



NEW

Cross-Roller Ring

# RB-H/RE-H/RU-H



RB-H (left), RE-H (right), and RU-H (center)

## Features

High rigidity and load capacity

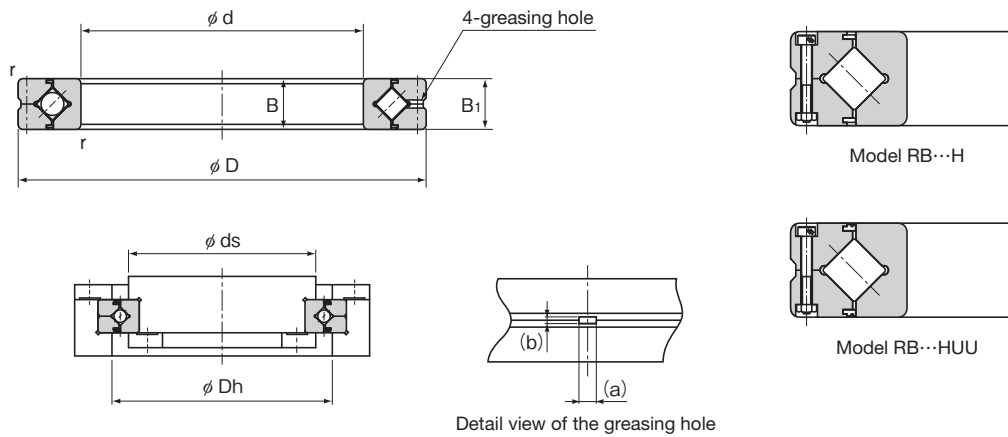
Improved rigidity and load rating with the same dimensions as existing products.

## Lineup

Model	Applicable models	Number of models
RB···H Type	RB5013H to RB70045H	42
RE···H Type	RE5013H to RE60040H	41
RU···H Type	RU66H to RU445H	8

# RB-H/RE-H/RU-H Cross-Roller Ring

## Specification Table **RB-H**



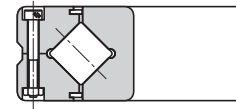
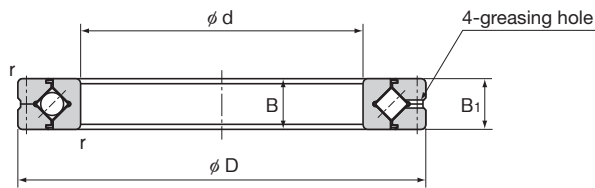
Unit: mm

Shaft diameter	Model No.	Inner diameter d	Outer diameter D	Roller pitch circle diameter $\phi ds$	Width B B <sub>1</sub>	Greasing hole		$r_{min}$	ds(max)	Dh(min)	Basic load rating (kN)		Mass (kg)
						a	b				C	C <sub>0</sub>	
50	RB5013H	50	80	64	13	2.5	1.6	0.6	57	72	18	21.9	0.27
60	RB6013H	60	90	74	13	2.5	1.6	0.6	67	82	20.2	26.9	0.31
70	RB7013H	70	100	84	13	2.5	1.6	0.6	77	92	21.5	30.3	0.36
80	RB8016H	80	120	98	16	3	1.6	0.6	88	110	36.8	51.8	0.72
90	RB9016H	90	130	108	16	3	1.6	1	98	118	39.1	58.2	0.78
100	RB10016H	100	140	119.3	16	3.5	1.6	1	109	129	40.3	62.7	0.86
	RB10020H	100	150	123	20	3.5	1.6	1	113	133	37.1	56.8	1.48
110	RB11015H	110	145	126.5	15	3.5	1.6	0.6	119	136	26.6	46	0.76
	RB11020H	110	160	133	20	3.5	1.6	1	120	143	39.1	62.4	1.59
120	RB12016H	120	150	134.2	16	3.5	1.6	0.6	127	141	27.6	49.3	0.73
	RB12025H	120	180	148.7	25	3.5	2	1.5	133	164	75.5	112	2.66
130	RB13015H	130	160	144.5	15	3.5	1.6	0.6	137	152	28.8	53.8	0.73
	RB13025H	130	190	158	25	3.5	2	1.5	143	174	79.9	123	2.86
140	RB14016H	140	175	154.8	16	2.5	1.6	1	147	162	30.2	58.8	1.01
	RB14025H	140	200	168	25	3.5	2	1.5	154	185	82.3	130	2.98
150	RB15013H	150	180	164	13	2.5	1.6	0.6	157	172	30.7	60.8	0.69
	RB15025H	150	210	178	25	3.5	2	1.5	164	194	82.4	133	3.18
	RB15030H	150	230	188	30	4.5	3	1.5	169	211	105	160	5.38
160	RB16025H	160	220	188.6	25	3.5	2	1.5	173	204	89.4	152	3.18
170	RB17020H	170	220	191	20	3.5	1.6	1.5	184	198	32.4	69	2.23
180	RB18025H	180	240	210	25	3.5	2	1.5	195	225	93.2	166	3.5

