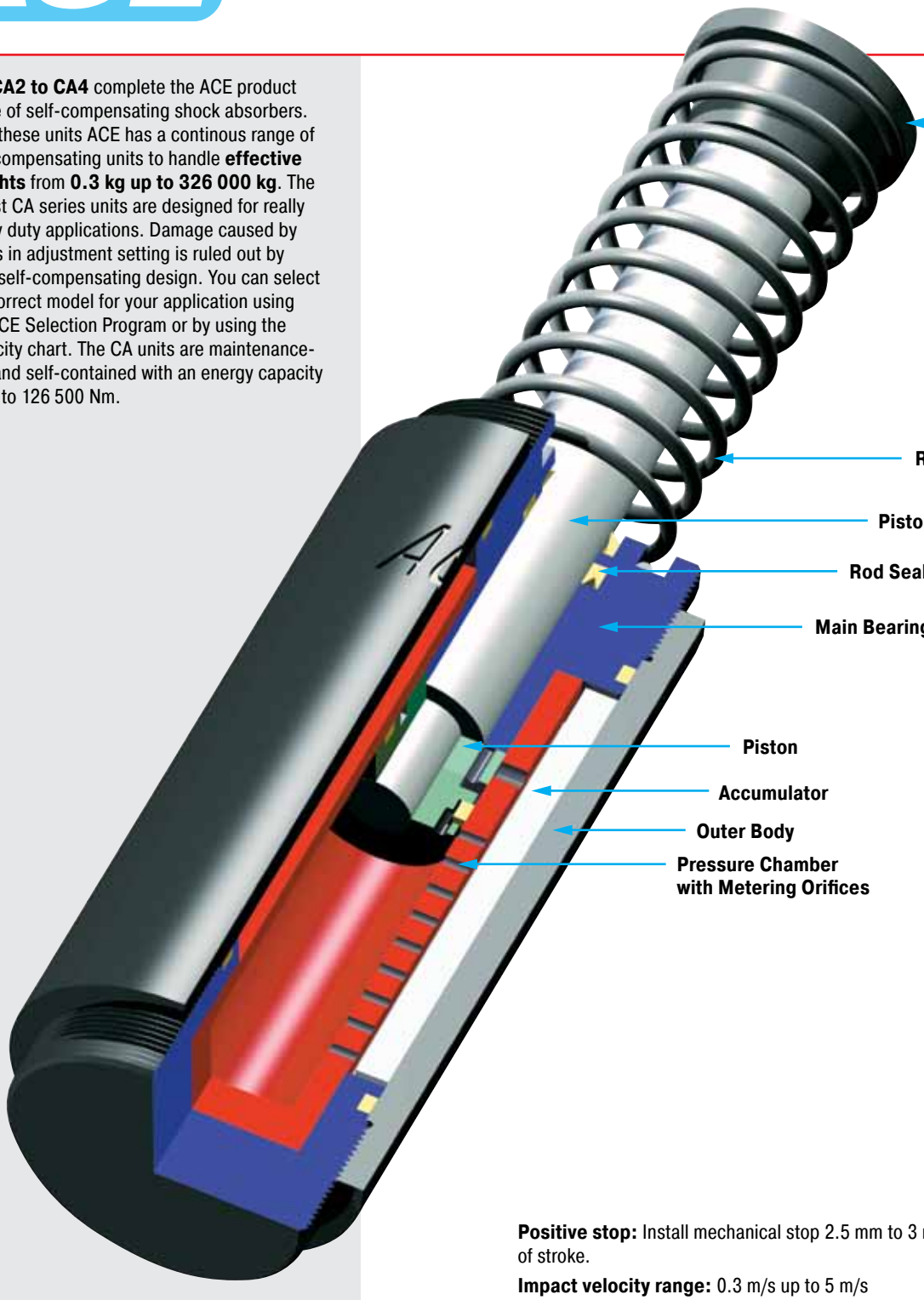
The **CA2 to CA4** complete the ACE product range of self-compensating shock absorbers. With these units ACE has a continous range of self-compensating units to handle **effective weights** from **0.3 kg up to 326 000 kg**. The robust CA series units are designed for really heavy duty applications. Damage caused by errors in adjustment setting is ruled out by their self-compensating design. You can select the correct model for your application using the ACE Selection Program or by using the capacity chart. The CA units are maintenance-free and self-contained with an energy capacity of up to 126 500 Nm.



Positive stop: Install mechanical stop 2.5 mm to 3 mm before the end of stroke.

Impact velocity range: 0.3 m/s up to 5 m/s

Operating fluid: Automatic Transmission Fluid (ATF)

Material: Body and accessories: Steel with black oxide finish. Piston rod: Steel hardened and chrome plated. Rod end button: Steel hardened with black oxide finish. Return spring: Zinc plated. For optimum heat dissipation do not paint outer body.

