

LHT series



Hollow type (LHT-III)



Input axial type (LHT-IV)



Simple type (LHT-I/LHT-II)



Simple type (LHT-V)

LHT series

A combination product that with large diameter hollow hole, flat shape, which is easy to operate.

LHN series

Light weight product, 20% lighter than standard products.

LHG series

High torque. Compare with standard products, LHG series' torque capacity is 30% higher. And the service life is increased by 43%, with high load capacity and high reliability.

Application

Industrial robot

Service Robots

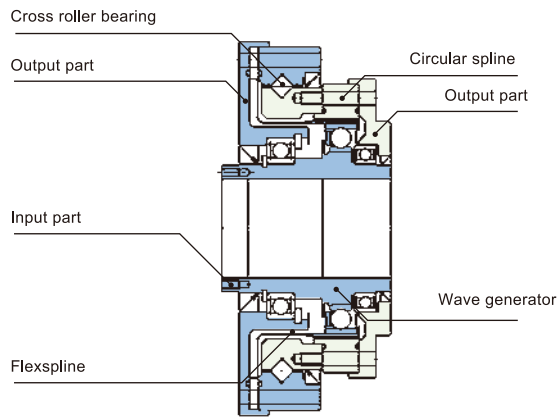
Medical Devices

Automation and special equipment

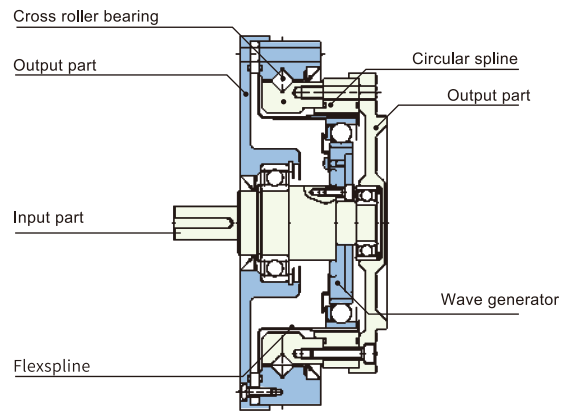
Printed circuit manufacturing equipment

Combinative structure of LHT series

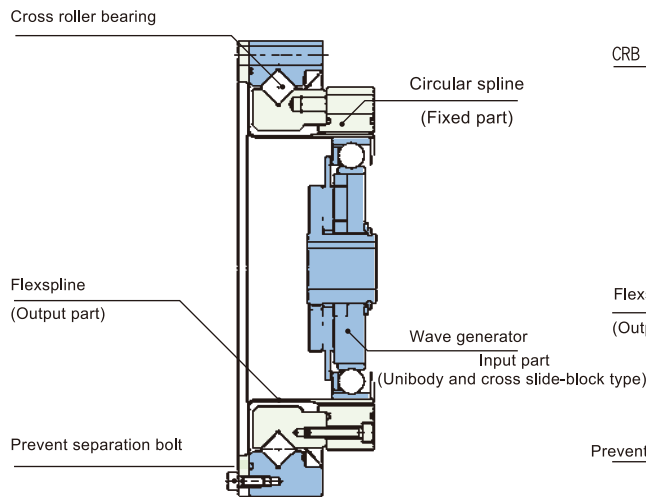
Hollow type (LHT/LHN/LHG-III)



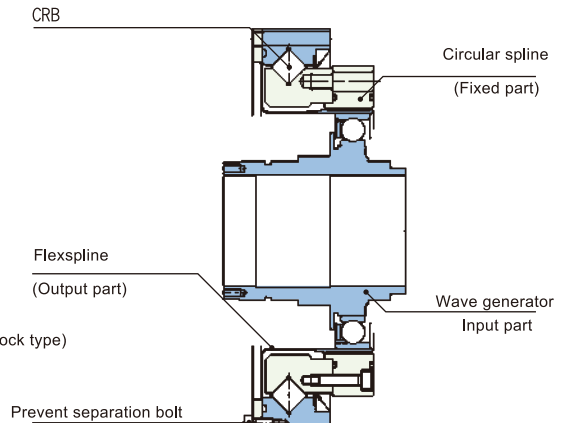
Input axial type (LHT/LHN/LHG-IV)



Simple type (LHT/LHG-I/II)



Simple combinative type (LHT/LHG-V)

