

DÜRR COMPRESSED AIR SYSTEMS

# Compressed air systems for dental practices and laboratories

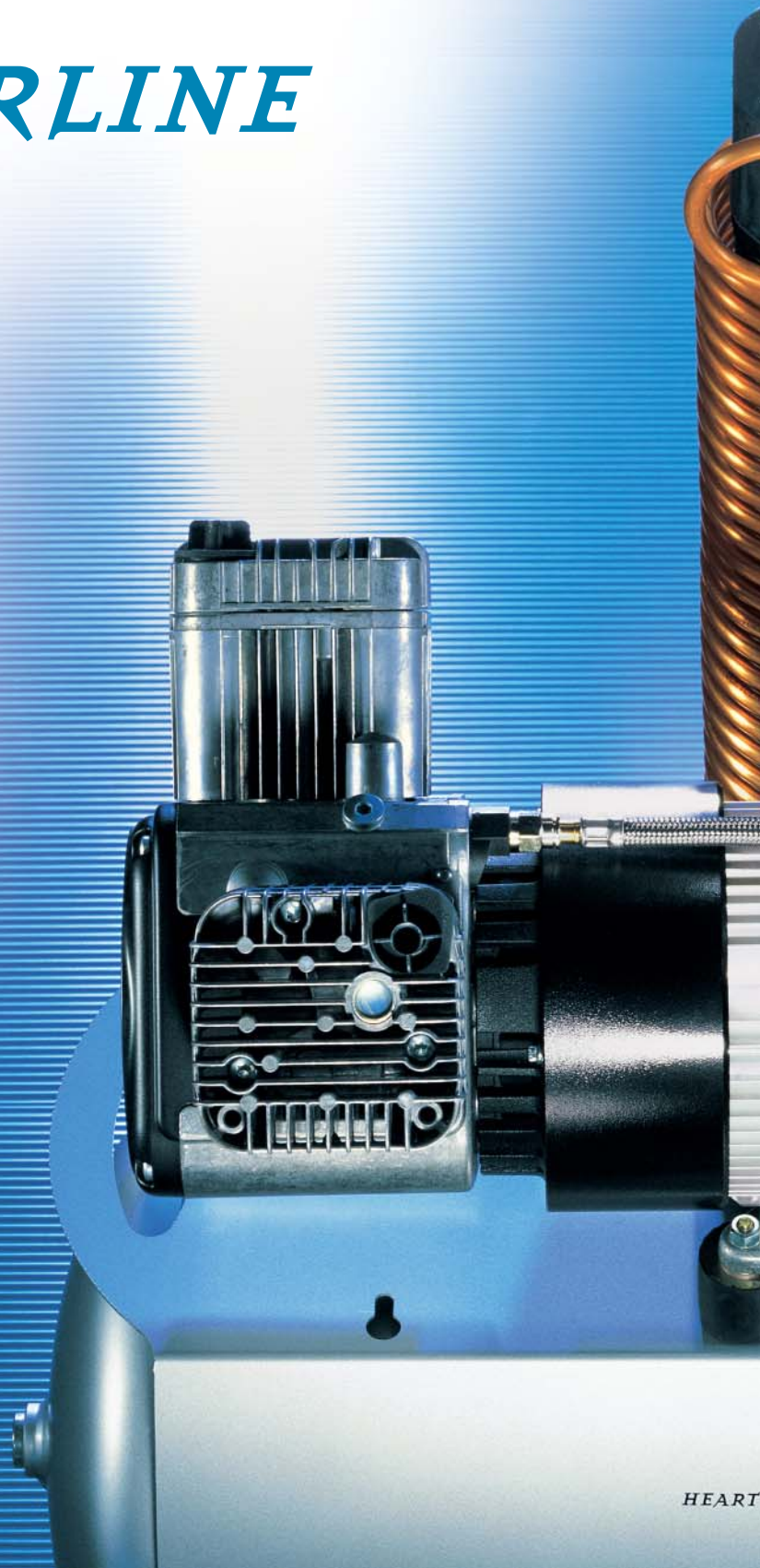
DÜRR SILVER AIRLINE COMPRESSORS

*SILVER AIRLINE*



# *SILVER AIRLINE*

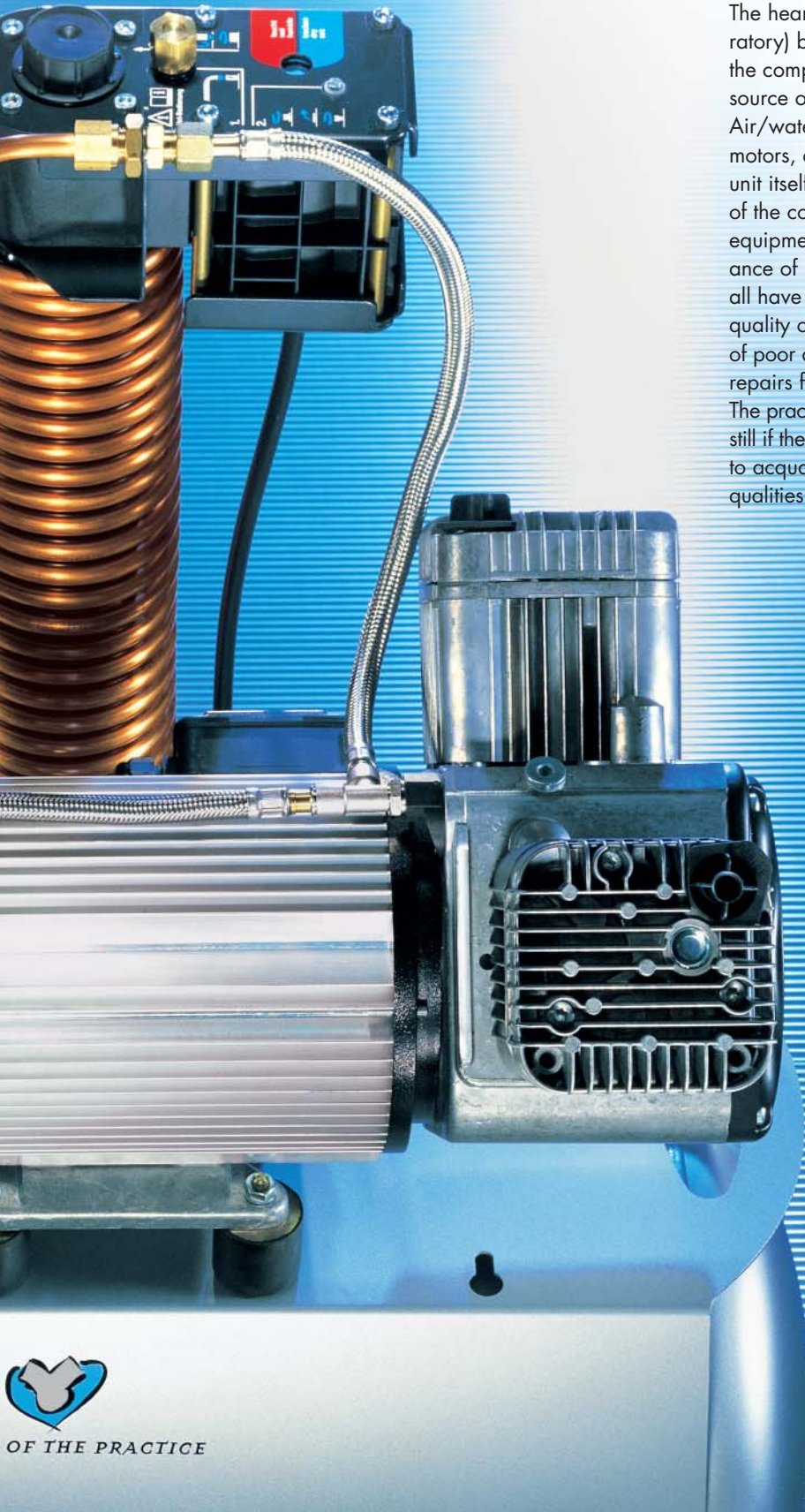
Dental air compressors from Dürr Dental have determined the image of dental practices worldwide for around 50 years now. Thanks to their high performance and the excellent quality of the air they produce – oil-free, dry, and hygienic – they have created and held a leading position for themselves. Their appearance and exceptional technical performance were always a notable characteristic that distinguished them from the products of other makers. Now, at the beginning of a new millennium and with the introduction of a completely new generation of Dürr compressors, we are making a symbol in silver: the Silver Airline by Dürr Dental.





## *HEART OF THE PRACTICE*

The heart of the practice (and the laboratory) beats in the machine room: it is the compressor. Unobtrusively, it is the source of success for the entire practice. Air/water syringes, air turbines, air motors, air abrasion units and the dental unit itself all depend on the performance of the compressor. These items plus the equipment for the cleaning and maintenance of hand-pieces and sterilisation units all have a bearing on the capacity and quality of the compressor required. Use of poor quality air can lead to expensive repairs for all the equipment that uses it. The practice will also come to a standstill if the compressor fails. Reason enough to acquaint yourself at this point with the qualities of Dürr compressed air systems.



