

MC33 to MC64

High energy absorption and robust design

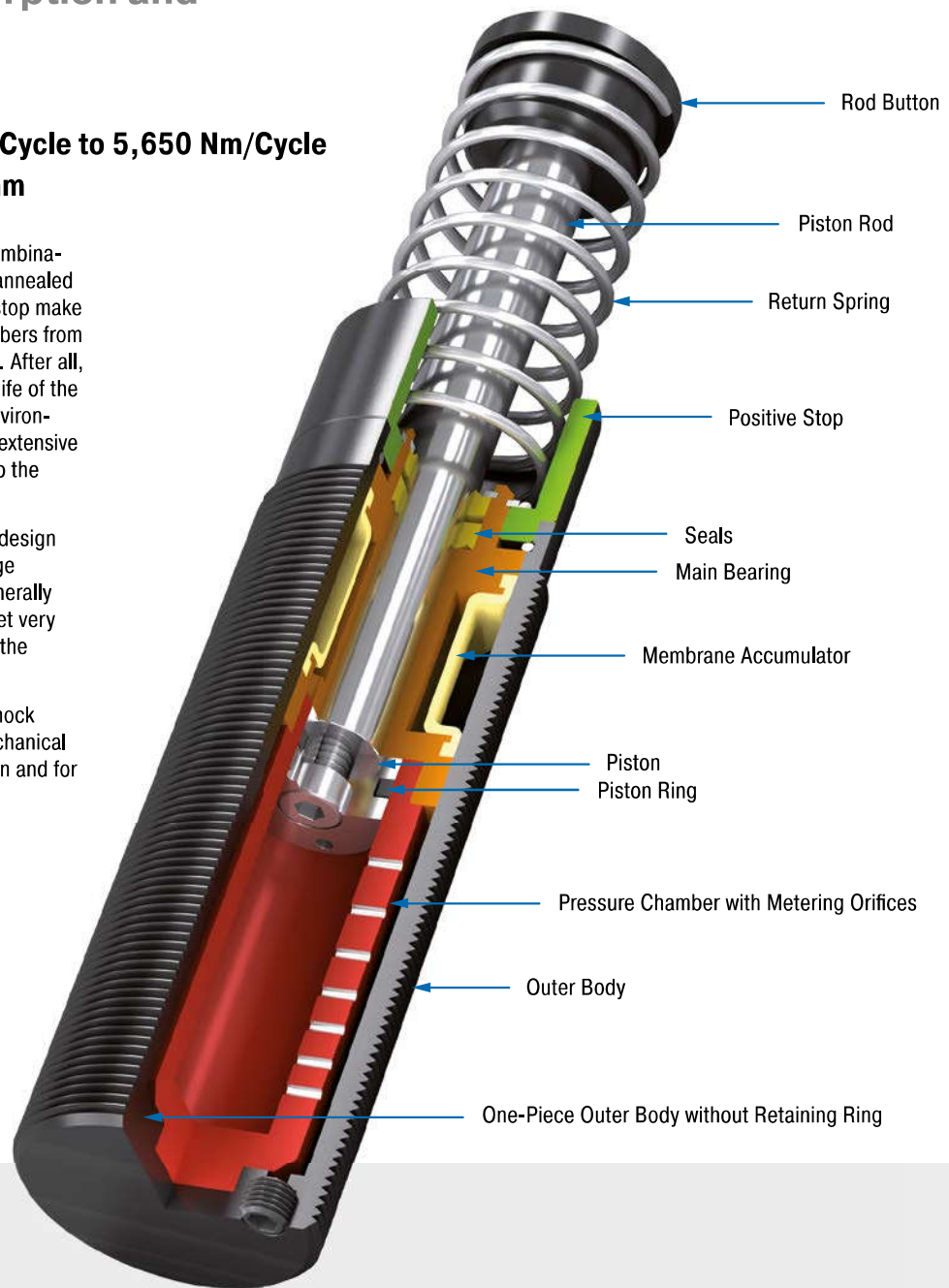
Self-Compensating

Energy capacity 170 Nm/Cycle to 5,650 Nm/Cycle
Stroke 23.1 mm to 150 mm

The latest damper technology: The combination of the latest sealing technology, annealed guide bearing and integrated positiv stop make these self-compensating shock absorbers from ACE'S MAGNUM range so successful. After all, users benefit from the longer service life of the products, even in the most difficult environments. A continuous outer thread and extensive accessories make their contribution to the success story of the MC33 to MC64.