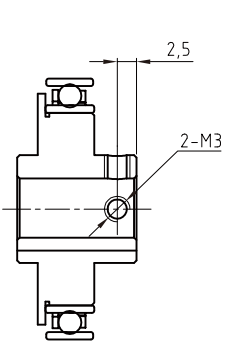
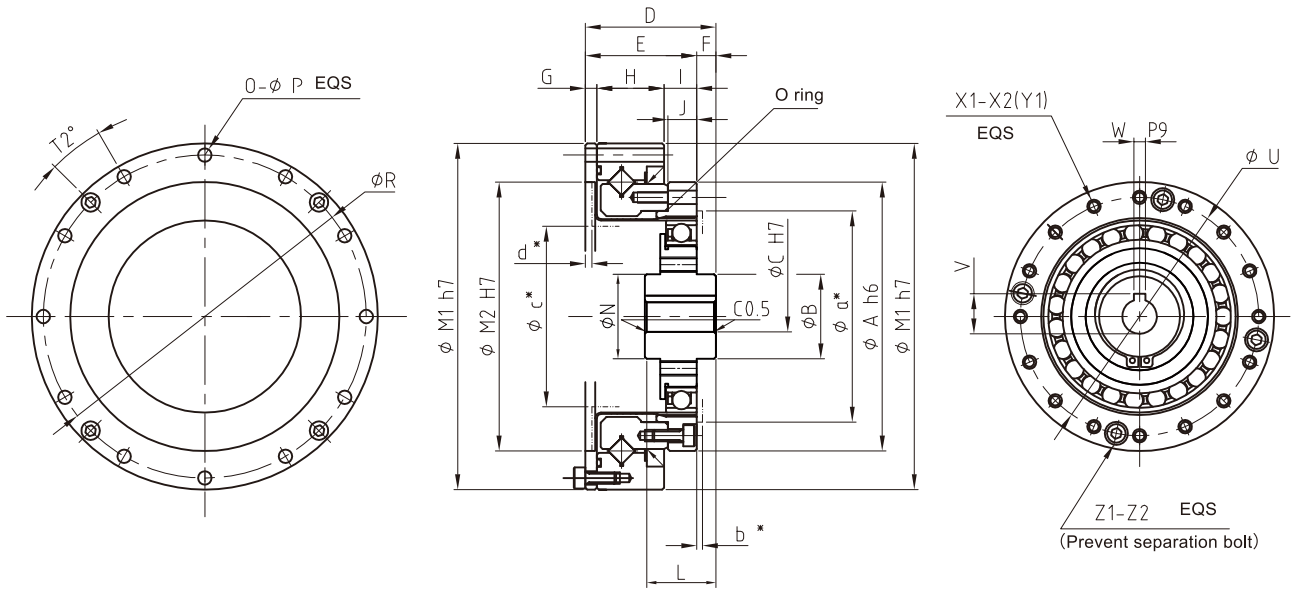


Rated parameter table of LHT/LHN series

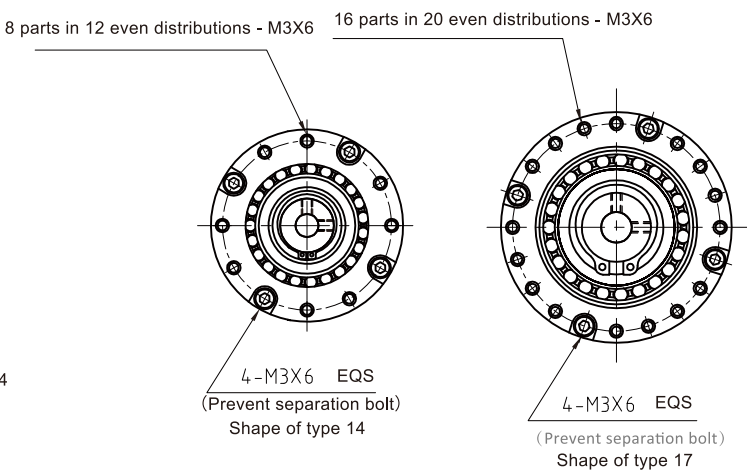
Model	Reduction ratio	Rated torque at 2000r/min input		Permissible peak torque at start and stop		Permissible maximum value for average load torque		Permissible maximum momentary torque		Permissible maximum input rotational speed(Grease)	Permissible average input rotational speed(Grease)	backlash	Design life
		Nm	Kgfm	Nm	Kgfm	Nm	Kgfm	Nm	Kgfm	r/min	r/min	Arc Sec	Hour
14	50	6.2	0.6	20.7	2.1	7.9	0.7	40.3	4.1	7000	3000	≤30	10000
	80	9	0.9	27	2.7	12.7	1.3	54.1	5.5				
	100	9	0.9	32	3.3	12.7	1.3	62.1	6.3				
17	50	18.4	1.9	39	4	29.9	3	80.5	8.2	6500	3000	≤30	15000
	80	25.3	2.6	49.5	5	31	3.2	100.1	10.2				
	100	27.6	2.8	62	6.3	45	4.6	124.2	12.7				
20	50	28.8	2.9	64.4	6.6	39	4	112.7	11.5	5600	3000	≤30	15000
	80	39.1	4	85	8.8	54	5.5	146.1	14.9				
	100	46	4.7	94.3	9.6	56	5.8	169.1	17.2				
	120	46	4.7	100	10.2	56	5.8	169.1	17.2				
25	50	44.9	4.6	113	11.5	63	6.5	213.9	21.8	4800	3000	≤30	15000
	80	72.5	7.4	158	16.1	100	10.2	293.3	29.9				
	100	77.1	7.9	181	18.4	124	12.7	326.6	33.3				
	120	77.1	7.9	192	19.6	124	12.7	349.6	35.6				
32	50	87.4	8.9	248	25.3	124	12.7	439	44.8	4000	3000	≤30	15000
	80	135.7	13.8	350	35.6	192	19.6	653	66.6				
	100	157.6	16.1	383	39.1	248	25.3	744	75.9				
40	100	308	37.2	660	67	432	44	1232	126.7	4000	3000	≤30	15000

Rated parameter table of LHG series

Model	Reduction ratio	Rated torque at 2000r/min input		Permissible peak torque at start and stop		Permissible maximum value for average load torque		Permissible maximum momentary torque		Permissible maximum input rotational speed(Grease)	Permissible average input rotational speed(Grease)	backlash	Design life
		Nm	Kgfm	Nm	Kgfm	Nm	Kgfm	Nm	Kgfm	r/min	r/min	Arc Sec	Hour
14	50	7	0.7	23	2.3	9	0.9	46	4.7	14000	8500	≤20	15000
	80	10	1	30	3.1	14	1.4	61	6.2				
	100	10	1.0	36	3.7	14	1.4	70	7.2				
17	50	21	2.1	44	4.5	34	3.4	91	9	10000	7300	≤20	20000
	80	29	2.9	56	5.7	35	3.6	113	12				
	100	31	3.2	70	7.2	51	5.2	143	15				
20	50	33	3.3	73	7.4	44	4.5	127	13	10000	6500	≤20	20000
	80	44	4.5	96	9.8	61	6.2	165	17				
	100	52	5.3	107	10.9	64	6.5	191	20				
	120	52	5.3	113	11.5	64	6.5	191	20				
25	50	51	5.2	127	13	72	7.3	242	25	7500	5600	≤20	20000
	80	82	8.4	178	18	113	12	332	34				
	100	87	8.9	204	21	140	14	369	38				
	120	87	8.9	217	22	140	14	395	40				
32	50	99	10	281	29	140	14	497	51	7000	4800	≤20	20000
	80	153	16	395	40	217	22	738	75				
	100	178	18	433	44	281	29	841	86				
40	100	345	35	738	75	484	49	1400	143	5600	4000	≤20	20000



The wave generator's shape of type 14

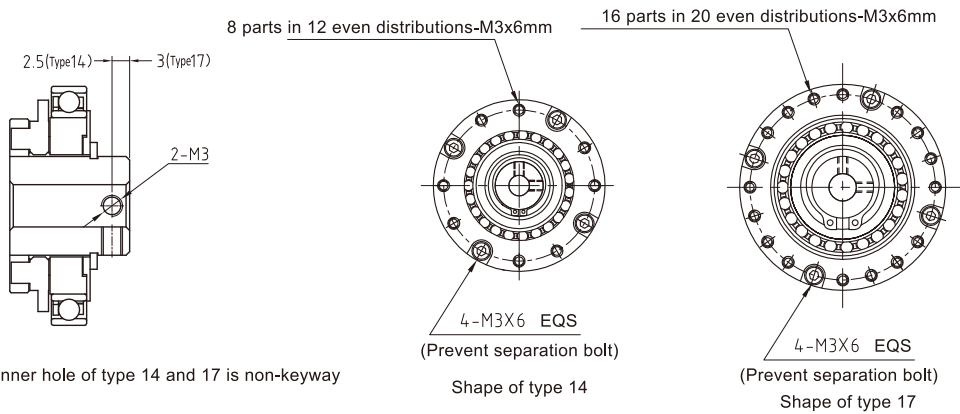
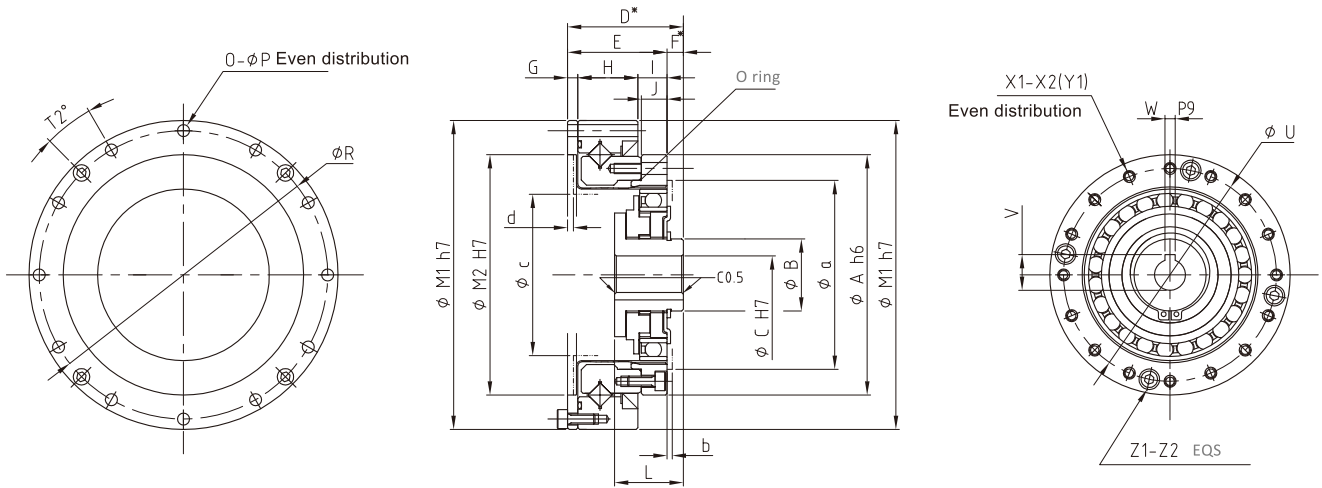


■ For detailed information of product, please confirm it with delivery specification figure.

Size chart

Type Symbol	14	17	20	25	32
ΦAh6	50	60	70	85	110
ΦB	14	16	22	24	35
ΦCH7	8	8	8	14	19
D	28.5 ⁰ _{-0,1}	32.5 ⁰ _{-0,1}	33.5 ⁰ _{-0,1}	37 ⁰ _{-0,1}	44 ⁰ _{-0,1}
E	23.5	26.5	29	34	42
F	5	6	4.5	3	2
G	2.4	3	3	3.3	3.6
H	14.1	16	17.5	18.7	23.4
I	7	7.5	8.5	12	15
J	6	6.5	7.5	10	14
L	15.5 ⁰ _{-0,1}	19 ⁰ _{-0,1}	18.5 ⁰ _{-0,1}	19.5 ⁰ _{-0,1}	20.5 ⁰ _{-0,1}
M1h7	70	80	90	110	142
M2H7	48 [#]	60	70	88	114
ΦN	14	16	22	22	35
O	8	12	12	12	12
ΦP	3.5	3.5	3.5	4.5	5.5
ΦR	64	74	84	102	132
T2(Angle)	22.5°	15°	15°	15°	15°
ΦU	44	54	62	77	100
V	9.4 ^{+0,1} ₀	9.4 ^{+0,1} ₀	9.4 ^{+0,1} ₀	16.3 ^{+0,1} ₀	21.8 ^{+0,1} ₀
WP9	3	3	3	5	6
X1	8 parts in 12 even distributions	16 parts in 20 even distributions	16	16	16
X2	M3×6	M3×6	M3×6	M4×8	M5×10
Y1	3.5×6	3.5×6.5	3.5×7.5	4.5×10	5.5×14
Z1	4	4	4	4	4
Z2	M3×6	M3×6	M3×8	M3×10	M4×16
Φα	36.5	45	54.5	64.5	86
b	1	1	1.5	1.5	2
Φc	31	38	48	58	77
d	1.2	1.7	1.7	1.9	2.1
Φe	/	12	18	18	26
f	/	2	2	2	2
g	/	M2.5	M2.5	M2.5	M3

- The size marked with * symbol refers to the axial connection position and tolerance of three parts, which are wave generator, flexspline, circular spline. The size will have an influence on performance and intensity, therefore, please strictly abide by it.
- There is also difference in tolerance owing to different manufacturing method(casting and machining) for parts and components. For size without giving clear indication of tolerance, please contact with our company or authorized distributor if you needed more information.
- Owing to flexspline can be distorted, please use inwall size greater than φa,b,c and lesser than d in order to prevent it from being in touch with shell.
- Wave generator is individually packaged when delivering the product.
- The size marked # can be customized according to customer's requirement. For more details, please consult with our authorized distributor.



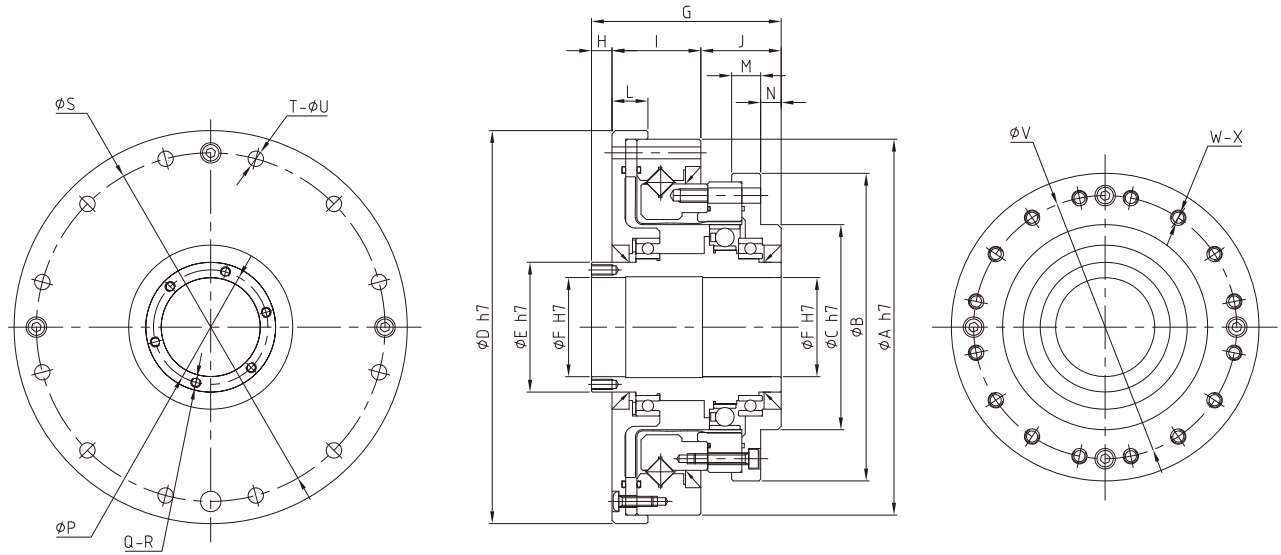
The generator inner hole of type 14 and 17 is non-keyway

■ For detailed information of product, please confirm it with delivery specification figure..

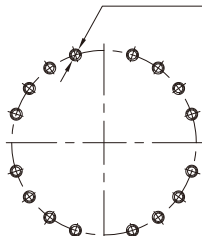
Size chart

Type Symbol	14	17	20	25	32
ΦAh6	50	60	70	85	110
ΦB	14	18	21	26	26
ΦCH7	6	8	11	14	14
D	28.5 ⁰ _{-0.1}	32.5 ⁰ _{-0.1}	33.5 ⁰ _{-0.1}	37 ⁰ _{-0.1}	44 ⁰ _{-0.1}
E	23.5	26.5	29	34	42
F	5	6	4.5	3	2
G	2.4	3	3	3.3	3.6
H	14.1	16	17.5	18.7	23.4
I	7	7.5	8.5	12	15
J	6	6.5	7.5	10	14
L	17.6 ⁰ _{-0.1}	19.5 ⁰ _{-0.1}	20.1 ⁰ _{-0.1}	20.2 ⁰ _{-0.1}	22 ⁰ _{-0.1}
M1h7	70	80	90	110	142
M2H7	48 [#]	60	70	88	114
O	8	12	12	12	12
ΦP	3.5	3.5	3.5	4.5	5.5
ΦR	64	74	84	102	132
T2(Angel)	22.5°	15°	15°	15°	15°
ΦU	44	54	62	77	100
V	/	/	12.8 ^{+0.1} ₀	16.3 ^{+0.1} ₀	16.3 ^{+0.1} ₀
WP9	/	/	4	5	5
X1	8 part in 12 even distributions	16 part in 20 even distributions	16	16	16
X2	M3×6	M3×6	M3×6	M4×8	M5×10
Y1	3.5×6	3.5×6.5	3.5×7.5	4.5×10	5.5×14
Z1	4	4	4	4	4
Z2	M3×6	M3×6	M3×8	M3×8	M4×10
Φα	36.5	45	54.5	64.5	86
b	1	1	1.5	1.5	2
ΦC	31	38	48	58	77
d	1.2	1.7	1.7	1.9	2.1

- The size marked with * symbol refers to the axial connection position and tolerance of three parts, which are wave generator, flexspline, circular spline. The size will have an influence on performance and intensity, therefore, please strictly abide by it.
- There is also difference in tolerance owing to different manufacturing method(casting and machining) for parts and components. For size without giving clear indication of tolerance, please contact with our company or authorized distributor if you needed more information.
- Owing to flexspline can be distorted, please use inwall size greater than φa,b,c and lesser than d in order to prevent it from being in touch with shell.
- Wave generator is individually packaged when delivering the product.
- The size marked # can be customized according to customer's requirement. For more details, please consult with our authorized distributor.

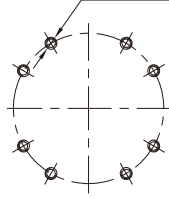


16 parts in 20 even distributions-M3x6mm

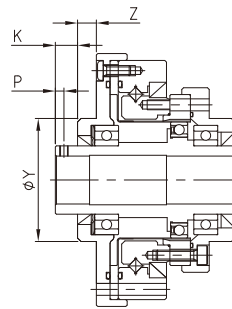


Type 17

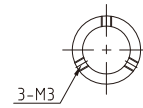
8 parts in 12 even distributions-M3x6mm



Type 14



Input shape of type 14 and type 17



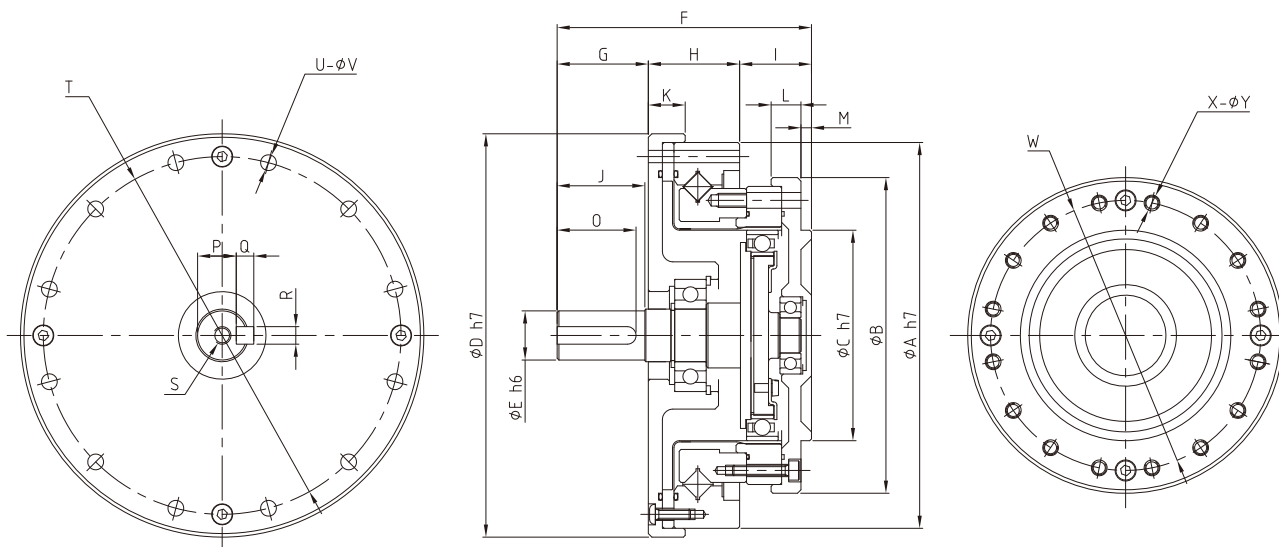
Type 14, 17

■ For detailed information of product, please confirm it with delivery specification figure..

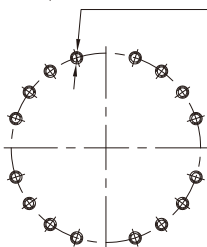
Size chart

Symbol \ Type	14	17	20	25	32	40
ΦAh7	70	80	90	110	142	170
ΦB	54	64	75	90	115	140
ΦCh7	36	45	50	60	85	100
ΦDh7	74	84	95	115	147	175
ΦEh7	20	25	30	38	45	59
ΦFh7	14	19	21	29	36	46
G	52.5	56.5	51.5	55.5	65.5	79
H	12	12	5	6	7	8
I	20.5	23	25	26	32	38
J	20	21.5	21.5	23.5	26.5	33
k	6.5	6.5	/	/	/	/
L	9	10	10.5	10.5	12	14
M	8	8.5	9	8.5	9.5	13
N	7.5	8.5	7	6	5	7
ΦP(P)	(2.5)	(2.5)	25.5	33.5	40.5	52
Q	3	3	6	6	6	6
R	M3	M3	M3×6	M3×6	M3×6	M4×8
ΦS	64	74	84	102	132	158
T	8	12	12	12	12	12
ΦU	3.5	3.5	3.5	4.5	5.5	6.6
ΦV	44	54	62	77	100	122
W	8 part in 12 even distributions	16 part in 20 even distributions	16	16	16	16
X	M3×6	M3×6	M3×6	M4×8	M5×8	M6×10
	φ3.5×11.5	φ3.5×12	φ3.5×13.5	Φ4.5×15.5	Φ5.5×20.5	Φ6.6×25
ΦY	36	45	/	/	/	/
Z	55	5.5	/	/	/	/

- Owing to different manufacturing method for parts and components.
For size without giving clear indication of tolerance, please contact with our company or authorized distributor if you needed more information.

