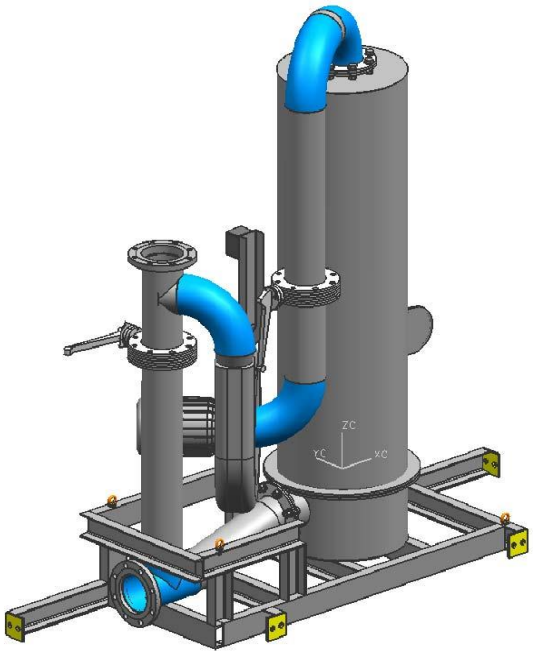
OIL MIST COALESCER

INSTALLATION OPERATION AND MAINTENANCE MANUAL

SGT-400N PACKAGE



06	MOTOR DS UPDATE	31/01/18	AWM	MGA	MGA
05	ADDED MOTOR DS+REVIEW	14/10/17	AWM	MGA	MGA
04	REVIEWED CE CONFORMITY CERTIFICATE	24/07/17	PBE	MGA	AWP
03	GENERAL REVIEW	27/06/17	PBE	MGA	AWP
02	ADDED CE CONFORMITY CERTIFICATE	21/04/17	PBE	MGA	AWP
07	REV IMPLEM. CUST.REQ DTD 27/03/2018	05/04/18	AWM	MGA	MGA
Rev. index	**Description**	**Date**	**Issued**	**Checked**	**Approved**

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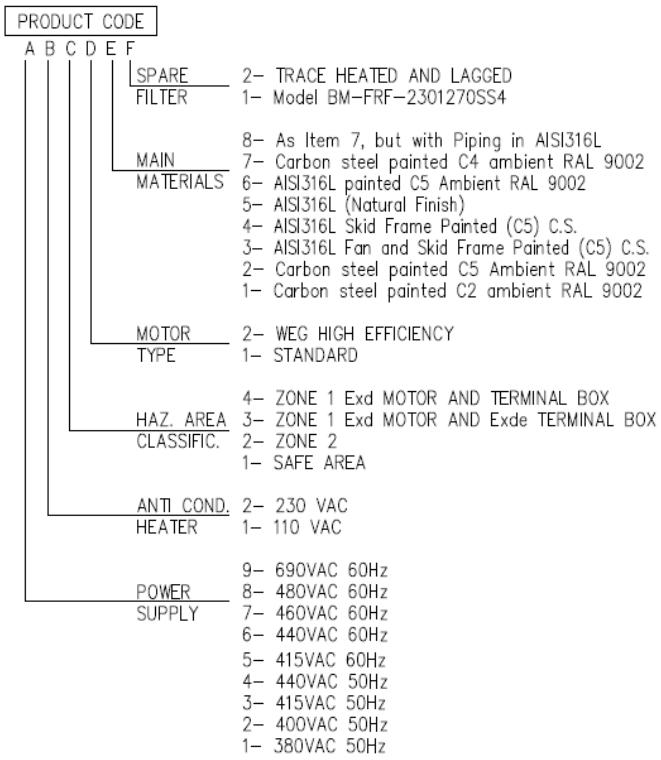
1. INTRODUCTION

The AWS Corp. FIBERWIND™ L.O.V. Mist Eliminators you are receiving has been packed to have specific performance characteristics for your application. Care has been used in this construction and the element has been packaged for protection during shipping and handling.

