

# troyke<sup>o</sup> TDL Series - Single or Dual Rotary Axis

Rotary Axis Centered on Tilt Axis (Heavy Duty)

Technitron

Integration Services

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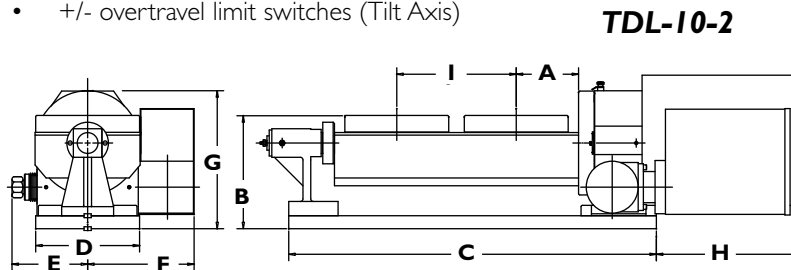
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## Standard Features:

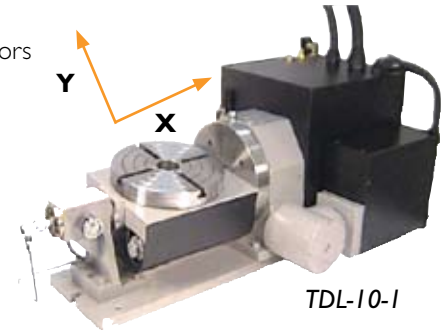
- 5 sizes of "x": (8", 10", 15", 20", and 25" table diameters)
- Rotary and Tilt axis
- Dual lead wormset simplifies backlash adjustment
- C907 bronze wormgears and a hardened and ground worms running in a bath of oil
- High precision spindle bearings
- Turcite bearing surfaces
- Internal pneumatic brake (Rotary & Tilt)
- Precision ground surfaces
- Zero return / home switches (Both Axis)
- +/- overtravel limit switches (Tilt Axis)

## Optional Features:

- Chucks – (Manual or Pneumatic)
- Collet fixtures - (Manual or Pneumatic)
- Single axis programmable control
- Cables - for interfacing to machine tool
- Manual rotary axis and / or manual tilt axis
- Air over hydraulic unit (AHU)
- Clamping outboard support (Pneumatic or Hydraulic)
- Ball Lock™ sub plate
- Compatible with all standard servo motors



TDL-10-2



TDL-"X"-1

1 ROTARY AXIS

TDL-"X"-2

2 ROTARY AXIS

TDL-10-1

MODEL	A	B	C	D	E	F	G	H	J
TDL-8-2	4.50 [114]	9.31 [236]	27.56 [700]	9.50 [241]	6.43 [163]	10.25 [260]	13.87 [352]	13.50 [342]	9.44 [240]
TDL-10-2	6.00 [152]	10.87 [276]	35.38 [898]	10.25 [260]	7.25 [184]	10.25 [260]	15.25 [387]	14.87 [377]	11.50 [292]
TDL-15-2	8.75 [222]	13.75 [349]	43.62 [1108]	14.87 [377]	10.00 [254]	13.00 [330]	18.50 [469]	14.87 [377]	15.75 [400]
TDL-20-2	11.25 [285]	17.18 [334]	58.50 [1485]	21.00 [533]	13.06 [331]	16.81 [427]	23.87 [606]	16.25 [412]	21.00 [533]
TDL-25-2	13.00 [330]	19.81 [503]	63.50 [1612]	21.00 [533]	13.06 [331]	16.81 [427]	26.12 [663]	16.25 [412]	26.00 [660]

\* For Single Rotary Axis Reduce dimension C by J

## SPECIFICATIONS - ROTARY AXIS

MODEL	TDL-8-2	TDL-10-2	TDL-15-2	TDL-20-2	TDL-25-2
TURNTABLE DIAMETER [MM]	8.00 [203]	10.00 [254]	15.00 [381]	20.00 [508]	25.00 [635]
STANDARD THRU HOLE DIA [MM]	1.0 [25.4]	1.968 [50.0]	1.968 [50.0]	2.000 [50.8]	2.000 [50.8]
OVERSIZE THRU HOLE DIA [MM]	*	*	*	*	*
MAXIMUM LOAD CAPACITY [KG]	100 [45]	300 [136]	300 [136]	1000 [450]	1000 [450]
FACEPLATE T-SLOT WIDTH [MM]	.47 [12] X 4	.47 [12] X 4	.63 [16] X 8	.56 [14.2] X 8	.56 [14.2] X 8
STANDARD TOTAL GEAR RATIO	180:1	180:1	360:1	240:1	240:1
MAX. SPEED RANGE (STD RATIO)	0-10 RPM	0-10 RPM	0-5 RPM	0-7 RPM	0-7 RPM
CONTINUOUS TORQUE LBS-FT [NM]	187 [254]	375 [508]	750 [1017]	500 [677]	500 [677]
BRAKE METHOD	PNEUMATIC	PNEUMATIC	PNEUMATIC	HYDRAULIC	HYDRAULIC
BRAKE TORQUE LBS-FT [NM]	125 [169]	250 [338]	250 [338]	500 [677]	500 [677]
PROGRAMMABLE RESOLUTION	.001 DEG.	.001 DEG.	.001 DEG.	.001 DEG.	.001 DEG.
STD. TOTAL ANGULAR ACCURACY	+/-60 SEC.	+/-60 SEC.	+/-30 SEC.	+/-30 SEC.	+/-30 SEC.
STD. REPEATABILITY	+/-20 SEC.	+/-20 SEC.	+/-10 SEC.	+/-10 SEC.	+/-10 SEC.
UNIT WEIGHT LBS [KG]	525 [235]	650 [291]	1100 [493]	2200 [986]	2400 [1076]
SHIP WEIGHT LBS [KG]	625 [280]	750 [336]	1250 [560]	2400 [1076]	2600 [1166]

## SPECIFICATIONS - TILT AXIS

MODEL	TDL-8-2	TDL-10-2	TDL-15-2	TDL-20-2	TDL-25-2
STANDARD TOTAL GEAR RATIO	240:1	180:1	240:1	180:1	180:1
MAX. SPEED RANGE (STD RATIO)	0-1 RPM	0-1 RPM	0-1 RPM	0-1 RPM	0-1 RPM
BRAKE METHOD	PNEUMATIC	PNEUMATIC	PNEUMATIC	PNEUMATIC	PNEUMATIC
BRAKE TORQUE @ 100 PSI LBS-FT [NM]	125 [169]	250 [338]	250 [338]	800 [1081]	800 [1081]
[POS-] BRAKE TORQUE LBS-FT [NM]	125 [169]	125 [169]	125 [169]	N/A	N/A
[HOS-] BRAKE TORQUE LBS-FT [NM]	200 [270]	200 [270]	330 [446]	330 [446]	330 [446]
[HOS-HT] BRAKE TORQUE LBS-FT [NM]	N/A	N/A	N/A	1400 [1890]	1400 [1890]
STD. TOTAL ANGULAR ACCURACY	+/-2 MIN.	+/-2 MIN.	+/-2 MIN.	+/-2 MIN.	+/-2 MIN.
STD. REPEATABILITY	+/- 30 SEC.	+/-30 SEC.	+/-30 SEC.	+/-30 SEC.	+/-30 SEC.
MAXIMUM TILT AXIS TRAVEL	+100/-20 DEG.	+100/-20 DEG.	+100/-20 DEG.	+100/-20 DEG.	+100/-20 DEG.