)为参考值。
※(γ) is reference value.

常规系列
无限涂层
长颈造型
Regular Line
MUGEN COATING
Long Neck Type



Suppress chattering by point milling (Dia.~2.5)

单位 [规格: mm / 价格: 日元]
Unit [Size: mm / Retail Price: JPY]

产品代码 Code No.	(D)外径 Dia.	(R)角半径 Corner Radius	(ℓ1)颈长 Under Neck Length	(ℓ)刃长 Length of Cut	(d2)颈径 Neck Dia.	(γ)颈角 Neck Taper Angle	(d)柄径 Shank Dia.	(L)全长 Overall Length	定价(日元) Retail Price	相对于工件斜度的有效长 Actual effective length depending on inclined angle of workpiece					
										30°	1°	1°30'	2°	3°	
08-00221-20108	2	R0.1	26	1.6	1.91	12°	4	70	5,400	27.32	28.54	29.88	Free	Free	
08-00221-20109			30				4	70	5,400	31.50	32.90	34.44	Free	Free	
08-00221-20200			R0.2				4	4	50	5,100	4.38	4.57	4.77	5.00	5.52
08-00221-20201		6					4	50	5,100	6.46	6.74	7.05	7.39	8.18	
08-00221-20202		8					4	50	5,400	8.55	8.92	9.33	9.78	10.83	
08-00220-20021		8					6	50	6,900	8.55	8.92	9.33	9.78	10.83	
08-00221-20203		10					4	50	5,400	10.64	11.10	11.61	12.18	13.48	
08-00221-20204		12					4	50	5,400	12.72	13.28	13.89	14.57	16.14	
08-00220-20023		12					6	50	6,900	12.72	13.28	13.89	14.57	16.14	
08-00221-20205		16					4	60	5,400	16.89	17.64	18.46	19.36	Free	
08-00220-20025		16					6	60	6,900	16.89	17.64	18.46	19.36	21.45	
08-00221-20206		20					4	60	5,400	21.06	22.00	23.02	24.14	Free	
08-00220-20027		20					6	60	6,900	21.06	22.00	23.02	24.14	26.76	
08-00221-20207		24					4	70	5,400	25.23	26.36	27.58	Free	Free	
08-00220-20029		24					6	70	6,900	25.23	26.36	27.58	28.93	32.07	
08-00221-20208		26					4	70	5,400	27.32	28.53	29.86	Free	Free	
08-00221-20209		30					4	70	5,400	31.49	32.89	34.42	Free	Free	
08-00221-20300		R0.3					4	4	50	5,100	4.37	4.56	4.76	4.98	5.49
08-00221-20301							6	4	50	5,100	6.46	6.74	7.04	7.37	8.14
08-00221-20302							8	4	50	5,400	8.55	8.91	9.32	9.76	10.80
08-00220-20031							8	6	50	6,900	8.55	8.91	9.32	9.76	10.80
08-00221-20303							10	4	50	5,400	10.63	11.09	11.60	12.16	13.45
08-00221-20304							12	4	50	5,400	12.72	13.27	13.88	14.55	16.11
08-00220-20034							12	6	50	6,900	12.72	13.27	13.88	14.55	16.11
08-00221-20305							16	4	60	5,400	16.89	17.63	18.44	19.34	Free
08-00220-20032							16	6	60	6,900	16.89	17.63	18.44	19.34	21.42
08-00221-20306			20				4	60	5,400	21.06	21.99	23.00	24.12	Free	
08-00220-20035			20				6	60	6,900	21.06	21.99	23.00	24.12	26.73	
08-00221-20307			24				4	70	5,400	25.23	26.35	27.57	28.91	Free	
08-00220-20033		24	6				70	6,900	25.23	26.35	27.57	28.91	32.03		
08-00221-20308		26	4				70	5,400	27.32	28.53	29.85	Free	Free		
08-00221-20309		30	4				70	5,400	31.49	32.88	34.41	Free	Free		
08-00221-20500		R0.5	4				4	50	5,100	4.37	4.54	4.73	4.94	5.43	
08-00221-20501			6				4	50	5,100	6.45	6.72	7.01	7.33	8.08	
08-00221-20502			8				4	50	5,400	8.54	8.90	9.29	9.72	10.73	
08-00220-20051			8				6	50	6,900	8.54	8.90	9.29	9.72	10.73	
08-00221-20503	10		4	50	5,400	10.62	11.08	11.57	12.12	13.39					

