

# Tornado Compressors from Dürr Dental

## Super silent, super efficient

Dental compressed air to meet the highest requirements



COMPRESSED AIR  
SUCTION  
IMAGING  
DENTAL CARE  
HYGIENE

**NEW**

Tornado-  
Compressor  
for 4  
operators

# Outside a first-class design. On the inside forward-looking technology.

For over 50 years, compressed-air systems from Dürr Dental have been used extensively in practices and clinics around the world. Their superb performance and air quality - **oil-free, dry, hygienic** - has made them market leaders.

Dürr Dental have been at the forefront of compressor development for over 50 years. Even their appearance belies their extraordinary quality, setting standards worldwide. In 1965 Dürr Dental developed the first completely oil-free compressors suitable for dentistry. This innovation set the standard and today the efficient membrane-drying unit is just one example that demonstrates Dürr Dental's commitment to innovation.



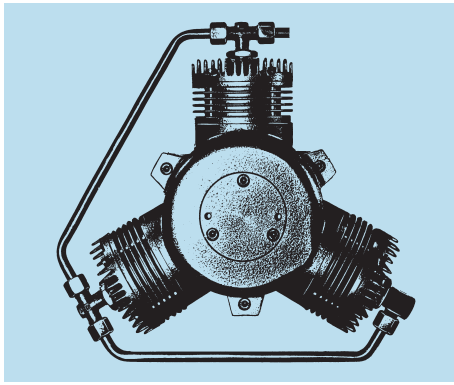
FOR OVER 70 YEARS:  
**100%**  
COMMITMENT

PROGRESS STARTS  
WITH IDEAS



To the  
Image clip





## OUR CLAIM: BEST IN CLASS



reddot design award  
winner



OUR INNOVATIONS  
ARE THE RESULT OF CONSTANTLY  
THINKING ABOUT  
TOMORROW TODAY

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

## Compressed air for the highest demands in dentistry

Dental compressed air must be hygienic. Moisture content must thus be kept to a minimum and contamination by oil or particulates eliminated. This would jeopardise the stability of materials as well as the operation of delicate instruments. The hygienic and aseptic expectations of patients must also be met.

The membrane-drying unit on the compressor prevents moist environments becoming with breeding grounds for organisms. It not only provides constant, dry compressed air, but also provides a continuous supply of power that does not need to be interrupted. The low pressure condensation point ensures hygienic, tasteless and odourless compressed air.

## Robust and durable – made for continuous operation

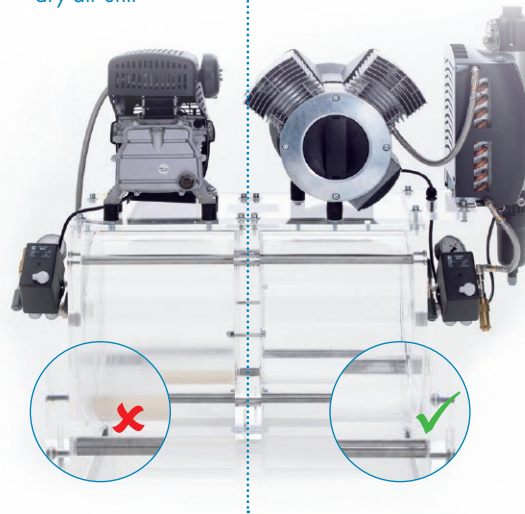
Reliability is an essential requirement when selecting a compressor. In the Tornado all important functions are contained in a multi-functional monoblock cylinder. The central intake filter in the closed crankcase prevents particles from infiltrating into the compressor set. This makes the Tornado reliable and very long lasting.

### Features:

- Oil-free, dry, hygienic
- One of the quietest of its kind
- Low maintenance, only requires an annual filter change
- Very reliable thanks to the closed crankcase
- Hygienic, taste and odourless compressed air

oil-lubricated  
compressor without  
dry-air unit

oil-free Tornado compressor with  
membrane-drying unit



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



To clip  
Filter change

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

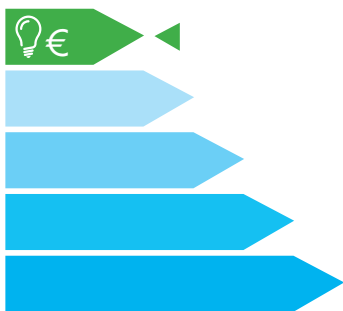
The Tornado is one of the quietest compressors in dentistry, yet it is still very powerful. The highly developed compressor set is extremely quiet, and can have a calming effect on both patient and practitioner. But how quiet is quiet? The answer is exceptionally so! The Tornado has a new aerodynamic 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 Fraunhofer Institut für Bauphysik IBP, the Tornado 1 is the quietest compressor in the entire test series.

