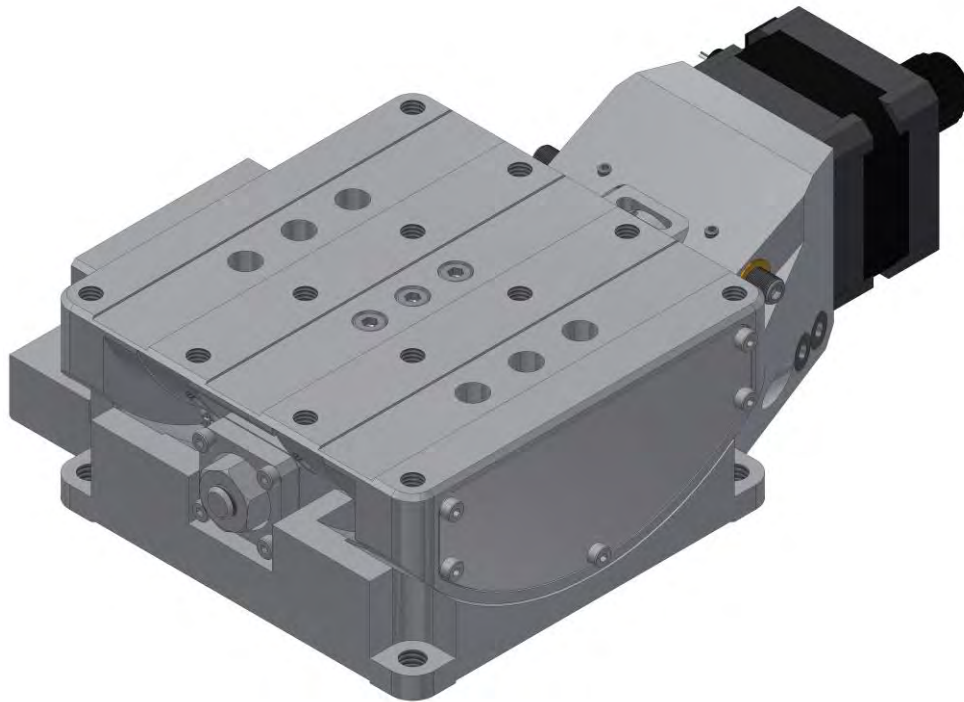


TS-LD Series

Light Duty Mechanical Tilt Stages



EXCEPTIONAL ACCURACY AND REPEATABILITY

CURVED LINEAR BEARING GUIDED STAGES

FINE RESOLUTION

HIGHLY RESOLVED ANGULAR MOTION

126 Ridge Rd, Lansing NY, 14882
www.adc9001.com

ADVANCED DESIGN
CONSULTING USA, INC.

1-607-533-3531
adc@adc9001.com

TS-LD SPECIFICATIONS

The TS-LD Series tilt stage(s) provide a rigid, accurate motion for general goniometric use. The TS-LD Series is stepper motor driven, guided with curved linear bearings, and has a rugged anodized aluminum body. The top and bottom mounting surfaces are precision ground to provide an optimal interface. The TS-LD Series uses curved crossed roller bearings for the highest possible rigidity and profiled trajectory. The drive mechanism is a precision ground worm wheel segment and stepper motor driven worm.

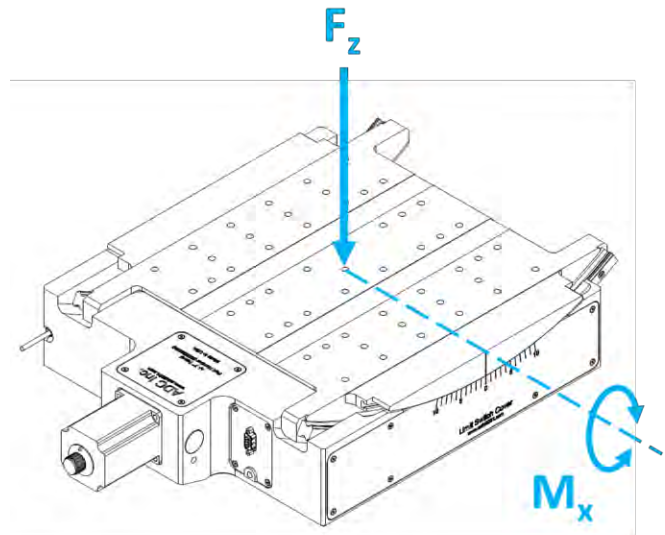
KEY FEATURES

- Travels +/-10°
- Load Capacity up to 250 kg
- Precision Ground Worm Gear
- Incredible Stability

