Турбомолекулярные насосные станции T-Station 300, T-Station 85

Технические характеристики

T-STATION 85 TURBOMOLECULAR PUMPING STATION

Our T-Station 85 is a low cost, compact turbomolecular pumping station that seamlessly combines an nEXT85H turbomolecular pump with either a dry diaphragm or oil sealed backing pump, and a simple controller, providing pumping speeds of 47 to 84 ls^{-1}.

The T-Station 85 comes with an integrated Turbo and Active Gauge controller which enables single button start/stop of the system. With the ability to control one of our active gauges, vent valve control and delayed start of the turbomolecular pump to either time or pressure if a gauge is fitted, the T-Station 85 ideal for general laboratory needs.

PRODUCT FEATURES

CUSTOM INTEGRATED CONTROLLER FEATURES:

Single dedicated button to start/stop pumps; Easy to read accurate display; Ability to select vent mode where a TAV5 vent valve is fitted for automated venting with no user intervention.

HIGH CAPACITY BACKING PUMPS

E2M1.5 or XDD1 high capacity backing pumps giving the choice between an oil sealed pump or a totally dry diaphragm pump.

COMPACT LOW PROFILE

Base plate includes rubber feet and cut-outs in the sides for manual handling, giving a compact low profile but stable design that cannot be knocked over.

USER SERVICEABLE

The nEXT85 turbomolecular pump, XDD1 dry diaphragm pump and E2M1.5 backing pump are all user serviceable.

INTEGRATED AIR COOLER

Acts to cool internal power supply and pump/controller for quiet operation avoiding multiple fans.

RUGGED METAL FRAME

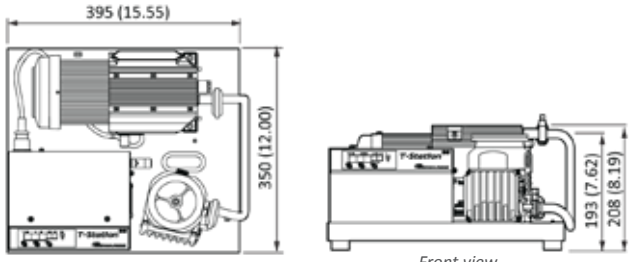
All metal frame means rugged design that can take abuse without cracking or breaking.

INLET FLANGE OPTIONS

Available with either an NW40, ISO63 or CF63 inlet flange to suit your application.

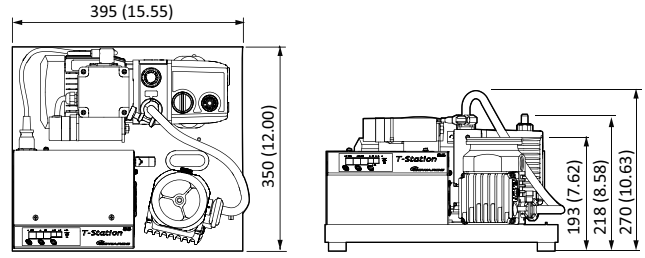
Dimensions

T-Station 85D with XDD1 backing pump



Top view *Front view*

T-Station 85W with E2M1.5 backing pump



Top view *Front view*

Technical data

		T-Station 85
Pumping speed for N_2	NW40	47 ls^{-1}
	ISO/CF63	84 ls^{-1}
Compression ratio for N_2		>1 x 10^{11}
Backing pump speed, 50 Hz (60 Hz)	E2M1.5 (TS85W)	1.6 m^3h^{-1} (1.2 cfm)
	XDD1 (TS85D)	1.2 m^3h^{-1} (0.9 cfm)
Ultimate vacuum (CF)		<5 x 10^{-10} mbar
Inlet connection		NW40, ISO63 or CF63
Exhaust connection	E2M1.5 (TS85W)	11mm OD nozzle or 3/8" BSP
	XDD1 (TS85D)	Fitted silencer or 1/8" BSP
Weight	E2M1.5 system (TS85W)	21 kg max
	XDD1 system (TS85D)	17 kg max
Noise level at ultimate		≤56 dB(A)
Leak tightness (static)		<1 x 10^{-6} mbar ls^{-1}
Operating temperature range		12 to 40 °C

Ordering information

Pumping station:

Product description	Order no.
T-Station 85H Wet NW40 200-240V	TS85W1001
T-Station 85H Wet ISO63 200-240V	TS85W2001
T-Station 85H Wet CF63 200-240V	TS85W3001
T-Station 85H Dry NW40 200-240V	TS85D1001
T-Station 85H Dry ISO63 200-240V	TS85D2001
T-Station 85H Dry CF63 200-240V	TS85D3001
T-Station 85H Wet NW40 100-120V	TS85W1002
T-Station 85H Wet ISO63 100-120V	TS85W2002
T-Station 85H Wet CF63 100-120V	TS85W3002
T-Station 85H Dry NW40 100-120V	TS85D1002
T-Station 85H Dry ISO63 100-120V	TS85D2002
T-Station 85H Dry CF63 100-120V	TS85D3002

Accessories and spares:

	Product description	Order no.
Accessories	EMF3 mist filter for E2M1.5	A46220000
	N/O TAV5 vent valve connector fitted	B8G200834
	N/C TAV5 vent valve connector fitted	B8G200835
	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
Cord sets	2 m electrical supply cable UK plug	A50505000
	2 m electrical supply cable EU plug	A50506000
	2 m electrical supply cable North America/Japan plug	A50507000
	2m electrical supply cable no plug	A50508000
	0.5 m Gauge cable	D40001005
	1 m Gauge cable	D40001010

PRODUCT DATA SHEET

nEXT730, 930 AND 1230 TURBOMOLECULAR PUMP

edwardsvacuum.com

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 R&D market, where high compression, faster pumping speeds are 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.

* for nEXT1230, inverted option available

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

		nEXT730Q	nEXT730D		nEXT730H	
Inlet flange		DN 160 ISO-K	DN 160 ISO-K	DN 160 CF	DN 160 ISO-K	DN 160 CF
Main inlet pumping speed						
Inlet pumping speed ls^{-1}	N_2	730	730	690	720	680
	Ar	665	665	620	655	610
	He	820	820	760	850	790
	H_2	715	715	670	755	710
Gas throughput						
Gas throughput mbar ls^{-1}	N_2	>40	14		4	
	Ar	6.8	3.5		2.6	
	He	>50	21		7	
	H_2	>50	>> 14		17	
Peak compression ratio backing port to main inlet port						
Compression ratio***	N_2	$>1x10^8$	$> 1x10^{11}$		$>1x10^{13}$	
	Ar	$>1x10^8$	$> 1x10^{11}$		$>1x10^{13}$	
	He	$1x10^5$	$1.2x10^8$		$5x10^9$	
	H_2	$1x10^4$	$4.0x10^6$		$3x10^8$	
Ultimate pressure**	mbar	$<1x10^{-7}$	$< 3.5x10^{-9}$	$< 6x10^{-10}$	$<7x10^{-9}$	$<1x10^{-10}$
Max. permissible backing pressure	mbar	6	15		12	
Normal rotational speed	rpm	49200				
Start time to 90% speed (sec)	min	2.5				
Max. power consumption	W	500 (default), 600 (max.)				
Power consumption at ultimate pressure	W	40				
Type of protection	IP	54				
Recommended cooling method		Water*	Convection*			
Optional cooling		n/a	Air or Water*			
Cooling water connection	inch	Plug-in connection for 6x1 hose/alternative G 1/8				
Cooling water consumption	l/h	60				
Critial cooling water pressure	bar(g)	6				
Permissible cooling water temperature	°C	15 to 35				
Mass (kg)	kg	15.4	14.6	19.6	14.6	19.6
Recommended backing pump*		nXRi, XDS35i, E2M28**				
Noise level with convection cooling with radial air cooler	dB(A)	< 40 n/a	< 40 < 55			
Water cooled/forced air cooled max. bake out	°C	n/a	100			
Purge gas flow	mbar · ls^{-1} sccm	0.4 24				
Vent/purge port	inch	G 1/8				

**Depending on the ambient temperature, the gas type and throughput, performance may be limited by the cooling method.*
***Please contact the supplier to discuss your specific system details and the achievement of ultimate pressure.*
****The compression ration of a TMP describes the performance of the TMP design for the compression of a gas type at special conditions. The compression data were measured only using the CF flange variants.*

