



# CleanAIR

Oil free piston compressors

2015-12-01



>>> cleanAIR

1.5 - 2.5 HP

Oil free Piston  
Compressor range



# AGENDA

## 1. Market

- Applications
- Sales channels

## 2. Range

- Overview
- Designations

## 3. Product

- Overview
- Features & Benefits
- Working principle

## 4. Competition

- Overview
- Positioning

## 5. Sales

- Material
- Pricing & Timing

# ***1. MARKET***

# TARGET MARKET = OIL FREE APPLICATIONS

## 1. Market

- Applications
- Sales Channels

## 2. Range

## 3. Product

## 4. Competition

## 5. Sales

### ❖ Dental



#### ■ Compressed air used for

##### ■ Pneumatic tools



##### ■ Pneumatic dental chairs

(BUT most are electrical and don't use compressed air)



#### ■ Sizing?

1. Often done by specialized distributor of dental supplies
2. FAD @ 5 bar commonly used
3. Number of recommended dental units\* indicated in leaflet and grouping
4. 1 Dental unit = 1 Dental chair + pneumatic tools

\*Recommended dental units based on an electrical chair

|           | Dental units *  | Displacement   | Free Air Delivery<br>@ 5 bar   |
|-----------|---|--|--|
| Model     |  | <br>l/min | <br>l/min |
| CLR 15/25 | 1-2   | 240  | 125  |

\* Dental units are calculated on an average consumption of 50 Lt/min FAD @ 5 bar

# ***TARGET MARKET = OIL FREE APPLICATIONS***

## 1. Market

- Applications
- Sales Channels

## 2. Range

## 3. Product

## 4. Competition

## 5. Sales

### ❖ Laboratories

### ❖ Food packaging

### ❖ Drink dispensing



...and many others, find out more at

[oilfreecompressors.eu](http://oilfreecompressors.eu)

