

TUBUS TI

Compact one-off deceleration

Irreversible Emergency Stop Damper

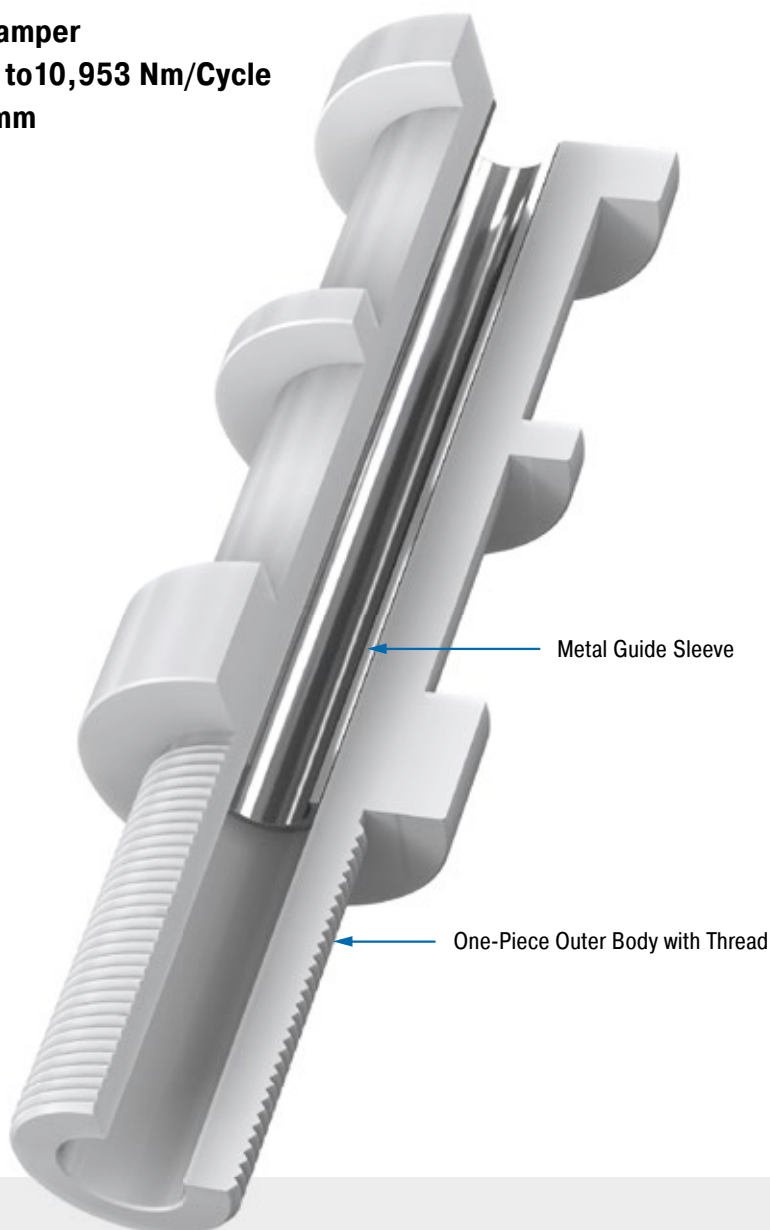
Energy capacity 562 Nm/Cycle to 10,953 Nm/Cycle

Maximum stroke 25 mm to 80 mm

Once only, but safely: ACE now offers these innovative single use TUBUS TI absorbers for emergency stop applications as an alternative to the successful TUBUS profile dampers. In comparison to standard elastomer absorbers, these safety dampers ensure energy absorption of up to 96 % without a recoil effect. The dampers are deformed in the impact and cannot be reused afterwards.

The easy to assemble and maintenance-free single hit damper are also a cost-effective alternative to the hydraulic safety shock absorbers from ACE. They are made of a high quality synthetic with an inside metal core and absorb up to 10,953 Nm energy.

The TUBUS TI is mainly used as emergency stop damping in linear axes, tool machines, servo drives with high speeds and other similar areas.



Technical Data

Energy capacity: 562 Nm/Cycle to 10,953 Nm/Cycle

Energy absorption: 91 % to 96 %

Dynamic force range: 37,138 N to 204,127 N

Operating temperature range:

-40 °C to +90 °C, Co-polyester Elastomer

-25 °C to +50 °C, Polymer

Construction size: 32 mm to 63 mm

Material: Profile body: Co-Polyester elastomer or polymer; Guide sleeve: Metal

Mounting: In any position

Environment: Resistant to lubricants and chemical attack according to resistance list. No UV resistance.

