



UP TO 4200 LB  
CAPABILITY

## APPLICATIONS



## SEISMIC CABLE RESTRAINTS

VMC SCR Series is an excellent means to restrain suspended equipment, piping and ductwork during an earthquake. The SCR Series is designed for use in conjunction with externally mounted vibration isolator systems and can withstand up to 1g of force.

Piping, ductwork and other equipment are typically suspended on vibration isolation hangers within mechanical equipment rooms. However, this equipment must also positively attach to the structure of the building in case of an earthquake. Floor-mounted equipment uses a seismically rated vibration isolator or separate snubber. No such device exists for suspended equipment because it can have any number of possible elevations.

While isolated piping or ductwork must be seismically restrained to the building structure, it must not compromise the vibration isolation - also known as "short-circuiting". A "run" of pipe or ductwork must be restrained both longitudinally (in the direction of its run) and transversely (perpendicular to its run) to ensure that it moves with the building and remains attached to the building during an earthquake. VMC

seismic cable restraints ensure positive attachment to the ductwork, and when installed slightly slack, do not compromise the vibration isolation by short-circuiting the isolation hanger.

Many different installation configurations are possible and may affect the performance of the restraints. VMC seismic cable restraints are positioned at a 45° angle from the point of support. The diameter of the cable is based on the weight of the equipment and specified seismic force. The SCR Series is made from 7 x 19 aircraft cable and sizes are available in 1/8", 1/4" and 3/8" diameters.

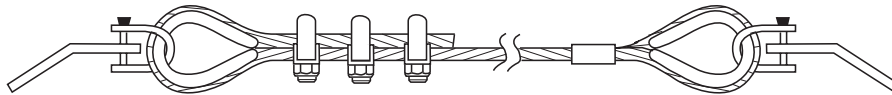
The VMC seismic cable restraints are packaged in kits to minimize labor cost for the contractor. Each pre-packaged kit contains all of the necessary hardware for proper installation and positive attachment to the building structure. Each piece of equipment requires a minimum of four cables, or two SCR kits. VMC SCR Series is factory swaged on one end to minimize installation time. The VMC SCR Series strictly complies with national building code requirements and building codes such as IBC2000, IBC2003 and NFPA5000.

## FEATURES & BENEFITS

- Aircraft grade 7 x 19 cable is available in three different diameters – offering design flexibility, durability and reliability.
- Pre-packaged kits contain all the necessary hardware for proper installation and to minimize labor costs.
- Several design options will withstand loads up to 4200 lbs.
- Complies with national building code requirements such as IBC2000, IBC2003 and NFPA5000.
- Shake table tested per AC156 requirements.

## TECHNICAL

WIRE ROPE DIA in.	RECOMMENDED WORKING LOAD lbs.	MAX EQUIPMENT WEIGHT		MINIMUM RECOMMENDED CONCRETE ANCHOR (2)	
		.5g	1g	DIA in.	Embedment
1/8	667	942	471	1/2	3 1/2
1/4	2330	3292	1646	5/8	4
3/8	4200	5936	2968	1	6



### Each Kit consists of:

- 2 - lengths of cable - swaged one end -11 ft. long or 20 ft. long, 7 x 19 Galvanized Aircraft Cable, 1/8", 1/4" or 3/8" dia.
- 2 - concrete angle brackets
- 4 - shackles
- 2 - thimbles
- 4 - U-bolts
- 2 - clevis angles

CABLE SPACING GUIDE - .5G			
PIPE SIZE	CABLE SIZE AND SPACING		
	1/8" T* - L*	1/4" T* - L*	3/8" T* - L*
1	40 - 80 ft.	40 - 80 ft.	40 - 80 ft.
1 1/4	40 - 80 ft.	40 - 80 ft.	40 - 80 ft.
1 1/2	40 - 80 ft.	40 - 80 ft.	40 - 80 ft.
2	40 - 80 ft.	40 - 80 ft.	40 - 80 ft.
2 1/2	40 - 80 ft.	40 - 80 ft.	40 - 80 ft.
3	40 - 40 ft.	40 - 80 ft.	40 - 80 ft.
4	40 - 40 ft.	40 - 80 ft.	40 - 80 ft.
5	30 - 30 ft.	40 - 40 ft.	40 - 80 ft.
6	20 - 20 ft.	40 - 40 ft.	40 - 80 ft.
8	10 - 10 ft.	40 - 40 ft.	40 - 80 ft.
10	10 - 10 ft.	40 - 40 ft.	40 - 40 ft.
12	N/A	30 - 30 ft.	40 - 40 ft.
14	N/A	20 - 20 ft.	40 - 40 ft.
16	N/A	20 - 20 ft.	30 - 30 ft.
18	N/A	20 - 20 ft.	30 - 30 ft.

CABLE SPACING GUIDE - 1G			
PIPE SIZE	CABLE SIZE AND SPACING		
	1/8" T* - L*	1/4" T* - L*	3/8" T* - L*
1	40 - 80 ft.	40 - 80 ft.	40 - 80 ft.
1 1/4	40 - 80 ft.	40 - 80 ft.	40 - 80 ft.
1 1/2	40 - 80 ft.	40 - 80 ft.	40 - 80 ft.
2	40 - 40 ft.	40 - 80 ft.	40 - 80 ft.
2 1/2	40 - 40 ft.	40 - 80 ft.	40 - 80 ft.
3	30 - 30 ft.	40 - 80 ft.	40 - 80 ft.
4	20 - 20 ft.	40 - 80 ft.	40 - 80 ft.
5	10 - 10 ft.	40 - 40 ft.	40 - 80 ft.
6	10 - 10 ft.	40 - 40 ft.	40 - 80 ft.
8	N/A	20 - 20 ft.	40 - 40 ft.
10	N/A	20 - 20 ft.	30 - 30 ft.
12	N/A	10 - 10 ft.	20 - 20 ft.
14	N/A	10 - 10 ft.	20 - 20 ft.
16	N/A	10 - 10 ft.	10 - 10 ft.
18	N/A	N/A	10 - 10 ft.

\*T = Transverse \*L = Longitudinal

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## APPLICATIONS

- Suspended equipment
- Ductwork
- Piping
- In-line equipment

