

DAMPTAC

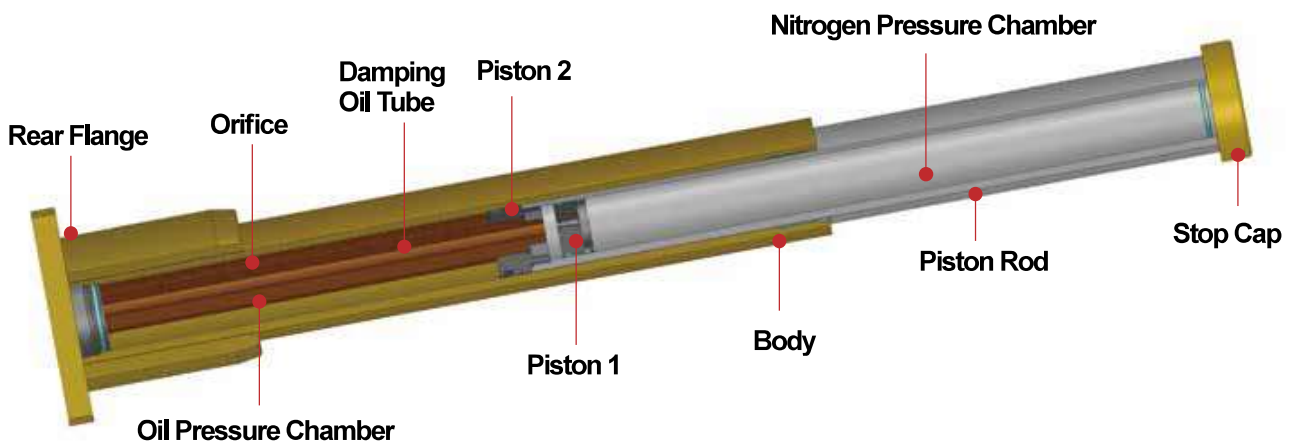
Industrial Shock Absorber



DTH Series

Gas-Hydraulic Complex Buffer

The DAMPTAC gas-hydraulic DTH series uses Germany's leading gas-hydraulic damping technology, which absorbs impact energy through the interaction between hydraulic oil and nitrogen when it is impacted. When the shock absorber is working, the hydraulic oil flows through the throttle hole, produces viscous damping force and transforms most of the impact energy into heat dissipation; while a small amount of the nitrogen in the compressed nitrogen chamber is transformed into the potential energy. When the load is removed, the compressed nitrogen expands and releases the potential energy. It prevents the return damping force working and transforms the potential energy into heat dissipation. The series has compact size, large capacity and the maximum absorption of energy compared with that of the same outer diameter and stroke. The series is based on the customer's application requirements and can provide customized design products to achieve the best energy absorption effect. The stroke can reach 1000mm and absorption of energy up to 720kJ. It is widely used in aircraft landing gear, rail transit, port machinery, cranes and other industries.

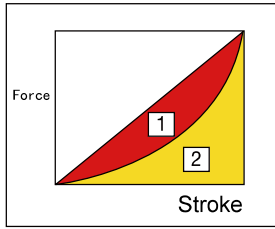


Properties

- Compact size, high energy absorption, provide reliable protection for emergency safety.
- The DTH series is a custom-made product that requires detailed application parameters. We provide the most suitable products for our customers through professional calculation and precision design to achieve the best damping effect.
- The design is in line with OSHA, AISE, CMMA standards and DIN, FEM and other safety requirements.
- The DTH series can absorb more than 2 times energy than other products at the same bore and stroke.
- The body uses special anticorrosive epoxy spraying and the piston rod is hard chrome plated. Therefore, the DTH series can be used in high corrosive environments such as outdoor or marine.
- Wider temperature range, standard type (-10°C ~+80°C), special type (-40°C ~+120°C)
- There are various accessories to meet all kinds of installation and use requirements of customers.

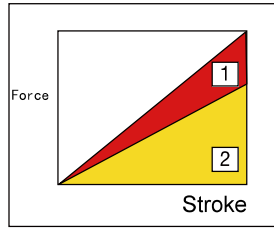
! Note: because the DTH series uses high pressure nitrogen to reset piston rod, its maximum reacting force and return thrust are much larger than those of other series.

