

Non Adjustable Shock Absorbers



Series

SA 10 SA 10S SA 12 SA 14 SA 14S SA 14S 2 SA 20 SA 20S SA 20S 2 SA 25 SA 25S SA 25S 2

Impact speeds 0.3 - 4.5 m/s (0.15 - 2.2 m/s for SA10 Series)

Operating Temperature Range -40 - +82°C (-10 - +70°C for SA 10 Series)

Effective Weights 1 - 2273 kg

Steel Bodies with black oxide finish for optimum heat dissipation

Piston Rod high tensile steel, hardened and chrome plated for optimum wear resistance and strength

Performance Table

Series	Page No.	Stroke (mm)	Effective Weight me (kg)		Max Energy Capacity (Nm)		Return Force (N)		Max Side load angle	Weight (kg)
			Min.	Max.	per cycle W ₃	per hour W ₄	Min.	Max.		
SA 10		5.8	1	- 7	3	22050	3	- 6	3°	0.015
SA 10 S		5.8	3.2	- 13	3	22050	3	- 6	3°	0.015
SA 12		10	0.9	- 16	8.5	28250	4.5	- 11	3°	0.040
SA 14		12.5	0.9	- 10	17	34000	4	- 7	5°	0.125
SA 14 S		12.5	8.6	- 86	17	34000	4	- 7	5°	0.125
SA 14 S 2		12.5	68	- 205	17	34000	4	- 7	5°	0.125
SA 20		12.5	2.3	- 25	25	45000	5.5	- 9.3	5°	0.176
SA 20 S		12.5	23	- 230	25	45000	5.5	- 9.3	5°	0.176
SA 20 S 2		12.5	182	- 910	25	45000	5.5	- 9.3	5°	0.176
SA 25		25.4	9	- 136	68	68000	18.9	- 36.6	5°	0.243
SA 25 S		25.4	113	- 1130	68	68000	18.9	- 36.6	5°	0.243
SA 25 S 2		25.4	400	- 2273	68	68000	18.9	- 36.6	5°	0.243

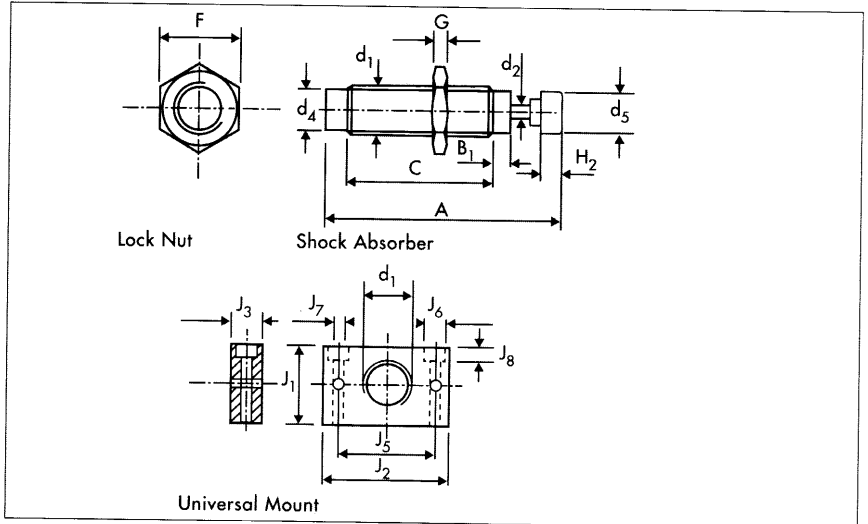
SA 10 SA 10 S

Included with unit:

- 1 Lock Nut
- Soft Pad
- Integral Stop Collar

Zubehör:

- Universal Mount



A	B ₁	C	d ₁	d ₂	d ₄	d ₅	F	G	H ₂	J ₁	J ₂
50,8	3,3	33,3	M 10 x 1	3	8,6	8,6	12,5	3	3,6	25,4	38
J ₃	J ₅	J ₆	J ₇	J ₈							
12	25,4	8	4,5	5							

Ident-No.	Ident-No.	Ident-No.	Ident-No.
SA 10 7900	SA 10 S 7907	Universal Mount 7902	Lock Nut 7909

