



Sure to be Safe

Hydraulic Buffers Type HD



Hydraulic buffers type HD

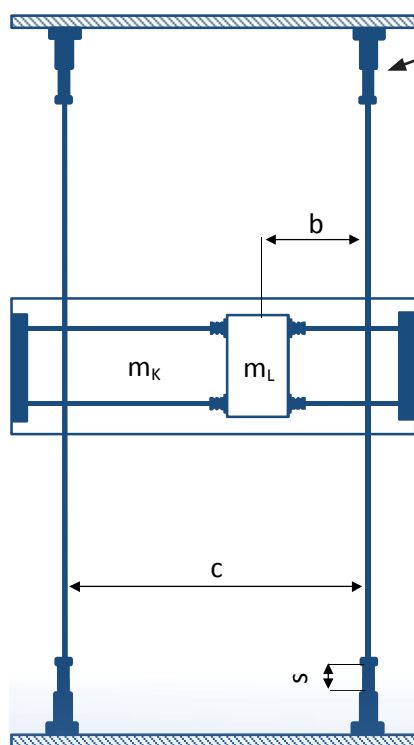
Product description

Crane buffers are safety relevant components, in case of emergency they protect cranes and trolleys, by their optimized force-stroke performance curve, against high impacts. The SIBRE range of products includes hydraulic buffers with gas retraction as well as cellular buffers for smaller travel carriages.

Our **HD** series hydraulic buffers are especially developed for harsh environments; these products are mainly used in port applications and steel making plants. The damping characteristic of the buffers can be adjusted by a variable throttle system, so it can be optimized for every specific application.

An outstanding product lifetime is guaranteed by the hard chrome plated piston rod, special sealings and hydraulic fluid as well as high level precision in production. Hydraulic buffers are available with different diameters of piston; with a stroke of 50-600 mm a damping capacity of 10-330 kJ can be realized.

Typical crane arrangement



SIBRE HD buffer
for crane travelling

Selection parameter for crane buffer

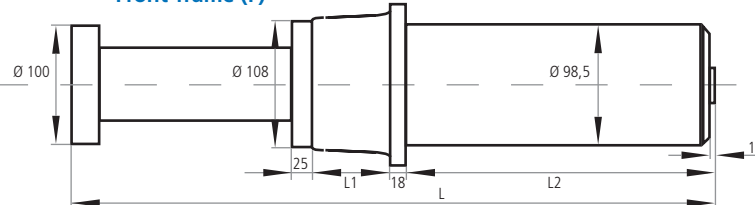
(only for typical crane application, with swinging load)

- weight of crane, w/o trolley (m_K)
- weight of trolley (m_L)
- span width (c)
- travelling speed of crane (v)
- Required buffer stroke (s)
- approach dimensions (b)

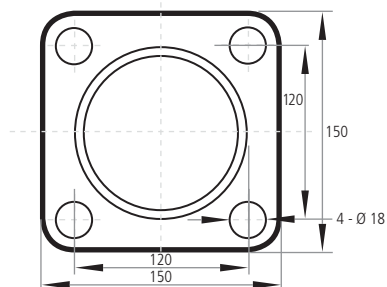
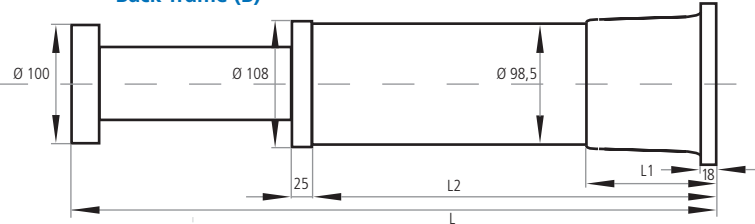


Type 21 HD

Front-frame (F)



Back-frame (B)



Model „F“	21 HD/050	21 HD/100	21 HD/150	21 HD/200
L [mm]	276	430	594	710
L ₁ [mm]	55	55	55	55
L ₂ [mm]	120	224	333	359
Weight [kg]	13	17	20	24