LOAD CHARACTERISTICS

Description	Max. Centered Load, F_z (N)*	Max. Torque, M_x (Nm)
TS-50	450	5
TS-90	1700	5
TS-160	2500	5

*For eccentric maximum load, contact ADC engineering



MECHANICAL

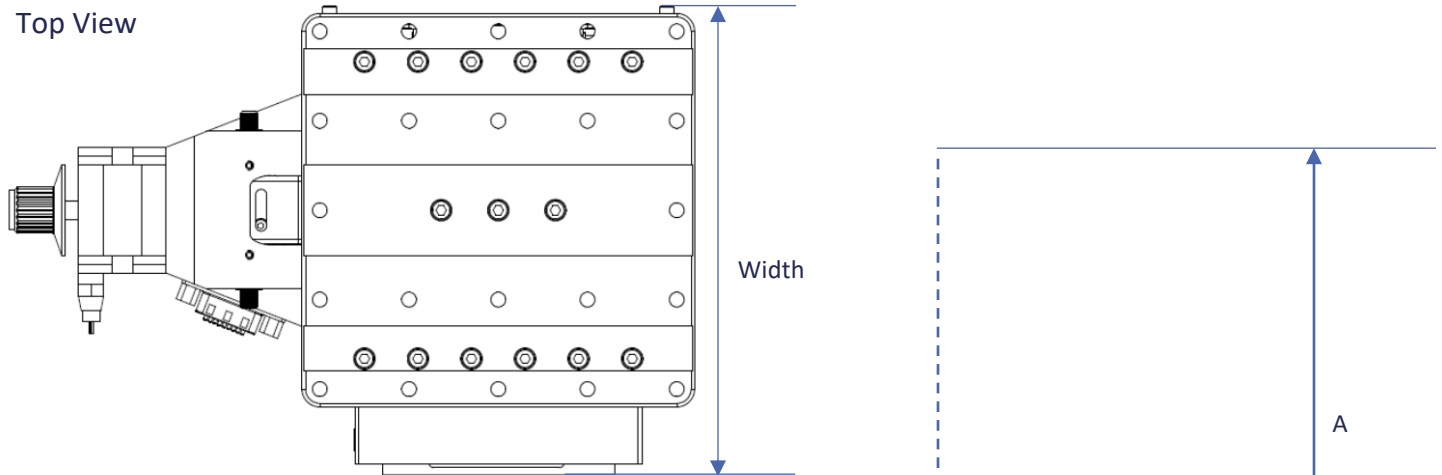
Model	50	90	160
Travel Range (°)	+/-10	+/-10	+/-10
Actuation Mechanism	Worm Gear	Worm Gear	Worm Gear
Gear Reduction	360:1	360:1	360:1
Repeatability (μ rad RMS)	280	280	160
Trajectory Straightness (μ m/25mm)	5.0	5.0	5.0
Runnout (μ m)	3.0	3.0	15
Full Step Resolution (μ rad)	26	28	27
Load Capacity (kg)	84	188	268
Optional Linear Encoder	Yes	Yes	Yes

ELECTRICAL

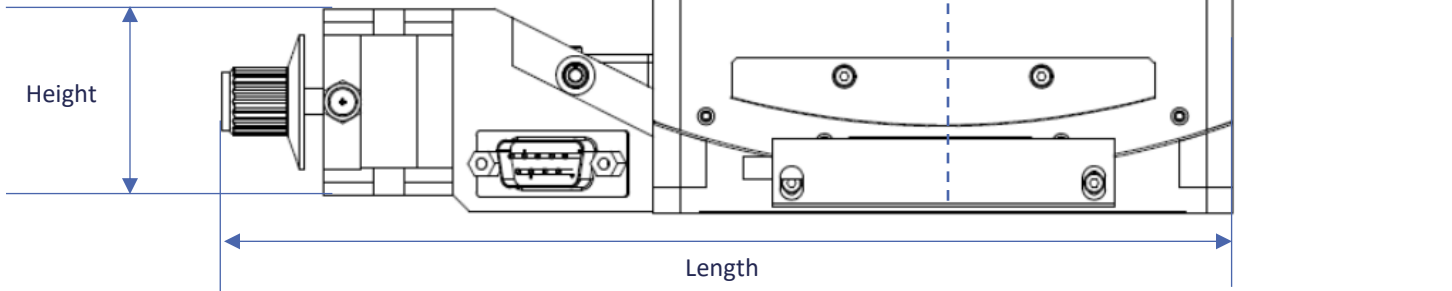
Description	
Motor	2-Phase, 5-Phase Stepper; DC
Limit Switches	Mechanical, Normally Closed
Optical Encoder Type	Renishaw Tonic (visit www.renishaw.com for more information)
2-Phase Current (Amps/Phase)	1.4

