### Tornado Compressors from Dürr Dental Super silent, super efficient

Dental compressed air to meet the highest requirements





# Compressed air for the highest demands in dentistry

For over 65 years, compressed-air systems from Dürr Dental have been used extensively in practices and clinics around the world.

Their superb performance and air quality according to ISO 22052 - oil-free, dry, hygienic - has made them market leaders. Dürr Dental compressors are also certified as Class IIa medical devices in accordance with the MDR (EU 2017/745).

The Tornado is one of the quietest compressors in dentistry, yet it is still very powerful. The Tornado range from DÜRR DENTAl features high quality at attractive prices – and this has been the case for decades. Compressors with less consumption and increased efficiency will help you to reduce your practice's operating costs and protect the environment at the same time.

#### Tornado 1



The classic, exceptionally quiet compressor with 1-cylinder unit and a 20-litre tank for one user.



#### Tornado 2+



The electronic control enables the system to be upgraded at any time to include a second Tornado 2+ in the same compressed air network.



#### Tornado 2



The unbelievably quiet compressor with a 2-cylinder unit and a 20-litre tank for two users.



#### Tornado 4



The powerful 4-cylinder compressor with a 50-litre tank for up to four users.



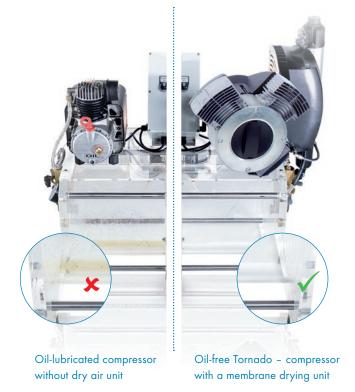
## Quality creates trust – leading-edge technology for the heart of the practice

#### Dental compressed air has to be hygienic

The aim is to minimise the amount of moisture in dental compressed air and to prevent any contamination from oil or solid particulates. This is the task of the membrane drying unit. It reliably prevents moist environments from forming in the compressed air system and becoming breeding grounds for organisms. In this way, it provides a continuous supply of compressed air without any of the buffering times required for regeneration. A low pressure dew point ensures hygienic, tasteless and odourless compressed air.

### Robust and durable - made for continuous operation

Reliability is an essential requirement when selecting a compressor. In the Tornado all important functions are contained in a multi-functional monoblock cylinder. The central intake filter in the closed crankcase prevents particles from infiltrating into the compressor set. This makes the Tornado reliable and very long lasting. A change of the piston sleeve every five years helps to improve the value of the compressor.



Clean air, uncontaminated by water, oil or particulates, is an important hygiene factor in dental treatment. It also maintains the value of your compressor and instruments.

#### This is what counts:

- State-of-the-art air drying technology
- Maximised reliability during day-to-day work for many years
- Safe operation and high-quality treatment results thanks to hygienic, oil-free compressed air
- Very reliable and quiet thanks to the closed crankcase



Easy change of central intake filter for worry-free operation and long service life.

## Quiet as a whisper - as efficient as ever

#### High output, but barely audible. The new Noise Reduction Hood

The Tornado is one of the quietest compressors in dentistry, yet it is still very powerful. The highly developed compressor set is extremely quiet, and can have a calming effect on both patient and practitioner. But how quiet is quiet? The answer is exceptionally so! The Tornado has a new aerodynamic noise reduction hood which ensures the unit does not exceed 54db(A) whilst in use. This equates to the volume of a light summer rain shower. According to the measurements of the Frauenhofer Institut für Bauphysik IBP, the Tornado 1 is the quietest compressor in the entire test series.



For decades the Tornado Compressor Programme has stood for quality at an attractive price. Efficiency was again boosted and energy consumption efficiently reduced. Good for your operating costs and environmentally friendly.





The optional Exhaust air system pulls warm air out of the installation area, thus creating optimum operational conditions for long service life.



# The membrane-drying unit – patented technology from Dürr Dental

#### This is what counts:

- Continuous performance even when operated by a large number of connected users
- Constantly dry compressed air, even during continuous use
- Protection of valuable instruments and treatment results
- Maintenance free, just one filter change per year

Conventional Adsorption dryer
Conventional Membrane dryer



Filter chamber with purge-air nozzle

1,200 internally-coated hollow membrane fibres

After longer operation of the compressors, moisture in the adsorption dryer increases. Yet the membrane dryer remains constantly dry and requires no interruption for regeneration to supply.

#### Automatic condensate drain

Condensed water collects in the tanks of systems without a dry-air unit. They must regularly be emptied via a manually-operated valve.

