

# Continuous Mixed Flow Dryers

**TORNUM REX SERIES**



**SOLUTIONS FOR  
THE WORLD'S  
MOST IMPORTANT  
BUSINESS**



**Quiet and efficient  
Built-in dust control  
Pre-heating  
Smooth interior**



**TORNUM<sup>®</sup>**

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# Tornum Rex – the next generation

## THE SUCCESS STORY CONTINUES

**THROUGH THE LAST DECADES**, our continuous mixed flow dryers have gained a solid reputation for state-of-the-art performance and quality around the world. Now, we take a big leap into the future of drying with the Tornum Rex series. Years of development work has resulted in a vastly

improved concept, adding valuable new features that offer gentler and more efficient drying, easier cleaning, lower energy consumption and outstanding environmental characteristics. In short: the next generation, built on decades of experience.



- **INSULATION AND PRE-HEATING IMPROVES DRYING**
- **LESS NOISE AND CLEANER AIR**
- **UP TO 30 % LOWER FUEL CONSUMPTION IN HR MODE**
- **SMOOTH INSIDES FOR EASY CLEANING**
- **EFFICIENT ACTIVE DUST CONTROL**
- **IDEAL FOR DRYING IN FROSTY CONDITIONS**

# Tomorrow's technology – today

## GRAIN PRE-HEATING ZONE

The upper section of the dryer can be regulated to pre-heat chilled or frosty grain (such as maize) for improved quality.

## FIRE DETECTION SYSTEM

A fire detection system is standard equipment on the Tornum Rex dryers. The system will shut off all functions of the dryer and activate an alarm in case of fire.

## SMOOTH HYGIENIC INTERIOR

The totally smooth interior with no moving or protruding parts means less dirt will adhere to the walls – and cleaning will be much easier.

## HEAT SOURCES

The Tornum Rex series is designed to work with several different heat sources, such as gas, biofuel or heat exchangers (gas is required for HR/HRC operation).

## CONVEYOR AS STANDARD

A built-in conveyor optimised for your selected dryer size guarantees sufficient capacity and reliable function.



## UPWARD FACING FANS

The built-in fans improve the working environment, offering significantly reduced noise at ground level.

## INSULATED EXTERIOR

The Tornum Rex dryer is insulated with a sandwich panel. This counteracts the forming of condensation and sticky debris under frosty conditions, which can occur in a conventional dryer.

## ACTIVE DUST CONTROL

The optimised air flow reduces the amount of dust particles in the exhaust air.

## BUILT-IN DISCHARGE SECTION

Discharge noise is significantly reduced thanks to the insulated enclosure.

## INTEGRATED DUST SEPARATION

A built-in cyclone dust separator with a radial fan ensures minimal dust emissions, making it easy to comply with environmental regulations.





## Caring for the environment

**CARING FOR THE** environment comes naturally to us. Our products are designed using the latest technology to minimize environmental impact – in our surroundings as well as yours. As an example, 100 per cent of the energy used in our manufacturing process comes from renewable sources. To this end, we have designed the Tornum Rex dryer for minimal environmental impact. The insulated double-wall enclosure with upward-

facing fans reduces noise pollution significantly. Further improvement is possible by adding optional silencers or our CAC or CDS systems, which remove nearly all remnants of dust and chaff. And it's not just about creating better working conditions or caring for nature – our advanced technology will make it easier to comply with existing and upcoming environmental legislation.

## Making it even better



**SILENCERS** Tornum silencers reduce noise levels further.



**CLEAN AIR CONTROL** The CAC unit comes with a fan for maximum airflow with minimum noise. Integrated dust separation removes up to 95 per cent of dust and lighter impurities.



**CENTRIKLON** The high capacity CDS Centriklon centrifugal separator removes dust and chaff even more efficiently than the CAC system. No moving parts means minimal maintenance.

# IDC for total control

**TORNUM INTELLIGENT DRYER CONTROL** is our optional software-based control system for monitoring and controlling the outgoing moisture content in your Tornum Rex dryer. Via the user-friendly interface, you have full control over the entire drying process on your PC or tablet. Tornum IDC provides precise drying to a specified average moisture content regardless of ambient conditions, which takes the guesswork out of the drying process. Save big money by not overdrying your grain just to be on the safe side – with Tornum IDC, you maximize product quality, weight and income. The system is accessible online wherever you are, with a responsive design to suit any platform such as PC, tablet or smart phone.



# Heat sources

**BIOFUEL** Burning wood chips or pellets is a carbon dioxide neutral source of heat. We offer electronic process monitoring and generously sized containers, as well as conversion kits for existing oil furnaces.

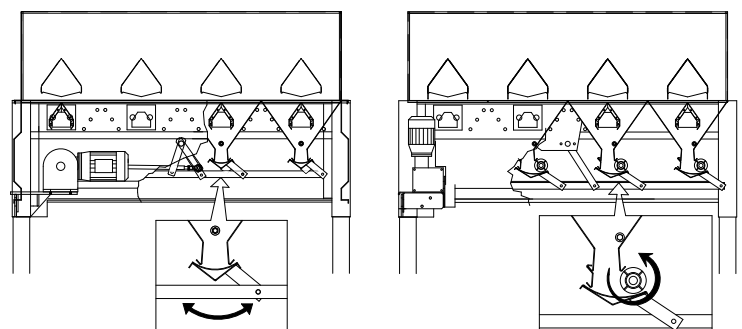
**GAS** A gas burner can be integrated in the dryer, supplied with all the safety equipment required, including an electrical cabinet and temperature sensors (a gas burner is required for HR/HRC operation).