Capacity rating: For emergency use only applications it may be possible to exceed published energy per cycle (W_3) figures. Please consult ACE for further details.

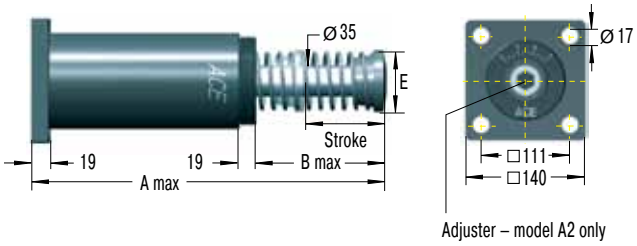
Mounting: In any position

Operating temperature range: -12 °C to 85 °C

On request: Special oils, or for higher or lower impact velocities outside range shown above, or other options please consult ACE.

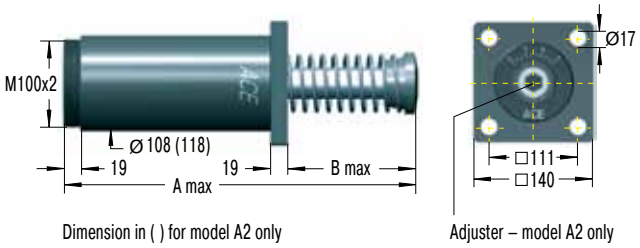
Issue 1.2013 Specifications subject to change

Rear Flange -R



Adjuster – model A2 only

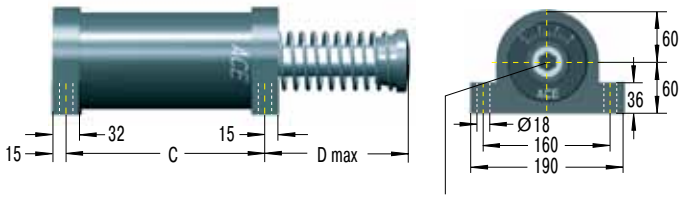
Front Flange -F



Dimension in ( ) for model A2 only

Adjuster – model A2 only

Foot Mounting -SM



Adjuster – model A2 only

Dimensions of clevis mountings available on request.

NOTE! For replacement of existing SAHS 2" foot mounted units order the old type foot mounting S2-A.

Ordering Example — CA2x4EU-3F

- Self-Compensating
- Bore Size Ø 2"
- Stroke Length 4" = 102 mm
- EU Compliant
- Effective Weight Range Version
- Front Flange Mounting

Model Type Prefix

A, CA = self-contained with return spring (This is standard model)

AA, CAA = air/oil return without return spring. Use only with external air/oil tank.

NA, CNA = self-contained without return spring

SA, CSA = air/oil return with return spring. Use only with external air/oil tank.

Dimensions

Type	Stroke mm	A max	B max	C	D max	E
2x2EU	50	313	110	173	125	70
2x4EU	102	414	160	224	175	70
2x6EU	152	516	211	275	226	70
2x8EU	203	643	287	326	302	92
2x10EU	254	745	338	377	353	108

Capacity Chart CA2

Type	Max. Energy Capacity			[1] Effective Weight me				Min. Return Force	Max. Return Force	Rod Reset Time	Max. Side Load Angle	Weight
				Soft ←			→ Hard					
	[2] W_3 Nm/Cycle	[3] W_4 Self-Contained Nm/h	[3] W_4 with Air/Oil Tank Nm/h	-1 min. max. kg	-2 min. max. kg	-3 min. max. kg	-4 min. max. kg	N	N	s	°	kg
CA2x2EU	3 600	1 100 000	1 350 000	700 - 2 200	1 800 - 5 400	4 500 - 13 600	11 300 - 34 000	210	285	0.25	3	12.8
CA2x4EU	7 200	1 350 000	1 700 000	1 400 - 4 400	3 600 - 11 000	9 100 - 27 200	22 600 - 68 000	150	285	0.5	3	14.8
CA2x6EU	10 800	1 600 000	2 000 000	2 200 - 6 500	5 400 - 16 300	13 600 - 40 800	34 000 - 102 000	150	400	0.6	3	16.9
CA2x8EU	14 500	1 900 000	2 400 000	2 900 - 8 700	7 200 - 21 700	18 100 - 54 400	45 300 - 136 000	230	650	0.7	3	19.3
CA2x10EU	18 000	2 200 000	2 700 000	3 600 - 11 000	9 100 - 27 200	22 600 - 68 000	56 600 - 170 000	160	460	0.80	3	22.8