# SALES CHANNELS

## 1. Market

- Applications
- Sales Channels

## 2. Range

## 3. Product

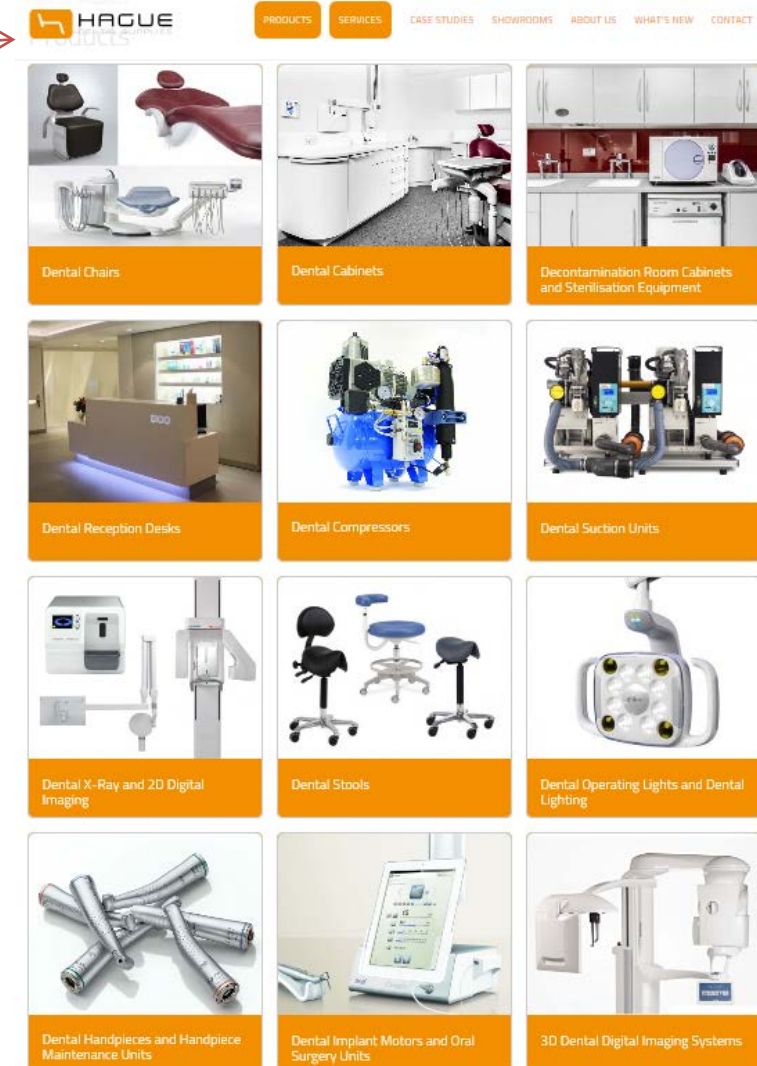
## 4. Competition

## 5. Sales

### ❖ Dental



Example



### ■ Specialized distributor of dental supplies

- Offering various products targeted towards dentists :



Compressors



Dental chairs



Tools



Stools

...and much more



# 1. Market

- Applications
- Sales Channels

## 2. Range

## 3. Product

## 4. Competition

## 5. Sales

# SALES CHANNELS

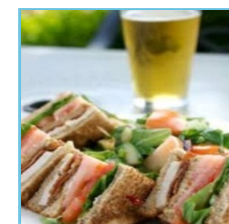
❖ Laboratories

❖ Food packaging

❖ Drink dispensing

❖ ....

- Direct & Indirect



## ***2. RANGE***



1. Market

2. Range




- Overview
- Designations

3. Product

4. Competition

5. Sales

## RANGE OVERVIEW

|  | Model         | Hp  |     |     | Dryer Option |
|--|---------------|-----|-----|-----|--------------|
|   | 30L<br>SILENT | 1,5 | 2,0 |     | Yes          |
|   | 50L<br>OPEN   | 1,5 | 2,0 | 2,5 | Yes          |
|  | 25L<br>OPEN   | 1,5 | 2,0 |     | Yes          |



- Technology : **100% oil free**
- Displacement : **240 – 480 l/min**
- Approvals : **CE/IEC (230/1/50)**
- Max pressure : **8 bar**
- Noise : **64 – 77 dB(A) | LpA @ 1 meter**

# MODEL DESIGNATIONS

- 1. Market
- 2. Range
  - Overview
  - Designations
- 3. Product
- 4. Competition
- 5. Sales

| Designation | CLR         | 20              | /50        | S           | T          | UK      |
|-------------|-------------|-----------------|------------|-------------|------------|---------|
| Translation | Description | Power (Hp) x 10 | Vessel (L) | With Canopy | With Dryer | UK plug |

| Model         |
|---------------|
| CLR 15/25     |
| CLR 15/25 T   |
| CLR 15/50     |
| CLR 15/50 T   |
| CLR 15/30 S   |
| CLR 15/30 S T |
| CLR 20/25     |
| CLR 20/25 T   |
| CLR 20/50     |
| CLR 20/50 T   |
| CLR 20/30 S   |
| CLR 20/30 S T |
| CLR 25/50     |
| CLR 25/50 T   |