High energy absorption in a compact design and a wide damping range lead to huge advantages in practice. Alongside generally more compact designs, these small yet very powerful absorbers enable full use of the machine's performance.

These self-compensating industrial shock absorbers are used in all areas of mechanical engineering – especially in automation and for gantries.



Technical Data

Energy capacity: 170 Nm/Cycle to 5,650 Nm/Cycle

Impact velocity range: 0.15 m/s to 5 m/s. Other speeds on request.

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

Mounting: In any position

Positive stop: Integrated

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

Damping medium: Automatic Transmission Fluid (ATF)

Application field: Linear slides, Swivel units, Turntables, Portal systems, Machines and plants, Tool machines, Machining centres, Z-axes, Impact panels

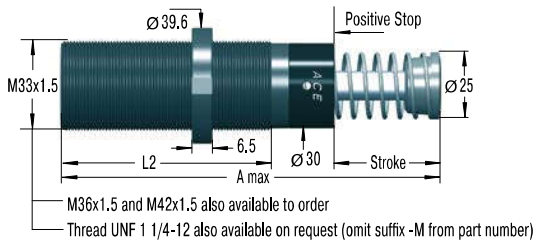
Note: A noise reduction of 3 to 7 dB is possible when using the special impact button (PP). For emergency use only applications and for continuous use (with additional cooling) it is sometimes possible to exceed the published max. capacity ratings. In this case, please consult ACE.

Safety instructions: External materials in the surrounding area can attack the seal compo-

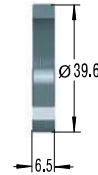
nents and lead to a shorter service life. Please contact ACE for appropriate solution suggestions. Do not paint the shock absorbers due to heat emission.

On request: Special oils, nickel-plated, increased corrosion protection, mounting inside air cylinders or other special options are available on request.

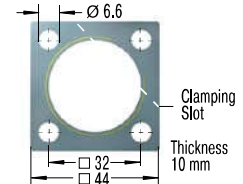
MC33EUM



NM33 Locking Ring



QF33 Square Flange



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

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

Model Type Prefix

Standard Models

MC: Self-Contained with return spring, self-compensating

Special Models

MCA: Air/Oil return without return spring.

Use only with external air/oil tank.

MCS: Air/Oil return with return spring.

Use only with external air/oil tank.

MCN: Self-Contained without return spring

Ordering Example

Self-Compensating _____
Thread Size M33 _____
Stroke 25 mm _____
EU Compliant _____
Metric Thread _____
(omitted when using thread UNF 1 1/4-12)
Effective Weight Range Version _____

MC3325EUM-1

Dimensions

TYPES	Stroke mm	A max. mm	L2 mm
MC3325EUM	23.2	138	83
MC3350EUM	48.6	189	108

Performance

TYPES	Max. Energy Capacity				Effective Weight			Return Force					Side Load Angle max. °	Weight kg
	¹ W ₃ Nm/cycle	W ₄ Nm/h	W ₄ with Oil Air/Oil Tank Nm/h	W ₄ with Oil Recirculation Nm/h	² me min. kg	² me max. kg	Hardness	min. N	max. N	Return Time s	Return Time s	Return Time s		
MC3325EUM-0	170	75,000	124,000	169,000	3	11	-0	45	90	0.03			4	0.51
MC3325EUM-1	170	75,000	124,000	169,000	9	40	-1	45	90	0.03			4	0.51
MC3325EUM-2	170	75,000	124,000	169,000	30	120	-2	45	90	0.03			4	0.51
MC3325EUM-3	170	75,000	124,000	169,000	100	420	-3	45	90	0.03			4	0.51
MC3325EUM-4	170	75,000	124,000	169,000	350	1,420	-4	45	90	0.03			4	0.51
MC3350EUM-0	330	85,000	135,000	180,000	5	22	-0	45	135	0.06			3	0.63
MC3350EUM-1	330	85,000	135,000	180,000	18	70	-1	45	135	0.06			3	0.63
MC3350EUM-2	330	85,000	135,000	180,000	60	250	-2	45	135	0.06			3	0.63
MC3350EUM-3	330	85,000	135,000	180,000	210	840	-3	45	135	0.06			3	0.63
MC3350EUM-4	330	85,000	135,000	180,000	710	2,830	-4	45	135	0.06			3	0.63

