



T Series

Introduction

The proven design of the T Series precision linear actuators has found its way into thousands of applications throughout the world. Precision-rolled ball screws provide smooth motion, accurate positioning and quiet operation, while the slide guide bushings and the rugged exterior design allow it to be used in the toughest applications. The T Series combines durability, performance and ease of use with a large selection of factory engineered options and accessories. The RediMount™ motor mounting adapter kit is available as a standard feature, making it easy to find a suitable motor as well as making the installation of it simple, quick and accurate. Regardless of the environment or requirement, we can customize our standard models to fit just about any application.



T Series

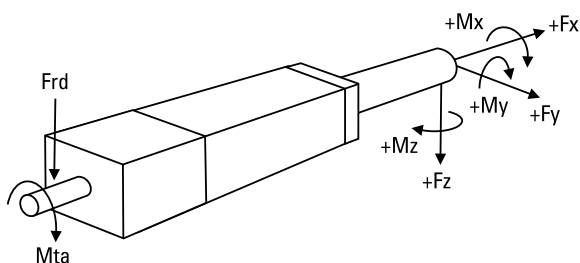
Overview

Features

- Thomson RediMount™ motor mounting adapter kit available as standard
- Extruded, anodized aluminum cover tube
- Anodized aluminum housing
- Hard-chromed steel extension tube
- Can be installed in all directions
- Ball screw drive
- Slide guides
- Load up to 60 000 N
- IP65 protection class
- Washdown-protected versions
- Mounting accessories according to hydraulic cylinder standards available

Parameter		T60	T90	T130
Profile size (width × height)	[mm]	75 × 60	90 × 92	130 × 130
Stroke length (S), maximum	[mm]	1500	1500	2000
Speed, maximum	[m/s]	2,5	2,0	2,0
Dynamic Load (Fx), maximum	[N]	10 000	20 000	60 000
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Definition of Forces





T60

Ball Screw Drive, Slide Guide

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- » Mounting Options - see page 50
- » Adapter Options - see page 54
- » Glossary - see page 80



Standard Features and Benefits

- Compact, robust and reliable
- High-accuracy ball screw drive
- Stroke up to 1500 mm
- Load up to 10 000 N
- Speed up to 2,5 m/s
- Hard-chromed steel extension tube
- IP65 as standard
- Mounting accessories according to hydraulic cylinder standards available

General Specifications

Parameter	T60
Profile size (w × h) [mm]	75 × 60
Type of screw	ball screw with single nut
Protection class	IP65
Lubrication	one point lubrication of ballscrew
Included accessories	–

Rod Idle Torque (M idle) [Nm]

Input speed [rpm]	Screw lead (p) [mm]			
	p = 5	p = 10	p = 25	p = 50
500	1,5	1,5	2	3,5

M idle = the input torque needed to move the rod with no load on it.

