

From: [Galbraith, Damian](#)
To: [Boggs Daniel](#)
Subject: N8447R
Date: Monday, March 27, 2017 2:47:31 PM
Attachments: [part number.pdf](#)
[Drawing of ac.pdf](#)

Dan,

Please see information below from our engineering department as this should answer most of your questions. Please call me if there's anything else I can help you with.

M&P was asked to determine if this was the proper duct to be installed on the aircraft.

The PA-28-140 (N8447R Serial No. 28-22331) received its airworthiness certificate on [11/15/1966](#). Prior to Rev. V of 99849 (B87-10), -4 and -24 were manufactured by Flexible Tube Co or FlexFab. Additionally, the received duct has "aeroduct" imprinted as shown below. A quick google search of AeroDuct see below, which states that the hoses aren't recommended for negative pressure.



The following table shows the drawing requirements of the -004 duct compared to the measured values:

Duct	99849-004	Received Duct*	New Duct
Length (in.)	14.00	13.875	13.875
Wire Diameter (in.)	0.048	0.044	0.049
Inner Diameter (in.)	3.00	3.069	3.027
Material Thickness (in.)	-	0.0155	0.050

*Due to the state of the received hose, dimensions are approximate.

In addition to the inadequate measurements, the -004 duct is not approved for installation on the PA-28-140. The top level drawing for the PA-28-140 is [62287-000](#), which boils down [99516-003 powerplant installation](#), which calls out one 99849-003 and one 99849-002 hose. The following table shows the measurement differences between the three dash numbers with the only difference being length and the -004 having cuffs.

99849 Dash No.	-002	-003	-004
Length (in.)	22.25	10.75	14.00
Wire Diameter (in.)	0.048	0.048	0.048
Inner Diameter (in.)	3.00	3.00	3.00

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SCAT	1" to 6" ID	Lightweight and extremely flexible. Short sections, which are normally unusable, can be joined together to form a continuous length.	For use in conducting extremely cold or hot air where temperatures range from -65°F to +550°F. Not recommended for negative pressure applications.
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