

Vérins électriques de précision T90 – T130

Precision Linear Actuators –Vérins haute capacité série T

www.rosier.fr

T90

Ball Screw Drive, Slide Guide

» Ordering key - see page 218
» Accessories - see page 137
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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 | |

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 diameter/lead 25/05 mm | | 4000 |
| screw diameter/lead 25/10, 25/25 mm | | 4800 |
| screw diameter/lead 32/20, 32/32 mm | | 3750 |
| Operation temperature limits | [°C] | -20 70 |
| Dynamic load (Fx), maximum | [N] | |
| screw diameter 25 mm | | 10000 |
| screw diameter 32 mm | | 20000 |
| Dynamic load (Fy), maximum | [N] | |
| screw diameter 25 mm | | 300 ¹ |
| screw diameter 32 mm | | 500 ¹ |
| Dynamic load (Fz), maximum | [N] | |
| screw diameter 25 mm | | 300 ¹ |
| screw diameter 32 mm | | 500 ¹ |
| Dynamic load torque (Mz, My), maximum | [Nm] | 150 ¹ |
| Drive shaft force (Frd), maximum | [N] | |
| screw diameter 25 mm | | 1000 |
| screw diameter 32 mm | | 1300 |
| Drive shaft torque (Mta), maximum | [Nm] | |
| screw diameter 25 mm | | 48 |
| screw diameter 32 mm | | 93 |

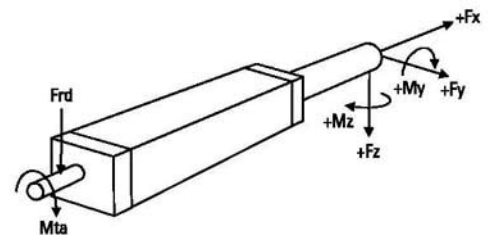
¹ Value for the complete unit

Rod Idle Torque (M idle) [Nm]

| Input speed [rpm] | Screw lead [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.

Definition of Forces



Performance Specifications

| Parameter | | T90 |
|--|------|-------------------------------------|
| Screw versions, diameter (do) / lead (p) | [mm] | 25/05, 25/10, 25/25 32/20, 32/32 |
| Weight of units | [kg] | |
| with screw diameter 25 mm | | |
| of unit with zero stroke | | 8,16 |
| of every 100 mm of stroke | | 1,62 |
| of the rod with zero stroke | | 0,52 |
| of every 100 mm of rod | | 0,60 |
| Weight of units | [kg] | |
| with screw diameter 32 mm | | |
| of unit with zero stroke | | 10,64 |
| of every 100 mm of stroke | | 1,80 |
| of the rod with zero stroke | | 0,55 |
| of every 100 mm of rod | | 0,60 |