Performance Specifications

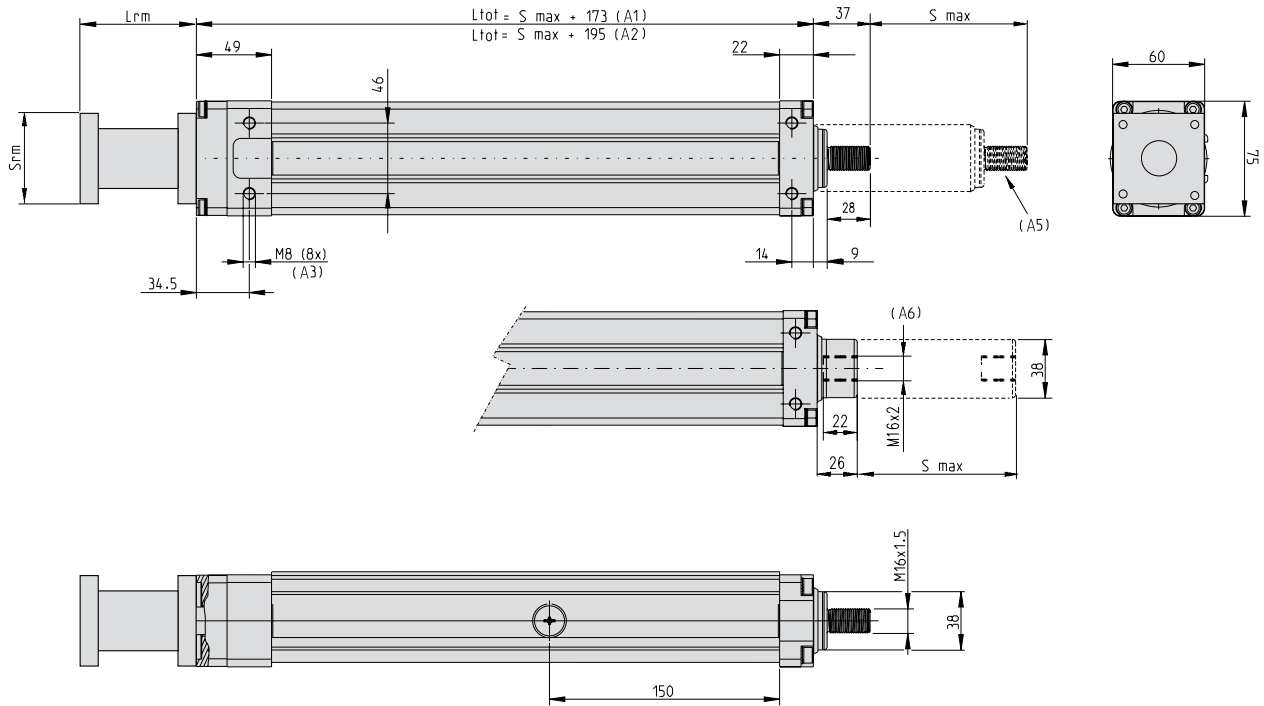
Parameter		T60
Stroke length (S max), maximum	[mm]	1500
Linear speed, maximum	[m/s]	2,5
Acceleration, maximum	[m/s ²]	20
Repeatability	[± mm]	0,05
Input speed, maximum	[rpm]	
	screw diameter/lead 25/10, 25/25	4000
	screw diameter/lead 25/05, 25/50	3000
Operation temperature limits	[°C]	-20 – 70
Dynamic load (Fx), maximum	[N]	10000
Dynamic load (Fy), maximum	[N]	100
Dynamic load (Fz), maximum	[N]	100
Dynamic load torque (Mz, My), max.	[Nm]	50
Drive shaft force (Frd), maximum	[N]	1000
Drive shaft torque/input torque (Mta), max.	[Nm]	
	T06-B25	48
	T06-G25	40
	T06-H25	48
Screw versions, diameter (do) / lead (p)	[mm]	25/05, 25/10, 25/25, 25/50
Weight of units	[kg]	
	of unit with zero stroke	5,20
	of every 100 mm of stroke	0,95

¹ Value for the complete unit

T60

Ball Screw Drive, Slide Guide

Dimensions	Projection
METRIC	



- A1: screw 25/05 and 25/25
- A2: screw 25/10 and 25/50
- A3: depth 10
- A4: outside thread
- A5: inside thread

RediMount Flange Specifications			
Parameter		Min	Max
Flange length (Lrm)	[mm]	81	143
Flange square (Srm)	[mm]	90	200
Flange weight *	[kg]	5,60	

* Max. weight including coupling and fastening screws

T90

Ball Screw Drive, Slide Guide

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- » Adapter Options - see page 54
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Standard Features and Benefits

- Compact, robust and reliable
- High-accuracy ball screw drive
- Stroke up to 1500 mm
- Load up to 20000 N
- Speed up to 2 m/s
- Hard-chromed steel extension tube
- IP65 as standard
- Mounting accessories according to hydraulic cylinder standards available.

General Specifications

Parameter	T90
Profile size (w × h) [mm]	90 × 92
Type of screw	ball screw with single nut
Protection class	IP65
Lubrication	one point lubrication of ballscrew
Included accessories	–

Rod Idle Torque (M_{idle}) [Nm]

Input speed [rpm]	Screw lead (p) [mm]				
	p = 5	p = 10	p = 20	p = 25	p = 32
500	1,5	1,5	3,0	2,0	3,5

M_{idle} = the input torque needed to move the rod with no load on it.

Performance Specifications

Parameter		T90
Stroke length (S max), maximum	[mm]	1500
Linear speed, maximum	[m/s]	2,0
Acceleration, maximum	[m/s ²]	8
Repeatability	[± mm]	0,05
Input speed, maximum	[rpm]	
screw diam./lead 25/05 mm		3000
screw diam./lead 25/10, 25/25 mm		4000
screw diam./lead 32/10, 32/20, 32/32 mm		3750
Operation temperature limits	[°C]	-20 – 70
Dynamic load (F _x), maximum	[N]	
screw diameter 25 mm		10000
screw diameter 32 mm		20000
Dynamic load (F _y), maximum	[N]	
screw diameter 25 mm		300 ¹
screw diameter 32 mm		500 ¹
Dynamic load (F _z), maximum	[N]	
screw diameter 25 mm		300 ¹
screw diameter 32 mm		500 ¹
Dynamic load torque (M _z , M _y), max.	[Nm]	150 ¹
Drive shaft force (F _{rd}), maximum	[N]	
screw diameter 25 mm		1000
screw diameter 32 mm		1300
Drive shaft torque/input torque (M _{ta}), max.	[Nm]	
screw diameter 25 mm		48
screw diameter 32 mm		93
Screw versions, diameter (d _o) / lead (p)	[mm]	25/05, 25/10, 25/25, 32/10, 32/20, 32/32
Weight of units with screw diameter 25 mm of unit with zero stroke of every 100 mm of stroke	[kg]	8,16 1,62
Weight of units with screw diameter 32 mm of unit with zero stroke of every 100 mm of stroke	[kg]	10,64 1,80

