

PTH-S & PTH-S2 SPRING VIBRATION ISOLATING HANGER
PTH-SG SPRING AND RUBBER VIBRATION ISOLATING HANGER

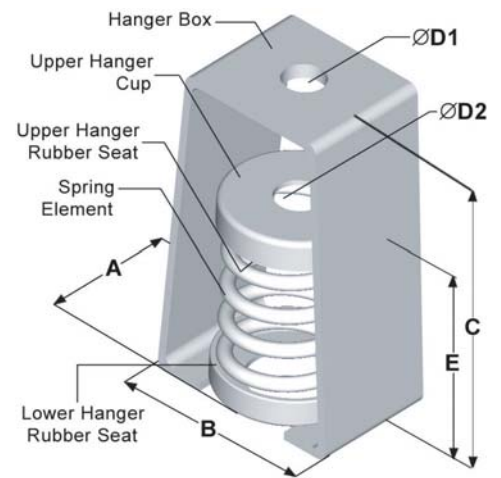
DESCRIPTION : TOZEN PTH-S Series vibration isolating hangers consist of a steel box incorporated with a free standing-laterally stable steel spring with load transfer steel cup and rubber washer. PTH-SG comes in series with noise absorbing hanger rubber properties of both materials. Both design permits installation in the hanger rods or at the ceiling.

The designs of the spring elements are comply to JIS 2704 for a semi-permanent use. To assure stability, outside diameter of the springs do not less than 0.8 times of the compressed height of the spring at rated load. All springs are designed to provide a minimum of 50% overload capacity. Model PTH-S spring hangers are available with 25 mm and 50 mm deflection with standard load capacity from 25 Kgs to 5,600 Kgs, while PTH-SG spring and rubber hangers are available with load capacity up to 825 Kgs. PTH-S and PTH-SG series vibration isolating hangers are recommended for the isolation of vibration produced by suspended mechanical equipment, low speed suspended fans, transformers, ductwork, piping, etc.

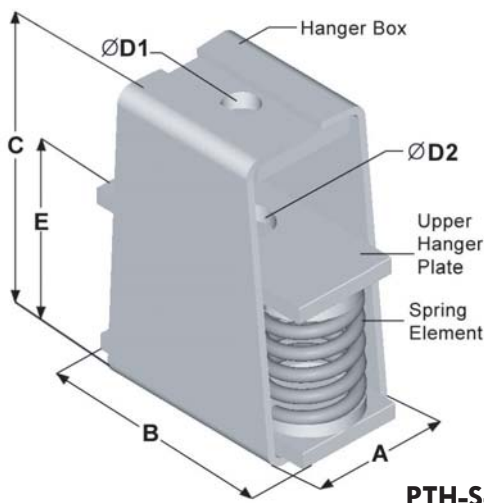
APPLICATION : Tozen PTH-S and PTH-SG hangers are used to isolate suspended sources of both audible and inaudible noise and vibration. Suspended mechanical equipment such as in-line fans, cabinet fans, piping and ductwork in close proximity to mechanical equipment, are typical uses of TOZEN PTH-S and PTH-SG hangers. Standard PTH-S and PTH-SG hangers are shipped fully assembled and ready for installation in threaded metal rod suspension systems. Tozen PTH-S and PTH-SG hangers can be provided with labor saving accessories for adaptation to wire or strap suspension system. Both Model PTH-S and PTH-SG hangers may be factory preloaded or provided with positioning plate for ease in erecting piping at a fixed elevation. Higher load capacities, larger deflections and 30 degree ARC capacity available.

SPECIFICATION : Type 1, Vibration isolators for suspended equipment, with minimum static deflection requirement exceeding of 6 mm shall be hangers consisting of a free standing, laterally stable steel spring with load transfer steel cup with rubber washer in series, assembled in a welded steel box. The spring elements shall have an outside diameter not less than 0.8 times of the compressed height of the spring at rated load. All springs shall be designed to provide a minimum of 50% overload capacity. Vibration isolating hangers shall be Model PTH-S as manufactured by Tozen Sangyo Co.,Ltd.

