SC33 to SC45

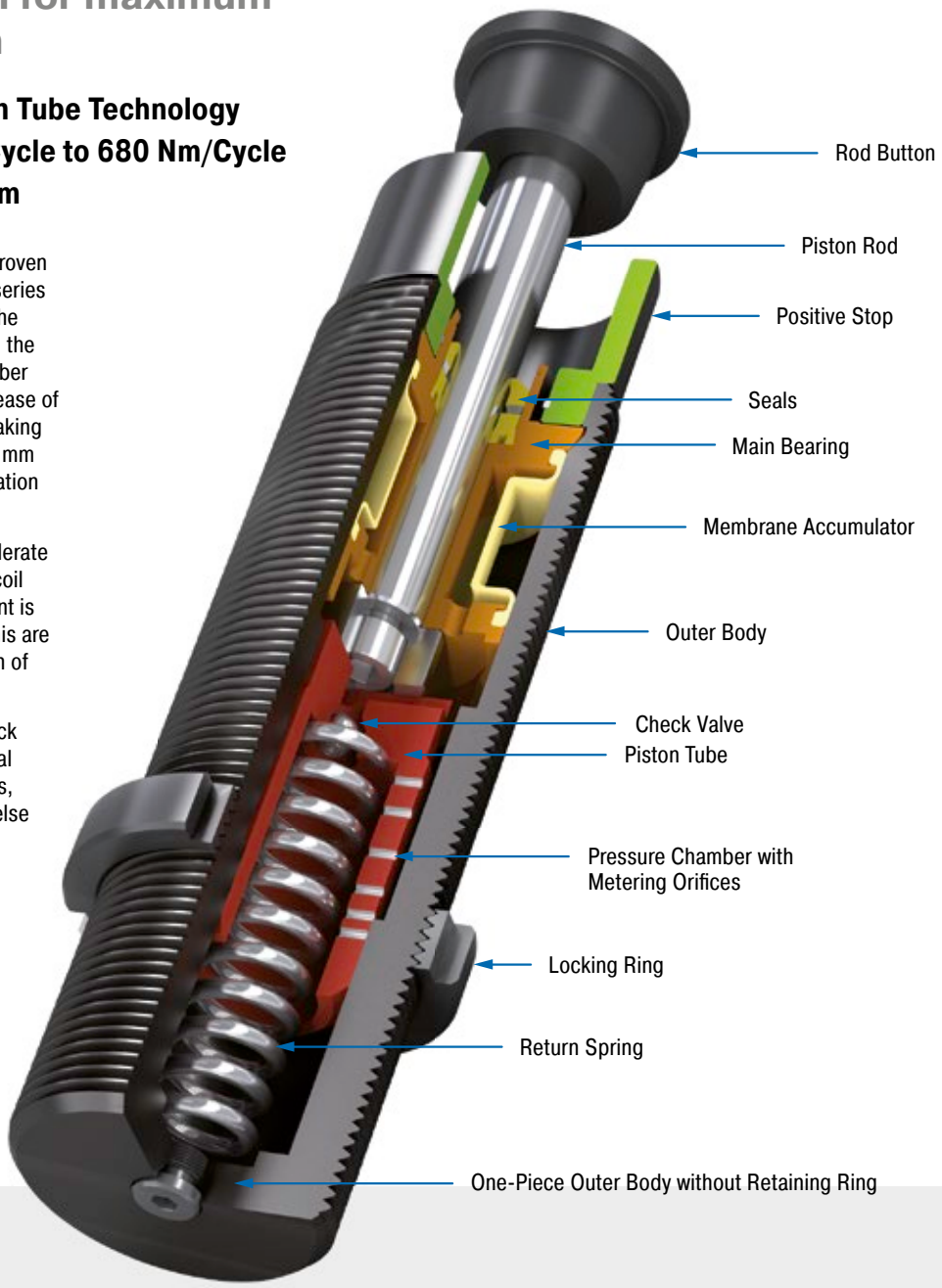
Piston tube design for maximum energy absorption

Self-Compensating, Piston Tube Technology
Energy capacity 155 Nm/Cycle to 680 Nm/Cycle
Stroke 23.1 mm to 48.6 mm

True performers: The combination the proven sealing technology from the MAGNUM series including membrane accumulator with the well-known piston tube technology from the SC² family makes the SC33 to 45 absorber models so strong and durable. The increase of the oil volume ensures the maximum braking forces. Short stroke lengths of 25 to 50 mm lead to shorter braking times in combination with a high energy absorption.

These dampers safely and reliably decelerate rotary movements without unwanted recoil effects. Assembly close to the pivot point is possible. The low impact speeds with this are managed with ease by ACE's generation of piston tubes.

These self-compensating industrial shock absorbers can be relied on in mechanical engineering. They are used in pivot units, rotary tables, robot arms or integrated else where in construction designs.



Technical Data

Energy capacity: 155 Nm/Cycle to 680 Nm/Cycle

Impact velocity range: 0.02 m/s to 0.46 m/s. Other speeds on request.