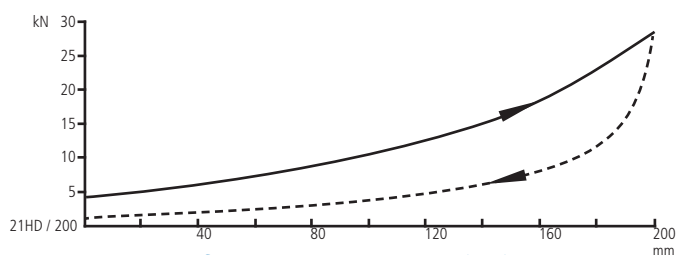
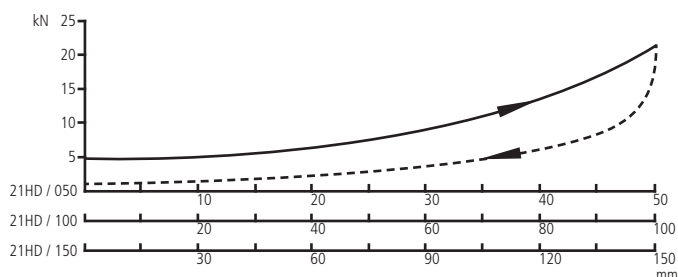
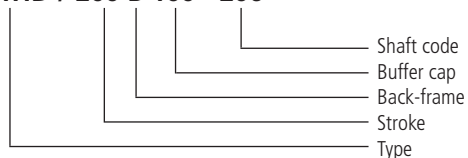
Model „B“	21 HD/050	21 HD/100	21 HD/150	21 HD/200
L [mm]	286	440	604	720
L ₁ [mm]	75	75	118	118
L ₂ [mm]	175	279	388	444
Weight [kg]	14	18	22	26

Performance	21 HD/050	21 HD/100	21 HD/150	21 HD/200
Stroke [mm]	50	100	150	200
Damping Capacity [kJ]	10	20	30	40
Max. Impact Force [kN]	250			

Sample for the complete code description

Type: 21, hydraulic
Stroke: 200 mm
Mounting: back-frame
Ø Buffer cap: 100 mm
Impact mass: 50.000 kg

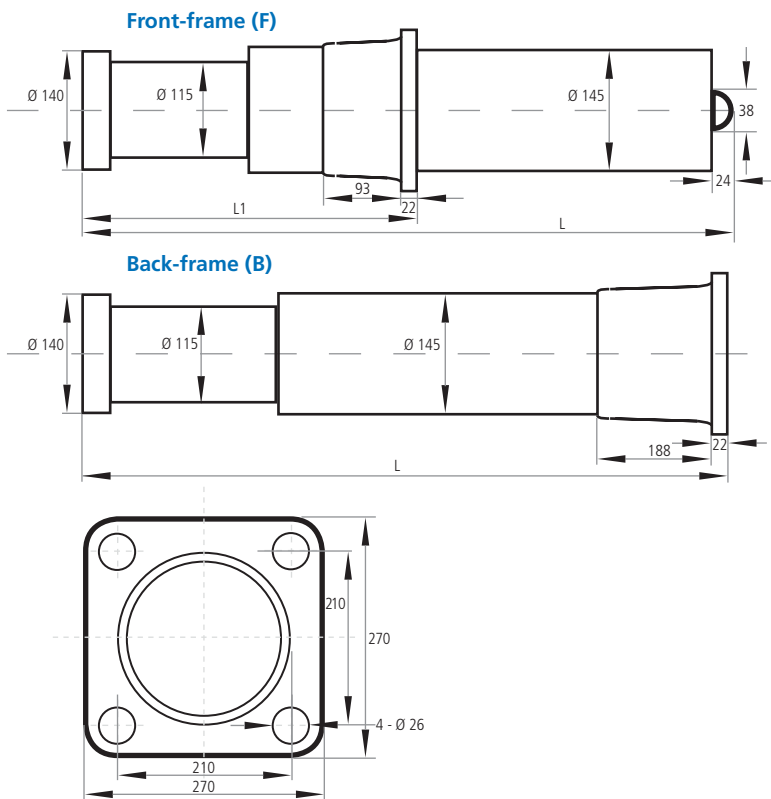
21HD / 200 B 100 - 206



Static pressure figure, initiated pressure (gas) 0.5 Mpa

Stroke [mm]	50	100	150	200
Impact Mass [t]	Shaft Code			
< 1.7	051	101	151	201
>1.7 ~ 3.5	052	102	152	202
>3.5 ~ 7.0	053	103	153	203
>7.0 ~ 13.0	054	104	154	204
> 13.0 ~ 25.0	055	105	155	205
> 25.5 ~ 50.0	056	106	156	206
> 50.0 ~ 100.0	057	107	157	207
>100.0 ~ 200.0	058	108	158	208
> 200.0 ~ 400.0	059	109	159	209

