

Xcite 1300 Laboratory Series The Xcite 1300 Laboratory Series is used in applications where longer stroke and extremely high forces are required to determine the modal characteristics of flexible structures such as truck suspensions and engine mounts, transit vehicles, locomotives, drag lines, backhoes, cranes and large electrical generating apparatus. The 15 GPM Hydraulic Power Supply of these systems allows frequency responses in the 100 Hz to 500 Hz range while the larger exciters generate forces to 20,000 lbf.

This series is used primarily in heavy industrial applications such as nuclear power generating plants and foundries for foundation and bearing pedestal dynamic testing. The 1300 Series has also been used in shipboard applications for testing of major propulsion equipment foundations, mounts, drive shafts and propellers.

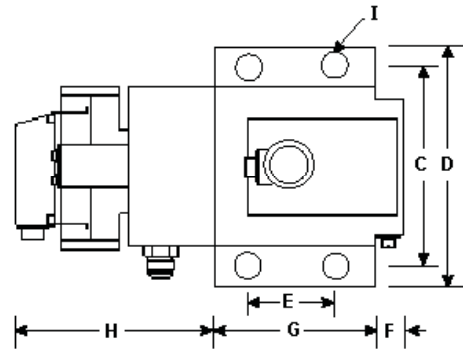
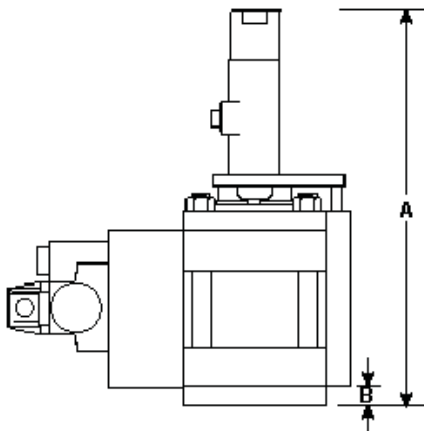


Hydraulic Power Supply
Master Controller
Exciter Head
Static Force
Dynamic Force
Stroke
Rod
Bore
Thread
Load Cell
LVDT
Exciter Design

Xcite 1300-1 System	
1302C 15 GPM (60 l/m)	1304-Mod4
1306-15-T/C	20,000 lb (89,000 N)
20,000 lb (89,000 N)	1.0 in (25 mm)
3.5 in (87 mm)	5.0 in (125 mm)
1.5 - 12	50,000 lb (222,000 N)
1.0 in (25 mm)	Single Ended

Xcite 1300-2 System	
1302C 15 GPM (60 l/m)	1304-Mod4
1352-15-T/C	5,000 lb (22,200 N)
5,000 lb (22,200 N)	3.0 in (75 mm)
1.75 in (44 mm)	2.5 in (62 mm)
1.25 - 12	15,000 lb (66,750 N)
3.0 in (75 mm)	Single Ended

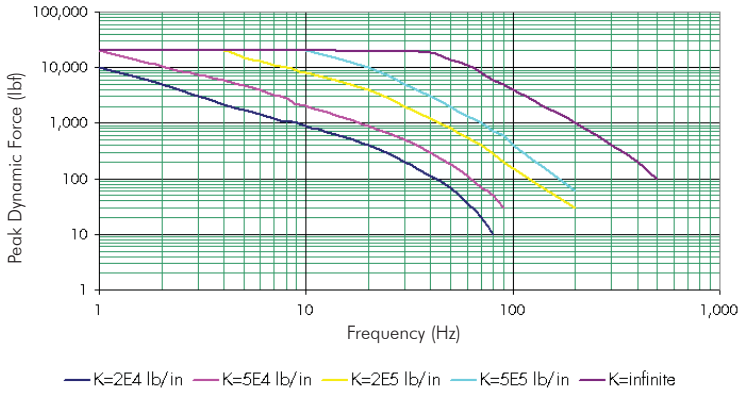
Xcite 1300-3 System	
1302C 15 GPM (60 l/m)	1304-Mod4
1310-15-T/C	Total Static & Dynamic Force = 10,000 lb (44,500 N)
2.0 in (50 mm)	2.0 in (50 mm)
3.0 in (75 mm)	10,000 lb (44,500 N)
1.25 - 12	2.0 in (50 mm)
Double Ended	



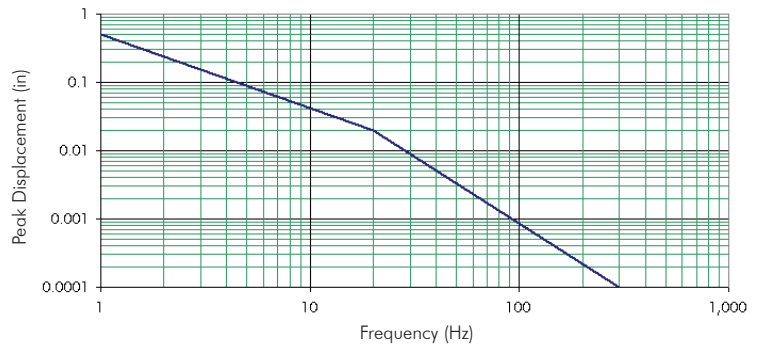
Exciter Head	A		B		C		D		E		F		G		H		I	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in(dia)	mm(dia)	in(dia)	mm(dia)		
1306-15-T/C	16.06	407.92	0.875	22.23	8.19	208.03	9.75	247.65	4.95	125.73	1.20	30.48	6.50	165.10	5.81	147.57	0.938	23.83
1352-15-T/C	15.97	405.64	0.63	16	4.63	117.60	5.63	143	2.55	64.77	.63	16	3.50	88.90	5.02	127.51	0.56	14.22
1310-15-T/C	23.56	589	0.75	19	8.00	200	11.00	275	8.00	200	N/A	N/A	11.00	2.75	4.31	108	1.00	.25