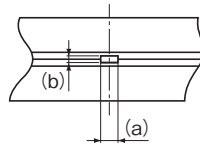
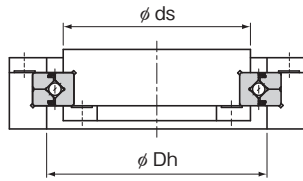
Note1) The model number of a type with seals attached is RB...HUU.

If a certain level of accuracy is required, this model is used for inner ring rotation.

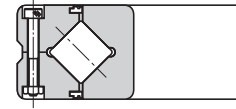
Note2) (a) and (b) dimensions of the greasing hole in the detailed diagram are reference values.



Model RB...H



Detail view of the greasing hole



Model RB...HUU

Unit: mm

Shaft diameter	Model No.	Inner diameter d	Outer diameter D	Roller pitch circle diameter $d_p$	Width B B <sub>1</sub>	Greasing hole		$r_{min}$	ds(max)	Dh(min)	Basic load rating (kN)		Mass (kg)
						a	b				C	C <sub>0</sub>	
190	RB19025H	190	240	211.9	25	3.5	1.6	1	202	222	50.5	102	3.03
200	RB20025H	200	260	230	25	3.5	2	2	215	245	97.6	182	4.09
	RB20030H	200	280	240	30	4.5	3	2	221	258	130	229	6.82
	RB20035H	200	295	247.7	35	5	3	2	225	270	175	296	9.82
220	RB22025H	220	280	250.1	25	3.5	2	2	235	265	101	196	4.19
240	RB24025H	240	300	269	25	3.5	2	2.5	256	281	79.6	170	4.57
250	RB25025H	250	310	277.5	25	3.5	2	2.5	265	290	80.4	175	5.07
	RB25030H	250	330	287.5	30	4.5	3	2.5	269	306	147	283	8.27
	RB25040H	250	355	300.7	40	6	3.5	2.5	275	326	224	403	15.1
300	RB30025H	300	360	328	25	3.5	2	2.5	315	340	88.6	207	5.99
	RB30035H	300	395	345	35	5	3	2.5	322	368	213	428	13.7
	RB30040H	300	405	351.6	40	6	3.5	2.5	326	377	240	464	17.5
350	RB35020H	350	400	373.4	20	3.5	1.6	2.5	363	383	67.2	181	3.98
400	RB40035H	400	480	440.3	35	5	3	2.5	422	459	181	433	14.7
	RB40040H	400	510	453.4	40	6	3.5	2.5	428	479	282	625	24
450	RB45025H	450	500	474	25	3.5	1.6	1	464	484	77	232	6.71
500	RB50025H	500	550	524.2	25	3.5	1.6	1	514	534	81.8	258	7.42
	RB50040H	500	600	548.8	40	6	3	2.5	526	572	271	686	26.4
	RB50050H	500	625	561.6	50	6	3.5	2.5	536	587	311	766	42.3
600	RB60040H	600	700	650	40	6	3	3	627	673	299	817	29.4
700	RB70045H	700	815	753.5	45	6	3	3	731	777	320	948	46.5

