

Product Overview

Hydraulic Buffers



wampfler
solutions for a moving world



Customized rate control!

Hydraulic Buffers safely protect heavy machinery and equipment during the transfer of materials and the movement of products. Wampfler large bore, high capacity buffers are individually designed to decelerate moving loads under various conditions and in compliance with industry mandated standards.



Wampfler's Buffer design incorporates the proven damping system of multiple orifice patterns drilled down the shock tube length, for precise deceleration profiles, coupled with a nitrogen return system for controlled extension of the piston rod to its original position.

The oversized bore area results in optimal energy absorption capabilities and increased safety factors. State of the art testing facilities ensure the integrity of the design and product performance.

Control of Bridge Cranes, Trolley Platforms, Ship to Shore Container Cranes and Transportation Safety Stops are typical installation examples. Industry proven design technologies and a globally installed product base ensure deliverable performance that exceeds customer expectations.



In addition to Hydraulic Buffers, Wampfler offers a complete range of Rubber and Cellular (polyurethane) buffers. Wampfler Rubber Buffers are resilient and resist tearing and aging. Special rubber compound buffers can be made available for difficult environments.

Cellular Buffers offer strong absorption capacities and long compression lengths. As a result, they produce low limit forces and favorable deceleration values.

With many styles, sizes and configurations to choose from, Wampfler has a buffer to suit almost every need.





Series 190 buffers

Standard features

- Engineered to meet OSHA, AIST and CMAA safety specifications
- All models are custom orificed for specific application requirements
- Buffer models can decelerate loads with varying velocities from 6 in/sec to 200 in/sec
- The oversized bore area results in optimal energy absorption capabilities and increased thermal safety factors
- Nitrogen-charged return system allows for soft deceleration and positive return in a maintenance-free package
- Optional fluids and seal packages can expand operating range from -30°F to 250°F
- Sea water resistant epoxy housing and hard chrome plated steel piston rod
- Wide variety of optional accessories including bellows and safety cables
- Available in rear and flange mount models

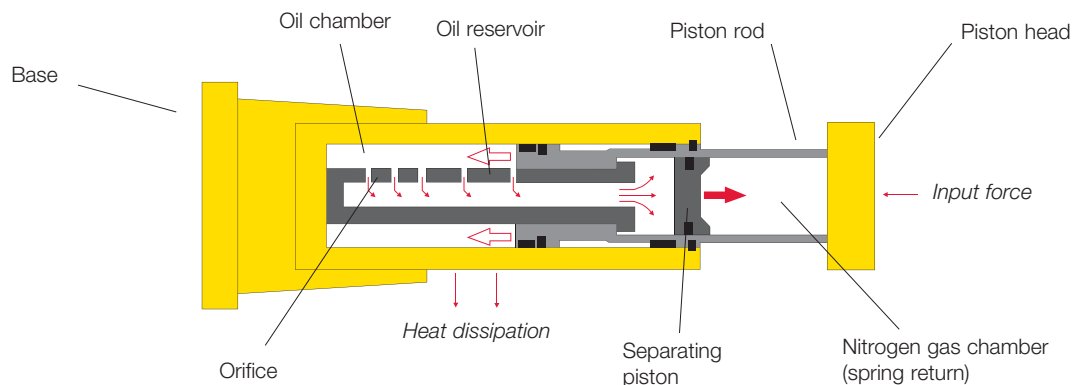
Main applications

- Overhead Traveling Bridge Cranes
- Process Cranes
- Ship to Shore Container Cranes
- Transfer Cars
- Automated Storage and Retrieval systems
- Portal Cranes
- Monorail End Stops
- Amusement Rides

