

# nEXT Split Flow Vacuum Pump





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Redefining finetuned performance

**Our expansive range of nEXT turbomolecular pumps are known for their precision, high performance, and reliability, covering a wide range of applications across industry, science, and research.**

The nEXT Split Flow range has been developed for projects that require a tailored vacuum solution and exceptional levels of versatility, covering challenges such as:

- A lack of workspace
- Complex requirements across multiple pumps
- Pumps that need to be housed within equipment
- Reducing energy usage

**A Split Flow vacuum pump works by deploying a standard turbomolecular pump technology and rearranging the pumping stages such that several vacuum ports can be achieved from a single mechanism.**

Split Flow pumps are more compact than the equivalent performing stand-alone turbomolecular pumps making them easier to install in environments where space is restricted.



# Features & benefits

Exceptional performance as standard

## — Wide Operational Pressure Range

**Turbomolecular vacuum pumps can operate across a wide pressure range, from high (HV) to ultra-high vacuum levels (UHV).**

Performing reliably even at low pressures makes them suitable for a diverse range of applications across analytical instruments.



## — Energy Efficient:

By combining a number of discrete vacuum pumps into a single split flow pump, not only is space saved, but power consumption can also be reduced.

— **Versatility:**

**Requiring far less real-estate than multiple stand-alone turbomolecular pumps opens up new opportunities in how you incorporate your vacuum system.**

Compact and adaptable, nEXT Split Flow pumps are ideal for many analytical instruments.



— **High Compression Ratios:**

**Achieve and maintain desired vacuum levels effortlessly.**

nEXT Split Flow turbomolecular vacuum pumps can offer high compression ratios (when necessary), efficiently removing gas molecules from your system (and keeping them out) ensuring optimal performance for your critical applications.

— **Customisable Configuration:**

**Tailored to fit your specific requirements.**

Our nEXT Split Flow turbomolecular vacuum pumps offer flexible configuration options, allowing you to choose the number, performance, and arrangement of inlet ports, ensuring compatibility with your unique setup.





### — Seamless Integration:

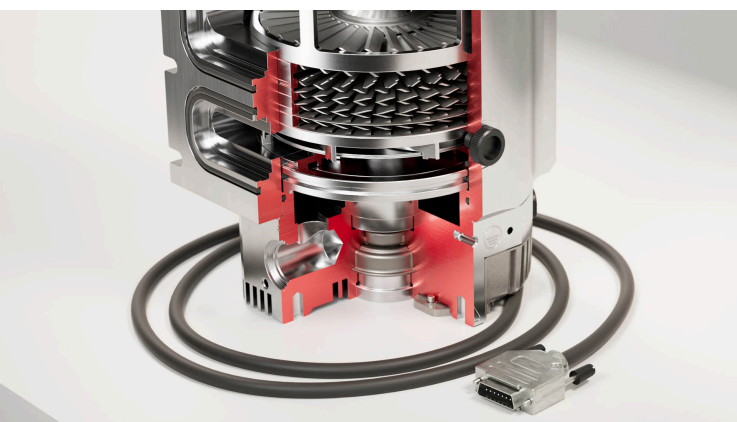
**Experience effortless integration with your existing vacuum systems.**

Your vacuum solution features compatible flange connections, control interfaces, and communication protocols, enabling easy installation and integration with other vacuum equipment.

### — Reliability and Durability:

**Built to withstand demanding environments.**

nEXT Split Flow pumps are designed to provide long-lasting performance. Their robust construction utilises high-quality materials and advanced engineering, ensuring reliability and minimising maintenance intervals.



### — Cost effective:

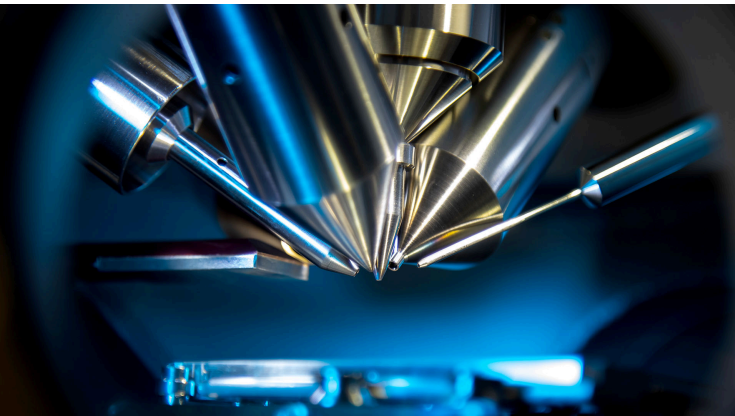
**The ability to fine tune vacuum performance on a granular level reduces long term consumption costs.**

Additionally initial capital costs for split flow vacuum systems are generally lower than purchasing multiple stand-alone turbomolecular pumps, meaning you can have a vacuum system designed specifically for your purpose, with a lower cost of ownership and reduced development times.

