

GAM GCL Series

ROBOTIC CYCLOIDAL GEARBOXES



GAM CAN.



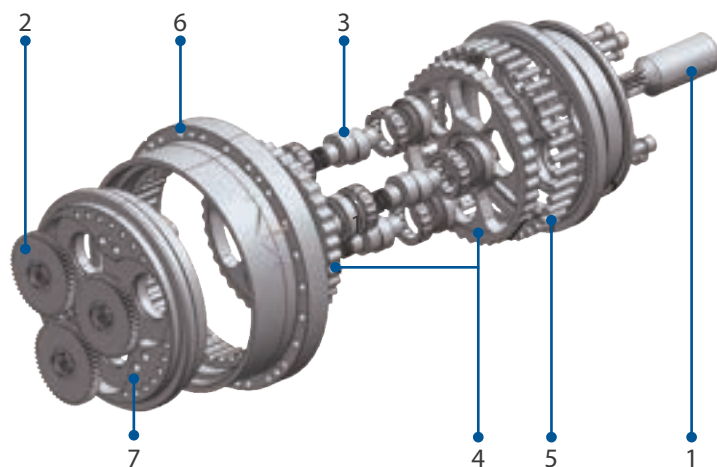
Robotic Cycloidal Gearboxes

GAM's GCL Series Robotic Cycloidal Gearboxes provide precise point-to-point motion with zero backlash and high impact resistance. Available with integrated pre-stage and motor adapter customized to your application.

With our value-add manufacturing and engineering collaboration, we can work with you to integrate the GCL cycloidal gearbox into your machines.

- Backlash of ≤ 1 arcmin with lost motion of ≤ 1 arcmin
- Withstands the frequent start-stop impact loads of industrial robots with impact resistance 5x nominal torque
- Multi-tooth meshing for torsional rigidity
- Flange output in 7 sizes with nominal output torque of 167 to 4410 Nm and ratios of 57:1 to 192.4:1
- Drops in for many competitors' products
- Integrated motor adapter plate ready to mount your motor

Drive Sequence:

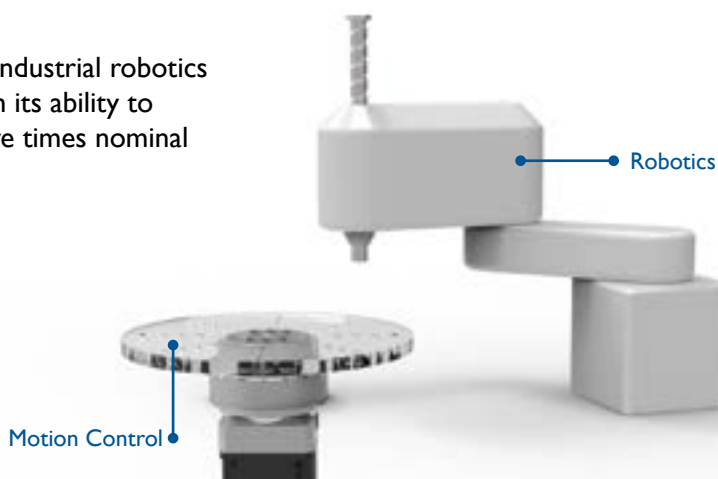


1. Input shaft/pinion
2. Planetary gears
3. Eccentric gearshafts
4. Cycloid gears
5. Pins
6. Pin Housing
7. Output

Applications

The GCL is well suited to high-end industrial robotics and motion control applications with its ability to withstand start-stop impact loads five times nominal torque.

- Robotics
- Tool changers
- Positioning
- Turntables
- Pick & Place



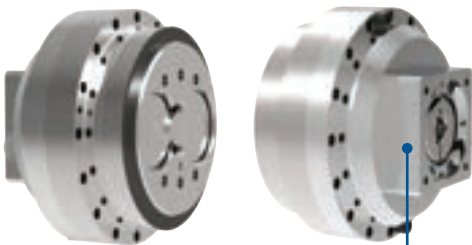
GCL Series Models

GCLC
Component Gearbox



GCLC-F
Solid Flange

GCL
Gearbox with cover & integrated input



GCL-F
Solid Flange

Integrated
Motor Mount

Integrated Pre-Stage

GAM provides a complete gearbox, including the integrated prestage, ready to mount into your application. A single product with a single part number simplifies ordering.

Pre-Stage options include:

- Right angle turn with additional speed reduction using hypoid gearing for a compact configuration
- Right angle turn in low ratios from 5:1 down to 1:1
- Inline configuration with additional speed reduction

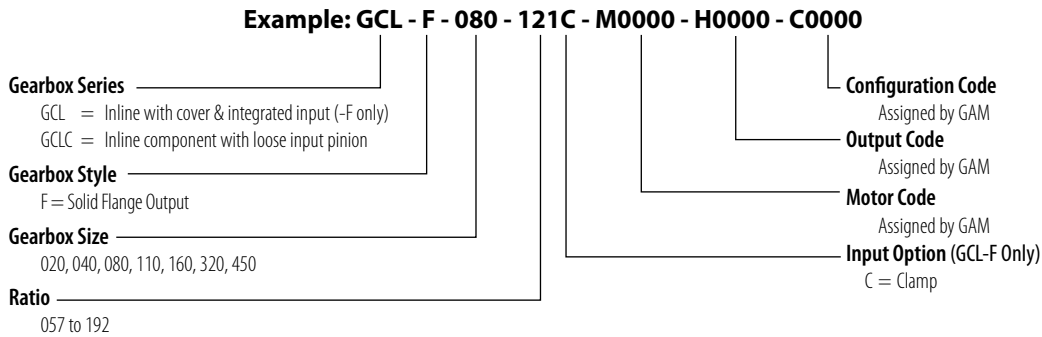


Technical Specifications

GCLC-F/GCL-F		020	040	080	110	160	320**	450**
Ratios		57, 81, 105, 121, 141, 161	57, 81, 105, 121, 153	57, 81, 101, 121, 153	81, 111, 161, 175.28	81, 101, 129, 145, 171	81, 101, 118.5, 129, 141, 153, 171, 185, 201	81, 101, 129, 153, 171, 192.4, 201, 210.23, 257.84
Outer Diameter	mm	145	190	222	244	280	325	370
Nominal Output Torque*	Nm	167	412	784	1078	1568	3136	4410
Input Capacity*	kW	0.35	0.86	1.64	2.26	3.28	6.57	9.24
Power Density	Nm/kg	33.4	45.8	60.3	63.4	60.3	71.3	66.8
Allowable Bending Moment	Nm	882	1666	2156	2940	3920	7056	8820
Torsional Stiffness	Nm/arcmin	49	108	196	294	392	980	1176
Tilting Rigidity	Nm/arcmin	372	931	1176	1470	2940	4900	7448
Backlash Lost Motion		Backlash: ≤1 arcmin Lost Motion: ≤1 arcmin						

*Rated at 15 rpm output speed **Available in GCLC-F Component only

TYPE CODES FOR GCL SERIES



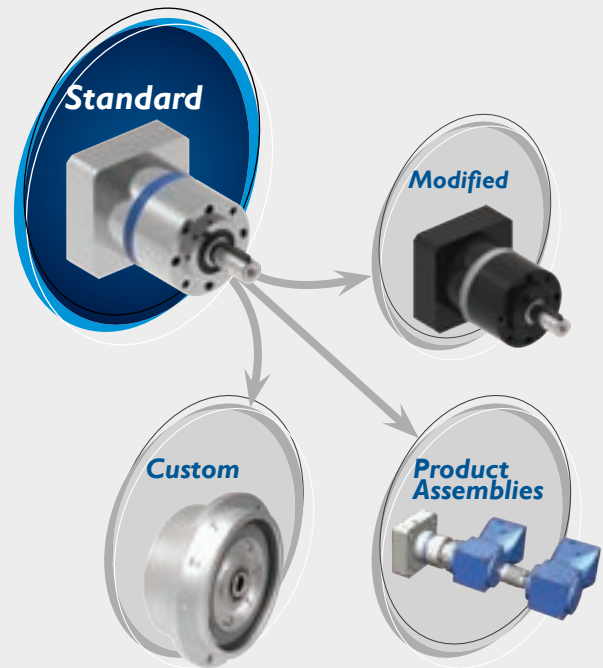
The GAM Advantage

Find the your exact solution at GAM!

GAM's product range of gear reducers, couplings, and other specialized mechanical drive solutions is one of the largest in the industry. Even with such a wide offering, we realize that you may not find a standard product that meets your exact requirements.

One of our greatest strengths is our ability to modify standard designs, provide completely customized solutions, and integrated product assemblies to meet your specific application requirements. And, because of our flexible manufacturing, we can cost-effectively produce small batches of customized product in short lead-times.

So if you can't find what you are looking for, just ask!



Founded in 1990, GAM is a U.S. owned and operated manufacturer of robotic and servo gear reducers, rack & pinion systems, servo couplings, linear mounting kits, and other precision mechanical drive solutions used in automation technology.

With one of the largest product offerings in the motion control industry as well as the engineering expertise and manufacturing capabilities to develop customized solutions, GAM can help with your application.

U.S. manufacturing, being flexible to meet the needs of our customers, and great service are what set us apart from the rest.

GAM Can.

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