## Less consumption, more efficiency

For decades the Tornado Compressor Programme has stood for quality at an attractive price. Efficiency was again boosted in the new model and energy consumption efficiently reduced by approx. 15 %. 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.



ENERGY-EFFICIENT

WE NOT ONLY DEVELOP  
FORWARD-THINKING SYSTEM SOLUTIONS,  
WE ALSO TAKE THE ENVIRONMENT  
INTO ACCOUNT

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

## Continuous performance thanks to the membrane-drying unit

Equipped with the innovative membrane-drying unit from Dürr Dental, the Tornado provides two unbeatable benefits:

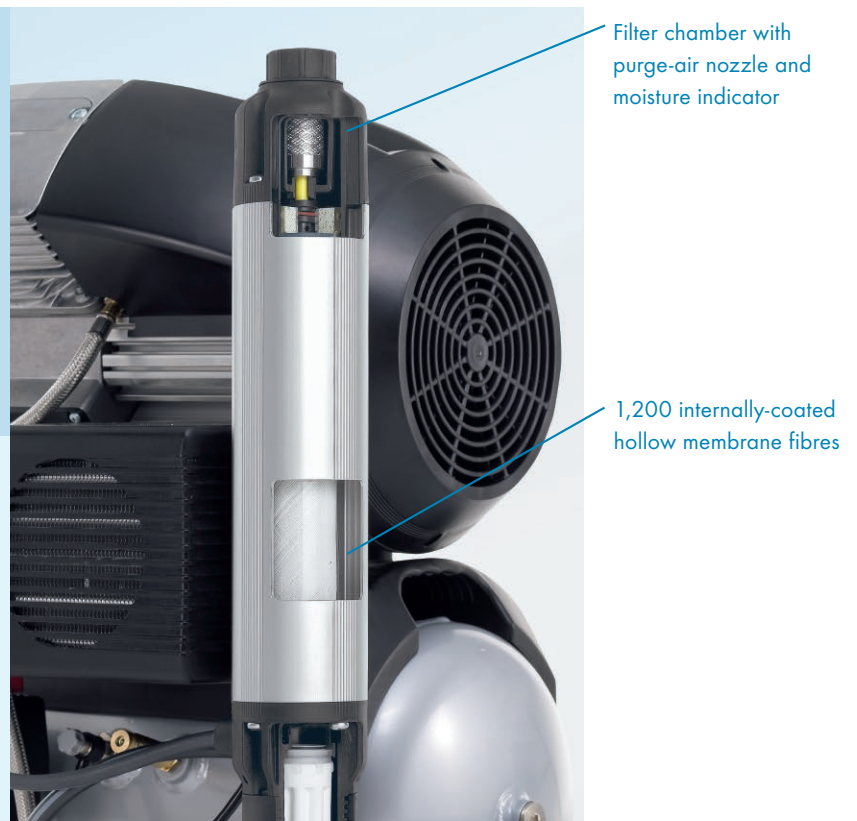
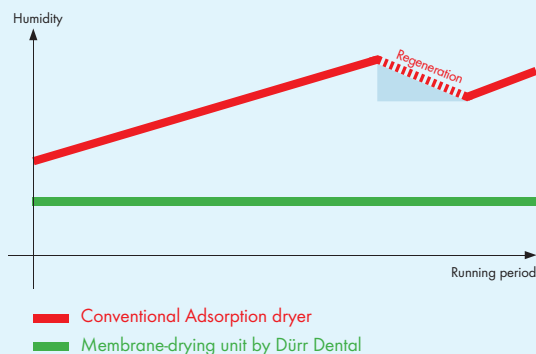
- Continuous performance at constant dryness, even during continuous operation.
- The membrane-drying unit creates constantly dry compressed air with a pressure condensation point of 5°C at 40°C ambient temperature, eliminating condensation in the piping under normal conditions.

Since the membrane-drying unit prevents the formation of moist environments, microorganisms are denied a breeding ground. Dry air protects your instruments, conserves their value and helps ensure hygienic treatment conditions.

Result: The membrane-drying unit preserves your valuable instruments and prevents moisture effecting your treatments.

## Features:

- 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



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

OUR CUSTOMERS MAY NOT BE TOO INTERESTED  
IN OUR QUEST FOR PERFECTION.

