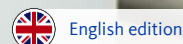




## PRODUCT BULLETIN – DRYPOINT® R – Refrigerant Air Dryers



### The F-Gas regulation of the European Union (No. 517/2014) Influence on refrigerant air dryers

Climate change is a predominant topic in politics, affecting the entire population of our planet. The F-Gas regulation was adopted by the European Union (EU) with the aim to reduce the emissions of greenhouse gases. More specifically, hydrofluorocarbons (HFCs) are the relevant group of refrigerants being used by various industries containing enormous amounts of greenhouse gases (CO<sub>2</sub> equivalent tons). With a staggered phase down, the EU is going to reduce the potential of greenhouse gas emissions so that global warming is decelerated.

#### Implications:

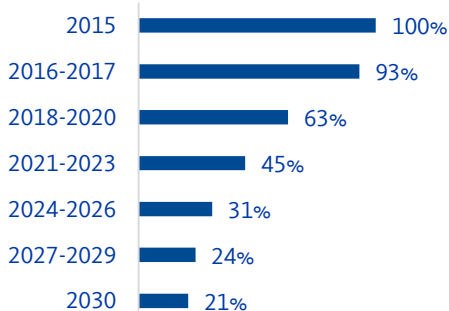
- Steady increase of refrigerant prices
- Steady decrease of availability

#### Next phase (year 2020):

- (1) Ban of new stationary refrigerating devices with refrigerant filling quantity of  $\geq 2500$  GWP (e.g. R404a)
- (2) Ban of new stationary refrigerating devices with refrigerant charge of more than 40 CO<sub>2</sub> equivalent tons

#### Availability of HFCs

% = Amount of permissible CO<sub>2</sub> equivalent tons



#### Quick facts

##### Global Warming potential (GWP):

Unit of measure to indicate greenhouse effect of refrigerant. Measured in CO<sub>2</sub> equivalent tons.

##### Refrigerants of current DRYPOINT® R products:



Volume flow  $\leq 135$  m<sup>3</sup>/h: R134a [GWP: 1 430]  
Volume flow  $> 135$  m<sup>3</sup>/h: R407C [GWP: 1 774]

##### Calculation of CO<sub>2</sub> equivalent tons

Refrigerant filling quantity x GWP = CO<sub>2</sub> equiv. tons

Example:

DRYPOINT RA 330/AC -> Refrigerant: R407c / 0.70 kg  
GWP of R407c: 1 774.

Calculation of CO<sub>2</sub> equiv. =  $1\,774 \times 0.70 / 1000 = 1.2$  t

#### Influence of R404a ban on the DRYPOINT® R segment

GWP of R404a = 3 922



Current series

- Our 2<sup>nd</sup> generation of refrigerant dryers, distributed since the beginning of 2011, do not contain R404a  
=> Not affected by R404a ban



Previous series

- 1<sup>st</sup> generation of refrigerant dryers was distributed until the end of 2010
- Dryers with a volume flow  $\geq 186$  m<sup>3</sup>/h contain R404a
- This dryer generation is allowed to be used after 2020
- F-Gas regulation: Systems with less than 10 kg of R404a can be refilled with recycled R404a also after 2020 (please see name plate of the dryer to verify refrigerant filling quantity)
- Unforeseeable availability and pricing of recycled R404a
- R404a is not allowed to be used in new systems as of 1<sup>st</sup> January 2020