Type 23 HD

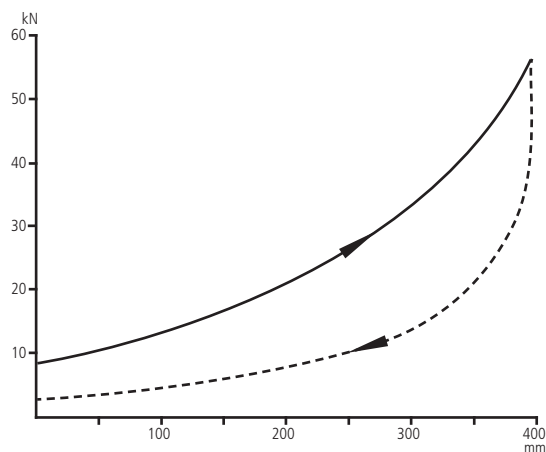


Model „F“	23 HD/400
L [mm]	1217
L ₁ [mm]	700
Weight [kg]	80
Model „B“	23 HD/400
L [mm]	1219
Weight [kg]	85
Performance	23 HD/400
Stroke [mm]	400
Damping Capacity [kJ]	224
Max. Impact Force [kN]	700

Sample for the complete code description

Type:	23, hydraulic	23HD / 400 B 140 - 408	
Stroke:	400 mm		
Mounting:	Back-frame		
Ø Buffer cap:	140 mm		
Impact mass:	80 t		

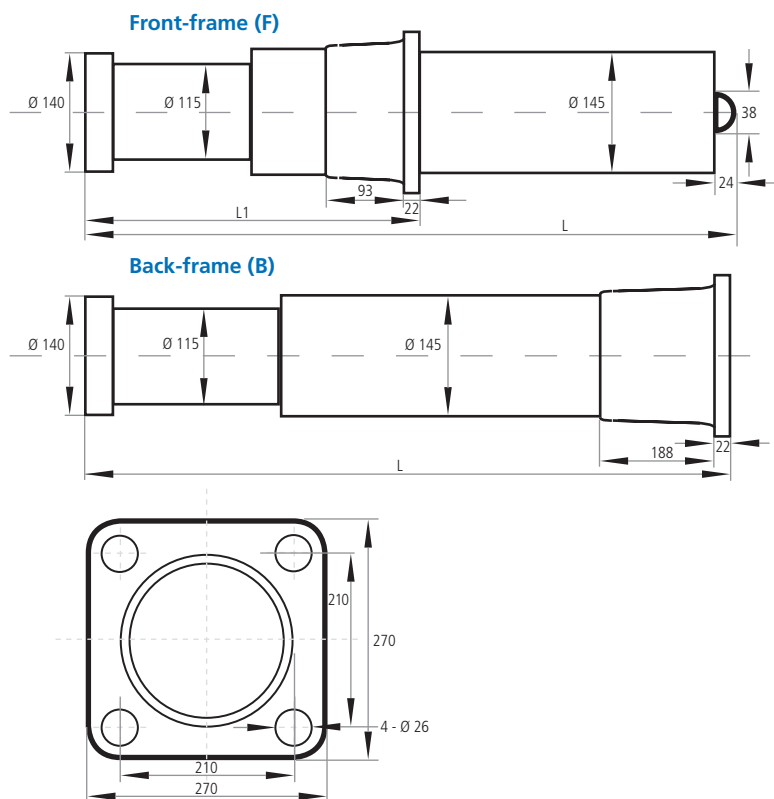
Shaft code
 Ø Buffer cap
 Back-frame
 Stroke
 Type



