



A STABILUS COMPANY

WHEN PERFORMANCE MATTERS

Crash Damper

NEW

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Crash Dampers

Highly effective aluminium and steel emergency stop

As single-use solutions, the robust crash dampers complement ACE's range of safety products. They are made of special aluminium or steel piping that folds by design in the event of a crash, converting the kinetic energy generated into heat.

The tough crash elements efficiently protect structures when incidents occur by evenly absorbing 98 percent of the energy. They deliver great long-term stability in everyday operation and outstanding protection in the event of an emergency stop. All crash boxes are easy to install and replace after a crash. Crash dampers also offer impressive performance for the price.

98 percent energyabsorption

Excellent price-performance ratio

Very sturdy and reliable

Long stroke ensures low reacting forces

Easy to install and replace

High energy capacity



Crash Dampers

Highly effective aluminium and steel energy absorption elements

Single-use emergency stop dampers

Energy capacity 670 Nm/Cycle to 11.200 Nm/Cycle

Stroke 45 mm to 160 mm

Single-use, yet extremely useful protection: With its crash dampers, ACE offers engineers a single-use solution as a high-efficiency plant safety option. Each crash element, made of custom designed aluminium piping or steel, absorbs even high inertia forces almost instantaneously in the event of an impact. When arranged in series or parallel, the crash elements can absorb even higher energy values at once.

Other advantages of the emergency stop systems developed in sophisticated test series are their simple installation, ease of retrofitting in existing plants, speed of replacement and reduced downtime after a crash. The deformation of the crash box also allows the incident to be reconstructed, ideally helping avoid the same problem in future.

With these benefits, the crash dampers are already protecting many linear axes in robotics applications as well as the limit positions of tool machines, conveyor systems and high bay rack feeders.



Technical Data

Energy capacity: 670 Nm/Cycle to 11.200 Nm/Cycle

Stroke: 45 mm to 160 mm

Energy absorption: 98 %

Reacting Force: averaged 13.000 N to 70.000 N

Operating temperature range:
-10° C to + 50° C

Standard colour:

Umbra grey RAL 7022: Outer diameter 88
Ruby red RAL 3003: Outer diameter 38 and 63

Construction size: 38 mm to 88 mm

Material: Outer body: Powder-coated aluminium or Steel

Mounting: In any position

Impact velocity range: Max. 5 m/s

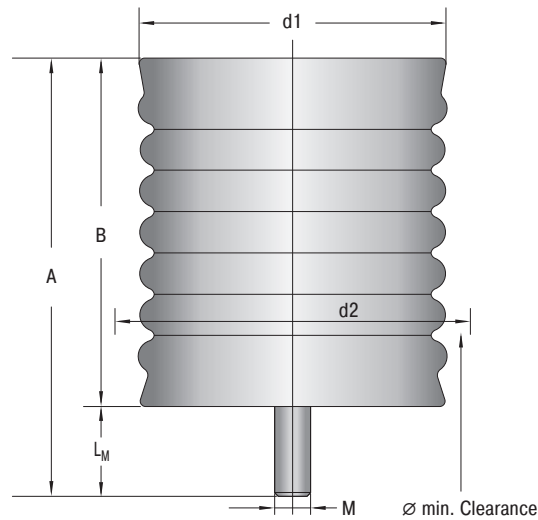
Application field: Emergency stop damping in linear axes, Portal systems, Tool machines, Test stations, Electro-mechanical drives

Note: The single-use damper must be replaced after each impact.

Safety instructions: Where necessary, use thread locking fluid to secure the threaded pins

On request: Also available with centring pins and other special versions

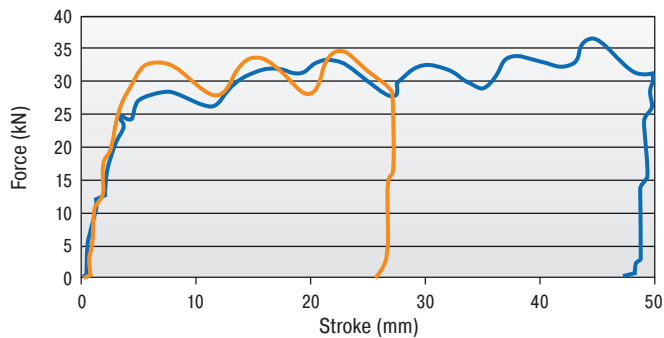
Crash Dampers



Characteristics

Type CD-88-53

Force-Stroke Characteristic



	Half stroke use	Stroke use max.
Stroke:	28 mm	50 mm
Absorbed energy:	779 Nm	1,468 Nm
Efficiency:	98 %	98 %
Approx. reacting force max.	36 kN	37 kN

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

Ordering Example

CD-88-145-H
 Type _____
 Outer diameter _____
 Stroke _____
 High energy absorption _____

Performance and Dimensions

TYPES	Energy capacity emergency use Nm/cycle	Stroke mm	Reacting Force ¹ N	Material	A mm	B mm	d1 mm	d2 mm	L _M mm	M	Weight kg
CD-88-50	670	50	13,000	Aluminium	123	99	88	105	26	M10	0.41
CD-88-45	1,020	45	23,000	Aluminium	123	99	88	105	26	M10	0.44
CD-88-53	1,430	53	27,000	Aluminium	134	110	88	105	26	M10	0.52
CD-88-56	1,680	56	30,000	Aluminium	147	124	88	105	26	M10	0.54
CD-88-56-H	2,130	56	38,000	Aluminium	147	124	88	105	26	M10	0.56
CD-38-80	3,760	80	47,000	Steel	161	135	38	46	26	M16	0.46
CD-88-145	5,370	145	37,000	Aluminium	239	216	88	140	26	M10	0.72
CD-63-80	5,600	80	70,000	Steel	160	134	63	72	26	M16	0.72
CD-88-145-H	7,690	145	53,000	Aluminium	239	216	88	140	26	M10	0.75
CD-63-160	11,200	160	70,000	Steel	452	273	63	72	180	M36	2.20

¹ averaged Reacting Force

All specifications are nominal dimensions. Tolerances are available on request.

ACE Germany

The shortest way to the perfect shock absorber



ACE Stoßdämpfer GmbH

PO Box 1510
40740 Langenfeld

Albert-Einstein-Straße 15
40764 Langenfeld

Germany

T +49 (0)2173 - 9226-4100

F +49 (0)2173 - 9226-89



info@ace-int.eu

www.ace-ace.com

Global but always near

International ACE Sales Locations



GREAT BRITAIN
ACE Fabreeka UK

Unit 404 Easter Park, Haydock Lane
Haydock, WA11 9TH, U.K.

T +44 (0)1942 - 727 440

F +44 (0)1942 - 717 273

www.ace-controls.co.uk



JAPAN
ACE Controls Japan L.L.C.

City Center Bldg. II 2fl
3-1-42, Chigasaki-minami, Tsuzuki-ku
Yokohama, 224-0037, Japan

T +81 (0)45 - 945-0123

F +81 (0)45 - 945-0122

www.acecontrols.co.jp



P.R. CHINA
ACE Controls

No. 8 Longxiang Road, Wujin National High-tech Industrial Zone,
Changzhou, Jiangsu Province, CN-213164, P. R. China

T +86 (0)519 - 8622-3520

F +86 (0)519 - 8622-3550

www.ace-ace.cn



USA
ACE Controls International Inc.

23425 Industrial Park Dr., Farmington Hills
Michigan 48335, USA

T +1 248 - 476-0213

F +1 248 - 476-2470

www.acecontrols.com