### ***3. PRODUCT***

1. Market

2. Range

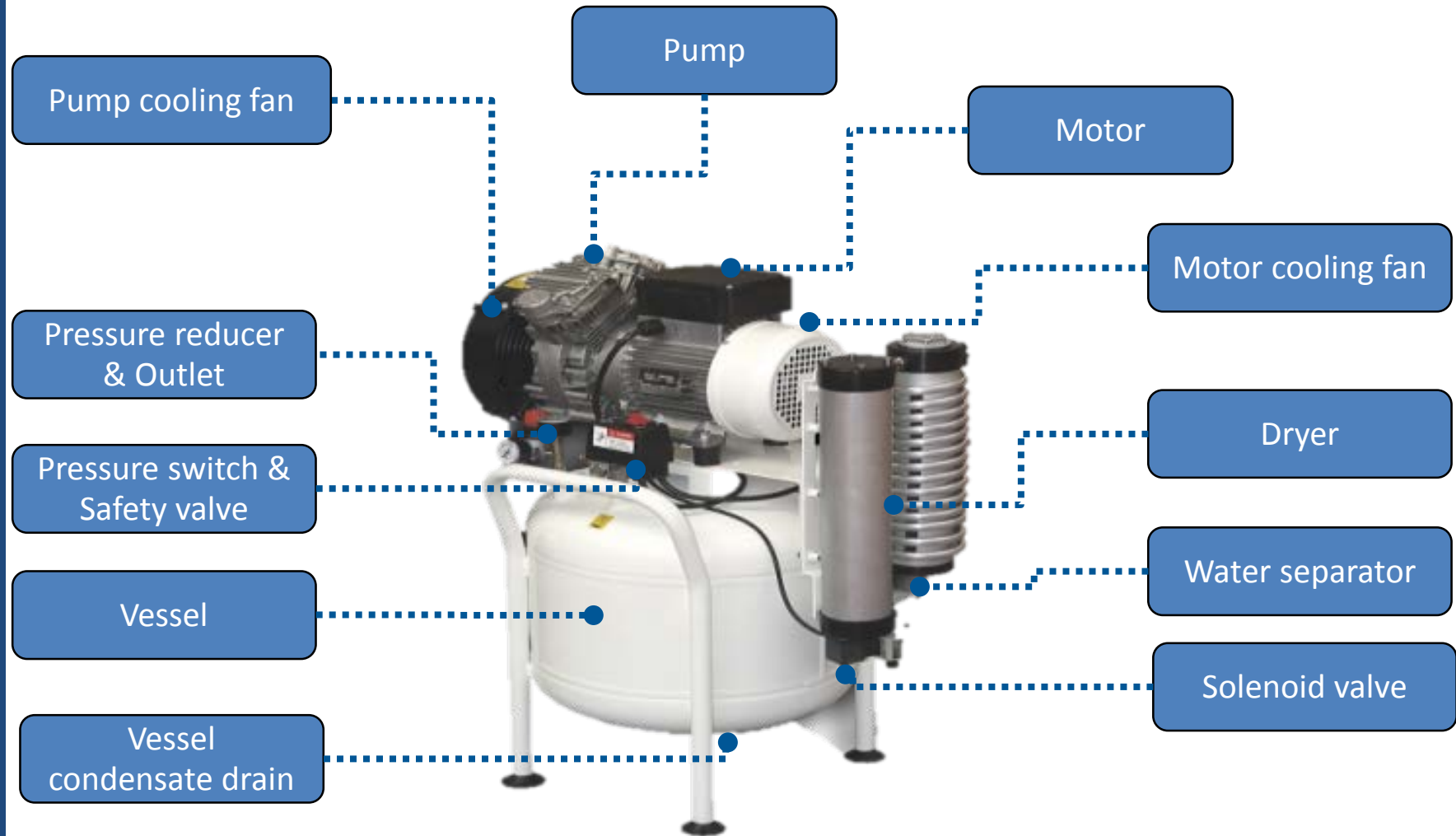
3. Product

- Overview
- Features & Benefits
- Working principle

4. Competition

5. Sales

## OVERVIEW



1. Market

2. Range

3. Product

- Overview
- Features & Benefits
- Working principle

4. Competition

5. Sales

## FEATURES & BENEFITS

### ■ Pump

- 100% oil free compression offering the user complete peace of mind
- Direct coupled motor/pump design for minimal transmission losses and optimal performance
- V-configuration
- One stage compression
- 2 or 4 cylinder



CLR 15 (1,5 hp)  
2 cylinder



CLR 20 (2,0 hp)  
2 cylinder



CLR 25 (2,5 hp)  
4 cylinder

### ■ Pump cooling fan

- Optimal cooling for safe operation



1. Market

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## FEATURES & BENEFITS

### ■ Motor

- IP44
- Duty cycle 50%
- Automatic thermal protection for safe operation
- Motor cooling fan
- Mounted on 4 anti-vibration dampers