Comparison of damping performance



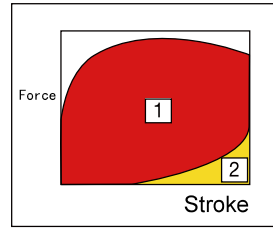
Rubber Damping

1. low damping
2. high elasticity



Spring Damping

1. low damping
2. high elasticity

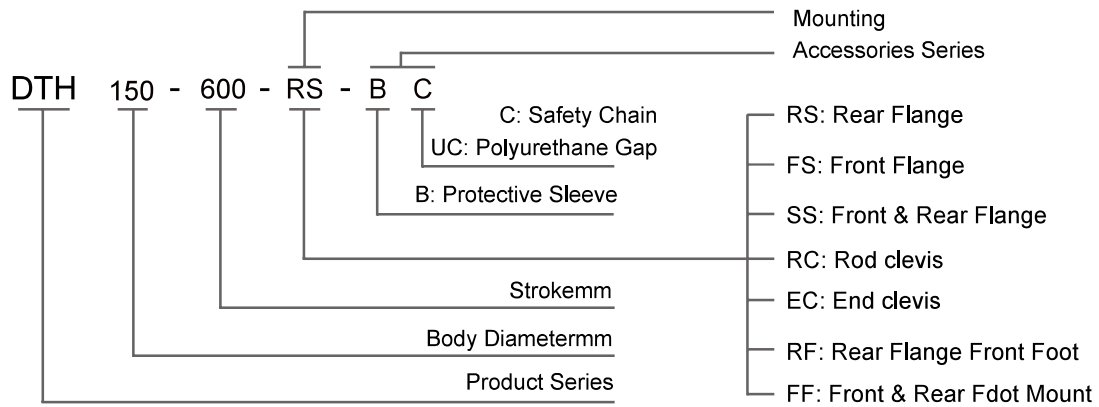


Gas-Hydraulic Damping

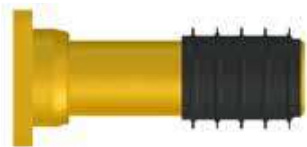
1. high damping
2. low elasticity

■ Energy Absorption
■ Energy Return

DTH Series Ordering Information



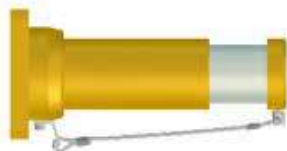
Accessories



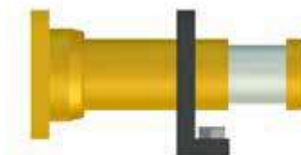
Protective Sleeve



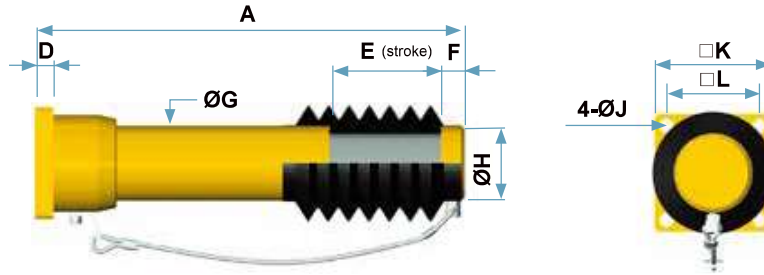
Clevis mount



Safety Chain



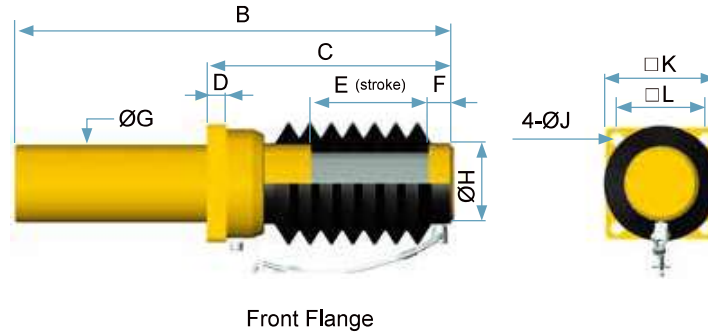
Rear or Front Flange Mount



Rear Flange

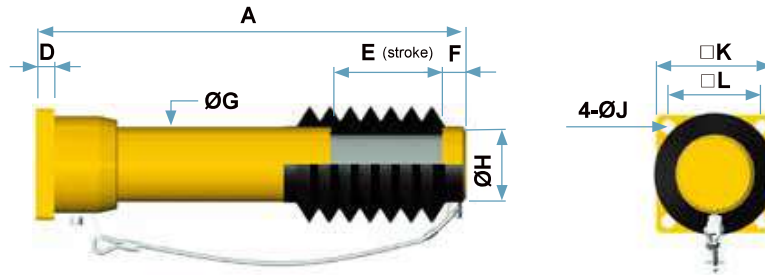
Specifications Chart - Gas-Hydraulic Complex DTH Series

Type	Stroke (mm)	Max. Energy /Cycle (kJ)	Max. Energy /Hour (kJ/H)	Max.Damping Force (kN)	Return Forc (kN)		Maximum Side Force Angle (°)		Weight (kg)
					Ext	Comp	Rear Flange	Front Flange	
DTH 65-25	25	2	100	100	1.0	3,2	3,5	3,5	6
-50	50	4	200	100		4,7	3,5	3,5	7
-75	75	6	300	100		5,3	3	3	8
-100	100	8	400	100		6,6	3	3	9