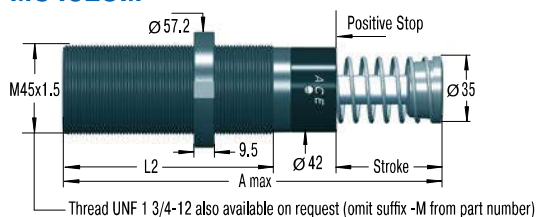
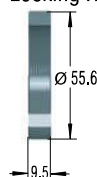
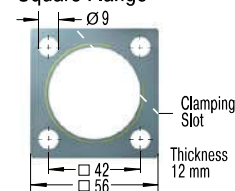
¹ For emergency use only applications it is sometimes possible to exceed the above ratings. Please consult ACE for further details.

² The effective weight range limits can be raised or lowered to special order.

³ For applications with higher side load angles consider using the side load adaptor (BV) pages 74 to 77.

Self-Compensating

MC45EUM

NM45
Locking RingQF45
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.

Model Type Prefix

Standard Models

MC: Self-Contained with return spring, self-compensating

Special Models

MCA: Air/Oil return without return spring.

Use only with external air/oil tank.

MCS: Air/Oil return with return spring.

Use only with external air/oil tank.

MCN: Self-Contained without return spring

Ordering Example

Self-Compensating _____
Thread Size M45 _____
Stroke 50 mm _____
EU Compliant _____
Metric Thread _____
(omitted when using thread UNF 1 3/4-12)
Effective Weight Range Version _____

MC4550EUM-3

Dimensions

TYPES	Stroke mm	A max. mm	L2 mm
MC4525EUM	23.1	145	95
MC4550EUM	48.5	195	120
MC4575EUM	73.9	246	145

Performance

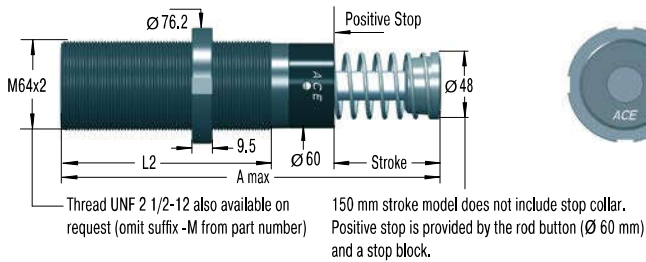
TYPES	Max. Energy Capacity				Effective Weight			Return Force				Return Time		Side Load Angle		Weight kg
	¹ W ₃ Nm/cycle	W ₄ Nm/h	W ₄ with Air/Oil Tank Nm/h	W ₄ with Oil Recirculation Nm/h	² me min. kg	² me max. kg	Hardness	min. N	max. N			s		max. °		
MC4525EUM-0	370	107,000	158,000	192,000	7	27	-0	70	100			0.03		4		1.14
MC4525EUM-1	370	107,000	158,000	192,000	20	90	-1	70	100			0.03		4		1.14
MC4525EUM-2	370	107,000	158,000	192,000	80	310	-2	70	100			0.03		4		1.14
MC4525EUM-3	370	107,000	158,000	192,000	260	1,050	-3	70	100			0.03		4		1.14
MC4525EUM-4	370	107,000	158,000	192,000	890	3,540	-4	70	100			0.03		4		1.14
MC4550EUM-0	740	112,000	192,000	248,000	13	54	-0	70	145			0.08		3		1.36
MC4550EUM-1	740	112,000	192,000	248,000	45	180	-1	70	145			0.08		3		1.36
MC4550EUM-2	740	112,000	192,000	248,000	150	620	-2	70	145			0.08		3		1.36
MC4550EUM-3	740	112,000	192,000	248,000	520	2,090	-3	70	145			0.08		3		1.36
MC4550EUM-4	740	112,000	192,000	248,000	1,800	7,100	-4	70	145			0.08		3		1.36
MC4575EUM-0	1,130	146,000	225,000	282,000	20	80	-0	50	180			0.11		2		1.59
MC4575EUM-1	1,130	146,000	225,000	282,000	70	270	-1	50	180			0.11		2		1.59
MC4575EUM-2	1,130	146,000	225,000	282,000	230	930	-2	50	180			0.11		2		1.59
MC4575EUM-3	1,130	146,000	225,000	282,000	790	3,140	-3	50	180			0.11		2		1.59
MC4575EUM-4	1,130	146,000	225,000	282,000	2,650	10,600	-4	50	180			0.11		2		1.59

¹ For emergency use only applications it is sometimes possible to exceed the above ratings. Please consult ACE for further details.