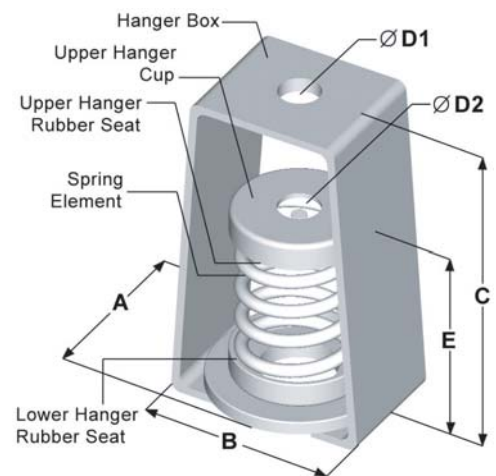
Type2, Vibration isolators for suspended equipment with minimum static deflection requirement exceeding 6 mm and where both high and low frequency vibrations are to be isolated, shall be hangers consisting of a laterally stable steel spring in series with a mounted noise absorbing rubber insert, assembled in a welded steel box. The spring elements shall have an outside diameter not less than 0.8 times of the compressed height of the spring at rated load. The combination vibration isolating hangers shall be Model PTH-SG, as manufactured by Tozen Sangyo Co., Ltd.



PTH-S-xxxS, ES, M
PTH-S2-xxxS, ES

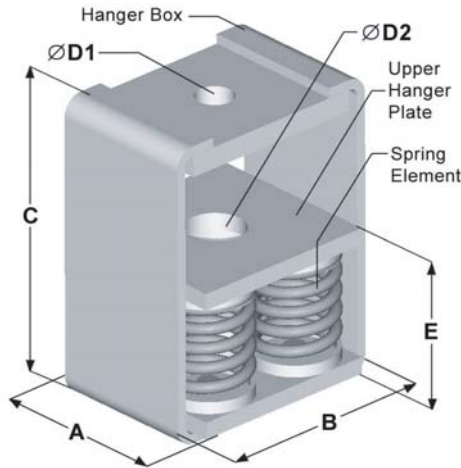


PTH-S-xxx2EM

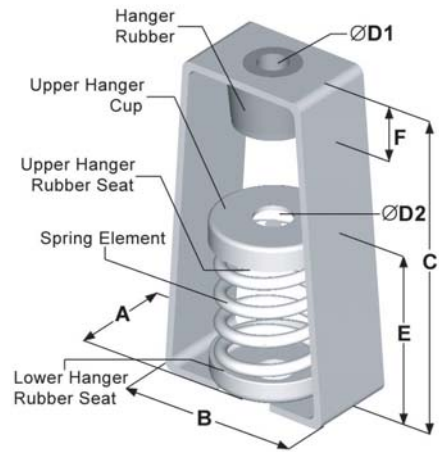


PTH-S-xxxxEM
PTH-S2-xxxEM

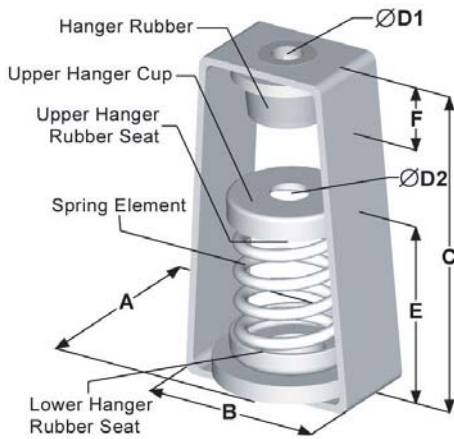
Note : xxx = Rated Capacity



PTH-S-xxx4EM, PTH-S2-xxx4EM



**PTH-SG-xxxS, PTH-SG-xxxM,
PTH-SG2-xxxS, ES**



PTH-SG2-xxxEM, PTH-SG-xxxEM

INSTALLATION INSTRUCTION :

