

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



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

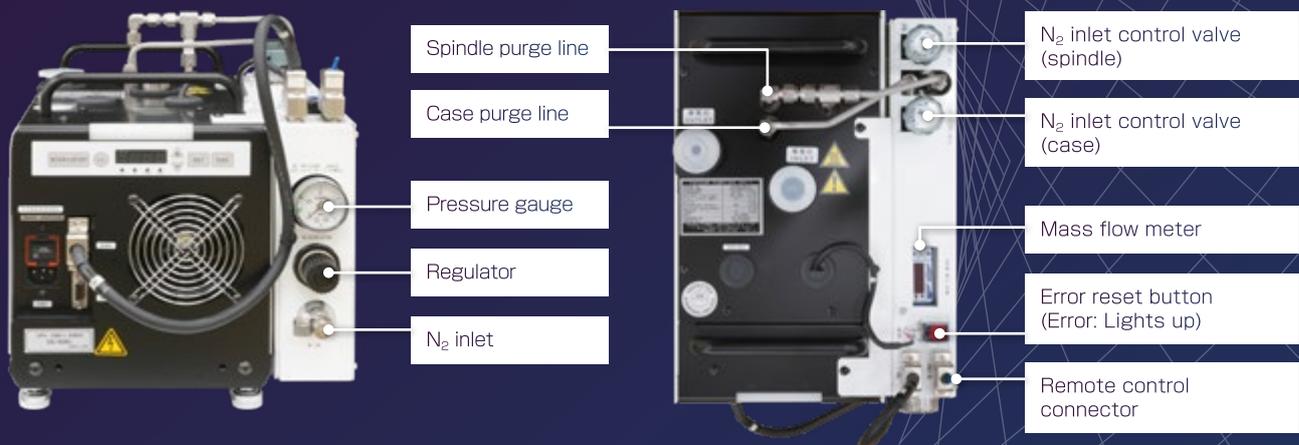
1) This product is not ATEX-compliant.

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
- Filling the gear chamber with N₂ prevents corrosive gases from entering the oil chamber
- Filling the motor chamber with N₂ 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 (oil chamber) can be 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.

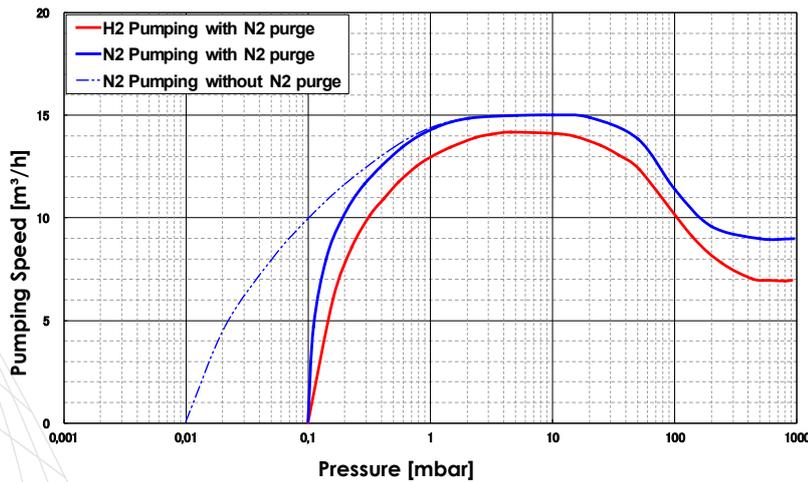
For stable operation, please contact us in advance for specific gas types and quantities to be handled.

