

# Solutions



## SM Series Servo Motors

SM Series brushless servo motors are manufactured in Compumotor's modern JIT manufacturing facility. Highly involved manufacturing philosophies provide levels of service and product availability previously unattainable. Standard product orders of ten motors or less are shipped within ten working days. A KanBan manufacturing system easily allows the addition of special connectors, shafting, or other specific requirements to your specification, regardless of quantity.



## NeoMetric and J Series Servo Motors

The NeoMetric Series continues Compumotor's innovative design and manufacturing techniques in brushless servo motor technology. State-of-the-art engineering establishes industry leading torque to inertia ratios in a very compact package size. The J Series is based on the same innovative bridged construction used in the NeoMetric Series except the J Series design has been enhanced by an additional mass that has been added to the rotor. The increased rotor inertia improves load-to-motor inertia ratios.



## BE Series Servo Motors

Compumotor's BE Series brushless servo motors produce high continuous stall torque in a cost-reduced package. The increased torque of the BE Series is the result of an increased number of magnetic poles on the rotor. Traditional motors in these frame sizes have four magnetic poles on the rotor, while the BE Series motors have eight poles. The cost reduction of the BE Series is achieved from their open lamination design. Unlike traditional servo motors, the BE Series motors do not have a metal housing. Instead, the laminations of the motor are shaped into the body of the motor. This design reduces both material costs and time required to assemble the motor.



## Planetary Gearheads

Compumotor's integrated line of planetary gearheads is designed for use with its world-class brushless servo motors. Compumotor gearheads offer the shortest package length in the industry by incorporating the pinion of the reducer into the motor's shaft design. This design eliminates the need for an adapter plate and coupling, which can save more than an inch in total package length.

## Common Special Requests

### Connectorization

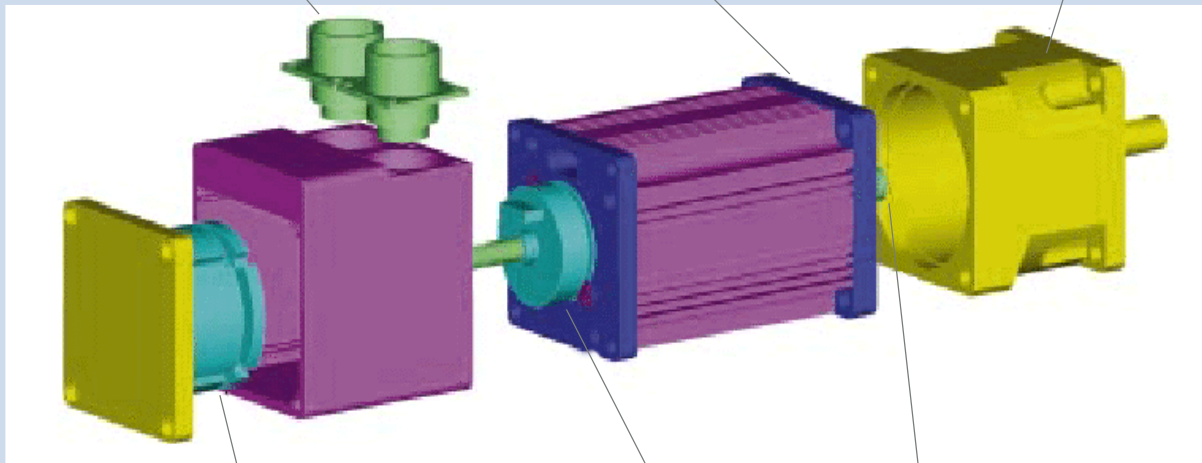
Molex  
"D" shell  
High current "D" shell  
MS connectors on size 16  
Right angle connector housing  
MS connectors on back cover  
Special cable lengths  
Hi-flex cables  
Customer specified cables  
and connectors  
Cable exiting thru back cover

### Flanges

Tapped mounting holes  
NEMA 34 flange  
Customer specified flanges  
Face mount

### Gearheads

Custom ratios  
Customer specified flanges  
Customer specified output shaft



### Brakes

SM16, 1 & 3 in. lb. brake, external  
SM23, 3 in. lb. brake, external  
SM23, 10 in lb brake, enclosed

### Feedback

1250 line encoders  
2000 line encoders  
5000, 8196 line encoders

### Miscellaneous Options

Private label back cover  
Special windings  
Shorter lengths  
High speed balancing  
Different or no anodizing

### Shafts

Special lengths  
Special flats  
Special keyways  
Special shaft diameters  
Metric shaft diameters  
Hollow shafts  
Rear Shaft Extension – 0.25" dia.  
Double flats  
Shaft pinning  
Pressed on gears  
Center tapped  
Harder shaft materials (431 S.S.)

