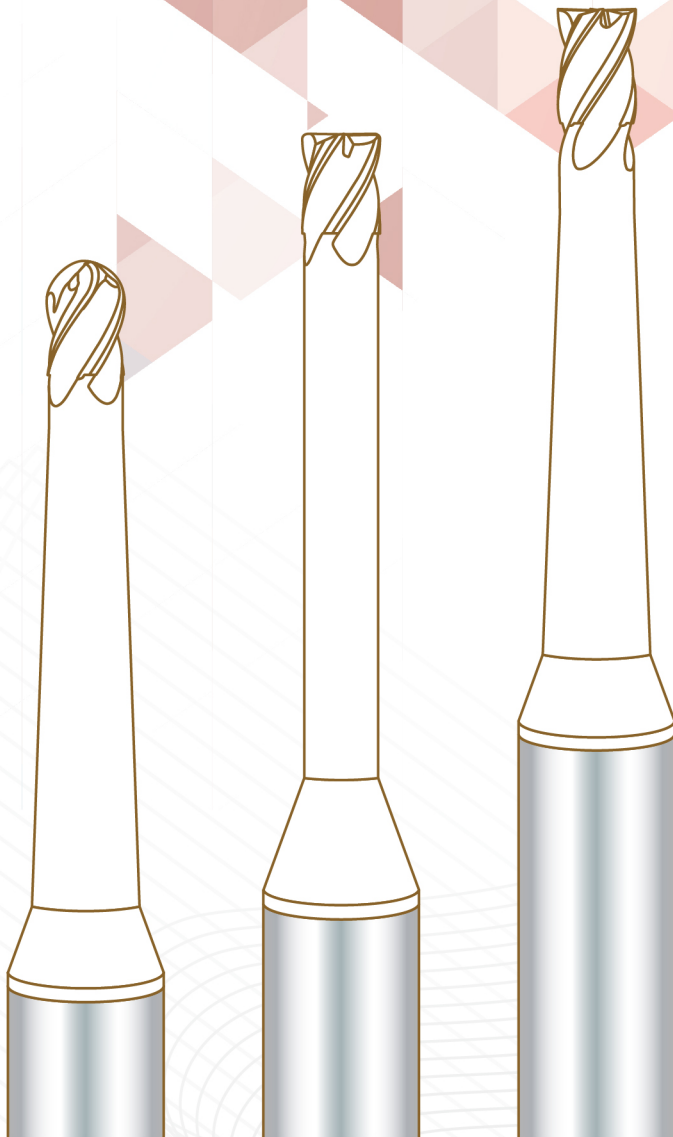




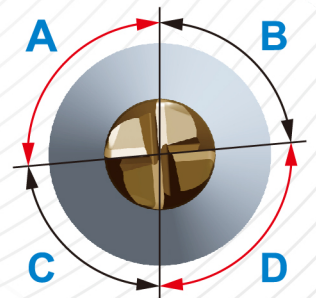
Long Neck for
Rib Processing

Solid Carbide

Anti-Vibration End Mill | 3-Flute / 4-Flute



Anti-Vibration End Mill



Guide Page

Carbide Material & Types of tool ①

Series ②

Code No. ③

Description ④

Icon ⑤

Cutting Diameter Tolerance ⑥

Cutting Conditon Page ⑦

Shank Diameter Tolerance ⑧

Specification Table ⑨

Work Material ⑩

Cutting Suitability ⑪

UMG Carbide - Rib Processing Ball Nose End Mill

RPX600E⁺ - 84333TO

• Ball Nose - 3-Flute - Long Neck
• Variable Heli 13° / 34° / 35°

Cutting Conditon Page | P.32-34

Code No.	CED	Radius	CEL	NI	ND	OAL	SD	Flute
1	0.5R	0.8	5	0.95	60	6	6	3
1	0.5R	0.8	10	0.95	60	6		
1	0.5R	0.8	15	0.95	60	6		
1	0.5R	0.8	20	0.95	60	6		
1.5	0.75R	1.2	5	1.45	60	6		
1.5	0.75R	1.2	10	1.45	60	6		
1.5	0.75R	1.2	15	1.45	60	6		
1.5	0.75R	1.2	20	1.45	60	6		
2	1R	1.6	5	1.95	60	6		
2	1R	1.6	10	1.95	60	6		
2	1R	1.6	15	1.95	60	6		
2	1R	1.6	20	1.95	60	6		
2	1R	1.6	25	1.95	65	6		
2	1R	1.6	30	1.95	75	6		
2	1R	1.6	35	1.95	75	6		

3	1.5R	10	11,000	1,700	0.09	0.08
3	1.5R	15	10,000	1,500	0.09	0.08
3	1.5R	20	7,500	1,000	0.09	0.08
3	1.5R	25	5,500	800	0.09	0.08
3	1.5R	30	5,000	680	0.09	0.08
3	1.5R	35	4,000	550	0.09	0.08
3	1.5R	40	3,500	500	0.09	0.08
3.5	1.75R	10	10,600	1,500	0.1	0.09
3.5	1.75R	15	10,000	1,200	0.1	0.09
3.5	1.75R	20	9,000	1,100	0.1	0.09
3.5	1.75R	25	7,500	950	0.1	0.09
3.5	1.75R	30	5,000	700	0.1	0.09
3.5	1.75R	35	4,000	600	0.1	0.09
3.5	1.75R	40	3,500	570	0.1	0.09
3.5	1.75R	45	3,000	500	0.1	0.09
4	2R	10	9,500	1,000	0.13	0.1
4	2R	15	9,000	1,520	0.13	0.1
4	2R	20	8,200	1,240	0.13	0.1
4	2R	25	5,500	1,000	0.13	0.1
4	2R	30	4,500	750	0.13	0.1
4	2R	35	3,600	590	0.13	0.09
4	2R	40	3,000	500	0.13	0.09
4	2R	45	2,700	450	0.13	0.08
4	2R	50	2,500	400	0.13	0.08
5	2.5R	10	7,700	1,520	0.15	0.25
5	2.5R	15	7,700	1,520	0.15	0.25
5	2.5R	20	6,500	1,400	0.15	0.25
5	2.5R	25	5,100	1,040	0.15	0.25
5	2.5R	30	5,100	960	0.15	0.25
5	2.5R	35	5,100	880	0.1	0.25
5	2.5R	40	4,000	750	0.1	0.2

Work Material

	P	G2	G3	G14	G15	G16
G1	•	•	•	•	•	•

- Please select high rigid tool holder and collet chuck during machining.
- Please select the suitable cutting fluid.
- For dry cutting, please use air blow for chip removal and cooling.
- These cutting data are for reference only. Please adjust the cutting speed according to machine capability and working conditions.
- If vibrations occur during cutting process, adjust and reduce the cutting speed.

Material CHART

ISO	Group	Material	Tensile Strength N/mm2	Hardness HB
P	G1	Non-alloyed Steel, cast steel, free cutting steel	420 - 848	125 - 300
	G2	<24HRC Low-alloyed Steel, cast steel	600 - 1200	200 - 300
	G3	<30HRC Hi-alloyed Steel, cast steel, tool steel	680-1100	200- 325
M	G4	Stainless Steel, cast steel	600 - 820	180 - 240
K	G5	Gray Cast Iron, Ductile cast iron, Malleable cast iron		130 - 260
N	G6	Aluminium		60 - 130
	G7	Copper		90 - 110
	G8	Plastics, Hard rubber		
	G9	FRP CFRP Composite Material		
	G10	Graphite		
	S	G11	High Temp Alloys	
G12		Nickel		320 - 350
G13		Titanium	400 - 1,050	
H	G14	30-38HRC Hardened Steel		
	G15	38-48HRC Hardened Steel		
	G16	48-56HRC Hardened Steel		
	G17	56-65HRC Hardened Steel		

Icon Guide

Type of Flute

Helix

Type of Cutting Edge

Processing direction

Type of cutting edge

Work piece material hardness

IE = Uneven Flute, Variable Helix Angle

Solid Carbide Material

icon	Grade	Grain size	Cobalt	Hardness
	Ultra Micro Grain Carbide	0.2um~0.5um	12%	HRA92.7

Type of Coating

Code	Name	Oxidation Temperature	Surface Hardness(Hv)	Coefficient of Friction	Coating Thickness(μm)
TH	AlCrSiN+WC	1300°C	3500	0.3	3~5
TE	AlTiCrN	900°C	3600	0.55	3~5
TA	AlTiN	800°C	3800	0.25	1~4
TN	AlTiCrN	900°C	3600	0.55	1~4
TB	AlTiSiN	1200°C	4500	0.45	1~4
TO	AlTiCrSiN	1200°C	4300	0.3	1~3
Z3	AlTiZrSiN	1100°C	3500	0.4	2~5
DLC	Diamod	550°C	2500	0.1	0.8
TS	Ta-C	1100°C	5500	0.1	0.1~1

※ Actual coating color may have slight difference due to coating temperature.

Coding Principle

RPX600⁺-14344TO

Helix Angle (points to ⁺)

Number of Flute (points to 14344)

Coating (points to TO)

Series (points to RPX600⁺)

Type (points to 14344)

Flute type (points to 44)

- RP** = Long Neck
- RT** = Taper Neck
- AC** = Aluminum Series
- CS** = Stainless Steel Series
- TI** = Titanium Series
- RF** = Roughing Series
- DR** = Drill Series
- CF** = Chamfering Series
- IR** = Corner Radius Series
- VF** = Grooving Series
- HS** = High Speed Steel Series

- 1** = Square
- 2** = Corner Radius
- 4** = Drill
- 5** = Reammer
- 8** = Ball nose

- 1** = Standard Flute
- 2** = Long Flute
- 3** = Long shank
- 4** = Stub Flute

RTX600⁺IE-14344TO

I = Uneven flute

E = Variable Helix angle

X600⁺M-14352TO

M = Miniature

AC100⁺RN-11403

R = Heavy Duty Operation

N = Sharp edge

Rib Processing End Mill

RPX600E⁺ - 84333TO **P.8 - P.9**

Ball Nose - 3-Flute - Long Neck - Variable Helix
33° /34° /35°



RPX600IE⁺ - 84344TO **P.10-11**

Ball Nose - 4-Flute - Long Neck - Uneven Flute /
Variable Helix 34° /36°



RPX600IE⁺ - 24333TO **P.12-13**

Corner Radius - 3-Flute x 1.2D - Long Neck -
Uneven Flute / Variable Helix 33° /34° /35°



RPX600IE⁺ - 24344TO **P.14-15**

Corner Radius - 4-Flute x 1.5D - Long Neck -
Uneven Flute / Variable Helix 34° /36°



RPX600IE⁺ - 14333TO **P.16-17**

Square - 3-Flute x 1.2D - Long Neck - Uneven
Flute / Variable Helix 33° /34° /35°



RPX600IE⁺ - 14344TO **P.18-19**

Square - 4-Flute x 1.5D - Long Neck - Uneven
Flute / Variable Helix 34° /36°



RTX600E⁺ - 84333TO **P.20-21**

Ball Nose - 3-Flute - Taper Neck - Variable Helix
33° /34° /35°



RTX600IE⁺ - 84344TO **P.22-23**

Ball Nose - 4-Flute - Taper Neck - Uneven Flute /
Variable Helix 34° /36°



RTX600IE⁺ - 24333TO **P.24-25**

Corner Radius - 3-Flute x 1.2D - Taper Neck -
Uneven Flute / Variable Helix 33° /34° /35°



RTX600IE⁺ - 24344TO **P.26-27**

Corner Radius - 4-Flute x 1.5D - Taper Neck -
Uneven Flute / Variable Helix 34° /36°



RTX600IE⁺ - 14333TO **P.28-29**

Square - 3-Flute x 1.2D - Taper Neck - Uneven
Flute / Variable Helix 33° /34° /35°



RTX600IE⁺ - 14344TO **P.30-31**

Square - 4-Flute x 1.5D - Taper Neck - Uneven
Flute / Variable Helix 34° /36°



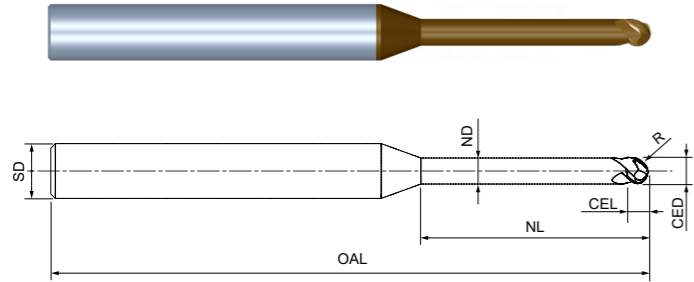
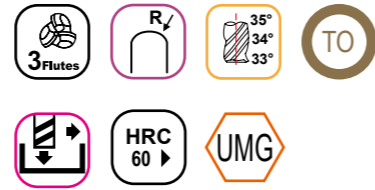
Recommended Cutting Condition **P.32-51**

RPX600E ⁺ - 84333TO	P.28-29
RPX600IE ⁺ - 84344TO	P.30-31
RPX600IE ⁺ - 24333TO	P.32-33
RPX600IE ⁺ - 24344TO	P.34-35
RPX600IE ⁺ - 14333TO	P.36-37
RPX600IE ⁺ - 14344TO	P.38-39
RTX600E ⁺ - 84333TO	P.40-41
RTX600IE ⁺ - 84344TO	P.42-43
RTX600IE ⁺ - 24333TO	P.44
RTX600IE ⁺ - 24344TO	P.45
RTX600IE ⁺ - 14333TO	P.46
RTX600IE ⁺ - 14344TO	P.47

UMG Carbide - Rib Processing Ball Nose End Mill

RPX600E⁺ - 84333TO

- ♦ Ball Nose - 3-Flute - Long Neck
- ♦ Variable Helix 33° /34° /35°



CED Tolerance(mm)		
R	±0.02	

(unit : mm)

Cutting Condition Page | P.28-29

Code No.	CED	Radius	CEL	NL	ND	OAL	SD	Flute
RPX600E ⁺ -84333TO	1	0.5R	0.8	5	0.95	60	6	3
	1	0.5R	0.8	10	0.95	60	6	
	1	0.5R	0.8	15	0.95	60	6	
	1	0.5R	0.8	20	0.95	60	6	
	1.5	0.75R	1.2	5	1.45	60	6	
	1.5	0.75R	1.2	10	1.45	60	6	
	1.5	0.75R	1.2	15	1.45	60	6	
	1.5	0.75R	1.2	20	1.45	60	6	
	2	1R	1.6	5	1.95	60	6	
	2	1R	1.6	10	1.95	60	6	
	2	1R	1.6	15	1.95	60	6	
	2	1R	1.6	20	1.95	60	6	
	2	1R	1.6	25	1.95	65	6	
	2	1R	1.6	30	1.95	75	6	
	2	1R	1.6	35	1.95	75	6	
	3	1.5R	2.4	10	2.85	60	6	
	3	1.5R	2.4	15	2.85	60	6	
	3	1.5R	2.4	20	2.85	60	6	
	3	1.5R	2.4	25	2.85	65	6	
	3	1.5R	2.4	30	2.85	75	6	

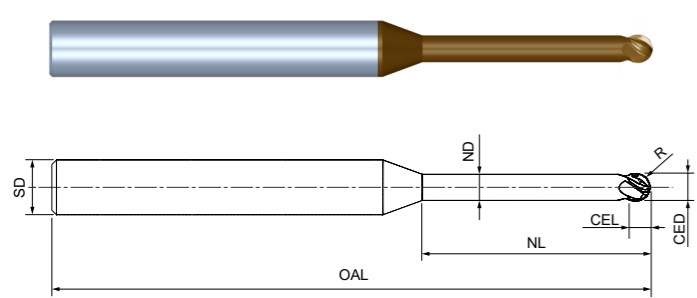
Code No.	CED	Radius	CEL	NL	ND	OAL	SD	Flute
RPX600E ⁺ -84333TO	3	1.5R	2.4	35	2.85	75	6	3
	3	1.5R	2.4	40	2.85	100	6	
	3.5	1.75R	2.8	10	3.35	60	6	
	3.5	1.75R	2.8	15	3.35	60	6	
	3.5	1.75R	2.8	20	3.35	60	6	
	3.5	1.75R	2.8	25	3.35	65	6	
	3.5	1.75R	2.8	30	3.35	75	6	
	3.5	1.75R	2.8	35	3.35	75	6	
	3.5	1.75R	2.8	40	3.35	100	6	
	3.5	1.75R	2.8	45	3.35	100	6	
	4	2R	3.2	10	3.85	60	6	
	4	2R	3.2	15	3.85	60	6	
	4	2R	3.2	20	3.85	60	6	
	4	2R	3.2	25	3.85	65	6	
	4	2R	3.2	30	3.85	75	6	
	4	2R	3.2	35	3.85	75	6	
	4	2R	3.2	40	3.85	100	6	
	4	2R	3.2	45	3.85	100	6	
	4	2R	3.2	50	3.85	100	6	
	5	2.5R	5	10	4.85	60	6	
	5	2.5R	5	15	4.85	60	6	
	5	2.5R	5	20	4.85	60	6	
	5	2.5R	5	25	4.85	65	6	
	5	2.5R	5	30	4.85	75	6	
	5	2.5R	5	35	4.85	75	6	
	5	2.5R	5	40	4.85	100	6	
	5	2.5R	5	45	4.85	100	6	
	5	2.5R	5	50	4.85	100	6	
	6	3R	6	10	5.85	60	6	
	6	3R	6	15	5.85	60	6	
6	3R	6	20	5.85	60	6		
6	3R	6	25	5.85	65	6		
6	3R	6	30	5.85	75	6		
6	3R	6	35	5.85	75	6		
6	3R	6	40	5.85	100	6		
6	3R	6	45	5.85	100	6		
6	3R	6	50	5.85	100	6		

※ Customized Special sizes, Coating type and Inches are available to order.

