

# PTH-S,-S2

## Spring Vibration Isolating Hanger

# -SG,-SG2

## 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.

### Dimensions

#### PTH-S TYPE

25mm DEFLECTION

MODEL	RATED CAPACITY		SPRING CONSTANT (kg/mm)	SPRING COLOR	DIMENSION (mm)								
	(kgs)	(Lbs)			A	B	C	D1	D2	E	F		
PTH-S-10S	10	22	0.4	GREEN									
PTH-S-15S	15	33	0.6	BLUE									
PTH-S-25S	25	55	1	WHITE									
PTH-S-35S	35	77	1.4	YELLOW									
PTH-S-50S	50	110	2	ORANGE									
PTH-S-80S	80	176	3.2	VIOLET									
PTH-S-120S	120	264	4.8	RED									
PTH-S-175S	175	385	7	SILVER									
PTH-S-225S	225	495	9	BROWN									
PTH-S-300M	300	660	12	RED									
PTH-S-450M	450	990	18	GREEN									
PTH-S-600M	600	1320	24	SILVER									
PTH-S-825M	825	1815	33	BROWN									
PTH-S-1100M	1100	2420	44	BLUE									
PTH-S-1202M	1200	2640	48	SILVER									
PTH-S-1652M	1650	3630	66	BROWN									
PTH-S-2202M	2200	4840	88	BLUE									
PTH-S-2802M	2800	6160	112	BLUE+BROWN									
PTH-S-3304M	3300	7260	132	BROWN									
PTH-S-3604M	3600	7920	144	BROWN+SILVER									
PTH-S-4404M	4400	9680	176	BLUE									
PTH-S-5604M	5600	12320	224	BLUE+BROWN									

#### PTH-S2 TYPE

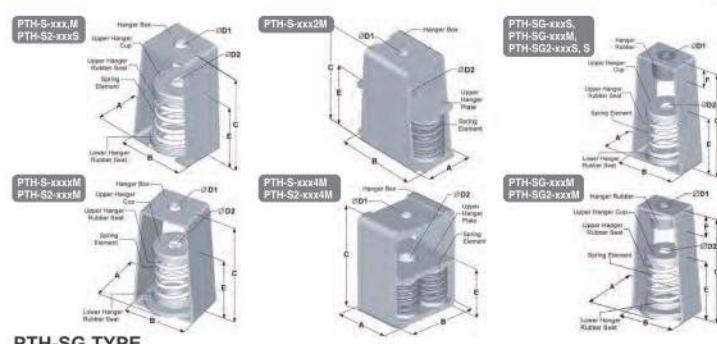
50mm DEFLECTION

MODEL	RATED CAPACITY		SPRING CONSTANT (kg/mm)	SPRING COLOR	DIMENSION (mm)								
	(kgs)	(Lbs)			A	B	C	D1	D2	E	F		
PTH-S2-25S	25	55	0.5	WHITE									
PTH-S2-35S	35	77	0.7	YELLOW									
PTH-S2-50S	50	110	1	ORANGE									
PTH-S2-80S	80	176	1.6	VIOLET									
PTH-S2-125S	125	275	2.5	RED									
PTH-S2-175S	175	385	3.5	SILVER									
PTH-S2-250S	250	550	5	BROWN									
PTH-S2-175M	175	385	3.5	ORANGE									
PTH-S2-245M	245	539	4.9	VIOLET									
PTH-S2-350M	350	770	7	RED									
PTH-S2-525M	525	1155	10.5	GREEN									
PTH-S2-750M	750	1650	15	SILVER									
PTH-S2-1052M	1050	2310	21	GREEN									
PTH-S2-1502M	1500	3300	30	SILVER									
PTH-S2-2102M	2100	4620	42	SILVER+BROWN									
PTH-S2-3004M	3000	6600	60	SILVER									
PTH-S2-4204M	4200	9240	60	SILVER+BROWN									

### 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 Corporation.

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 a 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 Corporation.



#### PTH-SG TYPE

25mm DEFLECTION

MODEL	RATED CAPACITY		SPRING CONSTANT (kg/mm)	SPRING COLOR	DIMENSION (mm)								
	(kgs)	(Lbs)			A	B	C	D1	D2	E	F		
PTH-SG-25S	25	55	1.0	WHITE									
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-300M	175	385	7.0	SILVER									
PTH-SG-450M	300	660	12	RED									
PTH-SG-600M	450	990	18	GREEN									
PTH-SG-825M	600	1320	24	SILVER									
PTH-SG-175S	825	1815	33	BROWN									

#### PTH-SG2 TYPE

50mm DEFLECTION

MODEL	RATED CAPACITY		SPRING CONSTANT (kg/mm)	SPRING COLOR	DIMENSION (mm)								
	(kgs)	(Lbs)			A	B	C	D1	D2	E	F		
PTH-SG2-25S	25	55	0.5	WHITE									
PTH-SG2-35S	35	77	0.7	YELLOW									
PTH-SG2-50S	50	110	1	ORANGE									
PTH-SG2-80S	80	176	1.6	VIOLET									
PTH-SG2-125S	125	275	2.5	RED									
PTH-SG2-175M	175	385	3.5	ORANGE									
PTH-SG2-245M	245	539	4.9	VIOLET									
PTH-SG2-350M	350	770	7	RED									
PTH-SG2-525M	525	1155	10.5	GREEN									
PTH-SG2-750M	750	1650	15	SILVER									
PTH-SG2-1052M	1050	2310	21	GREEN									
PTH-SG2-1502M	1500	3300	30	SILVER									
PTH-SG2-2102M	2100	4620	42	SILVER+BROWN									
PTH-SG2-3004M	3000	6600	60	SILVER									
PTH-SG2-4204M	4200	9240	60	SILVER+BROWN									

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.

### 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 restrain 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.

NOTE-5: Install all other hangers by repeating instruction 1-5.

7) After the pipe or equipment is filled with water, release the restrain 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 an inclined position.

**Note:** The content of this catalog is subject to change without prior notice.

### AGENT

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