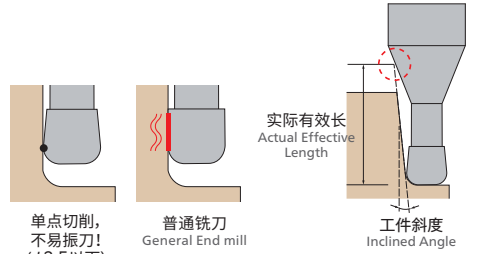


常规系列
无限涂层
长颈造型
Regular Line
MUGEN COATING
Long Neck Type

MHR230R

无限涂层 2刃长颈圆鼻铣刀

MUGEN COATING 2-Flute Long Neck Corner Radius End Mill



单点切削, 不易振刀! (φ2.5以下)
Suppress chattering by point milling (Dia.~2.5)

单位 [规格:mm / 价格:日元]
Unit [Size : mm / Retail Price : JPY]

产品代码 Code No.	(D)外径 Dia.	(R)角半径 Corner Radius	(ℓ1)颈长 Under Neck Length	(ℓ)刃长 Length of Cut	(d2)颈径 Neck Dia.	(γ)颈角 Neck Taper Angle	(d)柄径 Shank Dia.	(L)全长 Overall Length	定价(日元) Retail Price	相对于工件斜度的有效长 Actual effective length depending on inclined angle of workpiece					
										30°	1°	1°30'	2°	3°	
08-00221-20504	2	R0.5	12	1.6	1.91	12°	4	50	5,400	12.71	13.25	13.85	14.51	16.04	
08-00220-20054			12				6	50	6,900	12.71	13.25	13.85	14.51	16.04	
08-00221-20505			16				4	60	5,400	16.88	17.61	18.42	19.30	Free	
08-00220-20052			16				6	60	6,900	16.88	17.61	18.42	19.30	21.35	
08-00221-20506			20				4	60	5,400	21.05	21.97	22.98	24.08	Free	
08-00220-20055			20				6	60	6,900	21.05	21.97	22.98	24.08	26.66	
08-00221-20507			24				4	70	5,400	25.22	26.33	27.54	28.87	Free	
08-00220-20053			24				6	70	6,900	25.22	26.33	27.54	28.87	31.97	
08-00221-20508			26				4	70	5,400	27.31	28.51	29.82	Free	Free	
08-00221-20509			30				4	70	5,400	31.48	32.87	34.38	Free	Free	
08-00221-25100	2.5	R0.1	10	2	2.39	12°	4	50	5,700	10.69	11.16	11.68	12.25	13.58	
08-00220-25011			10				6	50	7,200	10.69	11.16	11.68	12.25	13.58	
08-00221-25101			20				4	60	5,800	21.12	22.06	23.09	Free	Free	
08-00220-25013			20				6	60	7,400	21.12	22.06	23.09	24.22	26.85	
08-00221-25102			30				4	70	6,000	31.55	32.95	Free	Free	Free	
08-00220-25015			30				6	70	7,700	31.55	32.95	34.49	36.18	Free	
08-00221-25200			R0.2				10	4	50	5,700	10.68	11.15	11.67	12.23	13.55
08-00220-25021							10	6	50	7,200	10.68	11.15	11.67	12.23	13.55
08-00221-25201							20	4	60	5,800	21.11	22.05	23.07	Free	Free
08-00220-25023							20	6	60	7,400	21.11	22.05	23.07	24.20	26.82
08-00221-25202		30					4	70	6,000	31.54	32.94	Free	Free	Free	
08-00220-25025		30					6	70	7,700	31.54	32.94	34.48	36.16	Free	
08-00221-25300		R0.3					10	4	50	5,700	10.68	11.14	11.65	12.21	13.52
08-00220-25031							10	6	50	7,200	10.68	11.14	11.65	12.21	13.52
08-00221-25301							20	4	60	5,800	21.11	22.04	23.06	Free	Free
08-00220-25032							20	6	60	7,400	21.11	22.04	23.06	24.18	26.79
08-00221-25302			30				4	70	6,000	31.54	32.93	Free	Free	Free	
08-00220-25033			30				6	70	7,600	31.54	32.93	34.46	36.14	Free	
08-00221-25500			R0.5				10	4	50	5,700	10.67	11.13	11.63	12.17	13.45
08-00220-25051							10	6	50	7,200	10.67	11.13	11.63	12.17	13.45
08-00221-25501	20			4	60	5,800	21.10	22.02	23.03	Free	Free				
08-00220-25052	20			6	60	7,400	21.10	22.02	23.03	24.14	26.72				
08-00221-25502	30	4		70	6,000	31.53	32.92	Free	Free	Free					
08-00220-25053	30	6		70	7,600	31.53	32.92	34.44	36.11	Free					

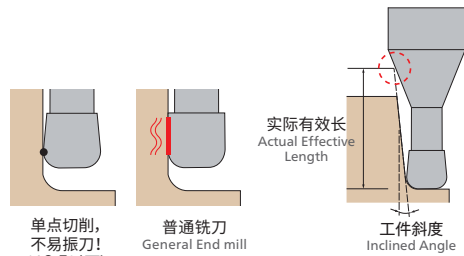
订购方法
How to Order

请指定MHR230R 外径(D)×角半径(R)×颈长(ℓ1)×柄径(d)。
When you order, indicate MHR230R (D)×(R)×(ℓ1)×(d).

