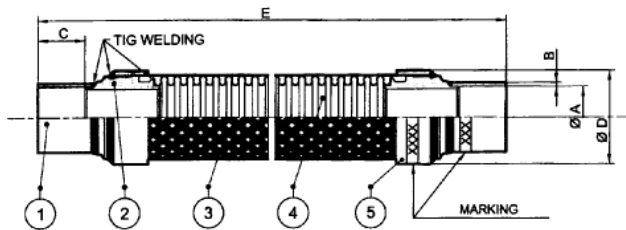


# SANITAL

## VIBRATIG Vibration Absorbers



mm	inch	A	B	C	D	E	DN	ITEM
06	1/4"	6.6	1.0	20	19	230	10	001
08	/	8.2	1.0	20	19	230	10	002
/	3/8"	9.7	1.0	20	19	230	10	003
10	/	10.2	1.0	20	19	230	10	004
12	/	12.2	1.0	20	21	230	12	005
/	1/2"	12.9	1.0	20	21	230	12	006
15	/	15.2	1.0	25	27	255	16	007
16	5/8"	16.2	1.0	25	27	255	16	008
18	/	18.2	1.0	25	27	255	16	009
/	3/4"	19.3	1.0	25	27	255	16	010
22	7/8"	22.4	1.5	25	32	290	20	011
28	1 1/8"	28.9	1.5	25	39	330	25	012
35	1 3/8"	35.3	2.0	30	48	375	32	013
42	1 5/8"	42.3	2.0	35	58	430	40	014
54	2 1/8"	54.3	2.5	45	70	510	50	015
64	/	64.4	2.5	50	89	690	65	016
65	/	65.4	2.5	60	89	690	65	017
67	2 5/8"	67.1	3.0	60	89	690	65	018
76	3"	76.4	3.0	60	89	690	65	019
80	/	80.5	3.0	80	89	690	65	020
/	3 1/8"	79.8	3.0	80	89	690	65	021
89	3 1/2"	90.0	3.0	80	104	710	80	022
/	3 5/8"	93.0	3.0	90	104	710	80	023

DN = Flexible hose nominal diameter  
A, B, C, D, E, DN values are in mm (Metric)

### COMPONENTS

- End fitting mat: Cu DHP (EN 12449 Cu DHP)
- Fitting mat: AISI 303/304 (EN 10088-1 1.4305/1.4301)
- Braid mat: AISI 304 (EN 10088-1 1.4301)
- Flexible pipe mat: AISI 321/316L (EN 10088-1 1.4541/1.4404)
- Ring mat: AISI 304 (EN 10088-1 1.4301)

### NORMAL WORKING CONDITIONS

- Nominal pressure: PN 35 up to item 015  
PN 25 from item 016
- Temperature: -148°F min + 482°F max
- Fluid: suitable for group 2 fluids according to art. 9 Directive 97/23/EC (P.E.D.)

### CONSTRUCTION

Manufacturing in accordance to Directive 97/23 /EC (P.E.D.) requirements. VIBRATIG vibration absorber is made in stainless steel with copper DHP end fittings. All weldings, included copper/stainless steel, are made by TIG or laser systems. Being brazing-free, it is possible to braze the end fittings to the pipe system without any overheating risk to the VIBRATIG itself.

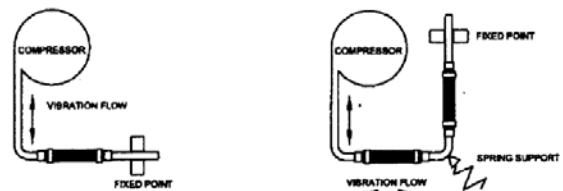
### EMPLOY

VIBRATIG vibration absorber is used to avoid the vibrations induced by the compressor. It also reduce noises and can compensate smaller inner displacements. Furthermore, its unique peculiarity allows vertical installation too. The possibility of water condensation in the lower side has been eliminated, therefore, no problem even at temperatures below 32°F.

### INSTALLATION

- User must be aware that VIBRATIG cannot absorb torsional and axial stresses, either in compression and extension. VIBRATIG must be installed in perpendicular to the vibration flow. In certain cases it is necessary to assemble two VIBRATIG to ensure good performances to fatigue life. Should this be the case, a suitable spring support must be placed to ensure stability (see sketch below).
- Fluid overflow inside VIBRATIG can set off turbulences and noises that can damage and reduce its fatigue life. If so, it is highly recommended to switch to a bigger VIBRATIG size.
- The connection between VIBRATIG and the pipe system is usually made by brazing.
- VIBRATIG unique peculiar characteristics enable the fitter to perform such operations care-free from any overheating to the VIBRATIG itself.
- VIBRATIG test pressure must not exceed the nominal pressure x 1.5.

### ASSEMBLY EXAMPLE



### CORROSION PERFORMANCES

The materials of which VIBRATIG is made fully suit the conveyed fluids, therefore no extra thickness is needed. Installer needs to pay special attention to protect VIBRATIG from the environment corrosion agents.

### DISASSEMBLY

When you need to take down a VIBRATIG, make sure all the following steps are followed:

- Drain all fluids from the piping system;
- Clean the inside of the piping system;
- Cut the VIBRATIG with a handsaw and not by flame cutting.