BUT THEY PROBABLY ARE IN  
MAINTAINING THE QUALITY  
OF THEIR INSTRUMENTS  
AND THEIR WORK



# Even more safety from infections

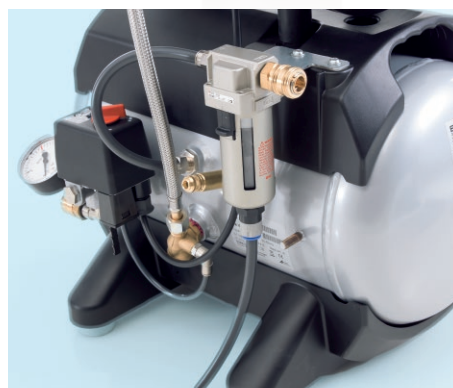


## Antibacterial inner tank coating

Bacteria always harbours the potential for certain hazards and in unfortunate cases can lead to infection. The interior walls of Dürr Dental compressors are coated with a special antibacterial material. Nowadays this fine lining is already displaying its germ-reducing effect in refrigerators, textiles and light switches. Silver particles block enzymes that facilitate bacterial metabolism. In the Dürr Dental compressor tank the antibacterial lining provides safety reassurance as well as preventing erosion.

## 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. Firstly you gain time. The drain takes care of the manual draining of water entirely on its own. Secondly 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 more frequently. Thirdly, condensation from the tank is prevented from being transferred via the piping to the point of origin.



# Technical data and accessories at a glance

Model	Tornado 1	Tornado 2	Tornado 4
<b>Voltage (V)</b>	230 (1~)	230 (1~)	230 (1~)
<b>Frequency (Hz)</b>	50/60	50/60	50/60
<b>Cylinder</b>	1	2	4
<b>Flow rate at 5 bar<sup>1)</sup> (l/min)<sup>2)</sup></b>	67	125	220
<b>Tank capacity (l)</b>	20	20	50
<b>Pressure range<sup>3)</sup> (bar)</b>	6-7,8	6-7,8	6-7,8
<b>Noise level<sup>4)</sup> [dB(A)]</b>	64	68	70
<b>Noise level in the cabinet [dB(A)]</b>	54	56	
<b>Dimensions (H x W x D cm)</b>			
without membrane-drying unit	66 x 48 x 37	64 x 48 x 37	72 x 76 x 53
with membrane-drying unit	66 x 49 x 43	64 x 49 x 43	72 x 76 x 60
with noise reduction hood without membrane-drying unit	84 x 63 x 53	84 x 63 x 53	
with noise reduction hood and membrane-drying unit	84 x 63 x 60	84 x 63 x 60	
<b>Weight (kg)</b>			
without membrane-drying unit	32	38	85
with membrane-drying unit	37	43	90
with noise reduction hood without membrane-drying unit	43	51	
with noise reduction hood and membrane-drying unit	49	57	

<sup>1)</sup> Flow rate without dry air

<sup>2)</sup> Power bandwidth results from the mains frequency 50/60 Hz

<sup>3)</sup> Optional pressure reducer is available

<sup>4)</sup> Averaged values at 5 bar without dryer



Tornado 1



Tornado 1  
with membrane-drying unit



Tornado 2



Tornado 2  
with membrane-drying unit



Tornado 4  
with membrane-drying unit



NEW

also available without membrane-drying unit  
and with automatic condensate drain



Filter change required only once  
per year



All Tornado models are optionally  
available with the noise reduction  
hood.



Exhaust Air System for noise reduc-  
tion hood with 150mm connection  
hood.





# The heart of the practice – Dürr Dental compressors

High-performance and safe – too good to store away down in the basement.