# Underline the value to your patients.



*Finely filtered and hygienic compressed air that has a neutral taste should be used.*



*The cavity must be blown out completely clean and dry. Even the finest film of oil and the smallest amount of moisture can impair proper adhesion of the filling material to the tooth substance.*



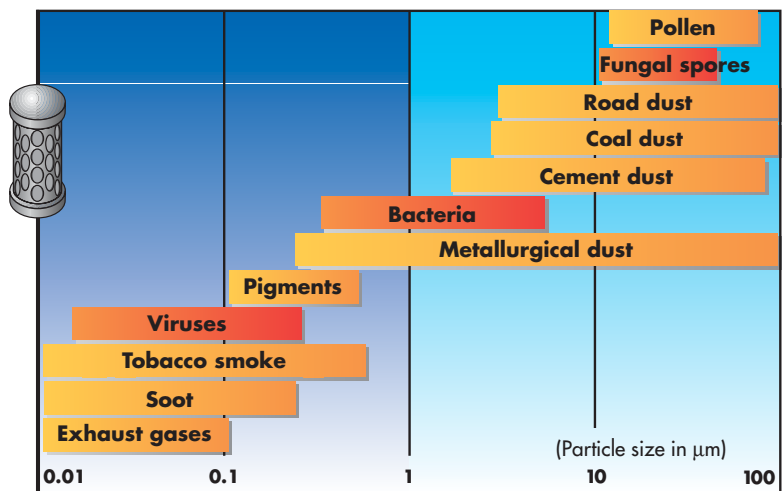
*Polluted compressed air can have a lasting adverse effect on the precision with which dental procedures are performed.*

## Hygienic compressed air

The very best of hygiene and aseptic conditions when treating open wounds – these conditions are taken for granted by your patients. This requires a hygienic supply of air as a bare minimum. The normal environmental air does not meet these requirements in any way. And compressed air from a compressor should not be used without suitable treatment. An air dryer on a Dürr compressor solves this problem. It prevents the formation of damp conditions that are a fertile breeding ground for microorganisms. In addition, it ensures that the compressed air has a neutral taste.

The quality of the air can be improved still further by using the new Dürr sterile filter in the air dryer: Any additional contamination from microorganisms is completely excluded. Dangerous bacteria, fungal spores and viruses have no chance at all in this compressed air.

The table below shows the size of these microbes and illustrates the high performance of Dürr sterile filters.



*Dürr sterile filters for dry air systems have a filter fineness of 0.01 µm.*

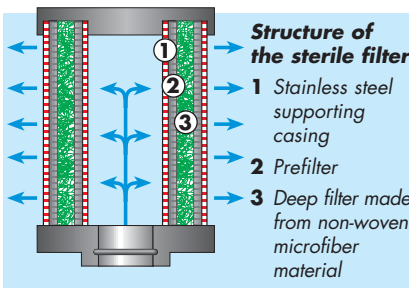
# Secure the value of your work.



Dürre sterile filters are used in the dry air system.



The filter only needs to be changed once a year.



2 stage filtration gives high degree of efficiency:  
 Stage 1: Screening effect in the prefilter (2)  
 Stage 2: Inertial forces, adsorption and electrostatic interactions in the deep filter (3)

## First-class dental air

Dry, oil-free air is required when using composite materials, a fine film of oil would affect the bonding of the adhesive material. In this case a Dürre compressor offers more than the required quality. In any other case the long-term durability of the preparation would be placed at risk. For that reason air as a medium for a dental practice cannot be produced by just any old compressor. It must be generated by a specially designed dental compressor, which can produce hygienically perfect air in order to protect patients and the quality of your work.

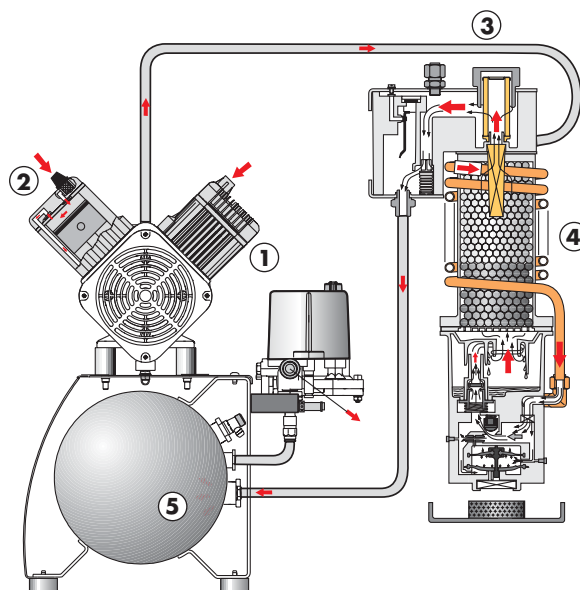
## A constant threat

The problem is inherent in the system in the case of oil-lubricated compressors. The lubricating oil gets into the compressed air, oxidises, is deposited out

and finally hardens into a resin. Bearings, channels and membranes gum up. Seals swell, the crust of oil that is formed produces blockages, and finally this causes terminal failure for the equipment.