The easily retrofitted automatic condensate drain has three advantages:

- You gain time. The drain takes care of the manual draining of water
- The operating frequency of the compressor is reduced, since the available tank volume becomes ever smaller if the water is not drained. The compressor switches on less frequently with automatic condensate drain.
- Condensation from the tank is prevented from being transferred via the piping to the air consumers.



# Intelligent software and perfect network connection for a smart practice



### Integration with VistaSoft Monitor valid for Tornado 2+

In modern dental practices, it is commonplace to work with digital systems. From diagnostic imaging to hygiene documentation and billing, networked software solutions keep the practice staff up to date at all times.

Connecting your practice equipment to your local network ensures a current status overview at all times. Receive automatic notifications about scheduled inspections and compressor filter changes. In the case of a device warning or error, you receive detailed information about possible causes and remedies. If a technician is required, the alert can be conveniently forwarded via email and a remote maintenance session can be started.

#### This is what counts:

- Current overview of all compatible practice equipment
- Equipment operating status is shown in the PC's task bar at all times
- Quick technical support call with remote maintenance
- Central management of all connected devices in the practice network
- Regular inspection and maintenance intervals at a glance for maximum operational reliability
- Connect Tornado 2+ or Tornado with Connect Box



# Multi-stage filter system for hygienic compressed air and greater reliability



#### Bacteria filter

The Dürr Dental bacteria filter is a highperformance particulate air filter in filter class ULPA U16 according to standard EN 1822-1:2019-10 / ISO 65U according to standard ISO 29463-3:2018.

> Make sure to change filter every year

## For optimum air quality, maximum compressed air output and preserving the value of your compressor

The filters installed in the Dürr Dental compressors ensure that consistent performance is maintained and will help preserve the value of your compressed air system. Even the best filters accumulate germs, dirt and dust over time. The annual filter change therefore guarantees maximum output, reduced wear and a longer service life for the entire compressed air system.

#### Membrane drying unit

Downstream of the coalescence filter,
1,200 interior-coated membrane hollow
fibres remove moisture from the compressed
air. The system delivers 100% availability
without regeneration interruptions and provides a constant supply of dry compressed
air during continuous operation. In this way,
it protects valuable instruments and treatment
results. Apart from an annual filter change,
the system is maintenance-free.

## Air intake filter

The first stage is the air intake filter on the aggregate. In the second stage, the coalescence filter provides particle-free and clean air, providing the high-value membrane with protection against soiling and damage. Finally, in stage 3, the bacteria filter removes any remaining germs – resulting in hygienic compressed air.

### Coalescence filter with water collecting container

Working as an inflow filter, the coalescence filter protects the subsequent components of the membrane drying unit. The water is drained through a valve via the collecting container.

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## Technical data at a glance

Model	Tornado 1	Tornado 2	Tornado 2+	Tornado 4
Voltage (V)	230 (1~)	230 (1~)	230 (1~)	230 (1~)
Frequency (Hz)	50/60	50/60	50/60	50/60
Cylinder	1	2	2	4
Flow rate at 5 bar (I/min)				
without Membrane Drying Unit	67/77	124/140		235/270
with Membrane Drying Unit	60/70	110/126	110/126	205/230
Tank capacity (I)	20	20	20	50
Pressure range <sup>1)</sup> (bar)	6-7.8	6-7.8	5.5-7.5	6-7.8
Noise level at 5 bar [dB(A)]	64	68	_	70/73
Noise level with hood [dB(A)]	58/60	59/62	56/59	_
Noise level in the cabinet <sup>2)</sup> [dB(A)]	49/51	51/52	-	-
Dimensions (H x W x D cm)]				
without Membrane Drying Unit	66 x 48 x 41	65 x 48 x 41	-	71 x 76 x 52
with Membrane Drying Unit	65 x 49 x 47	65 x 49 x 47	_	72 x 76 x 59
with noise reduction hood without Membrane Drying Unit	84 x 63 x 53	_	_	-
with noise reduction hood and Membrane Drying Unit	84 x 63 x 60	84 × 63 × 60	84 × 63 × 60	-
Weight (kg)				
without Membrane Drying Unit	31	38	-	84
with Membrane Drying Unit	35	44	_	90
with noise reduction hood without Membrane Drying Unit	44	_	_	-
with noise reduction hood and Membrane Drying Unit	49	57	58	_

<sup>1]</sup> Optional pressure reducer is available

<sup>&</sup>lt;sup>2)</sup> Cabinet optionally available



red<mark>dot</mark> design award winner

#### Accessories and filters



Soundproof cabinet, small



Pressure reducer



Air Intake filter





Bacteria filter



Coalescence filter