The AWS Corp. FIBERWIND™ L.O.V. Mist Eliminators consist of the following elements:

Nr. 1 Vessel complete of handhole, inlet and outlet flange and two drain coupling
Nr. 3 Fiberwind™ Mist Eliminator installed inside the vessel
Nr. 1 Differential Pressure Gauge
Nr. 1 Centrifugal Fan
Nr. 2 Oil drain tubing
Nr. 1 By-pass Butterfly Valve
Nr. 1 Butterfly valve on the fan suction.
Nr. 1 Emergency stop button (optional)

Each Unit has a product code of 6 digits identifying the specific features of the model. Please refer to Siemens Spec. S4-05002110 for explanation of the product code, or refer to the following table:



NOTE: For the other features please refer to the General Arrangement drawing 307F-MDY-007 .

2. GENERAL SAFETY INSTRUCTIONS

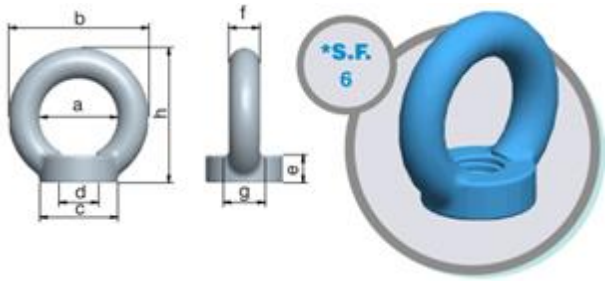
All installation and maintenance activities must be executed with equipment switched off and relevant electrical feeding line disconnected.

The present manual shall be considered for basic safety indication. All other company rules and current national law are in any case valid and must be respected. Moreover good practice safety rules shall be followed.

ATTENTION: Do not open the Fan inspection manhole with equipment in operation. Electrical feeding line must be disconnected.

3. LIFTING INSTRUCTION

FIBERWIND™ L.O.V. are equipped with Nr. 4 lifting lugs that shall be used for the handling of the unit.



a [mm]	b [mm]	c [mm]	d [-]	e [mm]	f [mm]	g [mm]	h [mm]	Max Load [kg]	Max load at 45° [kg]
30	54	30	M14	11	12	14	53	440	270

Refer to attached Lifting Plan 307F-RDM-009 for lifting instruction, lifting chains or slings are needed and a Spreader Beam.

General precaution to be taken in order to avoid possible personal injury or equipment damage:

- Do not allow any part of the drive or lifting mechanism to get in contact with electrically charged conductors or components.
- Do not stand or walk underneath lifted unit.
- Avoid sudden and rapid movement of the unit.
- Inspect all lifting devices and tools before starting lifting activities.

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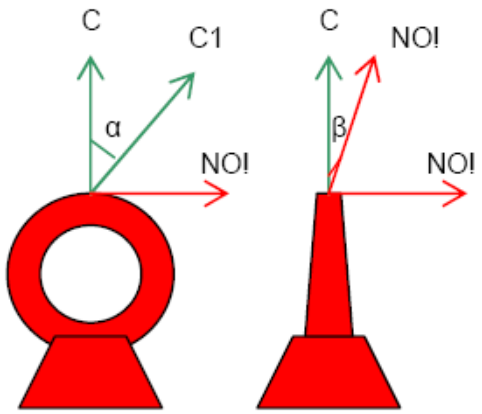
- Lifting eye nuts shall be used only in as indicated in the picture below



Failure to observe these precautions could result in severe body injury or dead.

4. STORAGE AND HANDLING

FIBERWIND™ L.O.V. are shipped in wooden crates.

Wooden Crates should be stored in a vertical position (do not lay on the side or tilt it) and they cannot be stacked. Units shall be stored under roof, any accumulation of water on the top or the bottom of the crate must be avoided.

Units can be stored without any special requirement up to 6 months.
After 6 months, it is required to open the crate and check the status of the equipment, motor shall be rotated by hands, and manual valve shall be operated. Then it is necessary to repeat these operations at least once every 3 month.

Lift the uncrated element by lifting lugs only.

If an element is damaged during handling or installation, please notify our Technical Service Dept.

5. MECHANCAL INSTALLATION

Before starting installation activities the following points should be verified:

- Check that the Unit have not been damaged during shipment, unloading and handling activities.

- Check the installation place is suitable for the unit and there is enough clearance for maintenance activities.

- Check that the position and dimension of tie-in on site are correct.

- Check the cleaning of the unit, both externally and internally. In case it is necessary clean equipment and duct work from dust, dirt and debris using a non-abrasive cloth.

The unit shall be lifted and installed in place following the lifting plan attached in the present document.