Static pressure figure, initiated pressure (gas) 0.5 Mpa

Model	23 HD/400
Impact Mass [t]	Variable Shaft Code
< 4.0	402
>4.0 ~ 8.0	403
>8.0 ~ 10.0	404
> 10.0 ~ 20.0	405
>20.0 ~ 40.0	407
> 40.0 ~ 80.0	408
> 80.0 ~ 150.0	410
> 150.0 ~ 300.0	412
>300.0 ~ 600.0	415
> 600.0 ~ 800.0	417
> 800.0 ~ 1000.0	419
> 1000.0 ~ 2000.0	422

Type 23T1 HD



Model „F“	23 T1 HD/400
L [mm]	1217
L ₁ [mm]	700
Weight [kg]	90
Model „B“	23 T1 HD/400
L [mm]	1219
Weight [kg]	94
Performance	23 T1 HD/400
Stroke [mm]	400
Damping Capacity [kJ]	280
Max. Impact Force [kN]	875

Sample for the complete code description

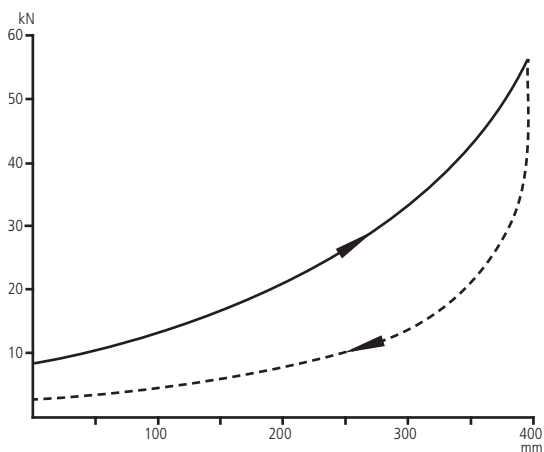
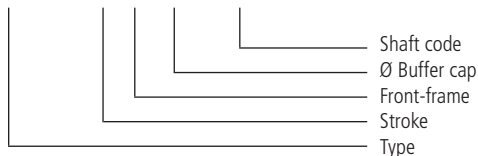
Type: 23, hydraulic **23T1HD / 400 F 140 - 408**