## Model Number Coding **RB-H**

Select an option (orange box) Fixed symbol (grey box)

**RB20030**

Model

**H**

Seal symbol

No symbol: No seal  
UU: Seals on both sides  
U: Seal on one side

**UU**

**CC0**

Radial clearance symbol

CC0: Negative clearance (preload)  
C0: Positive clearance  
C1: Positive clearance (greater than C0)

**P2**

Accuracy symbol

No symbol: Normal grade (grade 0)

P6: Rotational accuracy grade 6

P5: Rotational accuracy grade 5

P4: Rotational accuracy grade 4

P2: Rotational accuracy grade 2

USP: Rotational accuracy grade USP

PE6: Rotational accuracy grade 6 + Dimensional accuracy grade 6

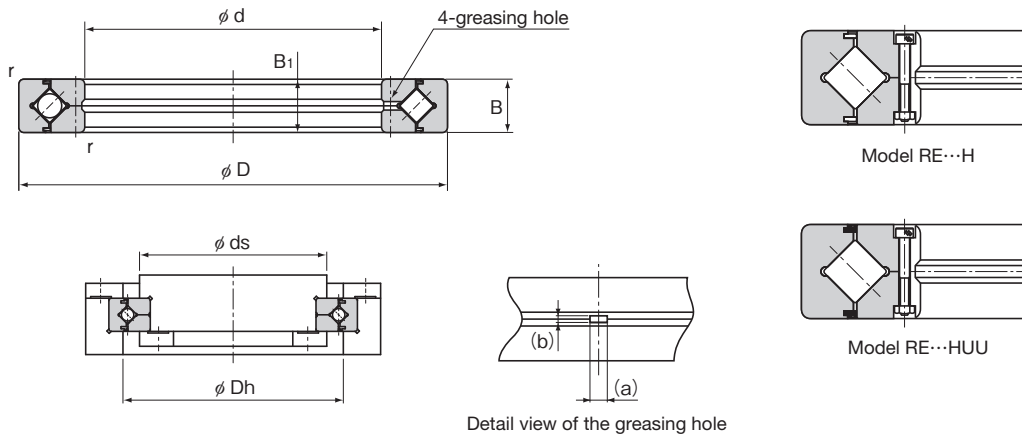
PE5: Rotational accuracy grade 5 + Dimensional accuracy grade 5

PE4: Rotational accuracy grade 4 + Dimensional accuracy grade 4

PE2: Rotational accuracy grade 2 + Dimensional accuracy grade 4

# RB-H/RE-H/RU-H Cross-Roller Ring

## Specification Table **RE-H**



Detail view of the greasing hole

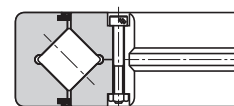
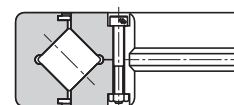
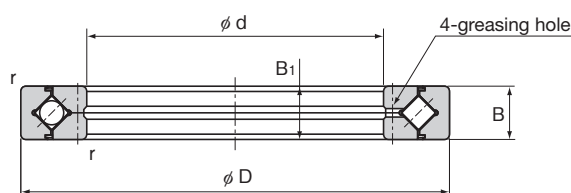
Unit: mm

