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Edwards QMB-250, 500, 1200

Technical Specifications

Parameter	QMB250F	QMB500F	QMB1200F
Mass (kg)	65	78	157
Minimum cooling-water flow ($l.h^{-1}$)	75	75	75
Oil capacity (l) Coupling-cover Shaft-seal reservoir Gear-case	 1.5 0.125 -	 1.5 0.125 -	 2.4 0.125 1.25
Rotational speed ($r.min^{-1}$) 50 Hz supply 60 Hz supply	 0 to 2900 0 to 3500	 0 to 2900 0 to 3500	 0 to 2900 0 to 3500
Ultimate pressure without gas-ballast, permanent gases	8×10^{-4} mbar 8×10^{-2} Pa	8×10^{-4} mbar 8×10^{-2} Pa	8×10^{-4} mbar 8×10^{-2} Pa
Pressure differential across pump determined by the hydrokinetic drive	0 to 180 mbar 0 to 1.8×10^{4} Pa	0 to 110 mbar 0 to 1.1×10^{4} Pa	0 to 90 mbar 0 to 9×10^{3} Pa
Recommended backing-pump	QDP40 or QDP80	QDP40 or QDP80	QDP80 or DP180
Vacuum connections Inlet connection Outlet connection	 ISO63 bolted ISO40 bolted	 ISO100 bolted ISO63 bolted	 ISO160 bolted ISO100 bolted
Cooling-water connections Inlet connection (BSP) Outlet connection (BSP)	 Hansen quick connect $^{3}/_{8}$ inch male Hansen quick connect $^{3}/_{8}$ inchfemale		
Noise data Continuous A-weighted sound pressure level (dB(A))	 66	 66	 70

Continuous inlet pressure	
QMB250F and QMB500F	0 to 20 mbar, 0 to 2×10^{3} Pa
QMB1200F	0 to 1 mbar, 0 to 100 Pa
Maximum outlet pressure (see Section 1.2.4)	1000 mbar, 1×10^{5} Pa
Ambient operating temperature range	5 to 40 °C
Maximum operating humidity	90% RH
Protection degree (as defined by IEC 529)	IP44
Oil capacity	See Table 2
Recommended oil type	Fomblin YVAC 16/6 or Krytox 1514
Rceommended grease (for QMB250F and QMB500F rear bearing)	Fomblin RT15
Number of phases	3
Supply voltage	200-208 V/380-415 V at 50 Hz 200-230 V/460 V at 60 Hz
Voltage tolerance	±10%, except 208 and 415 V at 50 Hz which are +6% and -10%
Full load current rating	See Table 1

Supply voltage and frequency		200-208 V 50 Hz	200-208 V 60 Hz	230 V 60 Hz	380-415 V 50 Hz	460 V 60 Hz
QMB250F and QMB500F	Full load (A)	8.7	8.8	7.8	5.0	4.4
	Rating (kW)	2.2	2.2	2.2	2.2	2.2
QMB1200F	Full load (A)	16	16	14.2	8	8
	Rating (kW)	4	4	4	4	4

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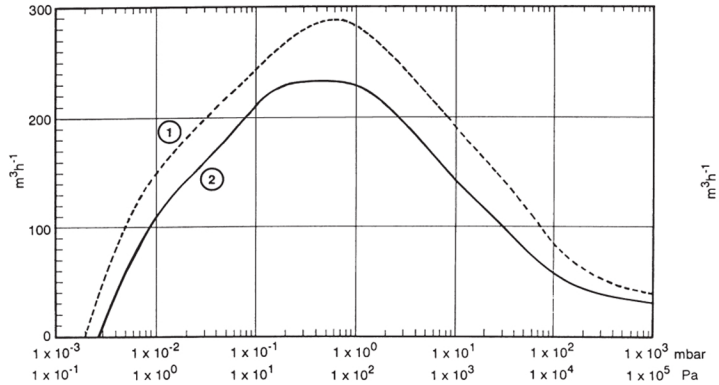
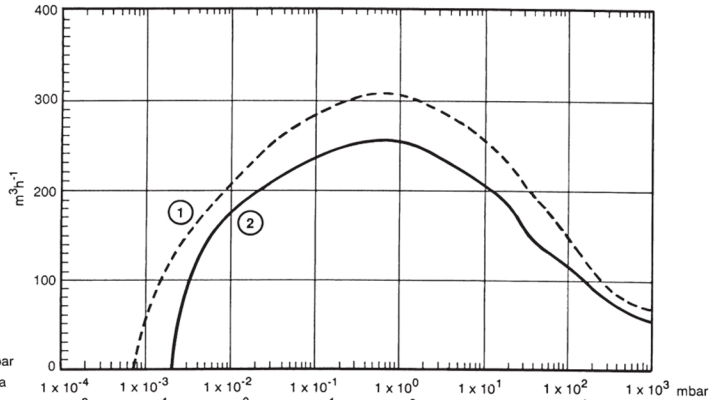
Pumping Curves