# Custom Motors

## Compumotor and You Developing Solutions Together!

### SM Series - Size 16

CM175B – Short length, customer specified encoder .....	5
CM239 – Custom output shaft, connectors in-line .....	6
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CM494 – Customer specified cable length and connectors .....	9
CM555 – Double flats, special plate 3 in. lb. external brake .....	10
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### SM Series - Size 23

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CM423 – 10 in. lb. enclosed brake, TQ wiring .....	15
CM427 – 9 Pin “D” connector, 3 in. lb. external brake .....	16
CM478 – Rear exit MS connectors, custom winding .....	17
CM561 – 10 in. lb. enclosed brake, custom cable length .....	18
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CM630 – Pulley on shaft, Molex connectors, helicoil inserts .....	20
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**NeoMetric Series - Size 34 & 70**

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CM1147 – Stainless steel housing, NEMA 56C front flange ..... 28

**BE Series - Size 34**

CM1178 – 64:1 gearhead, custom cables ..... 29

# CM175B



## **Motor Description:**

- SM160XX-NFLN

## **Customization Performed:**

- Customer specified motor length
- Customer specified encoder
- Custom winding

## **Application:**

- Medical diagnostic equipment; blood analysis, probe position

# CM239



## **Motor Description:**

- SM162BE-KTQG100

## **Customization Performed:**

- 100:1 Gearhead with .500 dia. output shaft
- MS Connectors in-line on connector housing to mount motors side by side