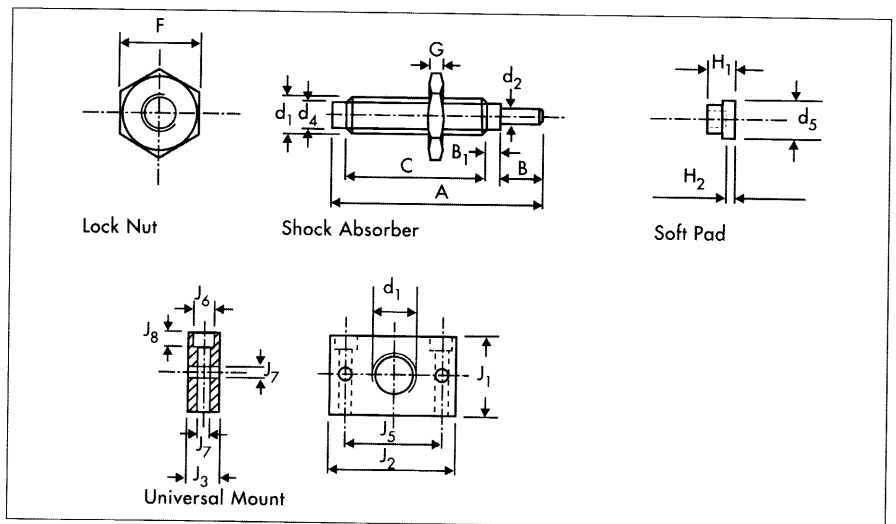
SA 12

Included with unit:

- 1 Lock Nut
- Integral Stop Collar

Optional Extras:

- Soft Pad
- Universal Mount



A	B	B ₁	C	d ₁	d ₂	d ₄	d ₅	F	G	
66.4	9.7	5.1	45	M 12 x 1	3.3	10.4	10.4	16	4	
H ₁	H ₂	J ₁	J ₂	J ₃	J ₅	J ₆	J ₇	J ₈		
6.1	3	25.4	38	12	25.4	8	4.5	5		

Ident No.	Ident No.	Ident No.	Ident No.
SA 12 7910	Soft Pad 7914	Universal Mount 7912	Lock Nut 7919

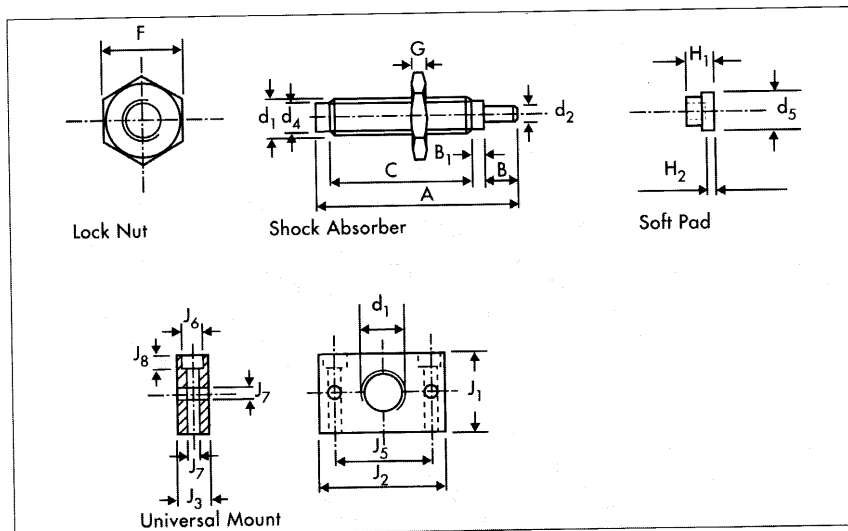
SA 14 SA 14 S
SA 14 S 2

Included with unit:

- 1 Lock Nut
- Integral Stop Collar

Optional Extras:

- Universal Mount
- Soft Pad



A	B	B ₁	C	d ₁	d ₂	d ₄	d ₅	F	G
87	12	4	61	M 14 x 1.5	4.8	12	11.9	17	5
H ₁	H ₂	J ₁	J ₂	J ₃	J ₅	J ₆	J ₇	J ₈	
10.9	6.9	29	45	16	35	8	4.5	5	

This product is also available with an M 14 x 1 thread (d₁)

Ident-No.	Ident-No.	Ident-No.	Ident-No.
SA 14 7920	SA 14 S 7927	Soft Pad 7924	Universal Mount 7922
	SA 14 S 2 7928	Lock Nut 7929	

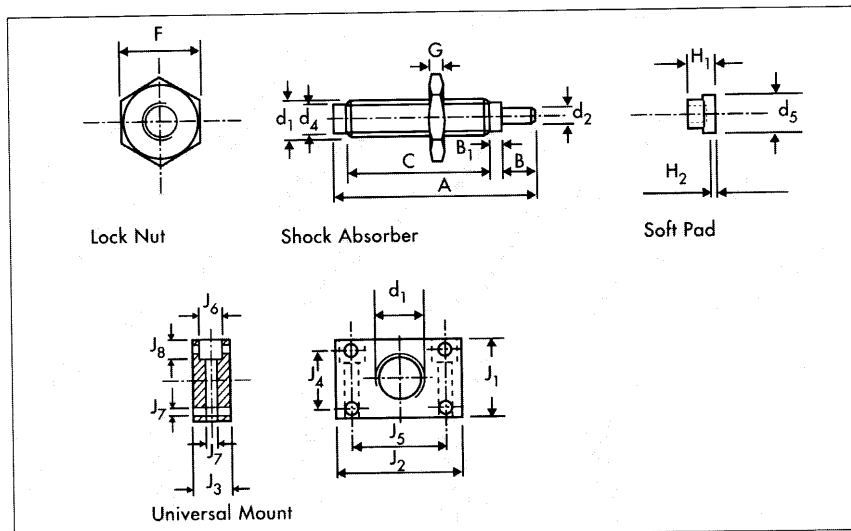
SA 20 SA 20 S
SA 20 S 2

Included with unit:

- 1 Lock Nut
- Integral Stop Collar

Optional Extras:

- Universal Mount
- Soft Pad



A	B	B ₁	C	d ₁	d ₂	d ₄	d ₅	F	G
89	12	5.6	61.7	M 20 x 1.5	6.4	16.9	17	24	6
H ₁	H ₂	J ₁	J ₂	J ₃	J ₄	J ₅	J ₆	J ₇	J ₈
10.7	4.75	35	47	16	25.4	35	10.4	5.5	10.4

Ident-No.	Ident-No.	Ident-No.	Ident-No.
SA 20 7930	SA 20 S 7937	Soft Pad 7934	Universal Mount 7932
	SA 20 S 2 7938	Lock Nut 7939	

Subject to change

■ SA 25 ■ SA 25 S

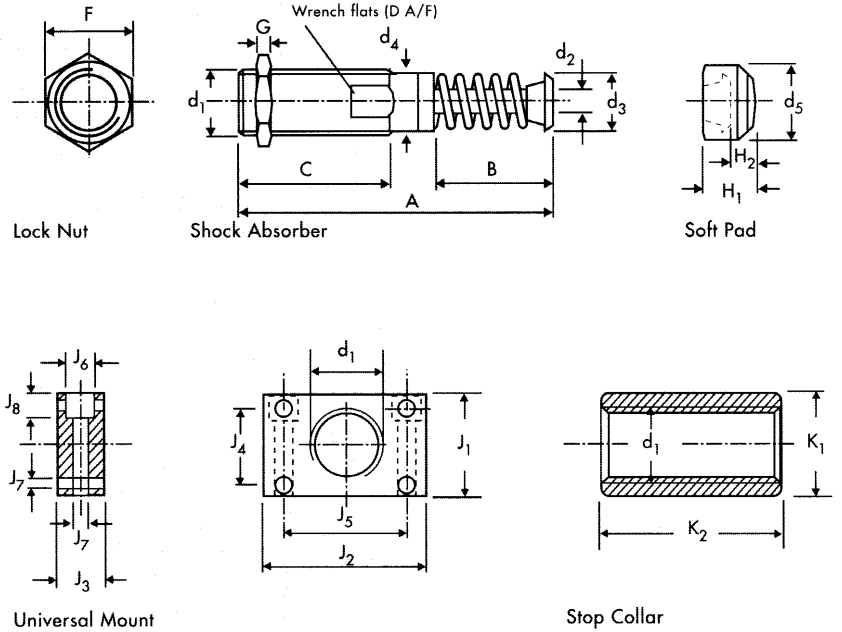
■ SA 25 S 2

Included with unit:

- 1 Lock Nut

Optional Extras:

- Universal Mount
- Stop Collar
- Soft Pad



A	B	C	D	d ₁	d ₂	d ₃	d ₄	d ₅	F	G	H ₁
120.6	43	62	22	M 25 x 1.5	7.9	19.8	22.5	22.1	30	8	12.2
	H ₂	J ₁	J ₂	J ₃	J ₄	J ₅	J ₆	J ₇	J ₈	K ₁	K ₂
	6.4	35	47	16	25.5	35	10,4	5.5	10,4	31.8	55.6

This product is also available with an M 27 x 3 thread (d₁)

Ident-No.	Ident-No.	Ident-No.	Ident-No.
SA 25 7950	SA 25 S 7957	Stop Collar 7951	Universal Mount 7952
	SA 25 S 2 7958	Lock Nut 7959	Soft Pad 7954

Installation tips for non adjustable Shock Absorbers and adjustable Series

1. Avoid side loads greater than the maximum angle stated in the performance table.
2. Align the centreline of the shock absorber as closely as possible with the object's centre of gravity.
3. When two or more shock absorbers are used, balance the load between them as equally as possible.
4. Shock absorbers should be rigidly mounted to a non-flexing mounting structure.
5. External positive stops are always required to provide a firm work-positioning point and prevent the shock absorber "bottoming out." This is achieved either with external dead stops or a stop collar. Either are located to stop the piston no more than 1.6mm short of end of stroke.
6. Examples of recommended mounting methods are shown opposite:

