

Stockbridge Dampers

For Effective Control of Conductor Vibrations

Stockbridge Dampers

Excellence in Aeolian Vibration Damping

General

Fatigue failures of overhead conductor strands due to wind induced vibrations were observed from the beginning of the last century.

The most effective protection device was invented by George Stockbridge in 1924 in the form of an inertial energy absorber equipped with a stranded steel cable holding two weights. Since then, the Stockbridge's vibration damper underwent several design and manufacturing changes that increased its performance and endurance.

Despite many other damping devices being invented during the last century, the Stockbridge type vibration damper is still the best technical and economical solution for the control, within the safety limits, of the overhead cable vibrations.

Features

PFISTERER vibration dampers are designed to:

- Control aeolian vibration in each span of the line within the internationally accepted limits with the minimum number of units
- Maintain damping capacity over the entire range of ambient temperatures and for the whole expected life of the line
- Be free from corona at the maximum voltage of the line when installed on the phase conductors
- Be installed and removed on energized lines;
- Be maintenance-free for the whole expected life of the line
- Maintain a suitable grip on the cable resisting the loosening effect of vibrations
- Guarantee that individual components are secured against becoming loose in service

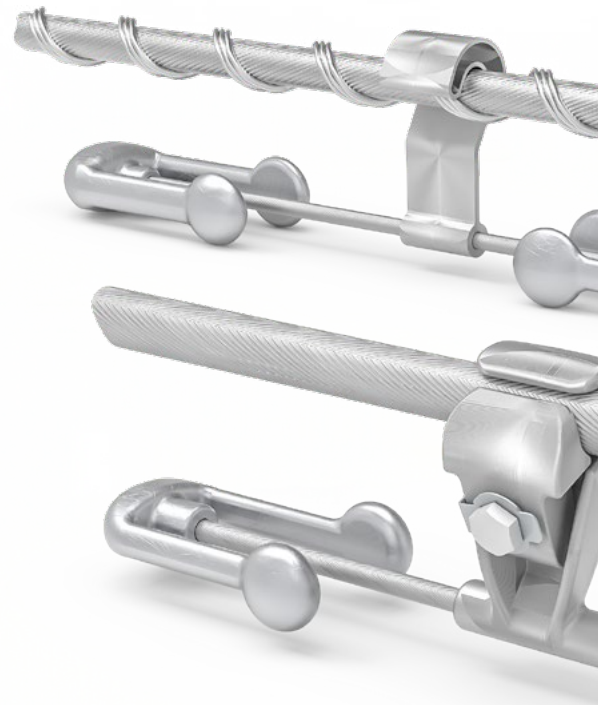
Key Data

PFISTERER has been one of the manufacturers who actively contributed, during the last 50 years, to the enhancement of the Stockbridge Damper.

Today, PFISTERER can supply powerful units with excellent performance, suitable for any type of overhead cable, for example OPGW, AAAC, ACSR, etc.

PFISTERER vibration dampers can be equipped either with bolted clamp or with helical rod attachment.

PFISTERER vibration dampers are installed world wide and are well proven in the most severe environmental conditions.



Stockbridge Damper with bolted clamp

Comprehensive Client Assistance

PFISTERER can provide a full package including:

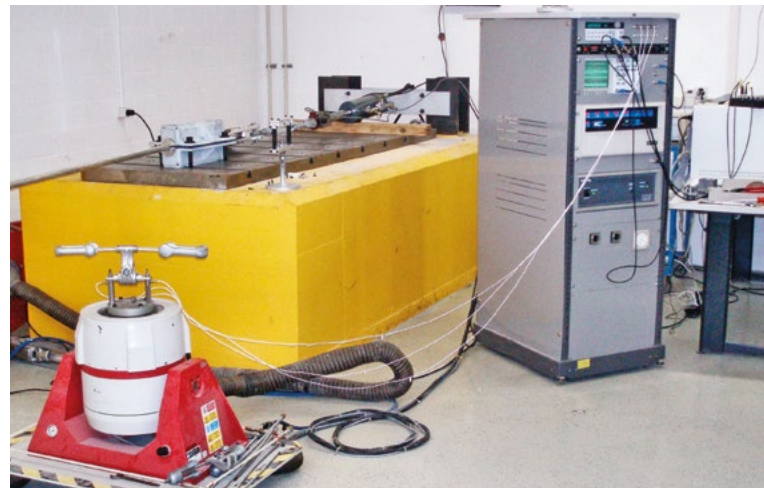
- Vibration damping study and design of the most appropriate damping system for any specific project, at offer stage
- Evidence of comprehensive type testing and intensive quality control during production
- Supply of vibration damper units manufactured in accordance with the most modern technology
- Supply of clear installation instructions and availability for any further client's requirement
- Capacity to perform field vibration measurements using vibration recorders designed and manufactured by PFISTERER