UMG Carbide - Rib Processing Ball Nose End Mill

RPX600IE⁺ - 84344TO

- ♦ Ball Nose - 4-Flute - Long Neck
- ♦ Uneven Flute / Variable Helix 34° / 36°



CED Tolerance(mm)	
R	±0.02



(unit : mm)

Cutting Condition Page | 30-31

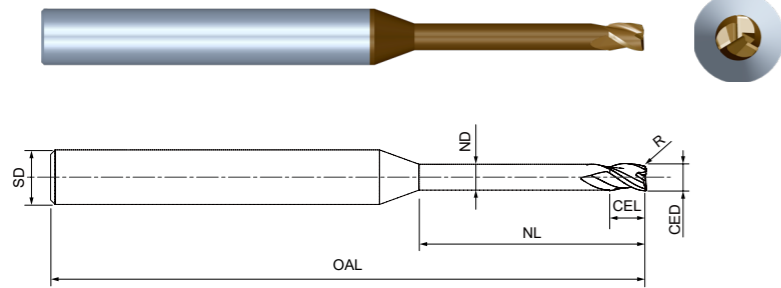
Code No.	CED	Radius	CEL	NL	ND	OAL	SD	Flute
RPX600IE ⁺ -84344TO	1	0.5R	0.8	5	0.95	60	6	4
	1	0.5R	0.8	10	0.95	60	6	
	1	0.5R	0.8	15	0.95	60	6	
	1	0.5R	0.8	20	0.95	60	6	
	1.5	0.75R	1.2	5	1.45	60	6	
	1.5	0.75R	1.2	10	1.45	60	6	
	1.5	0.75R	1.2	15	1.45	60	6	
	1.5	0.75R	1.2	20	1.45	60	6	
	2	1R	1.6	5	1.95	60	6	
	2	1R	1.6	10	1.95	60	6	
	2	1R	1.6	15	1.95	60	6	
	2	1R	1.6	20	1.95	60	6	
	2	1R	1.6	25	1.95	65	6	
	2	1R	1.6	30	1.95	75	6	
	2	1R	1.6	35	1.95	75	6	
	3	1.5R	2.4	10	2.85	60	6	
	3	1.5R	2.4	15	2.85	60	6	
	3	1.5R	2.4	20	2.85	60	6	
	3	1.5R	2.4	25	2.85	65	6	
	3	1.5R	2.4	30	2.85	75	6	

Code No.	CED	Radius	CEL	NL	ND	OAL	SD	Flute
RPX600IE ⁺ -84344TO	3	1.5R	2.4	35	2.85	75	6	4
	3	1.5R	2.4	40	2.85	100	6	
	3.5	1.75R	2.8	10	3.35	60	6	
	3.5	1.75R	2.8	15	3.35	60	6	
	3.5	1.75R	2.8	20	3.35	60	6	
	3.5	1.75R	2.8	25	3.35	65	6	
	3.5	1.75R	2.8	30	3.35	75	6	
	3.5	1.75R	2.8	35	3.35	75	6	
	3.5	1.75R	2.8	40	3.35	100	6	
	3.5	1.75R	2.8	45	3.35	100	6	
	4	2R	3.2	10	3.85	60	6	
	4	2R	3.2	15	3.85	60	6	
	4	2R	3.2	20	3.85	60	6	
	4	2R	3.2	25	3.85	65	6	
	4	2R	3.2	30	3.85	75	6	
	4	2R	3.2	35	3.85	75	6	
	4	2R	3.2	40	3.85	100	6	
	4	2R	3.2	45	3.85	100	6	
	4	2R	3.2	50	3.85	100	6	
	5	2.5R	5	10	4.85	60	6	
	5	2.5R	5	15	4.85	60	6	
	5	2.5R	5	20	4.85	60	6	
	5	2.5R	5	25	4.85	65	6	
	5	2.5R	5	30	4.85	75	6	
	5	2.5R	5	35	4.85	75	6	
	5	2.5R	5	40	4.85	100	6	
	5	2.5R	5	45	4.85	100	6	
	5	2.5R	5	50	4.85	100	6	
	6	3R	6	10	5.85	60	6	
	6	3R	6	15	5.85	60	6	
6	3R	6	20	5.85	60	6		
6	3R	6	25	5.85	65	6		
6	3R	6	30	5.85	75	6		
6	3R	6	35	5.85	75	6		
6	3R	6	40	5.85	100	6		
6	3R	6	45	5.85	100	6		
6	3R	6	50	5.85	100	6		

※ Customized Special sizes, Coating type and Inches are available to order.

RPX600IE⁺ - 24333TO

- ◆ Corner Radius - 3-Flute x 1.2D - Long Neck
- ◆ Uneven Flute / Variable Helix 33° /34° /35°



CED Tolerance(mm)	
2~3	0~-0.014
3~6	0~-0.018



(unit : mm)

Cutting Condition Page | 32-33

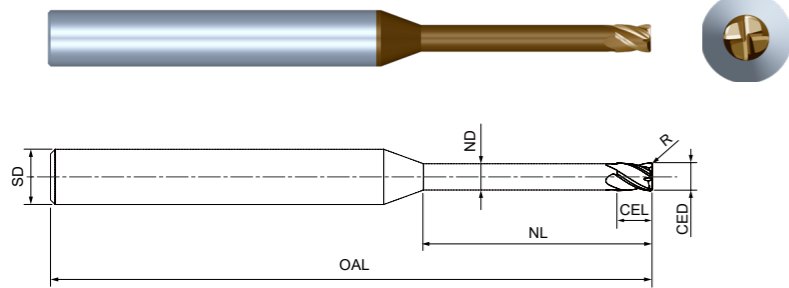
Code No.	CED	C/R	CEL	NL	ND	OAL	SD	Flute
RPX600IE ⁺ -24333TO	2	0.2R	2.5	5	1.95	60	6	3
	2	0.2R	2.5	10	1.95	60	6	
	2	0.2R	2.5	15	1.95	60	6	
	2	0.2R	2.5	20	1.95	60	6	
	2	0.2R	2.5	25	1.95	65	6	
	2	0.2R	2.5	30	1.95	75	6	
	2	0.2R	2.5	35	1.95	75	6	
	2.5	0.2R	3	15	2.45	60	6	
	2.5	0.2R	3	20	2.45	60	6	
	2.5	0.2R	3	25	2.45	65	6	
	2.5	0.2R	3	30	2.45	75	6	
	2.5	0.2R	3	40	2.45	100	6	
	2.5	0.2R	3	50	2.45	100	6	
	3	0.2R	4	20	2.85	60	6	
	3	0.2R	4	25	2.85	65	6	
	3	0.2R	4	30	2.85	75	6	
	3	0.2R	4	40	2.85	100	6	
	3	0.2R	4	50	2.85	100	6	
	4	0.3R	5	10	3.85	60	6	
	4	0.3R	5	15	3.85	60	6	

Code No.	CED	C/R	CEL	NL	ND	OAL	SD	Flute
RPX600IE ⁺ -24333TO	4	0.3R	5	20	3.85	60	6	3
	4	0.3R	5	25	3.85	65	6	
	4	0.3R	5	30	3.85	75	6	
	4	0.3R	5	35	3.85	75	6	
	4	0.3R	5	40	3.85	100	6	
	4	0.3R	5	45	3.85	100	6	
	4	0.3R	5	50	3.85	100	6	
	6	0.3R	7	10	5.85	60	6	
	6	0.3R	7	15	5.85	60	6	
	6	0.3R	7	20	5.85	60	6	
	6	0.3R	7	25	5.85	65	6	
	6	0.3R	7	30	5.85	75	6	
	6	0.3R	7	35	5.85	75	6	
	6	0.3R	7	40	5.85	100	6	
	6	0.3R	7	45	5.85	100	6	
	6	0.3R	7	50	5.85	100	6	

※ Customized Special sizes, Coating type and Inches are available to order.

RPX600IE⁺ - 24344TO

- ◆ Corner Radius - 4-Flute x 1.5D - Long Neck
- ◆ Uneven Flute / Variable Helix 34° /36°



CED Tolerance(mm)	
2~3	0~-0.014
3~6	0~-0.018



(unit : mm)

Cutting Condition Page | 34-35

Code No.	CED	C/R	CEL	NL	ND	OAL	SD	Flute
RPX600IE ⁺ -24344TO	2	0.2R	3	5	1.95	60	6	4
	2	0.2R	3	10	1.95	60	6	
	2	0.2R	3	15	1.95	60	6	
	2	0.2R	3	20	1.95	60	6	
	2	0.2R	3	25	1.95	65	6	
	2	0.2R	3	30	1.95	75	6	
	2	0.2R	3	35	1.95	75	6	
	2.5	0.2R	3.8	15	2.45	60	6	
	2.5	0.2R	3.8	20	2.45	60	6	
	2.5	0.2R	3.8	25	2.45	65	6	
	2.5	0.2R	3.8	30	2.45	75	6	
	2.5	0.2R	3.8	40	2.45	100	6	
	2.5	0.2R	3.8	50	2.45	100	6	
	3	0.2R	4.5	20	2.85	60	6	
	3	0.2R	4.5	25	2.85	65	6	
	3	0.2R	4.5	30	2.85	75	6	
	3	0.2R	4.5	40	2.85	100	6	
	3	0.2R	4.5	50	2.85	100	6	
	4	0.3R	6	10	3.85	60	6	
	4	0.3R	6	15	3.85	60	6	

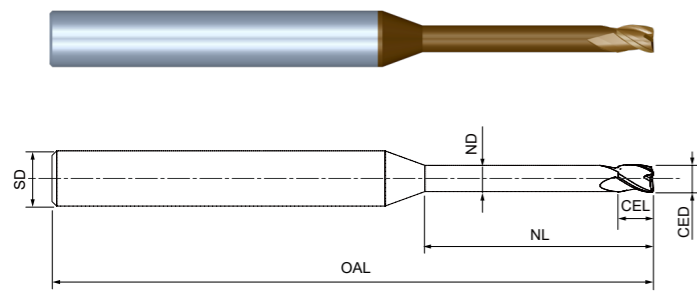
Code No.	CED	C/R	CEL	NL	ND	OAL	SD	Flute
RPX600IE ⁺ -24344TO	4	0.3R	6	20	3.85	60	6	4
	4	0.3R	6	25	3.85	65	6	
	4	0.3R	6	30	3.85	75	6	
	4	0.3R	6	35	3.85	75	6	
	4	0.3R	6	40	3.85	100	6	
	4	0.3R	6	45	3.85	100	6	
	4	0.3R	6	50	3.85	100	6	
	6	0.3R	9	10	5.85	60	6	
	6	0.3R	9	15	5.85	60	6	
	6	0.3R	9	20	5.85	60	6	
	6	0.3R	9	25	5.85	65	6	
	6	0.3R	9	30	5.85	75	6	
	6	0.3R	9	35	5.85	75	6	
	6	0.3R	9	40	5.85	100	6	
	6	0.3R	9	45	5.85	100	6	
	6	0.3R	9	50	5.85	100	6	

※ Customized Special sizes, Coating type and Inches are available to order.

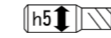
UMG Carbide - Rib Processing Square End Mill

RPX600IE⁺ - 14333TO

- ♦ Square - 3-Flute x 1.2D - Long Neck
- ♦ Uneven Flute / Variable Helix 33° /34° /35°



CED Tolerance(mm)	
2~3	0~-0.014
3~6	0~-0.018



(unit : mm)

Cutting Conditon Page | 36-37

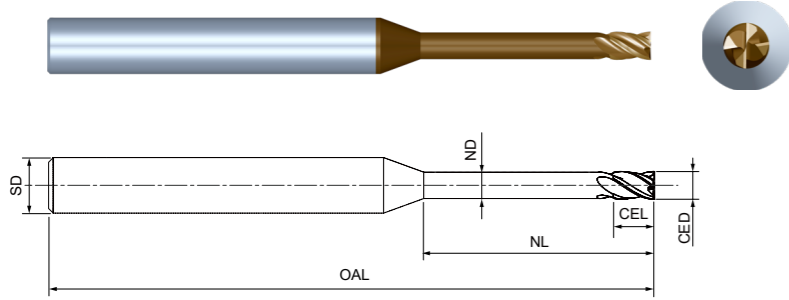
Code No.	CED	CEL	NL	ND	OAL	SD	Flute
RPX600IE ⁺ -14333TO	2	2.5	5	1.95	60	6	3
	2	2.5	10	1.95	60	6	
	2	2.5	15	1.95	60	6	
	2	2.5	20	1.95	60	6	
	2	2.5	25	1.95	65	6	
	2	2.5	30	1.95	75	6	
	2	2.5	35	1.95	75	6	
	2.5	3	15	2.45	60	6	
	2.5	3	20	2.45	60	6	
	2.5	3	25	2.45	65	6	
	2.5	3	30	2.45	75	6	
	2.5	3	40	2.45	100	6	
	2.5	3	50	2.45	100	6	
	3	4	20	2.85	60	6	
	3	4	25	2.85	65	6	
	3	4	30	2.85	75	6	
	3	4	40	2.85	100	6	
	3	4	50	2.85	100	6	
	4	5	10	3.85	60	6	
	4	5	15	3.85	60	6	

Code No.	CED	CEL	NL	ND	OAL	SD	Flute
RPX600IE ⁺ -14333TO	4	5	20	3.85	60	6	3
	4	5	25	3.85	65	6	
	4	5	30	3.85	75	6	
	4	5	35	3.85	75	6	
	4	5	40	3.85	100	6	
	4	5	45	3.85	100	6	
	4	5	50	3.85	100	6	
	6	7	10	5.85	60	6	
	6	7	15	5.85	60	6	
	6	7	20	5.85	60	6	
	6	7	25	5.85	65	6	
	6	7	30	5.85	75	6	
	6	7	35	5.85	75	6	
	6	7	40	5.85	100	6	
	6	7	45	5.85	100	6	
	6	7	50	5.85	100	6	

※ Customized Special sizes, Coating type and Inches are available to order.