The problem is even worse for your expensive air-driven instruments and equipment. Viscous compressor oil is drawn in by the compressed air and mixes with the fine oil of air-driven high-speed instruments. Premature ageing, loss of performance and ultimate failure are the result.

**On the other hand, an oil-free Dürre compressor protects your investment.**

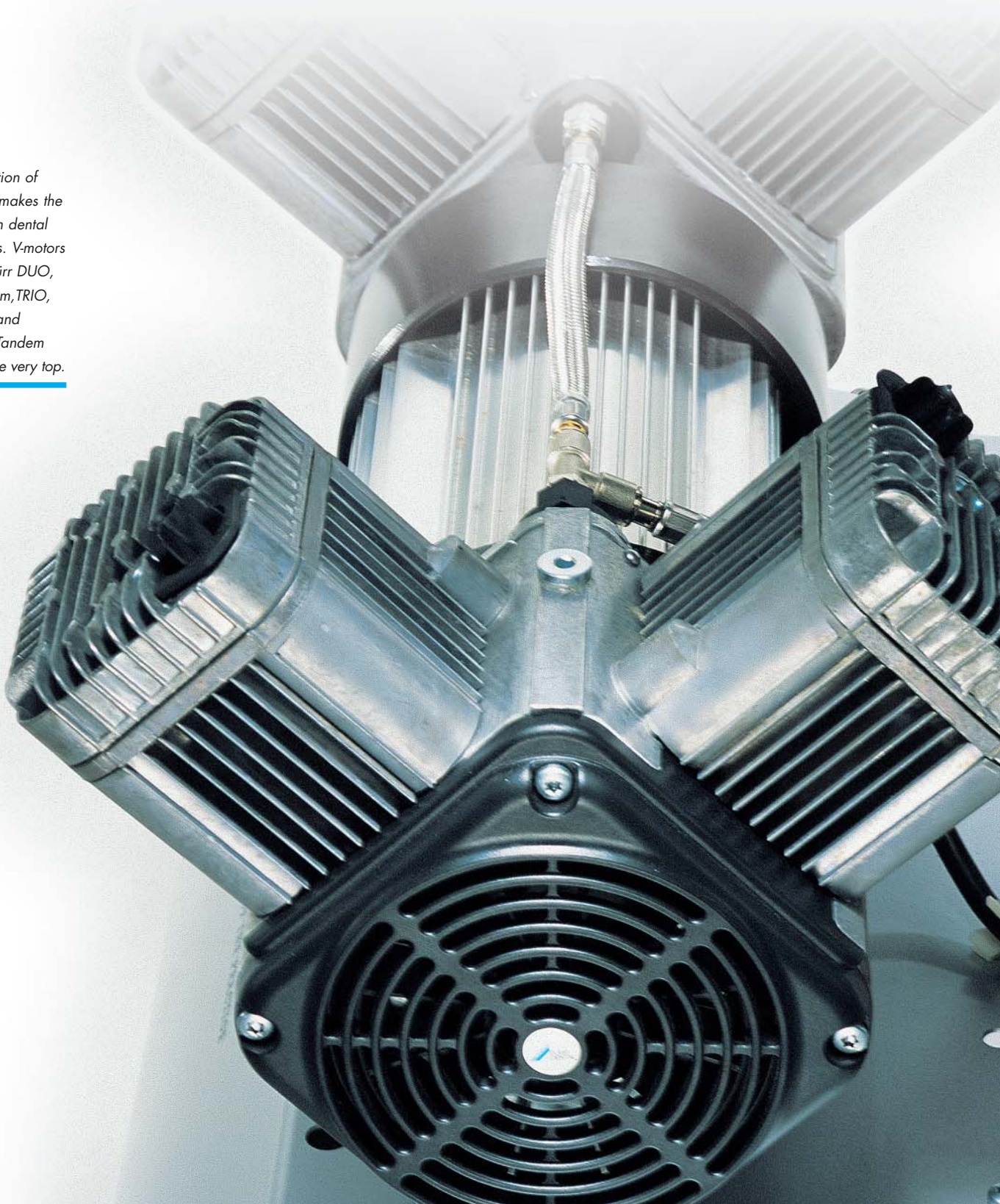


The functioning of an oil-free Dürre compressor is determined primarily by five components:

- 1 Aggregate
- 2 Intake filter
- 3 Fine/Sterile filter
- 4 Dry air system
- 5 Compressed air tank