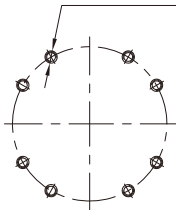


16 parts in 20 even distributions-M3x6mm

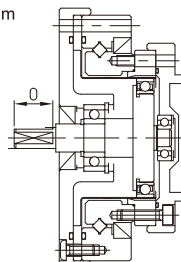


Type 17

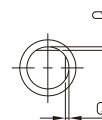
8 parts in 12 even distributions-M3x6mm



Type 14



Input shape of type 14 and type 17



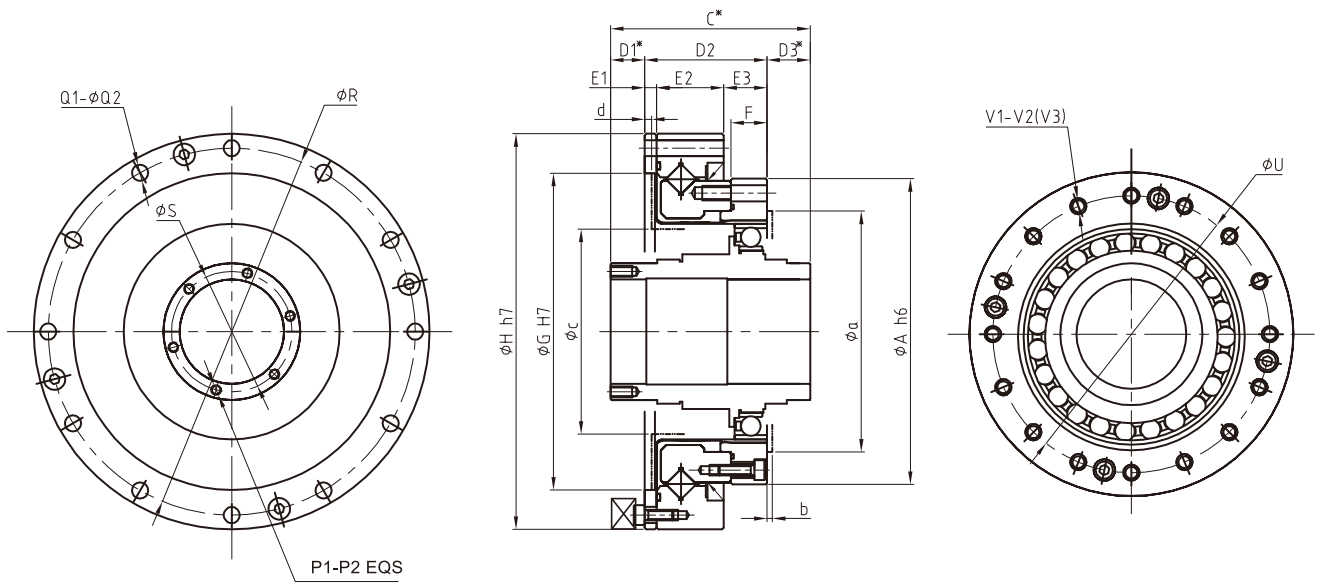
Enlarged drawing of type 14 and 17

■ For detailed information of product, please confirm it with delivery specification figure.

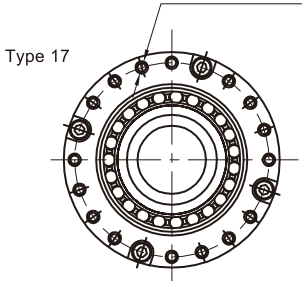
Size chart

Type Symbol	14	17	20	25	32
ΦAh7	70	80	90	110	142
ΦB	54	64	75	90	115
ΦCh7	36	45	50	60	85
ΦDh7	74	84	95	115	147
ΦEh6	6	8	10	14	14
F	50.5	56	63.5	72.5	84.5
G	15	17	21	26	26
H	20.5	23	25	26	32
I	15	16	17.5	20.5	26.5
J	14	16	20	25	25
k	9	10	10.5	10.5	12
L	8	8.5	9	8.5	9.5
M	2.5	3	3	3	5
O	11	12	16.5	22.5	22.5
P	/	/	8.2 ⁰ _{-0,1}	11 ⁰ _{-0,1}	11 ⁰ _{-0,1}
Q	0.5	0.5	3 ⁰ _{-0,025}	5 ⁰ _{-0,03}	5 ⁰ _{-0,03}
R	/	/	3 ⁰ _{-0,025}	5 ⁰ _{-0,03}	5 ⁰ _{-0,03}
S	/	/	M3×6	M5×10	M5×10
ΦT	64	74	84	102	132
U	8	12	12	12	12
ΦV	3.5	3.5	3.5	4.5	5.5
ΦW	44	54	62	77	100
X	8 part in 12 even distributions	16 part in 20 even distributions	16	16	16
Y	M3×6	M3×6	M3×6	M4×8	M5×8
	3.5×11.5	3.5×12	3.5×13.5	4.5×15.5	5.5×20.5

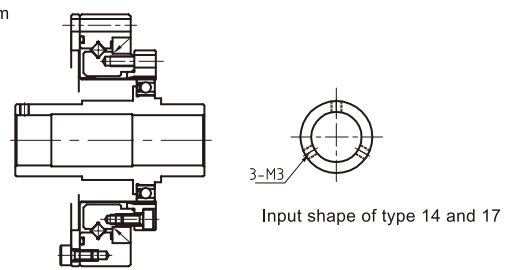
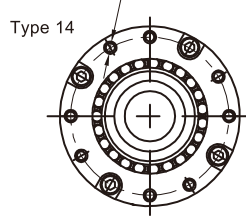
- owing to different manufacturing method for parts and components.
For size without giving clear indication of tolerance, please contact with our company or authorized distributor if you needed more information.



