

AIR-COOLED MULTI-STAGE ROOTS DRY PUMP **N₂ PURGE UNIT MODEL** FOR H₂, CORROSIVE GASES AND SOLVENTS

Excellent for Semiconductor, Laboratory and Research Purposes.



- Powerful protective functions ensure stable operation in an even wider range of applications!
- Ideal for lab/research applications for H₂ exhaust¹ and semiconductor processes²!

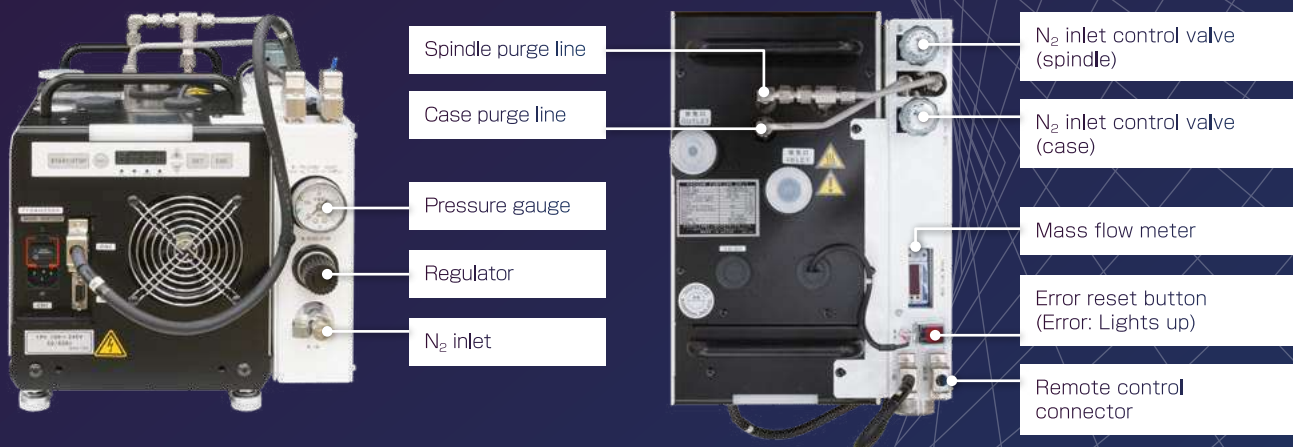
1) This product is not ATEX-compliant.

2) Excluding applications where byproducts such as CVD are generated.

Powerful protective functions ensure stable operation in an even wider range of applications!

- High flow purge mechanism enables significant dilution of corrosive and condensable gases
- N₂ supply pressure and flow rate can be adjusted
- N₂ flow in the gear chamber prevents corrosive gases from entering the oil chamber
- N₂ flow in the motor chamber prevents hydrogen embrittlement of motor magnets
- Stable operation in exhaust applications such as H₂, C₂H₂, corrosive gases, etc.
- For short-time, repetitive atmospheric/vacuum exhaust of corrosive or condensable gases in semiconductor processes* at the laboratory level or for research purposes

*Semiconductor process applications, excluding CVD and other applications where byproducts are generated.



- Regulator / mass flow meter / valve for flow adjustment: Allows adjustment of purge gas flow rate (up to 50 slm) and supply pressure.
- Spindle purge: Motor chamber and gear chamber (lubricant chamber) protected by N₂ to ensure stable operation.
- Remote control signals: Solenoid valve open/close input and N₂ flow reduction signal are provided. Flow monitoring and shut-off operation can be done remotely.