- 1) Consider the height and location of the hanger and prepare the upper and lower hanging rod(bolt) in same proper length.
- 2) Attach the upper hanging rod(bolt) to the ceiling.
- 3) Connect the lower hanging rod (bolt) to the hanger. Pre-compress the hanger spring element (Approx. 10 mm) by tighten a restraint nut and washer at the bottom of the hanger.
- 4) Attach the hanger to the upper hanging rod(bolt).
- 5) Attach the hanging rod(bolt) to the pipe, duct or equipment bracket.
- 6) Install all other hangers by repeating instruction 1-5.
- 7) After the pipe or equipment is filled with water, release the restraint nut. Leveling adjust the hanger by the nut at the top of the element to obtain even level installation.
- 8) Final check the spring hanger in a proper deflection and don't install the hanging rod(bolt) in a inclined position.

PTH-S, PTH-S2, PTH-SG

MODEL	RATED CAPACITY		SPRING CONSTANT (Kg/mm)	SPRING COLOR	DIMENSION (mm)						
	(Kgs)	(Lbs)			A	B	C	D1	D2	E	F
PTH-S TYPE 25 MM DEFLECTION											
PTH-S-25S	25	55	1	WHITE							
PTH-S-35S	35	77	1.4	YELLOW							
PTH-S-50S	50	110	2	ORANGE	58	85	145	13	15	92	-
PTH-S-80S	80	176	3.2	VIOLET							
PTH-S-120S	120	264	4.8	RED							
PTH-S-175ES	175	385	7	SILVER	58	85	145	15	15	92	-
PTH-S-225ES	225	495	9	BROWN							
PTH-S-200M	200	440	8	VIOLET							
PTH-S-300M	300	660	12	RED	84	120	180	17	18	115	-
PTH-S-450M	450	990	18	GREEN							
PTH-S-600EM	600	1320	24	SILVER							
PTH-S-825EM	825	1815	33	BROWN	105	125	200	25	18	123	-
PTH-S-1100EM	1100	2420	44	BLUE							
PTH-S-1202EM	1200	2640	48	SILVER							
PTH-S-1652EM	1650	3630	66	BROWN	124	225	278	32	32	146	-
PTH-S-2202EM	2200	4840	88	BLUE							
PTH-S-2802EM	2800	6160	112	BLUE+BROWN							
PTH-S-3304EM	3300	7260	132	BROWN							
PTH-S-3604EM	3600	7920	144	BROWN+SILVER	183	233	305	52	52	149	-
PTH-S-4404EM	4400	9680	176	BLUE							
PTH-S-5604EM	5600	12320	224	BLUE+BROWN							

PTH-S, PTH-S2, PTH-SG (continued)

