	Form No.: 160.00-M1 (LS03)	801
	Supersedes: 160.00-M1 (SB2) (599)	
<b>LITERATURE SUPPLEMENT</b>	File with: 160.00-M1	
Subject: Clogged Variable Speed Compressor Drive Heat Exchanger		

Of nearly 1600 VSD installations now commissioned in the field, less than 3% have experienced problems with clogging of the strainer or heat exchanger. Sites where problems have been encountered typically are those with the cooling tower located at ground level, where dirt and debris can be picked up in the condenser water. For example:

- Mud in tower, due to dirt blowing from adjacent construction site or farming area.
- Tree bark and leaves from wooded area adjacent to tower.
- Cotton fibers from adjacent knitting mill.
- Scaling due to lack of water treatment or improper water treatment.

In cases where the situation is temporary, it may be possible to remedy the problem by cleaning the strainer and back-flushing the heat exchanger. However, where the problem is a characteristic of the location, we suggest retrofitting the standard heat exchanger to a tube-in-shell type heat exchanger, and removing the strainer. These units is available directly from the manufacturer:

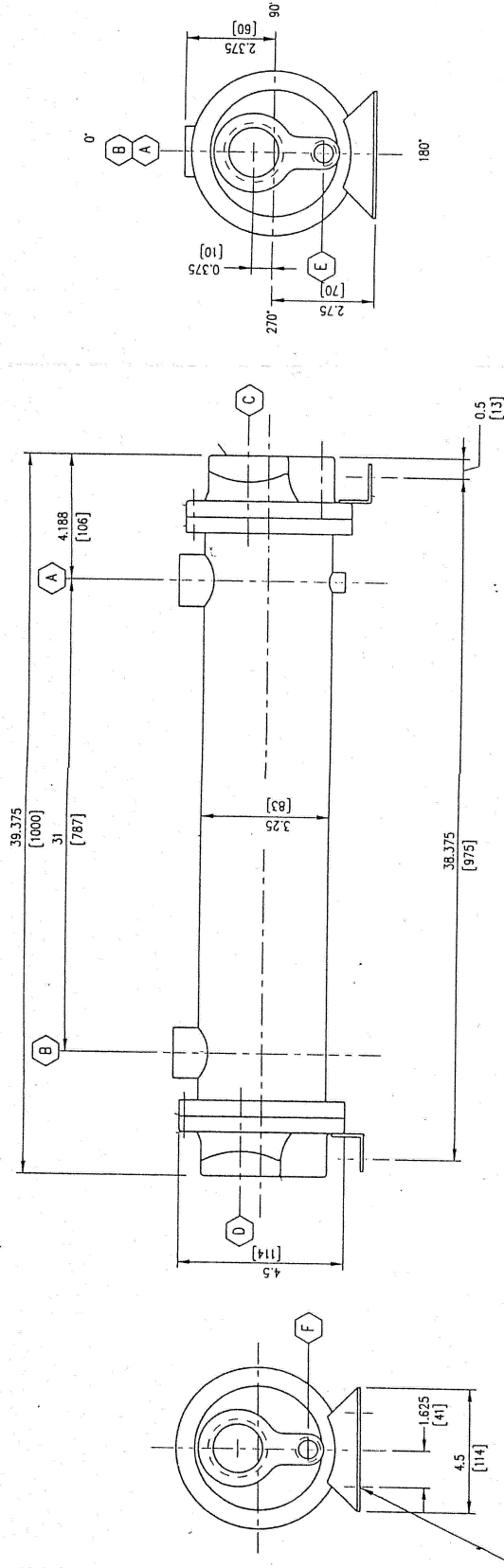
Flow Product Company  
1220 Clearbrook Road  
West Chester, PA 19380

Contact Joe Binder at (610)-431-3712. A new heat exchanger has been selected that is rated at 300 PSI, and will work on all VSD horsepower sizes through 1100Hp. The new part number is 03036. The cost of this heat exchanger is \$310.00 plus shipping, and an installation kit of elbows, nipples, etc, is available for an additional \$42 plus shipping. Gaskets are available for the 03036 heat exchanger at a cost of \$6.00 each. The part number for the gasket is 030G01A3.

This heat exchanger and installation kit are stocked items and are available for overnight shipment. We suggest mounting this heat exchanger to steel angle iron or plate (field supplied), attached to the rear of the VSD support brackets. Position the heat exchanger so the condenser water connections are pointed toward the condenser piping, and connect the VSD closed loop to the two connections on the top of the heat exchanger shell. Remove the strainer in the condenser water hose leading to the heat exchanger. A drawing showing dimensions and connection sizes is located on the back of this sheet.

The 4-Y-24 heat exchanger is no longer available, but if a 4-Y-24 heat exchanger has been installed, and it is in need of cleaning, gaskets are available. The cost of the gasket is \$10.00 each, and the part number is 01C1414.

Heat exchanger cost will not be paid under warranty, as this is not a product defect. It is a site-specific application issue.



(2) 0.4375  
DIA HOLES  
EACH SUPPORT

**MODEL 03036 VSD COOLER**

NOZZLE(S) NOT TAGGED ARE TAG ITEM "C"  
DFT No: F21121-AA1-103036

NOZZLE SCHEDULE		CERTIFIED FOR			
TAG SIZE	QTY	DESCRIPTION	SERVICE		
A	1.5	1	NPT	SHELL INLET	CUST. ORDER:
B	1.5	1	NPT	SHELL OUTLET	TUBE DIA: 0.25
C	1.5	1	NPT	TUBE OUTLET	BAFFLE SPACE: 3
D	1.5	1	NPT	TUBE INLET	DESIGN DATA
E	0.375	1	NPT WITH PLUG	TUBE DRAIN / VENT	SHELL TUBE
F	0.375	1	NPT WITH PLUG	TUBE DRAIN / VENT	DESIGN PRESS PSI 300
G	.25	3	NPT WITH PLUG	SHELL DRAIN / VENT	TEST PRESS PSI 190
H					DES TEMP °F 300/20
					CODE: COMM. STD.

**FLOW PRODUCTS COMPANY**

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