

Турбомолекулярные насосные станции nEXT TIC CART XL, TIC, nEXT Turbo Station, системы калибровки насосные ESCAL1

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

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nEXT TURBOMOLECULAR PUMPING STATIONS



nEXT turbomolecular pumping stations are configurable with turbomolecular pump speeds ranging from 47 to 400 ls^{-1} and a choice of oil sealed or dry backing pumps ranging from 1 to 20 m^3h^{-1} . All our nEXT turbomolecular pumping stations feature an integrated TIC turbo and instrument controller offering full control of the package via a simple intuitive interface.

The nEXT turbomolecular pumping stations are supplied fully assembled and ready to run straight out of the box and include common accessories such as mist filters and mains cables as appropriate to the chosen pumps. As fully featured high end stations they include RS232 serial communications and Windows® software for monitoring and control.



PRODUCT FEATURES

RANGE OF TURBOMOLECULAR PUMP OPTIONS

Choice of turbomolecular pump with speeds ranging from 47 to 400 ls^{-1} and inlet flanges from DN40 to DN160.

FULLY CONTROLLABLE

TIC turbo and instrument controller offers full control of pumps and up to 3 Active gauges as well as offering full serial remote communications.

VENT VALVE OPTION

Optional turbomolecular pump vent valve can be ordered as part of cart assembly.

USER SERVICEABLE

All nEXT turbomolecular pumps and backing pumps are fully user serviceable.

ROBUST METAL FRAME

All metal frame with locking castors for a robust but easily mobile system. Bench mounting kit included for safe bench top operation.

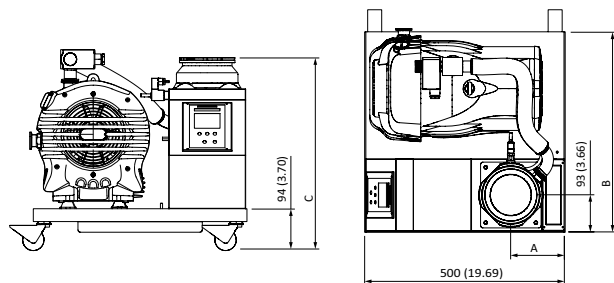
CHOICE OF BACKING PUMPS

Choice of oil sealed and dry backing pumps with capacities ranging from 1 to 20 m^3h^{-1} .

LOW VIBRATION

Backing pump mounted on anti-vibration mounts for low levels of transmitted vibration.

Dimensions



	A	B ⁽¹⁾	C
nEXT85 NW40	144	380/500	427
nEXT85 ISO63	144	380/500	401
nEXT85 CF63	144	380/500	415
nEXT240 ISO100	135.5	380/500	443.2
nEXT240 CF100	135.5	380/500	451.2
nEXT300 ISO100	135.5	380/500	448.7
nEXT300 CF100	135.5	380/500	463.2
nEXT400 ISO160	135.5	380/500	448.7
nEXT400 CF160	135.5	380/500	453.7

500 mm refers to large platforms with nXDS/RV backing pumps

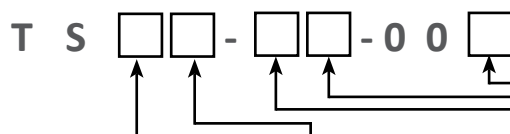
Technical data

		nEXT Turbo Station
Peak pumping speed for N ₂	NW40	47 ls ⁻¹
	ISO/CF63	84 ls ⁻¹
	ISO/CF100	240 or 300 ls ⁻¹
	ISO/CF160	400 ls ⁻¹
Compression ratio for N ₂		>1 x 10 ¹¹
Backing pump speed, 50 Hz (60 Hz)	E2M1.5	1.6 m ³ h ⁻¹ (1.2 cfm)
	RV	5.1 m ³ h ⁻¹ (3.6 cfm)
	RV12	12 m ³ h ⁻¹ (8.4 cfm)
	XDD1	1.2 m ³ h ⁻¹ (0.9 cfm)
	nXDS6i	6.2 m ³ h ⁻¹ (3.6 cfm)
	nXDS10i	11.4 m ³ h ⁻¹ (6.7 cfm)
	nXDS15i	15.1 m ³ h ⁻¹ (8.9 cfm)
Ultimate vacuum (CF)		<5 x 10 ⁻¹⁰ mbar
		NW40, ISO63, CF63, ISO100, CF100, ISO160 or CF160
Inlet connection		NW16
Exhaust connection	E2M1.5	NW16
	XDD1	Fitted silencer or 1/8" BSP
	RV/nXDS	NW25
Weight	E2M1.5/XDD1	24.9 to 35 kg
	RV/nXDS	41.2 kg to 55 kg
Noise level at ultimate		≤ 56 dB(A)
Leak tightness (static)		<1 x 10 ⁻⁶ mbar ls ⁻¹
Operating temperature range		12 to 40 °C

