M. HANIF & SONS

Industrial gearboxes, gearmotors and vacuum pumps

TECHNICAL DATASHEET

Ref: MHS-EDWARDS-E2M8

INDUSTRIAL VACUUM PUMPS & EDWARDS SYSTEMS • EDWARDS

Edwards E2M80 Two-Stage Rotary Vane High Vacuum Pump

Oil-sealed two-stage Edwards high vacuum pump (80 m³/h at 50 Hz) engineered for pharmaceutical vacuum drying, chemical distillation, and oil degassing in Pakistan.

DISPLACEMENT AT 50 HZ	ULTIMATE PRESSURE	MOTOR AT 50 HZ
80 m³/h	**1 × 10⁻³ mbar**	**2.2 kW (50 Hz)**

TECHNICAL SPECIFICATIONS

Pump type	**Two-stage, oil-sealed rotary vane**
Displacement	**80 m³/h at 50 Hz; 96 m³/h at 60 Hz**
Pumping speed	**74 m³/h at 50 Hz; 90 m³/h at 60 Hz**
Ultimate pressure, gas ballast closed	**1.0 × 10⁻³ mbar**
Ultimate pressure, gas ballast open	**7.0 × 10⁻³ mbar**
Motor power	**2.2 kW at 50 Hz (3 kW at 60 Hz)**
Motor protection	**IP44 or IP54, 3-phase**
Oil capacity & type	**6.3 L max / 4.0 L min (Ultragrade 19 recommended)**
Noise level	**70 dB(A)**
Inlet / Outlet ports	**ISO40 inlet / NW25 outlet**
Max water vapour pumping rate	**0.3 kg/h**

* Published Edwards E2M80 figures at 50 Hz. Specify local voltage and chemical vapour profile before ordering.

KEY DESIGN HIGHLIGHTS

- Two-stage oil-sealed rotary vane high vacuum pump
- Deep 1.0 × 10⁻³ mbar ultimate pressure (gas ballast closed)
- High vapour tolerance via gas ballast for wet processes
- Built-in anti-suckback valve protection on power shutoff
- Supports Ultragrade 19 oil & EMF oil mist filtration
- Configured for Pakistan 50 Hz 380V/415V 3-phase supply

TYPICAL INDUSTRIAL APPLICATIONS

- Pharmaceutical vacuum tray dryers & freeze dryers
- Chemical & solvent vacuum distillation columns
- Transformer oil filtration & epoxy resin degassing
- Edible oil deodorization & industrial vacuum metallurgy
- Vacuum packaging lines & R&D laboratory roughing systems

ENGINEERING OVERVIEW

The Edwards E2M80 is an industry-benchmark two-stage, oil-sealed rotary vane vacuum pump trusted across pharmaceutical, chemical, metallurgy, edible oil, and transformer manufacturing plants in Lahore, Karachi, Hattar, and Faisalabad. Delivering 80 m³/h displacement and 74 m³/h pumping speed on Pakistan's 50 Hz grid, it pulls deep vacuum reliably under continuous process duty.

An integrated gas ballast valve prevents condensable moisture and solvent vapours from contaminating the pump oil. Combined with spring-loaded anti-suckback protection, Ultragrade 19 vacuum oil compatibility, and high-efficiency forced-air cooling, the E2M80 protects downstream vacuum chambers and distillation lines during unexpected power trips.