

## Features:

SC/SFC series allow approx. 1mm fixed stop before the end of the stroke.

Threaded outer bodies with accessories for a variety of mounting arrangements.

Available in adjustable and self-compensating models, multiple damping characteristics.

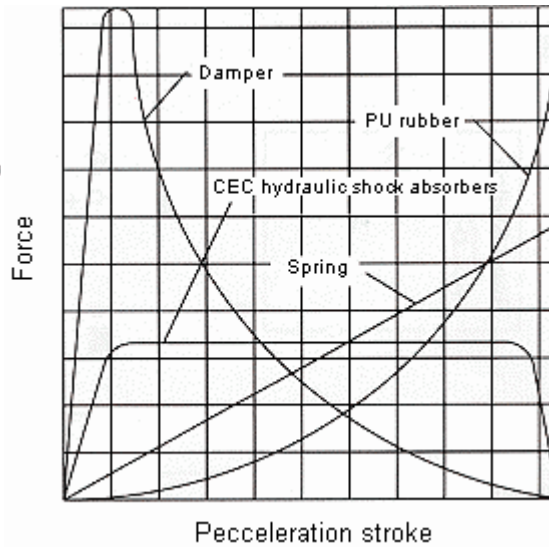
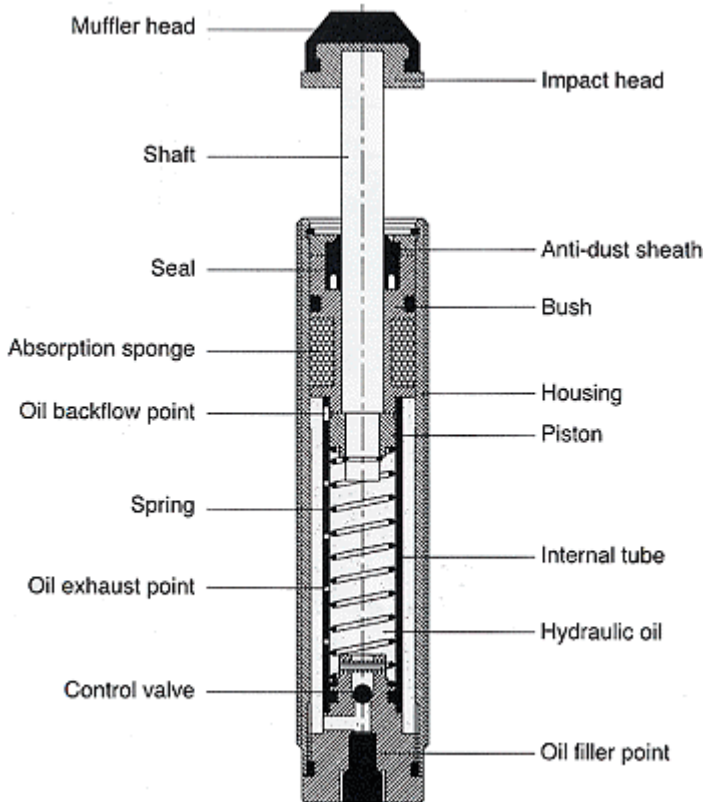
Accommodates linear, rotational and hinged loading.

Do not apply paint on piston rod and threaded body.




Stop collar prevents shock absorber piston from bottoming and can be used in stroke adjustment.



## Main Structure:

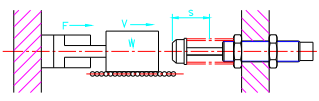
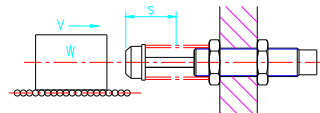
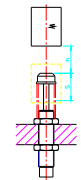


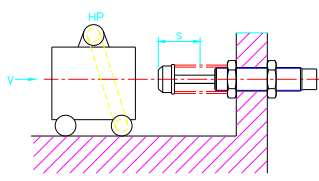
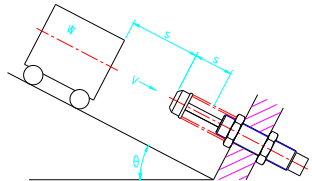
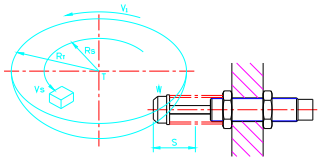
## How to Order:

<b>SC</b>	<b>25</b>	x	<b>40</b>	<b>1</b>	<b>N</b>
Series	External diameter		Stroke	Impact velocity	Blank-with impact head N-without impact head
SC Auto compensation 				1. Suitable for high impact velocity 2. Suitable for medium impact velocity 3. Suitable for low impact velocity	
SCD Bi-absorption 					
SFC Adjustable 					

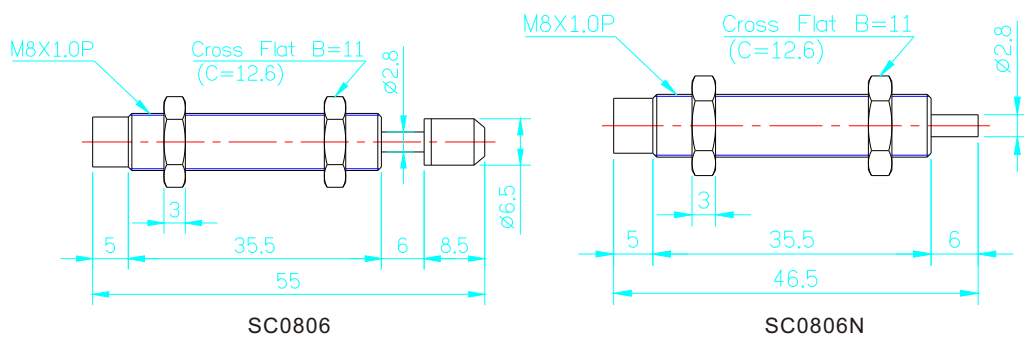
## Common Symbol:

- E1(Nm): Kinetic energy
- E2(Nm): Work or drive energy
- E3(Nm): Total energy
- E4(Nm): Total energy absorbed per hour
- F(N): Propelling force= $7.854 \times P \times D^2$
- Fm(N): Maximum impact energy= $1.2E3/S$
- g(m/s<sup>2</sup>): Acceleration of gravity=9.81
- $\mu$ : Coefficient of friction
- $\theta$ (rad): Impact or inclined angle
- $\omega$ (rad/s): Angular velocity
- We(kg): Efficient weight
- C(Hr): Impact frequency per hour
- Vs: falling object velocity= $\sqrt{2gh}$
- d(cm): Cylinder bore
- h(m): Potential difference
- ST: Coefficient of torque 2.5(1~2.5)
- W(kg): Load weight
- P(kg/cm<sup>2</sup>): Operating pressure
- R(m): Radius
- Rs(m): Radius of load
- S(m): Cushioning stroke
- T(Nm): swing torque
- t(sec): Deceleration time
- V(m/s): Impact velocity
- HP(KW): Output of motor

Equations		(1)Object with propelling face	(2)Object without propelling force	(3)Falling on inclined surface
				
<b>Kinetic energy</b>	E1	$\frac{1 \times W \times V^2}{2}$	$\frac{1 \times W \times V^2}{2}$	$W \times g \times h$
<b>Work or drive energy</b>	E2	F x S	0	$W \times g \times h$
<b>Total energy</b>	E3	E1+E2	E1+E2	E1+E2
<b>Total energy absorbed per hour</b>	E4	E3xC	E3xC	E3xC
<b>Efficient weight</b>	We	$\frac{2 \times E_3}{V^2}$	W	$\frac{2 \times E_3}{V^2}$
<b>Falling object velocity</b>	Vs			$\sqrt{2 \times g \times h}$
<b>Applicable</b>		SFC2540	SC1415-1	SC2580-1

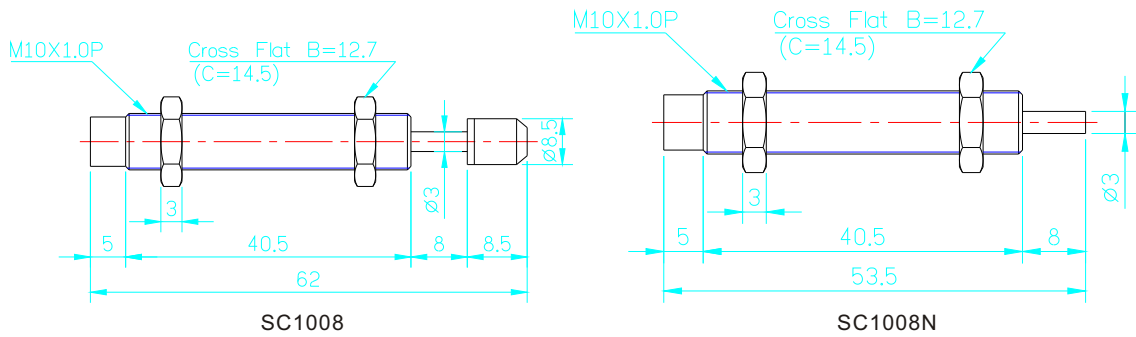
Equations		(4)Object driven by motor	(5)Falling on inclined surface	(6)Swing torque
				
<b>Kinetic energy</b>	E1	$\frac{1 \times W \times V^2}{2}$	$\frac{1 \times W \times V^2}{2}$	$W \times g \times h$
<b>Work or drive energy</b>	E2	$\frac{1000 \times HP \times ST \times S}{V}$	$W \times S \times \sin \theta$	$\frac{(T \times S)}{R_s}$
<b>Total energy</b>	E3	E1+E2	E1+E2	E1+E2
<b>Total energy absorbed per hour</b>	E4	E3xC	E3xC	E3xC
<b>Efficient weight</b>	We	$\frac{2 \times E_3}{V^2}$	$\frac{2 \times E_3}{V^2}$	$\frac{2 \times E_3}{V^2}$
<b>Falling object velocity</b>	Vs		$\sqrt{2g \times L \times \sin \theta}$	$\frac{(VT \times R_s)}{R_T}$
<b>Applicable</b>		SC3660-2	SC2540-1	SC3660-3

• SC0806



Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC0806-1	6	1.8	0.9~5.6	2	2400	-10~70
SC0806-2	6	1.8	2.5~10	1.2	2400	-10~70
SC0806-3	6	1.8	5.6~22.5	0.8	2400	-10~70