-125	125	10	500	100		6,6	2,5	2,5	10
-150	150	12	600	100		6,6	2	2	11
-200	200	16	800	100		9	2	2	12
DTH 85-50	50	8	600	200	1.5	10	4	3,5	12
-100	100	16	1,200	200		13	3	3	15
-150	150	24	1,800	200		17	2	2	18
-200	200	32	2,400	200		19	1,8	1,5	20
-250	250	40	2,850	200		20	1,5	1,2	22
DTH 100-50	50	11	750	280	2.4	16	5	4	17
-80	80	18	1,200	280		16	4,5	4	20
-100	100	23	1,600	280		16	5	4	25
-120	120	27	1,800	280		20	4,5	3,5	27
-150	150	34	2,300	280		20	4,5	3,5	28
-200	200	46	3,100	280		20	4	3	34
-250	250	58	3,600	280		25	3,5	2,5	39
-300	300	69	4,200	280		25	3	2	43
-400	400	90	5,400	280		25	2,5	2	49
-500	500	110	6,600	278		25	2,5	2	55
-600	600	125	7,200	260	25	2	1,5	62	
-800	800	140	7,900	210	25	2	1,5	73	
DTH 120-100	100	45	2,900	570	3.5	38	4	4,5	41
-150	150	70	4,400	570		38	4	3,5	48
-200	200	92	5,800	570		38	3,5	3,5	58
-250	250	114	7,200	570		40	3	3	65
-300	300	130	8,500	450		40	3	2,5	72
-400	400	160	10,000	450		40	2,5	2	78
-500	500	180	11,500	450		40	2	1,5	86
-600	600	200	12,800	450		40	2	1,5	95
-800	800	240	13,600	375		40	2	1,3	112
-1000	1,000	280	14,500	350		40	2	1,3	118