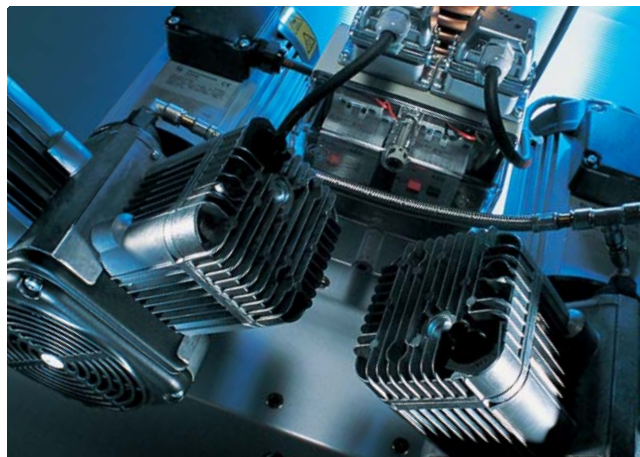
# Leading edge technology in the sign of the "V"

*The fascination of technology makes the difference in dental compressors. V-motors drive the Dürr DUO, DUO Tandem, TRIO, QUATTRO and QUATTRO Tandem models to the very top.*



## The Silver Airline is new

- Silver Airline design
- All models with unified tank design, pressure switch, pressure gauge and attachment of the dry air system
- Internally coated tanks with volumes of 20, 50 and 90 litres
- Compressed air supplied through a friendly quick coupling
- Maximum protection against thermal stress
- Crank mechanism and balance weight made from a zinc/steel compound for maximum precision and quiet running



## Power as a matter of principle

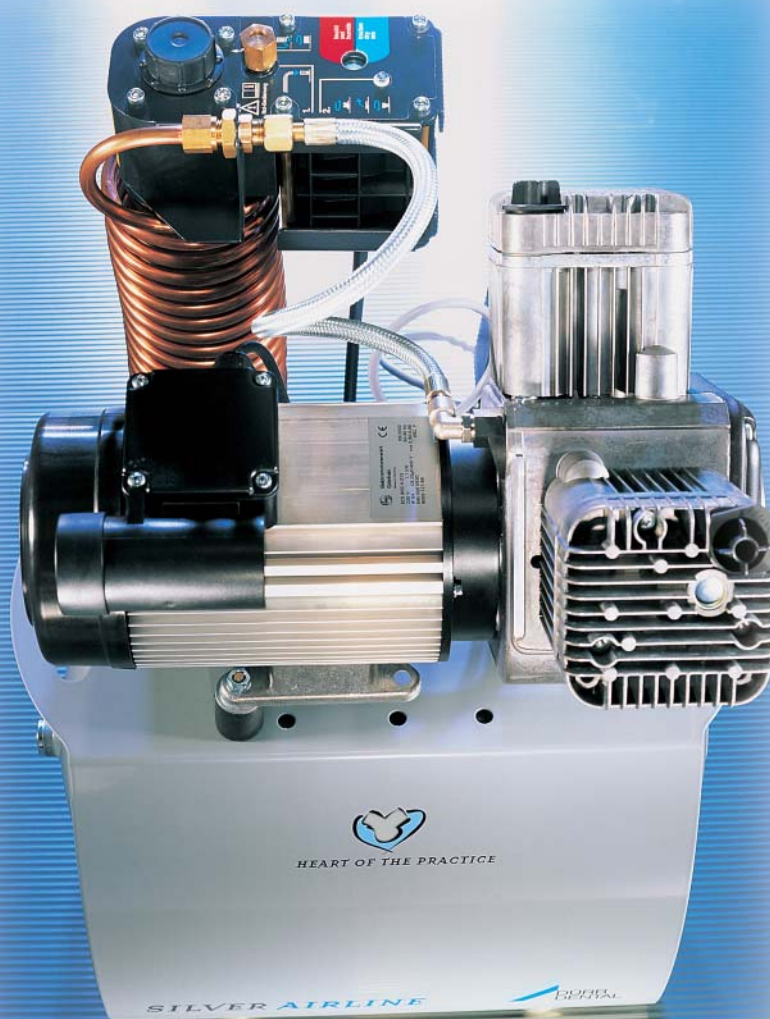
The selection of a compressed air supply for a dental practice or laboratory is a very basic decision. Here confidence in the technological principle and the technical implementation plays a significant role. With a Dürer compressor you have made a decision in favour of a high-tech unit: using Teflon-coated, dry-running pistons which give the compressor its superior reserves of capacity together a superior low-noise running qualities. A technology that was first used in the space program.

## Innovations for the Silver Airline

The dry running principle has always characterised Dürer compressors. What is new in the Silver Airline is the implementation of this technology and the use of new materials. These factors together produce a big plus for performance together with increased flexibility, compactness and economy of use in operation.