Vérins électriques de précision T90 – T130

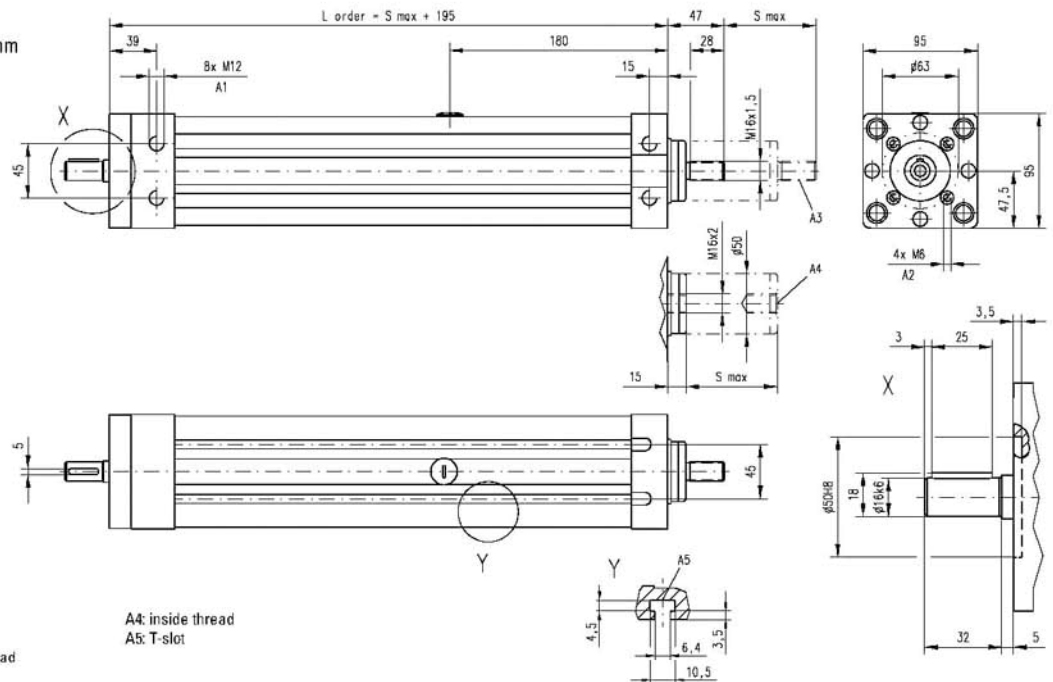
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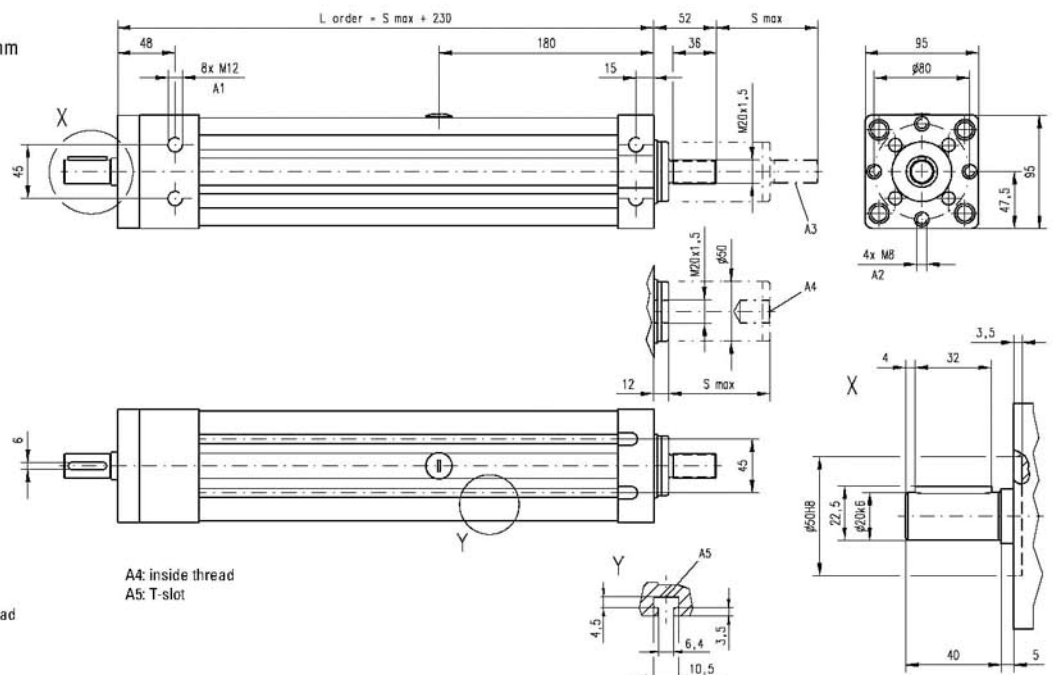
T90

Ball Screw Drive, Slide Guide

T09-B25
screw $\varnothing 25$ mm



T09-B32
screw $\varnothing 32$ mm



Vérins électriques de précision T90 – T130

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T130

Ball Screw Drive, Slide Guide

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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 lead [mm] | | |
|-------------------|-----------------|--------|--------|
| | p = 10 | p = 20 | p = 40 |
| 500 | 4,5 | 4,5 | 5,5 |

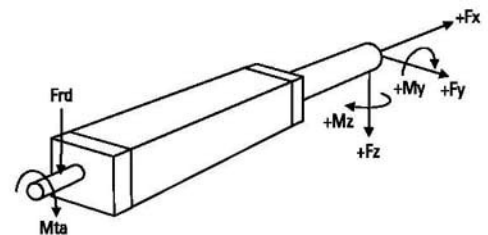
M_{idle} = the input torque needed to move the rod with no load on it.

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 lead 10 mm | | 2500 |
| screw lead 20, 40 mm | | 3000 |
| Operation temperature limits | [°C] | - 20 70 |
| Dynamic load (F _x), maximum | [N] | |
| screw lead 10 mm | | 40000 |
| screw lead 20 mm | | 35000 |
| screw lead 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), maximum | [Nm] | 300 ¹ |
| Drive shaft force (F _{rd}), maximum | [N] | 3000 |
| Drive shaft torque (M _{ta}), maximum | [Nm] | 140 |
| Ball screw diameter (p) | [mm] | 40 |
| Ball screw leads (d ₀) | [mm] | 10, 20, 40 |
| Weight | [kg] | |
| of unit with zero stroke | | 18,50 |
| of every 100 mm of stroke | | 3,00 |
| of the rod with zero stroke | | 1,25 |
| of every 100 mm of rod | | 0,77 |

¹ Value for the complete unit

Definition of Forces



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