Maximum  
reliability



New: Quattro P 20  
for up to 20 operators

COMPRESSED AIR  
SUCTION  
IMAGING  
DENTAL CARE  
HYGIENE

# Dürr Dental – Spirit of innovation with a love for details

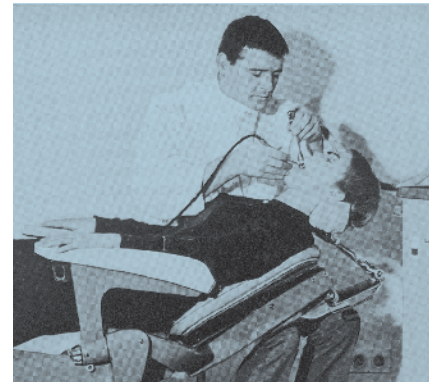
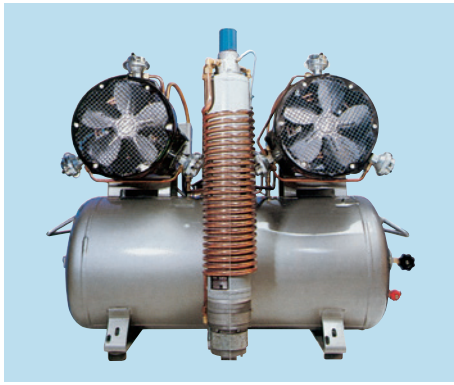
With an array of compatible system solutions for compressed air, suction, imaging, dental care and hygiene, Dürr Dental offers high-quality products and excellent service for every need. In Europe, 1964, Dürr Dental made it possible to treat patients in a supine position using a suction system. One year later, the company introduced the first oil-free compressor for dental medicine. Compressed air systems from Dürr Dental are market leaders as a result of their high performance and air quality. Dentists trust the engineering ingenuity and top quality of the market leader. Products from Dürr Dental are found in practices and clinics all over the world as has been the case for decades.



PROGRESS STARTS WITH  
IDEAS







FOR MORE THAN 70 YEARS:  
100% COMMITMENT

OUR CLAIM:  
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reddot design award  
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Designpreis  
Deutschland  
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OUR INNOVATIONS  
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# Quality builds trust – Top technology for the heart of the practice

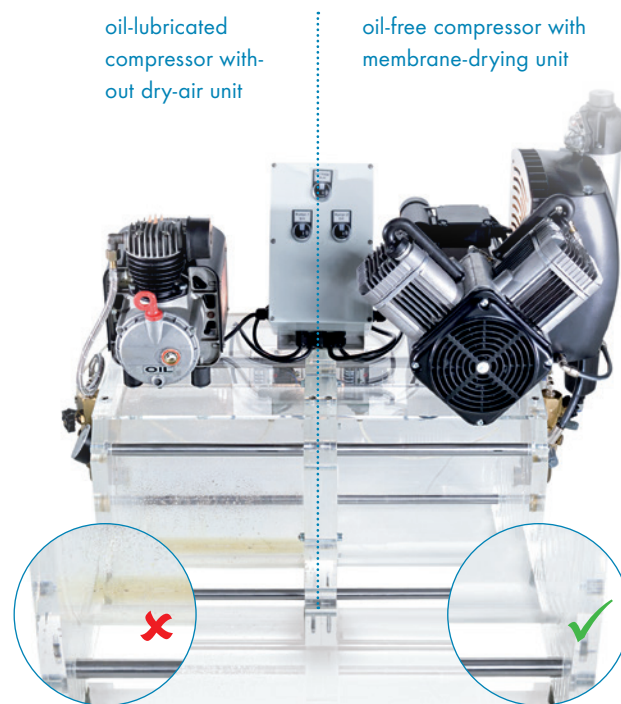
## Compressed air for the highest demands in dentistry

Dental compressed air must be hygienic. Moisture content must thus be kept to a minimum and contamination by oil or particulates eliminated. This would jeopardise the stability of materials as well as the operation of delicate instruments. The hygienic and aseptic expectations of patients must also be met.

The membrane dryer on the compressor prevents moist environments becoming breeding grounds for organisms. It not only provides constant, dry compressed air, but also provides a continuous supply of power that does not need to be interrupted. The low pressure condensation point ensures hygienic, tasteless and odourless compressed air.

## Durable and long-lasting – Optimally suited to continuous operation of milling and grinding machines

Milling and grinding machines make particularly high demands on compressors to supply them with reliable and constant compressed air. Milling machines don't pause for breath during operation, so oil-free and dry compressed air is top priority. The duty cycle of compressor units running a milling machine goes far beyond their duty cycle for normal dental operations. Dürr Dental's fully developed technology meets all such demands and is designed for continuous operation. High-quality system parts ensure high precision and quiet running. Compressors not only run quieter, but also last longer.



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

OUR PROMISE:  
GUARANTEED HIGH PERFORMANCE  
WITH ABSOLUTE RELIABILITY.

