

# CSF-M1 Component Sets

## CSF Short Cup Harmonic Gearing

### Features

- Zero backlash
- Compact design
- High torque capacity
- High stiffness
- High positional accuracy
- Optimized tooth profile
- Repeatability to  $\pm 0.25$  arc-sec
- Available with and without an Oldham coupling
- Customizable
- Available in corrosion resistant stainless steel



### 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 <sup>2</sup>	lb-in <sup>2</sup>	kg	lb
17	50	16	142	34	301	70	620	10,000	4,000	.076	.026	.7	1.4
	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	1.817	.02	.9	2.0
	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	.463	.158	1.4	3.1
	80	67	593	137	1213	255	2257						
	100	67	593	157	1390	284	2514						
	120	67	593	167	1478	304	2691						
32	50	76	673	216	1912	382	3381	7,000	4,000	1.38	.472	3.0	6.6
	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						

### Ordering Codes

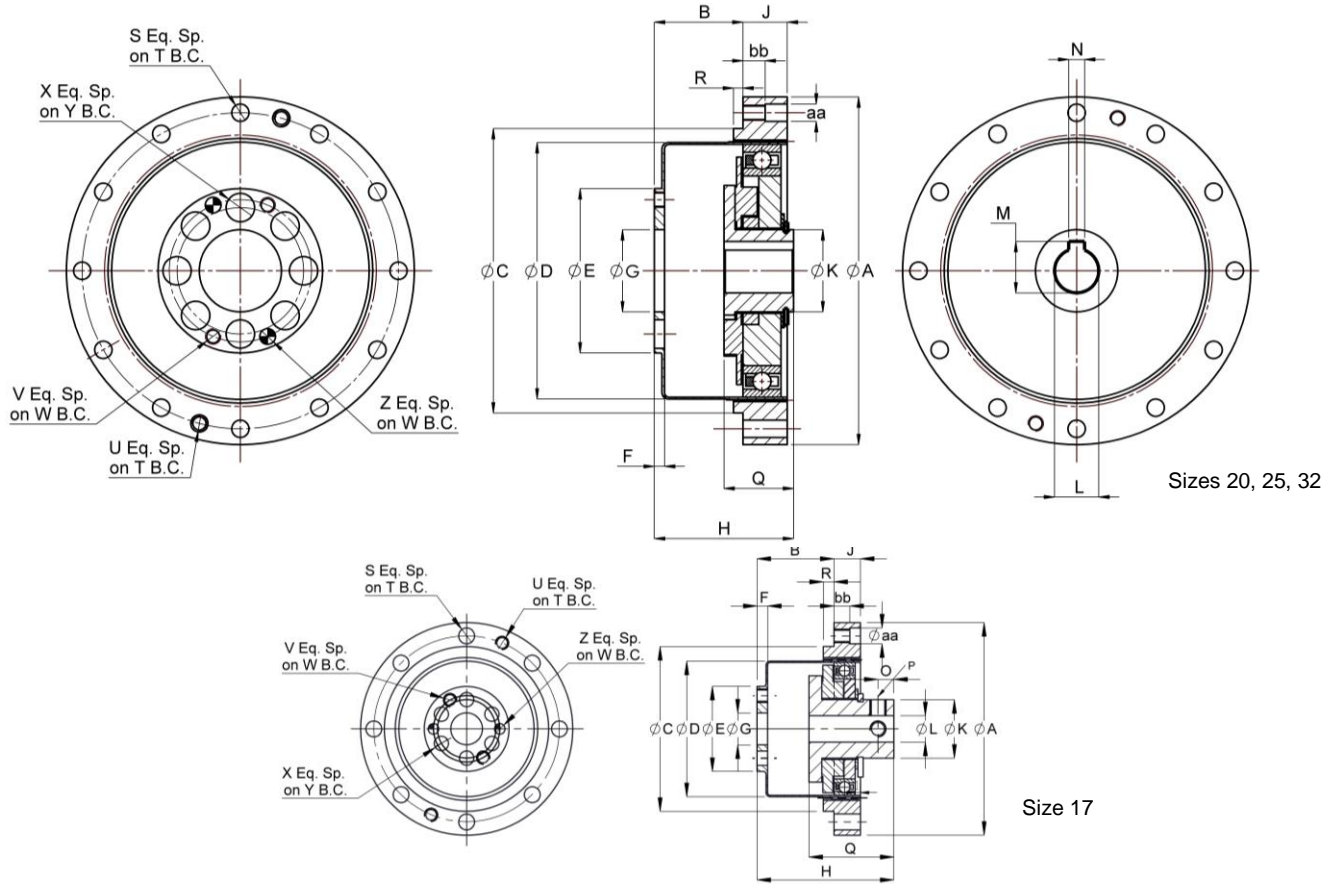
CSF-AAA-BBB-M1-CCCC

Size: 017, 020, 025, 032

Ratio: 050,080,100,120,160

Special Designator: by factory for non-standard units

# Dimensions



	Size			
	17	20	25	32
$\phi A$ h6	60	70	85	110
B	20 +0.5/-0.0	21.5 +0.6/-0.0	24 +0.6/-0.0	28 +0.6/-0.0
$\phi C$ h6	48	54	67	90
$\phi D$	41	50.76	61	82
$\phi E$	26.4	32	40	52
F	3	3	3	3.2
G H7	10	16	20	26
H	32.5 +0.0/-0.9	33.5 +0.0/-1.0	37 +0.0/-1.0	44 +0.0/-1.1
J	6.5	7.5	10	14
$\phi K$	18	21	26	26
L H7	8	9	11	14
M +0.1/-0.0	-	10.4	12.8	16.3
N JS9	-	3	4	5
O	3	-	-	-
P	2 x M3	-	-	-
Q +0.0/-0.1	19.5	20.1	20.2	22
R	2.5	3	3	3
S	12 x $\phi 3.5$	12 x $\phi 3.5$	12 x $\phi 4.5$	12 x $\phi 5.5$
$\phi T$	54	62	75	100
U	2 x M3	2 x M3	2 x M4	2 x M5
V	2 x M3	2 x M3	2 x M4	2 x M5
$\phi W$	21.5	27	34	45
X	6 x $\phi 5.3$	8 x $\phi 5.5$	8 x $\phi 6.5$	8 x $\phi 9$
$\phi Y$	19	24	30	40
Z	2 x $\phi 3$	-	-	2 x $\phi 5$
aa	-	2 x $\phi 3.5$	2 x $\phi 4.5$	2 x $\phi 5.5$
bb	-	4	6	7