### MARKING

According to Directive 97/23/EC (P.E.D.), VIBRATIG is marked as follows:

- Item 001 to 013: ASTROFLEX-TORINO-ITALIA-7577/XXX-PN 35-MM/AA
- Item 014 to 015: CE ASTROFLEX-TORINO-ITALIA-7577/XXX-PN 35/LLLL/AA
- Item 016 to 032: CE ASTROFLEX-TORINO-ITALIA-7577/XXX-PN 25/LLLL/AA

XXX = position on the drawing table  
MM = manufacturing month  
AA = manufacturing year  
LLLL = identification lot number

VIBRATIG may be marked in any of the "MARKING" areas in the drawing.

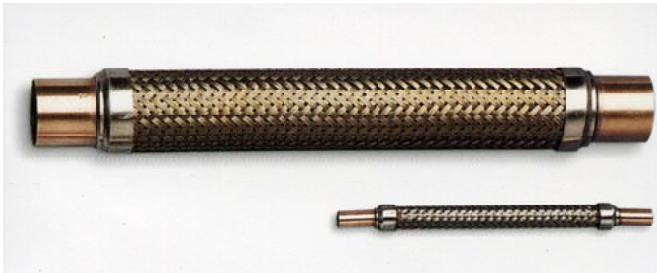
FOR THE AMERICAN MARKET: UL certification available on request.

Please turn page for more information

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## VIBRATIG Vibration Absorbers

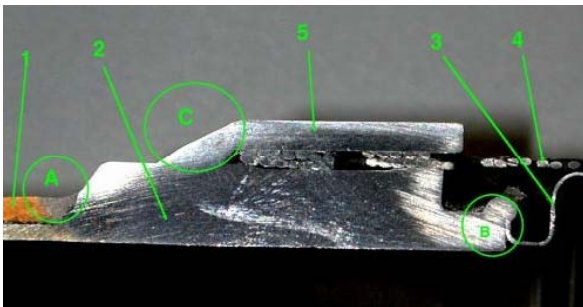
SANITAL, a well-known Italian HVAC wholesaler, is the exclusive distributor of VIBRATIG vibration absorber in Italy and certain foreign countries. Currently these items are widely used by the HVAC Industry. Major OEMs have been buying VIBRATIG since many years. The excellent quality, above average durability and perfect assembling, make VIBRATIG one of the most wanted and often imitated, but never equalled, item in its category.



### What makes VIBRATIG so unique?

Its copper ends are welded (**TIG method**) to the flexible hose, while other manufacturers braze them. Brazing unites metal by means of an alloy, generally on a silver base, with a fusion temperature ranging from 1292°F to 1562°F.

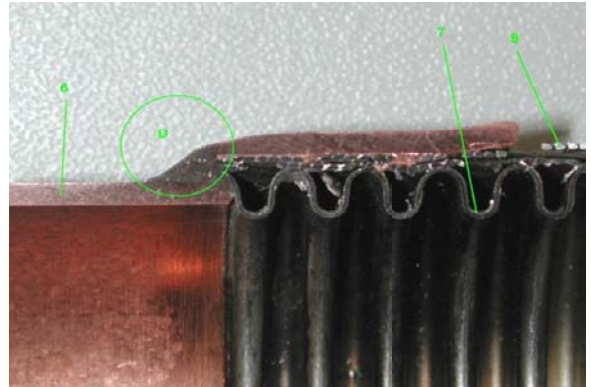
Here's how VIBRATIG is welded:



Part # 1 is the copper end, part # 2 is the transition ring in stainless steel, part # 3 is the flexible hose, part # 4 is the braiding and part # 5 is the ferrule. The first welding, marked A, unites the copper end to the transition ring; the second welding, marked B, unites the transition ring to the flexible hose; the third welding, marked C, unites the braid and the ferrule to the transition ring. **All weldings are performed in TIG or laser within argon protected environment.**

### What is the difference then?

Instead, other manufacturers **braze** the vibration absorber. This is how they normally do:



Part # 6 is the copper end, part # 7 is the flexible hose, part # 8 is the braiding and part # 9 is the ferrule.

The brazing, marked D, unites the different parts by means of an alloy.

This construction simplicity may have an economic advantage: there is no need for a transition ring and a single brazing is made instead of three weldings. However, there are negative consequences; the lack of a transition ring may cause serious problems: keep on reading!

### What are VIBRATIG's main advantages?

When it comes to mount the piece, while brazing the vibration absorber to the piping system, there is no need to protect, usually by applying a cloth, the union between the copper end and the flexible hose, even if using phosphorous copper as an alloy. It is in fact impossible to overheat the TIG weldings and therefore damaging them.

Furthermore, the construction allows a **secure vertical mounting** of VIBRATIG. Generally speaking, installing a vibration absorber in cold conditions often creates a layer of frozen condensation on the outside of the hose. When the system is switched off, the ice starts to melt, causing the water to pour down towards the copper end. The construction of other manufacturers allows the water to accumulate between the flexible hose and the ferrule. When the system is restarted, the water will again freeze and increase in volume, possibly causing the implosion of the hose.

VIBRATIG is different because there is no such zone in its construction thanks to the transition ring: therefore, **no problem ever** for vertical installations.

**FOR THE AMERICAN MARKET:** UL certification available on request.