

# NSP Series

## Dry Screw Vacuum Pump

Models: NSP150, NSP300, NSP400, NSP600, NSP800, NSP1000, NSP1500, NSP2500, NSP3000



### OVERVIEW

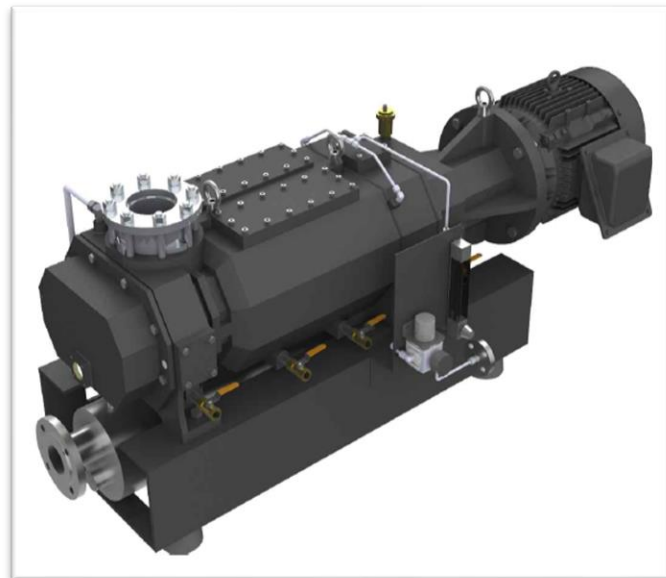
NES NSP series positive displacement dry running twin screw vacuum pumps achieve deep vacuum levels as high as  $7.5 \times 10^{-3}$  Torr, making them suitable for various industries requiring clean operations or dealing with toxic and corrosive gases.

A pair of helical screw rotors rotate against each other to move the process material towards the outlet port. Their variable pitch design enhances energy efficiency by compressing the gas throughout the pump body. This design allows for effective cooling and energy reduction compared to constant pitch screw designs.

NSP units can be driven either by belt or coupling transmission. The opposing rotations of the screws propel the process gas axially down the pump chamber towards the outlet port.

### CHARACTERISTICS

- **Efficiency:** This design ensures that compression of the process gas occurs more evenly throughout the pump body, enhancing energy efficiency and reducing operational costs over time.
- **Clean Operation:** There is no contact between the process gas and any oil or water within the pump. This feature prevents contamination, making NSP pumps ideal for industries where cleanliness is paramount.
- **Low Maintenance:** NSP series pumps require minimal maintenance, primarily limited to simple oil changes at regular, extended intervals. This low-maintenance requirement and easy access to the inner chamber reduces downtime and maintenance costs.
- **Access to Parts:** NES Company offers spare parts for DIY repair and maintenance, ensuring prompt servicing.
- **Wide Pressure Range:** NSP series pumps can operate across a wide range covering medium to high vacuum levels, making them adaptable to different operational environments.
- **Versatility:** NSP pumps can be effectively utilized in a wide range of industries, whether handling clean gases or corrosive materials.
- **Reliability:** NSP Series pumps are engineered for reliability under the harshest operating conditions. Their robust construction and efficient design ensure uninterrupted operations and enhanced productivity in industrial settings.



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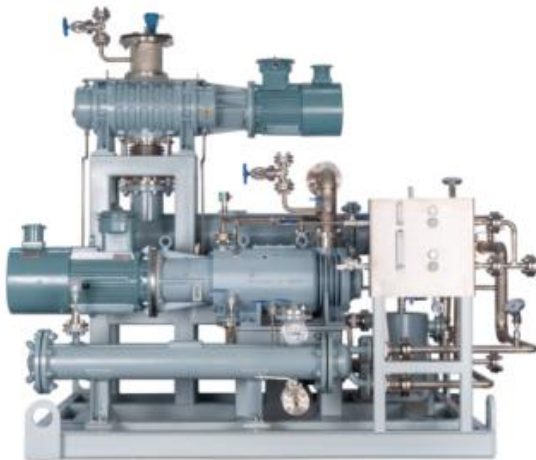
### FEATURES

- Advanced Dry Screw Technology
- High Vacuum Performance
- Efficient Cooling System
- Compact Design
- Low Maintenance Requirements
- Quiet Operation
- Integrated Control Systems



### COMMON APPLICATION

Semiconductor Manufacturing, Pharmaceutical & Biotechnology, Chemical Processing, Food & Beverage Packaging, and various Environmental Applications.



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### GENERAL PERFORMANCE PARAMETERS

Model	Flow Capacity	Power Rating	Ultimate Vacuum Pressure	Rotation Speed	Exhaust Method	Cooling Water Connection	Cooling Water Flow Rate	Seal Purge Gas Flow Rate	Weight	
–	CFM	HP	Torr	RPM	–	NPT	GPM	GPM	lbs.	
NSP 150	77	5	0.01	3600	Bottom	1/2	1.32-2.64	1.32-3.96	419	
NSP 300	177	10	$7.5 \times 10^{-3}$		Bottom or Side		2.64-3.96	1.32-5.28	661	
NSP 400	235	15			Bottom or Side					834
NSP 600	353	20			0.01					
NSP 800	471		$7.5 \times 10^{-3}$		Bottom or Side		1323			
NSP 1000	589	25	0.01		Side		1		5.28-6.60	1499
NSP 1500	883	50	0.05					1800	7.93-10.57	3.96-6.60
NSP 2500	1471	75		13.21-14.53		2976				
NSP 3000	1766			10.57-13.21		5512				

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