

Direct Drive Rotary (DDR-01)

April 18, 2005 - Our new backlash free **D**irect **D**rive **R**otary with integrated 5C collet closer provides high accuracy and torque without the need of mechanical speed reducers (worm gear or belt drive). The DDR-01 incorporates a pneumatically operated collet chuck that accepts standard 5C series collets and accessories.

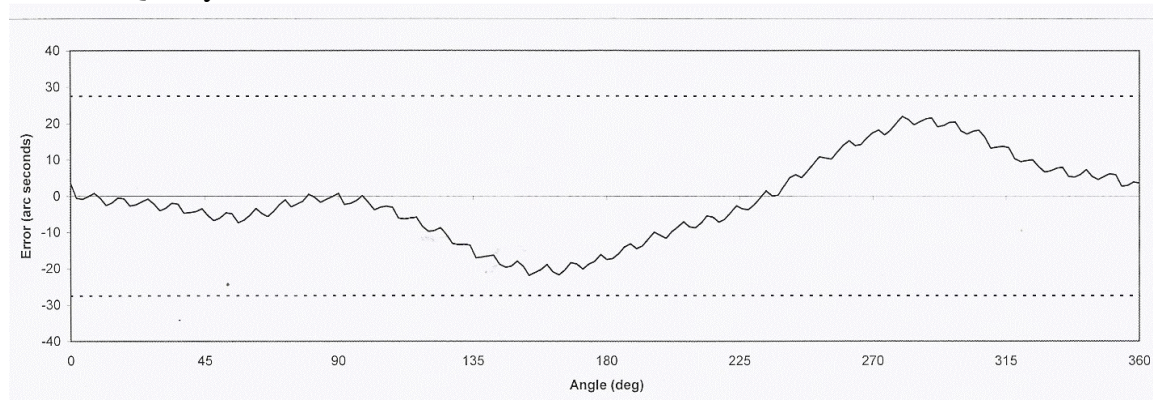
The collet system supports feed trough tube diameters from 0.4-15.8mm or up to 28.5 mm with front loading.



Key Benefits:

- Rapid bi-directional indexing
- Low friction design for constant precision motion
- Long life, maintenance free operation
- Built in normally closed 5C collet system with pneumatic opener
- Optional 3" 3-jaw chuck
- Through hole up to 15.8mm† (0.62")
- Works with Sinusoidal or Trapezoidal commutation amplifiers
- Stainless steel body with anodized aluminum covers
- Small footprint

Encoder Quality Protocol



DDR-01 Specifications

Example Design Voltage	48VDC		170VDC
Max Speed (rpm)	200		1000
Cycle Time for 90° rotation [typical] **	0.2-0.3 sec		
Line Counts	11840		
Encoder counts	236800		
Resolution	≈ 5.5 arc sec (0.0015°)		
Index Accuracy (standard)	< ± 30 arc sec (0.0166°)		
Backlash	0		
Repeatability *	10 arc sec		
Spindle Run out	0.012mm (0.0005")		
Drive system	Direct Drive Brushless Servomotor		
# of Poles	14		
Motor Voltage	48VDC		170VDC
Peak Torque **	3.7Nm		2.2Nm
Max Continues Torque **	1.2Nm		0.747Nm
Collet size	5C ø 0.4- 28.5mm ø 0.0157 –1-1/8"		
Collet closer	Spring Loaded		
Collet opener	Pneumatic Cylinder (5 bar/ 80psi)		
Trough Hole ø	Ø 8.7mm (0.34") with Handle assembled (ø15.8mm (0.62") with Handle removed)		
Spindle Center	101.6mm (4")		
Length	160mm (6.3")		
Outside Diameter	130mm (5.1")		
Weight	6.1 Kg (13.5 lbs)		

- * Typical repeatability
- ** Based on Amplifier ratings

Specifications are subject to change without notice