TECHNICAL DATA

		nEXT930Q	nEXT930D	
Inlet flange		DN 200 ISO-K	DN 200 ISO-K	DN 200 CF
Main inlet pumping speed				
Inlet pumping speed ls^{-1}	N_2	925	925	720
	Ar	865	865	810
	He	905	905	840
	H_2	735	735	690
Gas throughput				
Gas throughput mbar ls^{-1}	N_2	>40	14	
	Ar	6.8	3.5	
	He	>50	21	
	H_2	>50	>> 14	
Peak compression ratio backing port to main inlet port				
Compression ratio***	N_2	$>1x10^8$	$> 1x10^{11}$	
	Ar	$>1x10^8$	$> 1x10^{11}$	
	He	$1x10^5$	$1.2x10^8$	
	H_2	$1x10^4$	$4.0x10^6$	
Ultimate pressure**	mbar	$<1x10^{-7}$	$< 3.5x10^{-9}$	$< 6x10^{-10}$
Max. permissible backing pressure	mbar	6	15	
Normal rotational speed	rpm	49200		
Start time to 90% speed (sec)	min	2.5		
Max. power consumption	W	500 (default), 600 (max.)		
Power consumption at ultimate pressure	W	40		
Type of protection	IP	54		
Recommended cooling method		Water*	Convection*	
Optional cooling		n/a	Air or Water*	
Cooling water connection	inch	Plug-in connection for 6x1 hose/alternative G 1/8		
Cooling water consumption	l/h	60		
Critial cooling water pressure	bar(g)	6		
Permissible cooling water temperature	°C	15 to 35		
Mass (kg)	kg	15.4	15.4	21.7
Recommended backing pump*		nXRi, XDS35i, E2M28**		
Noise level with convection cooling with radial air cooler	dB(A)	< 40 n/a	< 40 <55	
Water cooled/forced air cooled max. bake out	°C	n/a	100	
Purge gas flow	mbar · ls^{-1} sccm	0.4 24		
Vent/purge port	inch	G 1/8		

**Depending on the ambient temperature, the gas type and throughput, performance may be limited by the cooling method.*
***Please contact the supplier to discuss your specific system details and the achievement of ultimate pressure.*
****The compression ration of a TMP describes the performance of the TMP design for the compression of a gas type at special conditions. The compression data were measured only using the CF flange variants.*

TECHNICAL DATA

		nEXT1230H		
Inlet flange		DN 200 CF	DN 200 ISO-F	DN 200 ISO-K
Main inlet pumping speed				
Inlet pumping speed ls^{-1}	N_2	1250		
	Ar	1150		
	He	1350		
	H_2	1150		
Gas throughput				
Gas throughput mbar ls^{-1}	N_2	9		
	Ar	3		
	He	>20		
	H_2	>20		
Peak compression ratio backing port to main inlet port				
Compression ratio***	N_2	> $1x10^{11}$		
	Ar	> $1x10^{11}$		
	He	$4x10^{8}$		
	H_2	$1x10^{7}$		
Ultimate pressure**	mbar	<$5x10^{-10}$	indicate higher pressure for ISO-K and ISO-F	
Max. permissible backing pressure	mbar	15		
Normal rotational speed	rpm	42000		
Start time to 90% speed (sec) H	min	2.5		
Max. power consumption	W	660 (default), 800 (max.)		
Power consumption at ultimate pressure	W	50		
Type of protection	IP	54		
Recommended cooling method		Water*		
Optional cooling		Forced air cooling*		
Cooling water connection	inch	Plug-in connection for 6x1 hose/alternative G 1/8		
Cooling water consumption	l/h	60		
Critial cooling water pressure	bar(g)	15		
Permissible cooling water temperature	°C	15 to 35		
Mass (kg) H	kg	32.6	24.9	23.7
Recommended backing pump*		nXRi, XDS35i, E2M28**		
Noise level with convection cooling with radial air cooler	dB(A)	<44 <55		<44 <55
Water cooled/forced air cooled max. bake out	°C	100	n/a	
Purge gas flow	mbar · ls^{-1} sccm	0.4 24		
Vent/purge port	inch	G 1/8		

*Depending on the ambient temperature, the gas type and throughput, performance may be limited by the cooling method.
**Please contact the supplier to discuss your specific system details and the achievement of ultimate pressure.
***The compression ration of a TMP describes the performance of the TMP design for the compression of a gas type at special conditions. The compression data were measured only using the CF flange variants.

Publication Number: 3601 0623 01

По вопросам продаж и поддержки обращайтесь:

Алматы (727)345-47-04
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70
Казахстан +7(727)345-47-04
Беларусь +(375)257-127-884
Узбекистан +998(71)205-18-59
Киргизия +996(312)96-26-47

эл.почта: ewc@nt-rt.ru || сайт: https://edwards.nt-rt.ru/