Stroke: 400 mm

Mounting: Front-frame

Ø Buffer cap: 140 mm

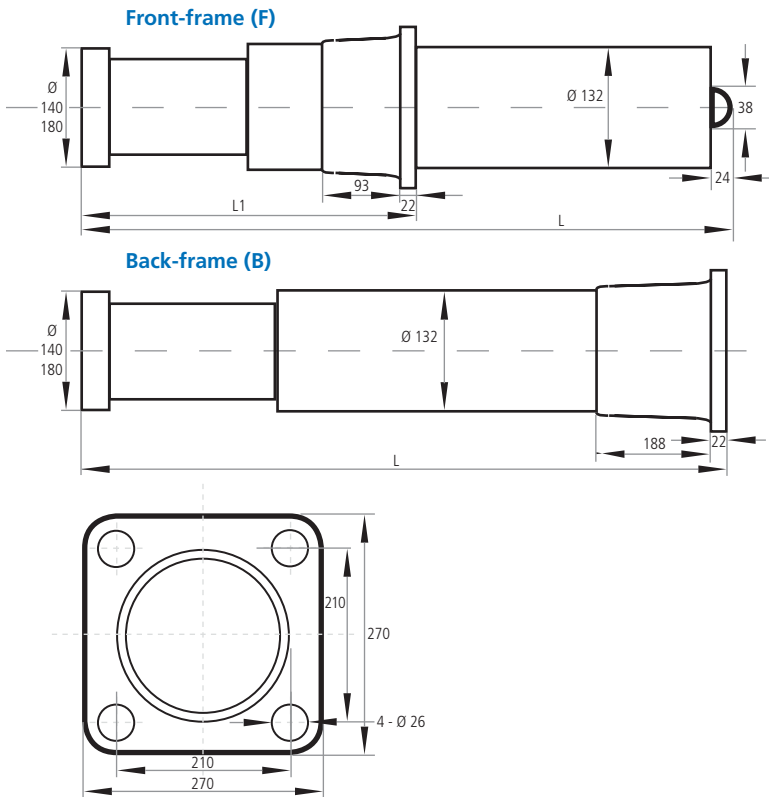
Impact mass: 80 t



Static pressure figure, initiated pressure (gas) 0.5 Mpa

Model	23 HD/400
Impact Mass [t]	Variable Shaft Code
< 4.0	402
>4.0 ~ 8.0	403
>8.0 ~ 10.0	404
> 10.0 ~ 20.0	405
>20.0 ~ 40.0	407
> 40.0 ~ 80.0	408
> 80.0 ~ 150.0	410
> 150.0 ~ 300.0	412
>300.0 ~ 600.0	415
> 600.0 ~ 800.0	417
> 800.0 ~ 1000.0	419
> 1000.0 ~ 2000.0	422

Type 50 HD

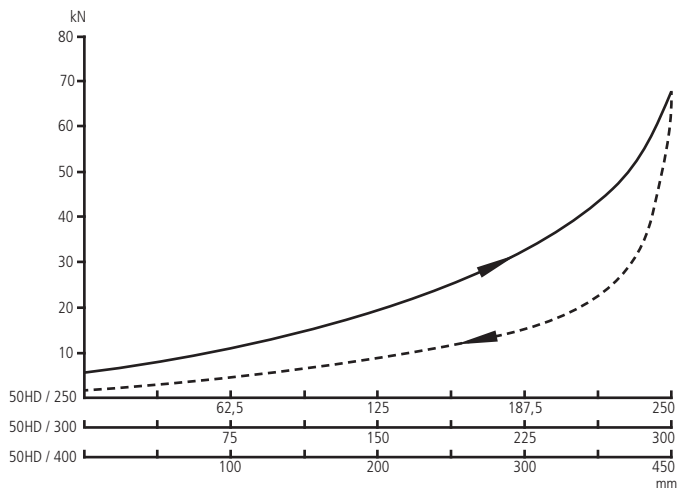
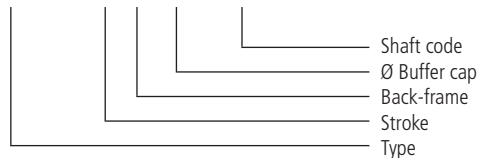


Model „F“	50 HD/250	50 HD/300	50 HD/400
L [mm]	883	1018	1288
L ₁ [mm]	530	580	680
Weight [kg]	60	70	76
Model „B“	50 HD/250	50 HD/300	50 HD/400
L [mm]	885	1020	1290
Weight [kg]	68	76	84
Performance	50 HD/250	50 HD/300	50 HD/400
Stroke [mm]	250	300	400
Damping Capacity [kJ]	100	120	160
Max. Impact Force [kN]	500		

Sample for the complete code description

Type: 50, hydraulic
Stroke: 300 mm
Mounting: Back-frame
Ø Buffer cap: 140 mm
Impact mass: 75.000 kg