Operating temperature range: -12 °C to +66 °C. Other temperatures on request.

Mounting: In any position

Positive stop: In any position

Material: Outer body: Nitride hardened steel; Piston rod: Hard chrome plated steel; Rod end button: Hardened steel and corrosion-resistant coating; Accessories: Steel with black oxide finish or nitride hardened

Damping medium: Low temperature hydraulic oil

Application field: Turntables, Swivel units, Robot arms, Linear slides, Pneumatic cylinders, Handling modules, Machines and plants, Finishing and processing centres

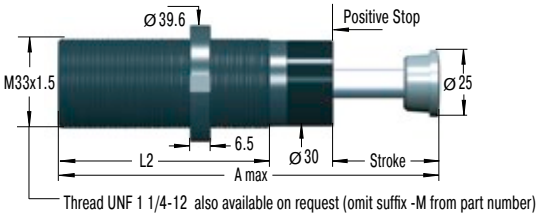
Note: A noise reduction of 3 to 7 dB is possible when using the special impact button (PP).

Safety instructions: External materials in the surrounding area can attack the seal components and lead to a shorter service life. Please contact ACE for appropriate solution suggestions. Do not paint the shock absorbers due to heat emission.

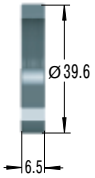
On request: Special oils, mounting inside air cylinders or other special options are available on request.

Issue 07.2017 – Specifications subject to change

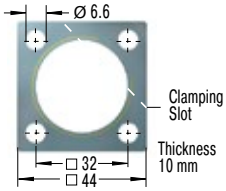
SC33EUM



NM33
Locking Ring

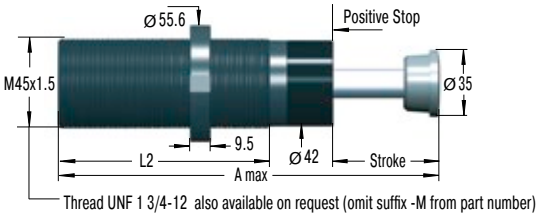


QF33
Square Flange

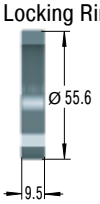


Torque max.: 11 Nm
Clamping torque: > 90 Nm
Install with 4 machine screws

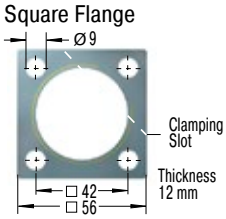
SC45EUM



NM45
Locking Ring



QF45
Square Flange



Torque max.: 27 Nm
Clamping torque: > 200 Nm
Install with 4 machine screws

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

Ordering Example **SC4525EUM-5**

- Self-Compensating
- Thread Size M45
- Stroke 25 mm
- EU Compliant
- Metric Thread
  (omitted when using thread UNF 1 3/4-12)
- Effective Weight Range Version

Dimensions

TYPES	Stroke mm	A max. mm	L2 mm
SC3325EUM	23.2	178	122
SC3350EUM	48.6	254	173
SC4525EUM	23.1	189	139
SC4550EUM	48.5	265	190

Performance

	Max. Energy Capacity		Effective Weight							
TYPES	W_3 Nm/cycle	W_4 Nm/h	[1] me min. kg	[1] me max. kg	Hardness	Return Force min. N	Return Force max. N	Return Time s	[2] Side Load Angle max. °	Weight kg
SC3325EUM-5	155	75,000	1,360	2,721	-5	44	89	0.75	4	0.68
SC3325EUM-6	155	75,000	2,500	5,443	-6	44	89	0.75	4	0.68
SC3325EUM-7	155	75,000	4,989	8,935	-7	44	89	0.75	4	0.68
SC3325EUM-8	155	75,000	8,618	13,607	-8	44	89	0.75	4	0.68
SC3350EUM-5	310	85,000	2,721	4,990	-5	51	125	0.90	3	0.92
SC3350EUM-6	310	85,000	4,536	9,980	-6	51	125	0.90	3	0.92
SC4525EUM-5	340	107,000	3,400	6,800	-5	67	104	0.8	4	1.43
SC4525EUM-6	340	107,000	6,350	13,600	-6	67	104	0.8	4	1.43
SC4525EUM-7	340	107,000	12,700	22,679	-7	67	104	0.8	4	1.43
SC4525EUM-8	340	107,000	20,411	39,000	-8	67	104	0.8	4	1.43
SC4550EUM-5	680	112,000	6,800	12,246	-5	47	242	1.0	3	1.90
SC4550EUM-6	680	112,000	11,790	26,988	-6	47	242	1.0	3	1.90
SC4550EUM-7	680	112,000	25,854	44,225	-7	47	242	1.0	3	1.90

[1] The effective weight range limits can be raised or lowered to special order.
[2] For applications with higher side load angles consider using the side load adaptor (BV) pages 74 to 77.