

SDH38 to SDH63

Low reaction forces with long strokes

High Rack Damper, Optimized Characteristic

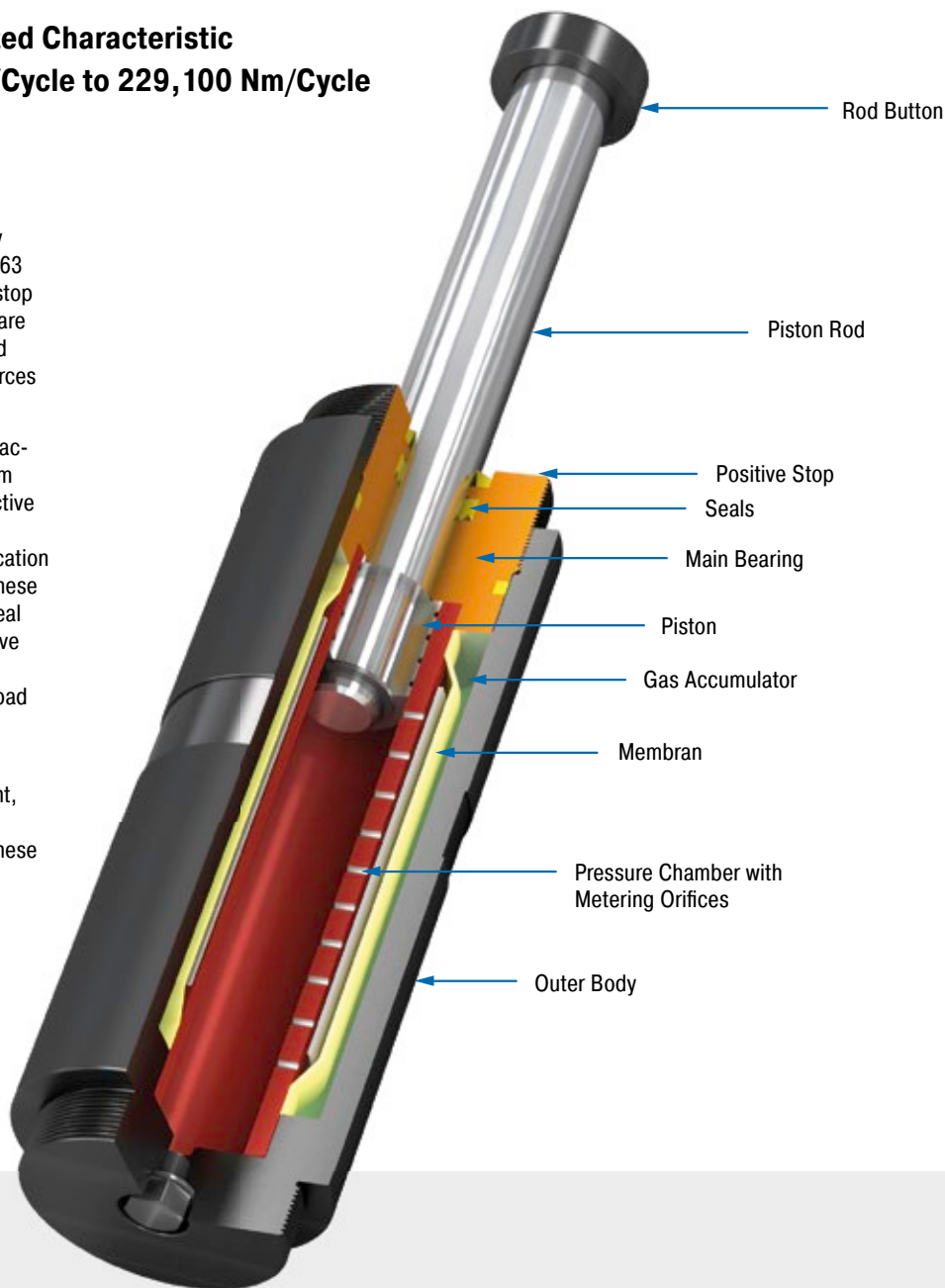
Energy capacity 3,600 Nm/Cycle to 229,100 Nm/Cycle

Stroke 100 mm to 800 mm

Intelligent protective measure: The safety shock absorbers from the SDH38 to SDH63 series are also designed for emergency-stop applications. Strokes of up to 1,200 mm are possible with these maintenance-free and ready-to-install dampers. Low support forces result due to the large strokes.

