



# Tomahawk



## Spring Hangers

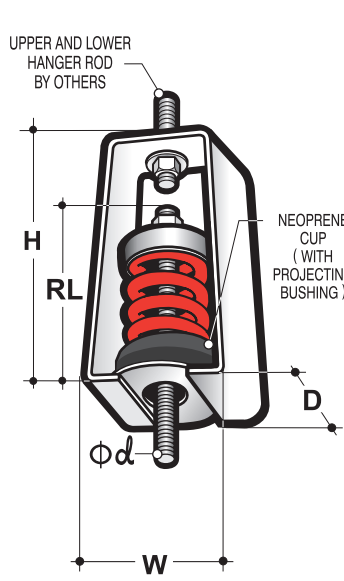
2-inch (50mm) Deflection

● SH-D    ● SHDD-D

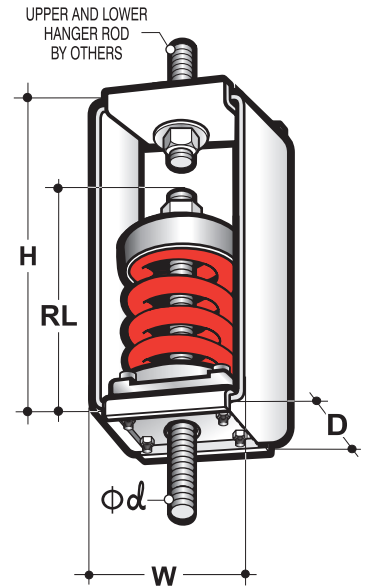
**SH-D & SHDD-D** are Tomahawk's renewed design of 2-inch (50mm) rated deflection spring hanger series for better vibration isolation performance than those of normal 1-inch (25mm) deflection type.

The spring is mounted in a neoprene cup<sup>\*(1)</sup>, with projected bushing passing through and holding firm in place with grommet to the lower support washer of hanger frame. The neoprene cup serves as noise barrier and prevents "short circuiting" of hanger rod with hanger frame. An electroplated steel cap<sup>\*(2)</sup> mounted on the spring will carry the load to the spring. The hanger frame is constructed from thick gauge steel plates with large load bearing safety factor embedded in the design.

For lateral stability the criteria of the ratio, spring outside diameter to loading operating height is equal to or greater than 0.80 is being adhered to and the spring is optimally designed for safe load stress and a 50% overload capacity.



**Fig. 1**



**Fig. 2**

MODEL	IMPERIAL UNITS			COLOR CODE	METRIC UNITS			DIMENSION (mm)						
	Rated Load (lbs.)	Total Rated Defl.(in.)	Spring Rate (lbs./in.)		Rated Load (kg)	Rated Defl. (mm)	Spring Rate (N/mm)	H	W	D	RL*	ϕd	Fig.	
SH-D50	50	2.00	25.00	green	22.7	51.0	4.36							
SH-D75	75	2.00	37.50	grey	34.0	51.0	6.54	150	85	70	115	M10	1	
SH-D125	125	2.00	62.50	yellow	56.7	51.0	10.91							
SH-D200	200	2.00	100.00	tan	90.7	51.0	17.45	190	100	90	125	M10	1	
SH-D250	250	2.00	125.00	brown	113.4	51.0	21.81							
SH-D350	350	2.00	175.00	black	158.8	51.0	30.54	210	115	110	140	M12	1	
SH-D500	500	2.00	250.00	white	226.9	51.0	43.62							
SH-D700	700	2.00	350.00	red	317.6	51.0	61.07							
SH-D800	800	2.00	400.00	yellow	363.0	51.0	69.80							
SH-D1000	1000	2.00	500.00	blue	453.7	51.0	87.25							
SH-D1200	1200	2.00	600.00	grey	544.5	51.0	104.69							
SH-D1350	1350	2.00	675.00	tan	612.5	51.0	117.78	260	150	120	240	M16	2	
SH-D1600	1600	2.00	800.00	brown	726.0	51.0	139.59							
SH-D1900	1900	2.00	950.00	blue	862.1	51.0	165.77							
SH-D2200	2200	2.00	1100.00	red	998.2	51.0	191.94							
SH-D2500i	2500	2.00	1250.00	red+white	1134.3	51.0	218.11							
SH-D2800	2800	2.00	1400.00	tan	1270.4	51.0	244.29							
SH-D3150	3150	2.00	1575.00	black	1429.2	51.0	274.82	320	210	180	275	M20	2	
SH-D3500	3500	2.00	1750.00	dark blue	1588.0	51.0	305.36							
SH-D4000	4000	2.00	2000.00	orange	1814.9	51.0	348.98							
SH-D4500	4500	2.00	2250.00	white	2041.7	51.0	392.60							
SH-D5000	5000	2.00	2500.00	brown	2268.6	51.0	436.23							
SH-D5500i	5500	2.00	2750.00	brown+white	2495.5	51.0	479.85							
SH-D6000i	6000	2.00	3000.00	brown+yellow	2722.3	51.0	523.47							
SH-D6500	6500	2.00	3250.00	white	2949.2	51.0	567.09	380	250	200	320	M24	2	
SH-D7000i	7000	2.00	3500.00	white+blue	3176.0	51.0	610.72							
SH-D7500	7500	2.00	3750.00	black	3402.9	51.0	654.34							
SH-D8000i	8000	2.00	4000.00	black+red	3629.8	51.0	697.96							
SH-D10000i	10000	2.00	5000.00	black+white	4537.2	51.0	872.45							