RPX600IE⁺ - 14344TO

- ◆ Square - 4-Flute x 1.5D - Long Neck
- ◆ Uneven Flute / Variable Helix 34° / 36°



CED Tolerance(mm)	
2~3	0~-0.014
3~6	0~-0.018



(unit : mm)

Cutting Conditon Page | 38-39

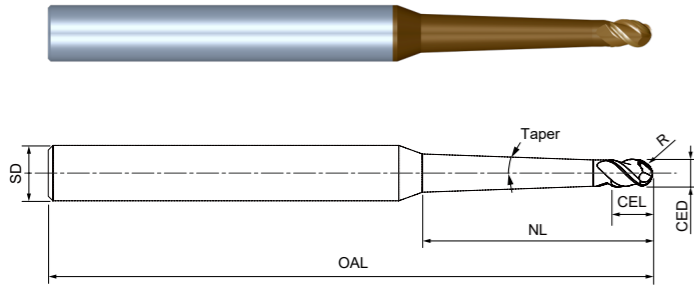
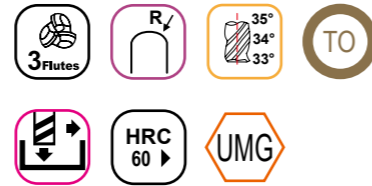
Code No.	CED	CEL	NL	ND	OAL	SD	Flute
RPX600IE ⁺ -14344TO	2	3	5	1.95	60	6	4
	2	3	10	1.95	60	6	
	2	3	15	1.95	60	6	
	2	3	20	1.95	60	6	
	2	3	25	1.95	65	6	
	2	3	30	1.95	75	6	
	2	3	35	1.95	75	6	
	2.5	3.8	15	2.45	60	6	
	2.5	3.8	20	2.45	60	6	
	2.5	3.8	25	2.45	65	6	
	2.5	3.8	30	2.45	75	6	
	2.5	3.8	40	2.45	100	6	
	2.5	3.8	50	2.45	100	6	
	3	4.5	20	2.85	60	6	
	3	4.5	25	2.85	65	6	
	3	4.5	30	2.85	75	6	
	3	4.5	40	2.85	100	6	
	3	4.5	50	2.85	100	6	
	4	6	10	3.85	60	6	
	4	6	15	3.85	60	6	

Code No.	CED	CEL	NL	ND	OAL	SD	Flute
RPX600IE ⁺ -14344TO	4	6	20	3.85	60	6	4
	4	6	25	3.85	65	6	
	4	6	30	3.85	75	6	
	4	6	35	3.85	75	6	
	4	6	40	3.85	100	6	
	4	6	45	3.85	100	6	
	4	6	50	3.85	100	6	
	6	9	10	5.85	60	6	
	6	9	15	5.85	60	6	
	6	9	20	5.85	60	6	
	6	9	25	5.85	65	6	
	6	9	30	5.85	75	6	
	6	9	35	5.85	75	6	
	6	9	40	5.85	100	6	
	6	9	45	5.85	100	6	
	6	9	50	5.85	100	6	

※ Customized Special sizes, Coating type and Inches are available to order.

RTX600E⁺ - 84333TO

- ♦ Ball Nose - 3-Flute - Taper Neck
- ♦ Variable Helix 33° /34° /35°



CED Tolerance(mm)		
R	±0.02	

(unit : mm)

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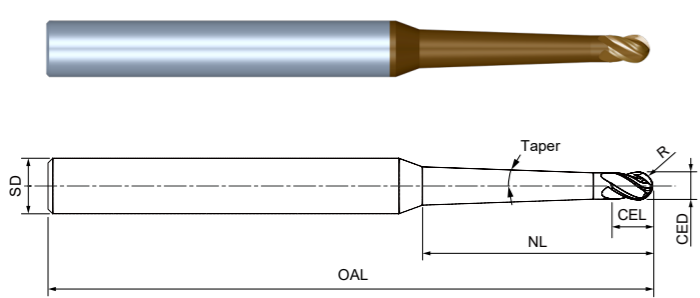
Code No.	CED	Radius	CEL	L1	NL	ND	Taper	OAL	SD	Flute
RTX600E ⁺ -84333TO	1	0.5R	1.5	2.5	5	0.95	1°	60	6	3
	1	0.5R	1.5	2.5	10	0.95	1°	60	6	
	1	0.5R	1.5	2.5	15	0.95	1°	60	6	
	1	0.5R	1.5	2.5	20	0.95	1°	60	6	
	1.5	0.75R	2.25	3.75	5	1.45	1°	60	6	
	1.5	0.75R	2.25	3.75	10	1.45	1°	60	6	
	1.5	0.75R	2.25	3.75	15	1.45	1°	60	6	
	1.5	0.75R	2.25	3.75	20	1.45	1°	60	6	
	1.5	0.75R	2.25	3.75	25	1.45	1°	65	6	
	1.5	0.75R	2.25	3.75	30	1.45	1°	75	6	
	2	1R	3	5	10	1.95	1°	60	6	
	2	1R	3	5	15	1.95	1°	60	6	
	2	1R	3	5	20	1.95	1°	60	6	
	2	1R	3	5	25	1.95	1°	65	6	
	2	1R	3	5	30	1.95	1°	75	6	
	2	1R	3	5	40	1.95	1°	100	6	
	2	1R	3	5	50	1.95	1°	100	6	
	2	1R	3	5	20	1.95	1.5°	60	6	
	2	1R	3	5	25	1.95	1.5°	65	6	
	2	1R	3	5	30	1.95	1.5°	75	6	

Code No.	CED	Radius	CEL	L1	NL	ND	Taper	OAL	SD	Flute
RTX600E ⁺ -84333TO	2	1R	3	5	40	1.95	1.5°	100	6	3
	2	1R	3	5	50	1.95	1.5°	100	6	
	2	1R	3	5	60	1.95	1.5°	110	6	
	3	1.5R	4.5	6.5	15	2.9	1°	60	6	
	3	1.5R	4.5	6.5	20	2.9	1°	60	6	
	3	1.5R	4.5	6.5	25	2.9	1°	65	6	
	3	1.5R	4.5	6.5	30	2.9	1°	75	6	
	3	1.5R	4.5	6.5	40	2.9	1°	100	6	
	3	1.5R	4.5	6.5	50	2.9	1°	100	6	
	3	1.5R	4.5	6.5	60	2.9	1°	110	6	
	3	1.5R	4.5	6.5	30	2.9	3°	75	6	
	3	1.5R	4.5	6.5	40	2.9	3°	100	8	
	3	1.5R	4.5	6.5	50	2.9	3°	100	10	
	3	1.5R	4.5	6.5	70	2.9	3°	120	12	
	4	2R	6	9	30	3.9	1°	75	6	
	4	2R	6	9	40	3.9	1°	100	6	
	4	2R	6	9	50	3.9	1°	100	6	
	4	2R	6	9	60	3.9	1°	110	8	
	4	2R	6	9	70	3.9	1°	120	8	
	4	2R	6	9	80	3.9	1°	125	8	
	4	2R	6	9	40	3.9	1.5°	100	6	
	4	2R	6	9	60	3.9	1.5°	110	8	
	4	2R	6	9	80	3.9	1.5°	125	8	
	5	2.5R	7.5	10.5	30	4.9	1°	75	8	
	5	2.5R	7.5	10.5	35	4.9	1°	75	8	
	5	2.5R	7.5	10.5	40	4.9	1°	100	8	
	5	2.5R	7.5	10.5	50	4.9	1°	100	8	
	5	2.5R	7.5	10.5	60	4.9	1°	110	8	
	5	2.5R	7.5	10.5	70	4.9	1°	120	8	
	5	2.5R	7.5	10.5	80	4.9	1°	125	8	
6	3R	9	12	40	5.9	1°	100	8		
6	3R	9	12	50	5.9	1°	100	8		
6	3R	9	12	60	5.9	1°	110	8		
6	3R	9	12	90	5.9	1°	150	10		

※ Customized Special sizes, Coating type and Inches are available to order.

RTX600IE⁺ - 84344TO

- ◆ Ball Nose - 4-Flute - Taper Neck
- ◆ Uneven Flute / Variable Helix 34° /36°



CED Tolerance(mm)	
R	±0.02



(unit : mm)

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Code No.	CED	Radius	CEL	L1	NL	ND	Taper	OAL	SD	Flute
RTX600IE ⁺ -84344TO	1	0.5R	1.5	2.5	5	0.95	1°	60	6	4
	1	0.5R	1.5	2.5	10	0.95	1°	60	6	
	1	0.5R	1.5	2.5	15	0.95	1°	60	6	
	1	0.5R	1.5	2.5	20	0.95	1°	60	6	
	1.5	0.75R	2.25	3.75	5	1.45	1°	60	6	
	1.5	0.75R	2.25	3.75	10	1.45	1°	60	6	
	1.5	0.75R	2.25	3.75	15	1.45	1°	60	6	
	1.5	0.75R	2.25	3.75	20	1.45	1°	60	6	
	1.5	0.75R	2.25	3.75	25	1.45	1°	65	6	
	1.5	0.75R	2.25	3.75	30	1.45	1°	75	6	
	2	1R	3	5	10	1.95	1°	60	6	
	2	1R	3	5	15	1.95	1°	60	6	
	2	1R	3	5	20	1.95	1°	60	6	
	2	1R	3	5	25	1.95	1°	65	6	
	2	1R	3	5	30	1.95	1°	75	6	
	2	1R	3	5	40	1.95	1°	100	6	
	2	1R	3	5	50	1.95	1°	100	6	
	2	1R	3	5	20	1.95	1.5°	60	6	
	2	1R	3	5	25	1.95	1.5°	65	6	
	2	1R	3	5	30	1.95	1.5°	75	6	

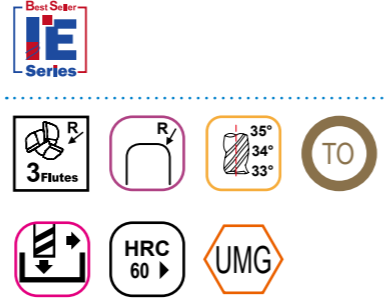
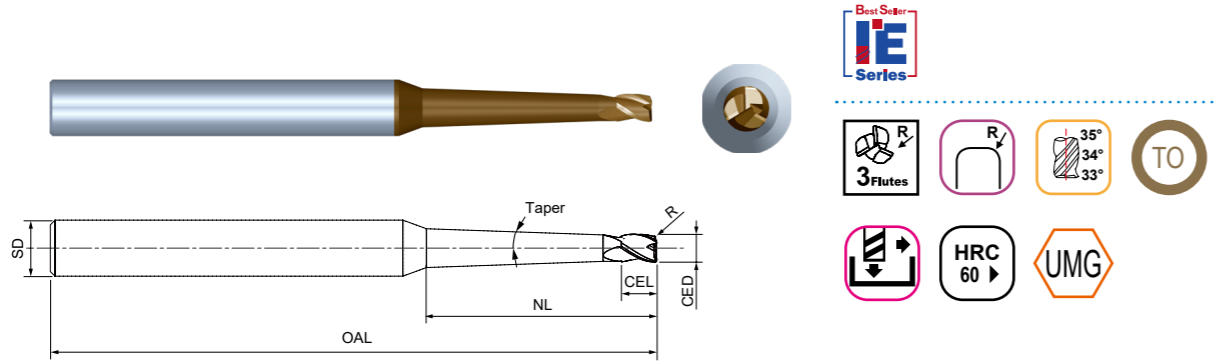
Code No.	CED	Radius	CEL	L1	NL	ND	Taper	OAL	SD	Flute
RTX600IE ⁺ -84344TO	2	1R	3	5	40	1.95	1.5°	100	6	4
	2	1R	3	5	50	1.95	1.5°	100	6	
	2	1R	3	5	60	1.95	1.5°	110	6	
	3	1.5R	4.5	6.5	15	2.9	1°	60	6	
	3	1.5R	4.5	6.5	20	2.9	1°	60	6	
	3	1.5R	4.5	6.5	25	2.9	1°	65	6	
	3	1.5R	4.5	6.5	30	2.9	1°	75	6	
	3	1.5R	4.5	6.5	40	2.9	1°	100	6	
	3	1.5R	4.5	6.5	50	2.9	1°	100	6	
	3	1.5R	4.5	6.5	60	2.9	1°	110	6	
	3	1.5R	4.5	6.5	30	2.9	3°	75	6	
	3	1.5R	4.5	6.5	40	2.9	3°	100	8	
	3	1.5R	4.5	6.5	50	2.9	3°	100	10	
	3	1.5R	4.5	6.5	70	2.9	3°	120	12	
	4	2R	6	9	30	3.9	1°	75	6	
	4	2R	6	9	40	3.9	1°	100	6	
	4	2R	6	9	50	3.9	1°	100	6	
	4	2R	6	9	60	3.9	1°	110	8	
	4	2R	6	9	70	3.9	1°	120	8	
	4	2R	6	9	80	3.9	1°	125	8	
	4	2R	6	9	40	3.9	1.5°	100	6	
	4	2R	6	9	60	3.9	1.5°	110	8	
	4	2R	6	9	80	3.9	1.5°	125	8	
	5	2.5R	7.5	10.5	30	4.9	1°	75	8	
	5	2.5R	7.5	10.5	35	4.9	1°	75	8	
	5	2.5R	7.5	10.5	40	4.9	1°	100	8	
	5	2.5R	7.5	10.5	50	4.9	1°	100	8	
	5	2.5R	7.5	10.5	60	4.9	1°	110	8	
	5	2.5R	7.5	10.5	70	4.9	1°	120	8	
	5	2.5R	7.5	10.5	80	4.9	1°	125	8	
6	3R	9	12	40	5.9	1°	100	8		
6	3R	9	12	50	5.9	1°	100	8		
6	3R	9	12	60	5.9	1°	110	8		
6	3R	9	12	90	5.9	1°	150	10		

※ Customized Special sizes, Coating type and Inches are available to order.

UMG Carbide - Rib Processing Corner Radius End Mill

RTX600IE⁺ - 24333TO

- ◆ Corner Radius - 3-Flute x 1.2D - Taper Neck
- ◆ Uneven Flute / Variable Helix 33° /34° /35°



CED Tolerance(mm)	
2~3	0~-0.014
3~6	0~-0.018

(unit : mm)

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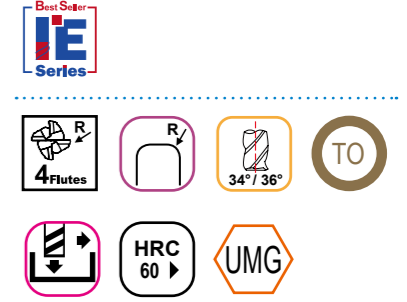
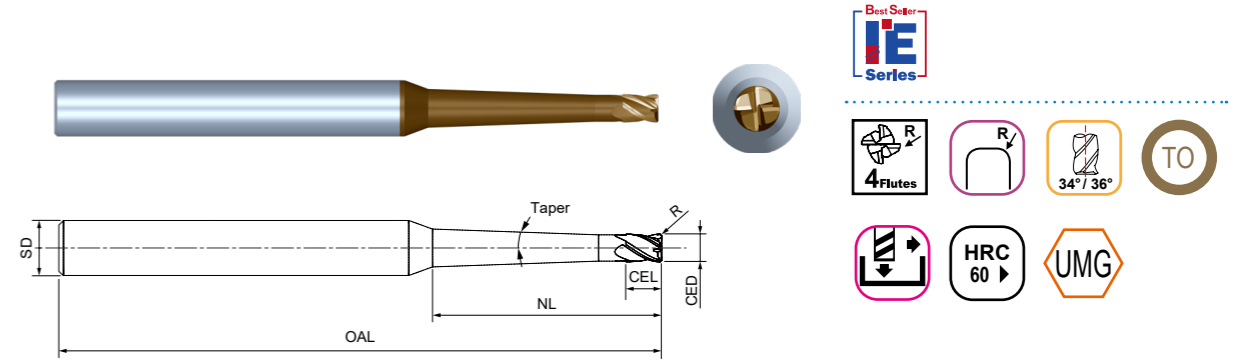
Code No.	CED	C/R	CEL	L1	NL	ND	Taper	OAL	SD	Flute
RTX600IE ⁺ -24333TO	2	0.2R	2.5	4.5	10	1.95	1°	60	6	3
	2	0.2R	2.5	4.5	15	1.95	1°	60	6	
	2	0.2R	2.5	4.5	20	1.95	1°	60	6	
	2	0.2R	2.5	4.5	25	1.95	1°	65	6	
	2	0.2R	2.5	4.5	30	1.95	1°	75	6	
	2	0.2R	2.5	4.5	40	1.95	1°	100	6	
	2	0.2R	2.5	4.5	50	1.95	1°	100	6	
	2.5	0.2R	3	6	15	2.45	1.5°	60	6	
	2.5	0.2R	3	6	20	2.45	1.5°	60	6	
	2.5	0.2R	3	6	25	2.45	1.5°	65	6	
	2.5	0.2R	3	6	30	2.45	1.5°	75	6	
	2.5	0.2R	3	6	40	2.45	1.5°	100	6	
	2.5	0.2R	3	6	50	2.45	1.5°	100	6	
	3	0.2R	4	6.5	20	2.9	1°	60	6	
	3	0.2R	4	6.5	25	2.9	1°	65	6	
	3	0.2R	4	6.5	30	2.9	1°	75	6	
	3	0.2R	4	6.5	40	2.9	1°	100	6	
	3	0.2R	4	6.5	50	2.9	1°	100	6	
	4	0.3R	5	8	30	3.9	1°	75	6	
	4	0.3R	5	8	40	3.9	1°	100	6	
	4	0.3R	5	8	50	3.9	1°	100	6	
	4	0.3R	5	8	60	3.9	1°	110	6	
	4	0.3R	5	8	80	3.9	1°	125	8	
	6	0.3R	7	10	40	5.9	1°	100	8	
6	0.3R	7	10	50	5.9	1°	100	8		
6	0.3R	7	10	60	5.9	1°	110	8		
6	0.3R	7	10	80	5.9	1°	125	10		
6	0.3R	7	10	100	5.9	1°	150	10		

※ Customized Special sizes, Coating type and Inches are available to order.

