

VIA E-MAIL



September 27, 2021

Giovanni Riello
Hilti AG
Feldkircherstrasse 100
Postfach 333
9494 Schaan
Liechtenstein

RE: Hilti MW Wire System

Dear Giovanni:

The SMACNA Testing & Research Institute (STRI) verifies, in the attached Test & Verification Report, the Hilti AG MW Wire Product Series as submitted to be an acceptable alternative to the duct hanger systems prescribed in the SMACNA HVAC Duct Construction Standards (HVAC-DCS), 3rd Edition, Chapter 5, Tables 5-1, 5-1M and 5-2, subject to the conditions in the attached test report and strict conformance to the manufacturer's installation requirements.

Professionally yours,

A handwritten signature in black ink that reads "Eli P. Howard, III".

Eli P. Howard, III
Executive Director
SMACNA Testing & Research Institute

Enclosure

SMACNA TESTING & RESEARCH INSTITUTE
TEST & VERIFICATION REPORT
HILTI AG MW WIRE PRODUCT SERIES

The SMACNA Testing & Research Institute (STRI) verifies the Hilti AG MW Wire Product Series, as submitted and described below, to be an acceptable alternative to the duct hanger systems prescribed in the SMACNA HVAC Duct Construction Standards (HVAC-DCS), 3rd Edition, Chapter 5, Tables 5-1, 5-1M, and 5-2, subject to the following conditions and limitations:

1. Consistent with the HVAC-DCS requirements, upper attachments of the system directly to structure (without another device transferring the load between the wire rope and structure) shall have an allowable load not more than one-fourth of the wire rope system failure load.
2. Lower attachments, such as illustrated in the HVAC-DCS Figure 5-5, shall have a minimum safety factor of two and shall not be used in a manner that would deform the duct shape or cause excessive concentrated loads on the duct.

With respect to HVAC-DCS Figure 5-5, the Hilti AG MW Wire Product Series referenced above may be adapted to any illustrated support configurations except the two-tier trapeze method in the lower right. This adaptation also applies to the struct channel support in Figure 5-6.

Wire rope support of trapeze bars for oval duct suspension relative to the HVAC-DCS specification S3.18 is acceptable.

Wire rope passed continuously under round and rectangular duct (with both ends attached overhead) is acceptable provided that duct shape is retained and points on contact with the duct are not overstressed. Use of stress distribution saddles shall be prescribed as necessary.

3. The HVAC-DCS Tables 5-1 and 5-1M maximum hanger spacing of 10 feet and Table 5-2 maximum spacing of 12 feet shall be maintained (and decreased as necessary to conform to Hilti AG MW Wire Product Series working load limits).

Since Chapter 5 of the HVAC-DCS has prescribed uses and limits on duct size for single wire supports and the Hilti AG MW Wire Product Series uses wire rope that has larger load capacity, use is not restricted to the HVAC-DCS diametrical limits for single wires.

4. When Hilti AG MW Wire Product Series allows its hanger wire to be in a non-vertical orientation, it shall, in accordance with accepted engineering practice, provide users with adjustments to its allowable loads and, as necessary to conform to manufacturer's recommendations, approve the method of transfer of loadings to supporting and supported members. This stipulation shall not be construed as preempting any duty of an installer to obtain approval of the support system by an appropriate authority prior to making the installation. The SMACNA HVAC-DCS does not specifically provide for non-vertical hanger systems.
5. Criteria for use of the Hilti AG MW Wire Product Series for support risers are not included in this verification.