QMB-250



1. QDP40 and QMB250F at 60Hz

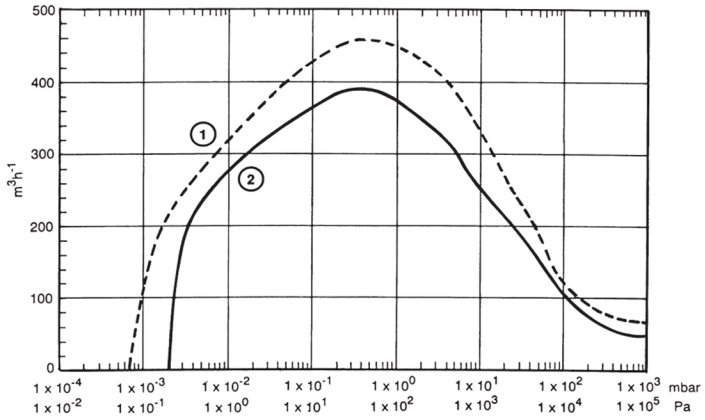


2. QDP40 and QMB250F at 50Hz

1. QDP80 and QMB250F at 60Hz

2. QDP80 and QMB250F at 50Hz

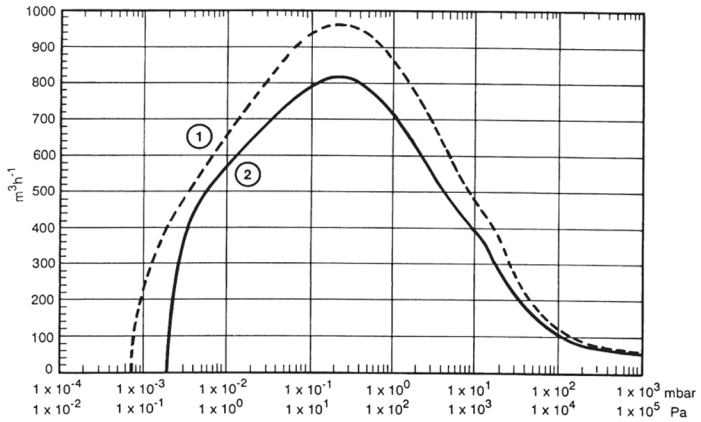
QMB-500



1. QDP80 and QMB500F at 60Hz

2. QDP80 and QMB500F at 50Hz

QMB-1200



1. QDP80 and QMB1200F at 60Hz

2. QDP80 and QMB1200F at 50Hz

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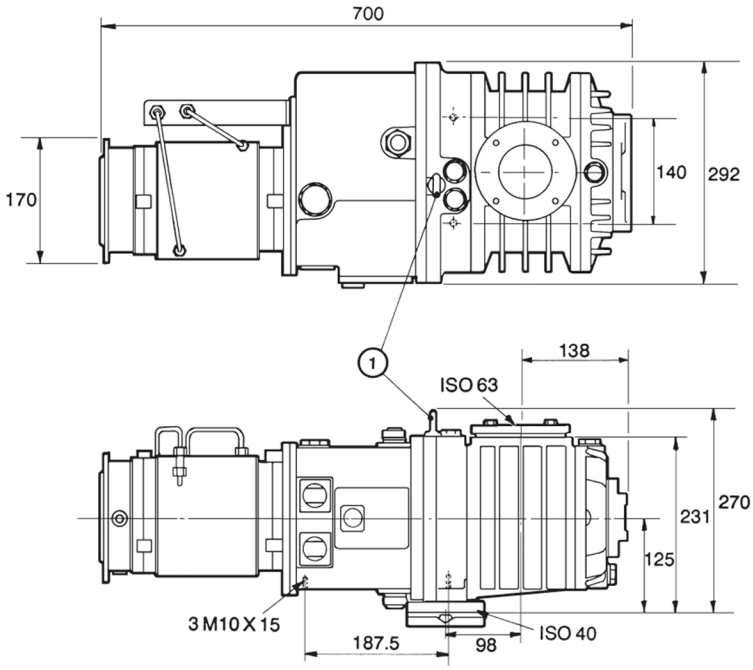
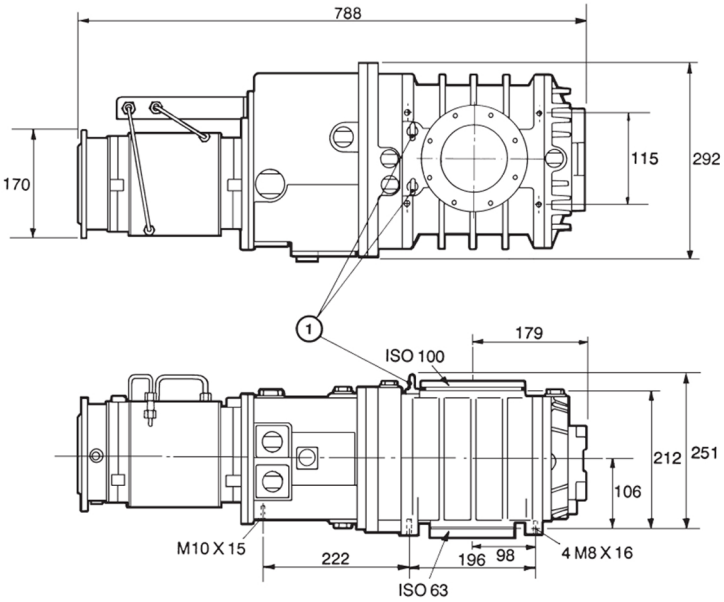
Dimensions