### ■ Vessel

- Vessels treated internally with epoxy coating
  - Avoid corrosion
  - Extend lifetimes
  - Assure safe operation
- Rubber feet pads for stability



1. Market

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## FEATURES & BENEFITS

### ■ Pressure switch

- Condor

### ■ Pressure reducer & Outlet

- Clear readings & simple operation



### ■ Dryer & Water separator

- Adsorption dryer with silica gel
- Dew point down to  $-40\text{ }^{\circ}\text{C}$  \*  
\* Duty cycle of 50% has to be respected
- Water separator with low pressure drop  
(automatic drain when set to automatic mode)
- Dryer HTM 2022 compliant





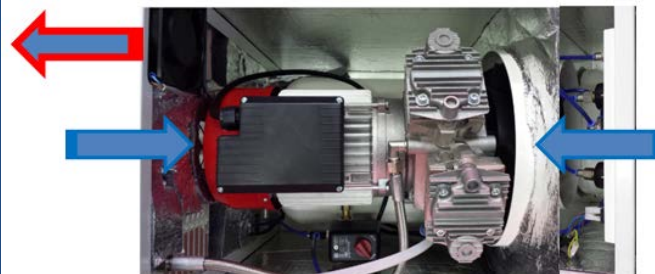
# FEATURES & BENEFITS

- **Silencing canopy**

- Sound insulated canopy to ensure low noise and installation close to user
- Additional cooling fan inside canopy to assure cool and safe operation



