

CE 588 Demonstration of dissolved air flotation

Dissolved air flotation clearly demonstrated

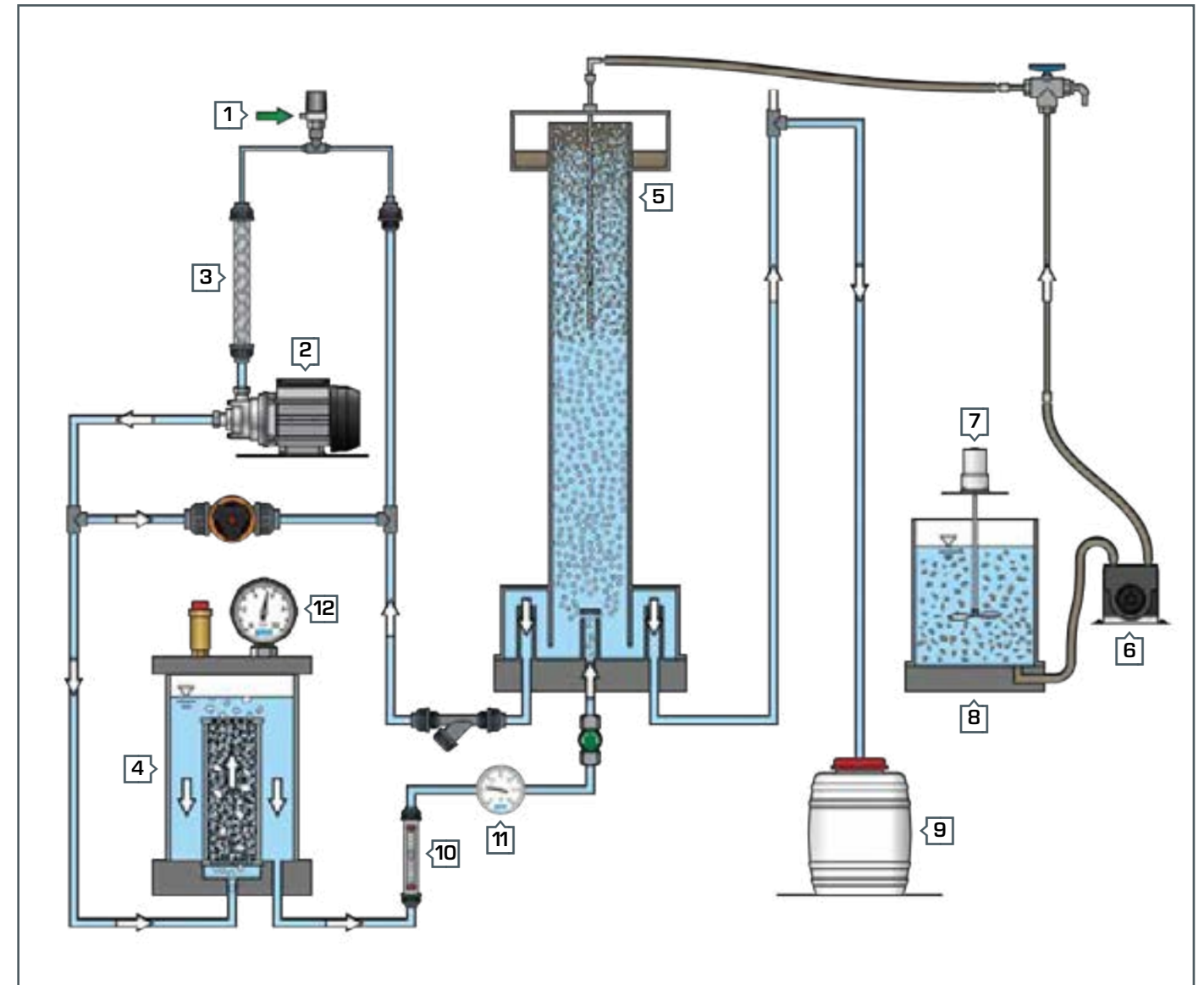
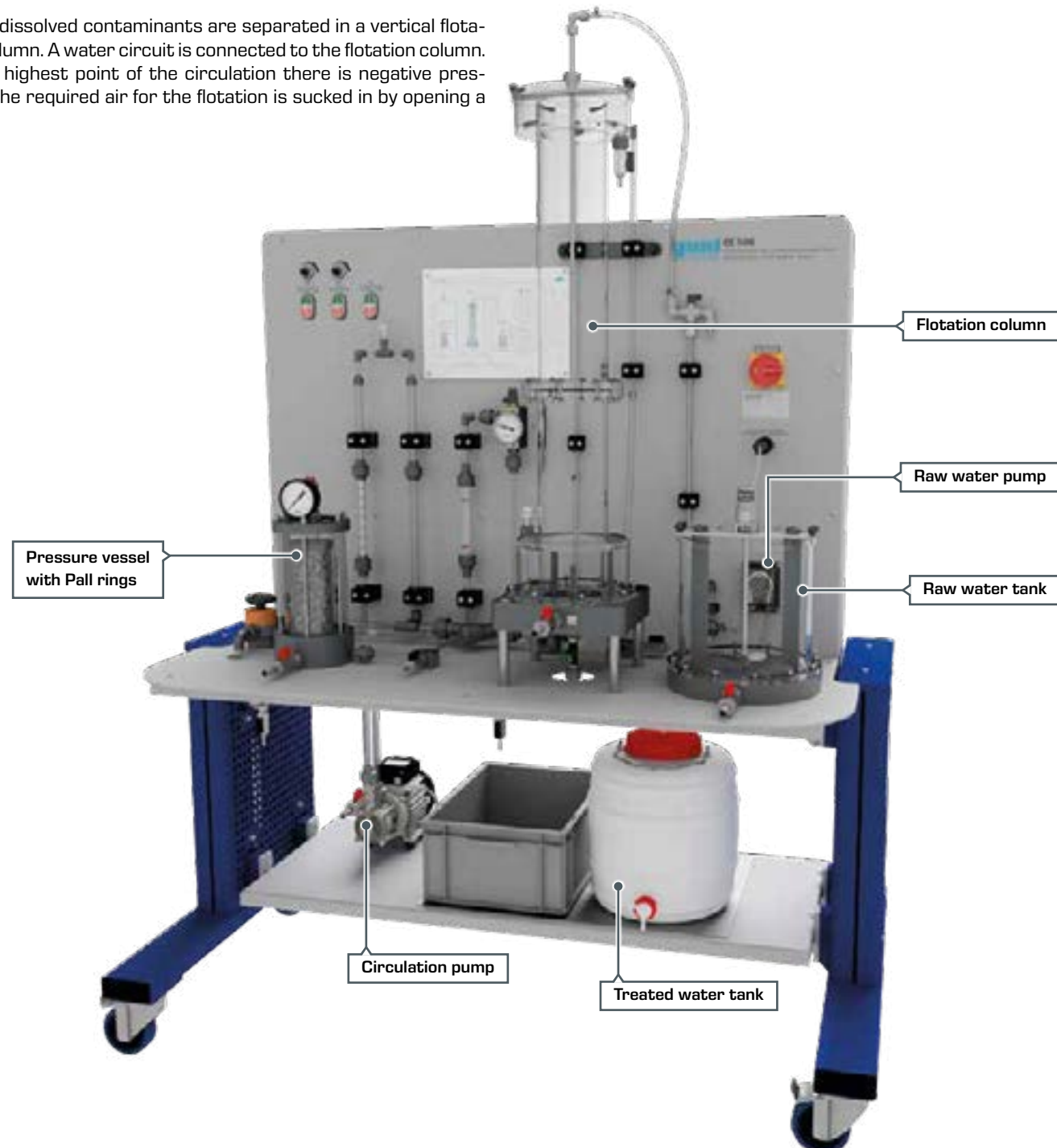
During flotation, the solids to be separated are transported to the water surface by small gas bubbles. The most commonly used process is the dissolved air flotation. The basis of this process is that the solubility of air in water increases with increasing pressure.

This compact trainer focuses on the basic function and visualisation of the process. Therefore, we have used transparent materials and attached great importance to easy-to-use components. Our CE 587 teaching system is also characterised by its practical relevance.

The undissolved contaminants are separated in a vertical flotation column. A water circuit is connected to the flotation column. At the highest point of the circulation there is negative pressure. The required air for the flotation is sucked in by opening a

valve located at this point. Under pressure, the air dissolves in the water and, after the water has been depressurised in the lower part of the flotation column, the air forms small bubbles. A pressure vessel filled with Pall rings ensures a sufficiently long retention time to dissolve the air and to separate undissolved air before entering the flotation column.

Of course you also receive comprehensive instructional material for this device that quickly helps you become familiar with operation.



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|--------------------|----------------------|
| 1 air | 7 stirring machine |
| 2 circulation pump | 8 raw water tank |
| 3 static mixer | 9 treated water tank |
| 4 pressure vessel | 10 flow meter |
| 5 flotation column | 11 thermometer |
| 6 raw water pump | 12 manometer |

Learning objectives

- how dissolved air flotation works
- dissolving gases in liquids:
 - Henry's law
 - Dalton's law

About the product:

