

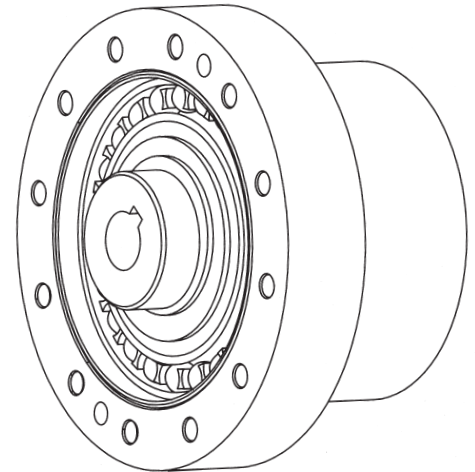
HKC CUP COMPONENT GEAR SETS

- **Improved Stiffness**
- **Improved Accuracy**
- **Higher Momentary Load Capacity**

HKC component gear sets from Harmonic Drive Technologies provide the excellent torsional characteristics necessary to meet the ever increasing demands of the servo designer.

Improved gear design offers superior torsional stiffness over standard HDC gear sets, often doubling the spring rate in the low torque range.

Maximum positional error is typically in the ± 40 arc second range in all sizes.



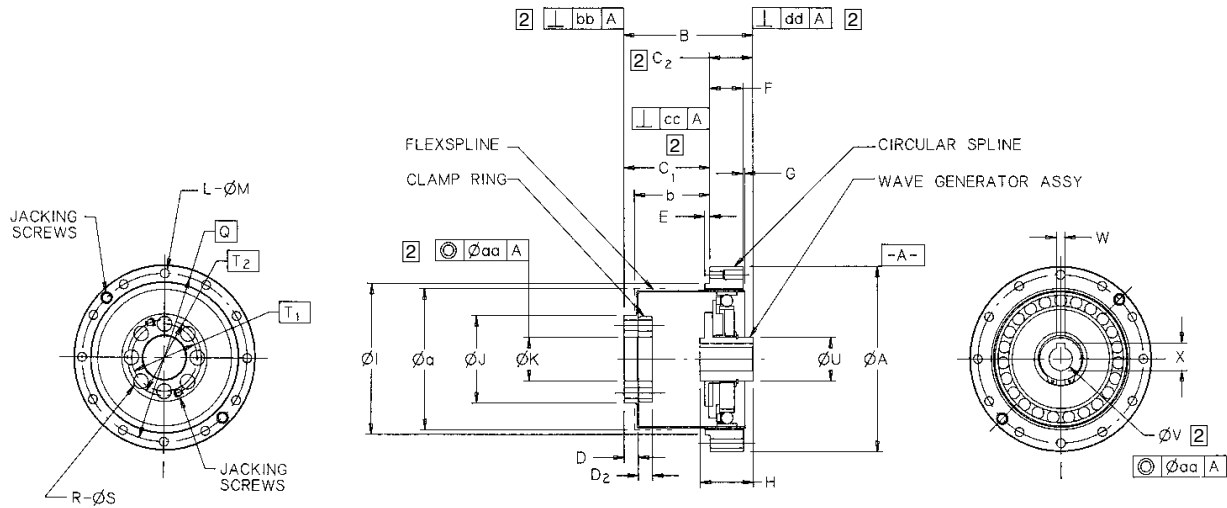
HKC		RATING'S TABLE ¹									
HKC	RATIO	RATED OUTPUT TORQUE @ 2000 RPM		LIMIT FOR MOMENTARY PEAK TORQUE		STATIC TORQUE LIMIT		MAX INPUT SPEED (RPM)		STANDARD W/G INPUT INERTIA	NO-LOAD STARTING TORQUE
		lb-in	Nm	lb-in	Nm	lb-in	Nm	Oil	Grease	lb-in ² (kg-cm ²)	oz-in (N-cm)
20	80	360	40.7	1120	127	2200	245	10000	5600	.093 (.265)	6 (4.2)
	100	370	41.8	1300	147						
	120	380	42.5	1300	147						
25	80	550	62.1	2260	255	3400	384	8000	4500	.207 (.61)	11 (7.9)
	100	570	64.4	2510	284						
	120	590	66.7	2690	304						
	160	610	68.9	2780	314						
32	80	1100	124	5000	564	6900	779	7000	3500	.67 (1.96)	21 (15)
	100	1150	130	5700	643						
	120	1190	134	6000	677						
	160	1250	141	6000	677						
40	80	2410	272	8600	971	15000	1695	5600	2800	1.8 (5.27)	42 (30)
	100	2510	283	9600	1084						
	120	2580	292	10,500	1186						
	160	2670	301	10,500	1186						

Rated output torque based on a L_{10} life for 7000 hours at 2000rpm input speed.

Shock loads such as those generated by emergency stop or collisions must not exceed the limits for momentary peak torque, and must be limited in their frequency.



ALL DIMENSIONS IN MM



HKC	20	25	32	40
A (h6)	70 ⁺⁰ _{-0.019}	85 ⁺⁰ _{-0.022}	110 ⁺⁰ _{-0.022}	135 ⁺⁰ _{-0.023}
B	52 ⁺⁰ _{-1.0}	64 ⁺⁰ _{-1.0}	78 ⁺⁰ _{-1.1}	96 ⁺⁰ _{-1.1}
C1	31 ^{+0.6} ₋₀	40 ^{+0.6} ₋₀	52 ^{+0.6} ₋₀	63 ^{+0.6} ₋₀
C2	21	24	26	33
D	5.4	6.5	8.6	9.5
D2	5	6	8	10
E	3	3	3	4
F	14	16	20	25
G	—	—	1	1.5
H	27 ⁺⁰ _{-0.1}	32 ⁺⁰ _{-1.0}	32 ⁺⁰ _{-1.0}	40 ⁺⁰ _{-1.0}
I (h6)	54 ⁺⁰ _{-0.019}	67 ⁺⁰ _{-0.019}	90 ⁺⁰ _{-0.022}	110 ⁺⁰ _{-0.022}
J	31.6	39.5	52	64
K (H6)	16 ^{+0.011} ₋₀	20 ^{+0.013} ₋₀	26 ^{+0.013} ₋₀	32 ^{+0.016} ₋₀
L (No. of Holes)	12	12	12	12
M	3.5	4.5	5.5	6.6
O	4	6	7	9
P	3.5	4.5	5.5	6.6
Q (PCD)	60	75	100	120
R (No. of Holes)	8	8	8	8
S	5.5	6.6	9	11
T1 (PCD)	24	30	40	50
T2 (PCD)	27	34	45	56
U	21	26	26	32
V (H7)	9 ^{+0.015} ₋₀	11 ^{+0.018} ₋₀	14 ^{+0.018} ₋₀	14 ^{+0.018} ₋₀
W (Js9)	3±0.0125	4±0.015	5±0.015	5±0.015
X	10.4 ^{+0.1} ₋₀	12.8 ^{+0.1} ₋₀	16.3 ^{+0.1} ₋₀	16.3 ^{+0.1} ₋₀
a Minimum Housing-	53	65	84	104
b Clearance	27.6	35.5	45.4	56.5
c	2.8	3.8	4.8	5.8
WEIGHT (lb)	0.9	1.3	2.7	5.1
(kgf)	0.4	0.6	1.2	2.3

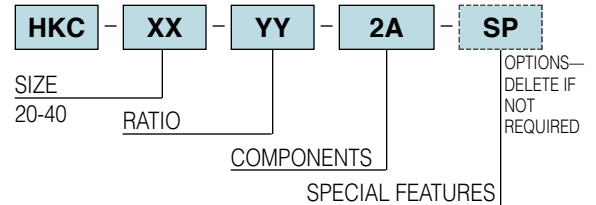
NOTES

To achieve proper performance from Harmonic Drive Gear Sets, certain mounting and alignment requirements are necessary. Dimensions and tolerances marked [2] establish interface and installation requirements and must be adhered to under all load conditions.

Maintain components in "As Received" sets.

For further information refer to HDC Cup Component Selection Guide or consult our engineering department.

ORDERING DETAILS



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