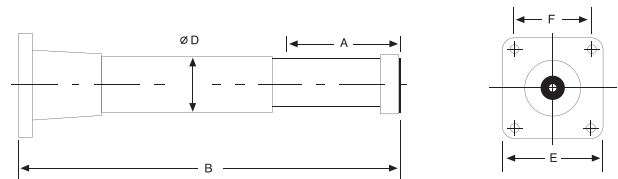


Series 190
Rear flange

Standard components

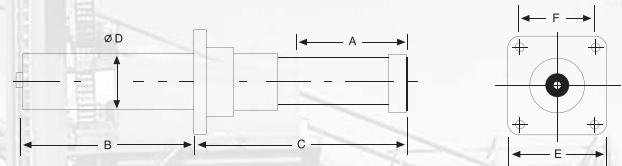


Rear flange specifications¹



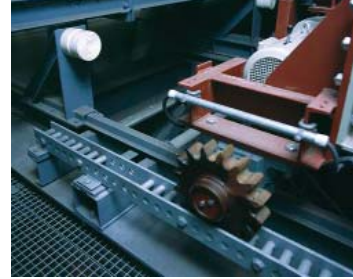
Buffer model	Energy capacity		Max force (kN)	Return force (kN)		A (Stroke)		B (Length)		D (Dia.)		E		F	
	(kJ)	(in-lbs)		Extension	Compression	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
19110-100x0050	10	88,500	250	1.65	18.0	50	2.0	302	11.9	100	3.93	150	5.9	120	4.72
19110-100x0100	20	177,000	250	1.65	18.0	100	3.9	479	18.9	100	3.93	150	5.9	120	4.72
19110-100x0150	30	265,500	250	1.65	18.0	150	5.9	618	24.1	100	3.93	150	5.9	120	4.72
19110-100x0200	40	354,000	250	1.65	18.0	200	7.9	756	29.8	100	3.93	150	5.9	120	4.72
19110-100x0500	94	831,900	235	1.65	18.0	500	19.7	N/A	N/A	100	3.93	150	5.9	120	4.72
19110-100x0600	112	991,200	230	1.65	18.0	600	23.6	N/A	N/A	100	3.93	150	5.9	120	4.72
19110-100x0800	132	1,168,200	205	1.65	18.0	800	31.5	N/A	N/A	100	3.93	150	5.9	120	4.72
19110-120x0100	32	283,200	400	2.80	50.0	100	3.9	471	18.5	120	4.72	220	8.66	170	6.69
19110-120x0150	48	424,800	400	2.80	50.0	150	5.9	597	23.5	120	4.72	220	8.66	170	6.69
19110-120x0200	64	566,400	400	2.80	50.0	200	7.9	724	28.5	120	4.72	220	8.66	170	6.69
19110-100x0300	94	831,900	400	2.80	50.0	300	11.8	973	38.3	120	4.72	220	8.66	170	6.69
19110-120x0400	125	1,106,300	400	2.80	50.0	400	15.7	1225	48.2	120	4.72	220	8.66	170	6.69
19110-120x0600	188	1,163,900	400	2.80	50.0	600	23.6	N/A	N/A	120	4.72	220	8.66	170	6.69
19110-120x0800	225	1,991,250	350	2.80	50.0	800	31.5	N/A	N/A	120	4.72	220	8.66	170	6.69
19110-120x1000	260	2,301,000	325	2.80	50.0	1000	39.4	N/A	N/A	120	4.72	220	8.66	170	6.69
19110-130x0250	100	885,000	500	3.20	64.0	250	9.8	897	35.3	130	5.12	270	10.62	210	8.26
19110-130x0300	120	1,062,000	500	3.20	64.0	300	11.8	1029	40.5	130	5.12	270	10.62	210	8.26
19110-130x0400	160	1,416,100	500	3.20	64.0	400	15.7	1293	50.9	130	5.12	270	10.62	210	8.26
19110-130x0600	209	1,853,500	435	3.20	64.0	600	23.6	N/A	N/A	130	5.12	270	10.62	210	8.26
19110-130x0800	270	2,388,500	420	3.20	64.0	800	34.5	N/A	N/A	130	5.12	270	10.62	210	8.26
19110-150x0115	62	548,700	670	5.00	96.0	115	4.5	517	20.3	150	5.90	270	10.62	210	8.26
19110-150x0150	82	725,700	670	5.00	96.0	150	5.9	606	23.9	150	5.90	270	10.62	210	8.26
19110-150x0400	220	1,947,000	670	5.00	96.0	400	15.7	1249	49.2	150	5.90	270	10.62	210	8.26
19110-150x0500	275	2,433,900	670	5.00	96.0	500	19.7	N/A	N/A	150	5.90	270	10.62	210	8.26
19110-150x0600	300	2,920,700	670	5.00	96.0	600	23.6	N/A	N/A	150	5.90	270	10.62	210	8.26
19110-150x0800	448	3,965,100	700	5.00	96.0	800	31.5	N/A	N/A	150	5.90	270	10.62	210	8.26
19110-150x1000	510	4,513,500	635	5.00	96.0	1000	39.4	N/A	N/A	150	5.90	270	10.62	210	8.26