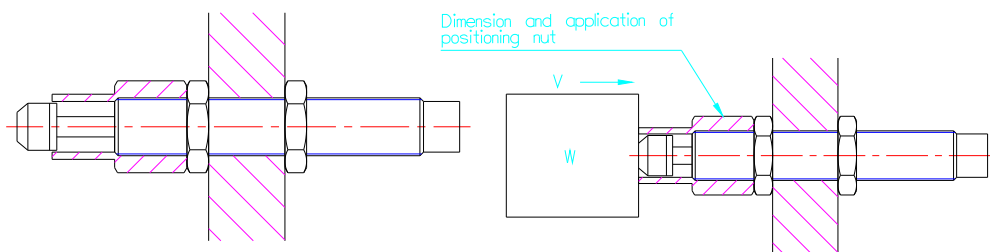
• SC1008



Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC1008-1	8	3.2	0.9~4.4	2.6	5760	-10~70
SC1008-2	8	3.2	2.8~10	1.5	5760	-10~70
SC1008-3	8	3.2	10~40	0.8	5760	-10~70

Dimensions and Application of Lock Nuts

Application:



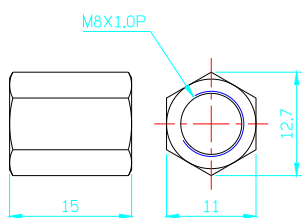
Stop Collars:

Before impact

After impact

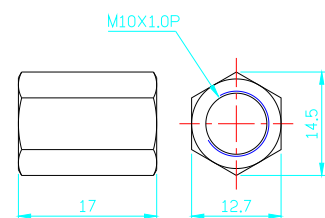
SC08

Suitable for:  
SC0806

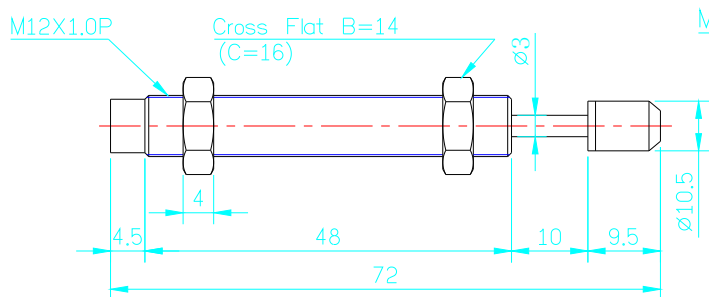


SC10

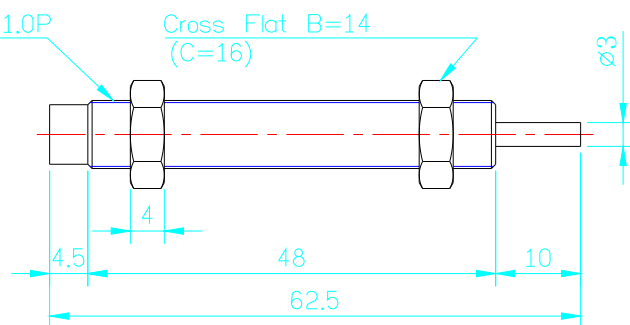
Suitable for:  
SC1008



• SC1210



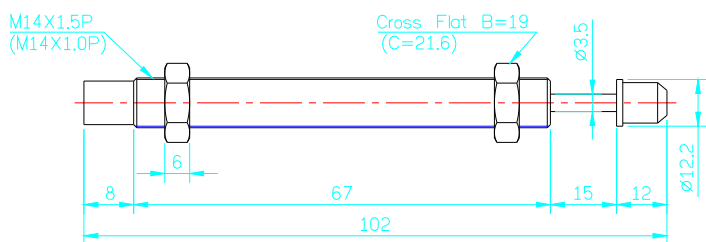
SC1210



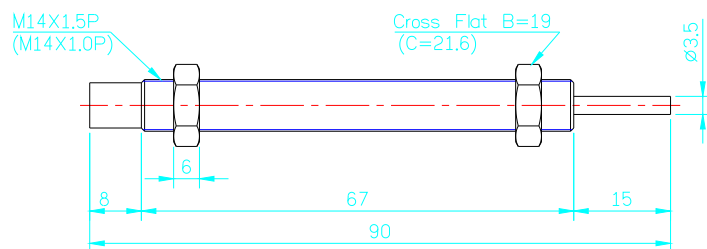
SC1210-NC

Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC1210-1	10	6	1.8~12	2.6	10800	-10~70
SC1210-2	10	6	5.3~18.7	1.5	10800	-10~70
SC1210-3	10	6	18.7~75	0.8	10800	-10~70

• SC1415



SC1415

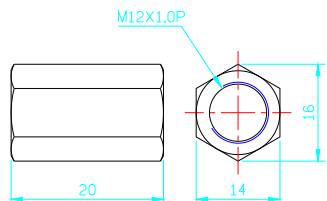


SC1415-NC

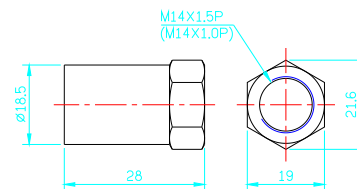
Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC1415-1	15	20	5.9~40	2.6	36000	-10~70
SC1415-2	15	20	17.8~62.5	1.5	36000	-10~70
SC1415-3	15	20	62.5~250	0.8	36000	-10~70

Stop Collars:

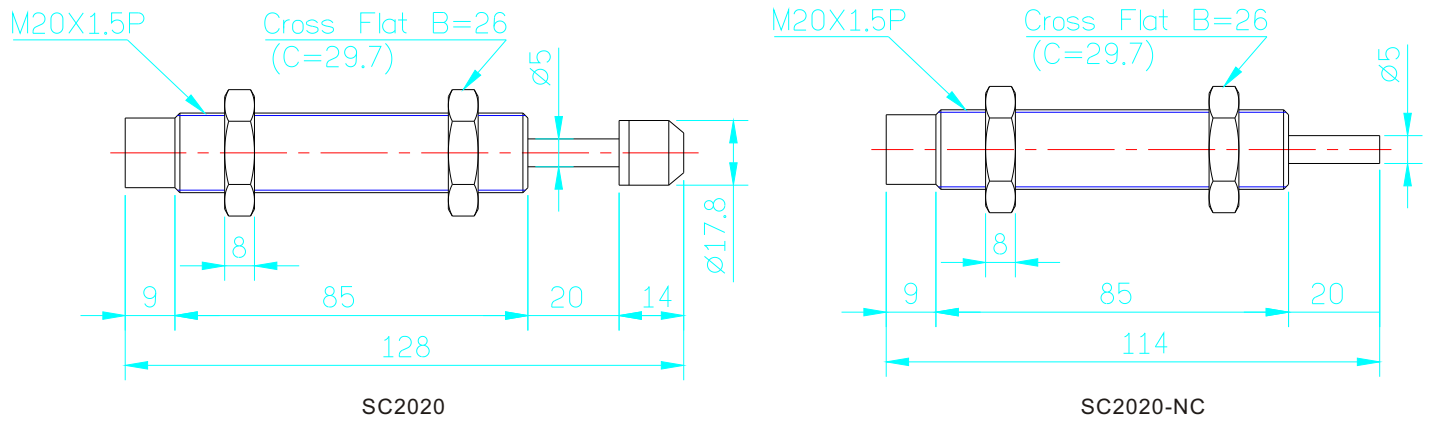
SC12  
Suitable for:  
SC1210



SC14  
Suitable for:  
SC1415  
SFC1410

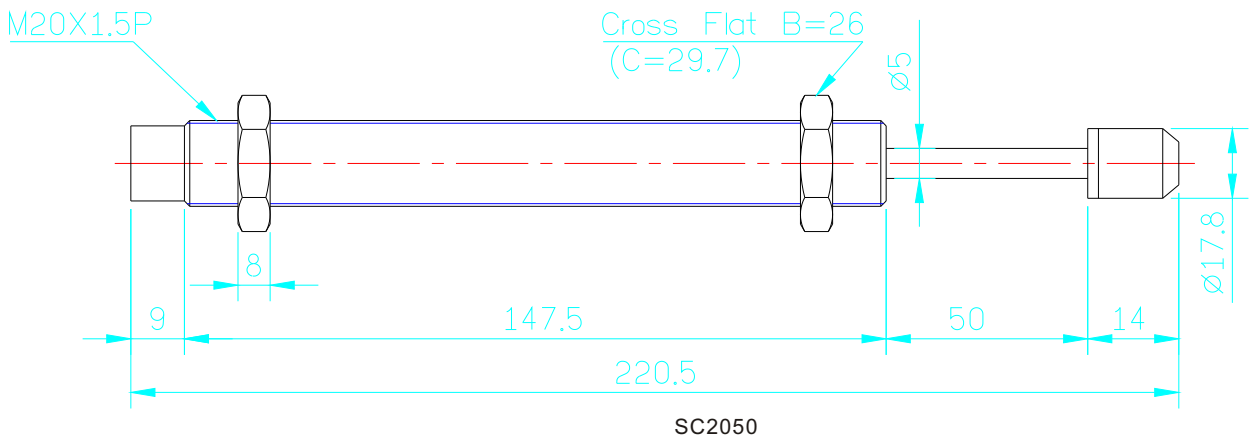


• SC2020



Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC2020-1	20	35	6.8~31	32	42000	-10~70
SC2020-2	20	35	17.5~70	2	42000	-10~70
SC2020-3	20	35	48.6~777	1.2	42000	-10~70

• SC2050



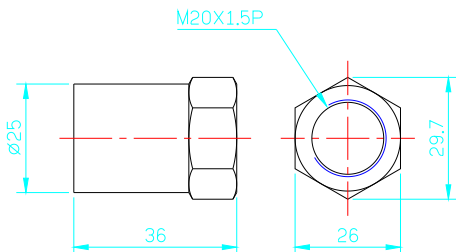
Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC2050-1	50	62	7~31	4.2	63240	-10~70
SC2050-2	50	62	48~124	2.6	63240	-10~70
SC2050-3	50	62	86~496	1.2	63240	-10~70

Stop Collars:

SC20

Suitable for:

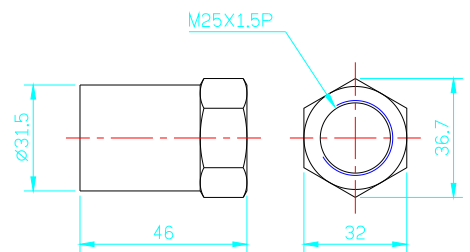
- SC2020
- SC2050
- SFC2016
- SCD2030
- SCD2035