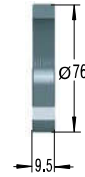
² The effective weight range limits can be raised or lowered to special order.

³ For applications with higher side load angles consider using the side load adaptor (BV) pages 74 to 77.

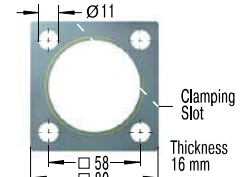
MC64EUM



NM64 Locking Ring



QF64 Square Flange



Torque max.: 50 Nm
Clamping torque: > 210 Nm
Install with 4 machine screws

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

Model Type Prefix

Standard Models

MC: Self-Contained with return spring, self-compensating

Special Models

MCA: Air/Oil return without return spring.

Use only with external air/oil tank.

MCS: Air/Oil return with return spring.

Use only with external air/oil tank.

MCN: Self-Contained without return spring

Ordering Example

Self-Compensating _____
Thread Size M64 _____
Stroke 100 mm _____
EU Compliant _____
Metric Thread _____
(omitted when using thread UNF 2 1/2-12)
Effective Weight Range Version _____

MC64100EUM-2

Dimensions

TYPES	Stroke mm	A max. mm	L2 mm
MC6450EUM	48.6	225	140
MC64100EUM	99.4	326	191
MC64150EUM	150	450	241

Performance

	Max. Energy Capacity				Effective Weight			Return Force					Side Load Angle		
TYPES	¹ W ₃	W ₄	W ₄ with	W ₄ with Oil	² me min.	² me max.	Hardness	Return Force	Return Force	Return Time	max.	°	Weight		
	Nm/cycle	Nm/h	Air/Oil Tank	Recirculation				N	N					s	
MC6450EUM-0	1,870	146,000	293,000	384,000	35	140	-0	90	155	0.12	4		2.9		
MC6450EUM-1	1,870	146,000	293,000	384,000	140	540	-1	90	155	0.12	4		2.9		
MC6450EUM-2	1,870	146,000	293,000	384,000	460	1,850	-2	90	155	0.12	4		2.9		
MC6450EUM-3	1,870	146,000	293,000	384,000	1,600	6,300	-3	90	155	0.12	4		2.9		
MC6450EUM-4	1,870	146,000	293,000	384,000	5,300	21,200	-4	90	155	0.12	4		2.9		
MC64100EUM-0	3,730	192,000	384,000	497,000	70	280	-0	105	270	0.34	3		3.7		
MC64100EUM-1	3,730	192,000	384,000	497,000	270	1,100	-1	105	270	0.34	3		3.7		
MC64100EUM-2	3,730	192,000	384,000	497,000	930	3,700	-2	105	270	0.34	3		3.7		
MC64100EUM-3	3,730	192,000	384,000	497,000	3,150	12,600	-3	105	270	0.34	3		3.7		
MC64100EUM-4	3,730	192,000	384,000	497,000	10,600	42,500	-4	105	270	0.34	3		3.7		
MC64150EUM-0	5,650	248,000	497,000	644,000	100	460	-0	75	365	0.48	2		5.1		
MC64150EUM-1	5,650	248,000	497,000	644,000	410	1,640	-1	75	365	0.48	2		5.1		
MC64150EUM-2	5,650	248,000	497,000	644,000	1,390	5,600	-2	75	365	0.48	2		5.1		
MC64150EUM-3	5,650	248,000	497,000	644,000	4,700	18,800	-3	75	365	0.48	2		5.1		
MC64150EUM-4	5,650	248,000	497,000	644,000	16,000	63,700	-4	75	365	0.48	2		5.1		

¹ For emergency use only applications it is sometimes possible to exceed the above ratings. Please consult ACE for further details.

² The effective weight range limits can be raised or lowered to special order.

³ For applications with higher side load angles consider using the side load adaptor (BV) pages 74 to 77.