(1) 380 mm refers to small platforms with XDD1 backing pumps

Ordering information

Pumping station:



Turbomolecular pump

B nEXT240
C nEXT300
D nEXT400
E nEXT240T
F nEXT300T
G nEXT400T
J nEXT85D
K nEXT85H

Inlet Flange

1 DN40NW (nEXT85)
2 DN63ISO-K (nEXT85)
3 DN63CF (nEXT85)
4 DN100ISO-K (nEXT240/300)
5 DN100CF (nEXT240/300)
6 DN160ISO-K (nEXT400)
7 DN160CF (nEXT400)

Backing Pump

1 E2M1.5
2 RV5
3 RV12
A XDD1
D nXDS6i
E nXDS10i
F nXDS15i
G nXDS20i

Vent Option

0 Manual Vent
1 TAV5 Vent Valve

Electrical Supply

1 220-240 V 50/60 Hz (Europe)
2 110-120 V 50/60 Hz (USA)
3 200 V 50/60 Hz (Japan)
4 220-240 V 50/60 Hz (UK)

Accessories:

Product description	Order no.
APG100 XLC NW16 Pirani Gauge	D02603000
AIM X NW25 Inverted Magnetron Gauge	D14642000
WRG-S NW25 Wide Range Gauge	D14701000
APGX-H NW25 Convection Gauge	D02391000
0.5 m Gauge cable	D40001005
1 m Gauge cable	D40001010

CALIBRATION SYSTEM ECAL1

Calibration System ECAL1 is a fully automatic pumping system based on the Edwards T-Station 85H. A vacuum chamber equipped with two reference gauges is attached.

The calibration system provides output comparison between reference gauges and test gauges for a pressure range from 1000 to 10^{-4} mbar. The user must define the acceptable tolerance between reference gauges and the test gauges whilst taking into consideration the uncertainty of different calibration conditions. Note that no adjustment is performed on the test gauges during the calibration procedure.

The reference pressure gauges are connected and controlled via a TIC instrument controller. The TIC instrument controller is equipped with an intuitive easy-to-use graphical interface via a touch sensitive panel. The result can be observed on the TIC controller or connected via RS232/485 for control and data monitoring on a remote PC.

Reference gauges come with a factory calibration certificate. It is recommended that reference gauges are re-calibrated annually. Contact Edwards for details on this service.

**Reference pressure gauges are Barocel 7025 capacitance gauges from the Edwards Barocel 7000 series.*



FEATURES AND BENEFITS



EASY TO USE



TABLE TOP
CONFIGURATION



QUICK ASSURANCE OF
ACCURACY OF TEST GAUGES



TIC INSTRUMENT CONTROLLER

- Automatically recognizes and controls active gauges.
- Six user configurable relay set-points.
- Display of relay status.



PLUG-AND-PUMP

- Simple user-friendly plug-and-pump solution with no systemisation and no additional air cooling required, supplied fully assembled and ready to go for quick and easy operation.

APPLICATION AND MARKETS

A wide range of Applications where accuracy and repeatability of vacuum is an important aspect of the quality process to safeguard the process stability and product quality.

TECHNICAL DATA

	Units	Standard calibration system
Calibration pressure range	mbar	between 1000 to 10^{-4} *
Ultimate vacuum	mbar	$< 5 \times 10^{-8}$ **
Ports for calibration vacuum chamber		3x NW16 for calibration gauges / 1x NW16 for gas admit
Type of protection (to IEC34-5: 1981)	IP	20
Ambient operating temperature range	°C	5 to 40
Ambient storage temperature range	°/°C	-30 to 70
Maximum ambient operating humidity	°C	max. 90% RH non-condensing at 40
Maximum operating altitude	m	max. 2000
Dimensions	mm	527(W) x 690 (H) x 375 (D)
Mass	kg	40
Mains connection	m	EU Schuko VDE / 10A (2m) / UK BS1363/ 13A (2 m) / JAPAN Plug NEMA 5-15P / 15A (2m) / US plug NEMA 5-15P / 15A (2m)