## — User service capability:

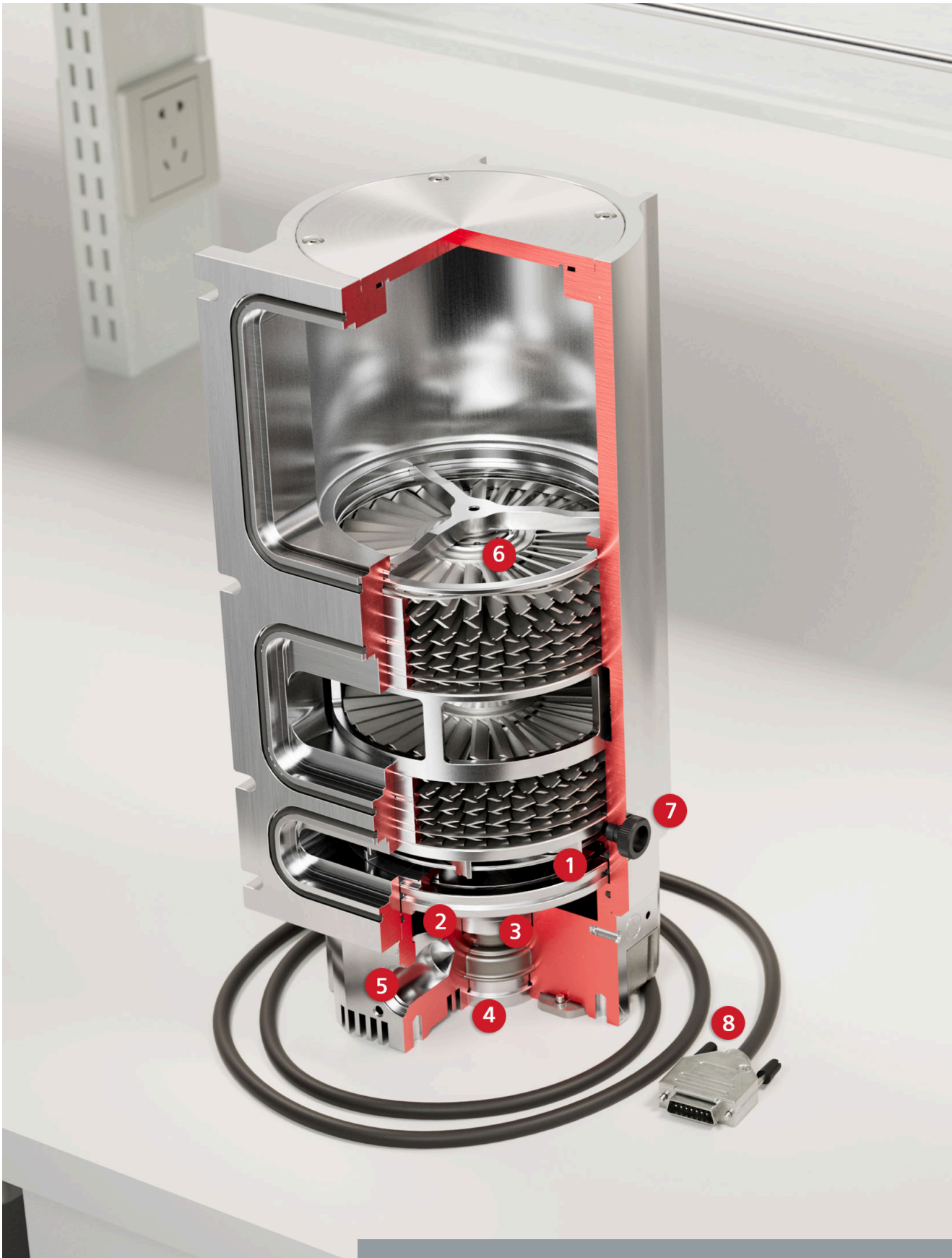
### **All nEXT turbo pumps are serviceable.**

In the case of nEXT Split Flow pumps, both the oil cartridge and the bearing can be serviced by an OEM service engineer or an end user. The oil cartridge can be exchanged every two years using nothing more complicated than a pin spanner and takes two minutes. The bearing is a little more complicated requiring a tool kit available from Edwards, but any mechanically competent person will easily be able to perform an exchange on a four-year cycle. Don't fancy it? – send it back to us and we'll do it or offer you an exchange pump.