# Engineering ingenuity with passion. For maximum operation and safety

## Even that which is not seen performs

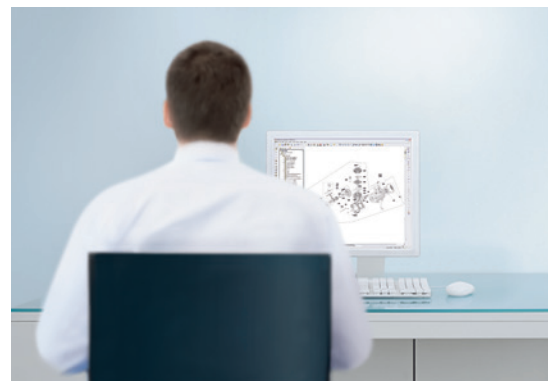
A good compressor does its work in the background while the team concentrates on treatment. It supplies the air/water nozzle, the turbine, the air abrasion tool and all additional pneumatic devices. Therefore, a compressor must never run out of air – for a reliable and consistent practice.

## Maximum quality is a Dürr Dental standard

In order to guarantee a maximum standard of quality, Dürr Dental almost exclusively manufactures its products at an industrial location in Germany. Each individual product from the ISO-certified company is subject to strict process standards and undergoes inspections. And last but not least, the employees of Dürr Dental provide added value through their commitment and creativity.

## Meeting all of the supply needs of your practice

As a leading manufacturer of compressed air and suction equipment, we offer compatible solutions for dental practices and labs as well as dental clinics and universities with several hundred treatment, simulation and phantom workstations. The operator experiences a number of cost benefits and synergy effects as a result of the combined compressed air and suction system.



### This is what matters:

- Oil-free, dry, hygienic
- Maximum reliability and operational safety
- Hygienic compressed air, taste and odour neutral
- Antibacterial inner tank coating
- Up to 3-year guarantee
- Newest dry air technique using membrane technology enables 100% continuous operation



# The right amount of compressed air for every practice



## Individual

Compressor selection  
for two to 20 users

### Duo

The classic among compact compressors, with 2-cylinder V-aggregate and 20-liter tank – for two users maximum.



### Trio

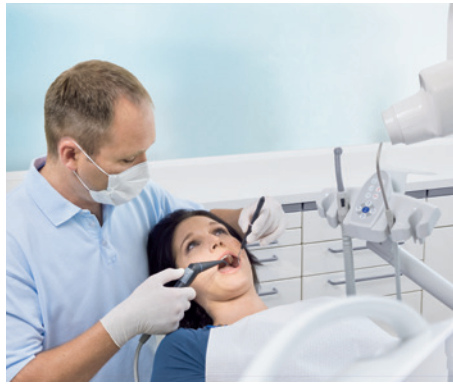
The high-performance compressor with three cylinders and a 50-liter tank – offers sufficient reserves for three users.



### Quattro

The high performing 4-cylinder compressor with 50-liter tank – for up to four users.





## Decide the performance level you require

The selection of a compressor depends, above all, on the required reserves and, therefore, the size of the practice and number of users. Dürr Dental offers models for all performance demands – from compact compressors for new practices up to high-performance compressors for clinics. The array of products includes upgradable models to accommodate for growing practices and the commensurate demand for compressed air. Dürr Dental and specialist dental product distributors can provide you with further information about the right compressed air solution.

### This is what matters:

- Expandable through tandem use
- High-performance compressors for large practices, clinics and dental labs
- Compressor options for 2 to 20 users
- Due to a master/slave control, Tandem compressors can operate side-by-side, i.e. parallel on one single compressed air net.



### Duo Tandem

The flexible solution for growing performance needs. With a 50-liter tank it works optionally for two (one aggregate) or four users (two aggregates).



### Quattro Tandem

The ultra performer for dental laboratories and large practices with a 90-liter tank, optionally with one or two aggregates – for up to 10 users.



### Quattro P 20

Compressor with high air delivery for large practices and dental labs. Redundant system for a maximum of reliability.

