

# Eco-friendly CO<sub>2</sub> foaming of Polyurethane (PUR) slabstock

PLASTINUM<sup>®</sup> Foam P

# PLASTINUM® Foam P

Polyurethane (PUR) foaming with carbon dioxide

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PLASTINUM® Foam P offers dedicated **pressure boosting solutions for continuous** foaming of flexible PUR foams (Slabstock) and **discontinuous** foaming processes.

Carbon dioxide (CO<sub>2</sub>) is an excellent **eco-friendly blowing agent** for reducing the density of PUR foams.



# Advantages of CO<sub>2</sub> as blowing agent

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## Technical features

- Lower density foams can be produced (below 20 kg/m<sup>3</sup> for Slabstock)
- Better quality with uniform cell structure
- Improved foam properties, e.g. sound absorption, reduction in urea production during reaction

## Cost savings

- Saving of raw material
- CO<sub>2</sub> is by far the cheapest foaming agent
- 2-3 times greater blowing efficiency → minimal blowing agent requirements
- Reduced consumption of isocyanates in production of all grades of PUR foams
- Reduced ventilation costs compared with methylene chloride

## Environmental benefits

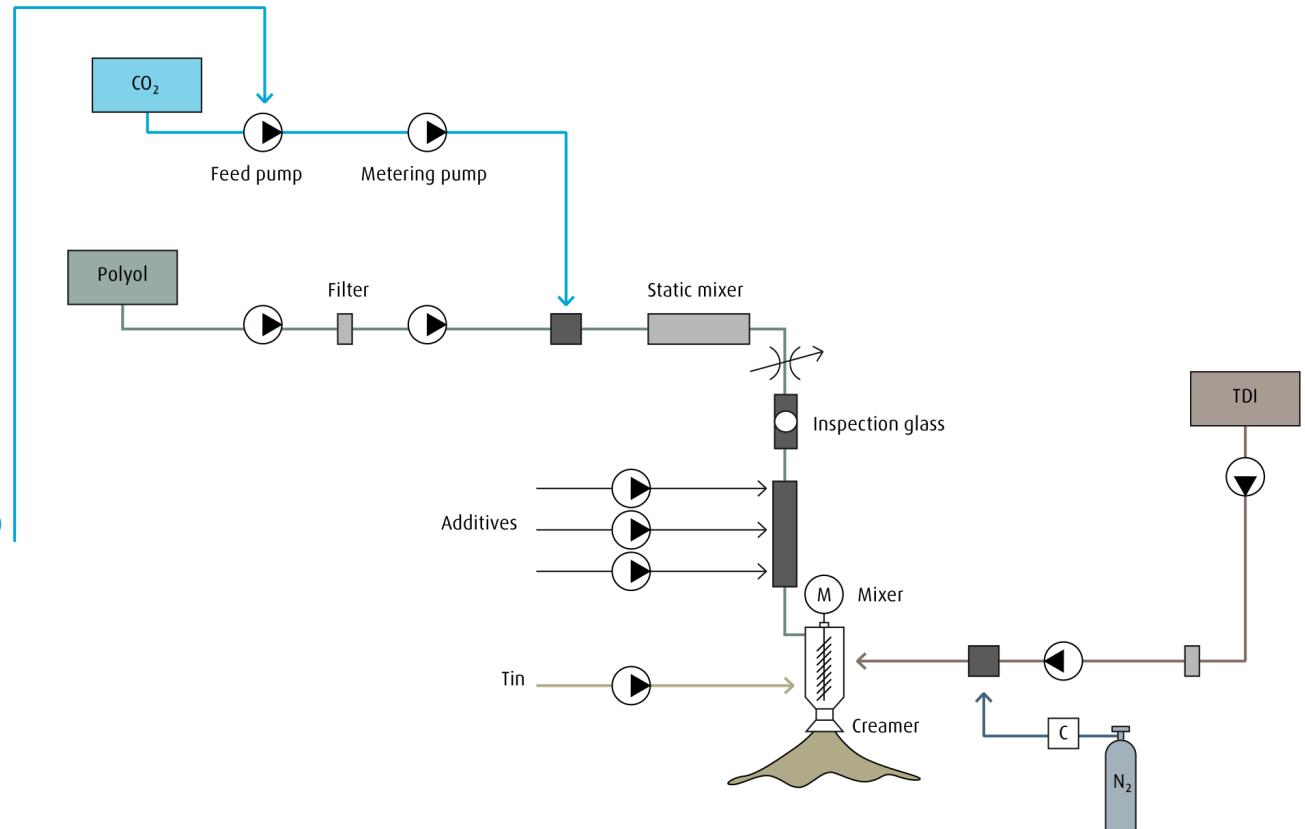
- Environmentally friendly replacement for HCFCs, methylene chloride and other blowing agents

# Continuous foaming process of flexible foams (Slabstock)

CO<sub>2</sub> is normally only used to produce low-density foams (below 20 kg/m<sup>3</sup>).