## COOLING FLOW



# WORKING PRINCIPLE - OPEN COMPRESSORS



1. Market

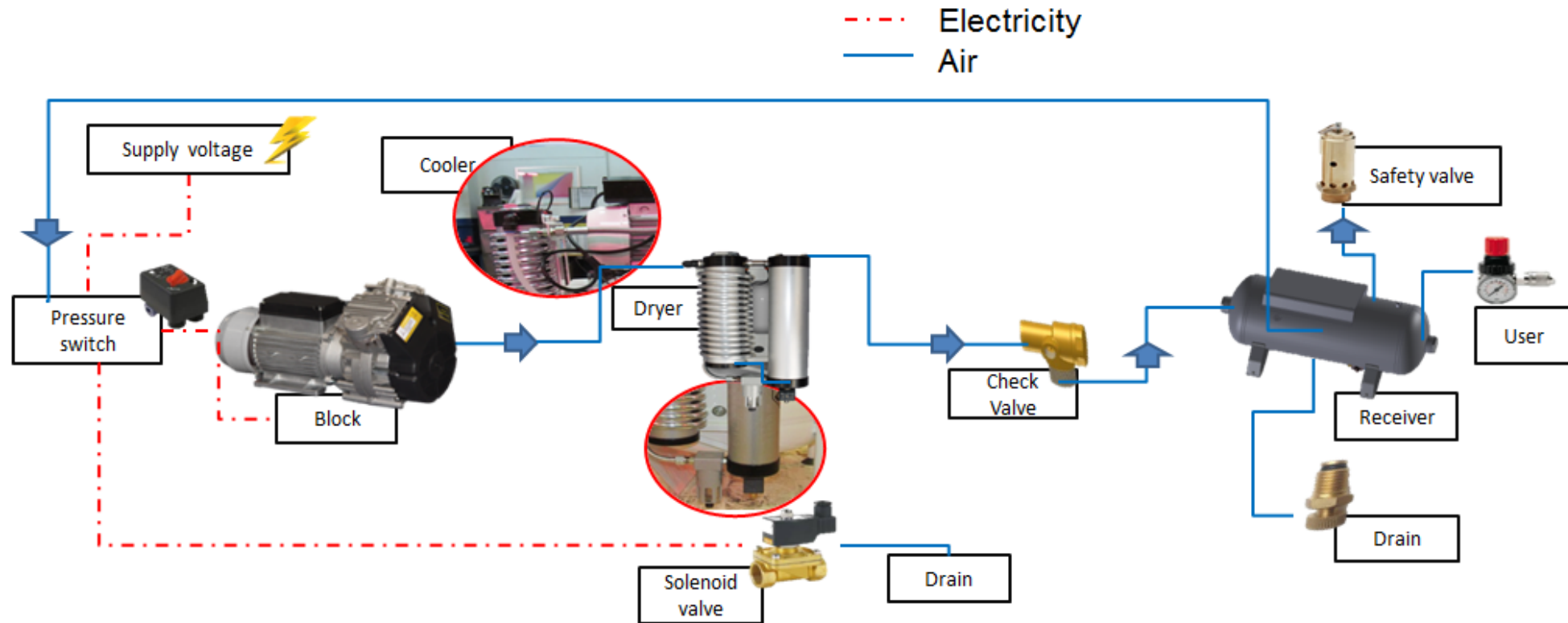
2. Range

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# WORKING PRINCIPLE – SILENT COMPRESSORS



