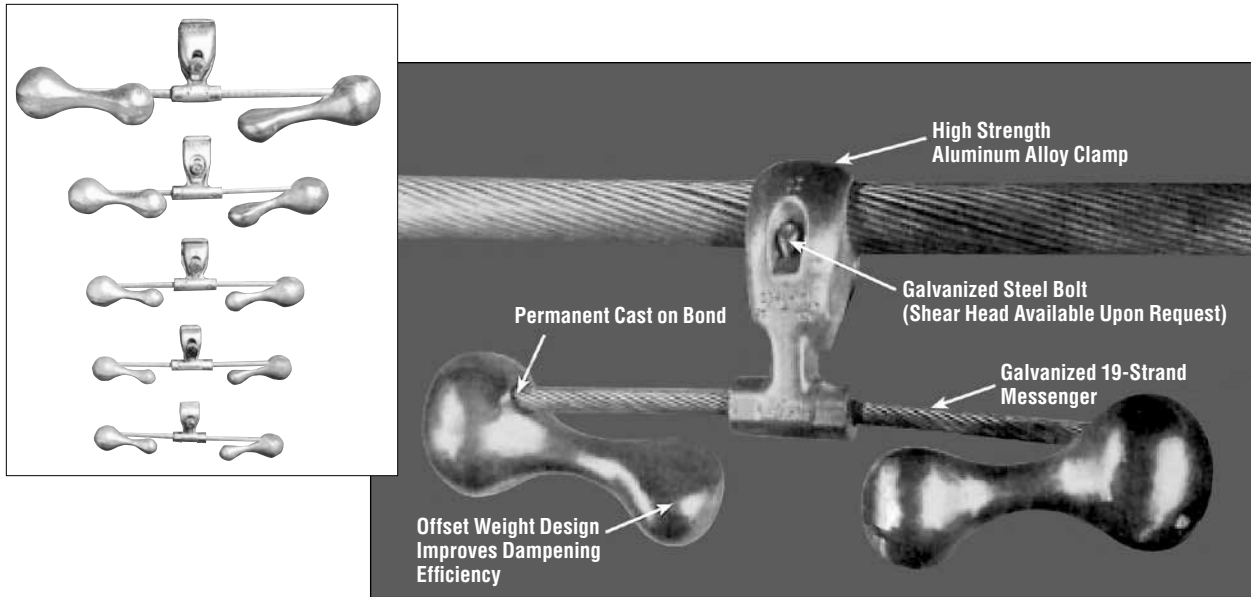




# DOGBONE® Vibration Damper for Overhead Shield Wire



## NOMENCLATURE

### Materials

- Clamp** – cast of high strength aluminum alloy.
- Bolt** – galvanized bolt or aluminum shear head break away head bolts available on special request.
- Flat Washer** – Galvanized steel
- Messenger** – exclusive preformed 19 strand EHS galvanized steel.
- Masses** – high grade zinc.

## GENERAL RECOMMENDATIONS

DOGBONE vibration dampers are available for those that prefer to use a Stockbridge type on shield wire. These dampers are designed to eliminate conductor fatigue damage and line maintenance costs by effectively reducing Aeolian vibration which also allows increased shield wire tensions. The messenger cable and unique “dog bone” shape of the masses are designed to achieve optimal energy dissipation and minimal clamp movement. The messenger cable and DOGBONE weights are sized to give additional resonant modes and wider effective frequency response. The mechanical impedance of the damper is matched to the conductor to optimize performance. The offset DOGBONE shaped masses also introduce a torsional mode of vibration damping not present in conventional Stockbridge type dampers.

The range of DOGBONE vibration dampers is a development resulting from our extensive experience and research in the field of conductor vibration control. The DOGBONE damper concept is based on the known and proven principles of the Stockbridge damper but embodies improvements which increase both power dissipation and range of frequency response beyond those of standard Stockbridge types. The performance of the DOGBONE vibration damper has been further improved using the latest CIGRE and IEEE recommended methods including I.S.W.R. Power Dissipation and Mechanical Impedance Testing.

### Placement

Due to the many parameters involved and the exhaustive tests conducted, please contact PLP to calculate optimum damper placements and quantities.

### DOGBONE DAMPER Catalog Number Selection:

**DB 05 - 09 SH**

“DB” – DOGBONE \_\_\_\_\_

Weight Combination (05 or 1): \_\_\_\_\_

Weight selection based on cable diameter.

Clamp Code (06, 09, 15, 18, 21, 24, 27): \_\_\_\_\_

Clamp selection based on cable or clamping diameter.

Shear Head Bolt Option: \_\_\_\_\_

Include an “SH” to order damper with break-away Shear-Head bolt.

# DOGBONE® Vibration Damper for Overhead Shield Wire

DOGBONE DAMPER Weight and Clamp Sizes					
Product Code	1. Select Weight Code from Cable Diameter		2. Select Clamp Code from Applied Diameter		
	Weight Code (wc)	Steel & AL-Clad Shield Wire Range	Clamp Code (cc)	Clamp Range (over bare cable or cable plus rods)	
				Inches	mm
DB	05	0.250 – 0.386 in. 6.25 – 9.81 mm	06	0.250 – 0.370	6.4 – 9.3
			09	0.371 – 0.490	9.4 – 12.4
			12	0.491 – 0.600	12.5 – 15.2
			15	0.601 – 0.710	15.3 – 18
	1	0.387 – 0.550 in. 9.82 – 14.0 mm	9	0.371 – 0.490	9.4 – 12.4
			12	0.491 – 0.600	12.5 – 15.2
15			0.601 – 0.710	15.3 – 18	

DOGBONE DAMPER Dimensions										
3. Confirm Damper Catalog Number and Properties										
Damper Catalog Number	Clamp Width		Bolt Size	Install Torque		Assembled Weight		Damper Length		Quantity per Box
	DB wc-cc	Inches	mm	Inches	Ft-lb	N-m	lb	kg	Inches	mm
DB 05-06	1.50	38.1	7/16 x 1-3/4	20	27	2.7	1.2	13.8	351	15
DB 05-09	1.50	38.1	7/16 x 1-3/4	20	27	2.7	1.2	13.8	351	15
DB 05-12	1.55	39.4	1/2 x 2-1/4	25	34	2.9	1.3	13.8	351	15
DB 05-15	1.55	39.4	1/2 x 2-1/4	25	34	2.9	1.3	13.8	351	15
DB 1-9	1.50	38.1	7/16 x 1-3/4	20	27	5.1	2.3	16.3	414	10
DB 1-12	1.55	39.4	1/2 x 2-1/4	25	34	5.1	2.3	16.3	414	10
DB 1-15	1.55	39.4	1/2 x 2-1/4	25	34	5.1	2.3	16.3	414	10