The characteristic curve or damping characteristics of all safety shock absorbers from ACE is individually adjusted to the respective application, specific to the customer. The metering orifices for the respective application are specially calculated and produced. These tailor-made machine elements are the ideal protection because they are less expensive than industrial shock absorbers and are effective with up to 1,000 maximum full load emergency cycles possible.

Anyone who wants to reliably protect the end positions of rack operating equipment, conveyor and crane systems, heavy duty applications and test benches chooses these safety shock absorbers from ACE.



Technical Data

Energy capacity: 3,600 Nm/Cycle to 229,100 Nm/Cycle

Impact velocity range: 0.5 m/s to 4.6 m/s. Other speeds on request.

Reacting force: At max. capacity rating = 51 kN to 210 kN

Operating temperature range: -20 °C to +60 °C. Other temperatures on request.

Mounting: In any position

Positive stop: Integrated

Material: Outer body: Painted steel; Piston rod: Hard chrome plated steel; Rod end button: Steel

Damping medium: HLP 46

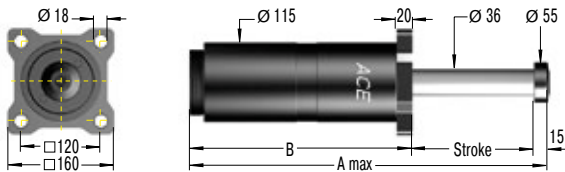
Filling pressure: Approx. 5 bar. Rod return by integrated nitrogen accumulator.

Application field: Shelf storage systems, Test stations, Heavy load applications, Conveyor systems, Portal systems

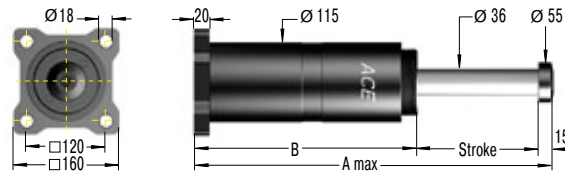
Note: For creep speed applications, please consult ACE.

On request: Special oils, special flanges, additional corrosion protection etc. Integrated rod sensor for indicating the complete extension of the piston rod. Type normally closed or normally open, option PNP or NPN switch.

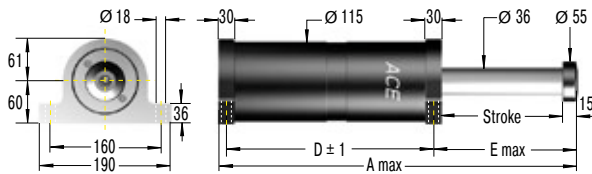
SDH38EU-F Front Flange



SDH38EU-R Rear Flange



SDH38EU-S Foot Mount



Technical Data

Impact velocity range: 0.9 m/s to 4.6 m/s

Complete details required when ordering

Moving load: m (kg)
Impact velocity range: v (m/s) max.
Creep speed: vs (m/s)
Motor power: P (kW)
Stall torque factor: ST (normal, 2.5)
Number of absorbers in parallel: n

or technical data according to formulae and calculations on page 265.

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

Ordering Example

SDH38-400EU-F-XXXX

Safety Shock Absorber _____
Bore Size Ø 38 mm _____
Stroke 400 mm _____
EU Compliant _____
Mounting Style: Front Flange _____
Identification No. assigned by ACE _____

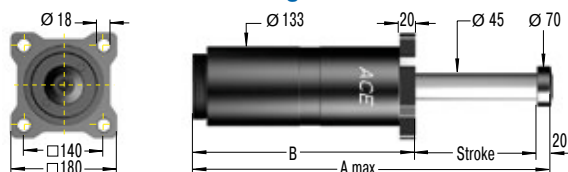
Please indicate identification no. in case of replacement order