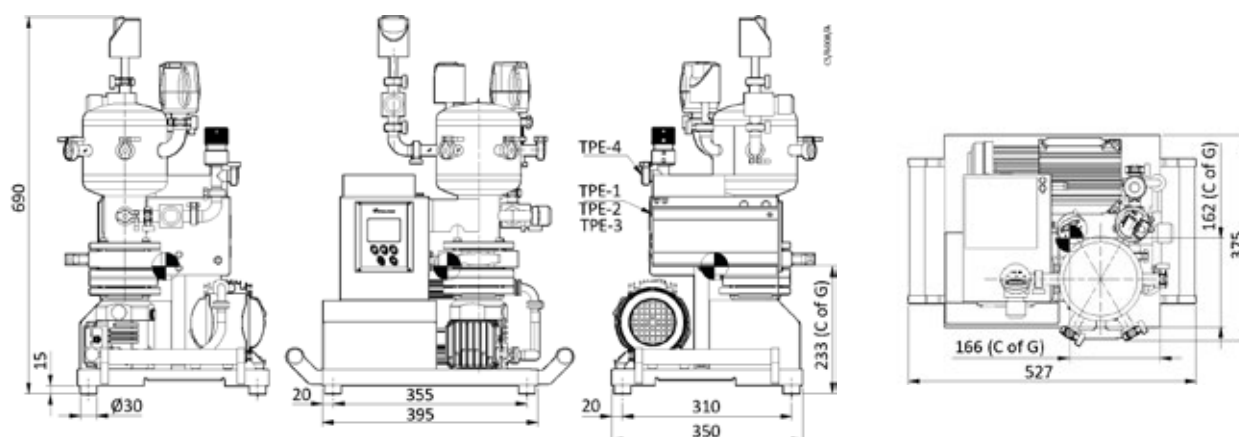
* depending on the number and measuring range of the reference pressure gauges

** for clean, dry and empty chamber

ORDERING INFORMATION

Product description	Order number
Standard Calibration System - 200-230V (EU, UK, JAPAN)	NZA631000
Standard Calibration System - 100-120V (US)	NZA638000

DIMENSIONS



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nEXT TURBOMOLECULAR PUMPING STATION TIC CART XL

nEXT TIC Cart XL is a large volume turbomolecular pumping station, fully mobile, and is required where fast, reliable pump down to low pressure is essential. Configurable with turbomolecular pump speeds ranging from 240 to 930 ls^{-1} and choice of dry backing nXRi multistage roots pumps that enables the range to pump from 30 to 90 m^3h^{-1} . All our nEXT turbomolecular pumping stations feature an integrated TIC turbo and instrument controller offering full control of the package via a simple intuitive interface.

Supplied fully assembled and ready to run straight out of the box providing a customer friendly interface using only one power cable. As fully featured high end stations they include RS232 serial communications and Windows® software for monitoring and control.



FEATURES AND BENEFITS

Range of turbomolecular pump options

Choice of turbomolecular pump with speeds ranging from 240 to 930 ls^{-1} and inlet flanges from DN100 to DN200.

Fully controllable

TIC turbo and instrument controller offers full control of pumps and up to 3 Active gauges as well as offering full serial remote communications.

Vent valve option

Optional turbomolecular pump vent valve can be ordered as part of cart assembly.

User serviceable

All nEXT turbomolecular pumps and backing pumps are fully user serviceable.

Mobile system

All metal frame with locking castors for a robust but easily mobile system.

Choice of backing pumps

Choice of dry backing pumps with capacities ranging from 30 to 90 m^3h^{-1} .

Low vibration

Backing pump mounted on anti-vibration mounts for low levels of transmitted vibration.

TECHNICAL DATA


Pumping station	nEXT240	nEXT300	nEXT400	nEXT730	nEXT930
Inlet connection	DN100/ISO-K/DN100CF	DN100/ISO-K/DN100CF	DN160/ISO-K/DN160CF	DN160/ISO-K/DN160CF	DN200/ISO-K/DN200CF
Forevacuum connection	DN 25 ISO-KF (NW25)	DN 25 ISO-KF (NW25)	DN 25 ISO-KF (NW25)	DN 25 ISO-KF (NW25)	DN 25 ISO-KF (NW25)
Inlet pumping speed N2	240 l/s	300 l/s	390 l/s	730 l/s	930 l/s
Ultimate pressure mbar	6×10^{-8} 5×10^{-10}	6×10^{-8} 5×10^{-10}	1×10^{-8} 1×10^{-10}	2×10^{-8} 3×10^{-10}	2×10^{-8} 3×10^{-10}
Mains supply V	110 / 230	110 / 230	110 / 230	110 / 230	110 / 230

'PLUG AND PUMP' TURBOMOLECULAR PUMPING STATION

Everything about our range of nEXT turbomolecular pumping stations has been developed to provide a comprehensive vacuum solution with the latest technological advances for easy installation and operation.