Shaft diameter	Model No.	Inner diameter $d$	Outer diameter $D$	Roller pitch circle diameter $d_p$	Width $B$ $B_1$	Greasing hole		$r_{min}$	$ds(max)$	$Dh(min)$	Basic load rating (kN)		Mass (kg)
						$a$	$b$				$C$	$C_0$	
50	RE5013H	50	80	66	13	2.5	1.6	0.6	57.5	73	18.8	23.5	0.28
60	RE6013H	60	90	76	13	2.5	1.6	0.6	68	83	20.1	26.9	0.31
70	RE7013H	70	100	86	13	2.5	1.6	0.6	78	93	22.1	31.9	0.36
80	RE8016H	80	120	101.4	16	3	1.6	0.6	91	111	36.5	51.9	0.72
90	RE9016H	90	130	112	16	3	1.6	1	100	122	39	58.3	0.77
100	RE10016H	100	140	121.1	16	3	1.6	1	109	131	40.3	62.7	0.86
	RE10020H	100	150	127	20	3.5	1.6	1	115	137	38.2	59.6	1.48
110	RE11015H	110	145	129	15	3	1.6	0.6	122	136	27.6	48.7	0.76
	RE11020H	110	160	137	20	3.5	1.6	1	125	147	40	65.2	1.59
120	RE12016H	120	150	136	16	3	1.6	0.6	127	143	27.9	50.4	0.73
	RE12025H	120	180	152	25	3.5	2	1.5	135	166	75.3	112	2.66
130	RE13015H	130	160	146	15	3	1.6	0.6	137	153	29.5	55.4	0.73
	RE13025H	130	190	162	25	3.5	2	1.5	145	176	80.6	126	2.86
140	RE14016H	140	175	160	16	3	1.6	1	151	167	30.2	58.8	1.01
	RE14025H	140	200	172	25	3.5	2	1.5	154	186	82.8	133	3
150	RE15013H	150	180	166	13	2.5	1.6	0.6	158	173	30.7	60.8	0.69
	RE15025H	150	210	182	25	3.5	2	1.5	164	196	85	140	3.2
	RE15030H	150	230	192	30	4.5	3	1.5	173	210	117	185	5.38
160	RE16025H	160	220	192	25	3.5	2	1.5	174	206	86.8	147	3.18
170	RE17020H	170	220	196.1	20	3.5	1.6	1.5	187	204	33	70.6	2.23
180	RE18025H	180	240	210	25	3.5	2	1.5	195	225	90.9	161	3.5

Note1) The model number of a type with seals attached is RE...HUU.

If a certain level of accuracy is required, this model is used for outer ring rotation.

Note2) (a) and (b) dimensions of the greasing hole in the detailed diagram are reference values.



Detail view of the greasing hole

Unit: mm

Shaft diameter	Model No.	Inner diameter d	Outer diameter D	Roller pitch circle diameter $\phi D_p$	Width B B <sub>1</sub>	Greasing hole		$r_{min}$	ds(max)	Dh(min)	Basic load rating (kN)		Mass (kg)
						a	b				C	C <sub>0</sub>	
190	RE19025H	190	240	219	25	3.5	1.6	1	207	229	51.1	105	3.03
200	RE20025H	200	260	230	25	3.5	2	2	215	245	97.6	182	4.09
	RE20030H	200	280	240	30	4.5	3	2	221	258	130	229	6.82
	RE20035H	200	295	247.7	35	5	3	2	225	270	175	296	9.82
220	RE22025H	220	280	250.1	25	3.5	2	2	235	265	101	196	4.19
240	RE24025H	240	300	272.5	25	3.5	2	2.5	258	284	79.6	170	4.56
250	RE25025H	250	310	280.9	25	3.5	2	2.5	268	293	80.4	175	5.06
	RE25030H	250	330	287.5	30	4.5	3	2.5	269	306	147	283	8.27
	RE25040H	250	355	300.7	40	6	3.5	2.5	275	326	224	403	15.1
300	RE30025H	300	360	332	25	3.5	2	2.5	319	344	87.8	207	5.97
	RE30035H	300	395	345	35	5	3	2.5	322	368	213	428	13.7
	RE30040H	300	405	351.6	40	6	3.5	2.5	326	377	240	464	17.5
350	RE35020H	350	400	376.6	20	3.5	1.6	2.5	365	386	68	184	3.98
400	RE40035H	400	480	440.3	35	5	3	2.5	422	459	181	433	14.7
	RE40040H	400	510	453.4	40	6	3.5	2.5	428	479	282	625	24
450	RE45025H	450	500	476.6	25	3.5	1.6	1	465	486	77.7	235	6.71
500	RE50025H	500	550	526.6	25	3.5	1.6	1	515	536	81.8	258	7.41
	RE50040H	500	600	548.8	40	6	3	2.5	526	572	271	686	26.4
	RE50050H	500	625	561.6	50	6	3.5	2.5	536	587	311	766	42.3
600	RE60040H	600	700	650	40	6	3	3	627	673	299	817	29.4