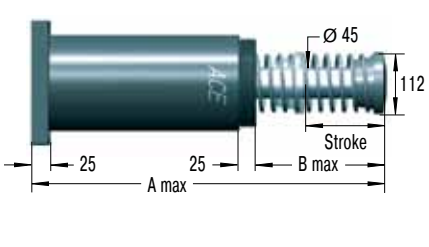
Capacity Chart A2

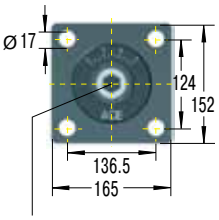
Type	Max. Energy Capacity			[1] Effective Weight me		Min. Return Force	Max. Return Force	Rod Reset Time	Max. Side Load Angle	Weight
	[2] W_3 Nm/Cycle	[3] W_4 Self-Contained Nm/h	[3] W_4 with Air/Oil Tank Nm/h	me min. kg	me max. kg	N	N	s	°	kg
A2x2EU	3 600	1 100 000	1 350 000	250	77 000	210	285	0.25	3	14.3
A2x4EU	9 000	1 350 000	1 700 000	250	82 000	150	285	0.5	3	16.7
A2x6EU	13 500	1 600 000	2 000 000	260	86 000	150	400	0.6	3	19.3
A2x8EU	19 200	1 900 000	2 400 000	260	90 000	230	650	0.7	3	22.3
A2x10EU	23 700	2 200 000	2 700 000	320	113 000	160	460	0.8	3	26.3

[1] The effective weight range limits can be raised or lowered to special order.
[2] For emergency use only applications it may be possible to exceed these max. capacity ratings. Please consult ACE for further details.
[3] Figures for oil recirculation systems on request.

Issue 1.2013 Specifications subject to change

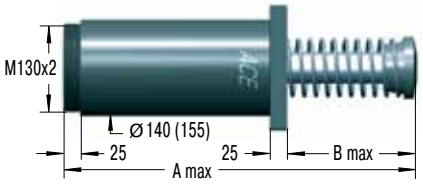
Rear Flange -R



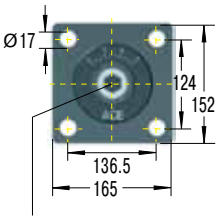


Adjuster – model A3 only

Front Flange -F

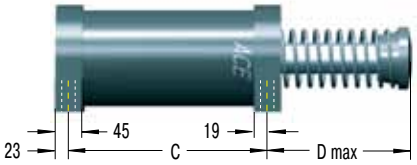


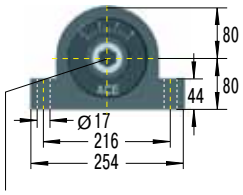
Dimension in ( ) for model A3 only



Adjuster – model A3 only

Foot Mounting -S





Adjuster – model A3 only

Dimensions of clevis mountings available on request.

NOTE! For replacement of existing SAHS 3" foot mounted units please consult ACE.

Ordering Example — A3x8EUR

- Adjustable
- Bore Size Ø 3"
- Stroke Length 8" = 203 mm
- EU Compliant
- Rear Flange Mounting

Model Type Prefix

A, CA = self-contained with return spring (This is standard model)

AA, CAA = air/oil return without return spring. Use only with external air/oil tank.

NA, CNA = self-contained without return spring

SA, CSA = air/oil return with return spring. Use only with external air/oil tank.

Dimensions

Type	Stroke mm	A max	B max	C	D max
3x5EU	127	490,5	211	254	224
3x8EU	203	641	286	330	300
3x12EU	305	890	434	432	447

Capacity Chart CA3

Type	Max. Energy Capacity			¹ Effective Weight me				Min. Return Force	Max. Return Force	Rod Reset Time	Max. Side Load Angle	Weight
				Soft			Hard					
	² W_3	³ W_4 Self-Contained	³ W_4 with Air/Oil Tank	-1 min. max.	-2 min. max.	-3 min. max.	-4 min. max.					
	Nm/Cycle	Nm/h	Nm/h	kg	kg	kg	kg	N	N	s	°	kg
CA3x5EU	14 125	2 260 000	2 800 000	2 900 - 8 700	7 250 - 21 700	18 100 - 54 350	45 300 - 135 900	270	710	0.6	3	28.9
CA3x8EU	22 600	3 600 000	4 520 000	4 650 - 13 900	11 600 - 34 800	29 000 - 87 000	72 500 - 217 000	280	740	0.8	3	33.4
CA3x12EU	33 900	5 400 000	6 780 000	6 950 - 20 900	17 400 - 52 200	43 500 - 130 450	108 700 - 326 000	270	730	1.2	3	40.6