A simplified ordering matrix and expanded range, to include turbopumps with speeds from 240 l/s⁻¹ to 930 l/s⁻¹, enables you to select the most appropriate combination for your application, fully assembled and ready to go.

1 Choose your turbopump




nEXT240 (240 l/s⁻¹) nEXT300 (300 l/s⁻¹)
nEXT400 (400 l/s⁻¹) nEXT730 (730 l/s⁻¹)
nEXT930 (930 l/s⁻¹)

2 Choose your backing pump



nXR30i (30 m³h⁻¹) nXR40i (40 m³h⁻¹)
nXR60i (60 m³h⁻¹) nXR90i (90 m³h⁻¹)

3 Select your voltage



Vacuum isolation valve VIV and the APG200 fitted as a standard accessory

ORDERING INFORMATION

nEXT turbomolecular pumping cart xl:

TC - - 0 0

Turbo

B nEXT240
C nEXT300
D nEXT400
E nEXT240T
F nEXT300T
G nEXT400T
H nEXT730
I nEXT930

Inlet

1 ISO 100
2 CF 100
3 ISO 160
4 CF 160
5 ISO 200
6 CF 200

Backing

1 nXR30i
2 nXR40i
3 nXR60i
4 nXR90i

Vent options

0 Manual vent
1 TAV5 vent valve

Electrical supply

1 220-240V 50/60 Hz Europe
2 110-120V 50/60 Hz USA
3 200V 50/60 Hz Japan
4 220-240v 50/60 Hz UK
5 220-240v 50/60 Hz USA

TIC PUMPING STATION

TIC pumping stations are configurable with turbomolecular pump speeds ranging from 47 to 400 ls^{-1} and a choice of oil sealed or dry backing pumps ranging from 1 to 20 m^3h^{-1} . They are supplied fully assembled and ready to run straight out of the box.

All feature an integrated TIC turbo and instrument controller, offering full control of the package via a simple intuitive interface.

They also all come with common accessories such as mist filters and mains cables as appropriate to the chosen pumps.

As high end stations should: they include RS232 serial communications and Windows® software for monitoring and control.



FEATURES AND BENEFITS

User serviceable

nEXT turbo pumps and backing pumps are fully user serviceable: not only they are quick and easy to service, but this means an extended lifetime for your pumping station.

Vent valve option

Optional turbomolecular pump vent valve can be ordered as part of cart assembly.



Fully controllable

TIC turbo and instrument controller offers full control of pumps and up to 3 active gauges as well as full serial remote communications.

Robust metal frame

All metal frame with locking castors for a robust but easily mobile system. Bench mounting kit included for safe bench top operation.

Low vibration

Backing pump mounted on anti-vibration mounts for low levels of transmitted vibration. The ideal partner for both laboratory as well as light industrial settings.

CUSTOMISE YOUR PUMPING STATION

Developed to provide a comprehensive vacuum solution with the latest technological advances for easy installation and operation.

1

Choose your turbopump: pumping speed from 84 to 400 ls⁻¹

and inlet flanges from DN40 to DN160.



nEXT85
(84 ls⁻¹)



nEXT240
(240 ls⁻¹)



nEXT300
(300 ls⁻¹)



nEXT400
(400 ls⁻¹)

2

Choose your backing pump: pumping speed from 1.2 to 20 m³h⁻¹

9 backing pumps available from the 'EM' and 'RV' oil sealed rotary vane pumps, the XDDI diaphragm pump, to the dry scroll technology of the nXDS and mXDS3s models.



E2M1.5 (1.6 m³h⁻¹)



RV5 (5.1 m³h⁻¹)



RV12 (12.0 m³h⁻¹)



XDD1 (1.2 m³h⁻¹)



mXDS3s (3 m³h⁻¹)

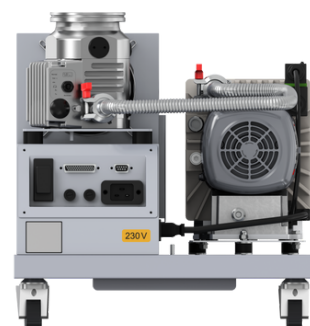


nXDS6i/10i/15i/20i
(6.2 to 20 m³h⁻¹)

