

September 4, 1998

Mr. T. M. Moss
Managing Director
Doby Cleats Limited
Unit 4
Harelaw Industrial Estate
Nr Stanley Co. Durham
DH9 8UJ England

RE: Verification of Tests of the Doby Cleats Ductwork Jointing Systems

Dear Mr. Moss:

We are pleased to verify the successful conclusion of tests performed at PSI in Pittsburgh, Pennsylvania, on Doby Cleats systems as described in the attached "Doby Ductwork Jointing Systems" literature dated March 1996.

The following are the major points attendant with this verification:

1. Tests of the Doby Cleats systems were conducted in accordance with the Duct Performance Test Standards (DPTS-1995) procedures as contained in the current edition of the SMACNA 1995 HVAC-DCS.
2. Positive Pressure tests were conducted during the period April 20-23, 1998 on seven ducts specimens, as determined by Doby Cleats, and included duct deflection, joint leakage and burst tests. Details on reinforcements, seams, sealant, gasket material, duct construction and test procedures are outlined in the PSI report dated August 13, 1998, which was delivered to the Institute on August 31, 1998.

Intermediate reinforcements met or exceeded the requirements of DCS Table 1-10 and Figure 1-11.

3. Based on PSI test results Doby's slip-on flange jointing system (using the parts and assembly identified in the PSI test report) meets the deflection and burst test requirements associated with the following schedule:


<u>DCS Table</u>	<u>in. w.g.</u>	<u>Size</u>	<u>Gage</u>	<u>Reinf. Spacing</u>
1-7	4"	24" x 12"	22	60"
1-7	4"	48" x 12"	24	30"
1-7	4"	54" x 12"	22	30"
1-7	4"	60" x 12"	22	30"
1-5	2"	72" x 12"	22	30"
1-5	2"	96" x 12"	20	30"
1-5	2"	108" x 12"	18	30"

From these results it may be inferred that the same construction parameters satisfy the DCS deflection and burst-free requirements: a) at lower pressures than those tested, b) using any gages thicker than those tested -- for the same or lower pressures, c) on duct sizes smaller than tested and, d) on reinforcement spacings shorter than tested. Numerical values for EI ratings were not calculated or requested as part of this verification process.

4. The PSI leakage test results confirm that the 24" x 12", 72" x 12", 96" x 12" and 108" x 12" specimen do not exceed SMACNA Leakage Class 6 and that the 48" x 12", 54" x 12" and 60" x 12" specimen do not exceed Leakage Class 4, as defined in the SMACNA HVAC Air Duct Leakage Test Manual.

The original PSI report is on file at the SMACNA Testing and Research Institute.

Sincerely,


Dennis M. Bradshaw
Executive Director

Enclosure: Two copies of PSI Report Dated 8/13/98

cc: Ron Rodgers
John Stratton

DMB/sb