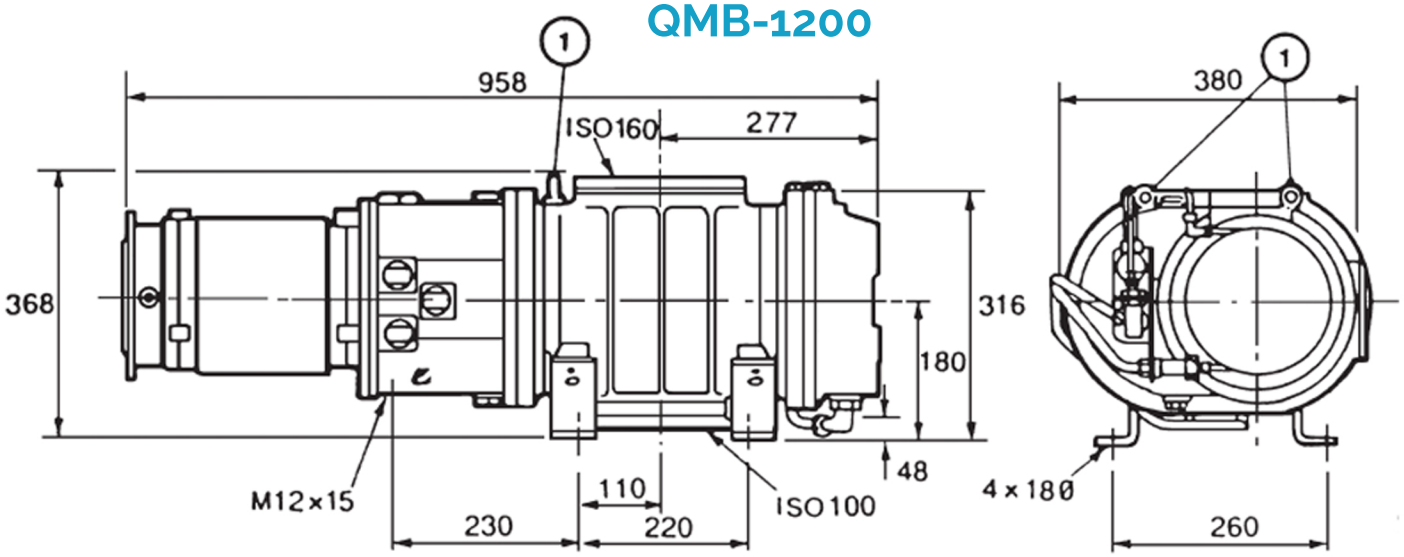
QMB-250



QMB-500



QMB-1200



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Features & Benefits

- backing pump required for operation
- enclosed, water-cooled motor makes it suitable for applications in clean environments where fan cooling is unacceptable
- filter in connecting pipelines removes debris & prevents contamination
- pump shafts & rotors made of high-grade corrosion-resistant cast-iron
- internal & external shaft-seals made of polytetrafluoroethylene (PTFE) or fluoroelastomer
- twin rotary lobes driven by a hydrokinetic drive mechanism allows the pump to slip at high pressures to avoid stalling & provide pumping assistance from nearly atmospheric pressure
- reduced noise & local heat generation

Applications

- industrial • semiconductor processing • vacuum distillation/packaging
- steel de-gassing • thin film coating • vacuum metallurgy • low density wind tunnels • space simulation • vacuum impregnation • oil drying & de-gassing • pharmaceutical freeze drying • CO2 lasers