## Model Number Coding RE-H

Select an option (orange box) Fixed symbol (grey box)

RE20030

Model

H

UU

CC0

P2

Seal symbol

No symbol: No seal  
UU: Seals on both sides  
U: Seal on one side

Accuracy symbol

No symbol: Normal grade (grade 0)

P6: Rotational accuracy grade 6

P5: Rotational accuracy grade 5

P4: Rotational accuracy grade 4

P2: Rotational accuracy grade 2

USP: Rotational accuracy grade USP

PE6: Rotational accuracy grade 6 + Dimensional accuracy grade 6

PE5: Rotational accuracy grade 5 + Dimensional accuracy grade 5

PE4: Rotational accuracy grade 4 + Dimensional accuracy grade 4

PE2: Rotational accuracy grade 2 + Dimensional accuracy grade 4

Radial clearance symbol

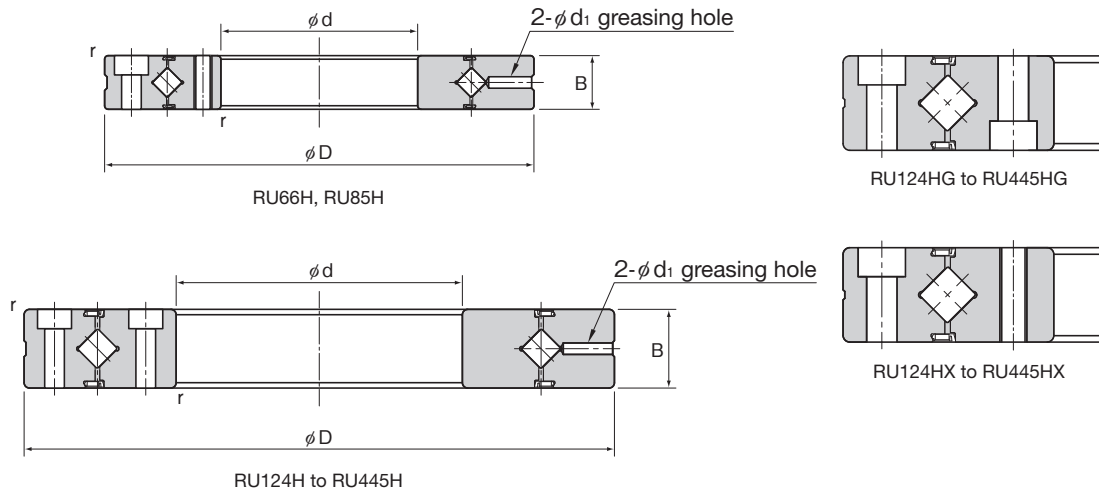
CC0: Negative clearance (preload)

C0: Positive clearance

C1: Positive clearance (greater than C0)

