



April 20, 2018

Dan Desler
Gripple, Inc.
1611 Emily Lane
Aurora, IL 60502

Re: Gripple UniGrip Hanger Assembly #2, #3, #4

Dear Mr. Desler:

The SMACNA Testing & Research Institute (STRI) verifies in the attached Test Report the Gripple UniGrip Hanger Assembly #2, #3, #4 as submitted to be acceptable alternatives to the trapeze duct hanger system prescribed in the ANSI/SMACNA HVAC Duct Construction Standards (HVAC-DCS), 3rd edition 2005, Chapter 5, Figure 5-5, 5-6, Table 5-3, 5-3M and 5-6 subject to the attached test report and strict conformance to the manufacturer's installation requirements.

Professionally yours,
SMACNA Testing & Research Institute

A handwritten signature in black ink that reads "Eli P. Howard, III". The signature is written in a cursive style with a horizontal line at the end.

Eli P. Howard, III
Executive Director

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SMACNA TESTING & RESEARCH INSTITUTE
TEST REPORT
TEST & VERIFICATION REPORT FOR
GRIPPLE UNIGRIP HANGER ASSEMBLY #2, #3, #4

Gripple UniGrip Hanger Assembly #2, #3, #4 as acceptable alternatives for use with the ANSI/SMACNA HVAC Duct Construction Standards – Metal & Flexible, 3rd edition 2005.

The SMACNA Testing & Research Institute (STRI) verifies Gripple UniGrip Hanger Assembly #2, #3, #4 (as submitted and described below) to be acceptable alternatives to the trapeze duct hanger systems prescribed in the ANSI/SMACNA HVAC Duct Construction Standards (HVAC-DCS), 3rd edition 2005, Chapter 5, Figure 5-5, 5-6, Table 5-3, 5-3M and 5-4 subject to the following conditions, limitations and strict conformance to the manufacturer's instructions:

1. Consistent with the HVAC-DCS requirements, upper attachment of the system directly to structures (without another drive transferring the load between the wire and structure) shall have an allowable load not more than one-fourth of the wire system failure load.
2. Lower attachments, such as illustrated in 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 ducting.
3. With respect to HVAC-DCS Figure 5-5, Gripple UniGrip Hanger Assembly #2, #3, #4 may be adapted to any illustrated support configurations including the single and two tier trapeze methods.
4. Gripple UniGrip Hanger Assembly #2, #3, #4 shall comply with the loading requirements of Table 5-3, 5-3M, 5-4 and Figure 5-6.
5. Wire rope support of trapeze bars for oval duct suspension relative to the HVAC-DCS specifications S3-18 is acceptable.
6. Since Chapter 5 of the HVAC-DCS has prescribed uses and limits on duct size for single wire supports and the Gripple system uses stranded ropes that have a larger load capacity, use is not restricted to the HVAC-DCS diametrical limits for single wires.
7. When Gripple allows its hanger wire to be in non-vertical orientation, it shall, in accordance with accepted engineering practice, provide users with adjustments to its working 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 the installer to obtain approval of the support system by an appropriate authority prior to making the installation. The HVAC-DCS does not specifically provide for non-vertical hanger systems.
8. Criteria for the use of Gripple for support of risers is not included in the verification.

Gripple submitted their UniGrip Hanger Assembly #2, #3, #4 trapeze duct hanger systems which consisted of:

1. 5:1 safety factor load rating for UniGrip #2, #3, #4
2. Lloyd's Register Independent Test Report
3. UniGrip #2, #3, #4 assembly consisting of 2mm (5/16"), 3mm (1/8"), 4.75mm (3/16") galvanized high tensile steel cable

The SMACNA Testing & Research Institute conducted a comprehensive evaluation of the submittal as an acceptable alternative for use with the SMACNA HVAC Duct Construction Standards – Metal & Flexible, 3rd edition 2005. This analysis included: minimum and maximum working load ranges that will prevent slip and separation of components of the systems; breaking strength of the wire rope; load test results for rope systems and failure load tests.