※(γ)为参考值。

※(γ) is reference value.

常规系列
无限涂层
长颈造型
Regular Line
MUGEN COATING
Long Neck Type



Suppress chattering by point milling (Dia.~2.5)

单位 [规格: mm / 价格: 日元]
Unit [Size: mm / Retail Price: JPY]

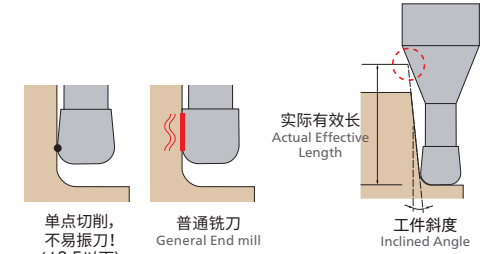
产品代码 Code No.	(D)外径 Dia.	(R)角半径 Corner Radius	(ℓ1)颈长 Under Neck Length	(ℓ)刃长 Length of Cut	(d2)颈径 Neck Dia.	(γ)颈角 Neck Taper Angle	(d)柄径 Shank Dia.	(L)全长 Overall Length	定价(日元) Retail Price	相对于工件斜度的有效长 Actual effective length depending on inclined angle of workpiece						
										30°	1°	1°30'	2°	3°		
08-00220-30011	3	R0.1	12	4.5	2.85	12°	6	50	9,500	12.87	13.44	14.07	14.76	16.36		
08-00220-30013			18				6	60	9,700	19.13	19.98	20.91	21.94	24.32		
08-00220-30015			24				6	70	10,000	25.39	26.52	27.76	29.12	Free		
08-00220-30017			30				6	70	10,500	31.64	33.05	34.60	36.30	Free		
08-00220-30019			36				6	80	10,500	37.90	39.59	41.44	Free	Free		
08-00220-30021			12				R0.2	18	6	50	9,500	12.87	13.44	14.06	14.74	16.33
08-00220-30023		18	6					60	9,700	19.13	19.97	20.90	21.92	24.29		
08-00220-30025		24	6					70	10,000	25.38	26.51	27.74	29.10	Free		
08-00220-30027		30	6					70	10,500	31.64	33.05	34.58	36.28	Free		
08-00220-30029		36	6					80	10,500	37.90	39.58	41.43	Free	Free		
08-00220-30031		12	R0.3					18	6	50	9,500	12.86	13.43	14.04	14.72	16.29
08-00220-30034		18					6	60	9,700	19.12	19.96	20.88	21.90	24.26		
08-00220-30032		24					6	70	10,000	25.38	26.50	27.73	29.08	Free		
08-00220-30035		30					6	70	10,500	31.63	33.04	34.57	36.26	Free		
08-00220-30033		36					6	80	10,500	37.89	39.57	41.41	Free	Free		
08-00220-30051		12					R0.5	18	6	50	9,500	12.86	13.41	14.01	14.68	16.23
08-00220-30054		18	6					60	9,700	19.11	19.95	20.86	21.86	24.19		
08-00220-30052		24	6					70	10,000	25.37	26.48	27.70	29.04	Free		
08-00220-30055		30	6					70	10,500	31.63	33.02	34.54	36.22	Free		
08-00220-30053		36	6					80	10,500	37.88	39.56	41.39	43.40	Free		
08-00220-30101		12	R1					18	6	50	9,500	12.83	13.36	13.94	14.58	16.07
08-00220-30104		18					6	60	9,700	19.09	19.90	20.79	21.76	24.04		
08-00220-30102		24					6	70	10,000	25.35	26.44	27.63	28.94	Free		
08-00220-30105		30					6	70	10,500	31.60	32.97	34.47	36.12	Free		
08-00220-30103	36	6		80	10,500	37.86	39.51	41.32	43.30	Free						
08-00220-40011	4	R0.1		16	6	3.8	12°	6	60	9,500	17.17	17.93	18.77	19.68	Free	
08-00220-40013			24	6				70	9,500	25.51	26.65	27.89	Free	Free		
08-00220-40015			32	6				70	9,500	33.85	35.36	37.01	Free	Free		
08-00220-40017			48	6				100	15,100	50.54	52.79	Free	Free	Free		
08-00220-40021			16	R0.2				16	6	60	9,500	17.16	17.92	18.75	19.66	Free
08-00220-40023			24					6	70	9,500	25.50	26.64	27.88	Free	Free	
08-00220-40025		32	6					70	9,500	33.85	35.35	37.00	Free	Free		
08-00220-40027		48	6					100	15,100	50.53	52.78	Free	Free	Free		
08-00220-40031		16	R0.3					16	6	60	9,500	17.16	17.91	18.74	19.65	Free
08-00220-40034		24						6	70	9,500	25.50	26.63	27.86	Free	Free	
08-00220-40032		32		6				70	9,500	33.84	35.34	36.99	Free	Free		
08-00220-40033		48		6				100	15,100	50.53	52.78	Free	Free	Free		