\*RL : Rod Length of lower rod    ϕd : Recommended rod diameter.

Notes : \*(1) Neoprene cup up to SH-D500 only. For SH-D700 and beyond the spring is mounted in cast iron spring cup, on top of acoustical rubber pad, to the lower support of the steel hanger frame.

\*(2) For models SH-D50 to SH-D800, SH-D1600 to SH-D3150 the spring is mounted in steel cap, others will be in cast iron spring caps. However eventually ALL will be mounted in steel caps.



# Tomahawk



## Spring Hangers

2-inch (50mm) Deflection

● SHDD-D

### Combination of Spring & Hanger (Neoprene) element

**SHDD-D** is combination of SH-D spring hanger in series with Duo-Deflection hanger element; of which are 0.25 inch to 0.3 inch average rated deflection and helps isolate most of noise and minor vibration while the spring is isolating main range of disturbing vibration.

The spring<sup>(1)</sup>, color paint coated for easy load identification and corrosion prevention is mounted in a neoprene cup, with projected bushing passing through and holding firm in place with grommet to the lower support washer of hanger frame.

The neoprene cup serves as noise barrier and prevents short circuiting of hanger rod with hanger frame. An electroplated steel cap mounted on the spring bears the load to the spring. The hanger frame is constructed from thick gauge steel plates with large load bearing safety factor embedded in the design.

Spring outside diameter to loading operating height ratio is equal to or greater than 0.80 is being adhered to and the spring is optimally designed for safe load stress and a 50% overload capacity.