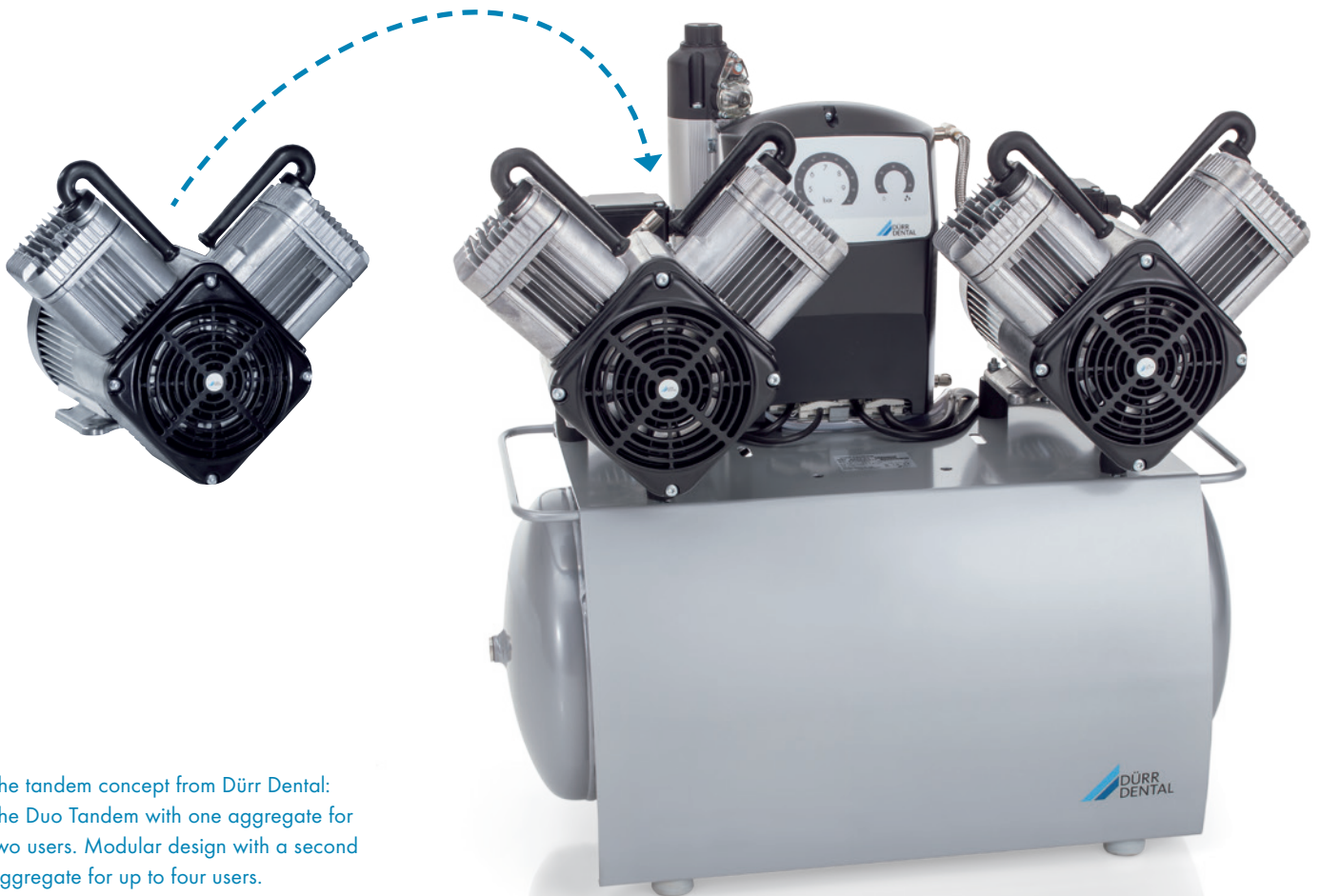


# Clever ideas for your practice – tandem concept and network connection

## A solution with the option for more

The tandem models offer the option for adding additional Dürr Dental compressors, thus ensuring maximum future use and operational safety. The possibility for modular upgrades makes it a flexible solution with the option for more to be added at a later date. The base version of the Duo Tandem reliably supplies compressed air for two users using just one aggregate. The compressor tank is flexible – to allow for the attachment of a second aggregate simply add an additional component when you expand your practice in order to double performance reserves and accommodate four users. The maximum performance is achieved with the Quattro P20 – for up to 20 users.

OUR PRIMARY GOAL IS  
TO ACHIEVE  
THE BEST RESULTS  
FOR OUR CUSTOMERS



The tandem concept from Dürr Dental:  
The Duo Tandem with one aggregate for  
two users. Modular design with a second  
aggregate for up to four users.





## Go digital – with Software Tyscor Pulse

The modern dental surgery is used to working with digital systems. The periphery always under control – from diagnostic imaging to hygiene documentation and invoicing – networked software solutions always keep the surgery team up to date. But what about the status of the compressor and suction system? The compressor is the heart of the surgery. The suction keeps the circulation going. The guarantee of problem-free operation of both systems is vital for the surgery operation. That is why Durr Dental has developed Tyscor Pulse software.

Tyscor Pulse integrates the supply technology in the network of the surgery. Thus, the current status of the monitored systems are always in view. The software automatically informs about pending maintenance tasks, such as filter replacement or the replacement of the amalgam single-use container. In the event of a fault, Tyscor Pulse displays if the fault can be rectified by yourself, or offers the possibility to directly inform the technician via mail. He can immediately start looking for a solution via a remote maintenance function.