# More air, more capacity, more future.

*The Dürr DUO is the classic among Dürr compressors. Now with the new technology and in the new design of the Silver Airline generation.*

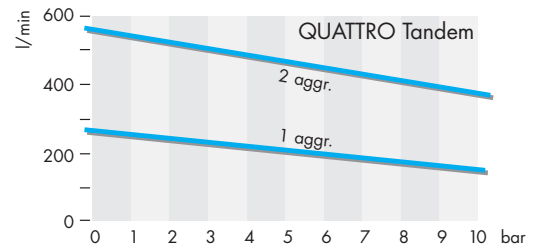


## **Decide on the basis of capacity**

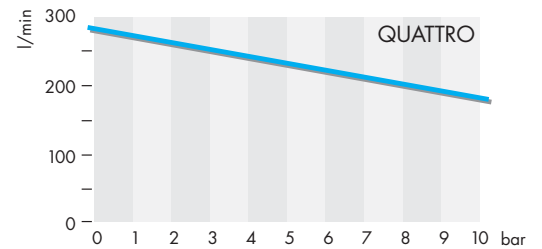
Setting up the equipment of your practice requires a long-term view. What capacity reserves would you require today and what for tomorrow? Are there solutions that efficiently meet both requirements? Indeed there are – from the comprehensive range of the new Dürr Silver Airline compressors. This range covers compact units at the entry level, models that can be upgraded for growing requirements, and also

high-performance and high-capacity compressors for multi-room dental practices, clinics and dental laboratories. The one thing they have in common is their dental air quality: oil-free, dry and hygienic. In addition, they guarantee high reliability with superlative long-term running characteristics. And you will greatly appreciate their freedom from maintenance and long life over many years of use. No maintenance is required apart from an annual filter change.

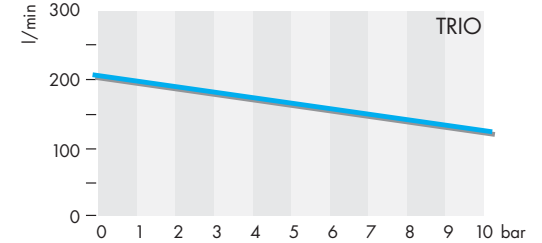
Dürr QUATTRO Tandem, the first eight cylinder compressor from Dürr Dental. The ultimate in performance for dental laboratories and large practices with a 90 liter tank and with a choice of one or two aggregates.



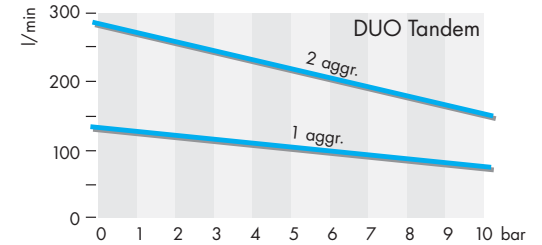
The Dürr QUATTRO, the first four-cylinder dental compressor from Dürr Dental. The maximum in capacity with the 50 litre tank.



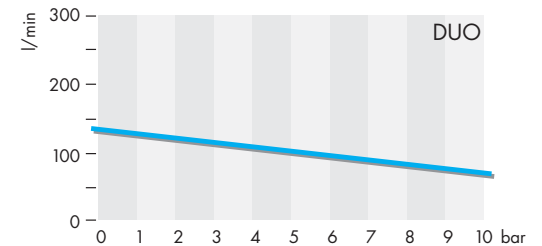
The Dürr TRIO, the economic high-capacity compressor with three cylinders and a 50-litre tank.



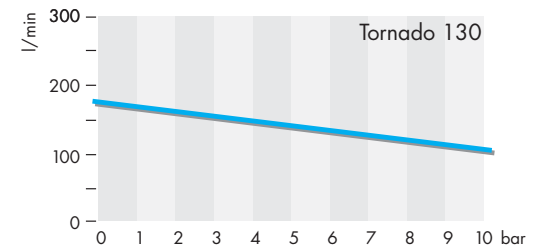
The Dürr DUO Tandem is the flexible solution for growing needs for capacity. Equipped with a 50-litre tank, it can work with one or two aggregates.



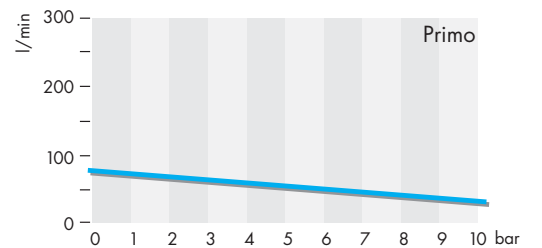
The Dürr DUO with its 2-cylinder V-motor is the classic among the compact compressors with a 20-litre tank.