UMG Carbide - Rib Processing Corner Radius End Mill

RTX600IE⁺ - 24344TO

- ◆ Corner Radius - 4-Flute x 1.5D - Taper Neck
- ◆ Uneven Flute / Variable Helix 34° /36°



CED Tolerance(mm)	
2~3	0~-0.014
3~6	0~-0.018

(unit : mm)

Cutting Conditon Page | 45

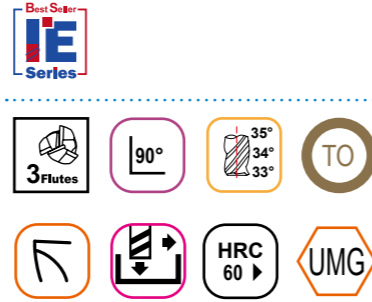
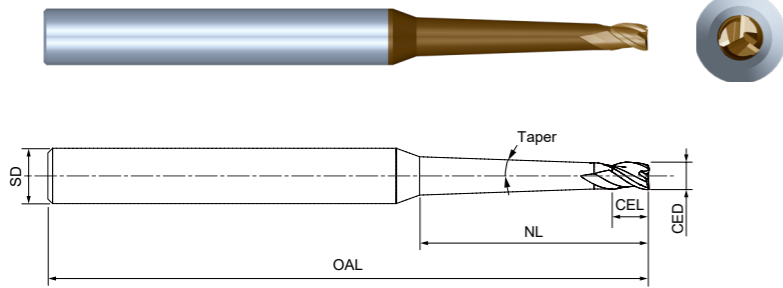
Code No.	CED	C/R	CEL	L1	NL	ND	Taper	OAL	SD	Flute
RTX600IE ⁺ -24344TO	2	0.2R	3	5	10	1.95	1°	60	6	4
	2	0.2R	3	5	15	1.95	1°	60	6	
	2	0.2R	3	5	20	1.95	1°	60	6	
	2	0.2R	3	5	25	1.95	1°	65	6	
	2	0.2R	3	5	30	1.95	1°	75	6	
	2	0.2R	3	5	40	1.95	1°	100	6	
	2	0.2R	3	5	50	1.95	1°	100	6	
	2.5	0.2R	3.8	6	15	2.45	1.5°	60	6	
	2.5	0.2R	3.8	6	20	2.45	1.5°	60	6	
	2.5	0.2R	3.8	6	25	2.45	1.5°	65	6	
	2.5	0.2R	3.8	6	30	2.45	1.5°	75	6	
	2.5	0.2R	3.8	6	40	2.45	1.5°	100	6	
	2.5	0.2R	3.8	6	50	2.45	1.5°	100	6	
	3	0.2R	4.5	7	20	2.9	1°	60	6	
	3	0.2R	4.5	7	25	2.9	1°	65	6	
	3	0.2R	4.5	7	30	2.9	1°	75	6	
	3	0.2R	4.5	7	40	2.9	1°	100	6	
	3	0.2R	4.5	7	50	2.9	1°	100	6	
	4	0.3R	6	9	30	3.9	1°	75	6	
	4	0.3R	6	9	40	3.9	1°	100	6	
	4	0.3R	6	9	50	3.9	1°	100	6	
	4	0.3R	6	9	60	3.9	1°	110	6	
	4	0.3R	6	9	80	3.9	1°	125	8	
	6	0.3R	9	12	40	5.9	1°	100	8	
	6	0.3R	9	12	50	5.9	1°	100	8	
	6	0.3R	9	12	60	5.9	1°	110	8	
	6	0.3R	9	12	80	5.9	1°	125	10	
	6	0.3R	9	12	100	5.9	1°	150	10	

※ Customized Special sizes, Coating type and Inches are available to order.

UMG Carbide - Rib Processing Square End Mill

RTX600IE⁺ - 14333TO

- ♦ Square - 3-Flute x 1.2D - Taper Neck
- ♦ Uneven Flute / Variable Helix 33° /34° /35°



CED Tolerance(mm)	
2~3	0~-0.014
3~6	0~-0.018

(unit : mm)

Cutting Conditon Page | 46

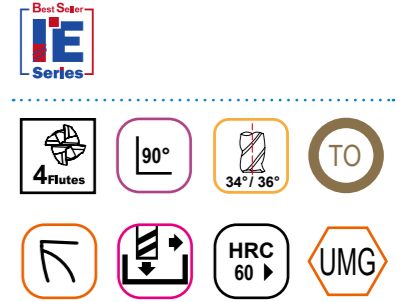
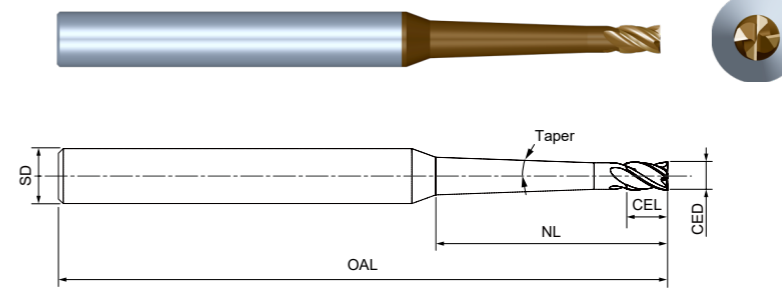
Code No.	CED	CEL	L1	NL	ND	Taper	OAL	SD	Flute
RTX600IE ⁺ -14333TO	2	2.5	4.5	10	1.95	1°	60	6	3
	2	2.5	4.5	15	1.95	1°	60	6	
	2	2.5	4.5	20	1.95	1°	60	6	
	2	2.5	4.5	25	1.95	1°	65	6	
	2	2.5	4.5	30	1.95	1°	75	6	
	2	2.5	4.5	40	1.95	1°	100	6	
	2	2.5	4.5	50	1.95	1°	100	6	
	2.5	3	6	15	2.45	1.5°	60	6	
	2.5	3	6	20	2.45	1.5°	60	6	
	2.5	3	6	25	2.45	1.5°	65	6	
	2.5	3	6	30	2.45	1.5°	75	6	
	2.5	3	6	40	2.45	1.5°	100	6	
	2.5	3	6	50	2.45	1.5°	100	6	
	3	4	6.5	20	2.9	1°	60	6	
	3	4	6.5	25	2.9	1°	65	6	
	3	4	6.5	30	2.9	1°	75	6	
	3	4	6.5	40	2.9	1°	100	6	
	3	4	6.5	50	2.9	1°	100	6	
	4	5	8	30	3.9	1°	75	6	
	4	5	8	40	3.9	1°	100	6	
	4	5	8	50	3.9	1°	100	6	
	4	5	8	60	3.9	1°	110	6	
	4	5	8	80	3.9	1°	125	8	
	6	7	10	40	5.9	1°	100	8	
6	7	10	50	5.9	1°	100	8		
6	7	10	60	5.9	1°	110	8		
6	7	10	80	5.9	1°	125	10		
6	7	10	100	5.9	1°	150	10		

※ Customized Special sizes, Coating type and Inches are available to order.

UMG Carbide - Rib Processing Square End Mill

RTX600IE⁺ - 14344TO

- ♦ Square - 4-Flute x 1.5D - Taper Neck
- ♦ Uneven Flute / Variable Helix 34° /36°



CED Tolerance(mm)	
2~3	0~-0.014
3~6	0~-0.018

(unit : mm)

Cutting Conditon Page | 47

Code No.	CED	CEL	L1	NL	ND	Taper	OAL	SD	Flute
RTX600IE ⁺ -14344TO	2	3	5	10	1.95	1°	60	6	4
	2	3	5	15	1.95	1°	60	6	
	2	3	5	20	1.95	1°	60	6	
	2	3	5	25	1.95	1°	65	6	
	2	3	5	30	1.95	1°	75	6	
	2	3	5	40	1.95	1°	100	6	
	2	3	5	50	1.95	1°	100	6	
	2.5	3.8	6	15	2.45	1.5°	60	6	
	2.5	3.8	6	20	2.45	1.5°	60	6	
	2.5	3.8	6	25	2.45	1.5°	65	6	
	2.5	3.8	6	30	2.45	1.5°	75	6	
	2.5	3.8	6	40	2.45	1.5°	100	6	
	2.5	3.8	6	50	2.45	1.5°	100	6	
	3	4.5	7	20	2.9	1°	60	6	
	3	4.5	7	25	2.9	1°	65	6	
	3	4.5	7	30	2.9	1°	75	6	
	3	4.5	7	40	2.9	1°	100	6	
	3	4.5	7	50	2.9	1°	100	6	
	4	6	9	30	3.9	1°	75	6	
	4	6	9	40	3.9	1°	100	6	
	4	6	9	50	3.9	1°	100	6	
	4	6	9	60	3.9	1°	110	6	
	4	6	9	80	3.9	1°	125	8	
	6	9	12	40	5.9	1°	100	8	
6	9	12	50	5.9	1°	100	8		
6	9	12	60	5.9	1°	110	8		
6	9	12	80	5.9	1°	125	10		
6	9	12	100	5.9	1°	150	10		

※ Customized Special sizes, Coating type and Inches are available to order.

Recommended Cutting Condition

RPX600E⁺ - 84333TO | P.8-9

Rib Processing Ball Nose End Mill

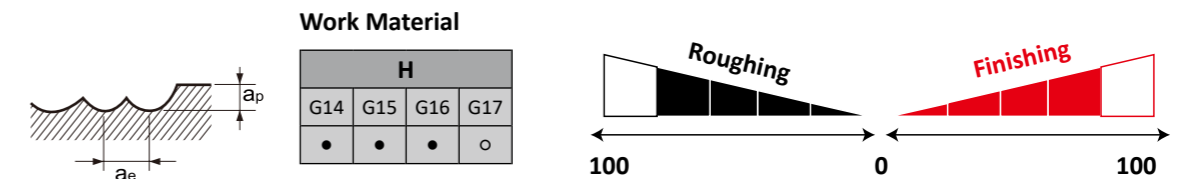
Work Material			Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 50~60HRC for Finishing Process				Hardened Steel 40~50HRC for Semi-roughing Process			
			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
CED	Cutting Condition													
	R	NL												
1	0.5R	5	18,000	1,000	0.05	0.16	18,000	800	0.03	0.03	18,000	900	0.05	0.16
1	0.5R	10	16,000	800	0.04	0.16	16,000	700	0.03	0.03	16,000	700	0.04	0.16
1	0.5R	15	8,000	420	0.03	0.16	8,000	400	0.03	0.03	8,000	400	0.03	0.16
1	0.5R	20	6,000	300	0.02	0.12	7,000	280	0.03	0.03	6,000	280	0.02	0.12
1.5	0.75R	5	18,000	1,500	0.1	0.3	18,000	1,300	0.04	0.04	16,000	1,300	0.1	0.3
1.5	0.75R	10	15,000	1,100	0.06	0.25	16,000	1,000	0.04	0.04	15,000	950	0.06	0.25
1.5	0.75R	15	7,500	550	0.02	0.2	7,500	400	0.04	0.04	7,500	500	0.02	0.2
1.5	0.75R	20	5,300	380	0.02	0.2	5,300	250	0.04	0.04	5,300	350	0.02	0.2
2	1R	5	18,000	1,600	0.2	0.6	18,000	1,600	0.06	0.05	15,000	1,400	0.2	0.4
2	1R	10	12,000	1,250	0.14	0.4	12,000	1,200	0.06	0.05	11,000	1,100	0.14	0.4
2	1R	15	7,800	820	0.14	0.4	7,800	780	0.06	0.05	7,800	780	0.14	0.4
2	1R	20	6,200	650	0.13	0.4	6,200	600	0.06	0.05	6,200	600	0.13	0.4
2	1R	25	4,700	500	0.12	0.3	4,700	470	0.06	0.05	4,700	470	0.12	0.3
2	1R	30	3,800	400	0.1	0.3	3,500	380	0.06	0.05	3,500	380	0.1	0.3
2	1R	35	3,500	380	0.07	0.3	3,400	350	0.06	0.05	3,500	350	0.07	0.3
3	1.5R	10	12,000	1,900	0.21	0.5	11,000	1,700	0.09	0.08	8,000	1,200	0.21	0.5
3	1.5R	15	12,000	1,900	0.2	0.5	10,000	1,500	0.09	0.08	8,000	1,200	0.2	0.5
3	1.5R	20	7,500	1,150	0.19	0.5	7,500	1,000	0.09	0.08	7,200	1,000	0.19	0.5
3	1.5R	25	4,800	750	0.19	0.5	5,500	800	0.09	0.08	4,600	700	0.19	0.5
3	1.5R	30	4,000	630	0.16	0.4	5,000	680	0.09	0.08	3,400	500	0.16	0.4
3	1.5R	35	3,400	530	0.14	0.4	4,000	550	0.09	0.08	3,000	450	0.14	0.4
3	1.5R	40	2,800	440	0.13	0.4	3,500	500	0.09	0.08	2,600	400	0.13	0.4
3.5	1.75R	10	12,000	1,900	0.23	0.55	10,600	1,500	0.1	0.09	9,000	1,330	0.23	0.55
3.5	1.75R	15	12,000	1,900	0.23	0.55	10,000	1,200	0.1	0.09	9,000	1,330	0.23	0.55
3.5	1.75R	20	7,280	1,310	0.22	0.5	9,000	1,100	0.1	0.09	5,500	920	0.22	0.5
3.5	1.75R	25	4,800	850	0.19	0.5	7,500	950	0.1	0.09	3,600	600	0.19	0.5
3.5	1.75R	30	4,550	820	0.18	0.5	5,000	700	0.1	0.09	3,400	570	0.18	0.5
3.5	1.75R	35	3,600	650	0.15	0.5	4,000	600	0.1	0.09	2,700	460	0.15	0.5
3.5	1.75R	40	3,180	570	0.13	0.5	3,500	570	0.1	0.09	2,400	400	0.13	0.5
3.5	1.75R	45	3,000	550	0.12	0.4	3,000	500	0.1	0.09	2,250	385	0.12	0.4
4	2R	10	9,600	2,000	0.3	0.6	9,500	1,600	0.13	0.1	7,200	1,300	0.3	0.6
4	2R	15	9,300	1,900	0.27	0.6	9,000	1,520	0.13	0.1	6,900	1,200	0.27	0.6
4	2R	20	7,600	1,550	0.25	0.6	8,200	1,240	0.13	0.1	6,000	1,150	0.25	0.6
4	2R	25	6,100	1,250	0.23	0.6	5,500	1,000	0.13	0.1	5,500	1,100	0.23	0.6
4	2R	30	5,000	1,050	0.2	0.6	4,500	750	0.13	0.1	4,500	800	0.2	0.6
4	2R	35	3,600	750	0.16	0.5	3,600	590	0.13	0.09	3,600	650	0.16	0.5
4	2R	40	3,000	630	0.12	0.5	3,000	500	0.13	0.09	3,000	550	0.12	0.5

Recommended Cutting Condition

RPX600IE⁺ - 84333TO | P.8-9

Rib Processing Ball Nose End Mill

Work Material			Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 50~60HRC for Finishing Process				Hardened Steel 40~50HRC for Semi-roughing Process			
			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
CED	Cutting Condition													
	R	NL												
4	2R	45	2,700	550	0.1	0.4	2,700	450	0.13	0.08	2,700	500	0.1	0.4
4	2R	50	2,500	520	0.1	0.4	2,500	400	0.13	0.08	2,500	450	0.1	0.4
5	2.5R	10	7,700	1,900	0.35	0.8	7,700	1,520	0.15	0.25	4,800	1,100	0.35	0.8
5	2.5R	15	7,700	1,900	0.3	0.8	7,700	1,520	0.15	0.25	4,800	1,000	0.3	0.8
5	2.5R	20	7,700	1,800	0.3	0.8	6,500	1,400	0.15	0.25	4,800	950	0.3	0.8
5	2.5R	25	5,100	1,300	0.25	0.8	5,100	1,040	0.15	0.25	4,800	900	0.25	0.8
5	2.5R	30	4,800	1,200	0.2	0.8	5,100	960	0.15	0.25	4,800	850	0.2	0.8
5	2.5R	35	4,400	1,100	0.14	0.8	5,100	880	0.1	0.25	4,400	750	0.14	0.8
5	2.5R	40	3,100	750	0.1	0.6	4,000	750	0.1	0.2	3,100	650	0.1	0.6
5	2.5R	45	2,700	600	0.1	0.6	3,000	600	0.1	0.1	2,700	550	0.1	0.6
5	2.5R	50	2,500	550	0.1	0.6	2,500	480	0.1	0.1	2,500	500	0.1	0.6
6	3R	10	7,700	2,000	0.45	1.2	7,700	1,600	0.18	0.3	4,800	1,100	0.35	1
6	3R	15	7,700	2,000	0.45	1.2	7,700	1,600	0.18	0.3	4,800	1,000	0.35	1
6	3R	20	7,400	1,900	0.45	1.2	7,700	1,520	0.18	0.3	4,800	950	0.35	1
6	3R	25	5,100	1,300	0.43	1.2	5,100	1,040	0.18	0.25	4,000	900	0.3	1
6	3R	30	5,100	1,200	0.34	1.2	5,100	960	0.18	0.25	4,000	850	0.3	1
6	3R	35	4,200	950	0.3	1.2	4,200	760	0.18	0.25	4,000	800	0.3	1
6	3R	40	3,700	820	0.2	1	3,700	670	0.15	0.16	3,600	690	0.2	1
6	3R	45	3,600	750	0.15	0.9	3,000	560	0.1	0.12	3,100	630	0.15	0.8
6	3R	50	3,000	620	0.1	0.8	2,600	480	0.1	0.1	2,600	520	0.1	0.8



1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
3. For dry cutting, please use air blow for chip removal and cooling.
4. These cutting data are for reference only. Please adjust the cutting speed according to machine capability and working conditions.
5. If vibrations occur during cutting process, adjust and reduce the cutting speed.