Dimensions Chart - Gas-Hydraulic Complex DTH Series

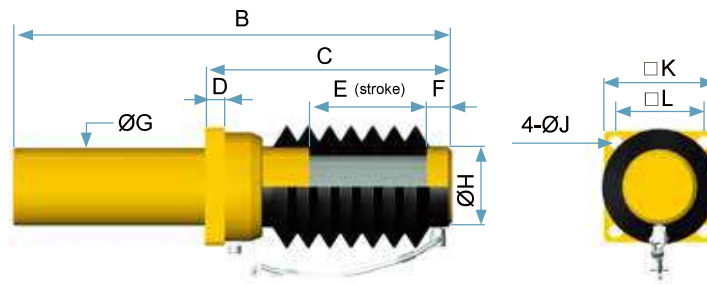
Type	Dimensions (Unit: mm)										
	E (Stroke)	A	B	C	D	F	G (Body)	H	J	K	L
DTH65-25	25	262	250	126							
-50	50	312	300	151							
-75	75	372	360	176							
-100	100	432	420	230	15	26	65	65	16	100	70
-125	125	497	485	256							
-150	150	552	540	281							
-200	200	672	660	371							
DTH85-50	50	323	310	183							
-100	100	463	450	242							
-150	150	603	590	305	15	32	85	85	16	128	89
-200	200	743	730	367							
-250	250	883	870	430							
DTH100-50	50	302	301	175							
-80	80	423	403	215							
-100	100	479	473	252							
-120	120	529	509	270							
-150	150	618	612	300							
-200	200	756	750	377	25	32	100	100	18	150	120
-250	250	865	845	390							
-300	300	1010	900	502							
-400	400	1349	1345	645							
-500	500		1616	890							
-600	600		1888	1010							
-800	800		2426	1345							
DTH120-100	100	470	467	270							
-150	150	598	594	330							
-200	200	725	721	390							
-250	250	825	845	455							
-300	300	974	969	520	30	32	120	120	26	220	170
-400	400	1225	1221	680							
-500	500	1496	1473	795							
-600	600		1725	915							
-800	800		2332	1290							
-1000	1000		2836	1360							



Rear Flange

Specifications Chart - Gas-Hydraulic Complex DTH Series

Type	Stroke (mm)	Max. Energy /Cycle (kJ)	Max. Energy /Hour (kJ/H)	Max.Damping Force (kN)	Return Forc (kN)		Maximum Side Force Angle (°)		Weight (kg)
					Ext	Comp	Rear Flange	Front Flange	
DTH 130-250	250	120	8,200	550	3.1	40	4.5	4	73
-300	300	140	9,600	550		40	4.5	4	79
-400	400	180	12,000	550		50	4	3.5	90
-500	500	220	15,000	550		50	3.5	3.5	105
-600	600	260	17,800	550		50	2	1.5	118
-800	800	300	19,000	460		50	2	1.5	139
DTH 150-100	100	70	4,000	880	4.9	75	4	4.5	53
-115	115	75	4,800	870		75	4	4.3	56
-150	150	99	5,800	860		75	4	3.9	60
-200	200	136	7,200	850		75	4	3.5	70
-300	300	183	13,000	770		75	3.5	3.5	80
-400	400	243	13,500	760		75	3	3	90
-500	500	285	17,400	710		85	3	2.5	98
-600	600	323	21,000	670		85	2.5	2	120
-800	800	367	25,600	580	85	2	1.5	165	
-1000	1,000	410	28,000	510	85	2	1.5	180	
DTH 180-100	100	80	4,500	980	7.9	75	4.5	4	110
-200	200	160	10,000	980		80	4.5	4	126
-250	250	200	12,800	980		80	4.5	4	140
-400	400	290	14,500	880		90	4.5	4	168
-500	500	350	18,000	880		100	4	3.5	198
-600	600	430	23,000	890		100	3.5	3	235
-800	800	570	27,000	890		100	3	2.5	295
-1000	1,000	720	29,000	890		100	2.5	2	360



Front Flange

Dimensions Chart - Gas-Hydraulic Complex DTH Series

Type	Dimensions (Unit: mm)										
	E (Stroke)	A	B	C	D	F	G (Body)	H	J	K	L
DTH 130-250	250	897	893	545							
-300	300	1029	1025	605							
-400	400	1293	1289	735	25	32	130	130	26	270	210
-500	500	1602	1582	800							
-600	600		1917	1060							
-800	800		2445	1350							
DTH 150-100	100	510	490	327							
-115	115	517	513	320							
-150	150	606	602	355							
-200	200	800	780	452							
-300	300	1090	1070	577							
-400	400	1249	1245	710	35	38	150	150	26.5	270	210
-500	500		1498	770							
-600	600	1766	1752	885							
-800	800		2306	1240							
-1000	1000		2880	1595							
DTH 180-100	100	491	471	350							
-200	200	760	740	450							
-250	250	850	830	550							
-400	400	1486	1466	804	40	42	180	180	33	348	295
-500	500	1766	1746	939							
-600	600	2066	2046	1074							
-800	800	2666	2646	1344							
-1000	1000	3226	3206	1614							