Stockbridge Damper with helical rod attachment



Production



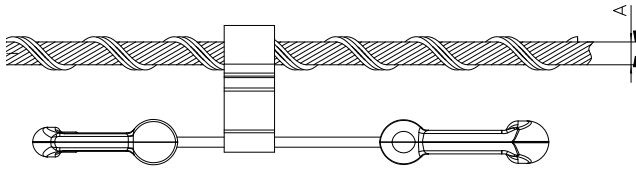
Test laboratory



Field tests

Order Information

Helical rod attachment



Type	Clamp Range „A“ [mm]	Part Number
	for Conductor [mm] Ø 7.06 - 14.37	
STO 715	Ø 7.06 - 7.51	182 025-700
	Ø 7.52 - 7.99	182 025-701
	Ø 8.00 - 8.47	182 025-702
	Ø 8.48 - 8.96	182 025-703
	Ø 8.97 - 9.46	182 025-704
	Ø 9.47 - 9.97	182 025-705
	Ø 9.98 - 10.38	182 025-706
	Ø 10.39 - 10.81	182 025-707
	Ø 10.82 - 11.45	182 025-708
	Ø 11.46 - 12.11	182 025-709
	Ø 12.12 - 12.82	182 025-710
	Ø 12.83 - 13.58	182 025-711
Ø 13.59 - 14.37	182 025-712	
	for Conductor [mm] Ø 14.38 - 20.28	
STO 1520	Ø 14.38 - 15.05	182 025-713
	Ø 15.06 - 15.89	182 025-714
	Ø 15.90 - 16.93	182 025-715
	Ø 16.94 - 17.82	182 025-716
	Ø 17.83 - 18.68	182 025-717
	Ø 18.69 - 19.50	182 025-718
	Ø 19.51 - 20.28	182 025-719
	for Conductor [mm] Ø 20.29 - 26.81	
STO 2027	Ø 20.29 - 21.38	182 025-720
	Ø 21.39 - 22.62	182 025-721
	Ø 22.63 - 23.89	182 025-722
	Ø 23.90 - 25.29	182 025-723
	Ø 25.30 - 26.81	182 025-724

Materials

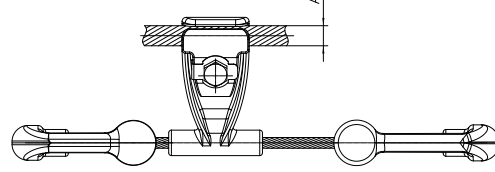
- Helical rods: aluminium clad steel
- Clamp: aluminium alloy
- Counterweights: galvanized steel
- Messenger cable: galvanized steel

Options

Component codes:

- A Stainless steel messenger cable
- B Shear head cap
- S Stainless steel bolt
- BS Shear head cap and stainless steel bolt
- BSA Shear head cap, stainless steel bolt and stainless steel messenger cable

Bolted clamp



Type	Clamp Range „A“ [mm]	Part Number
	for Conductor [mm] Ø 7 - 15	
ST 715	Ø 7 - 15	182 025-102
	Ø 15 - 23	182 025-212
	Ø 23 - 31	182 025-312
	for Conductor [mm] Ø 15 - 23	
ST 1523	Ø 15 - 23	182 025-202
	Ø 23 - 31	182 025-322
	Ø 31 - 39	182 025-422
	for Conductor [mm] Ø 23 - 31	
ST 2331	Ø 23 - 31	182 025-302
	Ø 31 - 39	182 025-432
	for Conductor [mm] Ø 31 - 39	
ST 3139	Ø 31 - 39	182 025-402

Materials

- Clamp: cast aluminium alloy
- Bolt, nut, plain washer: galvanized steel
- Safety plate: stainless steel
- Messenger cable: galvanized steel
- Counterweights: galvanized steel

Orders with options

Orders for options must be indicated with the component code of the desired options at the end of the relevant part number.

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