

Sumitomo Drive Technologies
Always on the Move

Fine Cyclo[®]



► Precise, Zero Backlash, Component Speed Reducers

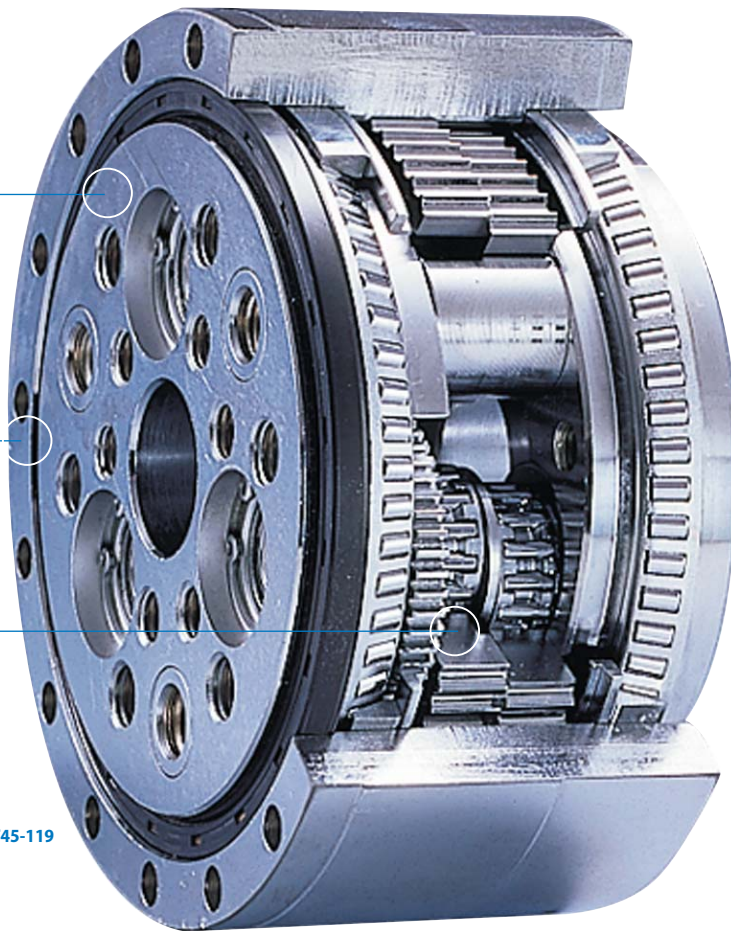
► **Withstands heavy shock loads,** and boasts high reduction ratios in a small package

Large diameter, flange type output shaft for enhanced torsional stiffness

Component style for easy integration into machine design

High precision internal components for zero mechanical backlash

Compact, Precision Servomotor Reducers



Model F2C-T45-119

Unmatched Reliability, Exceptional Performance

► Cyclo[®] speed reducers and gearmotors are **designed to withstand shock loads exceeding 500%** of their ratings





F2C-T355-119

F1C-A35-89

FC-A25-59

Product Description

Fine Cyclo® Speed Reducers **excel in applications that demand accurate positioning**, such as industrial robotics and automated production equipment. These reducers feature zero backlash, minimal lost motion and high torsional stiffness. Because Fine Cyclo® is based on the Cyclo® speed reduction principles and technology, it withstands heavy shock loads, and boasts high reduction ratios in a small package.

Features & Benefits

- Heavy shock load capacity
- Compact size and **high torsional stiffness**
- Small hysteresis loss
- High efficiencies and low vibration
- **Multiple configurations** for application flexibility

A Series (FC, F1C, F2C, F3C)

Designed for the ultimate precision in point-to-point positioning applications.

T Series (F2C-T)

The best choice when smooth traverse or contouring is required.