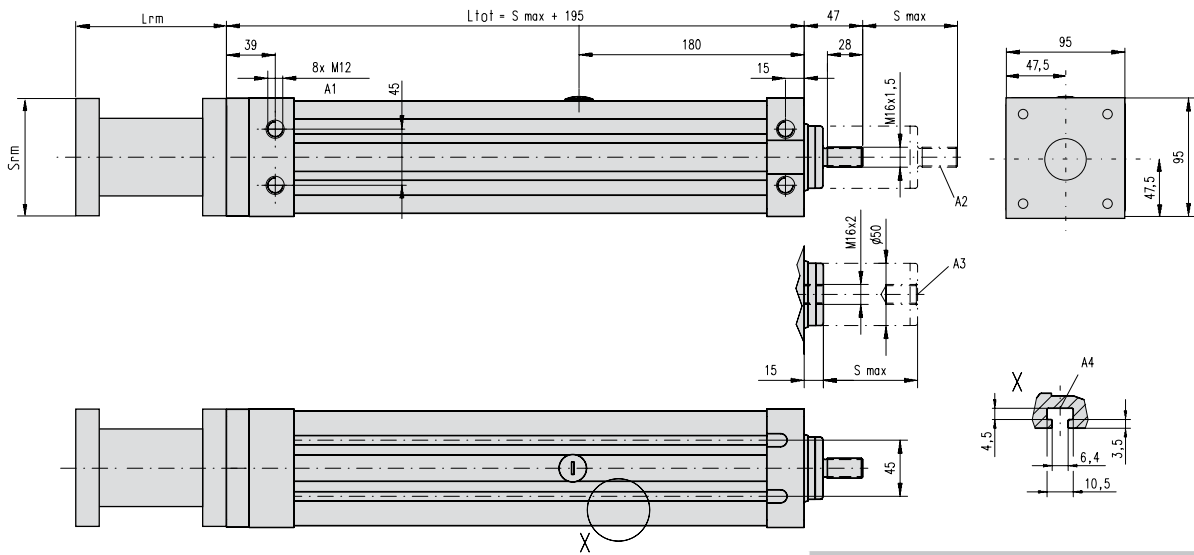
¹ Value for the complete unit

T90

Ball Screw Drive, Slide Guide

T09-x25
screw $\varnothing 25$ mm

Dimensions	Projection
METRIC	



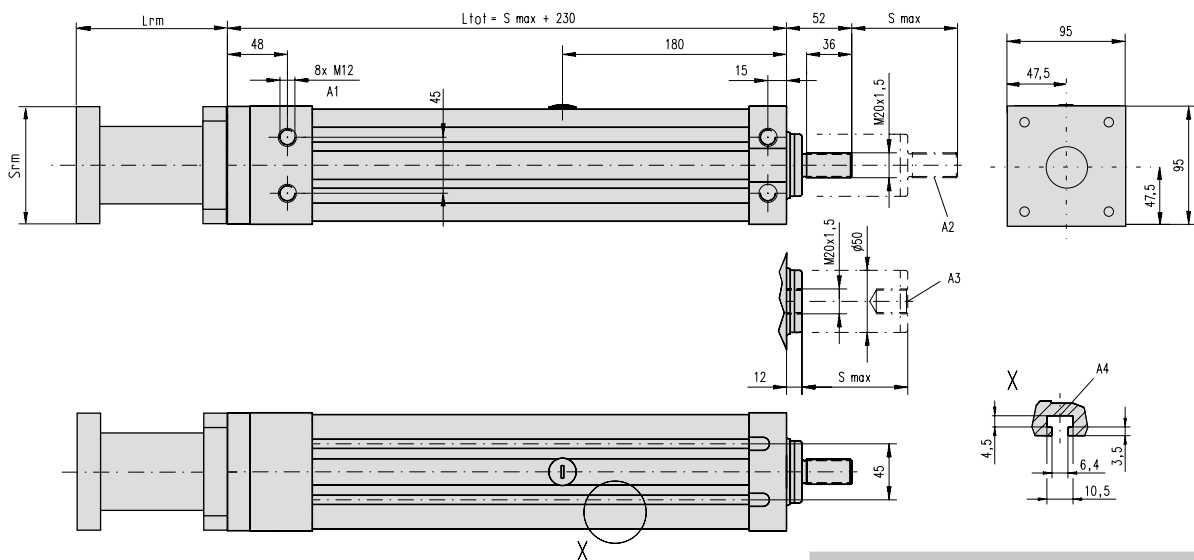
A1: depth 33
A2: outside thread
A3: inside thread
A4: T-slot