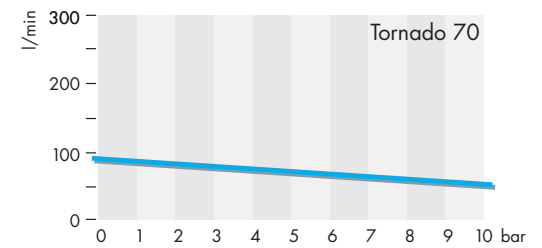
The Dürr Tornado 130 with dry air system is the economic entry-level model in the Silver Airline family.



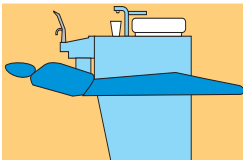
Dürr Primo is the high performance unit with one cylinder, with an output of 55 l/min specially developed for the one workstation practice.



Dürr Tornado 70 is the smallest variant as an entry-level model with one cylinder and an output of 70 l/min.



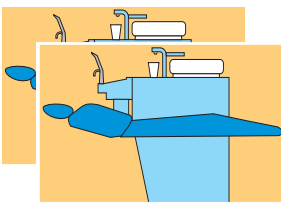
# Capacity reserves – exactly the right amount of compressed air



## For one workstation\*

The Dürr Silver Airline compressor generation is very flexible. It starts with compact units that give one workplace the required reserves of compressed air at any time like the Primo and Tornado 70 compressors with their 20 litres tank.

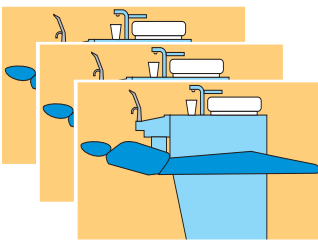
*PRIMO*  
*TORNADO 70*



## For two workstations\*

The Silver Airline compressors DUO und Tornado 130 have the performance required to run two workstations. The DUO Tandem with one unit is the growth-oriented solution. An additional unit can be used to double the capacity.

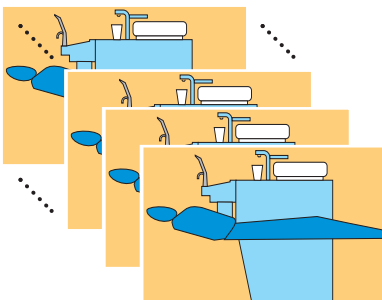
*DUO*  
*DUO TANDEM*  
*1 AGGREGATE*  
*TORNADO 130*



## For three workstations\*

Three workstations working simultaneously require around 150 litres of compressed air per minute each. The Silver Airline solutions with a 50 litres tank exactly meet the requirements of this dental practice concept.

*TRIO*



## For four to ten workstations\*

Multi-room practices or practices with a dental laboratory need real power. The big solutions from Silver Airline offer pure performance with reserves in hand with a capacity of 230 – 260 l/min or even 460 – 520 l/min at 5 bar and a 50 or 90 litres tank.

*DUO TANDEM*  
*2 AGGREGATES*  
*QUATTRO*  
*QUATTRO TANDEM*

\* Units to clean and maintain handpieces and other sterilisation units also require compressed air. These should be counted in the number of workstations.

## QUATTRO TANDEM

Optionally with 1 or 2 aggregates  
Each with 4 cylinders, oil-free

Displacement per aggregate 320 – 365\* l/min.  
Delivery at 5 bar per aggregate 230 – 260\* l/min.  
Tank capacity 90 l  
Pressure range 6,5 – 8,5 bar\*\*

Part No.	Product	Voltage	Dimensions (H x W x D)	Weight (kg)
4641-51	Dürr Quattro Tandem with one aggregate, dry air system and controller	400 V 3~; 50 – 60 Hz	86 x 103 x 63	114
4681-51	Dürr Quattro Tandem with two aggregates, two dry air systems and controller	400 V 3~; 50 – 60 Hz	86 x 103 x 63	175

## QUATTRO

4 cylinders, oil-free

Displacement 320 – 365\* l/min.  
Delivery at 5 bar 230 – 260\* l/min.  
Tank capacity 50 l  
Pressure range 5,5 – 7,5 bar\*\*

Part No.	Product	Voltage	Dimensions (H x W x D)	Weight (kg)
5451-51	with dry air system	400 V 3~; 50 – 60 Hz	86 x 74 x 51	90

## TRIO

3 cylinders, oil-free

Displacement 250 l/min.  
Delivery at 5 bar 165 l/min.  
Tank capacity 50 l  
Pressure range 5,5 – 7,5 bar\*\*

Part No.	Product	Voltage	Dimensions (H x W x D)	Weight (kg)
5351-01	with dry air system	230 V 1~; 50 Hz	86 x 74 x 51	87

## DUO TANDEM

Optionally with 1 or 2 aggregates  
Each with 2 cylinders, oil-free

Displacement per aggregate 140 – 150\* l/min.  
Delivery at 5 bar per aggregate 110 – 120\* l/min.  
Tank capacity 50 l  
Pressure range 5,5 – 7,5 bar\*\*

