

SKL, NCK, SCK, FCK

Related Components

Shock Absorber



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Related Equipment
SKL
NCK
SCK
FCK
FJ
FK

Variation Table

●: Standard, ○: Option, ■: Not available

Method	Model No.	Max Impact Speed Operating Range m/s	Max Absorbed Energy (J)						Mounting Style					Page
			5	10	50	100	500	1000	Basic type	Flange	With Stop Nut	With Tip Cap	Offset Angle Adapter	
Fixed	SKL	to 1.0	0.2	3.6					00	FA	N1	C		1383
	NCK	to 3.0	1			200		●	○	○	○			1391
Adjustable	SCK	to 4.0	0.049				588	●	○	○				1403
	FCK	Low Speed Type	to 1					●	■	○	○	○		1411
		Medium Speed Type	to 2	1.5				720	●	■	○	○	○	
		High Speed Type	to 3						●	■	○	○	○	

Cylinder Switch
Ending

Shock Absorber

Absorbs impact during conveyance and assembly, reducing damage to workpieces and equipment with smooth stopping!

Improvement of Production Efficiency

Noise Reduction in Factory



SKL Series



NCK Series



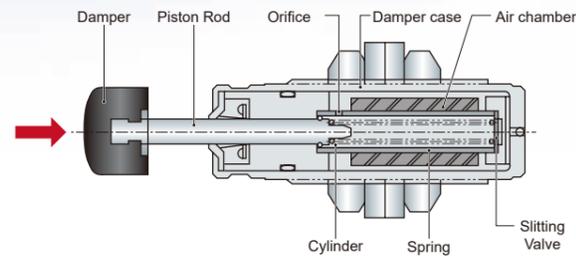
SCK Series



FCK Series

Extension of maintenance cycle due to vibration generated during high-speed operation

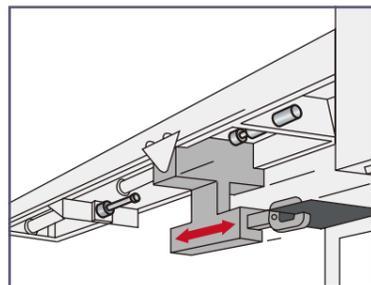
The impact force applied to the damper pushes the Piston Rod, pressurizes the oil in the cylinder, and the generated hydraulic pressure absorbs the shock when flowing into the damper case via the orifice.



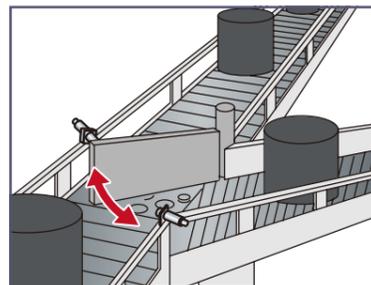
*The figure shows the case of SCK.

Application Example

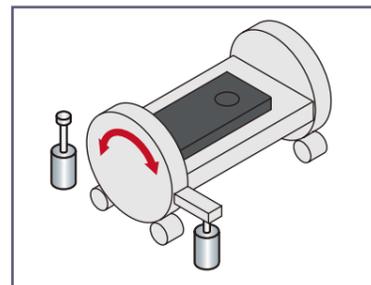
Press Feeding



Switching (Direction Change)



Rollover



Optimal selection possible based on operating speed, energy absorption characteristics, etc.

◎: Best, ○: Good, △: Yes

	SKL	NCK	SCK	FCK			
				L (Low Speed)	M (Medium Speed)	H (High Speed)	
Operating Speed	Low Speed (up to 1 m/s)	◎	◎	△	◎	—	—
	Medium Speed (1 to 2 m/s)	—	◎	△	—	◎	—
	High Speed (from 2 m/s)	—	△	◎	—	—	◎
Operating Conditions	Thrust combined	◎	◎	△	△	◎	△
	Free Fall (High-Speed Impact)	△	△	◎	△	○	○
Energy Absorption Characteristics	Stroke (S) - Resistance (F) Relationship						
	Product Overview	Slit orifice matched to linear slide cylinder provides high cycle time and smooth stopping accuracy.	Smooth stopping accuracy is obtained by slit orifice.	Trapezoidal waveform allows for most efficient energy absorption.	Resistance force is large immediately after impact and decreases as stroke progresses.	Ideally absorbs energy against cylinder thrust.	Resistance force fluctuates in a ripple pattern, but Max resistance force can be kept low.
Size/Structure	Size	Small	Small	Large	Medium	Medium	Medium
	Adjuster adjustment	Fixed	Fixed	Adjustable (Fixed Type)	Adjustable	Adjustable	Adjustable
	Orifice	Slit orifice	Slit orifice	Balance valve	Single-hole orifice	Irregular multi-hole orifice	Multi-hole orifice
Tube	Single	Single	Double	Single/Double	Double	Double	

Abundant Mounting Types/Options

Tip cap

For Impact Noise Countermeasures



Flange

When normal mounting is difficult



Stopper Nut

When external stopper cannot be installed



Offset Angle Adapter

Max Operating Offset Angle $\pm 10^\circ$



Related Equipment

SKL

NCK

SCK

FCK

FJ

FK

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FK

Cylinder Switch

Ending

Cylinder Switch

Ending