

# Screw Compressors

CPF 180-420 and  
CPVS 180-420



**AIRPLUS**  
Industrial

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People.  
Passion.  
Performance.



**Chicago  
Pneumatic**

# People. Passion. Performance.



For Chicago Pneumatic, it isn't just about products. We value our end-users' and distributors' **performance**, and do our ultimate best to make it **easy to work** with us while providing **reliable products with a passion**.

- **Broad product portfolio** of robust compressors & tools
- **Decades of experience & innovation**
- **100% committed** distributor partnership

This is how we keep you productive at all times, meeting the needs of professionals in vehicle service, general industry and construction around the globe.

**People. Passion. Performance.**



## Define your needs, our broad

The **reliability** of the CPF and CPVS compressors will guarantee a continuous supply of compressed air thanks to a strict selection and qualification process of each component we use. As a result, trouble-free operation and **long lifetime** are guaranteed.

The CPF and CPVS help our customers achieve **tangible savings** each day, every day. State of the art screw element, intelligent built-in controller, frequency drive technology, energy recovery.... are some of the examples of the features that will **lower your energy bill**.

Furthermore, we have developed a wide range of features and options to meet the needs of the most demanding industries. Your **efficiency and productivity**, our bottom line.

# offer does the rest

## “Maximized productivity”

### GEARBOX DRIVEN



|             |                                                                                                                  |
|-------------|------------------------------------------------------------------------------------------------------------------|
| Noise level |  77-80 dB(A)                  |
| FAD         |  25,3 - 52,3 m³/min           |
| Power       |  180 - 420 hp<br>132 - 315 kW |
| Pressure    |  7 - 13 bar                   |

#### User benefits

- Time-proven design with highest reliability
- Robust, built-to-last compressor
- High performances and reduced energy consumption
- In house designed screw compression element for maximum uptime and efficiency
- Low maintenance and installation costs

## “Top value through energy efficiency”

### INVERTER DRIVEN



|             |                                                                                                                    |
|-------------|--------------------------------------------------------------------------------------------------------------------|
| Noise level |  77-80 dB(A)                  |
| FAD         |  7,6 - 52,3 m³/min            |
| Power       |  180 - 420 hp<br>132 - 315 kW |
| Pressure    |  4 - 13 bar                   |

