

## Overview

### Non-slip type Vibration Damper with armor rods

Non-slip type vibration damper is composed of hammer and helical clip. It can reduce the breeze fatigue damage of wire and optical cable. But if the vibration damper produce the slip it will cause greater damage to the wire, so must be ensure to installed with reasonable weight and position .

The non-slip type vibration damper we provided with particular weight and reasonable shape design ,it can produce multi resonant frequencies and effective absorption the different frequencies of vibration. Adopting the helical structure form of installation, it have large adhesion area and evenly distributed the Adhesion force, without stress concentration, can keep the constant installation moment of force, ensure the products don't have any slip phenomenon, effectively prevent the fatigue damage of cable, extension the wire service life .



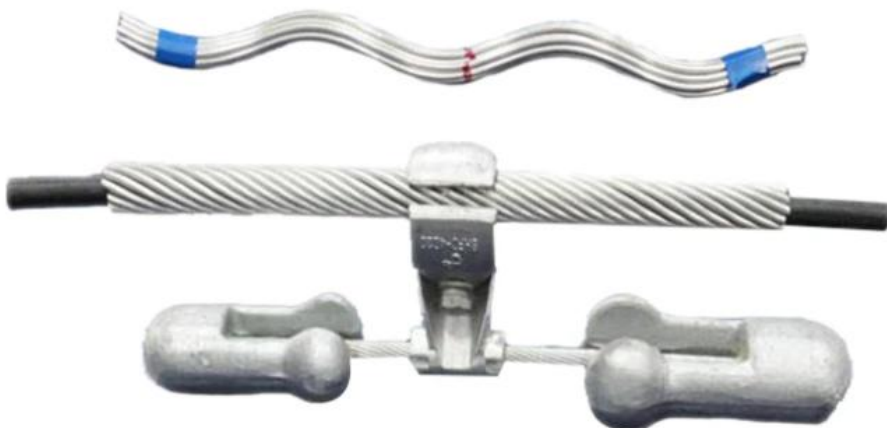
### 4D Vibration Damper and Armor Rod/Stockbridge Damper

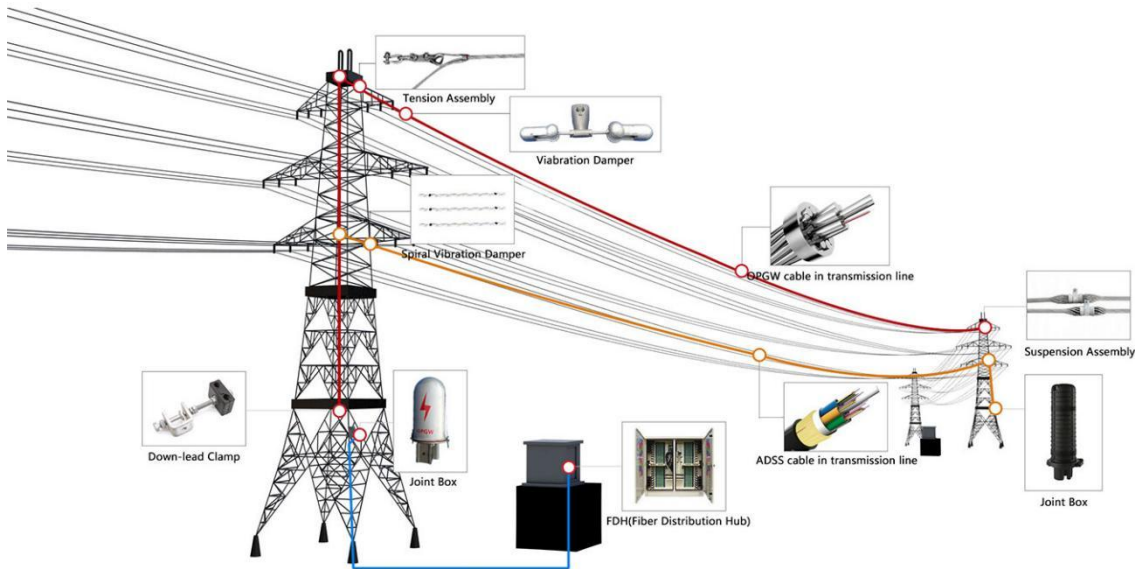
4D Vibration damper is composed of two different weight hammers stranded galvanized steel wire with high elasticity and high-intensity, and aluminum alloy clamp.

The 4D series Vibration dampers we provided are Stockbridge Tuning Fork, with four resonant frequencies, the frequency range is from 3Hz to 150Hz. With wide frequency range, the 4D vibration damper can highly consume vibration energy, and effectively dissipate the energy caused by cable Aeolian vibration, reduce cable vibration horizontal, extend the cable service life.

Vibration Damper can be installed on both **OPGW** and ADSS cable. Armor rods are needed when it is installed on OPGW and ADSS cable.

Armor rods are also called Vibration damper protective rods. Because of the concentrated stress, vibration damper will cause some damages to the cable. The armor rods provide proper stress distribution on the optical cable and protect the cable.




**Parameter**
**Non-slip type Vibration Damper with armor rods**
**Specification of Non-slip type Vibration damper**

Type	Available Dia.of Cable		Weight(kg)
	Min. (mm)	Max.(mm)	
4D-20Y	7.5	22	1.4
4D-30Y	7.5	22	2.5

**Recommend allocation of vibration damper for OPGW**

Cable Dia.(mm)	Span(m)			
	100~300	300~600	600~900	1000~1200
d<12	100~300	300~600	600~900	1000~1200
12≤d<22	100~350	350~700	700~1000	1000~1200
( recommend quantity of vibration damper/span)	2	4	6	8

**4D Vibration Damper and Armor Rod/Stockbridge Damper**

Type	Clamp Dia.Range(mm)		Weight(kg)
	Min.(mm)	Max.(mm)	
4D-20-16.0	14	16	1.4
4D-20-18.0	15	18	
4D-20-20.3	16.5	20.3	
4D-20-23.4	19.5	23.4	2.5
4D-20-27.0	22.3	27	
4D-30-18.0	15	18	
4D-30-23.4	18	23.4	
4D-30-27.0	22.3	27	

**Recommend allocation of vibration damper for OPGW**

Cable Dia.(mm)	Span(m)			
	100~300	300~600	600~900	1000~1200
d<12	100~300	300~600	600~900	1000~1200
12≤d<22	100~350	350~700	700~1000	1000~1200
( recommend quantity of vibration damper/span)	2	4	6	8

**Recommend allocation of vibration damper for ADSS**

Cable Dia.(mm)	Span(m)			
d<12	100~250	250~450	450~700	
12≤d<22	100~250	250~500	500~800	800~1000
(recommend quantity of	2	4	6	8
vibration damper/span)				

**Note: For safety reason, quantity of vibration damper would rather surpass than lack at critical span.**