Part No.	Product	Voltage	Dimensions (H x W x D)	Weight (kg)
4151-51	Dürr Duo Tandem with one aggregate, dry air system and controller	400 V 3~; 50 – 60 Hz	86 x 76 x 51	71
4251-51	Dürr Duo Tandem with two aggregates, dry air system and controller	400 V 3~; 50 – 60 Hz	86 x 76 x 51	97

## DUO

2 cylinders, oil-free

Displacement 140 – 150\* l/min.  
Delivery at 5 bar 110 – 120\* l/min.  
Tank capacity 20 l  
Pressure range 5,5 – 7,5 bar\*\*

Part No.	Product	Voltage	Dimensions (H x W x D)	Weight (kg)
5251-01	with dry air system	230 V 1~; 50-60 Hz	64 x 49 x 47	57
5250-01	without dry air system	230 V 1~; 50-60 Hz	64 x 49 x 45	49
5251-51	with dry air system	400 V 3~; 50-60 Hz	64 x 49 x 47	57
5250-51	without dry air system	400 V 3~; 50-60 Hz	64 x 49 x 45	49

## TORNADO 130

2 cylinders, oil-free

Displacement 200l/min./220\* l/min.  
Delivery at 5 bar 130l/min./140\* l/min.  
Tank capacity 20 l  
Pressure range 5,5 – 7,5 bar\*\*

Part No.	Product	Voltage	Dimensions (H x W x D)	Weight (kg)
5271-01	with dry air system	230 V 1~; 50 Hz	64 x 49 x 46	67
5270-01	without dry air system	230 V 1~; 50 Hz	64 x 49 x 44	59
5271-02	with dry air system	230 V 1~; 60 Hz	64 x 49 x 46	67
5270-02	without dry air system	230 V 1~; 60 Hz	64 x 49 x 44	59

## PRIMO

1 cylinder, oil-free

Displacement 80 – 90\* l/min.  
Delivery at 5 bar 60 – 70\* l/min.  
Tank capacity 20 l  
Pressure range 5,5 – 7,5 bar\*\*

Part No.	Product	Voltage	Dimensions (H x W x D)	Weight (kg)
5151-01	with dry air system	230 V 1~; 50-60 Hz	64 x 49 x 47	56
5150-01	without dry air system	230 V 1~; 50-60 Hz	64 x 49 x 47	47

## TORNADO 70

1 cylinder, oil-free

Displacement 110 – 120\* l/min.  
Delivery at 5 bar 67 – 69\* l/min.  
Tank capacity 20 l  
Pressure range 5,5 – 7,5 bar\*\*

Part No.	Product	Voltage	Dimensions (H x W x D)	Weight (kg)
5171-01	with dry air system	230 V 1~; 50-60 Hz	64 x 49 x 46	52
5170-01	without dry air system	230 V 1~; 50-60 Hz	64 x 49 x 44	44

\*Performance range is directly related to operating frequency of 50 – 60 Hz

\*\*Pressure reducer (optional) is available.

# The accessories available provide perfect solutions.

## Dürr noise reducing cabinet



Ventilated with an electrically controlled fan, for noise control for all Primo, DUO and Tornado compressors.

Dimensions: H 95 x W 65 x D 63 cm  
 Colour: Grey  
 Order number: 5150-500-00

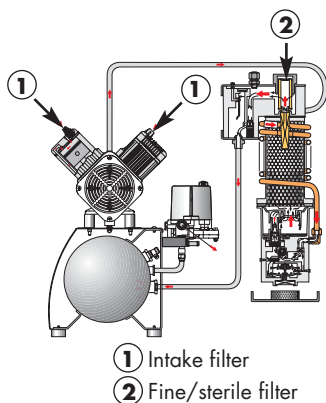
*DUO  
TORNADO 130*



Ventilated with an electrically controlled fan, for noise control for all DUO TANDEM, TRIO and QUATTRO compressors.

Dimensions : H 117 x W 96 x D 70 cm  
 Colour : Grey  
 Order number: 4251-500-00

*DUO TANDEM  
TRIO  
QUATTRO*



All intake, fine or sterile filters are to be replaced once a year.

### Compressor

Compressor	Types	Intake filter off.	Fine or sterile filter for dry air systems off.
QUATTRO Tandem 1/2	4641-51/4681-	4/8	1/2
QUATTRO	5451-51	4	1
TRIO	5351-01	3	1
DUO Tandem 1/2	4151-../4251-..	2/4	1
DUO	515251-..	2	1
Tornado 130	5271-..	2	1
Primo	5151-..	1	1
Tornado 70	5171-..	1	1

Intake filter off.

Fine or sterile filter for dry air systems off.

*FILTER*

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