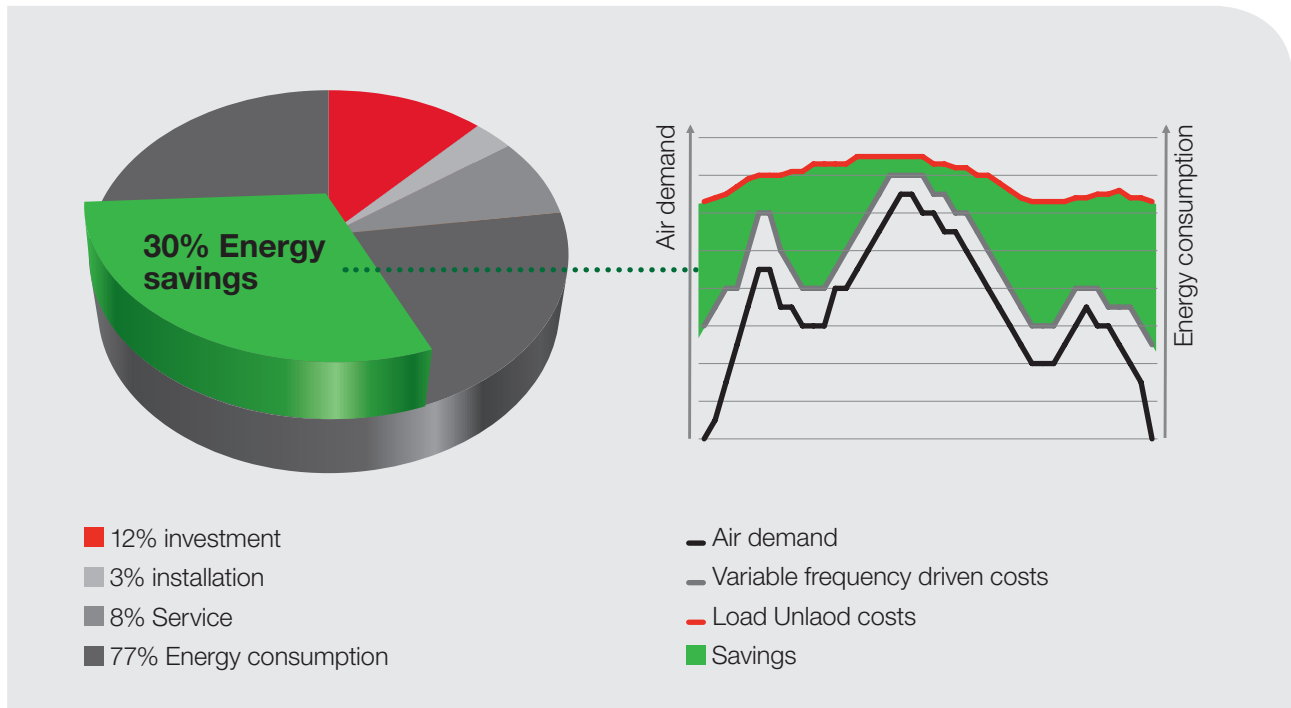
#### User benefits

- Cut your energy bill by 30%
- Optimal efficiency perfectly matching the air flow
- Quick return on investment
- Additional savings thanks to the advanced functionalities of the controller
- Energy recovery option that allows you to recuperate 75% of energy

# Energy efficiency

## We protect your efficiency

Energy costs represent about 70% of the total operating cost of your compressor over a 5 year period. That's why reducing the operating cost of a compressed air solution is a major focus. Variable frequency driven compressors can cut the energy bill of your compressor by up to 30%.



### Inverter driven compressors reduce the energy consumption through:

#### Air End

The unique in-house designed air end with 4/6 screw profile results in:

- Optimum energy efficiency over the entire speed range
- No internal leakages in the compression chambers
- Unique screw profile ensuring premium efficiency

#### Inverter

Thanks to the inverter driven technology you can save up to 30% on energy cost because of:

- A perfect match of air demand and air supply
- No unload cycles above 20% load
- No peak currents thanks to soft start up

#### Motor

Superior quality and efficiency are guaranteed thanks to:

- Smart transmission engineering to minimize the internal loads resulting in longer bearing lifetime
- A perfect match between screw technology and gear-box resulting in no long term losses
- Robust design using casted, heavy duty components

#### Controller

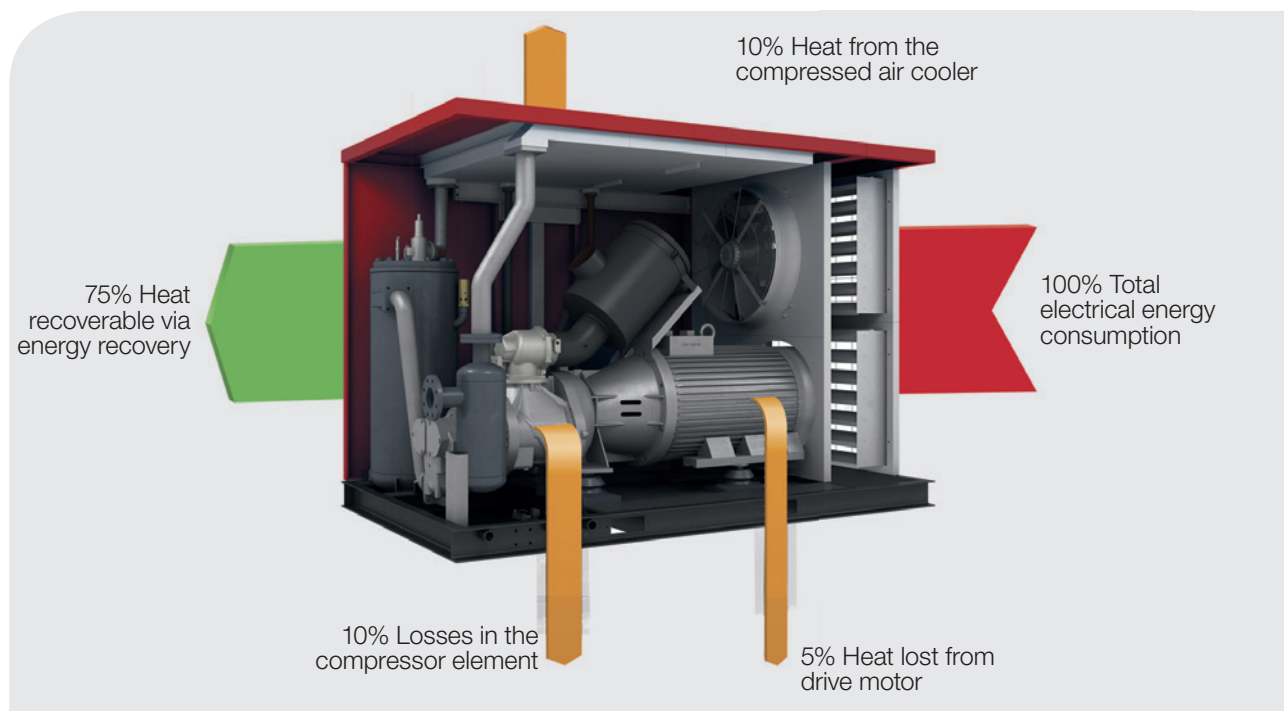
The full colour graphic controller brings intelligent saving features thanks to:

- Optimum zone control
- Integrated sequencer for 4 up to 6 compressors
- Web visualization
- No pressure fluctuation thanks to instant pressure logging and communication with compressor drive
- Dual pressure band operation



# We recover your energy

When air is compressed, heat is formed. The excess heat can be captured with an energy recovery option and channelled to other applications allowing you to save energy and cut costs.



## Heat recovery - Recover 75% of your energy

In the case of water-cooled or air-cooled compressors, the oil circuit is pre-cooled with an oil/water heat exchanger. Water then becomes the fluid transport media to recover the oil temperature. The hot water resulting from this process can be used to heat radiators or water boilers, pre-heat supply water or hot tap water, and other industrial applications. The energy recovery option integrates a heat exchanger on the oil circuit, which heats up the continuously pressurized water flow. The system is regulated automatically, and in case of limited water cooling capacity, the standard cooling system of the compressor will operate and backup the energy recovery device. The energy recovery option is a simple mechanical system that requires no maintenance or electricity consumption, but offers you significant reductions in your energy costs.

# Gearbox driven compressors

## CPF 180 - 340



## Maximize your productivity with reliable compressed air solutions

The CPF 180 - 340 is the result of continuous improvement to ensure high quality compressed air in the most demanding industrial applications. The components are selected with care to offer optimum reliability and ensure long lifetime and trouble-free operation. With a state-of-the-art compression element combined with a premium efficiency motor the CPF lowers the energy consumption and help you achieve tangible savings.



CPF 340



State-of-the-art screw element

High air delivery and efficient operation.



Efficient air filtration

To maximize oil quality and to protect internal components from any contamination.



Advanced control and monitoring

Precise pressure control, monitoring and visualization possibilities.



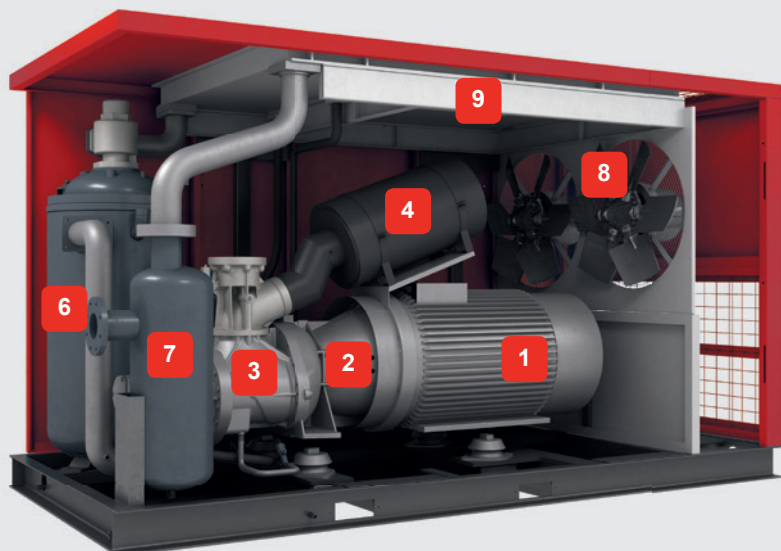
Low maintenance costs and easy accessibility

Quick and easy access to all components thanks to multiple service doors.



Quality components

In-house designed core components. Key components from reputable global suppliers.