1. Market

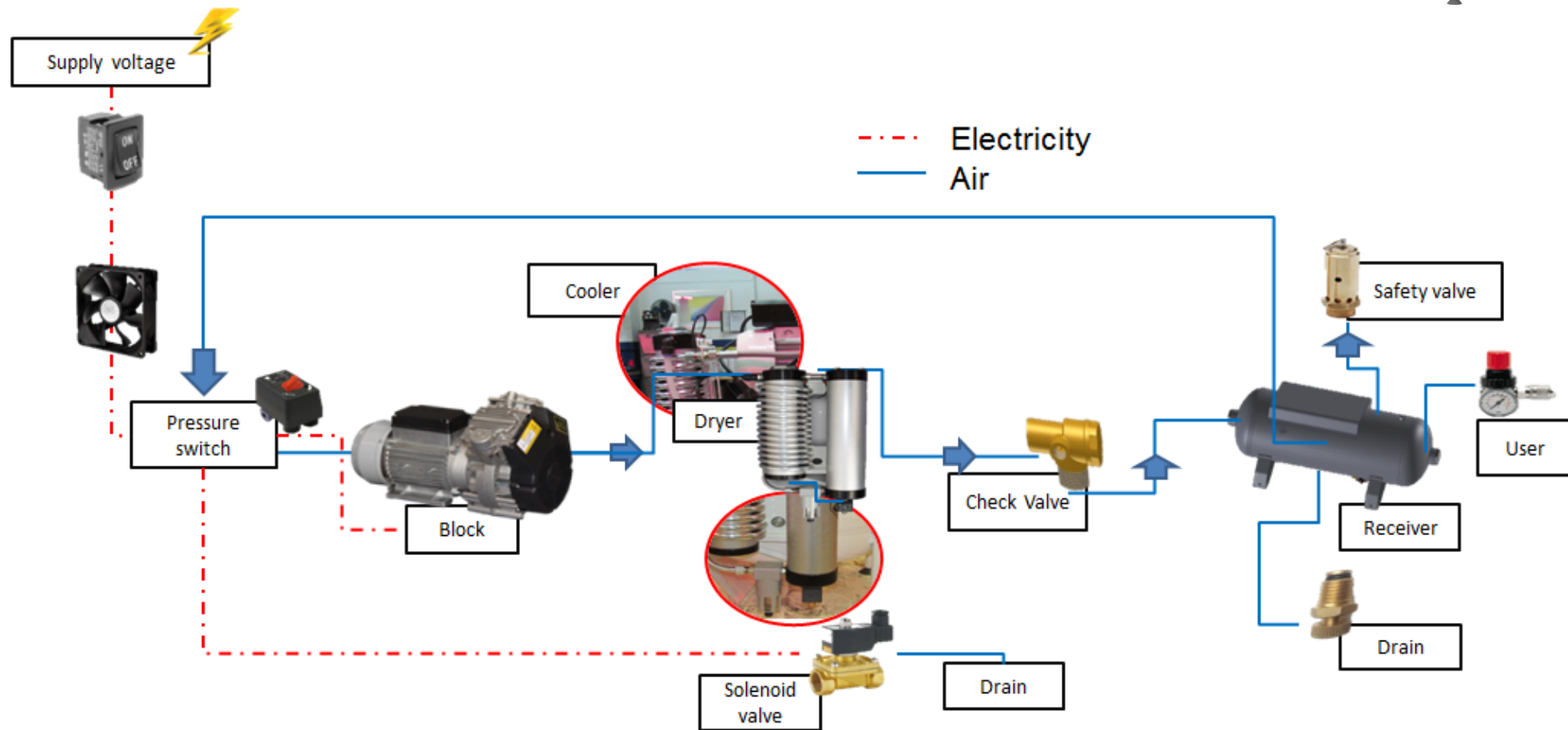
2. Range

3. Product

- Overview
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4. Competition

5. Sales



1. Market

2. Range

3. Product

- Overview
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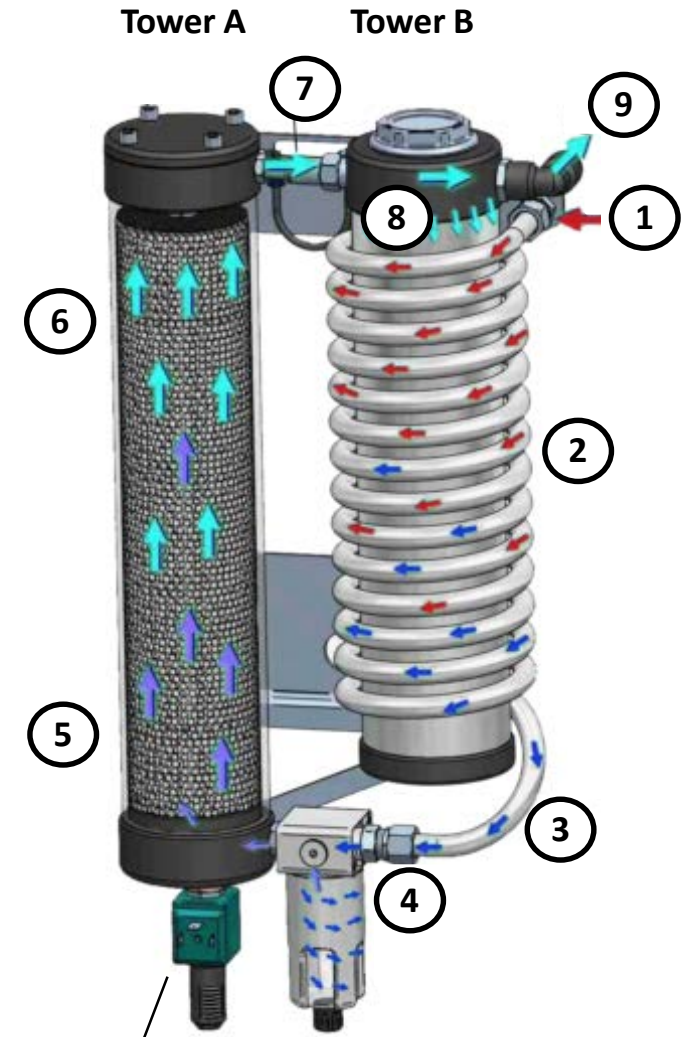
4. Competition

5. Sales

## WORKING PRINCIPLE - DRYER

### ■ Compressor in operation

1. Hot compressed air from compressor
2. Cooled down in cooling coil
3. Cool compressed air with high concentration of water
4. Water separator eliminates water droplets condensed in the cooling coil
5. Cool compressed air goes up in Tower A passing through the silica gel
6. Dry compressed air with dew point down to  $-40^{\circ}\text{C}$
7. Passing through the check valve
8. Dry compressed air fills up Tower B
9. Dry compressed air is delivered into the vessel



