

# T-STATION 85 TURBOMOLECULAR PUMPING STATION

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**T-Station 85 is a low cost, compact turbomolecular pumping station that seamlessly combines the nEXT85H turbomolecular pump with either an oil-free scroll, dry diaphragm or oil sealed backing pump, and a simple controller, providing pumping speeds of 47 to 84 ls<sup>-1</sup>.**

The T-Station 85 comes with an integrated Turbo and Active Gauge controller which enables single button start/stop of the system. This is combined 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, making the T-Station 85 ideal for general laboratory needs.

Primary vacuum is achieved with either:

- **mXDS3s** oil-free dry scroll pump with pumping speeds of 3 m<sup>3</sup> h<sup>-1</sup> and ultimate vacuum of 0.1 mbar. This option also comes with a fitted inlet valve to protect against power failure and exhaust ballast
- **E2M1.5** oil sealed pump with pumping speeds of 1.6 m<sup>3</sup> h<sup>-1</sup>
- **XDD1** dry diaphragm pump with pumping speeds of 1.2 m<sup>3</sup> h<sup>-1</sup>

As well as reducing pump down time, improving efficiency and energy consumption, the mXDS3s option also comes with fitted inlet valve designed to protect the vacuum in the event of a power failure as well as integrated exhaust filter.



**'Plug and Pump'  
No systemisation  
required**

**Robust construction  
Low cost of  
ownership**

## Features and benefits

- Base plate includes rubber feet and cut-outs in the sides for manual handling, giving a compact low profile but stable design that can't be knocked over
- All metal frame means rugged design that can take abuse without cracking or breaking
- A choice of the latest mXDS3s oil-free dry scroll pump, the E2M1.5 oil sealed pump, or the XDD1 dry diaphragm pump for the fore vacuum
- E2M1.5 or XDD1 high capacity backing pumps giving the choice between an oil sealed pump or a totally dry diaphragm pump
- Integrated air cooler acts to cool internal power supply and pump/controller for quiet operation avoiding multiple fans
- Customer integrated control features:
  - » Single dedicated button to start/stop
  - » Easy to read accuracy display
  - » Ability to select vent mode where a TAV5 vent valve is fitted for automated venting with no user intervention
- Available with either an NW40, ISO63 or CF63 inlet flange to suit your application.
- User serviceable nEXT85H turbomolecular pump

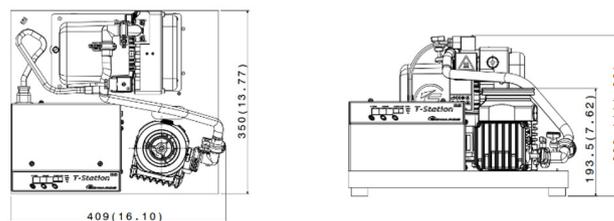
**Technical data**

<b>Pumping speed for N<sub>2</sub></b>	
NW40	47 ls
ISO/CF63	84 ls
<b>Compression ratio for N<sub>2</sub></b>	
	>1 x 10 <sup>11</sup>
<b>Backing pump speed @50 Hz</b>	
mXDS3s	3 m <sup>3</sup> h <sup>-1</sup>
E2M1.5	1.6 m <sup>3</sup> h <sup>-1</sup>
XDD1	1.2 m <sup>3</sup> h <sup>-1</sup>
<b>Ultimate vacuum</b>	
Dry ISO63	<5 x 10 <sup>-8</sup> mbar
Dry CF63	<5 x 10 <sup>-9</sup> mbar
Wet ISO63	<5 x 10 <sup>-9</sup> mbar
Wet CF63	<5 x 10 <sup>-10</sup> mbar
<b>Exhaust flange</b>	
mXDS3s	1/8 BSP for 6x8mm
E2M1.5 (TS85H wet)	11 mm OD nozzle or 3/8" BSP
XDD1 (TS85H dry)	Fitted silencer or 1/8" BSP
<b>Mass</b>	
mXDS3s	19 kg max
E2M1.5	21 kg max
XDD1	18 kg max
<b>Noise level</b>	
	54.0 +/- 2.5 dB(A)
<b>Operating temperature range</b>	
Dry Vacuum pumps	+5 to +40°C
Wet Vacuum pumps	+12 to +40°C

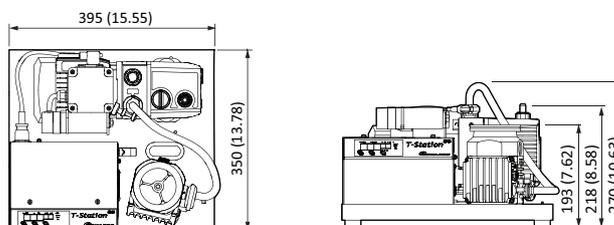
**Ordering information**

Product description	Order number
T-Station 85H Dry NW40 mXDS3s 230V	TS85M1003
T-Station 85H Dry NW40 mXDS3s 115V	TS85M1006
T-Station 85H Dry ISO63 mXDS3s 230V	TS85M2003
T-Station 85H Dry ISO63 mXDS3s 115V	TS85M2006
T-Station 85H Dry CF63 mXDS3s 230V	TS85M3003
T-Station 85H Dry CF63 mXDS3s 115V	TS85M3006
T-Station 85H Dry NW40 200-230V	TS85D1001
T-Station 85H Dry NW40 100-120V	TS85D1002
T-Station 85H Dry ISO63 200-230V	TS85D2001
T-Station 85H Dry ISO63 100-120V	TS85D2002
T-Station 85H Dry CF63 200-230V	TS85D3001
T-Station 85H Dry CF63 100-120V	TS85D3002
T-Station 85H Wet NW40 200-230V	TS85W1001
T-Station 85H Wet NW40 100-120V	TS85W1002
T-Station 85H Wet ISO63 200-230V	TS85W2001
T-Station 85H Wet ISO63 100-120V	TS85W2002

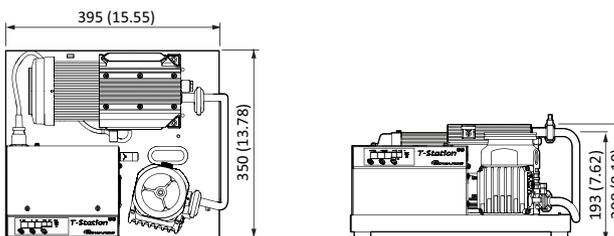
**Dimensions**



T-Station 85 Dry with mXDSs backing pump



T-Station 85H Wet with E2M1.5 backing pump



T-Station 85H Dry with XDD1 backing pump

Product description	Order number
T-Station 85H Wet CF63 200-230V	TS85W3001
T-Station 85H Wet CF63 100-120V	TS85W3002
EMF3 mist filter for E2M1.5 pump	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
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
0.5m active gauge cable	D40001005
1m active gauge cable	D40001010

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