Recommended Cutting Condition

RPX600IE⁺ - 84344TO | P.10-11

Ball Nose

Work Material			Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process			
			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
CED	Cutting Condition													
	R	NL												
1	0.5R	5	18,000	1,200	0.05	0.13	18,000	1,080	0.05	0.13	18,000	960	0.03	0.02
1	0.5R	10	16,000	960	0.04	0.13	16,000	840	0.04	0.13	16,000	840	0.03	0.02
1	0.5R	15	8,000	500	0.03	0.13	8,000	500	0.03	0.13	8,000	500	0.03	0.02
1	0.5R	20	6,000	360	0.02	0.09	6,000	340	0.02	0.09	7,000	340	0.03	0.02
1.5	0.75R	5	18,000	1,800	0.1	0.24	16,000	1,560	0.1	0.24	18,000	1,560	0.04	0.03
1.5	0.75R	10	15,000	1,320	0.06	0.2	15,000	1,140	0.06	0.2	16,000	1,200	0.04	0.03
1.5	0.75R	15	7,500	660	0.02	0.16	7,500	600	0.02	0.16	7,500	480	0.04	0.03
1.5	0.75R	20	5,300	450	0.02	0.16	5,300	450	0.02	0.16	5,300	450	0.04	0.03
2	1R	5	18,000	1,920	0.2	0.49	15,000	1,680	0.2	0.47	18,000	1,920	0.06	0.04
2	1R	10	12,000	1,500	0.14	0.33	11,000	1,320	0.14	0.33	12,000	1,440	0.06	0.04
2	1R	15	7,800	980	0.14	0.33	7,800	980	0.14	0.33	7,800	980	0.06	0.04
2	1R	20	6,200	780	0.13	0.33	6,200	720	0.13	0.33	6,200	720	0.06	0.04
2	1R	25	4,700	600	0.12	0.24	4,700	570	0.12	0.24	4,700	570	0.06	0.04
2	1R	30	3,800	480	0.1	0.24	3,500	460	0.1	0.24	3,500	460	0.06	0.04
2	1R	35	3,500	450	0.07	0.24	3,500	450	0.07	0.24	3,400	450	0.06	0.04
3	1.5R	10	12,000	2,280	0.21	0.41	8,000	1,440	0.21	0.41	11,000	2,040	0.09	0.06
3	1.5R	15	12,000	2,280	0.2	0.41	8,000	1,440	0.2	0.41	10,000	1,800	0.09	0.06
3	1.5R	20	7,500	1,380	0.19	0.41	7,200	1,200	0.19	0.41	7,500	1,200	0.09	0.06
3	1.5R	25	4,800	900	0.19	0.41	4,600	840	0.19	0.41	5,500	960	0.09	0.06
3	1.5R	30	4,000	760	0.16	0.33	3,400	600	0.16	0.33	5,000	820	0.09	0.06
3	1.5R	35	3,400	640	0.14	0.33	3,000	540	0.14	0.33	4,000	660	0.09	0.06
3	1.5R	40	2,800	530	0.13	0.33	2,600	480	0.13	0.33	3,500	600	0.09	0.06
3.5	1.75R	10	12,000	2,280	0.23	0.45	9,000	1,920	0.23	0.45	10,600	1,800	0.1	0.07
3.5	1.75R	15	12,000	2,280	0.23	0.45	9,000	1,920	0.23	0.45	10,000	1,440	0.1	0.07
3.5	1.75R	20	7,280	1,580	0.22	0.41	5,500	1,110	0.22	0.41	9,000	1,320	0.1	0.07
3.5	1.75R	25	4,800	1,020	0.19	0.41	3,600	720	0.19	0.41	7,500	1,140	0.1	0.07
3.5	1.75R	30	4,550	990	0.18	0.41	3,400	690	0.18	0.41	5,000	840	0.1	0.07
3.5	1.75R	35	3,600	780	0.15	0.41	2,700	560	0.15	0.41	4,000	720	0.1	0.07
3.5	1.75R	40	3,180	690	0.13	0.41	2,400	480	0.13	0.41	3,500	690	0.1	0.07
3.5	1.75R	45	3,000	660	0.12	0.33	2,250	560	0.12	0.33	3,000	600	0.1	0.07
4	2R	10	9,600	2,400	0.3	0.49	7,200	1,560	0.3	0.49	9,500	2,310	0.13	0.08
4	2R	15	9,300	2,280	0.27	0.49	6,900	1,440	0.27	0.49	9,000	2,190	0.13	0.08
4	2R	20	7,600	1,860	0.25	0.49	6,000	1,380	0.25	0.49	8,200	1,790	0.13	0.08
4	2R	25	6,100	1,500	0.23	0.49	5,500	1,320	0.23	0.49	5,500	1,440	0.13	0.08
4	2R	30	5,000	1,260	0.2	0.49	4,500	960	0.2	0.49	4,500	900	0.13	0.08
4	2R	35	3,600	900	0.16	0.41	3,600	780	0.16	0.41	3,600	710	0.13	0.08
4	2R	40	3,000	760	0.12	0.41	3,000	660	0.12	0.41	3,000	600	0.13	0.08

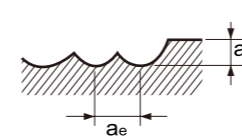
Recommended Cutting Condition

RPX600IE⁺ - 84344TO | P.10-11

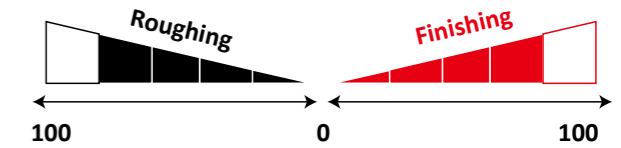
Ball Nose

Work Material			Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process			
			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
CED	Cutting Condition													
	R	NL												
4	2R	45	2,700	660	0.1	0.33	2,700	600	0.1	0.33	2,700	650	0.13	0.08
4	2R	50	2,500	630	0.1	0.33	2,500	540	0.1	0.33	2,500	480	0.13	0.08
5	2.5R	10	7,700	2,280	0.35	0.66	4,800	1,320	0.35	0.66	7,700	2,190	0.15	0.12
5	2.5R	15	7,700	2,280	0.3	0.66	4,800	1,200	0.3	0.66	7,700	2,190	0.15	0.12
5	2.5R	20	7,700	2,160	0.3	0.66	4,800	1,140	0.3	0.66	6,500	1,680	0.15	0.12
5	2.5R	25	5,100	1,560	0.25	0.66	4,800	1,080	0.25	0.66	5,100	1,500	0.15	0.12
5	2.5R	30	4,800	1,440	0.2	0.66	4,800	1,020	0.2	0.66	5,100	1,390	0.15	0.12
5	2.5R	35	4,400	1,320	0.14	0.66	4,400	900	0.14	0.66	5,100	1,270	0.1	0.12
5	2.5R	40	3,100	900	0.1	0.49	3,100	780	0.1	0.49	4,000	900	0.1	0.12
5	2.5R	45	2,700	720	0.1	0.49	2,700	660	0.1	0.49	3,000	720	0.1	0.12
5	2.5R	50	2,500	660	0.1	0.49	2,500	600	0.1	0.49	2,500	580	0.1	0.12
6	3R	10	7,700	2,400	0.45	0.99	4,800	1,320	0.35	0.83	7,700	2,310	0.18	0.16
6	3R	15	7,700	2,400	0.45	0.99	4,800	1,200	0.35	0.83	7,700	2,310	0.18	0.16
6	3R	20	7,400	2,280	0.45	0.99	4,800	1,140	0.35	0.83	7,700	2,190	0.18	0.16
6	3R	25	5,100	1,560	0.43	0.99	4,000	1,080	0.3	0.83	5,100	1,500	0.18	0.16
6	3R	30	5,100	1,440	0.34	0.99	4,000	1,020	0.3	0.83	5,100	1,390	0.18	0.16
6	3R	35	4,200	1,140	0.3	0.99	4,000	960	0.3	0.83	4,200	1,100	0.18	0.16
6	3R	40	3,700	990	0.2	0.83	3,600	830	0.2	0.83	3,700	810	0.15	0.16
6	3R	45	3,600	900	0.15	0.74	3,100	760	0.15	0.66	3,000	680	0.1	0.16
6	3R	50	3,000	750	0.1	0.66	2,600	630	0.1	0.66	2,600	580	0.1	0.16

Work Material



H			
G14	G15	G16	G17
•	•	•	○



1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
3. For dry cutting, please use air blow for chip removal and cooling.
4. These cutting data are for reference only. Please adjust the cutting speed according to machine capability and working conditions.
5. If vibrations occur during cutting process, adjust and reduce the cutting speed.

Recommended Cutting Condition

RPX600IE⁺ - 24333TO | P.12-13

Corner Radius

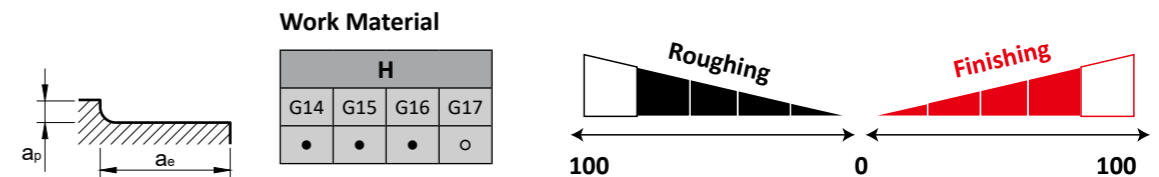
Work Material	Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process						
	Cutting Condition			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
	CED	R	NL												
2	0.2R	5	18,000	1,600	0.15	0.4	18,000	1,360	0.13	0.4	18,000	1,150	0.06	0.4	
2	0.2R	10	12,000	1,050	0.15	0.4	12,000	1,000	0.13	0.4	12,000	850	0.06	0.4	
2	0.2R	15	7,800	780	0.12	0.4	7,800	740	0.1	0.4	7,800	650	0.06	0.4	
2	0.2R	20	6,200	620	0.1	0.3	6,200	600	0.07	0.3	6,200	550	0.06	0.3	
2	0.2R	25	4,700	470	0.07	0.3	4,700	450	0.06	0.3	4,700	380	0.06	0.3	
2	0.2R	30	3,500	350	0.07	0.3	3,500	300	0.05	0.3	3,500	300	0.05	0.3	
2	0.2R	35	3,500	330	0.07	0.2	3,500	280	0.04	0.2	3,500	280	0.04	0.2	
2.5	0.2R	15	8,900	800	0.15	0.4	8,900	680	0.15	0.4	8,900	610	0.08	0.4	
2.5	0.2R	20	6,300	570	0.15	0.4	6,300	490	0.15	0.4	6,300	440	0.08	0.4	
2.5	0.2R	25	5,100	460	0.12	0.3	5,100	390	0.12	0.3	5,100	350	0.08	0.3	
2.5	0.2R	30	3,800	340	0.12	0.3	3,800	290	0.12	0.3	3,800	260	0.08	0.3	
2.5	0.2R	40	2,800	250	0.1	0.3	2,800	210	0.1	0.3	2,800	190	0.08	0.3	
2.5	0.2R	50	2,800	250	0.08	0.2	2,800	210	0.08	0.2	2,800	190	0.07	0.2	
3	0.2R	20	7,500	1,100	0.12	0.5	7,500	940	0.12	0.5	7,500	800	0.1	0.5	
3	0.2R	25	4,800	700	0.12	0.4	4,800	600	0.12	0.4	4,800	510	0.1	0.4	
3	0.2R	30	3,800	550	0.1	0.4	3,800	470	0.1	0.4	3,800	400	0.08	0.4	
3	0.2R	40	2,600	420	0.08	0.3	2,600	380	0.08	0.3	2,600	320	0.07	0.3	
3	0.2R	50	2,200	350	0.08	0.3	2,200	300	0.08	0.3	2,200	260	0.07	0.3	
4	0.3R	10	9,500	2,100	0.2	0.9	9,500	1,800	0.2	0.9	9,500	1,530	0.12	0.8	
4	0.3R	15	9,000	2,000	0.2	0.8	9,000	1,700	0.2	0.8	9,000	1,440	0.12	0.8	
4	0.3R	20	8,200	1,700	0.2	0.7	8,200	1,450	0.14	0.7	8,200	1,230	0.12	0.7	
4	0.3R	25	5,500	1,150	0.15	0.7	5,500	980	0.11	0.7	5,500	830	0.09	0.7	
4	0.3R	30	4,500	960	0.15	0.7	4,500	850	0.09	0.7	4,500	800	0.07	0.7	
4	0.3R	35	3,600	750	0.12	0.6	3,600	680	0.09	0.6	3,600	650	0.07	0.6	
4	0.3R	40	3,000	620	0.12	0.6	3,000	580	0.09	0.6	3,000	560	0.07	0.6	
4	0.3R	45	2,700	560	0.1	0.5	2,700	500	0.08	0.5	2,700	480	0.06	0.5	
4	0.3R	50	2,500	510	0.1	0.5	2,500	450	0.08	0.5	2,500	430	0.06	0.5	
6	0.3R	10	7,200	2,100	0.35	1.3	7,200	1,800	0.24	1.3	7,200	1,530	0.15	1.1	
6	0.3R	15	7,000	2,000	0.35	1.3	7,000	1,700	0.24	1.3	7,000	1,440	0.15	1.1	
6	0.3R	20	6,800	1,800	0.24	1.2	6,800	1,530	0.2	1.2	6,800	1,300	0.15	1	

Recommended Cutting Condition

RPX600IE⁺ - 24333TO | P.12-13

Corner Radius

Work Material	Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process						
	Cutting Condition			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
	CED	R	NL												
6	0.3R	25	6,500	1,300	0.24	1.2	6,500	1,100	0.2	1.2	6,500	930	0.15	1	
6	0.3R	30	5,100	1,000	0.2	1.2	5,100	850	0.18	1.2	5,100	720	0.16	1	
6	0.3R	35	4,200	800	0.2	1	4,200	680	0.18	1	4,200	580	0.16	0.8	
6	0.3R	40	3,700	700	0.15	1	3,700	600	0.13	1	3,700	510	0.11	0.8	
6	0.3R	45	2,600	480	0.13	1	2,600	400	0.1	1	2,600	340	0.08	0.8	
6	0.3R	50	2,300	420	0.1	0.9	2,300	360	0.08	0.9	2,300	300	0.06	0.7	



1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
3. For dry cutting, please use air blow for chip removal and cooling.
4. These cutting data are for reference only. Please adjust the cutting speed according to machine capability and working conditions.
5. If vibrations occur during cutting process, adjust and reduce the cutting speed.