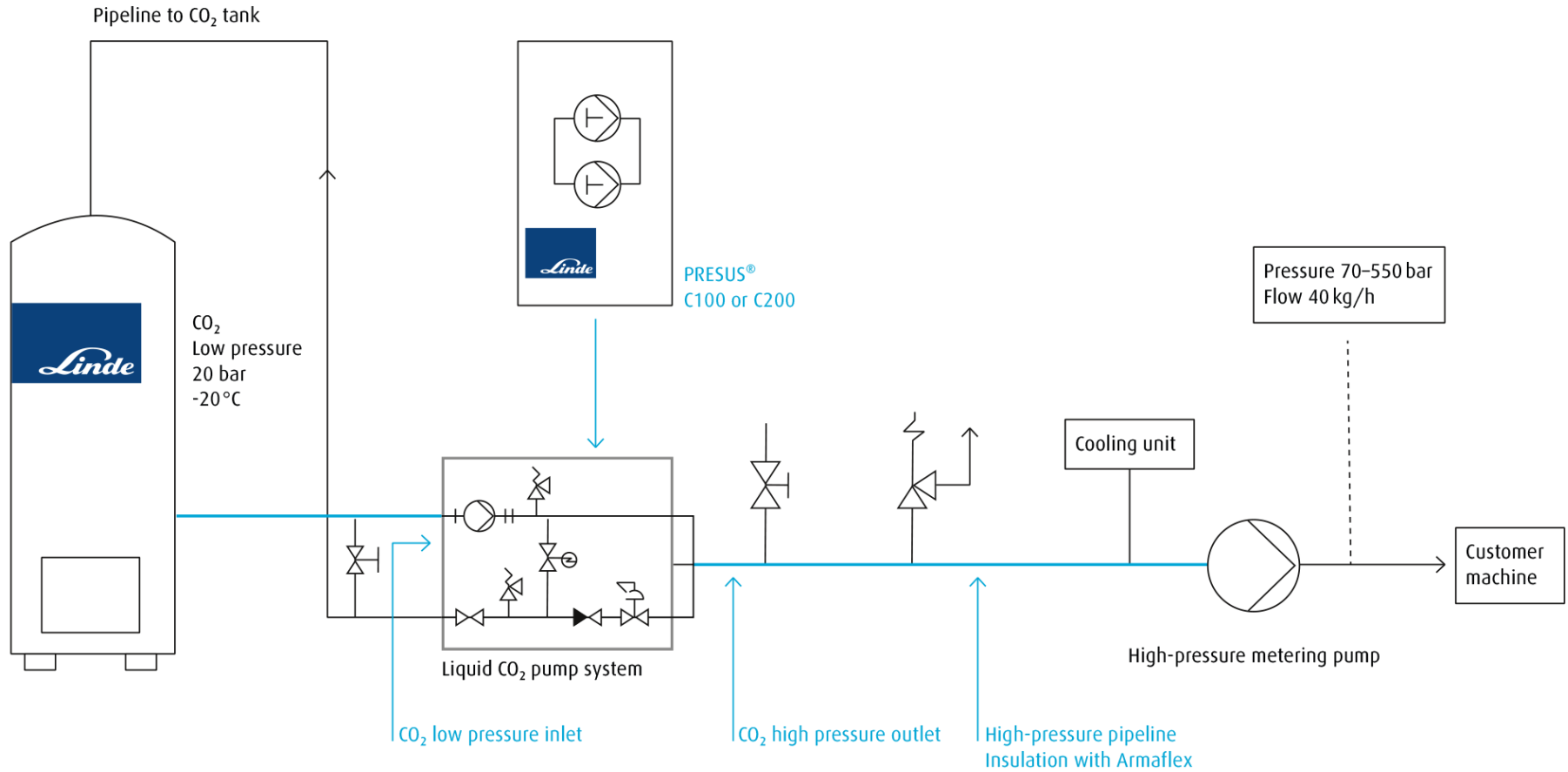
The metering pumps have to be supplied with liquid bubble-free CO<sub>2</sub>, usually 25-40 bar.

Therefore a CO<sub>2</sub> **feed pump** is required.



# PRESUS® C100 and C200 as feed pump

## Installation for Slabstock customers



# PRESUS® C100 and C200

## Liquid CO<sub>2</sub> pump system

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The PRESUS® C100 and C200 pump system was developed to fulfil the specific flow and pressure requirements of the **polyurethane (PUR) industry (Slabstock)**.

### Answering industry requirements

- Supply of CO<sub>2</sub> in liquid form without bubbles
- Continuous supply at stable pressure (adjustable between 25 and 70 bar)
- Constant CO<sub>2</sub> flow rate without fluctuations
- Choice of CO<sub>2</sub> flow rates between 3 and 40 kg/min (depending on type)



# Contact

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The Linde logo, featuring the word "Linde" in a white, elegant script font, set against a dark blue background with a light blue wavy graphic above it.

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