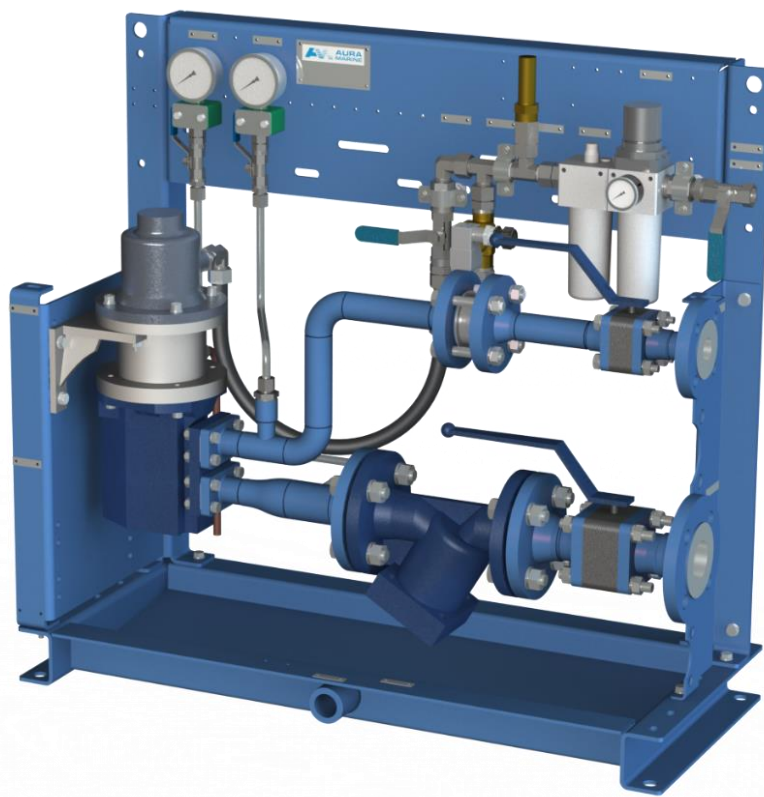


Product brochure

Auramarine Emergency Pump Unit (AEP)



1 General

1.1 AEP operating principle

The AEP unit is designed to supply marine diesel oil (MDO) by air motor driven pump. Air is controlled via solenoid valve (Pos. IA002V1) which may be either NO (normally open) or NC (normally close) controlled, depending required specification.

With NO, the loss of control voltage is subject to open solenoid valve V095 and start the air driven pump. Equally with NC, the solenoid valve IA002V1 will open when activated with control voltage and starts the air driven pump.

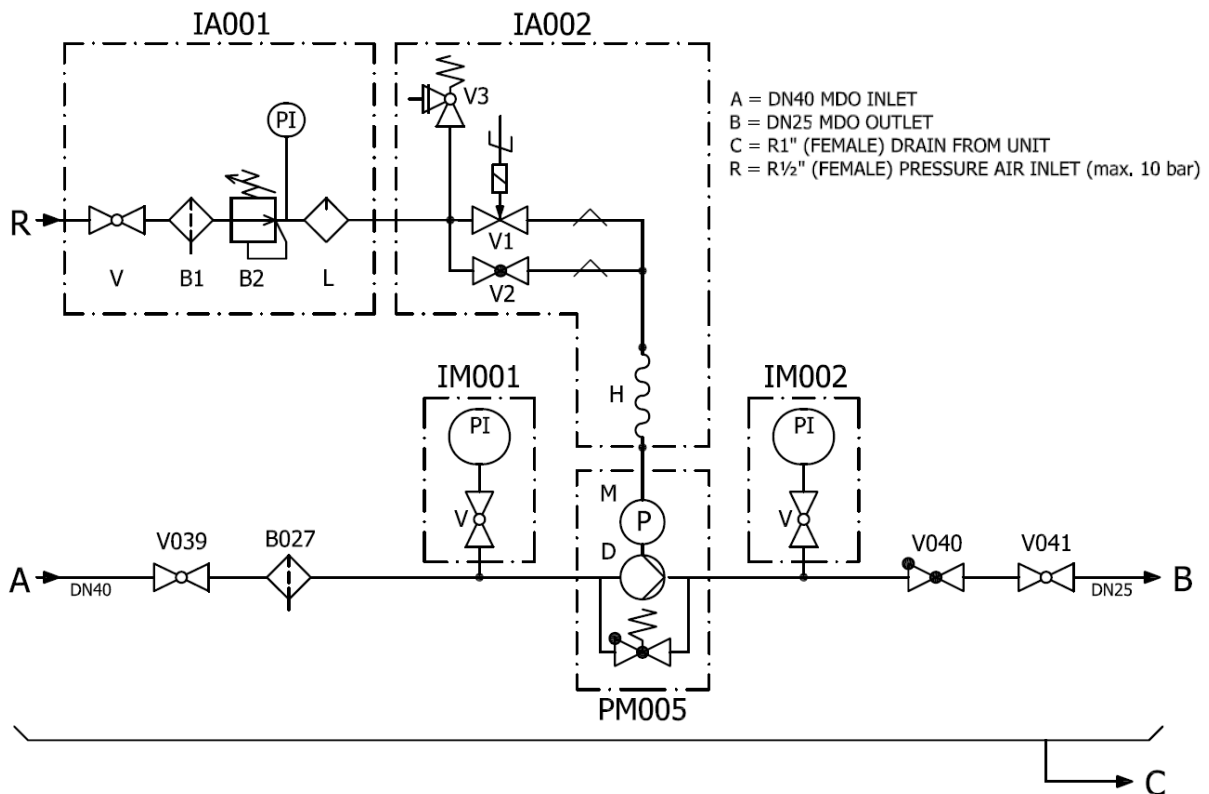


Figure 1. P&ID of the Auramarine Emergency Pump Unit

1.2 Installation of AEP Unit

The AEP Unit is to be installed in the engines fuel system in such a way that the AEP will be able to ensure fuel oil (MDO) supply to the engine when valve IA002V1 opened. Special attention shall be taken in fuel system design to ensure that no obstructions prevent fuel flow during power outage.

2 Technical data

MDO viscosity range:	2 -20 cSt
Control voltage:	230 V AC / 110 V AC / 24 V DC
Control method:	Normally open (NO) / Normally close (NC)
Design temperature:	60°C (maximum operating temperature)
Design pressure:	10 bar
Test pressure:	15 bar
Working pressure:	6 bar
Pressurized air:	Max. 10,3 or 30 bar
Min. FO viscosity for pump:	1.4 cSt
MDO Flow (@ 2cSt, 6 bar):	1,18 / 1,58 / 2,71 / 3,73
MDO Flow (@ 6cSt, 6 bar):	1,32 / 1,80 / 2,95 / 4,09
MDO Flow (@ 20cSt, 6 bar):	1,43 / 1,98 / 3,15 / 4,39
Air motor:	Nominal power 1,25 kW, 3000 r/min, 7 bar, IEC D71,IM V1
Instrument air consumption:	55~110 m3/h
AEP Unit dimensions (mm):	W 350xH790xL850
AEP Unit dry weight:	~100 kg

3 Main components

<u>Position</u>	<u>Denomination</u>
B027	Suction strainer -Y-type, 400 µm (nom.)
IA001B1	Air filter -Air filtration degree of 5 µm (abs.), manual drain
IA001B2	Air regulator -Inlet pressure max. 10,3 / 30 bar, outlet pressure 0 – 8.6 bar, 7 bar is max. air pressure for the air motor
IA001L	Oil mist unit -For lubrication of air motor
PM005	MDO pump (PM005D) and air motor (PM005M) -Rotary self-priming displacement screw pump
IA002V1	Solenoid valve , at inlet line for control of pump

4 Materials, miscellaneous

Frame	-Bolted sheet metal construction -1" threaded female connection at frame for draining of leakages
Color	-Painting system: SFS-EN ISO 12944-5; 2007 A2.06 EP120/2-FeSa2½
Oil pipes	-Seamless carbon steel P235GH, EN10217 or equal -Welding according to ISO 5817 C -Painting system: SFS-EN ISO 12944-5; 2007 A2.06 EP120/2-FeSa2½
Flanges	-EN 1092-1, counter flanges, gaskets, bolts and nuts included
Valves	-Ball valves for oil, PN 40 bar
Name plates	-English, material of stainless steel, for piping and components

AEP Product range-Connections on right side

Order code	Type	Inlet air pressure max.	Flow (@2 cSt, 6 bar)	Flow (@6 cSt, 6 bar)	Flow (@20 cSt, 6 bar)	Control method	Control voltage	Instrumentation pressure scale	Unit color
		bar	m ³ /h	m ³ /h	m ³ /h				
G200003	AEP-M-25-PN-R-I	10,3	1,18 / 1,58 *	1,32 / 1,80 *	1,43 / 1,98 *	Normally open (NO)/ Normally close (NC) *	230 V AC / 110 V AC / 24 V DC *	kPa / bar / psi *	RAL 5019 / RAL 6019 / RAL 7035 / Munsell 7.5 BG 7/2 *
G200004	AEP-M-25-PH-R-I	30							
G200011	AEP-M-32-PN-L-I	10,3	2,71 / 3,73 *	2,95 / 4,09 *	3,15 / 4,39 *				
G200012	AEP-M-32-PH-L-I	30							

Table 1. *Choice to be made into separate Inquiry Appendix for AEP