Recommended Cutting Condition

RPX600IE⁺ - 24344TO | P.14-15

Corner Radius

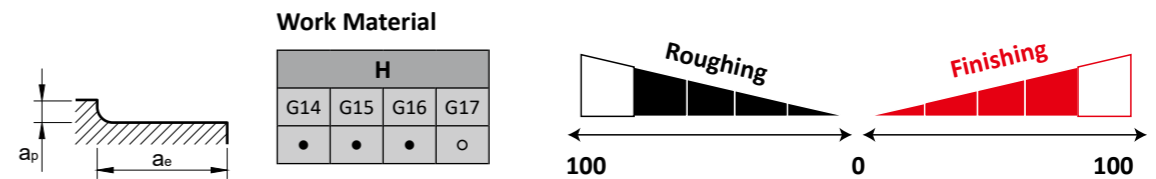
Work Material			Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process			
			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
Cutting Condition														
CED	R	NL												
2	0.2R	5	18,000	1,920	0.15	0.33	18,000	1,960	0.13	0.33	18,000	1,380	0.06	0.33
2	0.2R	10	12,000	1,260	0.15	0.33	12,000	1,200	0.13	0.33	12,000	1,230	0.06	0.33
2	0.2R	15	7,800	940	0.12	0.33	7,800	890	0.1	0.33	7,800	780	0.06	0.33
2	0.2R	20	6,200	750	0.1	0.24	6,200	720	0.07	0.24	6,200	660	0.06	0.19
2	0.2R	25	4,700	570	0.07	0.24	4,700	540	0.06	0.24	4,700	460	0.06	0.19
2	0.2R	30	3,500	420	0.07	0.24	3,500	360	0.05	0.24	3,500	360	0.05	0.19
2	0.2R	35	3,500	400	0.07	0.16	3,500	340	0.04	0.16	3,500	340	0.04	0.13
2.5	0.2R	15	8,900	960	0.15	0.33	8,900	980	0.15	0.33	8,900	740	0.08	0.27
2.5	0.2R	20	6,300	690	0.15	0.33	6,300	590	0.15	0.33	6,300	530	0.08	0.27
2.5	0.2R	25	5,100	560	0.12	0.24	5,100	470	0.12	0.24	5,100	420	0.08	0.19
2.5	0.2R	30	3,800	410	0.12	0.24	3,800	350	0.12	0.24	3,800	320	0.08	0.19
2.5	0.2R	40	2,800	300	0.1	0.24	2,800	260	0.1	0.24	2,800	230	0.08	0.19
2.5	0.2R	50	2,800	300	0.08	0.16	2,800	260	0.08	0.16	2,800	230	0.07	0.13
3	0.2R	20	7,500	1,320	0.12	0.41	7,500	1,130	0.12	0.41	7,500	960	0.1	0.34
3	0.2R	25	4,800	840	0.12	0.33	4,800	720	0.12	0.33	4,800	740	0.1	0.27
3	0.2R	30	3,800	660	0.1	0.33	3,800	570	0.1	0.33	3,800	590	0.08	0.27
3	0.2R	40	2,600	510	0.08	0.24	2,600	460	0.08	0.24	2,600	390	0.07	0.19
3	0.2R	50	2,200	420	0.08	0.24	2,200	360	0.08	0.24	2,200	320	0.07	0.19
4	0.3R	10	9,500	2,520	0.2	0.74	9,500	2,160	0.2	0.74	9,500	2,000	0.12	0.66
4	0.3R	15	9,000	2,400	0.2	0.66	9,000	2,000	0.2	0.66	9,000	1,730	0.12	0.54
4	0.3R	20	8,200	2,040	0.2	0.58	8,200	1,740	0.14	0.58	8,200	1,480	0.12	0.48
4	0.3R	25	5,500	1,380	0.15	0.58	5,500	1,180	0.11	0.58	5,500	1,000	0.09	0.48
4	0.3R	30	4,500	1,160	0.15	0.58	4,500	1,020	0.09	0.58	4,500	960	0.07	0.48
4	0.3R	35	3,600	900	0.12	0.49	3,600	820	0.09	0.49	3,600	780	0.07	0.4
4	0.3R	40	3,000	750	0.12	0.49	3,000	700	0.09	0.49	3,000	680	0.07	0.4
4	0.3R	45	2,700	680	0.1	0.41	2,700	600	0.08	0.41	2,700	580	0.06	0.34
4	0.3R	50	2,500	620	0.1	0.41	2,500	540	0.08	0.41	2,500	520	0.06	0.34
6	0.3R	10	7,200	2,520	0.35	1.08	7,200	2,160	0.24	1.08	7,200	2,210	0.15	0.73
6	0.3R	15	7,000	2,400	0.35	1.08	7,000	2,450	0.24	1.08	7,000	1,730	0.15	0.73
6	0.3R	20	6,800	2,160	0.24	0.99	6,800	2,210	0.2	0.99	6,800	1,560	0.15	0.65

Recommended Cutting Condition

RPX600IE⁺ - 24344TO | P.14-15

Corner Radius

Work Material			Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process			
			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
Cutting Condition														
CED	R	NL												
6	0.3R	25	6,500	1,560	0.24	0.99	6,500	1,320	0.2	0.99	6,500	1,120	0.15	0.65
6	0.3R	30	5,100	1,200	0.2	0.99	5,100	1,230	0.18	0.99	5,100	870	0.16	0.65
6	0.3R	35	4,200	960	0.2	0.83	4,200	980	0.18	0.83	4,200	700	0.16	0.52
6	0.3R	40	3,700	840	0.15	0.83	3,700	720	0.13	0.83	3,700	740	0.11	0.52
6	0.3R	45	2,600	580	0.13	0.83	2,600	480	0.1	0.83	2,600	490	0.08	0.52
6	0.3R	50	2,300	510	0.1	0.74	2,300	440	0.08	0.74	2,300	360	0.06	0.44



1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
3. For dry cutting, please use air blow for chip removal and cooling.
4. These cutting data are for reference only. Please adjust the cutting speed according to machine capability and working conditions.
5. If vibrations occur during cutting process, adjust and reduce the cutting speed.

Recommended Cutting Condition

RPX600IE⁺ - 1433TO | P.16-17

Square

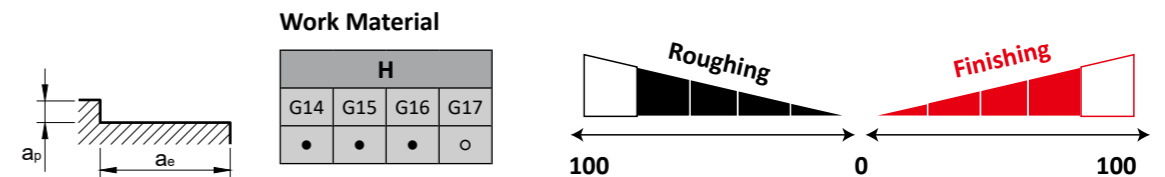
Work Material		Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process									
		Cutting Condition		RPM/ min	Feed mm/ min	a _p	a _e	Cutting Condition		RPM/ min	Feed mm/ min	a _p	a _e	Cutting Condition		RPM/ min	Feed mm/ min	a _p	a _e
		CED	NL					CED	NL					CED	NL				
2	5	18,000	1,600	0.15	0.4	18,000	1,360	0.13	0.4	18,000	1,150	0.06	0.4						
2	10	12,000	1,050	0.15	0.4	12,000	1,000	0.13	0.4	12,000	850	0.06	0.4						
2	15	7,800	780	0.12	0.4	7,800	740	0.1	0.4	7,800	650	0.06	0.4						
2	20	6,200	620	0.1	0.3	6,200	600	0.07	0.3	6,200	550	0.06	0.3						
2	25	4,700	470	0.07	0.3	4,700	450	0.06	0.3	4,700	380	0.06	0.3						
2	30	3,500	350	0.07	0.3	3,500	300	0.05	0.3	3,500	300	0.05	0.3						
2	35	3,500	330	0.07	0.2	3,500	280	0.04	0.2	3,500	280	0.04	0.2						
2.5	15	8,900	800	0.15	0.4	8,900	680	0.15	0.4	8,900	610	0.08	0.4						
2.5	20	6,300	570	0.15	0.4	6,300	490	0.15	0.4	6,300	440	0.08	0.4						
2.5	25	5,100	460	0.12	0.3	5,100	390	0.12	0.3	5,100	350	0.08	0.3						
2.5	30	3,800	340	0.12	0.3	3,800	290	0.12	0.3	3,800	260	0.08	0.3						
2.5	40	2,800	250	0.1	0.3	2,800	210	0.1	0.3	2,800	190	0.08	0.3						
2.5	50	2,800	250	0.08	0.2	2,800	210	0.08	0.2	2,800	190	0.07	0.2						
3	20	7,500	1,100	0.12	0.5	7,500	940	0.12	0.5	7,500	800	0.1	0.5						
3	25	4,800	700	0.12	0.4	4,800	600	0.12	0.4	4,800	510	0.1	0.4						
3	30	3,800	550	0.1	0.4	3,800	470	0.1	0.4	3,800	400	0.08	0.4						
3	40	2,600	420	0.08	0.3	2,600	380	0.08	0.3	2,600	320	0.07	0.3						
3	50	2,200	350	0.08	0.3	2,200	300	0.08	0.3	2,200	260	0.07	0.3						
4	10	9,500	2,100	0.2	0.9	9,500	1,800	0.2	0.9	9,500	1,530	0.12	0.8						
4	15	9,000	2,000	0.2	0.8	9,000	1,700	0.2	0.8	9,000	1,440	0.12	0.8						
4	20	8,200	1,700	0.2	0.7	8,200	1,450	0.14	0.7	8,200	1,230	0.12	0.7						
4	25	5,500	1,150	0.15	0.7	5,500	980	0.11	0.7	5,500	830	0.09	0.7						
4	30	4,500	960	0.15	0.7	4,500	820	0.09	0.7	4,500	830	0.07	0.7						
4	35	3,600	750	0.12	0.6	3,600	640	0.09	0.6	3,600	800	0.07	0.6						
4	40	3,000	620	0.12	0.6	3,000	530	0.09	0.6	3,000	650	0.07	0.6						
4	45	2,700	560	0.1	0.5	2,700	480	0.08	0.5	2,700	610	0.06	0.5						
4	50	2,500	510	0.1	0.5	2,500	430	0.08	0.5	2,500	580	0.06	0.5						
6	10	8,000	2,100	0.35	1.3	8,000	1,800	0.24	1.3	8,000	1,530	0.15	1.1						
6	15	7,800	2,000	0.35	1.3	7,800	1,700	0.24	1.3	7,800	1,440	0.15	1.1						
6	20	7,200	1,800	0.24	1.2	7,200	1,530	0.2	1.2	7,200	1,300	0.15	1						
6	25	6,500	1,300	0.24	1.2	6,500	1,100	0.2	1.2	6,500	930	0.15	1						

Recommended Cutting Condition

RPX600IE⁺ - 1433TO | P.16-17

Square

Work Material		Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process									
		Cutting Condition		RPM/ min	Feed mm/ min	a _p	a _e	Cutting Condition		RPM/ min	Feed mm/ min	a _p	a _e	Cutting Condition		RPM/ min	Feed mm/ min	a _p	a _e
		CED	NL					CED	NL					CED	NL				
6	30	5,100	1,000	0.2	1.2	5,100	850	0.18	1.2	5,100	720	0.16	1						
6	35	4,200	800	0.2	1	4,200	680	0.18	1	4,200	580	0.16	0.8						
6	40	3,700	700	0.15	1	3,700	600	0.13	1	3,700	510	0.11	0.8						
6	45	2,600	480	0.13	1	2,600	400	0.1	1	2,600	340	0.08	0.8						
6	50	2,300	420	0.1	0.9	2,300	360	0.08	0.9	2,300	300	0.06	0.7						



1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
3. For dry cutting, please use air blow for chip removal and cooling.
4. These cutting data are for reference only. Please adjust the cutting speed according to machine capability and working conditions.
5. If vibrations occur during cutting process, adjust and reduce the cutting speed.

Recommended Cutting Condition

RPX600IE⁺ - 14344TO | P.18-19

Square

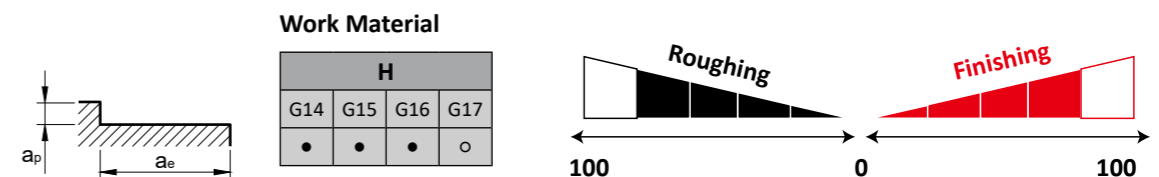
Work Material		Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process			
		RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
CED	NL	Cutting Condition											
		2	5	18,000	1,920	0.15	0.33	18,000	1,850	0.13	0.33	18,000	1,380
2	10	12,000	1,260	0.15	0.33	12,000	1,200	0.13	0.33	12,000	1,230	0.06	0.33
2	15	7,800	940	0.12	0.33	7,800	890	0.1	0.33	7,800	780	0.06	0.33
2	20	6,200	750	0.1	0.24	6,200	720	0.07	0.24	6,200	660	0.06	0.19
2	25	4,700	570	0.07	0.24	4,700	540	0.06	0.24	4,700	460	0.06	0.19
2	30	3,500	420	0.07	0.24	3,500	430	0.05	0.24	3,500	360	0.05	0.19
2	35	3,500	400	0.07	0.16	3,500	340	0.04	0.16	3,500	360	0.04	0.13
2.5	15	8,900	960	0.15	0.33	8,900	980	0.15	0.27	8,900	740	0.08	0.22
2.5	20	6,300	690	0.15	0.33	6,300	590	0.15	0.27	6,300	530	0.08	0.22
2.5	25	5,100	560	0.12	0.24	5,100	470	0.12	0.19	5,100	420	0.08	0.15
2.5	30	3,800	410	0.12	0.24	3,800	350	0.12	0.19	3,800	320	0.08	0.15
2.5	40	2,800	300	0.1	0.24	2,800	260	0.1	0.19	2,800	230	0.08	0.15
2.5	50	2,800	300	0.08	0.16	2,800	260	0.08	0.13	2,800	230	0.07	0.1
3	20	7,500	1,320	0.12	0.41	7,500	1,130	0.12	0.34	7,500	960	0.1	0.28
3	25	4,800	840	0.12	0.33	4,800	720	0.12	0.27	4,800	740	0.1	0.22
3	30	3,800	660	0.1	0.33	3,800	570	0.1	0.27	3,800	590	0.08	0.22
3	40	2,600	510	0.08	0.24	2,600	460	0.08	0.19	2,600	390	0.07	0.15
3	50	2,200	420	0.08	0.24	2,200	360	0.08	0.19	2,200	320	0.07	0.15
4	10	9,500	2,520	0.2	0.74	9,500	2,160	0.2	0.61	9,500	2,000	0.12	0.66
4	15	9,000	2,400	0.2	0.66	9,000	2,000	0.2	0.54	9,000	1,730	0.12	0.44
4	20	8,200	2,040	0.2	0.58	8,200	1,740	0.14	0.48	8,200	1,480	0.12	0.39
4	25	5,500	1,380	0.15	0.58	5,500	1,180	0.11	0.48	5,500	1,000	0.09	0.39
4	30	4,500	1,160	0.15	0.58	4,500	990	0.09	0.48	4,500	900	0.07	0.39
4	35	3,600	900	0.12	0.49	3,600	770	0.09	0.4	3,600	700	0.07	0.33
4	40	3,000	750	0.12	0.49	3,000	640	0.09	0.4	3,000	560	0.07	0.33
4	45	2,700	680	0.1	0.41	2,700	580	0.08	0.34	2,700	520	0.06	0.28
4	50	2,500	620	0.1	0.41	2,500	520	0.08	0.34	2,500	460	0.06	0.28
6	10	8,000	2,520	0.35	1.08	8,000	2,160	0.24	0.89	8,000	2,210	0.15	0.57
6	15	7,800	2,400	0.35	1.08	7,800	2,450	0.24	0.89	7,800	1,730	0.15	0.57
6	20	7,200	2,160	0.24	0.99	7,200	2,210	0.2	0.82	7,200	1,560	0.15	0.51
6	25	6,500	1,560	0.24	0.99	6,500	1,320	0.2	0.82	6,500	1,120	0.15	0.51

Recommended Cutting Condition

RPX600IE⁺ - 14344TO | P.18-19

Square

Work Material		Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process			
		RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
CED	NL	Cutting Condition											
		6	30	5,100	1,200	0.2	0.99	5,100	1,230	0.18	0.82	5,100	870
6	35	4,200	960	0.2	0.83	4,200	980	0.18	0.69	4,200	700	0.16	0.4
6	40	3,700	840	0.15	0.83	3,700	720	0.13	0.69	3,700	740	0.11	0.4
6	45	2,600	580	0.13	0.83	2,600	480	0.1	0.69	2,600	490	0.08	0.4
6	50	2,300	510	0.1	0.74	2,300	440	0.08	0.61	2,300	360	0.06	0.34



Work Material

H			
G14	G15	G16	G17
•	•	•	○

1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
3. For dry cutting, please use air blow for chip removal and cooling.
4. These cutting data are for reference only. Please adjust the cutting speed according to machine capability and working conditions.
5. If vibrations occur during cutting process, adjust and reduce the cutting speed.