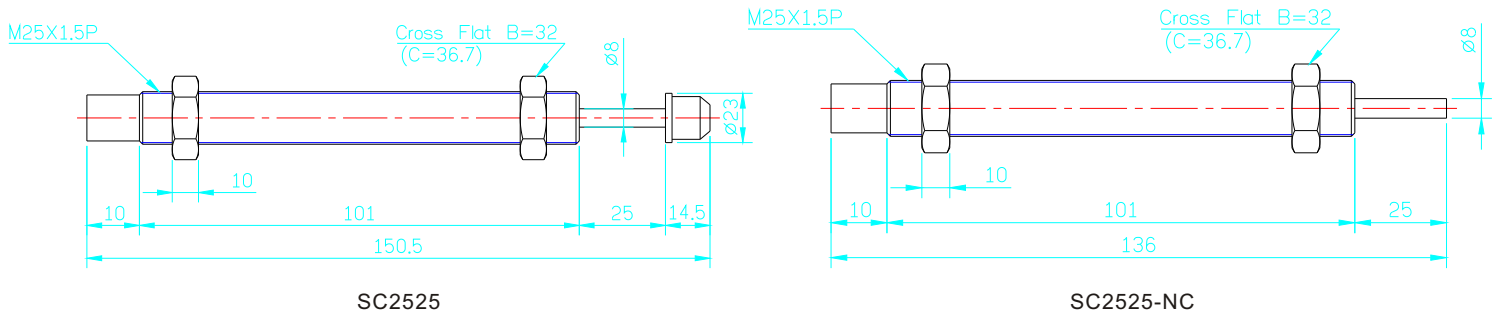
SC25

Suitable for:

- SC2525
- SFC2525

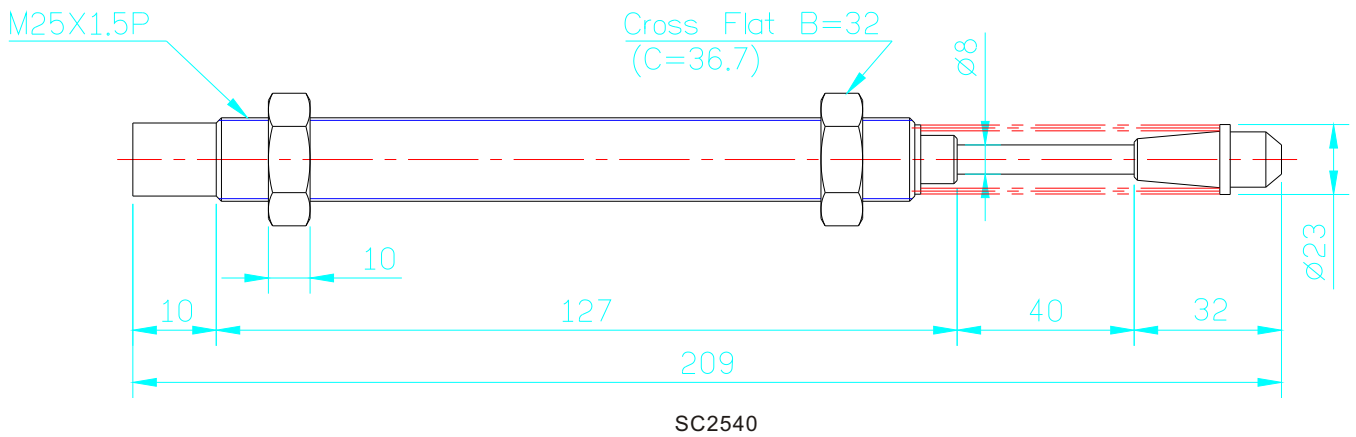


• SC2525



Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC2525-1	25	78	15~69	3.2	70200	-10~70
SC2525-2	25	78	39~433	2	70200	-10~70
SC2525-3	25	78	108~1733	1.2	70200	-10~70

• SC2540

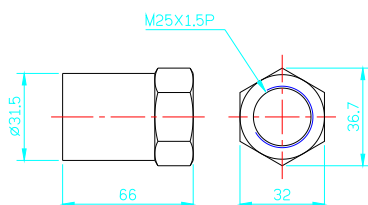


Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC2540-1	40	122	20~108	3.5	87840	-10~70
SC2540-2	40	122	50~381	2.2	87840	-10~70
SC2540-3	40	122	244~1991	1	87840	-10~70

Stop Collars:

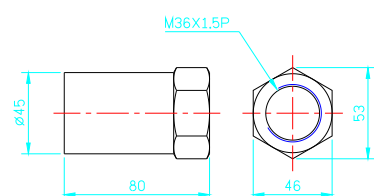
SC25L

Suitable for:  
SC2540  
SC2580  
SFC2540

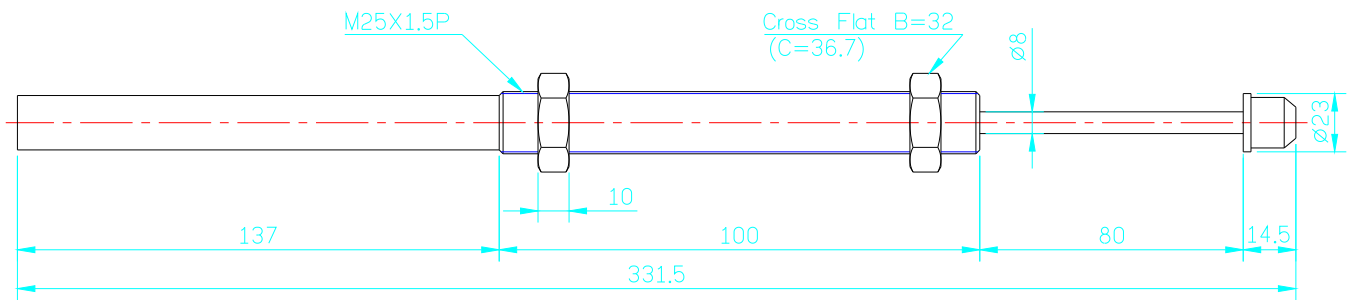


SC36

Suitable for:  
SC3660  
SFC3650



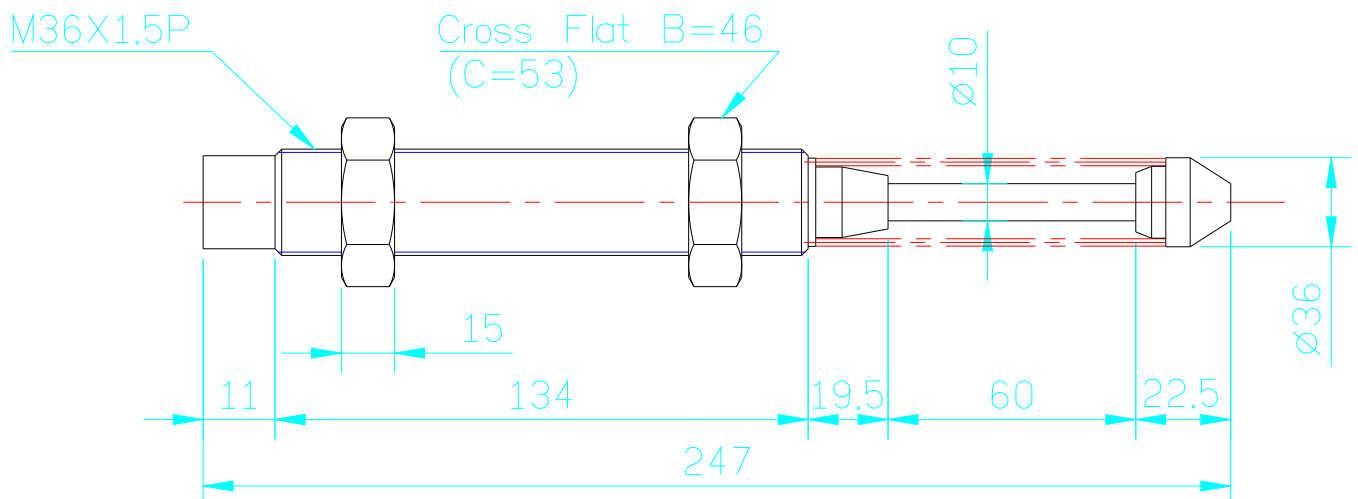
• SC2580



SC 2580

Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC2580-1	80	198	24.7~99	4	118800	-10~70
SC2580-2	80	198	44~396	3	118800	-10~70
SC2580-3	80	198	176~2475	1.5	118800	-10~70

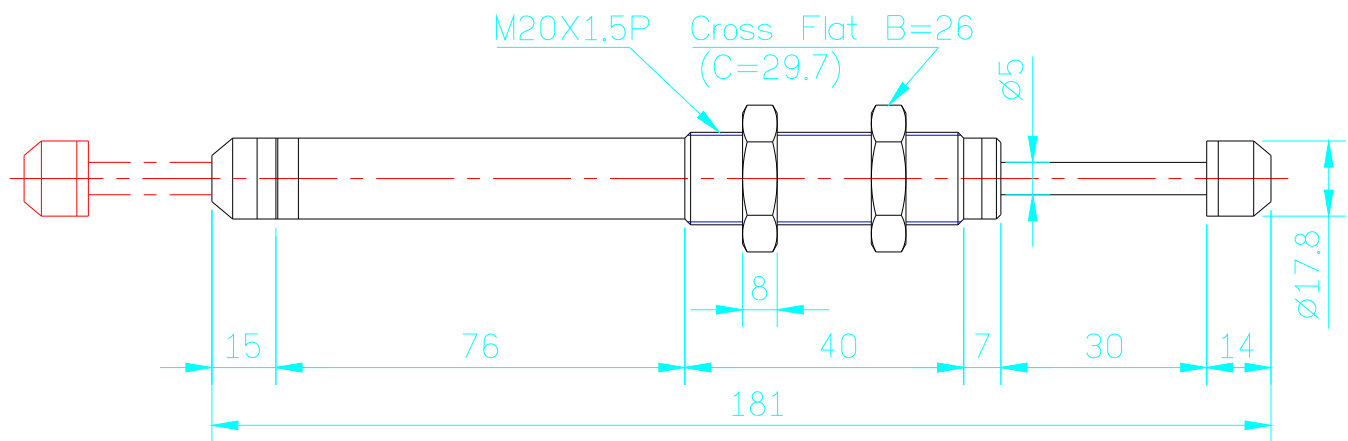
• SC3660



SC 3660

Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC3660-1	60	260	57~231	3	124800	-10~70
SC3660-2	60	260	130~813	2	124800	-10~70
SC3660-3	60	260	520~3250	1	124800	-10~70