## **Application:**

- Extrusion die positioning

# CM438



## **Motor Description:**

- SM160XE-KFLG05

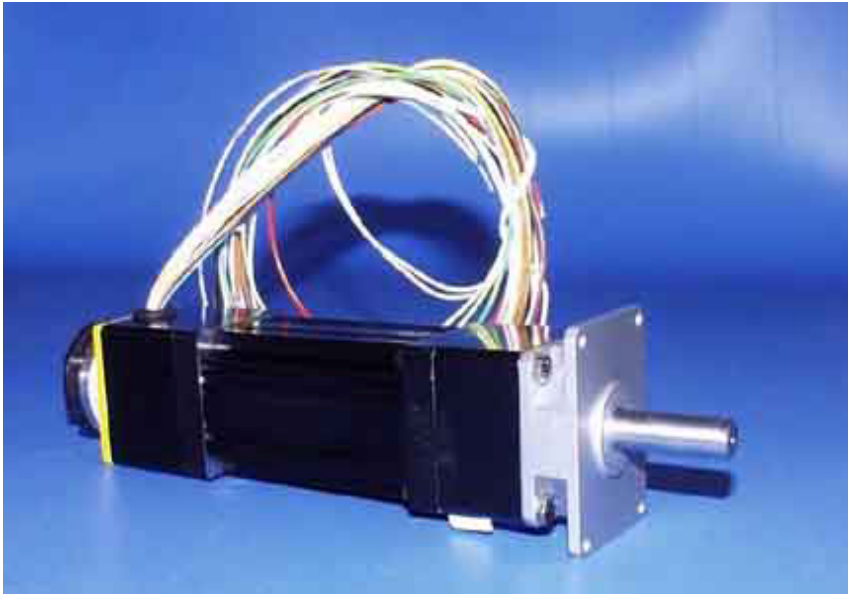
## **Customization Performed:**

- 5.5:1 Planetary Gearhead with custom metric output shaft
- Custom winding

## **Application:**

- Medical diagnostic equipment, shuttle axis for vials

# CM490B



## **Motor Description:**

- SM162AE-KFLBG28

## **Customization Performed:**

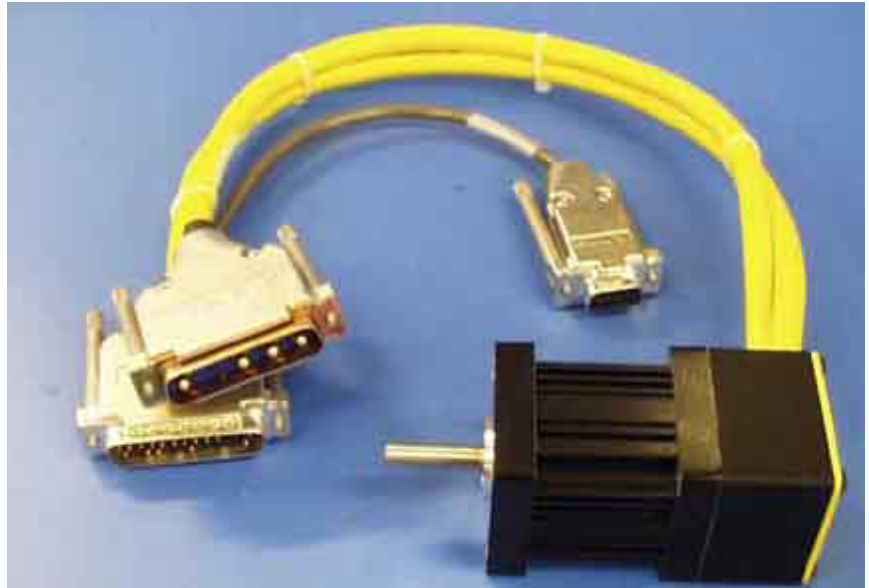
- 28:1 Planetary Gearhead with custom mounting flange
- 1 in. lb. brake externally mounted

## **Application:**

- Wafer processing equipment



# CM494



## **Motor Description:**

- SM160AE-FXXN

## **Customization Performed:**

- Customer specified cable length and connectors
- Shaft with flat

## **Application:**

- Electronics manufacturing, PCB handling

# CM555



## **Motor Description:**

- SM162AE-XFLB

## **Customization Performed:**

- Double flats on shaft
- Special back plate to mount a 3 in. lb. brake externally on motor

## **Application:**

- Wafer fabrication

# CM611



## **Motor Description:**

- SM161AE-NXXN

## **Customization Performed:**

- Hi-Flex cables
- Custom connector housing

## **Application:**

- Gantry system

# CM788C



## Motor Description:

- SM161BD-XXXB

## Customization Performed:

- 3 in-lb external brake
- 18" flying leads with braided shield
- P-clips installed on back cover
- Double flats on shaft
- Modified back cover (corners cut at 45 degrees)

## Application:

- Eddy current test probe

# CM931



## **Motor Description:**

- SM160AE-NGSB

## **Customization Performed:**

- 1 in-lb external brake

## **Application:**

- Pharmaceutical syringe assembly

# CM133



## **Motor Description:**

- SM233BD-XMSV

## **Customization Performed:**

- Extended rear shaft
- Hollow shaft

## **Application:**

- Filament feeding machine for a light bulb manufacturer

# CM423



## **Motor Description:**

- SM231AE-NTQB

## **Customization Performed:**

- 10 in. lb. enclosed brake
- MS connectors with TQ wiring

## **Application:**

- Pick and place machine

# CM427



## **Motor Description:**

- SM232AE-NXXB

## **Customization Performed:**

- 9 Pin "D" connectors on special housing
- 3 in. lb. externally mounted brake
- Shaft runout held to 0.002"

## **Application:**

- Hard disk drive manufacturing



# CM478



## **Motor Description:**

- SM232XE-XXXN

## **Customization Performed:**

- MS Connectors exiting through rear plate
- Custom winding (6 amp)
- Special 1.00" extended front shaft

## **Application:**

- XY Positioning for vision system

# CM561



## **Motor Description:**

- SM232BE-NXXB

## **Customization Performed:**

- 10 in. lb. enclosed brake
- 15 foot cables

## **Application:**

- Servo motor winding machine

# CM603



## **Motor Description:**

- SM232AE-KTQBG03

## **Customization Performed:**

- 10 in. lb. enclosed brake
- MS connectors with TQ wiring
- 3:1 Gearhead

## **Application:**

- Vertical stacking machine

# CM630



## Motor Description:

- SM232BD-XXXV

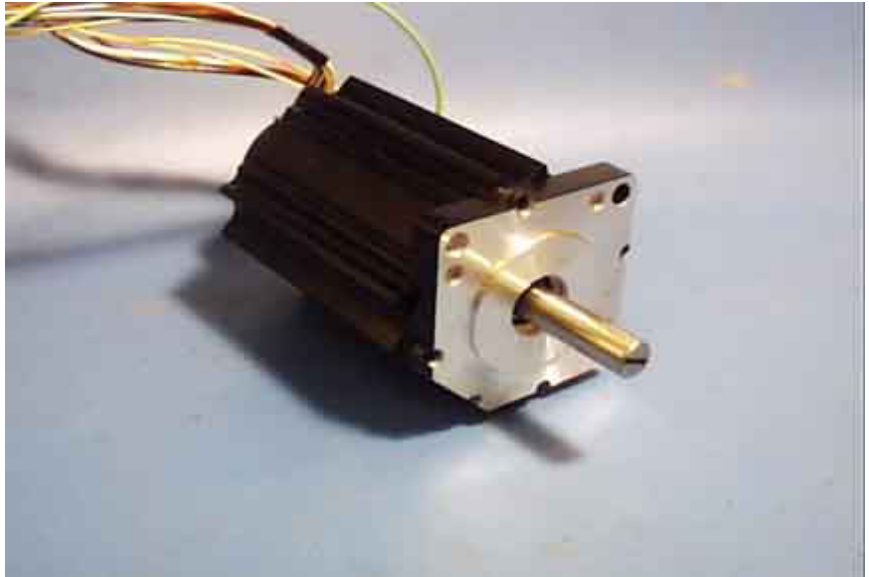
## Customization Performed:

- Pulley mounted to modified shaft
- Customer specified cable length and connectors
- Metric helicoil inserts mounted in front flange

## Application:

- Fluid dispensing machine

# CM774



## **Motor Description:**

- SM23XXE-XFLN

## **Customization Performed:**

- 1.5 stack
- Extended front shaft
- Front endcap rotated 45 degrees to motor housing

## **Application:**

- Drive motor application

# CM1222



## **Motor Description:**

- SM230AR-KXXG10

## **Customization Performed:**

- Right angle MS connectors

## **Application:**

- Gantry robot

# CM1378B



## **Motor Description:**

- SM231AE-FFLN

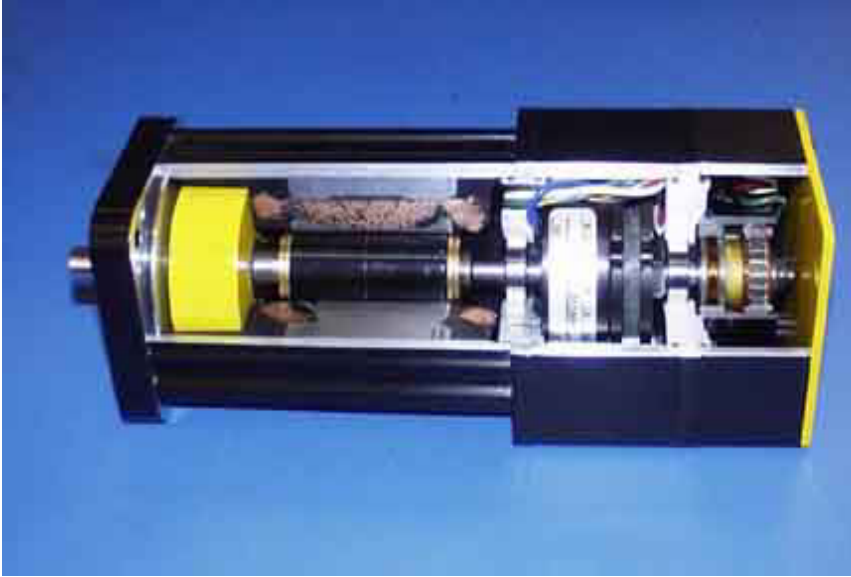
## **Customization Performed:**

- Front endcap rotated 45 degrees to motor housing
- Modified back endcap and housing
- Extended rear shaft
- Custom mounting bracket for customer specified encoder

## **Application:**

- Wafer processing equipment, XY positioning

# CM483



## **Motor Description:**

- N0702FR-NTQB

## **Customization Performed:**

- Larger rotor inertia (internal slug)
- 24 in. lb enclosed brake

## **Application:**

- Gantry Robots, Electric Cylinders and X-Y Tables



# CM577



## **Motor Description:**

- NO341XD-XXXV

## **Customization Performed:**

- Hollow shaft with threaded front end
- Teflon coated bearing baffle on front shaft
- Vacuum housing on back cover
- Custom connectors

## **Application:**

- Compact disc spin coating application

# Gearhead

C U T A W A Y



## Customization Performed:

- Direct mount gearhead to motor for reduced motor length

# CM492



## **Motor Description:**

- N0923KR-KMSG03

## **Customization Performed:**

- Modified front flange
- 34 Gearhead mounted to a size 92 motor

## **Application:**

- Gantry Robots, Electric Cylinders and X-Y Tables

# CM1147



## **Motor Description:**

- J0923HJ-XXXV

## **Customization Performed:**

- Stainless steel housing
- NEMA 56C front flange
- Connectors through NPT tapped holes in back cover

## **Application:**

- Food grade washdown application

# CM1178



## **Motor Description:**

- BE344JJ-KXXBG64

## **Customization Performed:**

- 64:1 gearhead
- 10 foot cables terminated in Gemini connectors

## **Application:**

- Transfer arm for feeding pc boards into an exposure machine