Recommended Cutting Condition

RTX600IE⁺ - 84333TO | P.20-21

Ball Nose

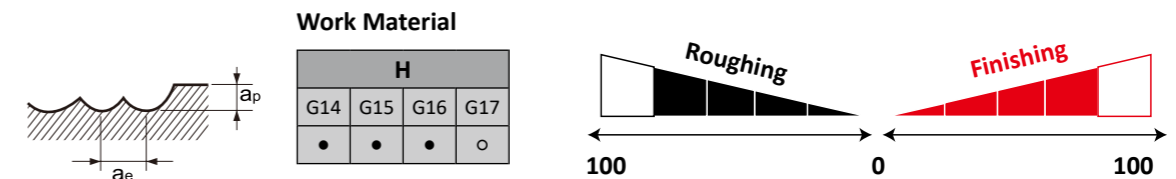
Work Material	Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process						
	Cutting Condition			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
	CED	R	NL												
1	0.5R	5	18,000	900	0.05	0.16	18,000	850	0.05	0.16	18,000	800	0.03	0.03	
1	0.5R	10	16,000	800	0.04	0.16	16,000	700	0.04	0.16	16,000	700	0.03	0.03	
1	0.5R	15	8,000	420	0.03	0.16	8,000	400	0.03	0.16	8,000	400	0.03	0.03	
1	0.5R	20	6,000	300	0.02	0.12	6,000	280	0.02	0.12	7,000	280	0.03	0.03	
1.5	0.75R	5	18,000	1,500	0.1	0.3	16,000	1,300	0.1	0.3	18,000	1,300	0.04	0.04	
1.5	0.75R	10	15,000	1,100	0.06	0.25	15,000	950	0.06	0.25	16,000	1,000	0.04	0.04	
1.5	0.75R	15	7,500	550	0.02	0.2	7,500	500	0.02	0.2	7,500	400	0.04	0.04	
1.5	0.75R	20	5,300	380	0.02	0.2	5,300	350	0.02	0.2	5,300	280	0.04	0.04	
1.5	0.75R	25	5,000	300	0.02	0.2	5,000	270	0.02	0.2	5,000	250	0.04	0.04	
1.5	0.75R	30	4,200	250	0.01	0.15	4,200	230	0.01	0.15	4,200	210	0.04	0.04	
2	1R	10	12,000	1,250	0.14	0.4	11,000	1,100	0.14	0.4	12,000	1,200	0.06	0.05	
2	1R	15	7,800	820	0.14	0.4	7,800	780	0.14	0.4	7,800	780	0.06	0.05	
2	1R	20	6,200	650	0.13	0.4	6,200	600	0.13	0.4	6,200	600	0.06	0.05	
2	1R	25	4,700	500	0.12	0.3	4,700	470	0.12	0.3	4,700	470	0.06	0.05	
2	1R	30	3,800	400	0.1	0.3	3,500	340	0.1	0.3	3,500	380	0.06	0.05	
2	1R	40	3,500	360	0.07	0.3	3,500	340	0.07	0.3	3,400	300	0.06	0.05	
2	1R	50	3,500	340	0.06	0.1	3,500	310	0.06	0.1	3,500	280	0.06	0.05	
2	1R	60	3,200	290	0.05	0.1	3,200	270	0.05	0.1	3,200	250	0.06	0.05	
3	1.5R	15	12,000	1,900	0.2	0.5	8,000	1,200	0.2	0.5	10,000	1,500	0.09	0.08	
3	1.5R	20	7,500	1,150	0.19	0.5	7,200	1,000	0.19	0.5	7,500	1,000	0.09	0.08	
3	1.5R	25	4,800	750	0.19	0.5	4,600	700	0.19	0.5	5,500	800	0.09	0.08	
3	1.5R	30	4,000	630	0.16	0.4	3,400	500	0.16	0.4	5,000	680	0.09	0.08	
3	1.5R	40	2,800	440	0.13	0.4	2,600	400	0.13	0.4	3,500	500	0.09	0.08	
3	1.5R	50	2,200	350	0.1	0.4	2,200	320	0.1	0.4	2,200	320	0.09	0.08	
3	1.5R	60	2,200	350	0.07	0.4	2,200	280	0.07	0.4	2,200	260	0.09	0.08	
3	1.5R	70	2,100	280	0.07	0.4	2,100	240	0.07	0.4	2,100	230	0.09	0.08	
4	2R	30	5,000	1,050	0.2	0.6	4,500	800	0.2	0.6	4,500	750	0.08	0.1	
4	2R	40	3,600	750	0.16	0.5	3,600	650	0.16	0.5	3,600	590	0.08	0.1	
4	2R	50	3,000	630	0.12	0.5	3,000	550	0.12	0.5	3,000	500	0.08	0.1	
4	2R	60	2,700	550	0.1	0.4	2,700	500	0.1	0.4	2,700	450	0.08	0.08	

Recommended Cutting Condition

RTX600IE⁺ - 84333TO | P.20-21

Ball Nose

Work Material	Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process						
	Cutting Condition			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
	CED	R	NL												
4	2R	70	2,500	520	0.1	0.4	2,500	450	0.1	0.4	2,500	400	0.08	0.08	
4	2R	80	2,300	490	0.1	0.4	2,300	410	0.1	0.4	2,300	350	0.08	0.08	
5	2.5R	30	4,800	1,200	0.2	0.8	4,800	850	0.2	0.8	5,100	960	0.15	0.25	
5	2.5R	35	4,400	1,100	0.14	0.8	4,400	750	0.14	0.8	5,100	880	0.15	0.25	
5	2.5R	40	3,100	750	0.1	0.6	3,100	650	0.1	0.6	4,000	750	0.15	0.2	
5	2.5R	50	2,700	600	0.1	0.6	2,700	550	0.1	0.6	3,000	600	0.15	0.1	
5	2.5R	60	2,500	550	0.1	0.6	2,500	500	0.08	0.5	2,500	480	0.15	0.1	
5	2.5R	70	2,300	500	0.1	0.6	2,300	450	0.08	0.5	2,300	410	0.15	0.08	
5	2.5R	80	2,100	450	0.1	0.5	2,100	410	0.08	0.5	2,100	370	0.15	0.08	
6	3R	40	3,700	820	0.2	1	3,600	720	0.2	1	3,700	670	0.15	0.16	
6	3R	50	3,000	620	0.1	0.8	2,600	520	0.1	0.8	2,600	480	0.1	0.16	
6	3R	60	2,800	550	0.1	0.8	2,600	520	0.1	0.8	2,600	480	0.1	0.16	
6	3R	90	2,500	500	0.08	0.6	2,500	420	0.08	0.6	2,500	380	0.08	0.16	



1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
3. For dry cutting, please use air blow for chip removal and cooling.
4. These cutting data are for reference only. Please adjust the cutting speed according to machine capability and working conditions.
5. If vibrations occur during cutting process, adjust and reduce the cutting speed.

Recommended Cutting Condition

RTX600IE⁺ - 84344TO | P.22-23

Ball Nose

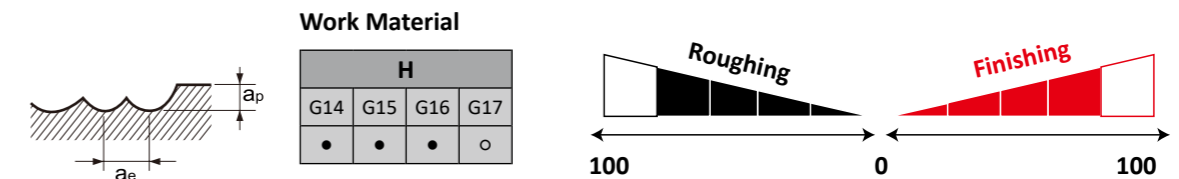
Work Material			Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process			
			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
Cutting Condition														
CED	R	NL												
1	0.5R	5	18,000	1,080	0.05	0.13	18,000	1,020	0.05	0.13	18,000	960	0.03	0.02
1	0.5R	10	16,000	960	0.04	0.13	16,000	840	0.04	0.13	16,000	840	0.03	0.02
1	0.5R	15	8,000	510	0.03	0.13	8,000	480	0.03	0.13	8,000	480	0.03	0.02
1	0.5R	20	6,000	360	0.02	0.09	6,000	340	0.02	0.09	7,000	340	0.03	0.02
1.5	0.75R	5	18,000	1,800	0.1	0.24	16,000	1,560	0.1	0.24	18,000	1,560	0.04	0.03
1.5	0.75R	10	15,000	1,320	0.06	0.2	15,000	1,140	0.06	0.2	16,000	1,200	0.04	0.03
1.5	0.75R	15	7,500	660	0.02	0.16	7,500	600	0.02	0.16	7,500	480	0.04	0.03
1.5	0.75R	20	5,300	460	0.02	0.16	5,300	420	0.02	0.16	5,300	340	0.04	0.03
1.5	0.75R	25	5,000	360	0.02	0.16	5,000	390	0.02	0.16	5,000	300	0.04	0.03
1.5	0.75R	30	4,200	300	0.01	0.12	4,200	280	0.01	0.12	4,200	260	0.04	0.03
2	1R	10	12,000	1,500	0.14	0.33	11,000	1,320	0.14	0.33	12,000	1,440	0.06	0.04
2	1R	15	7,800	990	0.14	0.33	7,800	940	0.14	0.33	7,800	940	0.06	0.04
2	1R	20	6,200	780	0.13	0.33	6,200	720	0.13	0.33	6,200	720	0.06	0.04
2	1R	25	4,700	600	0.12	0.24	4,700	570	0.12	0.24	4,700	570	0.06	0.04
2	1R	30	3,800	480	0.1	0.24	3,500	490	0.1	0.24	3,500	460	0.06	0.04
2	1R	40	3,500	440	0.07	0.24	3,500	410	0.07	0.24	3,400	360	0.06	0.04
2	1R	50	3,500	410	0.06	0.08	3,500	380	0.06	0.08	3,500	340	0.06	0.04
2	1R	60	3,200	350	0.05	0.08	3,200	330	0.05	0.08	3,200	300	0.06	0.04
3	1.5R	15	12,000	2,280	0.2	0.41	8,000	1,440	0.2	0.41	10,000	1,800	0.09	0.06
3	1.5R	20	7,500	1,380	0.19	0.41	7,200	1,200	0.19	0.41	7,500	1,200	0.09	0.06
3	1.5R	25	4,800	900	0.19	0.41	4,600	840	0.19	0.41	5,500	960	0.09	0.06
3	1.5R	30	4,000	760	0.16	0.33	3,400	600	0.16	0.33	5,000	820	0.09	0.06
3	1.5R	40	2,800	530	0.13	0.33	2,600	480	0.13	0.33	3,500	600	0.09	0.06
3	1.5R	50	2,200	420	0.1	0.33	2,200	390	0.1	0.33	2,200	470	0.09	0.06
3	1.5R	60	2,200	420	0.07	0.33	2,200	340	0.07	0.33	2,200	320	0.09	0.06
3	1.5R	70	2,100	340	0.07	0.33	2,100	290	0.07	0.33	2,100	280	0.09	0.06
4	2R	30	5,000	1,260	0.2	0.49	4,500	960	0.2	0.49	4,500	900	0.08	0.16
4	2R	40	3,600	900	0.16	0.41	3,600	780	0.16	0.41	3,600	710	0.08	0.16
4	2R	50	3,000	760	0.12	0.41	3,000	660	0.12	0.41	3,000	600	0.08	0.16
4	2R	60	2,700	660	0.1	0.33	2,700	600	0.1	0.33	2,700	650	0.08	0.16

Recommended Cutting Condition

RTX600IE⁺ - 84344TO | P.22-23

Ball Nose

Work Material			Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process			
			RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e	RPM/min	Feed mm/min	a _p	a _e
Cutting Condition														
CED	R	NL												
4	2R	70	2,500	630	0.1	0.33	2,500	540	0.1	0.33	2,500	480	0.08	0.16
4	2R	80	2,300	590	0.1	0.33	2,300	500	0.1	0.33	2,300	420	0.08	0.16
5	2.5R	30	4,800	1,440	0.2	0.66	4,800	1,020	0.2	0.66	5,100	1,390	0.15	0.2
5	2.5R	35	4,400	1,320	0.14	0.66	4,400	900	0.14	0.66	5,100	1,270	0.15	0.2
5	2.5R	40	3,100	900	0.1	0.49	3,100	780	0.1	0.49	4,000	900	0.15	0.16
5	2.5R	50	2,700	720	0.1	0.49	2,700	660	0.1	0.49	3,000	720	0.15	0.08
5	2.5R	60	2,500	660	0.1	0.49	2,500	600	0.08	0.41	2,500	580	0.15	0.08
5	2.5R	70	2,300	600	0.1	0.49	2,300	650	0.08	0.41	2,300	500	0.15	0.06
5	2.5R	80	2,100	540	0.1	0.41	2,100	500	0.08	0.41	2,100	450	0.15	0.06
6	3R	40	3,700	990	0.2	0.83	3,600	870	0.2	0.83	3,700	810	0.15	0.13
6	3R	50	3,000	750	0.1	0.66	2,600	630	0.1	0.66	2,600	580	0.1	0.13
6	3R	60	2,800	660	0.1	0.66	2,600	630	0.1	0.66	2,600	580	0.1	0.13
6	3R	90	2,500	600	0.08	0.49	2,500	510	0.08	0.49	2,500	460	0.08	0.13



1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
3. For dry cutting, please use air blow for chip removal and cooling.
4. These cutting data are for reference only. Please adjust the cutting speed according to machine capability and working conditions.
5. If vibrations occur during cutting process, adjust and reduce the cutting speed.