3

Select your voltage

- 220-240 V 50/60 Hz (Europe)
- 110-120 V 50/60 Hz (USA)
- 200 V 50/60 Hz (Japan)
- 220-240 V 50/60 Hz (UK)



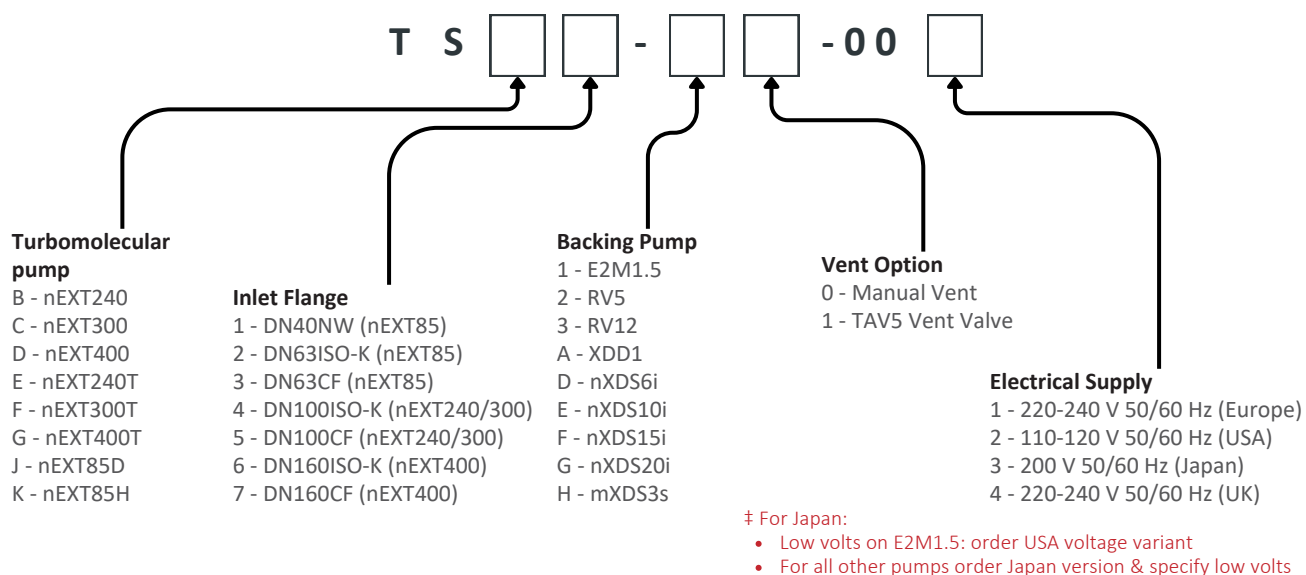
TECHNICAL DATA

	Unit	TIC Pumping Station 85	TIC Pumping Station 240	TIC Pumping Station 300	TIC Pumping Station 400
Pumping speed for N2					
NW40	l/s	47	-	-	-
ISO63CF63		84	-	-	-
ISO100/CF100		-	240	300	-
ISO160/CF160		-	-	-	400
Compression ration for N2		> 1 x 10 ¹¹			
Backing pump speed	m ³ h ⁻¹	1,2 - 20			
Ultimate vacuum	mbar	<5x10 ⁻⁸ - <5x10 ⁻¹⁰			
Mass	kg	25 - 55			
Noise level	dB(A)	54 (+/- 2.5)			
Operating temperature					
Dry vacuum pumps	°C	+ 5 to + 40			
Wet vacuum pumps		+ 12 to + 40			



ORDERING MATRIX - TIC PUMPING STATIONS

Select the most appropriate combination for your application.



ORDERING INFORMATION - ACCESSORIES & CORDS

	Description	Order number
Accessories	EMF3 mist filter for E2M1.5	A46220000
	N/C TAV5 vent valve connector fitted	B8G200835
	N/O TAV5 vent valve connector fitted	B8G200834
	APG200 - XLC active Pirani gauge NW16	D1G2011100
	AIM200 - X - active inverted magnetron gauge NW25	D2G0021100
	WRG200-X-active wide range gauge NW25	D3G0021100
	APGX-H active linear convection gauge NW16	D02391000
Cord sets	2m electrical supply cable UK plug	A50505000
	2m electrical supply cable EU plug	A50506000
	2m electrical supply cable USA/Japan plug	A50507000
	2m electrical supply cable no plug	A50508000
	0.5 m active gauge cable	D40001005
	1 m active gauge cable	D40001010



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