Front flange specifications¹



Buffer model	Energy capacity		Max force (kN)	Return force (kN)		A (Stroke)		C		B		D (Dia.)		E		F	
	(kJ)	(in-lbs)		Extension	Compression	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
19100-100x0050	10	88,500	250	1.65	18.0	50	2.0	175	6.9	125	4.9	100	3.93	150	5.9	120	4.72
19100-100x0100	20	177,000	250	1.65	18.0	100	3.9	245	9.7	218	8.9	100	3.93	150	5.9	120	4.72
19100-100x0150	30	265,500	250	1.65	18.0	150	5.9	300	10.8	289	11.8	100	3.93	150	5.9	120	4.72
19100-100x0200	40	354,000	250	1.65	18.0	200	7.9	390	15.4	346	14.1	100	3.93	150	5.9	120	4.72
19100-100x0500	94	831,900	235	1.65	18.0	500	19.7	890	35.0	700	28.6	100	3.93	150	5.9	120	4.72
19100-100x0600	112	991,200	230	1.65	18.0	600	23.6	1040	40.9	818	33.4	100	3.93	150	5.9	120	4.72
19100-100x0800	132	1,168,200	205	1.65	18.0	800	31.5	1345	52.9	1044	42.6	100	3.93	150	5.9	120	4.72
19100-120x0100	32	283,200	400	2.80	50.0	100	3.9	270	10.6	191	7.8	120	4.72	220	8.66	170	6.69
19100-120x0150	48	424,800	400	2.80	50.0	150	5.9	330	13.0	252	10.3	120	4.72	220	8.66	170	6.69
19100-120x0200	64	566,400	400	2.80	50.0	200	7.9	390	15.4	316	12.9	120	4.72	220	8.66	170	6.69
19100-100x0300	94	831,900	400	2.80	50.0	300	11.8	520	20.5	431	17.6	120	4.72	220	8.66	170	6.69
19100-120x0400	125	1,106,300	400	2.80	50.0	400	15.7	680	26.8	522	21.3	120	4.72	220	8.66	170	6.69
19100-120x0600	188	1,163,900	400	2.80	50.0	600	23.6	915	36.0	782	31.9	120	4.72	220	8.66	170	6.69
19100-120x0800	225	1,991,250	350	2.80	50.0	800	31.5	1290	50.8	1005	41.0	120	4.72	220	8.66	170	6.69
19100-120x1000	260	2,301,000	325	2.80	50.0	1000	39.4	1560	61.4	1230	50.2	120	4.72	220	8.66	170	6.69
19100-130x0250	100	885,000	500	3.20	64.0	250	9.8	545	21.5	336	13.7	130	5.12	270	10.62	210	8.26
19100-130x0300	120	1,062,000	500	3.20	64.0	300	11.8	605	23.8	404	16.5	130	5.12	270	10.62	210	8.26
19100-130x0400	160	1,416,100	500	3.20	64.0	400	15.7	735	28.9	537	21.9	130	5.12	270	10.62	210	8.26
19100-130x0600	209	1,853,500	435	3.20	64.0	600	23.6	1060	41.7	828	33.8	130	5.12	270	10.62	210	8.26
19100-130x0800	270	2,388,500	420	3.20	64.0	800	34.5	1350	53.2	1056	43.1	130	5.12	270	10.62	210	8.26
19100-150x0115	62	548,700	670	5.00	96.0	115	4.5	320	12.6	186	7.6	150	5.90	270	10.62	210	8.26
19100-150x0150	82	725,700	670	5.00	96.0	150	5.9	355	13.9	240	9.8	150	5.90	270	10.62	210	8.26
19100-150x0400	220	1,947,000	670	5.00	96.0	400	15.7	710	27.9	517	21.1	150	5.90	270	10.62	210	8.26
19100-150x0500	275	2,433,900	670	5.00	96.0	500	19.7	770	30.3	701	28.6	150	5.90	270	10.62	210	8.26
19100-150x0600	300	2,920,700	670	5.00	96.0	600	23.6	875	34.4	845	34.5	150	5.90	270	10.62	210	8.26
19100-150x0800	448	3,965,100	700	5.00	96.0	800	31.5	1240	48.8	1029	42.0	150	5.90	270	10.62	210	8.26
19100-150x1000	510	4,513,500	635	5.00	96.0	1000	39.4	1595	62.8	1240	50.6	150	5.90	270	10.62	210	8.26

¹Application specification submittal will be required with purchase order.