S-P Curves

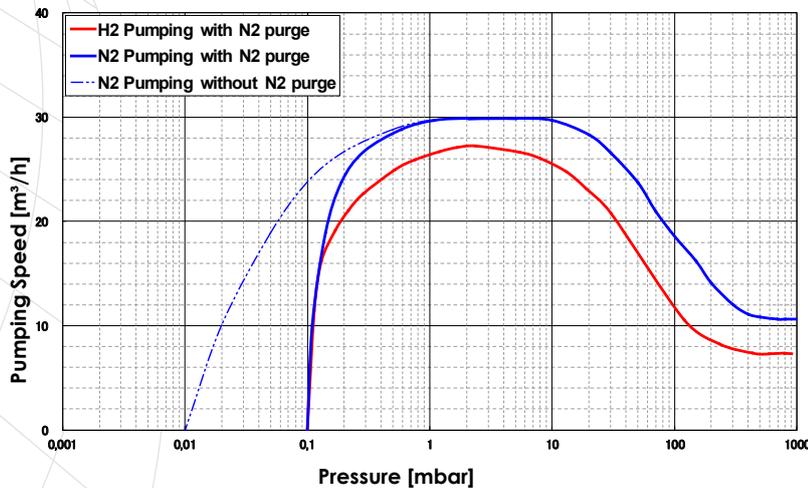
N₂ purge unit flow conditions

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

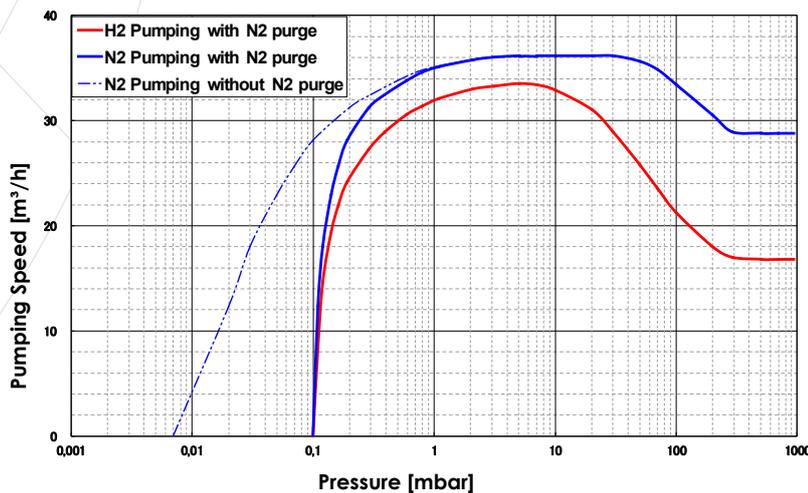
15G



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)

- 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.

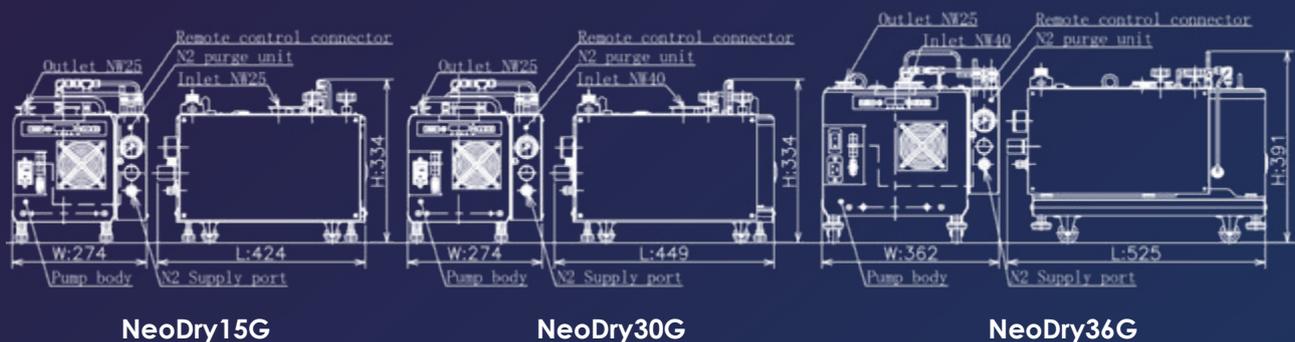
Spec. / Products		NeoDry15G-6	NeoDry30G-6	NeoDry36G-6
		PR-0026632	PR-0026633	PR-0024461
Max. pumping speed	m ³ /h (l/min)	15 (250)	30 (500)	36 (600)
Ultimate pressure	Without N ₂ purge	mbar (Pa)	0.01 (1.0)	0.007 (0.7)
	With N ₂ purge of 20 slm (0.03MPa(G))	mbar (Pa)	0.1 (10.0)	
Supply voltage (50/60Hz)		Single-phase, 100 - 240 V AC, auto-switching		
N ₂ 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 moisture ¹	g/h	700		1,000
Noise, typical value at ultimate pressure ²	dB(A)	45		51
Vibration	μm ^(p-p)	≤8		
Approx. weight	Pump	kg	22	24
	N ₂ purge unit	kg	8	8
Inlet / Outlet size		NW25 / NW25	NW40 / NW25	
Power consumption at ultimate pressure ³	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 pinging. Uncertainty 3 dB(A)

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

Outlook of the pump



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Our official partner