Performance and Dimensions

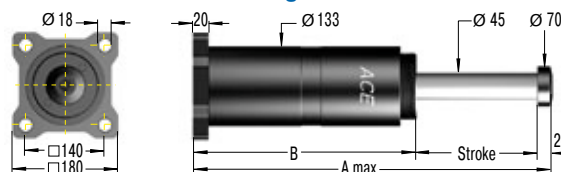
TYPES	¹ Energy capacity Nm/cycle	¹ Reacting Force N	Return Force		Stroke mm	A max. mm	B mm	D mm	E max. mm	Mounting Style	
			min. N	max. N						F and R Weight kg	S Weight kg
SDH38-50EU	3,600	80,000	600	700	50	270	204	165	84	14.0	13.7
SDH38-100EU	7,300	80,000	600	700	100	370	254	215	134	15.5	15.7
SDH38-150EU	10,900	80,000	600	700	150	470	304	265	184	17.0	17.2
SDH38-200EU	14,500	80,000	600	700	200	585	369	330	234	20.0	19.7
SDH38-250EU	18,200	80,000	600	700	250	685	419	380	284	22.0	21.7
SDH38-300EU	21,800	80,000	600	700	300	800	484	445	334	24.0	23.7
SDH38-350EU	25,500	80,000	600	700	350	900	534	495	384	26.0	25.7
SDH38-400EU	29,100	80,000	600	700	400	1,015	599	560	434	28.0	28.2
SDH38-500EU	36,400	80,000	600	700	500	1,230	714	675	534	32.0	32.2
SDH38-600EU	43,600	80,000	600	700	600	1,445	829	790	634	36.0	36.2
SDH38-700EU	50,900	80,000	600	700	700	1,660	944	905	734	40.0	40.2
SDH38-800EU	58,200	80,000	600	700	800	1,875	1,059	1,020	834	44.0	44.2

¹ The values apply to mounting style Front Flange and Foot Mounting. For mounting style Rear Flange, please consult ACE.
In case of an existing side load angle, please consult ACE.

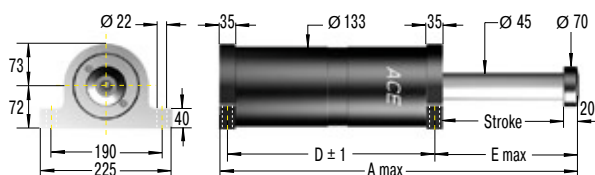
SDH50EU-F Front Flange



SDH50EU-R Rear Flange



SDH50EU-S Foot Mount



Technical Data

Impact velocity range: 0.6 m/s to 4.6 m/s

Complete details required when ordering

Moving load: m (kg)
Impact velocity range: v (m/s) max.
Creep speed: vs (m/s)
Motor power: P (kW)
Stall torque factor: ST (normal, 2.5)
Number of absorbers in parallel: n

or technical data according to formulae and calculations on page 265.

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

Ordering Example

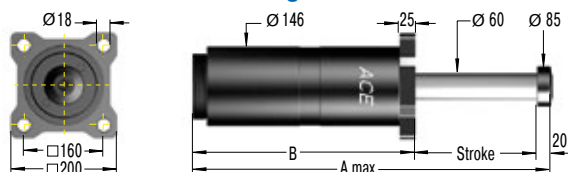
SDH50-400EU-F-XXXXX
Safety Shock Absorber _____
Bore Size Ø 50 mm _____
Stroke 400 mm _____
EU Compliant _____
Mounting Style: Front Flange _____
Identification No. assigned by ACE _____
Please indicate identification no. in case of replacement order