## — Typical applications

- Liquid chromatography /mass spectrometry (LC-MS)
- Gas chromatography / mass spectrometry (GC-MS)
- Time-of-flight / mass spectrometry (TOF-MS)
- Inductively coupled plasma/Mass spectrometry (ICP-MS)
- Helium leak detectors (HLD)



Designed, built and  
used by experts



## **1. Multiple drag stages**

improving compression ratio

## **2. Direct temperature measurements within pump**

for precise real-time readings

## **3. Patented bearing system**

for superior reliability

## **4. User replaceable oil cartridge**

for easier maintenance

## **5. Purge port**

to dilute and protect the bearing

## **6. Permanent magnet upper bearing**

ensures clean vacuum, low power, low friction performance

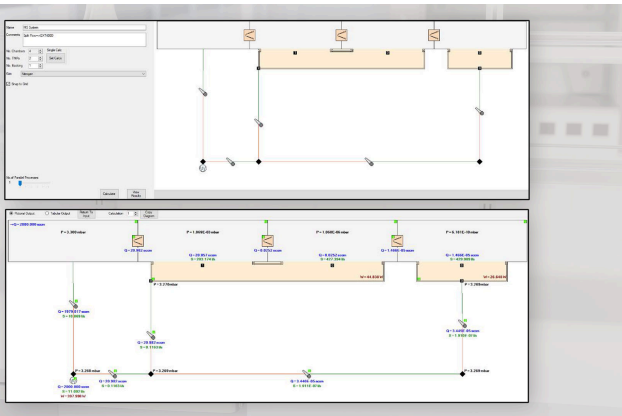
## **7. Manual vent port**

for venting pump and vacuum system to atmospheric pressure - automatic vent valve is available as an accessory

## **8. Pump controller**

for simple, parallel or sophisticated pump control

# Complex challenges made easy



## HSM Toolkit software:

Developed in-house our HSM Toolkit software allows you to imagine, design and test your vacuum system from atmosphere to UHV (ultra-high vacuum).

Simulating your system in a virtual environment ensures that your system will perform to your project specifications and will be optimised for maximum efficiency in a timely manner.

Our Bespoke Product Development team will work with you to build, fine tune and stress-test your ideal vacuum solution.

## Why Edwards:

At Edwards Vacuum we employ a partnership approach to building vacuum solutions for our worldwide customers across industry, medicine, and science. Proud of our history of pushing the boundaries of vacuum and abatement technology, our mission is to help enable the next generation of clean, environmentally positive solutions, and we look forward to setting new standards with our partners worldwide.



# Technical Specifications

Description	nEXT200200D	nEXT200200BiD	nEXT60/30D	nEXT60/30iD	nEXT300200D	nEXT300200BiD
Pumping speed (l/s @ N2):						
Main inlet	200	200	60-65	60-65	250-300	330-225
Side inlet	200	250	25-30	25-30	200-225	200-225
Interstage	on request	30	n/a	5-10	on request	30
Dimensions (mm)- LxHxW	236x314x160	235x165x165	233x122x105	290x150x107	392x175x152	388x165x160
Weight (kg)	9.1Kg	8.5Kg	4Kg	4.5Kg	12kg~	12.5Kg~
Compression ratio (@ He):						
Side to main inlet	500	500	details on request	details on request	details on request	details on request
Backing to side inlet	$1.7 \times 10^5$	$1.7 \times 10^5$	details on request	details on request	details on request	details on request
Max Inlet Pressure at start up	Refer to nEXT manual					
Max allowed backing pressure	~6mbar	~6mbar	~8mbar	~8mbar	~6mbar	~6mbar
Rotational Speed	1kHz	1kHz	1.5KHz	1.5KHz	1KHz	1KHz
Standby Speed	Refer to nEXT manual					
Are seals supplied with pump	All interface seals supplied as standard					
Flange/Mounting Type	Rectangular with 8x M8 Fasteners	On PCD with 4x M6 Fasteners	Rectangular with 4x M6 Fasteners	Rectangular with 4x M6 Fasteners	Rectangular with 8x M6 Fasteners	Rectangular with 8x M8 Fasteners
Audible Noise in operation	Refer to nEXT manual					
Mounting orientation	H or V	H or V	H or V	H or V	Horizontal only *	Horizontal only *
Operating Temp range	5°C to 35°C		5°C to 40°C		5°C to 35°C	
Operating Humidity range	10 to 90%		10 to 90%		10 to 90%	
Max Installation altitude	3000m		2000m		3000m	
Max ambient temp	35°C		35°C		35°C	

Description	nEXT200200D	nEXT200200BiD	nEXT60/30D	nEXT60/30iD	nEXT300200D	nEXT300200BiD
Storage temp range	minus 30° - 70°C		minus 30° - 70°C		minus 30° - 70°C	
Std nEXT manual for ref use	B85200880	B85200880	B8G00880	B8G00880	B85200880	B85200880

Note: H - horizontal , V - vertical

\*: Vertical mounting available on request



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