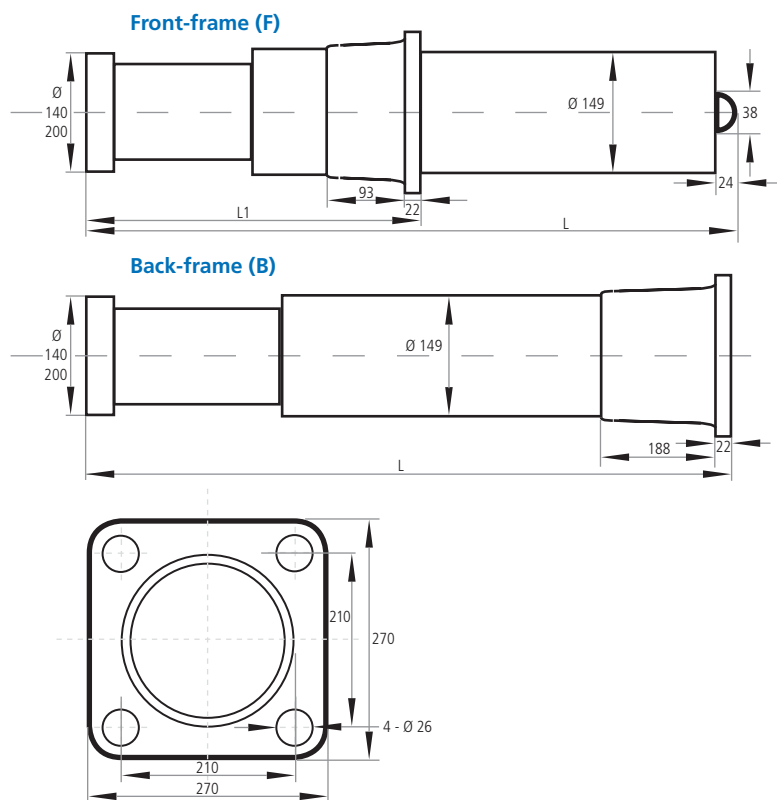
50 HD / 300 B 140 - 308



Static pressure figure, initiated pressure (gas) 0.5 Mpa

Stroke [mm]	250	300	400
Impact Mass [t]	Shaft Code		
< 10	204	304	404
>10.0 ~ 20.0	205	305	405
> 20.0 ~ 40.0	207	307	407
> 40.0 ~ 80.0	208	308	408
> 80.0 ~ 150.0	210	310	410
> 150.0 ~ 300.0	212	312	412
> 300.0 ~ 600.0	215	315	415
> 600.0 ~ 1000.0	219	319	419
> 1000.0 ~ 2000.0	222	322	422

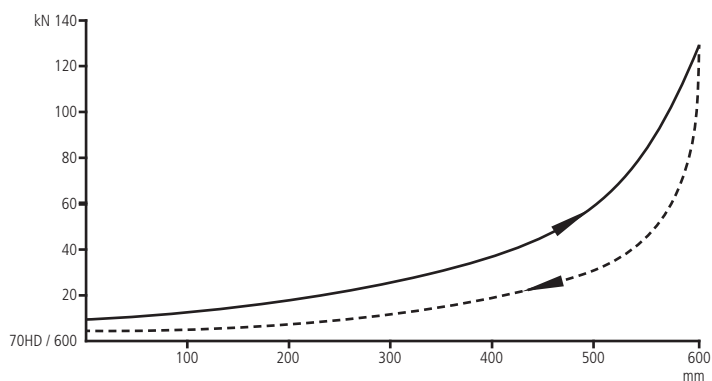
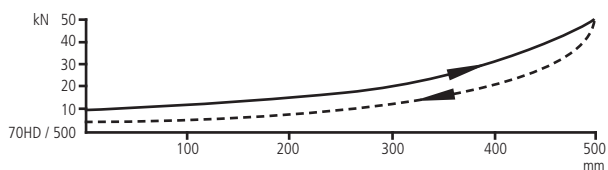
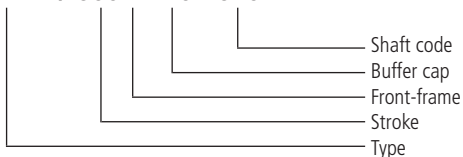
Type 70 HD



Model „F“	70 HD/500	
L [mm]	1624	
L ₁ [mm]	840	
Weight [kg]	96	
Model „B“	70 HD/600	
L [mm]	1724	
L ₁ [mm]	940	
Weight [kg]	100	
Performance	70 HD/500	70 HD/600
Stroke [mm]	500	600
Damping Capacity [kJ]	280	336
Max. Impact Force [kN]	700	

Sample for the complete code description

Type:	70, hydraulic	70 HD / 600 F 140 - 610		
Stroke:	600 mm			
Mounting:	Front-frame			
Ø Buffer cap:	140 mm			
Impact mass:	150 t			



Static pressure figure, initiated pressure (gas) 0.5 Mpa

Stroke [mm]	70 HD/500	70 HD/600
Impact Mass [t]	Variable Shaft Code	
< 10	504	604
> 10.0 ~ 20.0	505	605
> 20.0 ~ 40.0	507	607
> 40.0 ~ 80.0	508	608
> 80.0 ~ 150.0	510	610
> 150.0 ~ 300.0	512	612
> 300.0 ~ 600.0	515	615
> 600.0 ~ 1000.0	519	619
> 1000.0 ~ 2000.0	522	622

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