

Continuous Mixed Flow Dryers

TK SERIES



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



**Efficient drying
Modular design
Reduced dust
emissions**



TORNUM[®]

WWW.TORNUM.COM





Continuous mixed flow dryers

BUILDING ON SUCCESS

THE EXTENSIVE RANGE of Tornum Continuous Mixed Flow Dryers is built on the success and experience of dryers installed in many countries around the world.

Our range of continuous mixed flow dryers is designed in line with the latest technology to ensure optimum total economy. We carefully calculate the capacity of each

dryer to make sure it will meet the requirements of the customer. Combined with our vast experience, this ensures that you get the best possible solution to suit the specific performance required.

Tornum's Continuous Mixed Flow Dryers are suitable for an extensive range of products, including:

WHEAT | MAIZE | BARLEY | RYE | OAT | RAPE SEED | RYBS | PEAS | SUNFLOWER | SOY BEANS | PADDY RICE | COCOA BEANS | COFFEE

A unique system

BUFFER SECTION

The number of buffer sections is optional, depending on grain moisture and dryer size.

TAPERED LATERALS FOR INCOMING AND EXHAUST AIR

The laterals are staggered throughout the column to ensure even airflow and uniform drying. Half laterals on the hot air side are fitted to the side-walls of the dryer to prevent condensation.

INSPECTION DOORS

There is access to the insides of the hot/wet air plenum via inspection doors.

HOT AIR CHAMBER

HEATING

Several different heating sources for the drying process are available.

SMOOTH INSIDES

The inside of the dryer is totally smooth and with no moving parts. This allows for easy cleaning and changes between products.

EXHAUST FANS

Fans with adjustable air-flow. Dust separation systems and silencers are available on request.

EXHAUST CHAMBER

EASY ACCESS

Ladder and platform for easy access to heating/exhaust section.

ADJUSTABLE DRYING/COOLING SECTIONS

The variable drying/cooling zone makes it possible to adjust the dryer to the valid working conditions.

ROLLER OR ELECTRIC PULSE SHUTTER DISCHARGE

The discharge section is made from galvanized steel. Discharging can be performed through electrically operated slow speed rollers or pulse shutters.





Caring for the environment

CARING FOR THE environment comes naturally to us at Tornum. Our products are designed and manufactured using the latest technology to minimize environmental impact – in our surroundings as well as yours.

Looking at the life cycle cost of a dryer, the combined energy bills outweigh the cost of the investment by far. That is why we have designed the TK-series dryers

for efficient drying with low energy consumption.

The highly effective Tornum Clean Air Control fans and Centriklons for minimizing dust pollution to the surrounding area and our silencers are examples of dryer accessories that further enhance their environmental credentials.



SILENCERS Different types of silencers for optimum noise reduction are available on request.



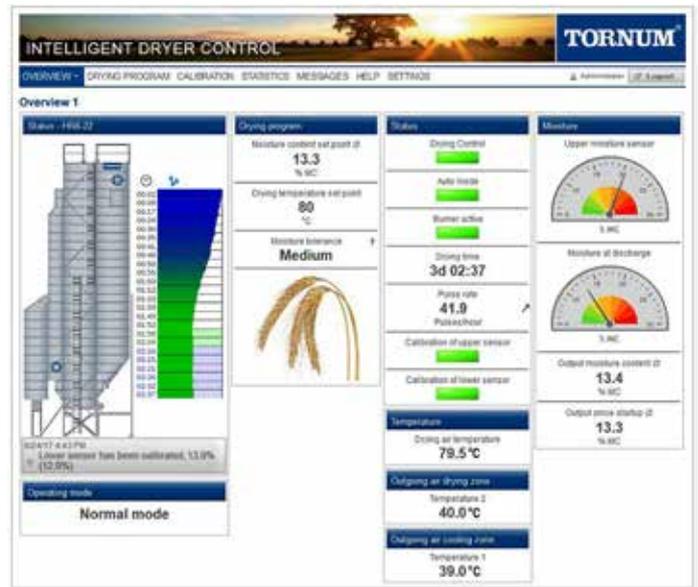
CLEAN AIR CONTROL The CAC unit comes with a fan for maximum airflow with minimum noise. Integrated dust separation removes up to 95 per cent of dust and lighter impurities.