RediMount Flange Specifications

Parameter	Min	Max
Flange length (Lrm) [mm]	81	143
Flange square (Srm) [mm]	90	200
Flange weight * [kg]	5,60	

* Max. weight including coupling and fastening screws

T09-x32
screw $\varnothing 32$ mm



A1: depth 43
A2: outside thread
A3: inside thread
A4: T-slot

RediMount Flange Specifications

Parameter	Min	Max
Flange length (Lrm) [mm]	81	143
Flange square (Srm) [mm]	90	200
Flange weight * [kg]	6,00	

* Max. weight including coupling and fastening screws

T130

Ball Screw Drive, Slide Guide



Standard Features and Benefits

- Compact, robust and reliable
- High-accuracy ball screw drive
- Stroke up to 2000 mm
- Load up to 60000 N
- Speed up to 2 m/s
- Hard-chromed steel extension tube
- IP65 as standard
- Mounting accessories according to hydraulic cylinder standards available.

General Specifications

Parameter	T130
Profile size (w × h) [mm]	130 × 130
Type of screw	ball screw with single nut
Protection class	IP65
Lubrication	one point lubrication of ballscrew
Included accessories	–

Rod Idle Torque (M_{idle}) [Nm]

Input speed [rpm]	Screw diameter (d _o) [mm] / lead (p) [mm]			
	d _o = 40			d _o = 50
	p = 10	p = 20	p = 40	p = 10
500	4,5	4,5	5,5	5,5

M_{idle} = the input torque needed to move the rod with no load on it.

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Performance Specifications

Parameter		T130
Stroke length (S max), maximum	[mm]	2000
Linear speed, maximum	[m/s]	2,0
Acceleration, maximum	[m/s ²]	8
Repeatability	[± mm]	0,05
Input speed, maximum	[rpm]	
screw diameter/lead 40/10 mm		2500
screw diameter/lead 40/20, 40/40 mm		3000
screw diameter/lead 50/10 mm		2000
Operation temperature limits	[°C]	- 20 – 70
Dynamic load (F _x), maximum	[N]	
screw diameter/lead 50/10 mm		60000
screw diameter/lead 40/10 mm		40000
screw diameter/lead 40/20 mm		35000
screw diameter/lead 40/40 mm		15000
Dynamic load (F _y), maximum	[N]	800 ¹
Dynamic load (F _z), maximum	[N]	800 ¹
Dynamic load torque (M _y , M _z), max.	[Nm]	300 ¹
Drive shaft force (F _{rd}), maximum	[N]	3000
Drive shaft torque/input torque (M _{ta}), max.	[Nm]	
T13-x40		140
T13-B50		200
T13-K50		140
Screw versions, diameter (d _o) / lead (p)	[mm]	40/10, 40/20, 40/40, 50/10
Weight of units	[kg]	
with screw diameter 40 mm		18,50
of unit with zero stroke		3,00
of every 100 mm of stroke		
Weight of units	[kg]	
with screw diameter 50 mm		25,40
of unit with zero stroke		3,60
of every 100 mm of stroke		