### Robust and powerful compressor

- |                                 |                                           |                                   |
|---------------------------------|-------------------------------------------|-----------------------------------|
| 1. IE3 Premium Efficiency motor | 4. Standard enclosed intake filter        | 7. Standard water separator drain |
| 2. Gear driven transmission     | 5. Intelligent controller                 | 8. Cooling fan                    |
| 3. Air end                      | 6. In house designed oil separator vessel | 9. Separate air/oil coolers       |

### Technical Table

| Type    | HP  | kW  | m³/min |       |        |        | Start | dB(A) Std | kg   | L x W x H (mm)     |
|---------|-----|-----|--------|-------|--------|--------|-------|-----------|------|--------------------|
|         |     |     | 7 bar  | 8 bar | 10 bar | 13 bar |       |           |      |                    |
| 50 Hz   |     |     |        |       |        |        |       |           |      |                    |
| CPF 180 | 180 | 132 | 25.3   | 23.8  | 21.0   | 18.1   | Y/D   | 77        | 3300 | 2800 x 1755 x 1960 |
| CPF 220 | 220 | 160 | 28.3   | 27.5  | 25.1   | 21.9   | Y/D   | 78        | 3650 | 2800 x 1755 x 1960 |
| CPF 270 | 270 | 200 | 34.3   | 33.1  | 30.3   | 26.9   | Y/D   | 79        | 3950 | 3525 x 1755 x 2005 |
| CPF 340 | 340 | 250 | 41.5   | 39.3  | 37.5   | 32.8   | Y/D   | 80        | 4170 | 3525 x 1755 x 2005 |

\* Unit performance measured according to ISO 1217, Annex C, latest edition.

\*\* Noise level measured according to ISO 2151.

All technical data for air-cooled machines, 50 Hz. For technical data of water-cooled machines, please contact your local sales force.



# Gearbox driven compressors CPF 271 - 420



## Optimized solutions to help you reach the highest efficiency

The CPF 271 - 420 is the result of continuous improvement to ensure high quality compressed air in the most demanding industrial applications. The components are selected with care to offer optimum reliability and ensure long lifetime and trouble-free operation. Designed for high performance this state-of-the-art compression element combined with a premium efficiency motor ensures even higher air flow capacities while at the same time further lowering energy consumption.



State-of-the-art screw element

Designed for maximum air delivery and highest efficiency.



Optimized cooling system

Two separate coolers for air and oil for high quality cooling, high reliability and longer lifetime.



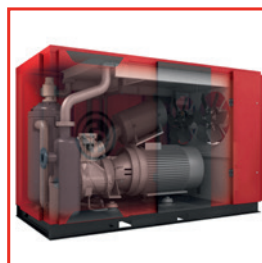
Advanced control and monitoring

Precise pressure control, monitoring and visualization possibilities.



Efficient water separator drain

Integrated as standard for all CPF and CPVS models.



Low maintenance costs and easy accessibility

Quick and easy access to all components thanks to multiple service doors.





## CPF 420

### Technical Table

|         |  |     |  |       |        |        |  |  |  |  |
|---------|-------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------|-------|--------|--------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Type    | HP                                                                                  | kW  | m³/min                                                                              |       |        |        | Start                                                                               | dB(A)                                                                                 | kg                                                                                    | L x W x H (mm)                                                                        |
|         |                                                                                     |     | 7 bar                                                                               | 8 bar | 10 bar | 13 bar |                                                                                     |                                                                                       |                                                                                       |                                                                                       |
| 50 Hz   |                                                                                     |     |                                                                                     |       |        |        |                                                                                     |                                                                                       |                                                                                       |                                                                                       |
| CPF 271 | 270                                                                                 | 200 | 39.2                                                                                | 36.7  | 33.3   | N/A    | Y/D                                                                                 | 77                                                                                    | 5200                                                                                  | 4800 x 2155 x 2275                                                                    |
| CPF 341 | 340                                                                                 | 250 | 46.1                                                                                | 42.3  | 39.4   | N/A    | Y/D                                                                                 | 77                                                                                    | 5350                                                                                  | 4800 x 2155 x 2275                                                                    |
| CPF 420 | 420                                                                                 | 315 | 52.3                                                                                | 52.3  | 48.2   | N/A    | Y/D                                                                                 | 78                                                                                    | 6380                                                                                  | 5100 x 2155 x 2275                                                                    |

\* Unit performance measured according to ISO 1217, Annex C, latest edition.