The functions of the networked units are comfortably controlled on your PC via the intuitive unit manager of the Tyscor Pulse software.



### This is what matters:

- Your practice supply is always in view
- Overview of operational status of all connected devices in the task bar of your PC
- Remote access to the units by depot technicians via Tyscor Pulse
- Central management of the connected units
- Maintenance intervals are always under control, for the highest degree of operational safety
- Quick and safe diagnoses for service purposes

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

## Continuous performance thanks to the membrane-drying unit

Equipped with the innovative membrane-drying unit from Dürr Dental, the compressor provides two unbeatable benefits:

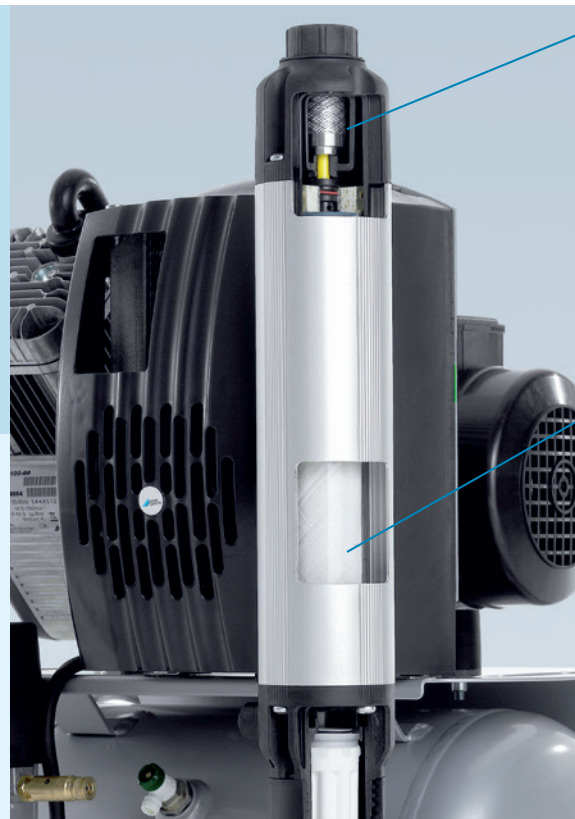
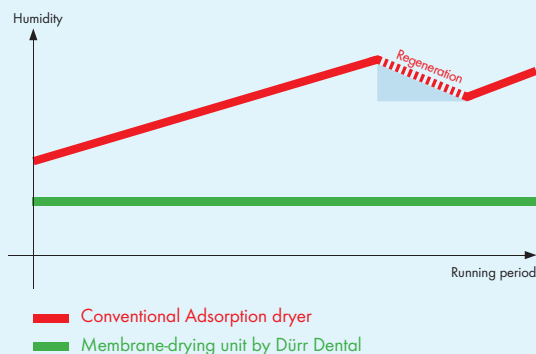
- Constant performance with guaranteed dryness, even during continuous operation
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The membrane-drying unit preserves your valuable instruments and prevents moisture affecting your treatments.

## This is what matters:

- 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



Filter chamber with  
purge-air nozzle and  
moisture indicator

1,200 internally-coated  
hollow membrane fibres

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

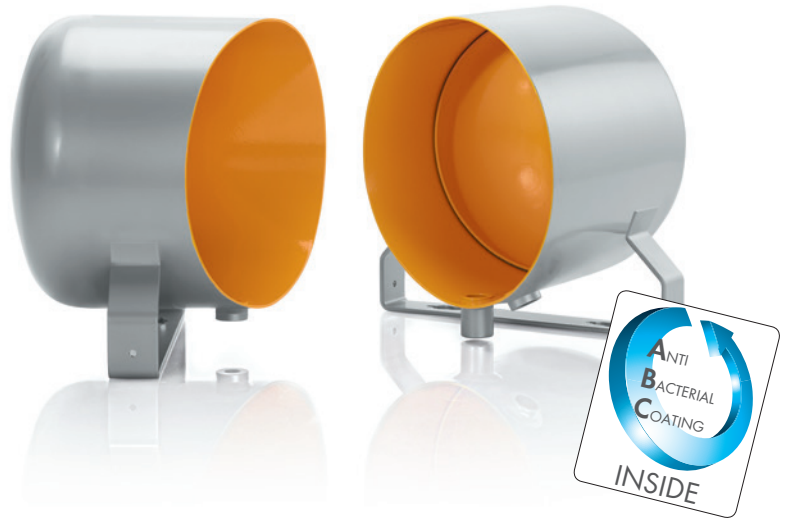
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# Even more safety from infections