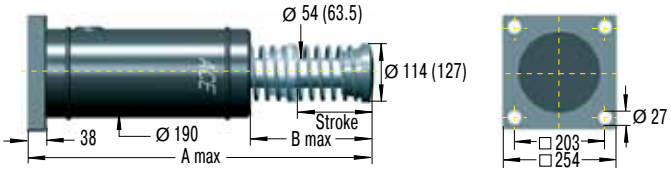
Capacity Chart A3

Type	Max. Energy Capacity			¹ Effective Weight me		Min. Return Force	Max. Return Force	Rod Reset Time	Max. Side Load Angle	Weight
	² W_3	³ W_4 Self-Contained	³ W_4 with Air/Oil Tank	me min.	me max.					
	Nm/Cycle	Nm/h	Nm/h	kg	kg	N	N	s	°	kg
A3x5EU	15 800	2 260 000	2 800 000	480	154 000	270	710	0.6	3	35.5
A3x8EU	28 200	3 600 000	4 520 000	540	181 500	280	740	0.8	3	39.6
A3x12EU	44 000	5 400 000	6 780 000	610	204 000	270	730	1.2	3	35.5

[1] The effective weight range limits can be raised or lowered to special order.
[2] For emergency use only applications it may be possible to exceed these max. capacity ratings. Please consult ACE for further details.
[3] Figures for oil recirculation systems on request.

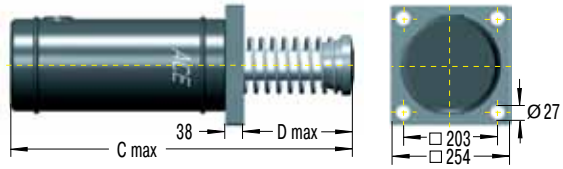
Issue 1.2013 Specifications subject to change

Rear Flange -R

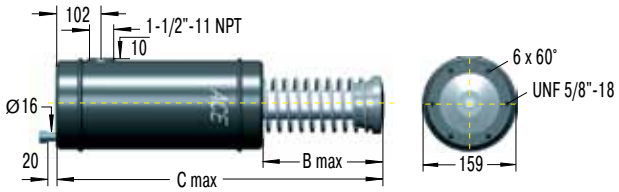


Dimension in ( ) for model CA4x16 only

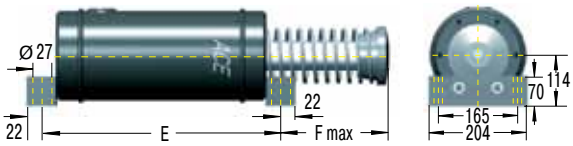
Front Flange -F



6 Tapped Holes (Primary Mounting) FRP



Foot Mounting -S



Dimensions of clevis mountings available on request.

Ordering Example — CA4x8EU-5R

- Self-Compensating
- Bore Size Ø 4"
- Stroke Length 8" = 203 mm
- EU Compliant
- Effective Weight Range Version
- Rear Flange Mounting

Model Type Prefix

CA = self-contained with return spring
(This is standard model)

CAA = air/oil return without return spring.
Use only with external air/oil tank.

CNA = self-contained without return spring

CSA = air/oil return with return spring.
Use only with external air/oil tank.

Dimensions CA/CNA/CSA

Type	Stroke mm	A	B	C	D	E	F
4x6EU	152	716	278	678	240	444	256
4x8EU	203	818	329	780	291	495	307
4x16EU	406	1 300	608.5	1 262.6	569	698	585

Dimensions of model CAA available on request.

Capacity Chart CA4

Type	Max. Energy Capacity [2] W_3 Nm/Cycle	W_4 Self-Contained Nm/h	W_4 with Air/Oil Tank Nm/h	W_4 with Oil Recirculation Nm/h	[1] Effective Weight me Soft -3 min. max. kg	Soft -5 min. max. kg	Hard -7 min. max. kg	Min. Return Force N	Max. Return Force N	Rod Reset Time s	Weight kg
CA4x6EU	47 500	3 000 000	5 100 000	6 600 000	3 500 - 8 600	8 600 - 18 600	18 600 - 42 700	480	1 000	1.8	60
CA4x8EU	63 300	3 400 000	5 600 000	7 300 000	5 000 - 11 400	11 400 - 25 000	25 000 - 57 000	310	1 000	2.3	68
CA4x16EU	126 500	5 600 000	9 600 000	12 400 000	10 000 - 23 000	23 000 - 50 000	50 000 - 115 000	310	1 000	Ask	146

[1] The effective weight range limits can be raised or lowered to special order.
[2] For emergency use only applications it may be possible to exceed these max. capacity ratings. Please consult ACE for further details.

Issue 1.2013 Specifications subject to change