MODEL	RATED CAPACITY		SPRING CONSTANT (Kg/mm)	SPRING COLOR	DIMENSION (mm)													
	(Kgs)	(Lbs)			A	B	C	D1	D2	E	F							
PTH-S2 TYPE 50 MM DEFLECTION																		
PTH-S2-25S	25	55	0.5	WHITE	84	120	210	15	18	135	-							
PTH-S2-35S	35	77	0.7	YELLOW														
PTH-S2-50S	50	110	1	ORANGE														
PTH-S2-80ES	80	176	1.6	VIOLET														
PTH-S2-125ES	125	275	2.5	RED														
PTH-S2-175ES	175	385	3.5	SILVER														
PTH-S2-250ES	250	550	5	BROWN														
PTH-S2-175EM	175	385	3.5	ORANGE	105	140	255	21	24	168	-							
PTH-S2-245EM	245	539	4.9	VIOLET														
PTH-S2-350EM	350	770	7	RED														
PTH-S2-525EM	525	1155	10.5	GREEN														
PTH-S2-750EM	750	1650	15	SILVER														
PTH-S2-984EM	980	2156	19.6	PINK	222	260	325	52	38	195	-							
PTH-S2-1404EM	1400	3080	28	RED														
PTH-S2-2104EM	2100	4620	42	GREEN														
PTH-S2-3004EM	3000	6600	60	SILVER														
PTH-SG TYPE 25 MM DEFLECTION																		
PTH-SG-25S	25	55	1.0	WHITE	58	85	180	16	15	92	31							
PTH-SG-35S	35	77	1.4	YELLOW														
PTH-SG-50S	50	110	2.0	ORANGE														
PTH-SG-80S	80	176	3.2	VIOLET														
PTH-SG-120S	120	264	4.8	RED														
PTH-SG-175ES	175	385	7.0	SILVER														
PTH-SG-225ES	225	495	9.0	BROWN														
PTH-SG-200M	200	440	8.0	VIOLET								84	130	220	18	18	115	44
PTH-SG-300M	300	660	12	RED														
PTH-SG-450M	450	990	18	GREEN														
PTH-SG-600EM	600	1320	24	SILVER								120	170	270	20	24	124	56
PTH-SG-825EM	825	1815	33	BROWN														
PTH-SG2 TYPE 50 MM DEFLECTION																		
PTH-SG2-25S	25	55	0.5	WHITE	84	140	235	16	18	135	33							
PTH-SG2-35S	35	77	0.7	YELLOW														
PTH-SG2-50S	50	110	1	ORANGE														
PTH-SG2-80ES	80	176	1.6	VIOLET														
PTH-SG2-125ES	125	275	2.5	RED														
PTH-SG2-175EM	175	385	3.5	ORANGE														
PTH-SG2-245EM	245	539	4.9	VIOLET								120	160	290	18	24	168	50
PTH-SG2-350EM	350	770	7	RED														
PTH-SG2-525EM	525	1155	10.5	GREEN														
PTH-SG2-750EM	750	1650	15	SILVER	120	180	310	20	24	168	56							

NOTE-1: All springs have an minimum additional travel to solid equal to 50% of rated load.
 NOTE-2: Please refer to relevant brochure or consult factory for greater deflection and loading.
 NOTE-3: Spring constant applies to spring only.
 NOTE-4: Please consult factory for pre-compressed model and 30 degree arc capacity.

PTH-G VIBRATION ISOLATING RUBBER HANGER

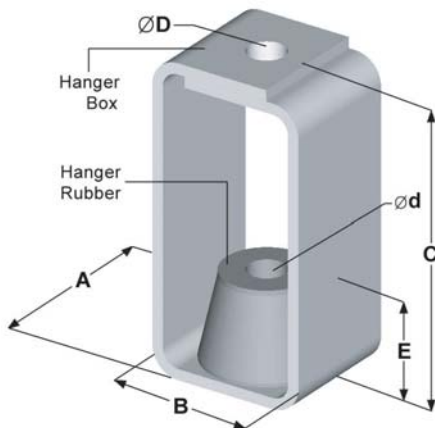
DESCRIPTION : TOZEN PTH-G vibration isolating rubber hangers are designed to reduce the transmission of vibration and noise produced by suspended equipment, piping and ductwork. PTH-G hangers incorporated with a noise absorbing rubber insert with cast-in load transfer plate at the top and bottom, assembled into a steel box. Ultimate design of PTH-G hanger rubbers allows greater deflection without accelerating deterioration. PTH-G hangers are available in deflection maximum up to 6 mm with capacities from 25 Kgs to 450 Kgs. PTH-G rubber hangers may be selected where first cost must be minimized. MODEL PTH-G is recommended for the isolation of vibration produced by suspended mechanical equipment, axial and exhausts fans, ductwork, piping, etc. Double deflection model PTH-GG adds another rubber element at the top of the hanger box.

APPLICATION : TOZEN PTH-G vibration-isolating hangers are used to isolate suspended sources of audible frequency vibration, or isolation of noise in piping and ductwork systems. Model PTH-G hangers are shipped fully assembled and ready for installation in threaded rod suspended systems. Model PTH-G hangers can be provided with labor saving accessories for adaptation to wire or strap suspension systems.