Solenoid valve remains closed while compressor is running

1. Market

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- Working principle

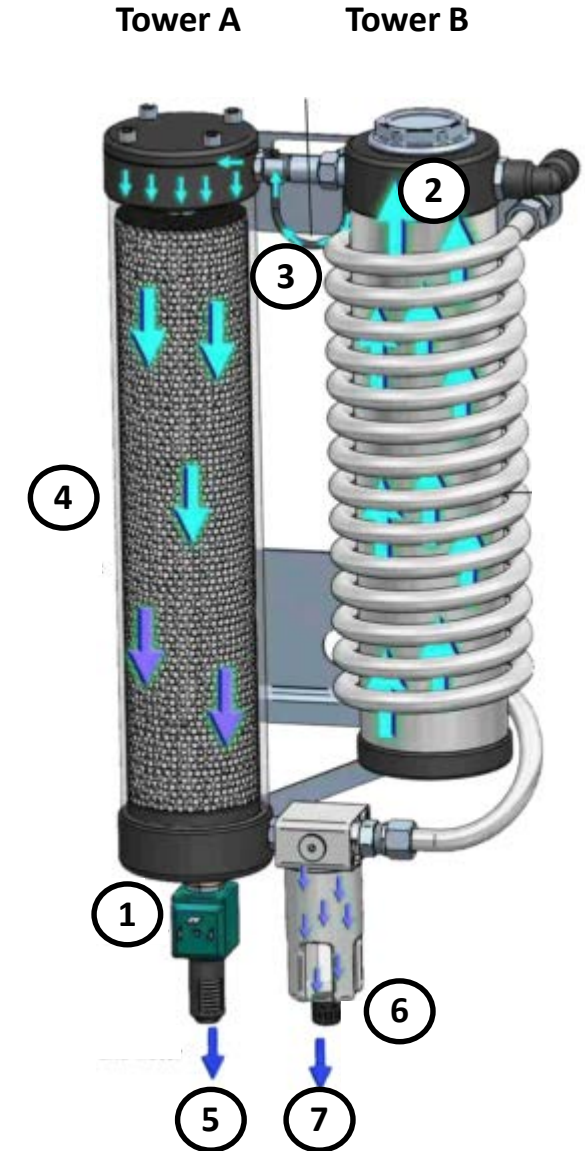
4. Competition

5. Sales

## WORKING PRINCIPLE - DRYER

### ■ Compressor switched off

1. Solenoid valve opens when the compressor switches off (signal from pressure switch)
2. Dry compressed air that had filled Tower B escapes backwards
3. Returns with reduced flow
4. Dry compressed air regenerates the silica gel in Tower A (regeneration time takes about 1 min)
5. Air and water out
6. Drain valve of water separator opens automatically as air pressure drops (if set to automatic mode)
7. Air and water out



## ***4. COMPETITION***



# COMPETITION OVERVIEW

1. Market
2. Range
3. Product
4. Competition
  - Overview
  - Positioning
5. Sales

## ■ Premium priced

- Durr (market leader)
- Atlas Copco (LFx Dental)
- Kaeser



## ■ Value priced

- **CleanAIR**
- Cattani
- MGF
- Gentilin
- FINI
- JunAIR
- ...





1. Market
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## POSITIONING

### ■ CleanAIR vs. Premium priced

- **Lower priced** – market is competitive and price is a factor
- **Scope of supply** – inline with competition (configurations, silencing canopy and dryer options)
- **Adsorption dryer** - Integrated dryer with silica gel to reach very dry air -40 °C PDP (superior “dryness” vs. membrane dryers that is sometimes used)
- **Duty cycle** – Designed for the application (Dental applications don’t use compressed air 100% of the time)



### ■ CleanAIR vs. Value priced

- **Competitive price** – Great value vs. value priced competition
- **Scope of supply** – inline with competition (configurations, silencing canopy and dryer options)
- **Adsorption dryer** - Integrated dryer with silica gel to reach very dry air -40 °C PDP (superior “dryness” vs. membrane dryers that is sometimes used)
- **Duty cycle** – Inline with competition (Dental applications don’t use compressed air 100% of the time)
- **Part of Atlas Copco group** – Trust, reassurance, quality...