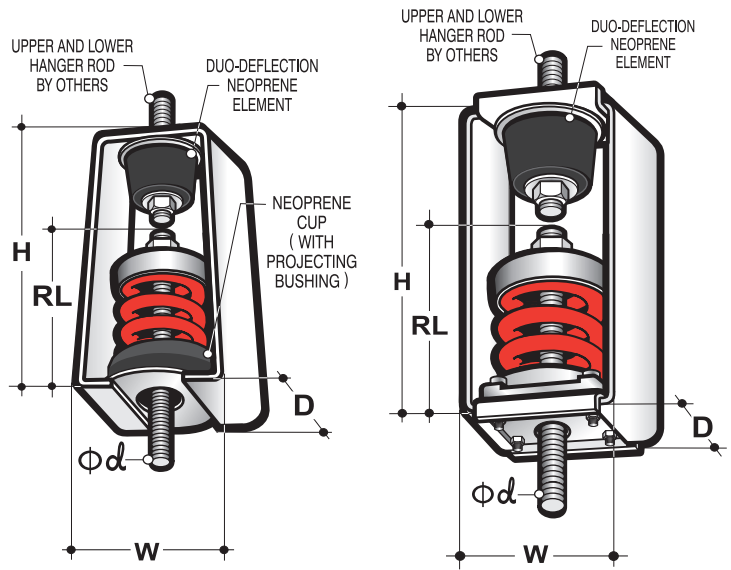


Fig. 1

Fig. 2

MODEL	IMPERIAL UNITS				COLOR CODE	METRIC UNITS				DIMENSION (mm)					
	Rated Load (lbs.)	Rated Defl. (in.)	Total Rated Defl. (in.)	Spring Rate (lbs./in.)		Rated Load (kg)	Rated Defl. (mm)	Total Rated Defl. (mm)	Spring Rate (kg/mm)	H	W	D	RL*	ϕd	Fig.
SHDD-D50	50	2.00	2.30	25.00	green	22.7	50.8	58.42	4.38	190	85	70	115	M10	1
SHDD-D75	75	2.00	2.30	37.50	grey	34.0	50.8	58.42	6.57						
SHDD-D125	125	2.00	2.30	62.50	yellow	56.7	50.8	58.42	10.95						
SHDD-D200	200	2.00	2.30	100.00	tan	90.7	50.8	58.42	17.52	240	100	90	125	M10	1
SHDD-D250	250	2.00	2.30	125.00	brown	113.4	50.8	58.42	21.90						
SHDD-D350	350	2.00	2.30	175.00	black	158.8	50.8	58.42	30.66	270	115	110	140	M12	1
SHDD-D500	500	2.00	2.30	250.00	white	226.9	50.8	58.42	43.79						
SHDD-D700	700	2.00	2.30	350.00	red	317.6	50.8	58.42	61.31	320	150	120	240	M16	2
SHDD-D800	800	2.00	2.30	400.00	yellow	363.0	50.8	58.42	70.07						
SHDD-D1000	1000	2.00	2.30	500.00	blue	453.7	50.8	58.42	87.59						
SHDD-D1200	1200	2.00	2.30	600.00	grey	544.5	50.8	58.42	105.11						
SHDD-D1350	1350	2.00	2.30	675.00	tan	612.5	50.8	58.42	118.24						
SHDD-D1600	1600	2.00	2.25	800.00	brown	726.0	50.8	57.15	140.14						
SHDD-D1900	1900	2.00	2.25	950.00	blue	862.1	50.8	57.15	166.42						
SHDD-D2200	2200	2.00	2.25	1100.00	red	998.2	50.8	57.15	192.69						
SHDD-D2500i	2500	2.00	2.25	1250.00	red+white	1134.3	50.8	57.15	218.97						
SHDD-D2800	2800	2.00	2.25	1400.00	tan	1270.4	50.8	57.15	245.25						
SHDD-D3150	3150	2.00	2.25	1575.00	black	1429.2	50.8	57.15	275.90	400	210	180	275	M24	2
SHDD-D3500	3500	2.00	2.25	1750.00	dark green	1588.0	50.8	57.15	306.56						
SHDD-D4000	4000	2.00	2.25	2000.00	orange	1814.9	50.8	57.15	350.35						
SHDD-D4500	4500	2.00	2.25	2250.00	white	2041.7	50.8	57.15	394.15	450	250	200	320	M24	2
SHDD-D5000	5000	2.00	2.25	2500.00	brown	2268.6	50.8	57.15	437.94						
SHDD-D5500i	5500	2.00	2.25	2750.00	brown+white	2495.5	50.8	57.15	481.74						
SHDD-D6000i	6000	2.00	2.25	3000.00	brown+yellow	2722.3	50.8	57.15	525.53						
SHDD-D6500	6500	2.00	2.25	3250.00	white	2949.2	50.8	57.15	569.33						
SHDD-D7000i	7000	2.00	2.25	3500.00	white+blue	3176.0	50.8	57.15	613.12						
SHDD-D7500	7500	2.00	2.25	3750.00	black	3402.9	50.8	57.15	656.91						
SHDD-D8000i	8000	2.00	2.25	4000.00	black+red	3629.8	50.8	57.15	700.71						
SHDD-D10000i	10000	2.00	2.25	5000.00	black+white	4537.2	50.8	57.15	875.89						

\*RL : Rod Length of lower rod ϕd : Recommended rod diameter.

Notes : (1) Neoprene cup up to SHDD-D500 only. For SHDD-D700 and beyond the spring is mounted in cast iron spring cup, on top of acoustical rubber pad, to the lower support of the steel hanger frame.

(2) For models SHDD-D50 to SHDD-D800, SHDD-D1600 to SHDD-D3150 the spring is mounted in steel cap, others will be in cast iron spring caps. However eventually ALL will be mounted in steel caps.