



The Edwards vacuum pump employed in the OCS's pipeline pre commissioning operation spread is Edwards model E1M 275 vacuum Pump with Edwards EH1200 series mechanical booster pump.

This Edwards E1M 275 vacuum pump is a direct drive rotary vane pump which compact in design and vibration free unit. The ultimate pressure of this pump is 3.7×10^{-2} Torr and a pumping speed of 180CFM. This pump provides excellent operator protection by providing finger proof coupling housing and totally enclosed fan-cooled motors.

The Edwards EH1200 model mechanical booster pump is a positive displacement vacuum pump which utilizes a hydrokinetic fluid coupling to connect the electric motor shaft to the lobe rotor. This pump provides high pumping speeds and pressure in the region of 0.01 to 10 mbar. The pump shafts and rotors are made of high-grade, corrosion resistant, cast iron. The internal and external shaft seals are made of polytetrafluoroethylene (PTFE). The pump bearings, gears and seals are lubricated by oil fed from reservoirs in the coupling cover.

EDWARDS VACUUM PUMP – PIPELINE DRYING

Edwards Vacuum Pump Specifications	
Vacuum Pump Model	E1M 275
Peak pumping speed	180cfm (1347USgpm) @ 60Hz
Ultimate Pressure	3.7×10^{-2} Torr (5×10^{-2} mbar)
Noise level	75db
Max. Water vapour inlet pressure	50mbar (37.5 Torr)
Max. Water vapour capacity	9.2 grams/hr
Electrical supply	208-230 or 460VAC, 3-Ph, 60Hz
Operating temperature range	12-40°C
Oil capacity	28L
Oil type	Ultragrade 70
Edwards Mechanical Booster Pump Specifications	
Booster Pump Model	EH1200
Booster displacement	1435 m ³ /hr (6318USgpm) (845CFM)
Rotational speed	0-3500 rpm @ 60Hz
Operating inlet pressure range	0-1000mBar (0-760 Torr)
Maximum outlet pressure	1000mBar (760 Torr)
Electrical supply	208-230 or 460VAC, 3-Ph, 60Hz

OCS has Equipment passports for individual equipments which must be reviewed before each project to assess the status. The equipment passport gives the working history, maintenance and certification history of equipment.

It is important to regularly review the list of critical spare parts of the equipment before each project. Where failures occur during operations Equipment bulletins will be issued to document the problem and the remediation solutions applied. The equipment bulletin will be circulated to all field engineers to be informed about the possible failure that can occur during the operation and thereby avoid future failure.

This equipment file remains a live document and will be constantly updated by the equipment department.