TS-LD Series DIMENSIONS AND INFORMATION

Top View

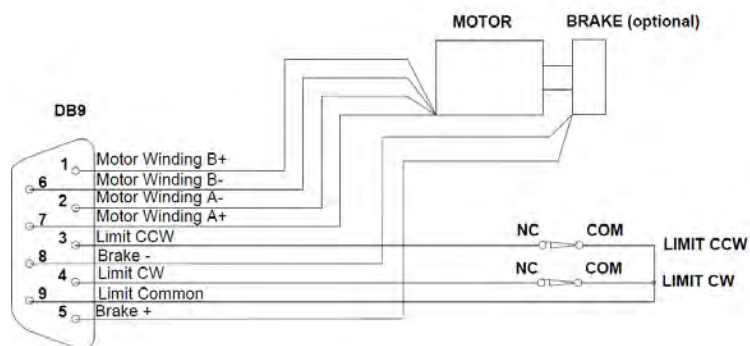


Side View



(mm)	Mounting Surface	Length	Width	Height	A	Curvature of Rails
TS-50	85x85	170	87	41	18	50
TS-90	85x85	170	87	41	59	90
TS-160	110x110	192	112	42	130	160

ELECTRICAL CONNECTOR



ADC uses a standard male DB-9 Connector for both the motor and limit switches.

TS-LD Series ORDERING INFORMATION

TS	-LD	-A	-N	-2PH
Series	Model	Air Type	Encoder	Motor
	-50	-A	-E	-2PH
	-90	-HV	-N	-5PH
	-160			-DC

Travel Options

-50	+/-10° of Travel
-90	+/-10° of Travel
-160	+/-10° of Travel

Air Preparation Options

-A	Standard Air Stage
-HV	High Vacuum Air Stage, 10 ⁻⁷ torr

Optical Encoder Options

-E	With Optical Encoder
-N	Without Optical Encoder

Motor Options

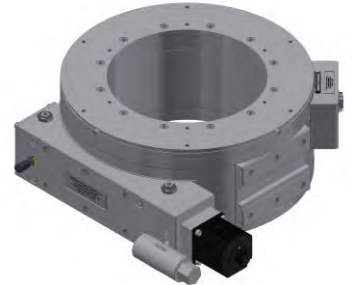
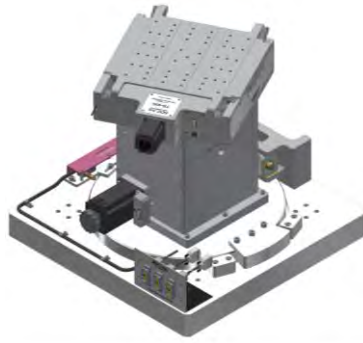
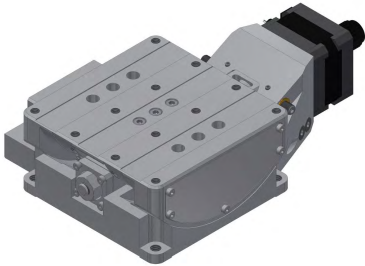
-2PH	Standard 2 Phase Bi-Polar Stepper Motor
-5PH	5 Phase Stepper Motor
-DC	DC Motor

Example Order

TS-50-A-N-2PH

This is an order for a TS-50 Precision Goniometer with 10° of travel, in air, without an encoder, and a 2-phase motor.

Similar ADC Products



Linear Stages	Lift Stages
DS210	DJ210
DS310	DJ310
DS410	DJ410
DS510	
Tilt Stages/ Goniometers (Shown)	Rotation Stages
TS-50	RS-100
TS-90	RS-200
TS-160	RS-300
TS-300	RS-400
TS-400	RS-500
Mounting Brackets	Big Jacks
MB200	BJ25-50
MB300	BJ25-100
MB400	BJ25-150
	BJ25-200

Custom Complex Motion Systems

For custom complex motion systems, contact ADC at adc@adc9001.com or visit our website www.adc9001.com



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