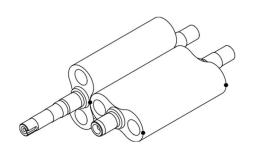


# **RD SERIES**

### **ENGINEERED FOR VERSATILITY**

Roots boosters with enhanced performance and longevity

## RD250 RD500 RD1001 RD1500 RD3000



The RD pumps are positive displacement roots vacuum pumps. The pump bearings, gears and seals are lubricated by oil fed from oil reservoirs at either ends of the roots pump. A series of seals stops the oil from reaching the vacuum side of the pump. Roots pumps helps in shifting the operating pressure to a high vacuum range due to rotation of gear timed rotors in opposite directions. Roots vacuum pumps are capable of improving the attainable ultimate pressure of a pump system by a factor of 10.

### **Features**

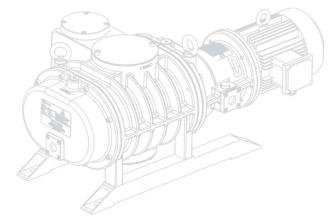
- Robust
- Suitable for continuous operation
- High compression ratio
- Futuristic bearing system designed for smoother and quiet operation
- Built-in mechanical by pass valve for atmospheric start
- Enhanced performance for longer life
- Pumps are available with flame proof motors
- Customisation of inlet and outlet flanges to suit the requirement

#### Industry/Markets

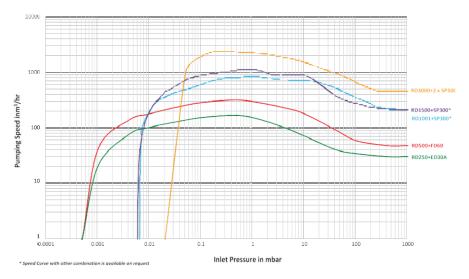
Typical Applications

- Automotive
- Aviation
- Chemical and Process Industries
- Coating & deposition
- Electrical & power
- Environment
- Food
- Lighting
- Oil & gas
- Metallurgy
- Nuclear
- Space research
- Semiconductor
- Solar

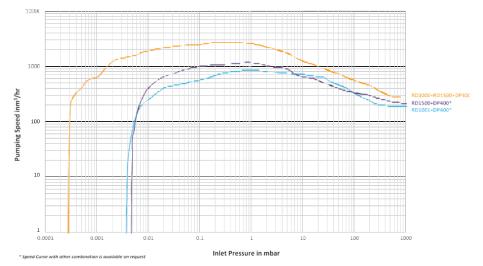
- Light bulb evacuation
- Thin film coating
- Heat treatment
- Drying
- Distillation
- Transformer oil filtration



### Performance Curves (Wet Pump Backing)



### Performance Curves (Dry Pump Backing)



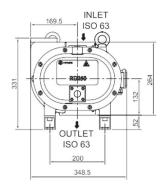
#### **Specifications**

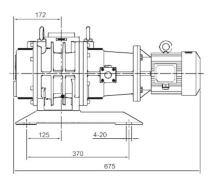
Particulars	Unit	RD250	RD500	RD1001	RD1500	RD3000
Nominal pumping speed @ 50Hz	m³/h (L/min)	250 (4167)	500 (8300)	1106 (18400)	1500 (25000)	3000 (50000)
Maximum pumping speed with backing pump	m³/h (L/min)	170 (2833) ED30A	320 (6167) FD60	840 (14000) SP300	1350 (22500) DP400	2250 (37500) 2 x SP300
Ultimate total pressure	mbar (Torr)	5 x 10 <sup>-4</sup> (3.75 x 10 <sup>-4</sup> )	5 x 10 <sup>-4</sup> (3.75 x 10 <sup>-4</sup> )	1 x 10 <sup>-2</sup> (7.5 x 10 <sup>-3</sup> )	5 x 10 <sup>-3</sup> (3.75 x 10 <sup>-3</sup> )	2 x 10 <sup>-2</sup> (1.5 x 10 <sup>-2</sup> )
Recommended backing pumps		ED30A	FD60 SP100*	SP300*	SP300*	2 x SP300*
Maximum allowable pressure difference	mbar (Torr)	80 (60)	80 (60)	80 (60)	65 (49)	30 (23)
Permissible cut-in pressure	mbar (Torr)	30 (22.5)	30 (22.5)	30 (22.5)	30 (22.5)	30 (22.5)
Nominal power rating at 50Hz	kW (HP)	1.1 (1.5)	1.5 (2)	3.7 (5)	3.7 (5)	7.5 (10)
Motor rotational speed at 50Hz	rpm	3000	3000	3000	3000	3000
Weight	kg (lb)	97 (214)	127 (280)	175 (386)	275 (605)	450 (990)
Inlet connection	ISO	ISO 63	ISO 100	ISO 160	ISO 160	ISO 160
Outlet connection	ISO	ISO 63	ISO 100	ISO 100	ISO 100	ISO 160
Cooling medium		Air	Air	Air	Water	Water
Oil capacity	Lts	0.9	0.9	2	2	2
Recommended oil		MD504				
Power supply		Three Phase 415V, 50Hz				

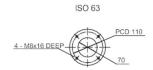
 $^{*}$  Ultimate total pressure with the single stage backing pumps will be lower as compared with two stage backing pumps

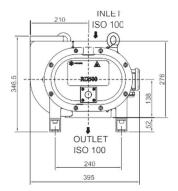
#### **Dimensions**

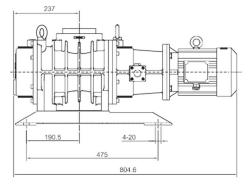
#### RD250 & RD500

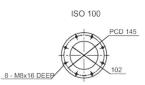




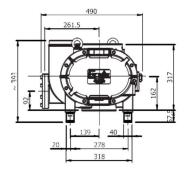


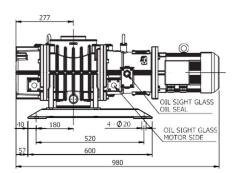




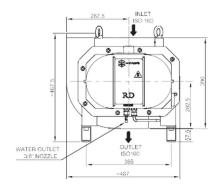


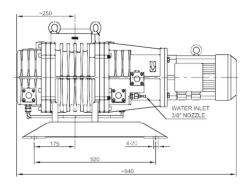
#### RD1001

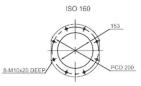




#### **RD1500**







#### RD3000