Performance and Dimensions

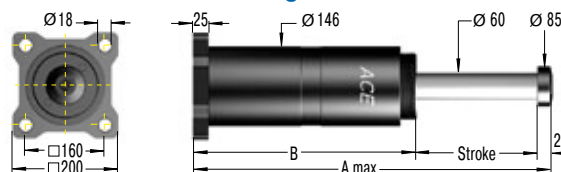
TYPES	¹ Energy capacity Nm/cycle	¹ Reacting Force N	Return Force min. N	Return Force max. N	Stroke mm	A max. mm	B mm	D mm	E max. mm	Mounting Style	
										F and R Weight kg	S Weight kg
SDH50-100EU	14,500	160,000	1,000	1,200	100	416	297	258	139	23.5	25.0
SDH50-150EU	21,800	160,000	1,000	1,200	150	516	347	308	189	26.0	27.5
SDH50-200EU	29,100	160,000	1,000	1,200	200	616	397	358	239	28.5	30.0
SDH50-250EU	36,400	160,000	1,000	1,200	250	731	462	423	289	32.0	33.5
SDH50-300EU	43,600	160,000	1,000	1,200	300	831	512	473	339	34.5	36.0
SDH50-350EU	50,900	160,000	1,000	1,200	350	931	562	523	389	37.0	38.5
SDH50-400EU	58,200	160,000	1,000	1,200	400	1,046	627	588	439	40.0	41.5
SDH50-500EU	72,700	160,000	1,000	1,200	500	1,261	742	703	539	46.0	47.5
SDH50-600EU	87,300	160,000	1,000	1,200	600	1,476	857	818	639	52.0	53.5
SDH50-700EU	101,800	160,000	1,000	1,200	700	1,691	972	933	739	58.0	59.5
SDH50-800EU	116,400	160,000	1,000	1,200	800	1,906	1,087	1,048	839	64.0	65.5
SDH50-1000EU	145,500	160,000	1,000	1,200	1,000	2,336	1,317	1,278	1,039	75.0	76.5

¹ The values apply to mounting style Front Flange and Foot Mounting. For mounting style Rear Flange, please consult ACE.
In case of an existing side load angle, please consult ACE.

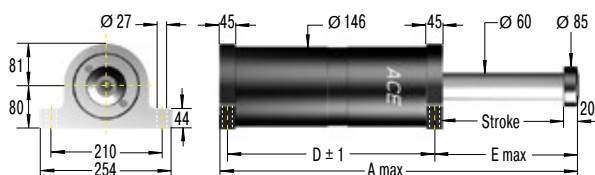
SDH63EU-F Front Flange



SDH63EU-R Rear Flange



SDH63EU-S Foot Mount



Technical Data

Impact velocity range: 0.5 m/s to 4.6 m/s

Complete details required when ordering

Moving load: m (kg)
Impact velocity range: v (m/s) max.
Creep speed: vs (m/s)
Motor power: P (kW)
Stall torque factor: ST (normal, 2.5)
Number of absorbers in parallel: n

or technical data according to formulae and calculations on page 265.

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

Ordering Example

Safety Shock Absorber _____
Bore Size Ø 63 mm _____
Stroke 400 mm _____
EU Compliant _____
Mounting Style: Front Flange _____
Identification No. assigned by ACE _____
Please indicate identification no. in case of replacement order

SDH63-400EU-F-XXXXX

Performance and Dimensions

TYPES	¹ Energy capacity Nm/cycle	¹ Reacting Force N	Return Force min. N	Return Force max. N	Stroke mm	A max. mm	B mm	D mm	E max. mm	Mounting Style	
										F and R Weight kg	S Weight kg
SDH63-100EU	19,100	210,000	1,500	2,500	100	420	301	252	144	32	35
SDH63-150EU	28,600	210,000	1,500	2,500	150	520	351	302	194	35	38
SDH63-200EU	38,200	210,000	1,500	2,500	200	620	401	352	244	39	42
SDH63-250EU	47,700	210,000	1,500	2,500	250	720	451	402	294	43	46
SDH63-300EU	57,300	210,000	1,500	2,500	300	850	531	482	344	48	51
SDH63-350EU	66,800	210,000	1,500	2,500	350	950	581	532	394	52	55
SDH63-400EU	76,400	210,000	1,500	2,500	400	1,080	661	612	444	60	63
SDH63-500EU	95,500	210,000	1,500	2,500	500	1,280	761	712	544	68	71
SDH63-600EU	114,500	210,000	1,500	2,500	600	1,510	891	842	644	78	81
SDH63-700EU	133,600	210,000	1,500	2,500	700	1,740	1,021	972	744	88	91
SDH63-800EU	152,700	210,000	1,500	2,500	800	1,970	1,151	1,102	844	98	101
SDH63-1000EU	190,900	210,000	1,500	2,500	1,000	2,430	1,411	1,362	1,044	118	121
SDH63-1200EU	229,100	210,000	1,500	2,500	1,200	2,890	1,671	1,622	1,244	138	141

¹ The values apply to mounting style Front Flange and Foot Mounting. For mounting style Rear Flange, please consult ACE.
In case of an existing side load angle, please consult ACE.