\*\* Noise level measured according to ISO 2151.

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# Inverter driven compressors

## CPVS 180 - 420



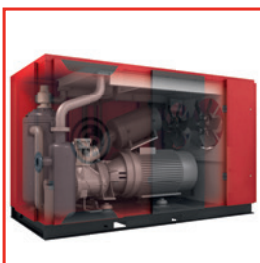
## Optimized solutions to save energy

The CPVS 180 - 420 are variable speed versions of the CPF series and allow you to find the perfect match between air demand and air supply. Thanks to the inverter driven technology, the energy cost can be reduced with 30%. Components are carefully selected assuring highest quality and reliability. Moreover, installation and maintenance is kept simple thanks to the integrated solution with easy accessibility resulting in lower cost and higher uptime. The energy saving potential with CPVS is truly great.



State-of-the-art screw element

Designed for maximum air delivery and highest efficiency.



Low maintenance costs and easy accessibility

Quick and easy access to all components thanks to multiple service doors.



Advanced control and monitoring

Precise pressure control, monitoring and visualization possibilities.



EMC compatibility

No electromagnetic interference on your compressed air system.



Optimized solutions for energy savings

The inverter driven technology cuts down energy cost by 30%.



## CPVS 220

### Technical Table

|          |  |     |  |           |           |           |  |  |  |
|----------|-------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------|-----------|-----------|-----------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Type     | HP                                                                                  | kW  | m³/min                                                                              |           |           |           | dB(A)                                                                                 | kg                                                                                    | L x W x H (mm)                                                                        |
|          |                                                                                     |     | 7 bar                                                                               | 8 bar     | 10 bar    | 13 bar    |                                                                                       |                                                                                       |                                                                                       |
| 50 Hz    |                                                                                     |     |                                                                                     |           |           |           |                                                                                       |                                                                                       |                                                                                       |
| CPVS 180 | 180                                                                                 | 132 | 7,6-25,3                                                                            | 7,1-23,8  | 6,3-21,0  | 5,5-18,1  | 77                                                                                    | 3550                                                                                  | 2800 x 1755 x 1960                                                                    |
| CPVS 220 | 220                                                                                 | 160 | 8,5-28,3                                                                            | 8,2-27,5  | 7,6-25,1  | 6,6-21,9  | 78                                                                                    | 3980                                                                                  | 2800 x 1755 x 1960                                                                    |
| CPVS 270 | 270                                                                                 | 200 | 10,3-34,3                                                                           | 10,0-33,1 | 9,1-30,3  | 8,1-26,9  | 79                                                                                    | 4320                                                                                  | 3605 x 2105 x 2020                                                                    |
| CPVS 340 | 340                                                                                 | 250 | 12,5-41,5                                                                           | 11,8-39,3 | 11,3-37,5 | 10,0-32,8 | 80                                                                                    | 4530                                                                                  | 3605 x 2105 x 2020                                                                    |
| CPVS 271 | 270                                                                                 | 200 | 11,8-39,2                                                                           | 11,0-36,7 | 10,0-33,3 | N/A       | 77                                                                                    | 5550                                                                                  | 4800 x 2155 x 2275                                                                    |
| CPVS 341 | 340                                                                                 | 250 | 13,8-46,1                                                                           | 12,7-42,3 | 11,8-39,4 | N/A       | 77                                                                                    | 5750                                                                                  | 4800 x 2155 x 2275                                                                    |
| CPVS 420 | 420                                                                                 | 315 | 15,7-52,3                                                                           | 15,7-52,3 | 14,5-48,2 | N/A       | 78                                                                                    | 6900                                                                                  | 5100 x 2155 x 2275                                                                    |

\* Unit performance measured according to ISO 1217, Annex C, latest edition.

\*\* Noise level measured according to ISO 2151.

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# Chicago Pneumatic: full offer, global presence



Piston compressors



Screw compressors



Industrial & vehicle service tools



Portable compressors & generators



Construction equipment



## Care. Trust. Efficiency.

### Care.

Care is what service is all about: professional service by knowledgeable people, using high-quality original parts.

### Trust.

Trust is earned by delivering on our promises of reliable, uninterrupted performance and long equipment lifetime.

### Efficiency.

Equipment efficiency is ensured by regular maintenance. Efficiency of the service organization is how Original Parts and Service make the difference.

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