Xcite 1300-1 Laboratory System 1306-15-T/C Exciter Head

Peak Dynamic Force vs. Frequency

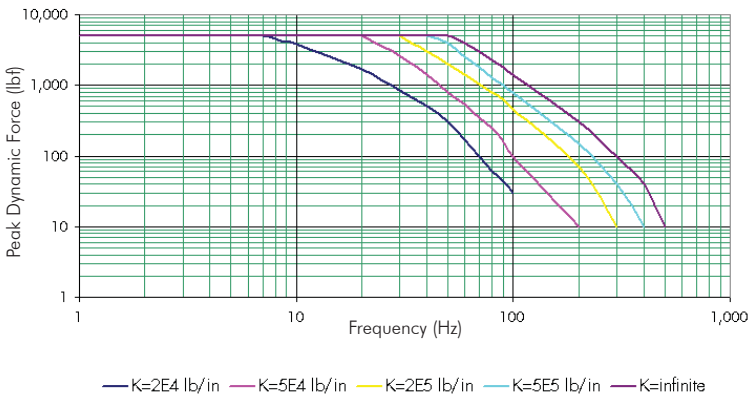


Peak Displacement vs. Frequency

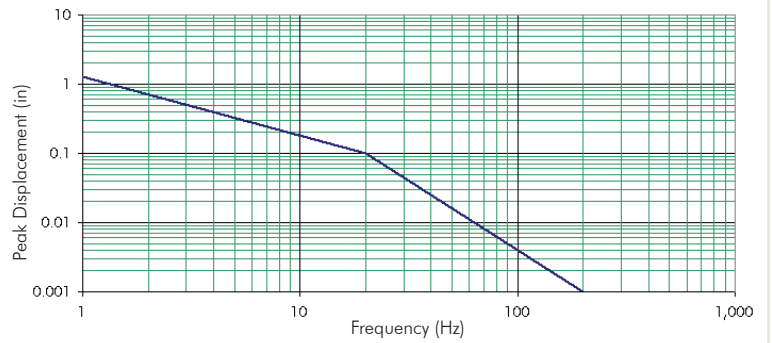


Xcite 1300-2 Laboratory System 1352-15-T/C Exciter Head

Peak Dynamic Force vs. Frequency

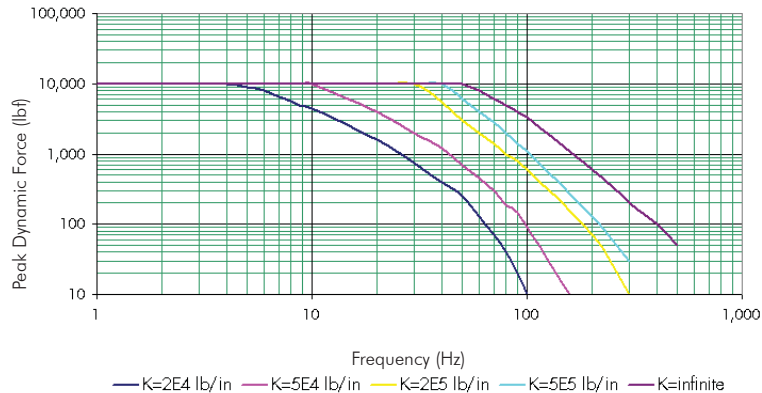


Peak Displacement vs. Frequency

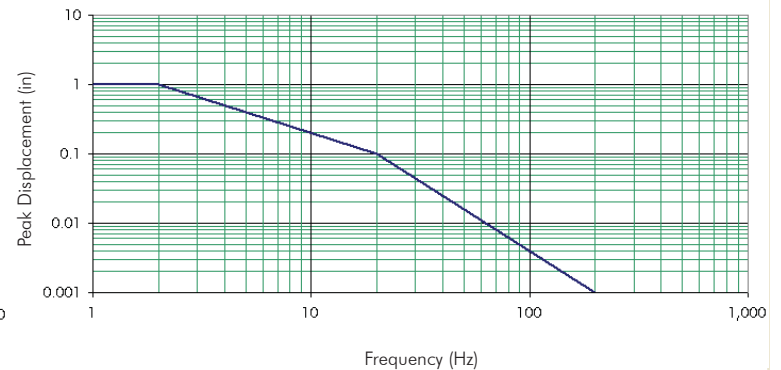


Xcite 1300-3 Laboratory System 1310-15-T/C Exciter Head

Peak Dynamic Force vs. Frequency



Peak Displacement vs. Frequency



Note: The above force curve is for the Xcite 1310 Head used in Tension/Compression mode with ZERO STATIC FORCE and the load cell rigidly connected to the structure for "PUSH/PULL" operation. In Compression mode only with 5000 lbs of Static Force the curves are derated to a maximum of 4000-5000 lbs Peak Dynamic. (Depending on the structure stiffness of the test article).