► **Fine Cyclo® reducers feature zero backlash, minimal lost motion and high torsional stiffness**

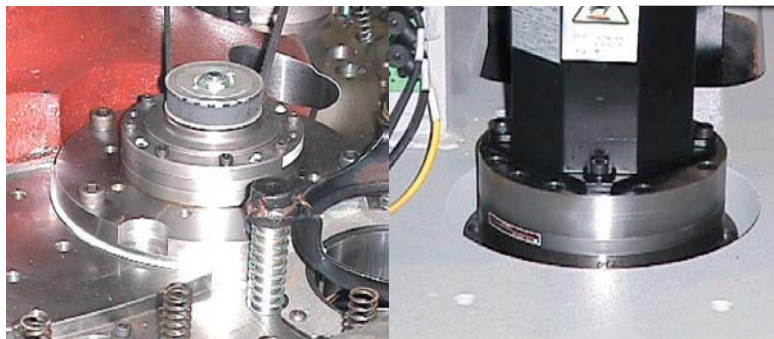
Specifications FC, F1C, F2C and F3C-A Models

Model	A15	A25	A35	A45	A65	A75
Reduction Ratios						
-		29	29	29	29	29
59	59	59	59	59	59	59
89	89	89	89	89	89	89
-	119	119	119	119	119	119
-	-	-	179	179	-	-
Rated Output Torque (lb-in) at 1500 RPM Input	1318	3088	5911	12,301	22,744	34,515
Max. Accel/Decel Torque (lb-in)	2964	6380	12,301	24,753	45,400	67,348
Max. Emergency Stop Torque (lb-in) for 1000 Occurrences	6947	17,080	31,683	63,808	122,130	212,400

F2C configuration not available in sizes A65 and A75

Specifications F2C-T Models

Model	T155	T255	T355	T455	T555	T655	T755
Reduction Ratios							
81	81	81	81	81	81	81	81
119	119	119	119	119	119	119	119
141	141	141	141	141	141	141	141
-	-	-	171	171	171	171	171
Rated Output Torque (lb-in) at 5 RPM Output	2053	5071	9655	15,664	24,160	38,586	54,339
Max. Accel/Decel Torque (lb-in)	3690	9115	17,346	28,231	43,453	69,472	97,350
Max. Emergency Stop Torque (lb-in) for 1000 Occurrences	7381	18,231	34,692	56,463	86,907	138,945	194,700

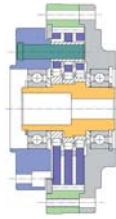


Applications

- Robotics
- Medical Imaging
- Machine Tool
- Welding
- Automatic Tool Changers

Five configurations
for maximum
application flexibility

FC-A



► **A SERIES (Point-to-Point Positioning)**

FC-A

- No output shaft bearing
- Most compact design

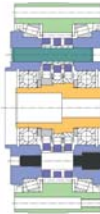
F1C-A



F1C-A

- Single crossed-roller output shaft bearing
- Good radial load support
- Moderate thrust load support

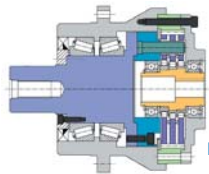
F2C-A



F2C-A

- Dual tapered roller bearings
- Excellent radial load support
- Good thrust load support

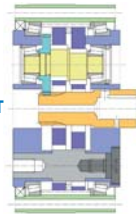
F3C-A



F3C-A

- Traditional output shaft
- Dual taper roller bearings
- Excellent radial load support

F2C-T



► **T SERIES (Smooth Motion)**

F2C-T

- Dual taper roller bearings
- Excellent radial load support
- Good thrust load support

Headquarters & Manufacturing

4200 Holland Boulevard
Chesapeake, VA 23323
Tel: 757-485-3355
Fax: 757-485-7490
E-mail: customercare@suminet.com

North & South America

USA: 757-485-3355
Canada: Toronto 905-469-1050
Mexico: Monterrey 011-52-81-8144-5130
Mexico City 011-52-55-5368-7172
Brazil: Sao Paulo 011-55-11-5585-3600
Chile: Santiago 011-562-786-6963
Argentina: Buenos Aires 011-54-11-4765-5332
For worldwide location details: www.sumitomodrive.com

World Headquarters - Japan

Sumitomo Heavy Industries, Ltd.
Power Transmission & Controls Group
5-9-11, KITA-Shinagawa, Shinagawa-Ku
Tokyo 141-8686 Japan
Tel: 011-813-5488-8363 • Fax: 011-813-5488-8365