PRODUCT DATA SHEET

nEXT730, 930 AND 1230 TURBOMOLECULAR PUMP

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Edwards are proud to offer the nEXT730, nEXT930 and nEXT1230 turbomolecular pumps, these larger pumps offer choices for customers requiring higher pumping speeds from 730 up to 1250 l/s for nitrogen.

As well as addressing the general R&D market, where faster pumping speeds are sometimes required, these pumps are also designed to meet the requirements of the coating market and other diffuse market sectors such as Heat treatment, Furnace applications, Ebeam welding, Etch, Ion implant, Degassing and Cylinder evacuation.

For our OEM customers derivative versions of these products can be developed, just like the existing nEXT pumps, and like the existing nEXT pumps split flow variants are possible. This will give benefits for our customers with larger instruments as well as the possibility to reduce the total number of pumps on existing instruments.

The new products offer market leading performance for pumps of their class, and in a compact footprint. The pumps feature bearings with a typical life time of at least 4 years with no maintenance, which can then be replaced simply and economically by the customer themselves when required or customers may choose from our other service support offerings.

The pumps are able to operate in any orientation, and are supported by a full range of accessories for cooling, venting, powering and control.

FEATURES AND BENEFITS

- Class leading pumping speeds
- Outstanding compression ratios
- Ease of integration and installation
- Assured reliability
- End user service capability
- Full nEXT established communication interface

TECHNICAL DATA

		nEXT730D		nEXT930D		nEXT1230H		
Inlet flange		DN 160 ISO-K	DN 160 CF	DN 200 ISO-K	DN 200 CF	DN 200 CF	DN 200 ISO-F	DN 200 ISO-K
Main inlet pumping speed								
Inlet pumping speed ls^{-1}	N_2	730		925		1250		
	Ar	665		865		1150		
	He	820		905		1350		
	H_2	715		735		1150		
Gas throughput								
Inlet pumping speed ls^{-1}	N_2	14				12		
	Ar	3.5				4		
	He	21				>20		
	H_2	>> 14				>20		
Peak compression ratio backing port to main inlet port								
Inlet pumping speed ls^{-1}	N_2	> $1x10E^{11}$						
	Ar	> $1x10E^{11}$						
	He	$1,2x10E^{8}$				$4 \times 10E^{+8}$		
	H_2	$4,0x10E^{6}$				$1 \times 10E^{+7}$		
Ulimate pressure with 2-stage oil sealed rotary vane pump ISO-K/CF	mbar	< $3,5x10E^{-9}$	< $6x10E^{-10}$	< $3,5x10E^{-9}$	< $6x10E^{-10}$	<$5 \times 10E^{-10}$	indicate higher pressure for ISO-K and ISO-F	
Backing/interstage/boost ports	mbar	15						
Normal rotational speed	rpm	49 200				42 000		
Start time to 90% speed (sec) D/H (T)	min	2.5				3		
Max. power consumption	W	500 (default), 600 (max.)				660 (default), 800 (max.)		
Power consumption at ultimate pressure	W	40				50		
Type of protection	IP	54						
Cooling standard		Convection*				Water*		
Cooling optional		Air or Water*				Forced Air*		
Cooling water connection		Plug-in connection for 6x1 hose/alternative G1/8"						
Cooling water consumption	l/h	60						
Critical backing pressure	mbar	6						
Permissible cooling water temperature	°C	15 to 35						
Mass (kg) D/H (T)	kg	14.6	19.6	15.4	21.7	32.6	24.9	23.7
Recommended backing pump*		nXRi, XDS35i, E2M28**						
Noise level with convection cooling with radial air cooler	dB(A)	< 40 < 55	< 40 < 55	< 40 < 55	< 40 < 55	< 44 < 55	< 44 < 55	< 44 < 55
Water cooled/forced air cooled max. bake out	°C	100		n/a	100		n/a	
Purge gas flow	mbar · l · s^{-1} sccm	0.4 24						
Vent/purge port		G 1/8"						

**Depending on the ambient temperature, the gas type and throughput, performance may be limited by the cooling method.*
***Please contact your local representative to discuss the correct option for your application.*

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