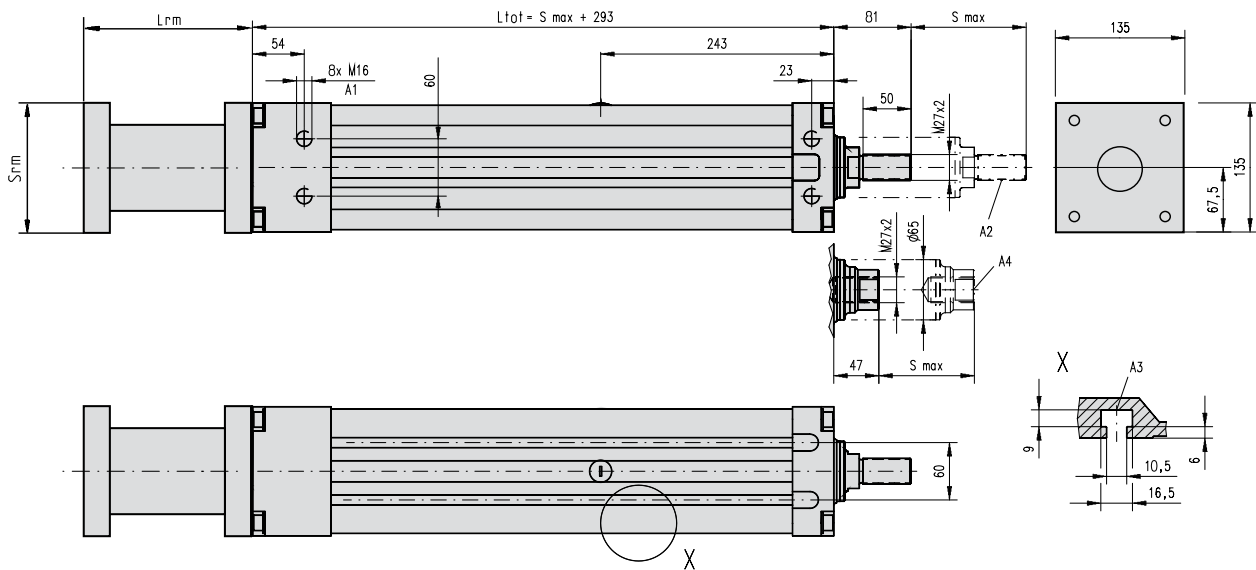
¹ Value for the complete unit

T130

Ball Screw Drive, Slide Guide

Dimensions	Projection
METRIC	

T13-x40
screw $\varnothing 40$ mm



A1: depth 28
A2: outside thread

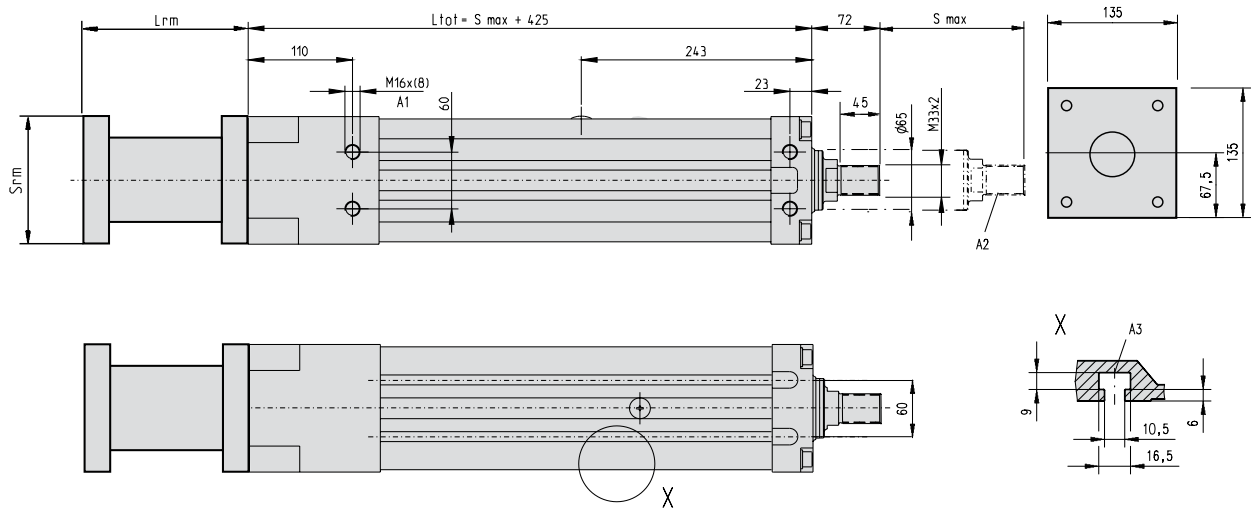
A3: T-slot
A4: inside thread

RediMount Flange Specifications

Parameter	Min	Max	
Flange length (Lrm)	[mm]	81	143
Flange square (Srm)	[mm]	90	200
Flange weight *	[kg]	6,50	

* Max. weight including coupling and fastening screws

T13-x50
screw $\varnothing 50$ mm



A1: depth 28
A2: outside thread

A3: T-slot

RediMount Flange Specifications

Parameter	Min	Max	
Flange length (Lrm)	[mm]	106	154
Flange square (Srm)	[mm]	110	200
Flange weight *	[kg]	7,13	

* Max. weight including coupling and fastening screws