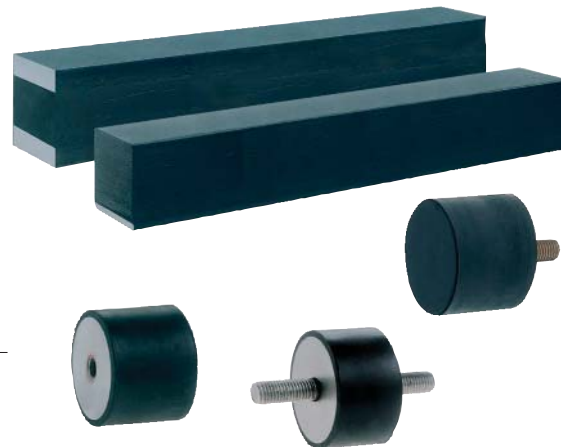
Rubber and Cellular (polyurethane) buffers

Standard features

- Complete range of products
- High level of safety
- Long service life
- High energy absorption
- Integrated cable protection option
- Customer-specific solutions

Wampfler offers a complete range of standard Rubber and Cellular buffers for a host of applications. Heavy Machinery builders, Fabricators of Overhead Traveling Bridge Cranes and the Transportation and Automation industries have come to rely on the ruggedness and longevity of Wampfler Buffers. Wampfler's product range includes all rubber models, rubber to metal isolating models as well as a variety of Cellular models. Details on rubber compounds, mounting arrangements and energy capacities are available, for specific information on Rubber or Cellular buffer models, please consult the factory.

Rubber buffer
Energy absorption up to 25kJ



Rubber to metal elements
For the vibration-free bearing of dynamically loaded components

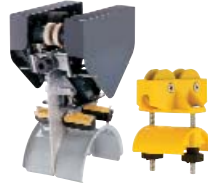
Cellular buffer

Energy absorption up to 210kJ



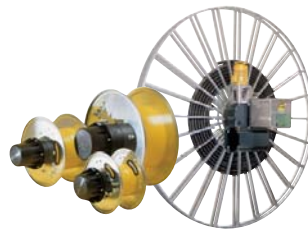
Your applications - Our solutions

Hydraulic Buffers from Wampfler are but one component of the wide range of the Wampfler energy, data and media supply systems. The right solution for your application always ensues from the wholly specific application at hand. And many times, it is precisely the combination of several Wampfler systems that will render very convincing benefits. You can find consulting and engineering competence in our companies and subsidiaries worldwide - just like our solutions!



Festoon systems

It's hard to imagine Wampfler cable trolleys not being used in virtually every industrial application: They're reliable and robust in an enormous variety of dimensions and designs.



Cable reels

Motorized reels and spring cable reels by Wampfler hold their own wherever energy, data and media have to cover the most diverse distances within a short amount of time - in all directions, fast and safe.



Conductor rails

Whether they're enclosed conductor rails or expandable single-pole systems, the proven conductor rails by Wampfler reliably move people and material.



Inductive Power Transfer IPT®

The no-contact system for transferring energy and data. For all tasks that depend on high speeds and absolute resistance to wear.



Slip ring bodies

Whenever things are really moving "in circles", the proven slip ring bodies by Wampfler ensure the flawless transfer of energy and data. Here, everything revolves around flexibility and reliability!



Radio remote controls

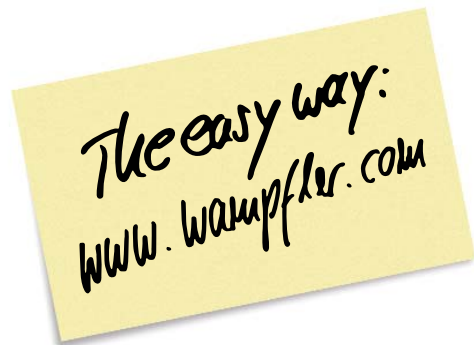
With a comprehensive range of radio remote controls, including push-button or belly-box units, Wampfler is able service the most demanding control requirements.



Energy guiding chains

The "Jack of all trades" when it comes to transferring energy, data and media. With their wide range, these energy guiding chains hold their own in industrial applications.

www = wampfler world wide



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