SHF-CR1 Gearheads

SHF Harmonic Gearing with Integrated Cross Roller Bearing

Features

- Zero backlash
- Compact design
- High torque capacity
- High stiffness
- High positional accuracy
- Optimized tooth profile
- Repeatability to ± 0.25 arc-sec
- Customizable
- Large through hole

Standard Specifications (high torque option available)

Size	Ratio	Rated Torque at 2000 RPM		Repeated Torque Limit		Momentary Peak Torque Limit		Max Input Speed RPM		Moment of Inertia		Weight	
		Nm	in-lb	Nm	in-lb	Nm	in-lb	Oil	Grease	$kgcm^2$	$lb\text{-}in^2$	kg	lb
17	50	16	142	34	301	70	620	10,000	4,000	.234	.080	.8	1.7
	80	22	195	34	301	70	620						
	100	24	212	54	478	86	761						
	120	24	212	54	478	78	690						
20	50	25	221	56	496	98	867	10,000	4,000	.481	.164	1.1	2.3
	80	34	301	74	655	127	1124						
	100	40	354	82	726	147	1301						
	120	40	354	87	770	147	1301						
	160	40	354	92	814	147	1301						
25	50	39	345	98	867	186	1646	7500	4,000	1.283	.438	1.7	3.7
	80	67	593	137	1213	255	2257						
	100	67	593	157	1390	284	2514						
	120	67	593	167	1478	304	2691						
	160	67	593	178	1558	314	2779						
32	50	76	673	216	1912	382	3381	7,000	4,000	3.842	1.312	3.3	7.3
	80	118	1044	304	2691	568	5027						
	100	137	1213	333	2947	647	5726						
	120	137	1213	353	3124	686	6072						
	160	137	1213	372	3292	686	6072						

Cross Roller Bearing Specifications

Size	Pitch	Basic Dynamic Load C		Basic Static Load C		Allowable Moment Load Mc		Moment of Rigidity Km x 10^4	
	mm	kN	lb	kN	lb	Nm	In-lb	Nm/rad	Arc-min
17	60	10.4	2338	16.3	3664	124	1097	15.4	397
20	70	14.6	3282	22	4946	187	1655	25.2	649
25	85	21.8	4901	35.8	8046	258	2283	39.2	1009
32	111	38.2	8587	65.4	14702	580	5133	100	2575

Ordering Codes

SHF-AAA-BBB-CR1-CCCCC

Size: 017, 020, 025, 032

Ratio: 050,080,100,120,160

Special Designator: by factory for non-standard units

CONIC SYSTEMS

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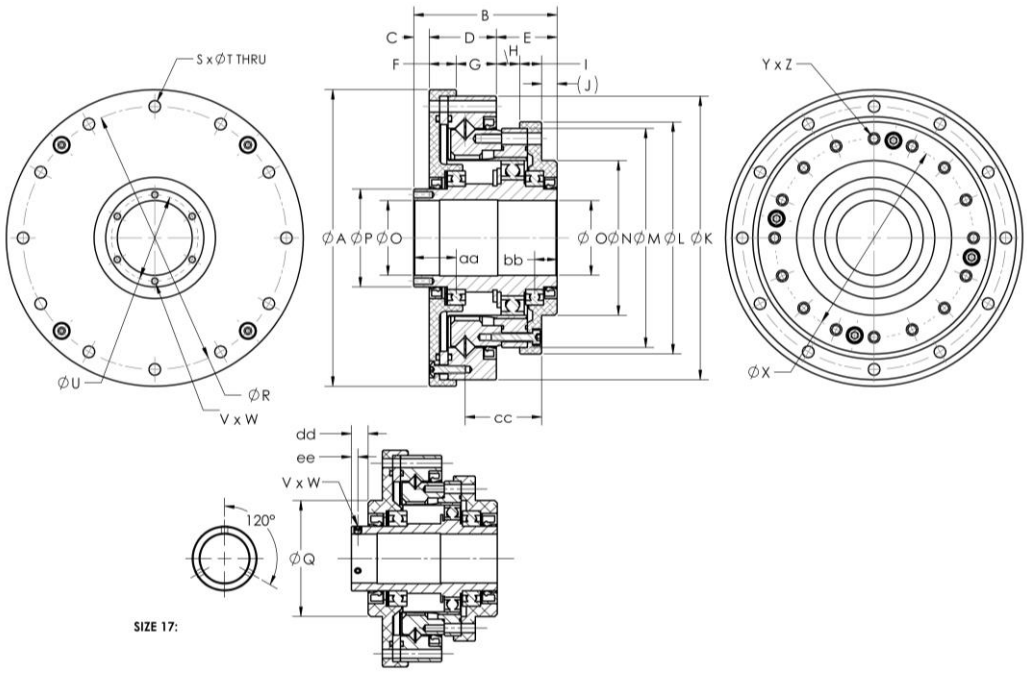
Dimensions



	Size			
	17	20	25	32
Ø A h6	80	90	110	142
B +0/-0.1	56.5	51.5	55.5	65.5
C	40.5 +0/-0.9	42 +0/-1.0	45.5 +0/-1.0	53.5 +0/-1.1
D	20 +0.5/-0.0	21.5 +0.6/-0.0	24 +0.6/-0.0	28 +0.6/-0.0
E	20.5	20.5	21.5	25.5
F	2.5	3	3	3
G	6.5	7.5	10	14
H	3	3	3.3	3.6
Ø I h6	60	70	85	110
Ø J h7	25	30	38	45
Ø K H7	19	21	21	36
	59.5	70	88	113.75
Ø M h7	25	30	38	45
Ø N h6	47	54	67	88
Ø O	74	84	102	132
P	12	12	12	12
Ø Q	3.5	3.5	4.5	5.5
R	4	4	4	4
Ø S	3.5	3.5	3.5	4.5
Ø T	-	25.5	33.5	40.5
U	3	6	6	6
V	M3 x 3	M3 x 6	M3 x 6	M3 x 6
W	16	16	16	16
Ø X	3.5	3.5	4.5	5.5
Y	-	4	4	4
Ø Z	-	3.5	3.5	4.5
Ø aa	45	53	66	86
Ø bb	38	45	56	73
cc	2.1	2.1	2	2
dd	16.4	17.8	19.8	23.2
Ø ee	45	53	66	86
ff	1	1.5	2.1	1.5
Ø gg	54	62	77	100
Ø hh	-	-	40	-
ii	-	-	6	-
jj	46.5	54	67	88
kk	1.1	1.4	1.4	2
ll	0.6	0.75	0.75	1.13