CENTRIKLON The compact, high capacity CDS Centriklon centrifugal separator removes dust and chaff even more efficiently than the Clean Air Control system. No moving parts means minimal maintenance.

IDC – total control

TORNUM INTELLIGENT DRYER CONTROL is a software-based control system monitoring and controlling the outgoing moisture content in continuous dryers. Via the user-friendly interface, you have full control over the entire drying process on your PC or tablet. 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.



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.

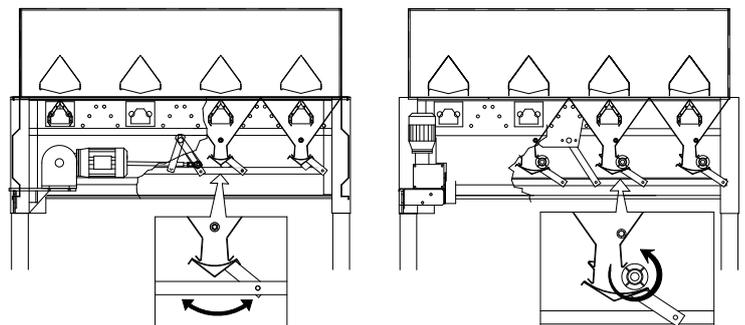


OIL Oil furnaces for indirect heating are available in various sizes. Toxic fumes leave the furnace through the chimney – only the hot air is going through the product being dried.

HOT WATER RADIATORS Wherever hot water or steam is available, hot water radiators are an excellent heat source. Our specially designed radiators 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 TK SERIES Continuous Mixed Flow dryers are available in a wide range of sizes, with holding capacities up to as much as 545 m³ and drying capacities in excess of 270 tons per hour.

The specifications below cover only our standard dryer sizes – other sizes are available on request.

Dryer capacities in tons per hour as shown below are based on stated hot air temperatures, maize and rape seed at 730 kg/m³ and wheat at 800 kg/m³. 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.

Tornum TK BIG dryer installed in Zhmerynka, Ukraine.

MODEL TK2	TK2-8-3	TK2-10-3	TK2-12-3	TK2-14-3	TK2-15-3	TK2-16-3
Maize 125 °C 25–15 % (tph)	5.0	6.0	7.8	8.6	9.5	10.4
Wheat 90 °C 20–15 % (tph)	6.1	7.4	9.5	10.5	11,6	12.7
Rape 65 °C 12–7 % (tph)	2.4	2.9	3.7	4.1	4,6	5.0
Holding capacity (m ³)	17.8	20.6	23.4	26.2	27.6	29.0
Overall height (mm)*	7,900	8,970	10,040	11,110	11,645	12,180

MODEL TK3	TK3-8-3	TK3-10-3	TK3-12-3	TK3-14-3	TK3-16-3	TK3-20-3
Maize 125 °C 25–15 % (tph)	7.8	9.1	11.6	12.8	15.5	19.1
Wheat 90 °C 20–15 % (tph)	9.5	11.1	14.2	15.7	19.0	23.4
Rape 65 °C 12–7 % (tph)	3.7	4.4	5.6	6.2	7.5	9.2
Holding capacity (m ³)	26.5	30.7	35.0	39.1	43.3	51.7
Overall height (mm)*	8,475	9,545	10,615	11,685	12,755	14,895

MODEL TK4	TK4-12-3	TK4-16-3	TK4-20-3	TK4-22-3	TK4-24-3	TK4-28-3
Maize 125 °C 25–15 % (tph)	15.5	20.7	25.5	27.0	31.1	35.1
Wheat 90 °C 20–15 % (tph)	19.0	25.4	31.2	33.0	38.0	43.0
Rape 65 °C 12–7 % (tph)	7.5	10.0	12.2	12.9	14.9	16.8
Holding capacity (m ³)	46.8	58.0	69.2	74.8	80.4	91.6
Overall height (mm)*	10,040	12,180	14,320	15,390	16,460	18,600