MHR230R

无限涂层 2刃长颈圆鼻铣刀

MUGEN COATING 2-Flute Long Neck Corner Radius End Mill



单点切削, 不易振刀! (φ2.5以下)
Suppress chattering by point milling (Dia.~2.5)

单位 [规格:mm / 价格:日元]
Unit [Size : mm / Retail Price : JPY]

产品代码 Code No.	(D)外径 Dia.	(R)角半径 Corner Radius	(ℓ1)颈长 Under Neck Length	(ℓ)刃长 Length of Cut	(d2)颈径 Neck Dia.	(γ)颈角 Neck Taper Angle	(d)柄径 Shank Dia.	(L)全长 Overall Length	定价(日元) Retail Price	相对于工件斜度的有效长 Actual effective length depending on inclined angle of workpiece								
										30°	1°	1°30'	2°	3°				
08-00220-40051	4	R0.5	16	6	3.8	12°	6	60	9,500	17.15	17.89	18.71	19.61	Free				
08-00220-40054			24				6	70	9,500	25.49	26.61	27.83	Free	Free				
08-00220-40052			32				6	70	9,500	33.83	35.33	36.96	Free	Free				
08-00220-40053			48				6	100	15,100	50.52	52.76	Free	Free	Free				
08-00220-40101		R1	16				6	60	9,500	17.13	17.85	18.64	19.51	Free				
08-00220-40104			24				6	70	9,500	25.47	26.57	27.77	29.08	Free				
08-00220-40102			32				6	70	9,500	33.81	35.28	36.89	Free	Free				
08-00220-40103			48				6	100	15,100	50.50	52.71	Free	Free	Free				
08-00220-50011	5	R0.1	20	7.5	4.8	12°	6	70	12,000	21.34	22.29	Free	Free	Free				
08-00220-50013			40				6	90	15,100	42.19	Free	Free	Free	Free				
08-00220-50021		R0.2	20				6	70	12,000	21.33	22.28	Free	Free	Free				
08-00220-50023			40				6	90	15,100	42.19	Free	Free	Free	Free				
08-00220-50031		R0.3	20				6	70	12,000	21.33	22.27	Free	Free	Free				
08-00220-50032			40				6	90	15,100	42.19	Free	Free	Free	Free				
08-00220-50051		R0.5	20				6	70	12,000	21.32	22.25	Free	Free	Free				
08-00220-50052			40				6	90	15,100	42.18	Free	Free	Free	Free				
08-00220-50101		R1	20				6	70	12,000	21.30	22.21	Free	Free	Free				
08-00220-50102			40				6	90	15,100	42.16	Free	Free	Free	Free				
08-00220-60011		6	R0.1				24	9	5.8	-	6	90	12,000	Free	Free	Free	Free	Free
08-00220-60013							48				6	110	18,800	Free	Free	Free	Free	Free
08-00220-60021			R0.2				24				6	90	12,000	Free	Free	Free	Free	Free
08-00220-60023							48				6	110	18,800	Free	Free	Free	Free	Free
08-00220-60031			R0.3				24				6	90	12,000	Free	Free	Free	Free	Free
08-00220-60032							48				6	110	18,800	Free	Free	Free	Free	Free
08-00220-60051	R0.5		24	6	90	12,000	Free				Free	Free	Free	Free				
08-00220-60052			48	6	110	18,800	Free				Free	Free	Free	Free				
08-00220-60101	R1		24	6	90	12,000	Free				Free	Free	Free	Free				
08-00220-60102			48	6	110	18,800	Free				Free	Free	Free	Free				

订购方法
How to Order

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When you order, indicate MHR230R (D)×(R)×(ℓ1)×(d). ※(γ) is reference value.

- 碳素钢 P Carbon Steel
- 合金钢 P Alloy Steel
- 调质钢 P Prehardened Steel
- 高硬度钢~52 HRC H Hardened Steel
- 不锈钢 M Stainless Steel
- 铝合金 N Aluminium Alloy
- 铜合金 N Copper
- 树脂 O Resin

常规系列
无限涂层
长颈造型
Regular Line
MUGEN COATING
Long Neck Type