**HEAT EXCHANGER** Wherever hot water or steam is available, a heat exchanger is an excellent heat source. Our specially designed exchangers can be equipped with an automatic cleaning system.



# Discharge section

**ELECTRICALLY OPERATED** slow speed rollers or pulse shutters are available. Both systems ensure a positive metering of the grain flow.



# Technical data

**THE TORNUM REX SERIES** of continuous mixed flow dryers are available in a wide range of sizes. The specifications below cover only the most common sizes – larger dryers are available on request. Dryer capacities in tph as shown below are based on stated hot air

temperatures, maize at 730 kg/m<sup>3</sup>, wheat at 800 kg/m<sup>3</sup> and sun flowers at 420 kg/m<sup>3</sup>. Capacities stated are to be considered as guidelines only. For exact capacity figures based on actual ambient conditions, please contact Tornum or any of our representatives.

WIDTH 4 METRES:	REX 4-20-4	REX 4-24-4	REX 4-28-4
Maize 125 °C 24–15 % (tph) <sup>1</sup>	27.1	31.9	36.6
Wheat 90 °C 19–15 % (tph) <sup>1</sup>	35.9	42.4	48.5
Sun flowers 70 °C 12–7 % (tph) <sup>2</sup>	11.4	13.7	15.9
Holding capacity (m <sup>3</sup> )	69.2	80.4	91.6
Overall height (mm) <sup>3</sup>	15,990	18,130	20,270

WIDTH 6 METRES:	REX 6-20-4	REX 6-24-4	REX 6-28-4
Maize 125 °C 24–15 % (tph) <sup>1</sup>	40.6	47.9	55.0
Wheat 90 °C 19–15 % (tph) <sup>1</sup>	53.9	63.5	72.7
Sun flowers 70 °C 12–7 % (tph) <sup>2</sup>	17.1	20.5	23.9
Holding capacity (m <sup>3</sup> )	103.5	120.3	137.1
Overall height (mm) <sup>3</sup>	15,990	18,130	20,270

WIDTH 8 METRES:	REX 8-20-4	REX 8-24-4	REX 8-28-4	REX 8-32-4
Maize 125 °C 24–15 % (tph) <sup>1</sup>	54.0	63.9	73.3	82.4
Wheat 90 °C 19–15 % (tph) <sup>1</sup>	71.9	84.6	97.0	108.8
Sun flowers 70 °C 12–7 % (tph) <sup>2</sup>	22.8	27.3	31.9	36.4
Holding capacity (m <sup>3</sup> )	138.4	160.8	183.2	205.6
Overall height (mm) <sup>3</sup>	15,990	18,130	20,270	22,410

*Ambient conditions 10 °C, 70 % RH. Capacities in TK mode, without heat recovery. Heat source NG.*

*1: With Dust Control activated. 2: Without Dust Control due to fire hazard. 3: With 4 buffer sections and flat roof.*

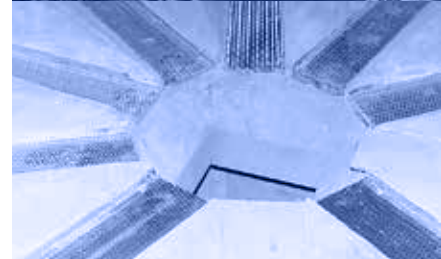
# Everything you need – from intital design to training your staff!

**TORNUM IS YOUR ONE-STOP** shop for drying, storing and handling grain, offering everything from single components to complete turnkey systems, including installation and training for your staff. Our core business has always been drying technology, but over the years we have built up extensive expertise in areas such as screening, conditioning, storage and transportation of crops. Adding a comprehensive range of products and services in areas such as project management, monitoring and assembly and personnel training, we have become one of Europe's leading suppliers of complete grain management systems.

We manufacture a wide range of dryers, from small batch dryers to ultra-high capacity commercial continuous mixed flow dryers with and without heat recovery systems. In all our dryers, we are using the highly efficient mixed flow principle to assure a gentle and even drying for maximum grain quality.

Our manufacturing is based in Kvänum, Sweden, using state-of-the-art automated machinery to ensure a high and consistent quality in all our products. All of our dryers and silos are of modular design and the same quality parts are used in all models, regardless of size – our largest dryer can handle up to 300 tons per hour.

- **CONTINUOUS MIXED FLOW DRYERS AND HEAT RECOVERY DRYERS**
- **BATCH DRYERS**
- **CONTROL AND MONITORING SYSTEMS**
- **SILOS AND BULK LOADING BINS**
- **GRAIN COOLERS**
- **KANALSYSTEM™ CONDITIONING SYSTEMS**
- **ELEVATORS, CONVEYORS AND SWEEP AUGERS**
- **SILENCERS AND DUST SEPARATORS**
- **CATWALKS, LADDERS, PLATFORMS AND OTHER ACCESSORIES**



# Your Global Partner




YOUR TORNUM REPRESENTATIVE:

**TORNUM**<sup>®</sup>

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