Impact velocity range: Max. 5 m/s

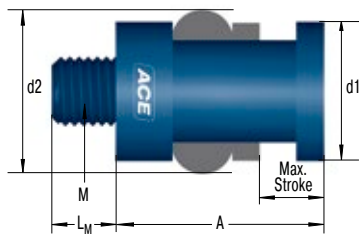
Torque max.: Finger tight

Application field: Emergency stop damping in linear axes, Portal systems, Test stations, Electro-mechanical drives

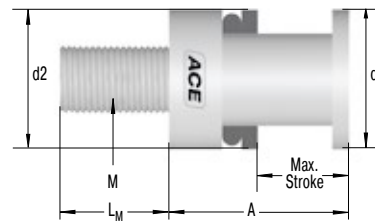
Note: The single-use damper must be replaced after each impact.

On request: Other construction sizes on request.

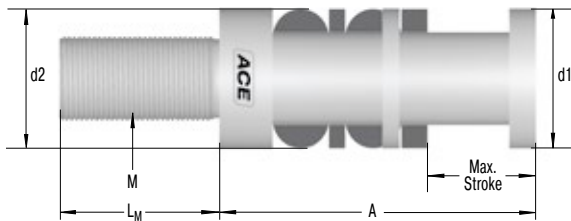
TI16



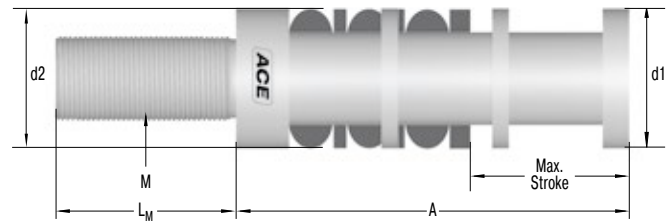
TI24



TI30



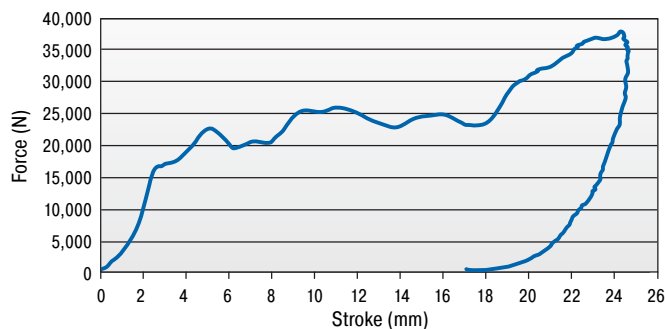
TI36



Characteristics

Force-Stroke TI16

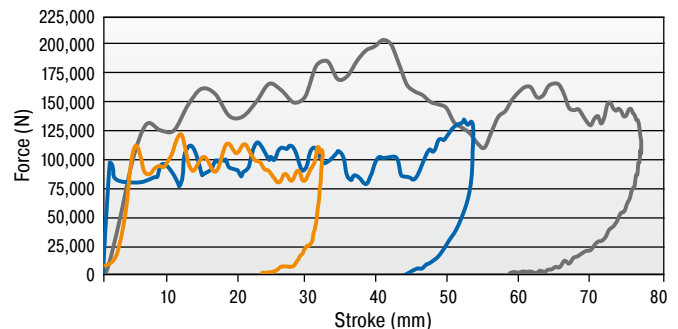
Dynamic trials on a drop test rig



Total energy:	562 Nm
Absorbed energy:	511 Nm
Efficiency:	91 %

Force-Stroke TI24, TI30 and TI36

Dynamic trials on a drop test rig



Total energy:	10,954 Nm	4,510 Nm	2,701 Nm
Absorbed energy:	10,513 Nm	4,309 Nm	2,545 Nm
Efficiency:	96 %	96 %	94 %

The characteristic values have been established under dynamic load.

The calculation and selection of the most suitable damper should be carried out or be approved by ACE.

Ordering Example

TUBUS Irreversible _____
 Thread Size M16 _____
 Stroke 25 mm _____
 Number of Bellows _____

TI16-25-1

Performance and Dimensions

TYPES	Energy capacity emergency use Nm/cycle	Stroke max. mm	Reacting Force N	A mm	d1 mm	d2 mm	L _M mm	M	Depth thread hole min. mm	Weight kg
TI16-25-1	562	25	37,138	48	32	38	15	M16x2	25	0.045
TI24-33-1	2,701	33	113,590	64.5	50	50	40	M24x3	40	0.140
TI30-52-2	4,510	52	121,130	113	50	50	57	M30x3.5	63	0.240
TI36-80-3	10,953	80	204,127	172	63	65	89	M36x4	89	0.620