MODEL TK6	TK6-14-3	TK6-16-3	TK6-20-3	TK6-22-3	TK6-24-3	TK6-28-3
Maize 125 °C 25–15 % (tph)	24.9	31.1	38.9	40.8	46.3	54.4
Wheat 90 °C 20–15 % (tph)	30.4	38.0	47.6	49.9	56.6	66.6
Rape 65 °C 12–7 % (tph)	11.9	14.9	18.7	19.6	22.2	26.1
Holding capacity (m ³)	78.3	86.7	103.5	111.9	120.3	137.1
Overall height (mm)*	11,110	12,180	14,320	15,390	16,460	18,600

MODEL TK8	TK8-20-3	TK8-22-3	TK8-24-3	TK8-26-3	TK8-28-3	TK8-32-3
Maize 125 °C 25–15 % (tph)	51.8	54.4	62.2	64.1	72.5	82.9
Wheat 90 °C 20–15 % (tph)	63.4	66.6	76.1	78.4	88.8	101.5
Rape 65 °C 12–7 % (tph)	24.9	26.1	29.9	30.7	34.9	39.8
Holding capacity (m ³)	138.4	149.6	160.8	172.0	183.2	205.6
Overall height (mm)*	14,320	15,390	16,460	17,530	18,600	20,740

* With 3 buffer sections and flat roof. Ambient conditions: 15 °C, 75 % relative humidity. Heat source: LPG.



The Tornum dryer range

TORNUM MANUFACTURES 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 are of modular design and the same quality parts are used in all models, regardless of size. The Tornum standard dryers are available in a wide range of sizes. All commonly used heat sources can be used with our standard dryers.

TKDC DRYERS – REMOVING DUST AND CHAFF

The TKDC series incorporates the same dust and chaff separation technology used in our HR dryers.

BATCH DRYERS

Our batch dryers are available with or without discharge sections and can also be used as dual dryers, where two dryers are working together. While drying is taking place in one of the dryers, the other dryer can simultaneously be filled or unloaded or be used for cooling, allowing for the heat source to run continuously with automatic switching between the two dryers.

HEAT RECOVERY DRYERS – SAVING ENERGY

The next generation of continuous mixed flow dryers comes in the form of our HR series of Heat Recovery Dryers, where we have managed to reduce energy consumption by up to 30 per cent compared to a standard continuous mixed flow dryer.

MODEL TK8 BIG	TK8-33-3	TK8-36-3	TK8-40-3	TK8-44-3
Maize 125 °C 25–15% (tph)	86.4	93.3	103.6	114.0
Wheat 90 °C 20–15% (tph)	105.7	114.1	126.8	139.5
Rape 65 °C 12–7% (tph)	41.5	44.8	49.8	54.8
Holding capacity (m ³)	160.8	183.2	205.6	228.0

MODEL TK12 BIG	TK12-24-3	TK12-28-3	TK12-32-3	TK12-36-3	TK12-40-3	TK12-44-3
Maize 125 °C 25–15% (tph)	93.3	108.8	124.4	139.9	155.5	171.0
Wheat 90 °C 20–15% (tph)	114.1	133.2	152.2	171.2	190.2	209.3
Rape 65 °C 12–7% (tph)	44.8	52.3	59.7	67.2	74.7	82.2
Holding capacity (m ³)	240.6	274.2	307.8	341.4	375.0	408.6

MODEL TK16 BIG	TK16-24-3	TK16-28-3	TK16-32-3	TK16-36-3	TK16-40-3	TK16-44-3
Maize 125 °C 25–15% (tph)	124.4	145.1	165.8	186.6	207.3	228.0
Wheat 90 °C 20–15% (tph)	152.2	177.6	202.9	228.3	253.7	279.0
Rape 65 °C 12–7% (tph)	59.7	69.7	79.7	89.6	99.6	109.5
Holding capacity (m ³)	321.6	366.4	411.2	456.0	500.8	545.6

Your Global Partner



YOUR TORNUM REPRESENTATIVE:

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