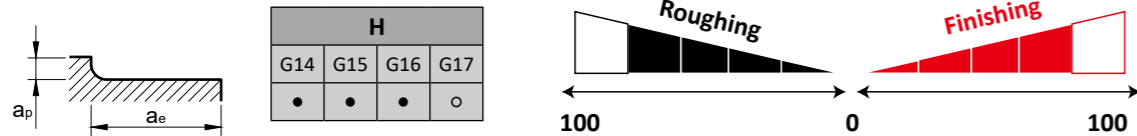
Recommended Cutting Condition

RTX600IE⁺ - 2433TO | P.24-25

Coner Radius

Work Material	Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process						
	Cutting Condition			RPM/ min	Feed mm/ min	ap	ae	RPM/ min	Feed mm/ min	ap	ae	RPM/ min	Feed mm/ min	ap	ae
	CED	R	NL												
2	0.2R	10	12,000	1,050	0.15	0.4	12,000	1,000	0.13	0.4	12,000	950	0.06	0.4	
2	0.2R	15	7,800	780	0.12	0.4	7,800	740	0.1	0.4	7,800	650	0.06	0.4	
2	0.2R	20	6,200	620	0.1	0.3	6,200	600	0.07	0.3	6,200	550	0.06	0.3	
2	0.2R	25	4,700	470	0.07	0.3	4,700	450	0.06	0.3	4,700	380	0.06	0.3	
2	0.2R	30	3,500	350	0.07	0.3	3,500	300	0.05	0.3	3,500	300	0.05	0.3	
2	0.2R	40	3,500	300	0.07	0.2	3,500	260	0.04	0.2	3,500	260	0.04	0.2	
2	0.2R	50	3,000	220	0.06	0.1	3,000	200	0.03	0.1	3,000	180	0.03	0.1	
2.5	0.2R	15	8,900	800	0.15	0.4	8,900	680	0.15	0.4	8,900	610	0.08	0.4	
2.5	0.2R	20	6,300	570	0.15	0.4	6,300	490	0.15	0.4	6,300	440	0.08	0.4	
2.5	0.2R	25	5,100	460	0.12	0.3	5,100	390	0.12	0.3	5,100	350	0.08	0.3	
2.5	0.2R	30	3,800	340	0.12	0.3	3,800	290	0.12	0.3	3,800	260	0.08	0.3	
2.5	0.2R	40	2,800	250	0.1	0.3	2,800	210	0.1	0.3	2,800	190	0.08	0.3	
2.5	0.2R	50	2,800	250	0.08	0.2	2,800	210	0.08	0.2	2,800	190	0.07	0.2	
3	0.2R	20	7,500	1,100	0.12	0.5	7,500	940	0.12	0.5	7,500	800	0.1	0.5	
3	0.2R	25	4,800	700	0.12	0.4	4,800	600	0.12	0.4	4,800	510	0.1	0.4	
3	0.2R	30	3,800	550	0.1	0.4	3,800	470	0.1	0.4	3,800	400	0.08	0.4	
3	0.2R	40	3,000	420	0.08	0.3	3,000	380	0.08	0.3	3,000	320	0.07	0.3	
3	0.2R	50	2,500	350	0.06	0.3	2,500	300	0.06	0.3	2,500	280	0.06	0.3	
4	0.3R	30	5,500	1,150	0.15	0.7	5,500	980	0.11	0.7	5,500	830	0.09	0.7	
4	0.3R	40	4,500	960	0.15	0.7	4,500	820	0.09	0.7	4,500	700	0.07	0.7	
4	0.3R	50	3,600	750	0.12	0.6	3,600	640	0.09	0.6	3,600	540	0.07	0.6	
4	0.3R	60	2,600	500	0.1	0.5	2,600	450	0.08	0.5	2,600	380	0.06	0.5	
4	0.3R	80	2,000	400	0.08	0.4	2,000	340	0.06	0.4	2,000	320	0.05	0.4	
6	0.3R	40	4,200	1,300	0.2	1	4,200	1,000	0.18	1	4,200	800	0.16	0.8	
6	0.3R	50	3,600	1,000	0.13	1	3,600	850	0.1	1	3,600	680	0.08	0.8	
6	0.3R	60	2,800	720	0.1	0.9	2,800	610	0.08	0.9	2,800	540	0.06	0.7	
6	0.3R	80	1,700	500	0.05	0.9	1,700	500	0.05	0.9	1,700	400	0.04	0.7	
6	0.3R	100	1,200	330	0.04	0.7	1,200	280	0.04	0.7	1,200	220	0.03	0.6	

Work Material



1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
3. For dry cutting, please use air blow for chip removal and cooling.
4. These cutting data are for reference only. Please adjust the cutting speed according to machine capability and working conditions.
5. If vibrations occur during cutting process, adjust and reduce the cutting speed.

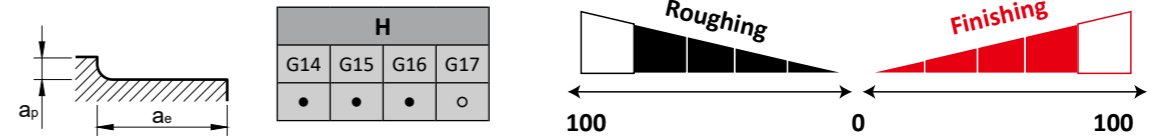
Recommended Cutting Condition

RTX600IE⁺ - 2434TO | P.24-25

Coner Radius

Work Material	Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process						
	Cutting Condition			RPM/ min	Feed mm/ min	ap	ae	RPM/ min	Feed mm/ min	ap	ae	RPM/ min	Feed mm/ min	ap	ae
	CED	R	NL												
2	0.2R	10	12,000	1,260	0.15	0.33	12,000	1,200	0.13	0.4	12,000	1,150	0.06	0.33	
2	0.2R	15	7,800	940	0.12	0.33	7,800	890	0.1	0.4	7,800	780	0.06	0.33	
2	0.2R	20	6,200	750	0.1	0.24	6,200	720	0.07	0.3	6,200	660	0.06	0.24	
2	0.2R	25	4,700	570	0.07	0.24	4,700	540	0.06	0.3	4,700	460	0.06	0.24	
2	0.2R	30	3,500	420	0.07	0.24	3,500	360	0.05	0.3	3,500	360	0.05	0.24	
2	0.2R	40	3,500	360	0.07	0.16	3,500	320	0.04	0.2	3,500	320	0.04	0.16	
2	0.2R	50	3,000	270	0.06	0.08	3,000	240	0.03	0.1	3,000	220	0.03	0.08	
2.5	0.2R	15	8,900	960	0.15	0.33	8,900	980	0.15	0.33	8,900	740	0.08	0.27	
2.5	0.2R	20	6,300	690	0.15	0.33	6,300	590	0.15	0.33	6,300	530	0.08	0.27	
2.5	0.2R	25	5,100	560	0.12	0.24	5,100	470	0.12	0.24	5,100	420	0.08	0.19	
2.5	0.2R	30	3,800	410	0.12	0.24	3,800	350	0.12	0.24	3,800	320	0.08	0.19	
2.5	0.2R	40	2,800	300	0.1	0.24	2,800	260	0.1	0.24	2,800	230	0.08	0.19	
2.5	0.2R	50	2,800	300	0.08	0.16	2,800	260	0.08	0.16	2,800	230	0.07	0.13	
3	0.2R	20	7,500	1,320	0.12	0.41	7,500	1,130	0.12	0.41	7,500	960	0.1	0.34	
3	0.2R	25	4,800	840	0.12	0.33	4,800	720	0.12	0.33	4,800	740	0.1	0.27	
3	0.2R	30	3,800	660	0.1	0.33	3,800	570	0.1	0.33	3,800	590	0.08	0.27	
3	0.2R	40	3,000	510	0.08	0.24	3,000	460	0.08	0.24	3,000	390	0.07	0.19	
3	0.2R	50	2,500	420	0.06	0.24	2,500	360	0.06	0.24	2,500	340	0.06	0.19	
4	0.3R	30	5,500	1,380	0.15	0.58	5,500	1,180	0.11	0.58	5,500	1,000	0.09	0.48	
4	0.3R	40	4,500	1,160	0.15	0.58	4,500	990	0.09	0.58	4,500	840	0.07	0.48	
4	0.3R	50	3,600	900	0.12	0.49	3,600	770	0.09	0.49	3,600	650	0.07	0.4	
4	0.3R	60	2,600	600	0.1	0.41	2,600	540	0.08	0.41	2,600	460	0.06	0.34	
4	0.3R	80	2,000	480	0.08	0.33	2,000	410	0.06	0.33	2,000	390	0.05	0.27	
6	0.3R	40	4,200	1,560	0.2	0.83	4,200	1,200	0.18	0.83	4,200	1,160	0.16	0.52	
6	0.3R	50	3,600	1,200	0.13	0.83	3,600	1,230	0.1	0.83	3,600	1,190	0.08	0.52	
6	0.3R	60	2,800	870	0.1	0.74	2,800	740	0.08	0.74	2,800	650	0.06	0.44	
6	0.3R	80	1,700	600	0.05	0.74	1,700	600	0.05	0.9	1,700	580	0.04	0.58	
6	0.3R	100	1,200	400	0.04	0.58	1,200	340	0.04	0.7	1,200	270	0.03	0.49	

Work Material



1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
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5. If vibrations occur during cutting process, adjust and reduce the cutting speed.

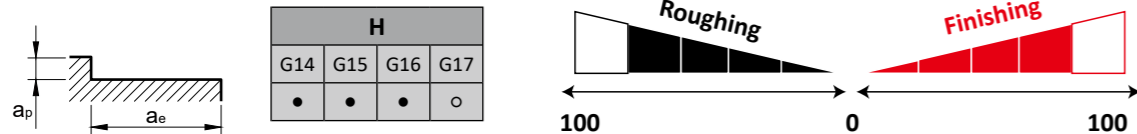
Recommended Cutting Condition

RTX600IE⁺ - 1433TO | P.26

Square

Work Material	Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process									
	Cutting Condition		RPM/ min	Feed mm/ min	ap	ae	Cutting Condition		RPM/ min	Feed mm/ min	ap	ae	Cutting Condition		RPM/ min	Feed mm/ min	ap	ae
	CED	NL					CED	NL					CED	NL				
2	10	12,000	1,050	0.15	0.4	12,000	1,000	0.13	0.4	12,000	850	0.06	0.4					
2	15	7,800	780	0.12	0.4	7,800	740	0.1	0.4	7,800	650	0.06	0.4					
2	20	6,200	620	0.1	0.3	6,200	600	0.07	0.3	6,200	550	0.06	0.3					
2	25	4,700	470	0.07	0.3	4,700	450	0.06	0.3	4,700	380	0.06	0.3					
2	30	3,500	350	0.07	0.3	3,500	300	0.05	0.3	3,500	300	0.05	0.3					
2	40	3,500	300	0.07	0.2	3,500	260	0.04	0.2	3,500	260	0.04	0.2					
2	50	3,000	220	0.06	0.1	3,000	200	0.03	0.1	3,000	180	0.03	0.1					
2.5	15	8,900	800	0.15	0.4	8,900	680	0.15	0.4	8,900	610	0.08	0.4					
2.5	20	6,300	570	0.15	0.4	6,300	490	0.15	0.4	6,300	440	0.08	0.4					
2.5	25	5,100	460	0.12	0.3	5,100	390	0.12	0.3	5,100	350	0.08	0.3					
2.5	30	3,800	340	0.12	0.3	3,800	290	0.12	0.3	3,800	260	0.08	0.3					
2.5	40	2,800	250	0.1	0.3	2,800	210	0.1	0.3	2,800	190	0.08	0.3					
2.5	50	2,800	250	0.08	0.2	2,800	210	0.08	0.2	2,800	190	0.07	0.2					
3	20	7,500	1,100	0.12	0.5	7,500	940	0.12	0.5	7,500	800	0.1	0.5					
3	25	4,800	700	0.12	0.4	4,800	600	0.12	0.4	4,800	510	0.1	0.4					
3	30	3,800	550	0.1	0.4	3,800	470	0.1	0.4	3,800	400	0.08	0.4					
3	40	3,000	420	0.08	0.3	3,000	380	0.08	0.3	3,000	320	0.07	0.3					
3	50	2,500	350	0.06	0.3	2,500	300	0.06	0.3	2,500	280	0.06	0.3					
4	30	5,500	1,150	0.15	0.7	5,500	980	0.11	0.7	5,500	830	0.09	0.7					
4	40	4,500	960	0.15	0.7	4,500	820	0.09	0.7	4,500	700	0.07	0.7					
4	50	3,600	750	0.12	0.6	3,600	640	0.09	0.6	3,600	540	0.07	0.6					
4	60	2,600	500	0.1	0.5	2,600	450	0.08	0.5	2,600	380	0.06	0.5					
4	80	2,000	400	0.08	0.4	2,000	340	0.06	0.4	2,000	320	0.05	0.4					
6	40	4,200	1,300	0.2	1	4,200	1,000	0.18	1	4,200	800	0.16	0.8					
6	50	3,600	1,000	0.13	1	3,600	850	0.1	1	3,600	680	0.08	0.8					
6	60	2,800	720	0.1	0.9	2,800	610	0.08	0.9	2,800	540	0.06	0.7					
6	80	1,700	500	0.05	0.9	1,700	500	0.05	0.9	1,700	400	0.04	0.7					
6	100	1,200	330	0.04	0.7	1,200	280	0.04	0.7	1,200	220	0.03	0.6					

Work Material



1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
3. For dry cutting, please use air blow for chip removal and cooling.
4. These cutting data are for reference only. Please adjust the cutting speed according to machine capability and working conditions.
5. If vibrations occur during cutting process, adjust and reduce the cutting speed.

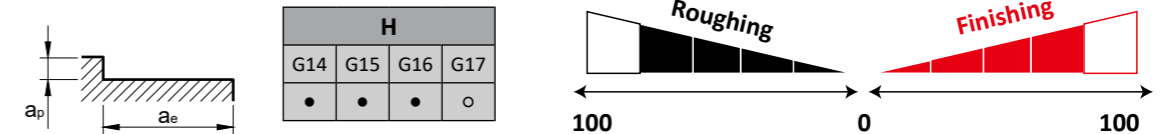
Recommended Cutting Condition

RTX600IE⁺ - 1434TO | P.27

Square

Work Material	Alloyed Steel / Prehardened Steel ~40HRC for High Speed Roughing				Hardened Steel 40~50HRC for Semi-roughing Process				Hardened Steel 50~60HRC for Finishing Process									
	Cutting Condition		RPM/ min	Feed mm/ min	ap	ae	Cutting Condition		RPM/ min	Feed mm/ min	ap	ae	Cutting Condition		RPM/ min	Feed mm/ min	ap	ae
	CED	NL					CED	NL					CED	NL				
2	10	12,000	1,260	0.15	0.33	12,000	1,200	0.13	0.33	12,000	1,230	0.06	0.33					
2	15	7,800	940	0.12	0.33	7,800	890	0.1	0.33	7,800	780	0.06	0.33					
2	20	6,200	750	0.1	0.24	6,200	720	0.07	0.24	6,200	660	0.06	0.19					
2	25	4,700	570	0.07	0.24	4,700	540	0.06	0.24	4,700	460	0.06	0.19					
2	30	3,500	420	0.07	0.24	3,500	360	0.05	0.24	3,500	360	0.05	0.19					
2	40	3,500	360	0.07	0.16	3,500	320	0.04	0.16	3,500	320	0.04	0.13					
2	50	3,000	270	0.06	0.08	3,000	240	0.03	0.08	3,000	220	0.03	0.06					
2.5	15	8,900	960	0.15	0.33	8,900	980	0.15	0.27	8,900	740	0.08	0.22					
2.5	20	6,300	690	0.15	0.33	6,300	590	0.15	0.27	6,300	530	0.08	0.22					
2.5	25	5,100	560	0.12	0.24	5,100	470	0.12	0.19	5,100	420	0.08	0.15					
2.5	30	3,800	410	0.12	0.24	3,800	350	0.12	0.19	3,800	320	0.08	0.15					
2.5	40	2,800	300	0.1	0.24	2,800	260	0.1	0.19	2,800	230	0.08	0.15					
2.5	50	2,800	300	0.08	0.16	2,800	260	0.08	0.13	2,800	230	0.07	0.1					
3	20	7,500	1,320	0.12	0.41	7,500	1,130	0.12	0.34	7,500	960	0.1	0.28					
3	25	4,800	840	0.12	0.33	4,800	720	0.12	0.27	4,800	740	0.1	0.22					
3	30	3,800	660	0.1	0.33	3,800	570	0.1	0.27	3,800	590	0.08	0.22					
3	40	3,000	510	0.08	0.24	3,000	460	0.08	0.19	3,000	390	0.07	0.15					
3	50	2,500	420	0.06	0.24	2,500	360	0.06	0.19	2,500	340	0.06	0.15					
4	30	5,500	1,380	0.15	0.58	5,500	1,180	0.11	0.48	5,500	1,000	0.09	0.39					
4	40	4,500	1,160	0.15	0.58	4,500	990	0.09	0.48	4,500	840	0.07	0.39					
4	50	3,600	900	0.12	0.49	3,600	770	0.09	0.4	3,600	650	0.07	0.33					
4	60	2,600	600	0.1	0.41	2,600	540	0.08	0.34	2,600	460	0.06	0.28					
4	80	2,000	480	0.08	0.33	2,000	410	0.06	0.27	2,000	390	0.05	0.22					
6	40	4,200	1,560	0.2	0.83	4,200	1,200	0.18	0.69	4,200	1,160	0.16	0.4					
6	50	3,600	1,200	0.13	0.83	3,600	1,230	0.1	0.69	3,600	1,190	0.08	0.4					
6	60	2,800	870	0.1	0.74	2,800	740	0.08	0.61	2,800	650	0.06	0.34					
6	80	1,700	600	0.05	0.74	1,700	600	0.05	0.74	1,700	580	0.04	0.44					
6	100	1,200	400	0.04	0.58	1,200	340	0.04	0.58	1,200	270	0.03	0.49					

Work Material



1. Please select high rigid tool holder and collet chuck during machining.
2. Please select the suitable cutting fluid.
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5. If vibrations occur during cutting process, adjust and reduce the cutting speed.



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