Once the Unit has been fixed, it is possible to connect the piping. Avoid any mechanical stress induced by the piping on the tie-ins of the unit.

6. ELECTRICAL INSTALLATION

Before starting electrical connection the following points should be verified:

- Check that the data on motor data plate are in accordance with electrical feeding line voltage and frequency.

- Check that the motor feeding cable is suitable for the rated current of the motor.

- Check that feeding line electrical protection are installed and correctly regulated.

- Check that ground connection on skid are correctly in place and not damaged.

- Check the tightness of the ground connection bolts.

After these pre-check, it is possible to complete the electrical connection of the motor and the anti-condensate heater.

If present, also thermal protection of the motor (PTC) shall be connected

The unit shall be connected to ground using skid grounding bosses (see position 18 on GA drawing 307F-MDY-007).

7. FIRST START-UP

Before the first start-up of the unit the following check should be performed:

- Check the tightness of bolts that may have be loosen during shipment.

- Check the motor is not locked, by trying to rotate by hands (this operation must be performed with the electrical feeding line disconnected).

- Check the operation of manual valves by opening and closing by hands.

- Check that all the piping tie-in are connected.

- Check the sense of rotation of the motor.

- Check the manifold valve of differential pressure transmitter is in the proper position.

Once the above control have been performed it is possible to start the unit:

- Leave the valves fully open.
- Start the fan.
- Close bypass valve.
- Throttle carefully the suction valve until the desired flow-rate is reached.

8. OPERATION AND MAINTENANCE

THE UNIT SHOULD NEVER RUN WITH THE CONTROL VALVE COMPLETELY CLOSED.
MAINTENANCE ACTIVITIES SHALL BE PERFORMED WITH THE UNIT SWITCHED OFF AND LOCKED OUT.

During Operation pressure drop value and gas flowrate should be periodically checked and recorded. Pressure drop will slightly increase while the unit is in operation . If needed, adjust flowrate using control/exclusion valve.

If the pressure drop increases above 22 mbarg the internal elements are probably plugged with high viscosity or solid materials. In such a case open the unit and check the condition of the Fiberwind™ elements and verify that the draining pipes are not plugged.

Please follow the preventive maintenance activities as described in the table below , to ensure long operation of the equipment.

OPERATION	REQ'D FREQUENCY
CHECK AND RECORD FILTER PRESSURE DROP AND FLOWRATE	15 dd
CHECK OPERATION OF DIFFERENTIAL PRESSURE GAUGE OPENING AND CLOSING MANIFOLD VALVES	1 Month
CHECK OPERATION OF MANUAL VALVES	6 Months
CHECK GROUNDING CONNECTION STATUS	6 Months
REPLACE FIBERWIND™ ELEMENT	4 Years or greater if differential pressure is high (>22 mbar)

In case filters need to be removed please follow the instructions in this paragraph. The bottom flange of each filter has a sealing V-ring as per picture below . Check it remains in place while removing or installing the filtering element.

Removal of Fiberwind™ internal elements

This operation must be executed with the electrical feeding lines disconnected and using a lockout/tagout procedure.

Remove Vessel cap (approx 20kg)

Loose the fixing nut completely.

Push the threaded down and turn the lever counterclockwise to release the Fiberwind™ elements

Lift the filter elements (12kg/ea) manually or using a hoist and extract them from the vessel.

Installation of Fiberwind™ internal elements

The bottom flange of the filter has a sealing NBR V-ring . Please verify it's present before installation.

Insert the filter elements manually or using a hoist inside the vessel.

Lock the elements in position rotating clockwise the lever (bayonet mount)

Tight the fixing nut.

Tightening torque 17Nm

9. TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Oil smoke is present in the exhaust.	Filter damaged. Filter improperly seated. Filter clogged or dirty. Drain clogged	Remove the cover to inspect filter and gaskets. Replace if required. Inspect drains and flush if clogged.
Oil from nuts/bolts/gaskets	Gasket damaged.	Change the gasket.
Oil from nuts/bolts/gaskets	Bolts not tight.	Tighten the bolts.
Pressure drop too high (>22 mbar)	Filtering element dirty.	Change filtering element.
	Excessive flow rate.	Verify position of control valve.

10. ATTACHMENTS

A Electric motor Instructions for use and maintenance
B CE Conformity declaration