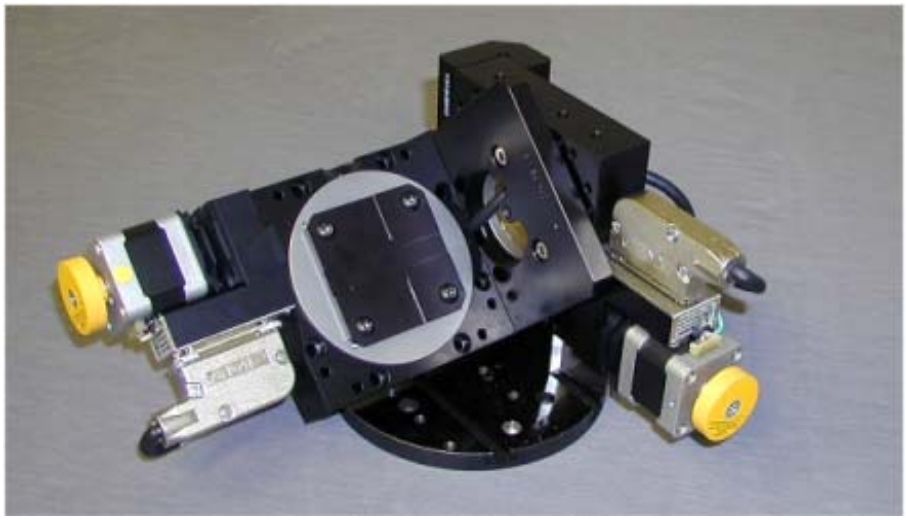
ROTARY OPTION
495-SERIES

www.laserdesign.com

The Leader in 3D Laser Scanning Since 1987



495-Series Rotary Stages

- ***Available in single or dual configurations***
- ***Automates scanning and stitching processes***
- ***Ideal for scanning small, lightweight parts***

The 495-Series of rotary stages is a compact, automated-scanning solution for smaller parts. Available both individually and stacked in a dual-rotary configuration, the 495-Series rotary stages provide a flexible platform for small part positioning. The stages are small enough to be used in conjunction with Laser Design's RE-series scanning systems but also flexible enough to be mounted on any other scanning system as required.

These stages are ideal for use with small plastic parts, medical applications, such as hearing aid or ear impressions along with such academic applications as small fossils. In the dual-rotary configuration, the bottom rotary may be mounted either flat on its back or standing as shown in the photograph above. In either case, rotation of the bottom stage is limited to 180 degrees while the top stage rotates a full 360 degrees. This allows the operator to view the part from almost every conceivable angle.

Featuring a one-year parts and labor warranty, the 495-Series of precision rotary stages is ideal for scanning small parts on any Laser Design Surveyor system and any CMM using our laser probe kit.

495-Series Rotary Stage Specifications

Design Details

Base Material	Stainless steel with aluminum body
Bearings	Crossed-roller bearings
Drive Mechanism	Ground worm gear with self compliant preload
Worm Gear Ratio	1:36
Feedback	Worm mounted rotary encoder, 2,000 pts/rev., index pulse
Origin	Optical
Motor	Stepper
Cable	3 m long cable included
Weight [lb (kg)]	4.4 (2)

Specifications

Travel Range	360° continuous
Resolution	0.001°
Minimum Incremental Motion	0.003°
Uni-directional Repeatability	0.006°
Reversal Value (Hysteresis)	0.015°
Origin Repeatability	0.002°
Absolute Accuracy	0.05°
Maximum Speed	90°/s
Normal Load Capacity (N)	250
Torque Rating (Nm)	1.8
Wobble (µrad)	150

Load Characteristics

	495
Cz (lbs [N])	56 [250]
a (in [mm])	1.75 [45]
Maximum Load (lbs[N]) @:	
0°	56 [250]
90°	6 [27]

Calculating maximum off center loads:
For Horizontal loads (loads parallel to rotary axis), Q_H:
$Q_H \leq Cz/[1+D/a]$ Where D is the off center distance in mm.

For Vertical loads (loads perpendicular to rotary axis),),
Q_V:
$Q_V \leq Cz/[2x(1+D/a)]$ Where D is the off center distance from the surface plate of the rotary in mm.

Laser Design Inc.
9401 James Avenue South – Suite 132
Minneapolis, MN 55431 USA
sales@laserdesign.com / www.laserdesign.com Tel: 952-884-9648 Fax: 952-884-9653