



**CODOS® NT**

Continuous mixing and kneading means:

**CONSISTENT  
QUALITY AT THE  
HIGHEST LEVEL**



**ZEPPELIN®**  
WE CREATE SOLUTIONS

[zeppelin-systems.com](http://zeppelin-systems.com)



# CODOS® NT WAS MADE FOR THE BIG JOBS

The CODOS® NT also processes large quantities of dough. The continuous mixing and kneading system delivers consistent dough quality - around the clock. This means that the CODOS® NT always brings you a consistently optimal result at all times. CODOS® NT achieves top performance everywhere.

Faster, easier, more efficient: Your advantages!

## COMPACT AND POWERFUL

The CODOS® NT is driven by a water-cooled servo motor with very high torque, saving space and energy costs.

## EASY OPERATION, EASY MAINTENANCE

The CODOS® NT has an easy-to-open hood for any maintenance work needed. Seals, bearings and couplings can be replaced without dismantling the shaft. A time and money saver!

## HIGH TIGHTNESS

CODOS® NT offers reliable protection against strong jets of water (IP66). Optionally positioned on load cells, the current filling level is displayed.

## MAXIMUM FLEXIBILITY THROUGH MODULAR DESIGN

The CODOS® NT is equipped for all tasks due to its modular design. Standard lid, swiveling lid (optional) or cleaning lid (WIP, optional) can be replaced very easily; variable filling elements are available for liquid components.

## MINIMIZED DOWNTIME THANKS TO EASY CLEANING

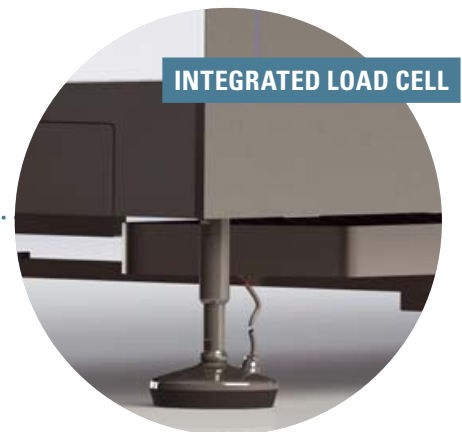
Its design makes the CODOS® NT quick and easy to clean - keeping downtimes short. All hygienic regulations are fulfilled, naturally.

## OPTIMIZED TROUGH DESIGN

With its double-walled tank design, the CODOS® NT enables optimum cooling and efficient operation.







## WELL THOUGHT-OUT DESIGN – BASIS FOR MAXIMUM PERFORMANCE

- Position and alignment of gear unit and motor block centered and rotated by 90°
- Latest generation of electric, water-cooled servo motor drive technology for optimized control
- Reduced size and weight of motor and gearbox
  - Up to 30% lower energy consumption with higher yields
- Additional evaluation options for the new drive data and load cells (optional)
- System integration: Control cabinet with converter and CPU, two independent cooling cycles for drive unit and trough



## Continuous mode of operation vs. batch kneaders

# ADVANTAGES ALL ALONG THE LINE!

Compared to a batch kneader, the CODOS® NT offers decisive advantages that make your production more efficient and significantly improve quality.

- Reliable high-level product quality
- Immediate reaction to fluctuations in the quality of raw materials
- Constant dough temperature
- Quick recipe change
- Gentle product handling
- Increase in line efficiency
- Automatic operation
- Easy to operate

## Optimum raw material crosslinking at constant temperature

CODOS® NT ensures a constant dough temperature - thanks to a coolable or heatable double-walled trough design as well as intelligent solutions upstream, such as flour cooling or the production of doughs without raising agents.

## Intelligent dwell time control

The CODOS® NT is flexible and open - and it also enables fast recipe changes thanks to the modular system configuration. Ingredients or scrap dough can be added via various feed points along the trough. The dwell time of the components in the process is also controlled in this way, which is important, for example, for sensitive raw materials such as flakes, fruit pieces, etc. These can be incorporated almost non-destructively by adding them at the end.

### **CODOS® NT IS AVAILABLE IN TWO DIFFERENT SIZES:**

- CODOS® NT 160: Dough output approx. 3t/h
- CODOS® NT 200: Dough output approx. 4-6 t/h

## CODOS® NT: Perfect for baking and confectionary

The continuous mixing and kneading system is suitable for a wide range of products in the food sector:

### **FRESH BAKED GOODS**

- Bread
- Bread rolls
- Hamburger buns
- Sliced bread
- Pita bread
- Baguette
- Ciabatta
- Pizza
- Tortillas
- Donuts
- Croissants
- Pretzels

### **EXTENDED SHELF-LIFE**

#### **BAKED GOODS**

- Cookies
- Crackers
- Salty snacks

#### **CONFECTIONARY**

- Chocolate cream
- Granola bars
- Icing and fillings
- Ice cream

#### **PET FOOD**

Continuous production of high-quality doughs

# THE NEW MODULAR CODOS® KNEADING SYSTEM

The CODOS® NT works most effectively in a network. The complete system consists of a CODOS® tower, a DymoMix® mixer and a CODOS® NT kneader.



The CODOS® Tower:  
Doses liquids and solids

The CODOS® tower consists of a reservoir, a differential weigh feeder located below it, and a liquid feeder. The first two components ensure that the powdered raw materials are continuously and consistently metered. In the bakery, this involves flour; in the starch industry, it involves starch, proteins, dextrans, etc. Together with the powdered raw materials, the liquids are also continuously metered. This is ensured by the third component of the tower - liquid dosing for tempered water, yeast suspension, salt solution or similar. The aggregates and instruments are summarized on the liquid panels on the CODOS® tower. The panels are also modular and can be easily replaced thanks to their easy accessibility on the tower.



The DymoMix®: A perfect dough  
thanks to special hydration

The DymoMix® is a hydration system. In the CODOS® system, it is used as a premixer and as a supplementary production step between dosing and kneading of doughs or other further processing steps. Powdered components are hydrated with water or oil, so that a homogeneous mixture is immediately formed. This allows to obtain doughs of perfect quality. The special oil/water hydration takes place through a nozzle in the rotating shaft of the unit. A liquid film is formed, which the powdered particles must pass through - and thus become hydrated. Unlike conventional systems, this does not involve the use of a high-pressure water jet. Even with low hydration input, this allows a high-quality product to be produced that can be processed immediately without any intermediate steps.



## CODOS® NT: Gentle kneading for optimum dough quality

Dough formation takes place in the horizontally operating, continuous CODOS® NT kneader. The energy input required for kneading is provided by helical, intermeshing twin shafts. Kneading forms the gluten structure of the wheat dough. Bow-shaped kneading attachments on the twin shafts ensure gentle kneading without cutting the dough. The energy input required in each case and the dwell time of the dough can be controlled via the speed of the kneading shafts. The double-walled trough construction can be heated as well as cooled and thus always maintains the desired, pre-set dough temperature.

## CODOS® System: Your customized plant

To ensure that your investment pays off quickly, we support you with our engineering expertise right from the start. Benefit from our simulation software or test the design of your plant in our technical center or at your site. In this way, you can individually adapt the system to your requirements.





**Zeppelin Systems GmbH**

Food Processing Plants  
Messenhäuser Straße 39  
63322 Rödermark  
Germany

Tel.: +49 6074 691 - 0

Fax: +49 6074 6031

[foodtechnology@zeppelin.com](mailto:foodtechnology@zeppelin.com)

[zeppelin-systems.com](http://zeppelin-systems.com)