

September 1, 2015

Ward Judson ERICO International Corporation 34600 Solon Road Solon, OH 44139

Re: CADDY® SPEED LINK Universal Support System

SLK15, SLK2, SLK3 with Hook or with Loop (LP)

Dear Mr. Judson:

The SMACNA Testing & Research Institute (STRI) verifies in the attached Test & Verification Report, CADDY® SPEED LINK Universal Support System SLK15, SLK2, SLK3 with Hook or with Loop (LP) as submitted and tested to be acceptable alternatives to the duct hanger systems prescribed in the ANSI/SMACNA HVAC Duct Construction Standards (HVAC-DCS) 3<sup>rd</sup> edition, Chapter 5, Tables 5-1 and 5-1M subject to the conditions in the attached Test & Verification Report.

Professionally yours,
SMACNA Testing & Research Institute

Eli P. Howard, III Executive Director

El.P. Hand

Attachment

## SMACNA TESTING & RESEARCH INSTITUTE TEST & VERIFICATION REPORT

## **CADDY® SPEED LINK Universal Support System**

The SMACNA Testing & Research Institute (STRI) verifies CADDY® SPEED LINK Universal Support System SLK15, SLK2, SLK3 with Hook or with Loop (LP), as submitted and described below to be acceptable alternatives to the duct hanger systems prescribed in the HVAC Duct Construction Standards (HVAC-DCS), 3<sup>rd</sup> edition, Chapter 5, Tables 5-1, 5-1M, and 5-2 subject to the following conditions and limitations:

- Consistent with the HVAC-DCS requirements, upper attachments of the system directly
  to structures (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, CADDY SPEED LINK Universal Support System referenced above may be adapted to any of the illustrated support configurations except the two-tier trapeze method in the lower right. This adaption also applies to the strut 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 Table 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 CADDY SPEED LINK Universal Support System working load limits).

Since Chapter 5 of the HVAC-DCS has prescribed uses and limits on duct size for single wire supports and the CADDY SPEED LINK Universal Support System uses wire rope that has larger load capacity, use is not restricted to the HVAC-DCS diametrical limits for single wires.

- 4. When CADDY SPEED LINK 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 CADDY SPEED LINK Universal Support System for support of risers are not included in this verification.

ERICO submitted their CADDY SPEED LINK Universal Support System which consisted of:

- A system with the following components: a galvanized steel wire rope, a preformed loop created and maintained thereon by a manufacturer supplied and attached ferrule typically connected to a CADDY SPEED LINK assembly and attachable loop fixing metal grip locking device (SLK2, SLK3, SLK15 with Hook or with Loop).
- 2. Each system was supplied with suitably matched, compatible load rated components with load rating performance data conducted by an accredited testing laboratory.

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, 3<sup>rd</sup> edition. 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 wire rope systems and failure load tests.