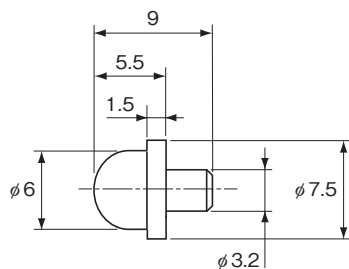
# RB-H/RE-H/RU-H Cross-Roller Ring

## Specification Table **RU-H**

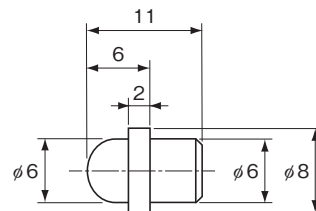


Shaft diameter	Model No.	Inner diameter d	Outer diameter D	Roller pitch circle diameter dp	Width B	Greasing hole d <sub>i</sub>	Γ <sub>min</sub>	ds(max)	Dh(min)
35	RU66H	35	95	66	15	3.1	0.6	59	74
55	RU85H	55	120	85	15	3.1	0.6	77	93
80	RU124H(G) RU124HX	80	165	124	22	3.1	1	114	134
90	RU148H(G) RU148HX	90	210	147.5	25	3.1	1.5	133	162
115	RU178H(G) RU178HX	115	240	178	28	3.1	1.5	161	195
160	RU228H(G) RU228HX	160	295	227.5	35	6	2	208	246
210	RU297H(G) RU297HX	210	380	297.3	40	6	2.5	272	320
350	RU445H(G) RU445HX	350	540	445.4	45	6	2.5	417	473

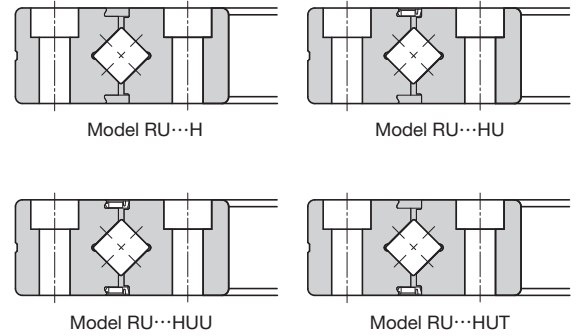
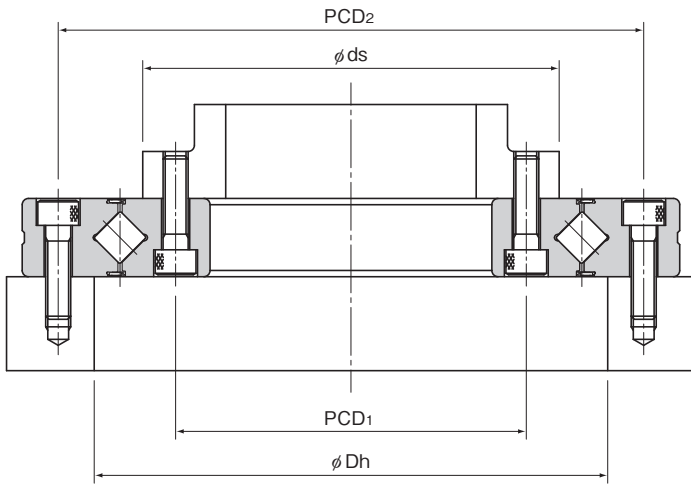
Note) Optional grease nipples are available for the Model RU-H. (See the figures below.)  
To indicate that you want grease nipples, add "-N" to the end of the model number.



