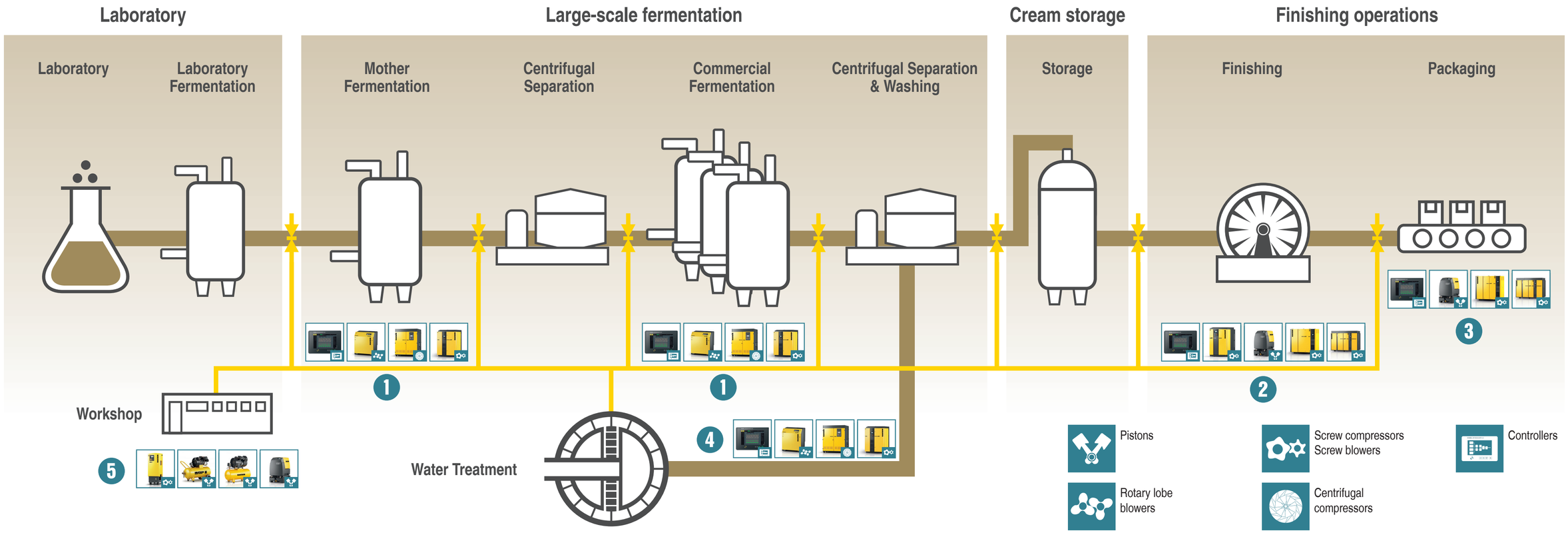
Typical Compressed Air Applications in Industrial Yeast Production

KAESER KOMPRESSOREN®



1 Large-scale Fermentation



The aerobic fermentation of yeast requires low-pressure air to aerate and agitate the yeast mixture in the fermentation tanks. Efficient and reliable blowers support optimal oxygenation and homogeneous conditions, which are essential for successful aerobic fermentation. Aeration can account for up to 50% of a fermentation plant's energy consumption, so selecting energy-efficient blowers can further optimise overall energy use.

2 Finishing



High-purity instrument air, requiring a typical pressure of 6-7 bar(g), is essential for controlling valves and actuating pneumatic devices during the finishing stages of producing yeast in its various forms. Depending on the drying method employed to produce dry yeast, compressed air may be required in the drying process. Once the yeast is dried, vacuum conveying utilises low-pressure air to gently transport the yeast from the drying equipment to packaging.

3 Packaging



During the final packaging stages of yeast, instrument air powers pneumatic actuators that drive the mechanical movements of packaging machines. High-purity instrument air is also critical for preventing contamination in filling and sealing mechanisms. Additionally, compressed air is required for various packaging processes, including air knives and blow-off systems.

4 On-site Water Treatment



Low-pressure air is vital for on-site water treatment. In biological aeration it is used to aerate wastewater, providing bacteria with the oxygen required to break down organic matter. Yeast influent typically has a high Biological Oxygen Demand (BOD) due to elevated levels of sugars, proteins, and yeast residues. Efficient and reliable aeration is therefore essential to meet the high oxygen requirements needed to support microbial activity.

5 Workshop Air



A dependable supply of compressed air is often required in a yeast production plant's workshop for miscellaneous tasks, such as operating air tools and cleaning workshopped components or parts. For workshops with intermittent compressed air requirements, KAESER's reciprocating compressors present an ideal solution. In larger workshops with a continuous compressed air demand, KAESER rotary screw compressors offer a highly efficient solution.

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