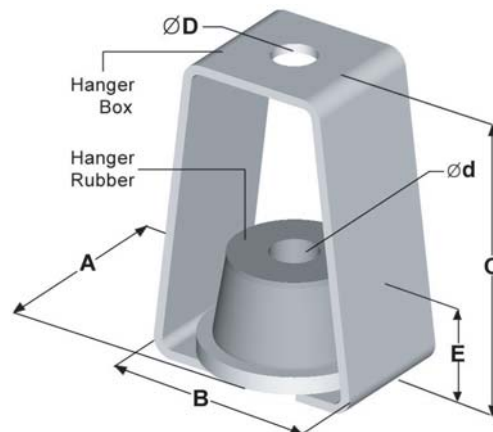
SPECIFICATION : Vibration isolators for suspended equipment, piping and ductwork with maximum static deflection requirements under operation load conditions not exceeding 6 mm shall be hangers consisting of a neoprene or synthetic rubber noise absorbing insert encased in a welded steel box.

The rubber insert shall be moulded from oil resistant compounds with cast in load transfer plate at the top and bottom, shall be color-coded or otherwise identified to indicate load capacity.

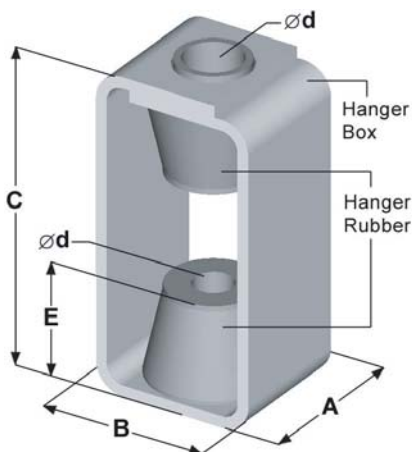
Vibration isolating rubber hanger assembly shall be Model PTH-G, as manufactured by Tozen Sangyo Co., Ltd.



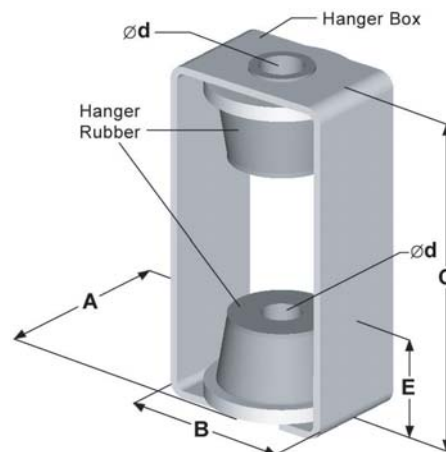
PTH-G-25, 35, 50



PTH-G-80, 120, 150, 200, 300, 450



PTH-GG-25, 35, 50



PTH-GG-80, 120, 150, 200, 300, 450

PTH-G, PTH-GG RUBBER HANGER

(mm)

MODEL	DESIGN LOADING		RUBBER COLOR CODE	MAXIMUM STATIC DEFL.	DURA- METER	A	B	C		d		D	E
	(Kgs)	(Lbs)						PTH-G	PTH-GG	PTH-G	PTH-GG	PTH-G	
PTH-G-25	25	55	WHITE	4	40	37	45	90	115	11	11	11	28
PTH-G-35	35	77	YELLOW		50								
PTH-G-50	50	110	ORANGE		55								
PTH-G-80	80	176	PINK	5	40	60	75	105	140	16	16	15	37
PTH-G-120	120	264	RED		50								
PTH-G-150	150	330	ORANGE		55								
PTH-G-200	200	440	PINK	6	40	85	103	132	195	18	18	18	50
PTH-G-300	300	660	RED		50								
PTH-G-450	450	990	GREEN		55								

NOTE-1: Hanger elements have similar straight line deflection curve.

NOTE-2: Please refer to relevant brochure or consult factory for wire or strap suspension systems.