NP3.2x3.5



NP6x5

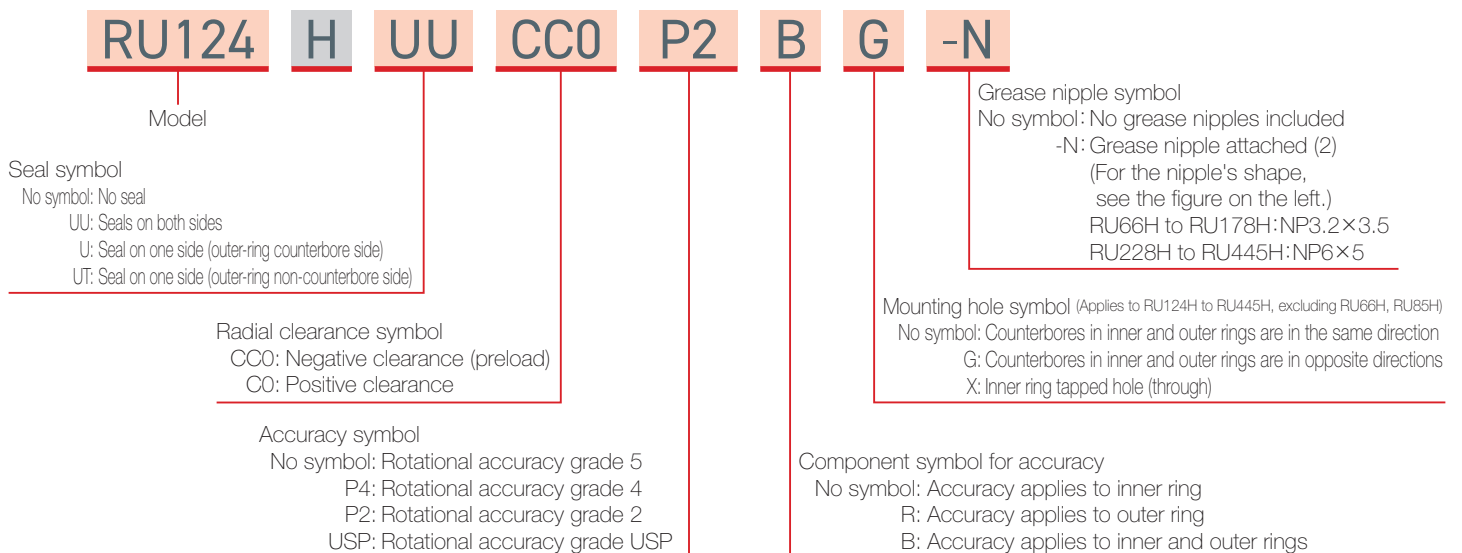


Unit: mm

Basic load rating (kN)		Mass (kg)	Inner ring		Outer ring	
C	C <sub>0</sub>		PCD <sub>1</sub>	Mounting hole	PCD <sub>2</sub>	Mounting hole
19.8	25.1	0.63	45	8-M4 through	83	8- $\phi$ 4.5 drilled through, $\phi$ 8 counter bore depth 4.4
22.5	32.3	1.01	65	8-M5 through	105	8- $\phi$ 5.5 drilled through, $\phi$ 9.5 counter bore depth 5.4
40.1	62.8	2.63	97	10- $\phi$ 5.5 drilled through, $\phi$ 9.5 counter bore depth 5.4 10-M5 through	148	10- $\phi$ 5.5 drilled through, $\phi$ 9.5 counter bore depth 5.4
54.4	84.1	4.29	112	12- $\phi$ 9 drilled through, $\phi$ 14 counter bore depth 8.6 12-M8 through	187	12- $\phi$ 9 drilled through, $\phi$ 14 counter bore depth 8.6
84.4	137	6.82	139	12- $\phi$ 9 drilled through, $\phi$ 14 counter bore depth 8.6 12-M8 through	217	12- $\phi$ 9 drilled through, $\phi$ 14 counter bore depth 8.6
119	199	11.5	184	12- $\phi$ 11 drilled through, $\phi$ 17.5 counter bore depth 10.8 12-M10 through	270	12- $\phi$ 11 drilled through, $\phi$ 17.5 counter bore depth 10.8
185	337	21.6	240	16- $\phi$ 14 drilled through, $\phi$ 20 counter bore depth 13 16-M12 through	350	16- $\phi$ 14 drilled through, $\phi$ 20 counter bore depth 13
261	560	35.9	385	24- $\phi$ 14 drilled through, $\phi$ 20 counter bore depth 13 24-M12 through	505	24- $\phi$ 14 drilled through, $\phi$ 20 counter bore depth 13

## Model Number Coding **RU-H**

Select an option (orange box) Fixed symbol (grey box)



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