16 parts in 20 even distributions-M3x6mm

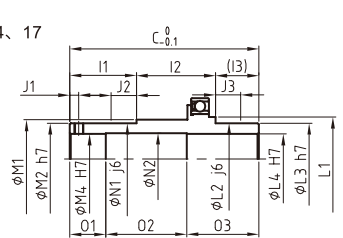


8 parts in 12 even distributions-M3x6mm

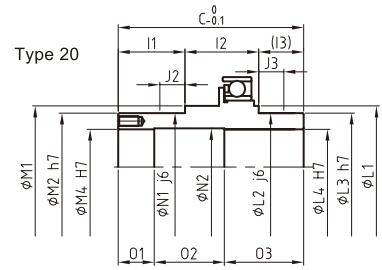


Input shape of type 14 and 17

Type 14、17

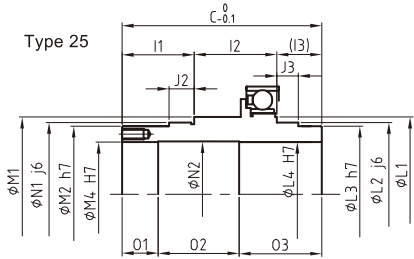


Type 20

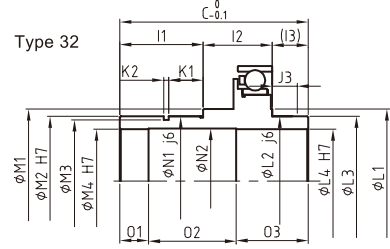


Shape of wave generator of all types

Type 25



Type 32



■ For detailed information of product, please confirm it with delivery specification figure.

Size chart

Symbol \ Type	14	17	20	25	32
ΦAh6	50	60	70	80	110
C	52.5	56.5	51.5	55.5	65.5
D1	15.5	15	8	9.5	12
D2	23.5	26.5	29	34	42
D3	13.5	15	14.5	12	12
E1	2.4	3	3	3.6	3.6
E2	14.1	16	17.5	18.7	23.4
E3	7	7.5	8.5	12	15
F	6	6.5	7.5	10	14
ΦG	48	60	70	88	114
ΦH	70	80	90	110	142
11	18.5	19.5	18.5	20	29
12	22	23.5	20.5	23	24
13	12	13.5	12.5	12.5	12.5
J1	2.5	2.5	/	/	/
J2	7	7	7	6.5	/
J3	7	7	7	6.5	7
K1	/	/	/	/	1.7
K2	/	/	/	/	12
ΦL1	23	29	34	43	50
ΦL2	20	25	30	40	45
ΦL3	20	25	30	38	45
ΦL4	14	19	21	29	36
ΦM1	22	28	34	43	50
ΦM2	20	25	30	38	45
ΦM3	/	/	/	/	42.5
ΦM4	14	19	21	29	36
ΦN1j6	20	25	30	38	45
ΦN2	14.5	19.5	21.5	29.5	36.5
O1	10	10	10	10	10
O2	22.5	24.5	19.5	22.5	30.5
O3	20	22	22	23	25
P1	3	3	6	6	6
P2	M3	M3	M3×6	M3×6	M3
Q1	8	12	12	12	12
Q2	3.5	3.5	3.5	4.5	5.5
ΦR	64	74	84	102	132
ΦS	/	/	25.5	33.5	40.5
ΦU	44	54	62	77	100
V1	8 part in 12 even distributions	16 part in 20 even distributions	16	16	16
V2	M3×5	M3×6	M3×6	M4×8	M5×10
V3	Φ3.5×6	Φ3.5×6.5	Φ3.5×7.5	Φ4.5×10	Φ5.5×14
Φα	36.5	45	54.5	64.5	86
b	1	1	1.7	1.5	2
Φc	31	38	48	58	77
d	1.2	1.7	1.7	1.9	2.1

- The size marked with * symbol refers to the axial connection position and tolerance of three parts, which are wave generator, flexspline, circular spline. The size will have an influence on performance and intensity, therefore, please strictly abide by it.
- There is also difference in tolerance owing to different manufacturing method(casting and machining) for parts and components. For size without giving clear indication of tolerance, please contact with our company or authorized distributor if you needed more information.
- Owing to flexspline can be distorted, please use inwall size greater than φa.b.c and lesser than d in order to prevent it from being in touch with shell.
- Wave generator is individually packaged when delivering the product.