## ***5. SALES***

1. Market

2. Range

3. Product

4. Competition

5. Sales

- Material
- Pricing & Timing

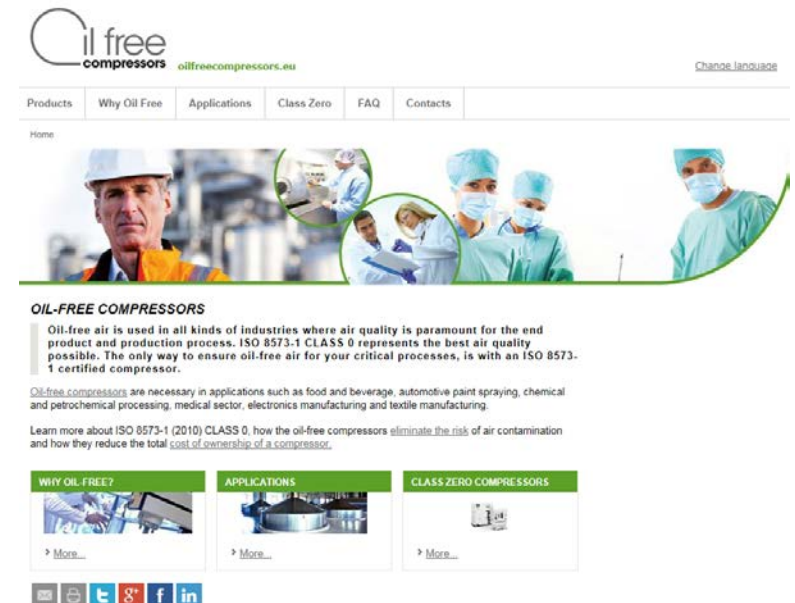
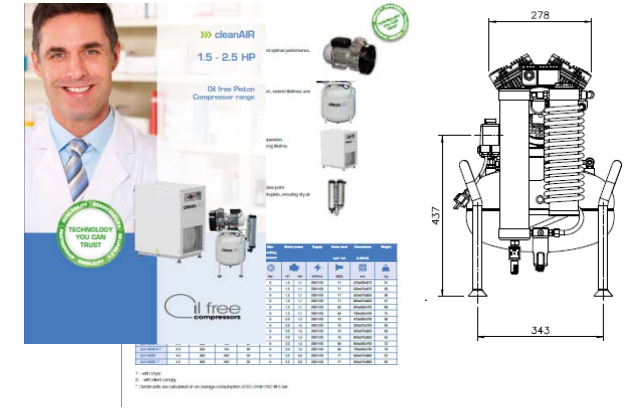
# MATERIAL

## ■ On Business Portal

- Launch PPT presentation
- Sales leaflet
- Grouping file (all models and technical data)
- Dimension drawings
- Instruction manual
- Spare parts list (in “Service Connect – Pistons”. Enter in unit item nr. 4116...”)

## ■ On the Web

- CleanAIR added to... [oilfreecompressors.eu](http://oilfreecompressors.eu)



# *CONCLUSION*

# CONCLUSION

| FEATURE          | Oil-free compression         | Adsorption dryer with silica gel | Epoxy coated vessels             | Silencing canopy           |
|------------------|------------------------------|----------------------------------|----------------------------------|----------------------------|
| ADVANTAGE        | No risk of oil contamination | Dewpoint down to -40 °C          | Avoid corrosion                  | Low noise                  |
| CUSTOMER BENEFIT | Peace of mind                | Premium dry air quality          | Long lifetime and safe operation | Installation close to user |