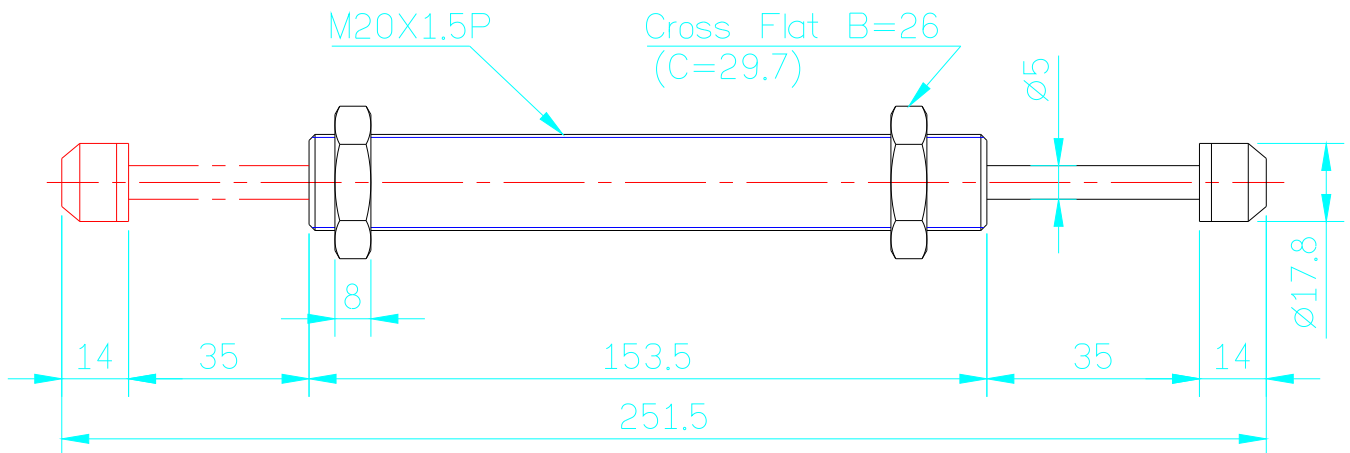
• SC2030



SC 2030 (Piston repositioned by external force)

Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC2030-1	30	46	9~41	3.2	55200	-10~70
SC2030-2	30	46	23~144	2	55200	-10~70
SC2030-3	30	46	64~575	1.2	55200	-10~70

• SC2035

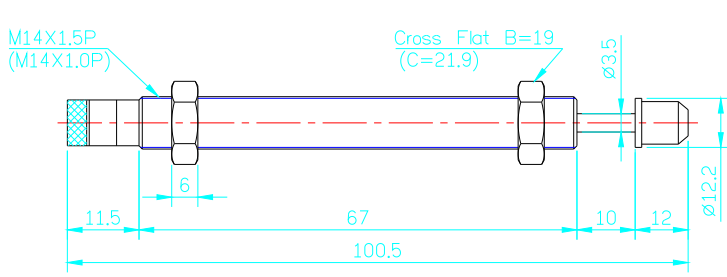


SC 2035 (Piston repositioned by external force)

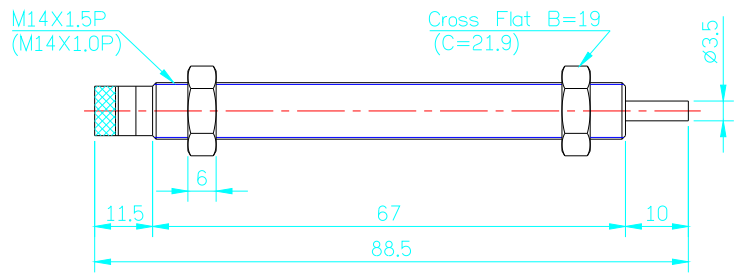
Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SC2035-1	35	52	10~46	3.2	62400	-10~70
SC2035-2	35	52	26~162	2	62400	-10~70
SC2035-3	35	52	72~650	1.2	62400	-10~70



• SFC1410



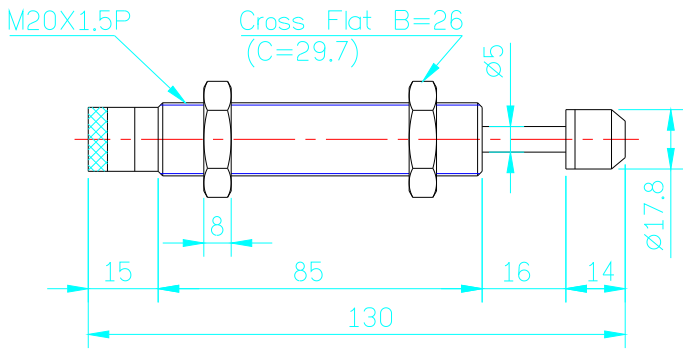
SFC1410



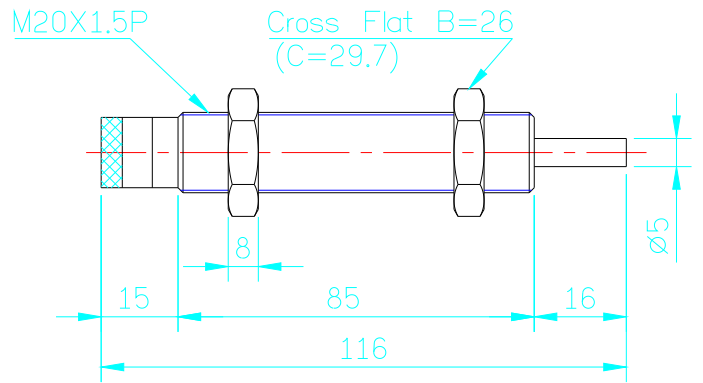
SFC1410-NC

Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SFC1410	10	6	1.8~12	2.6	10800	-10~70