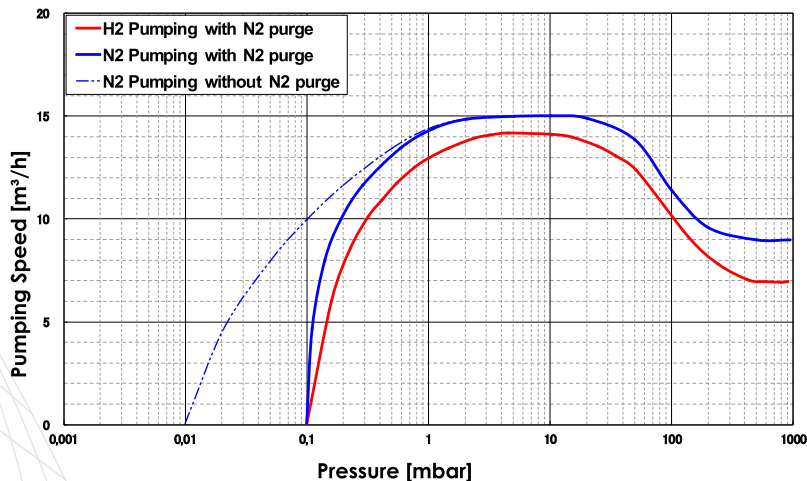
For stable operation, please contact us in advance for specific gas types and quantities to be handled.

S-P Curves

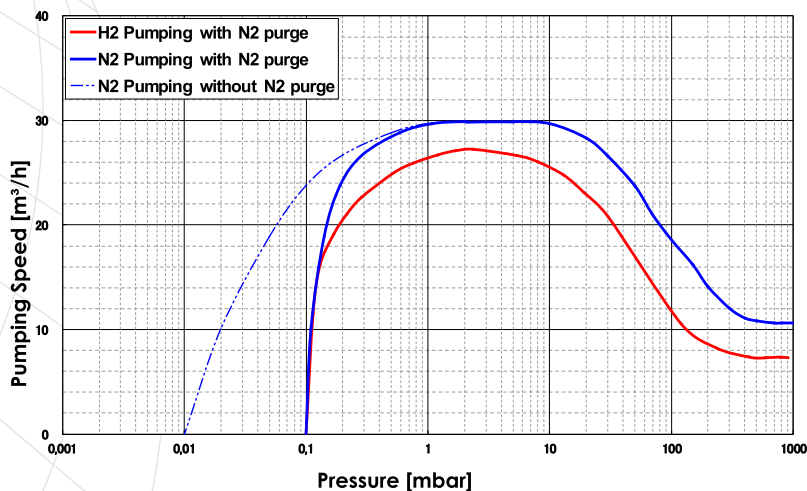
N₂ purge unit flow conditions

- Case purge line: 25 l/min(nor)
- Motor and gear room purge lines: Approx. 2.5 l/min(nor)

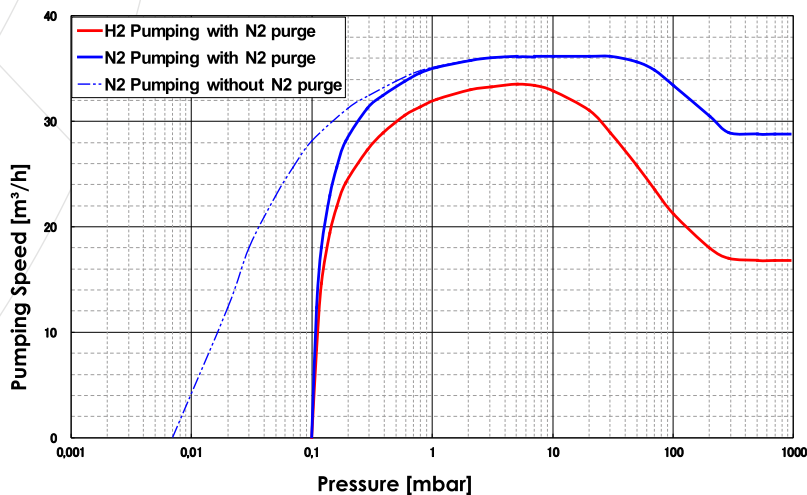
15G



30G



36G



Application examples

Corrosive gases

- Etching
- Plasma cleaner
- ALD equipment
- Residual gas exhaust for gas filling
- Evaporator
- CVD equipment*

*Excluding applications where byproducts are generated.

Hydrogen (H₂) Applications

- Hydrogen content analyzer for steel
- Temperature rise desorption analyzer
- Carrier gas H₂ for semiconductor device process

- This product is not ATEX-compliant. When handling hydrogen or other explosive gases, please handle them in accordance with local safety regulations.
- When using this product, please make sure that the piping, etc. connected to the exhaust port is also set up in consideration of line with safety considerations.
- Flush the pump thoroughly with N₂ after use before shutting off the pump to ensure that there are no residual gases in the product.

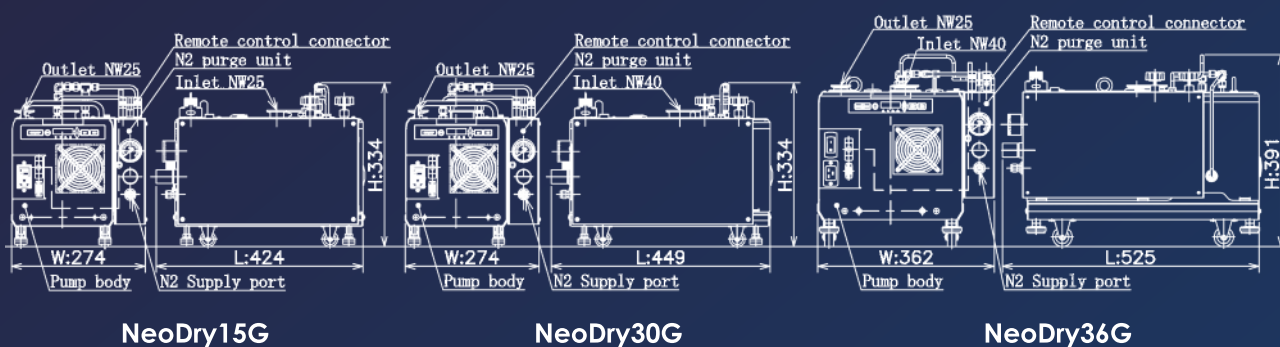
Spec. / Products			NeoDry15G-6	NeoDry30G-6	NeoDry36G-6
			PR-0026632	PR-0026633	PR-0024461
Max. pumping speed		m³/h (l/min)	15 (250)	30 (500)	36 (600)
Ultimate pressure	Without N₂ purge	mbar (Pa)	0.01 (1.0)	0.01 (1.0)	0.007 (0.7)
	With N₂ purge of 20 slm (0.03MPa(G))	mbar (Pa)	0.1 (10.0)		
Supply voltage (50/60Hz)			Single-phase, 100 – 240 V AC, auto-switching		
N₂ supply pressure		MPa(G)	0.1 - 0.7		
Regulator set pressure		MPa(G)	0.03 - 0.05		
Flow range		l/min(nor) slm	0 - 40		0 - 50
Max. allowable moisture¹		g/h	700		1,000
Noise, typical value at ultimate pressure²		dB(A)	45		51
Vibration		μm ^(p-p)	≤8		
Approx. weight	Pump	kg	22	24	51
	N₂ purge unit	kg	8	8	8
Inlet / Outlet size			NW25 / NW25	NW40 / NW25	
Power consumption at ultimate pressure³		kW	0.34	0.34	0.55
Dimensions (L×W×H)		mm	424x274x334	449x274x334	525x362x391
Safety standard			NRTL (UL61010-1, CAN/CSA C22.2 No.61010 1), CE Marking, UKCA, SEMI-S2		

1) Reference value at the max. flow rate of N₂ purge gas. Max. throughput may vary depending on individual differences and operating conditions.

2) Reference value with inlet closed and without N₂ purge at ultimate pressure. Actual noise level depends on the exhaust piping. Uncertainty 3 dB(A)

3) Reference value with inlet closed and without N₂ purge at ultimate pressure.

Pump General Arrangement



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