## Antibacterial inner tank coating

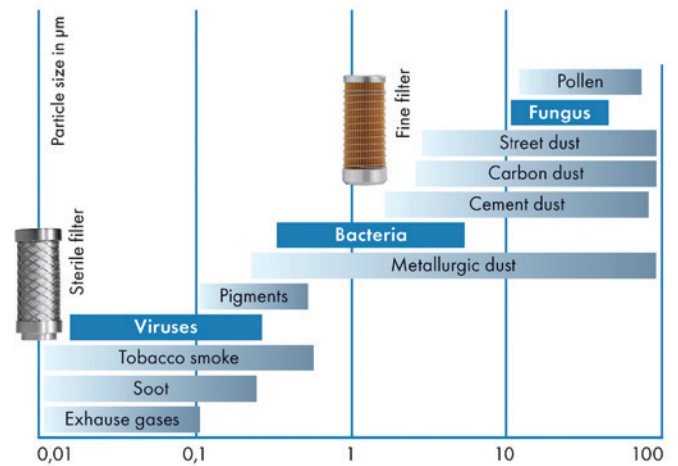
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# Small component. Big results.

## Change the filter annually to retain full power, efficiency and value

The suction, and fine filters of the membrane-drying unit and compressor aggregate ensure the constant performance of your compressor. The optional sterile filter rules out additional contamination in connection with the membrane-drying unit. In general, this filter must only be replaced annually –to retain full power, efficiency and value



Dürr Dental sterile filters have a fine filter grade of 0.01 µm , but do not produce sterile air!



Find the correct filter for your compressor at [www.duerr.de/filter](http://www.duerr.de/filter)



clip filter change



# The technology at a glance – Dürr Dental Compressors

Model	Duo	Duo Tandem 1 Aggr.	Duo Tandem 2 Aggr.	Trio
Voltage (V)	230 (1~)/400 (3~)	400 (3~)	400 (3~)	230 (1~)
Frequency (Hz)	50/60	50/60	50/60	50
Cylinder	2	2	4	3
Output at 5 bar <sup>1)</sup> (l/min) <sup>2)</sup>	115/130	115/130	230/260	160
Tank capacity (l)	20	50	50	50
Pressure range <sup>3)</sup> (bar)	6–7,8	6–7,8	6–7,8	6–7,8
Noise level <sup>4)</sup> [dB(A)]	Approx. 66	Approx. 68	Approx. 69	Approx. 69
Noise level in the cabinet <sup>4)</sup> [dB(A)]	Approx. 55	Approx. 54	Approx. 54	Approx. 54
Dimensions (H x W x D cm)	69 x 49 x 46	76 x 75 x 52	76 x 79 x 52	76 x 74 x 52
Weight (kg)	47	64	90	70

Model	Quattro	Quattro Tandem 1 Aggr.	Quattro Tandem 2 Aggr.	Quattro P 20
Voltage (V)	400 (3~)	400 (3~)	400 (3~)	400 (3~)
Frequency (Hz)	50/60	50/60	50/60	50/60
Cylinder	4	4	8	16
Output at 5 bar <sup>1)</sup> (l/min) <sup>2)</sup>	215/240	215/240	430/480	860/960
Tank capacity (l)	50	90	90	90
Pressure range <sup>3)</sup> (bar)	6–7,8	6,5–8,5	6,5–8,5	6,5–8,5
Noise level <sup>4)</sup> [dB(A)]	Approx. 70	Approx. 70	Approx. 74	Approx. 77
Noise level in the cabinet <sup>4)</sup> [dB(A)]	Approx. 54	-	-	-
Dimensions (H x W x D cm)	76 x 74 x 52	76 x 102 x 62	76 x 102 x 62	113 x 115 x 77
Weight (kg)	82	98	143	285

<sup>1)</sup> The discharge flow without air <sup>2)</sup> Power bandwidth results from the mains frequency 50/60 Hz <sup>3)</sup> A pressure reducer is available as an option <sup>4)</sup> Average values at 5 bar



Optional noise-reducing cabinets for optimal performance, safety and value are available.

Pressure reducer



Sterile filter



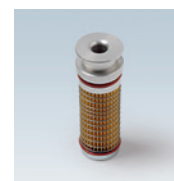
Fine filter



Sinter filter



Intake filter



We recommend annual filter replacement. Optional noise-reducing cabinets for optimal performance, safety and value.