• SFC2016



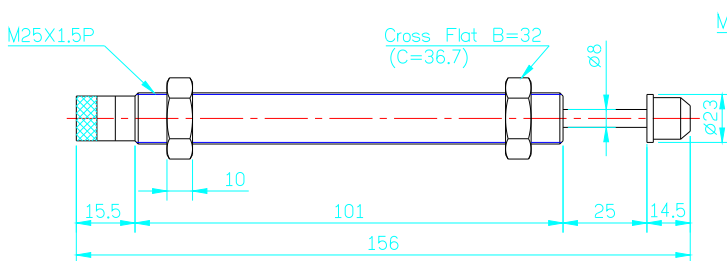
SFC2016



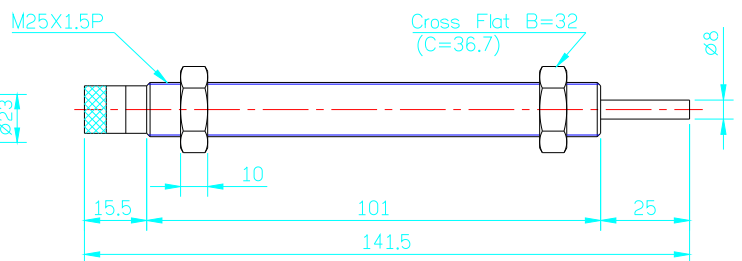
SFC2016-NC

Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SFC2016	16	28	5.4~224	3.2	33600	-10~70

• SFC2525



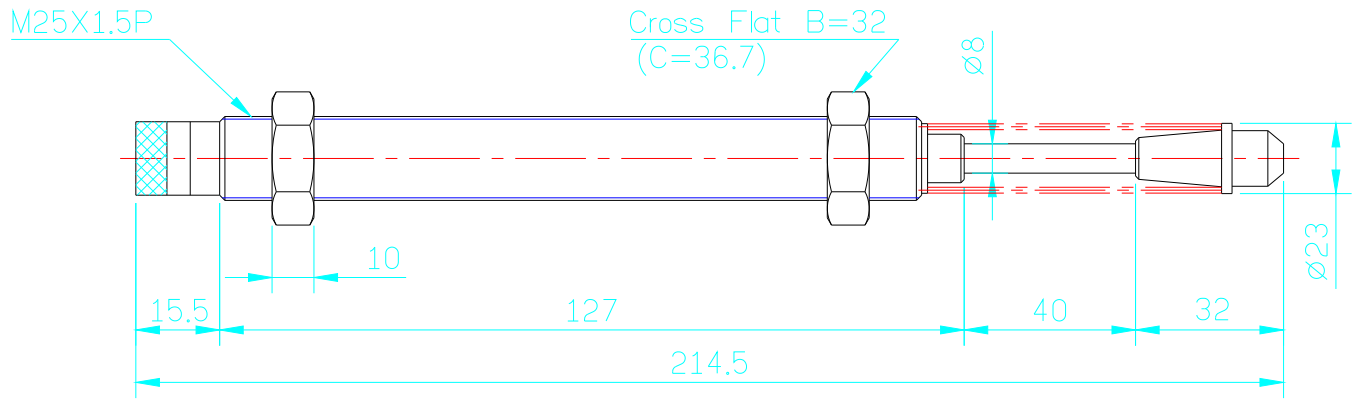
SFC2525



SFC2525-NC

Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SFC2525	25	78	15~624	3.2	70200	-10~70

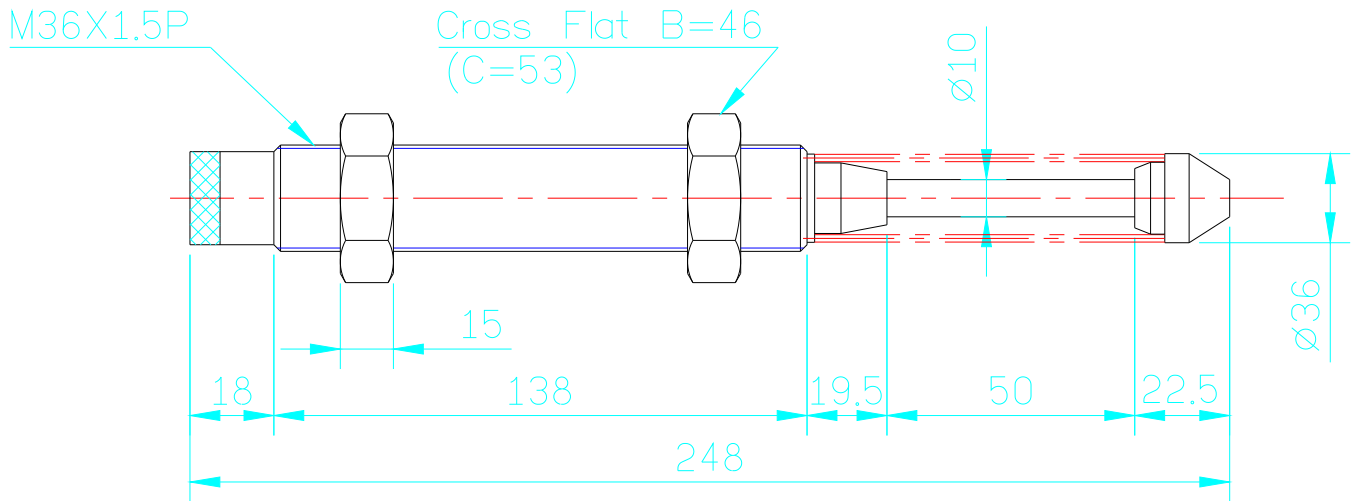
- SFC2540



SFC2540

Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SFC2540	40	122	20~976	3.5	87840	-10~70

- SFC3650



SFC3650

Model	Stroke mm	Energy per cycle Nm	Effective We(kg)	Max. impact velocity m/s	Energy per hour Nm	Operating Temperature °C
SFC3650	50	220	49~1760	3	105600	-10~70