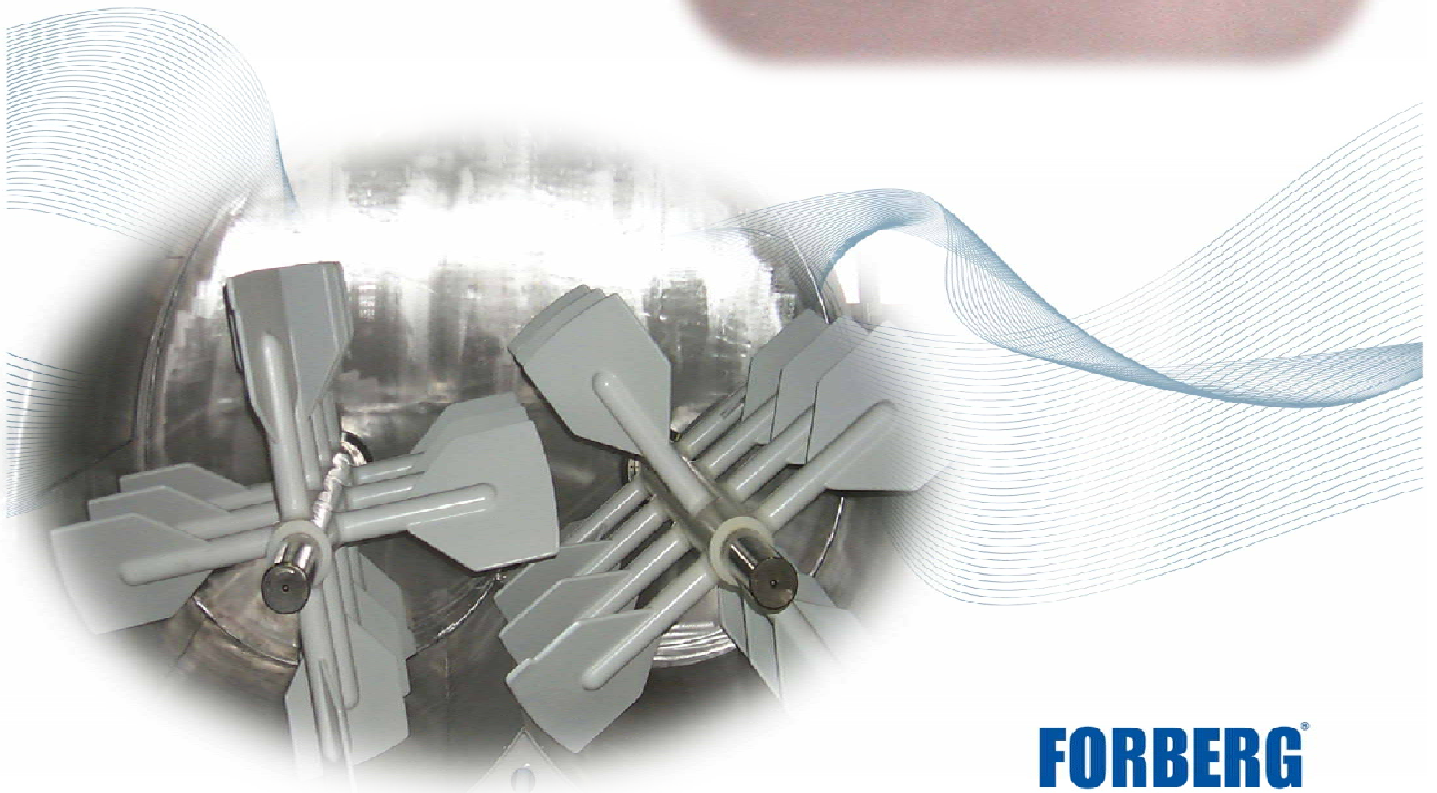


# Forberg® Drying System

The natural choice for:

- Gentle drying
- Micro granulation
- Adding of powders and liquids



**FORBERG®**  
The smartest solutions

# Forberg® Drying System

## Drying of powders, bulk materials, filter cakes, granules and liquids

### Introduction:

The Forberg® drying system has been especially developed to dry products very gently and to achieve the best possible drying economy. The drying system is therefore ideal for drying of powders, all kind of bulk materials, filter cakes and granules. The drying process can actually start from a liquid product to a dry extract of powder.

### Drying concept:

The Forberg® dryer is a modification of the well-known Forberg® Mixer, where homogeneous mixing is achieved in a few seconds. The mechanical fluidization ensures that all particles are surrounded by drying medium (cold / warm / hot air, inertgas etc.) and an effective transmission of energy occurs. Moisture is thereby extracted from the product.

### Technology:

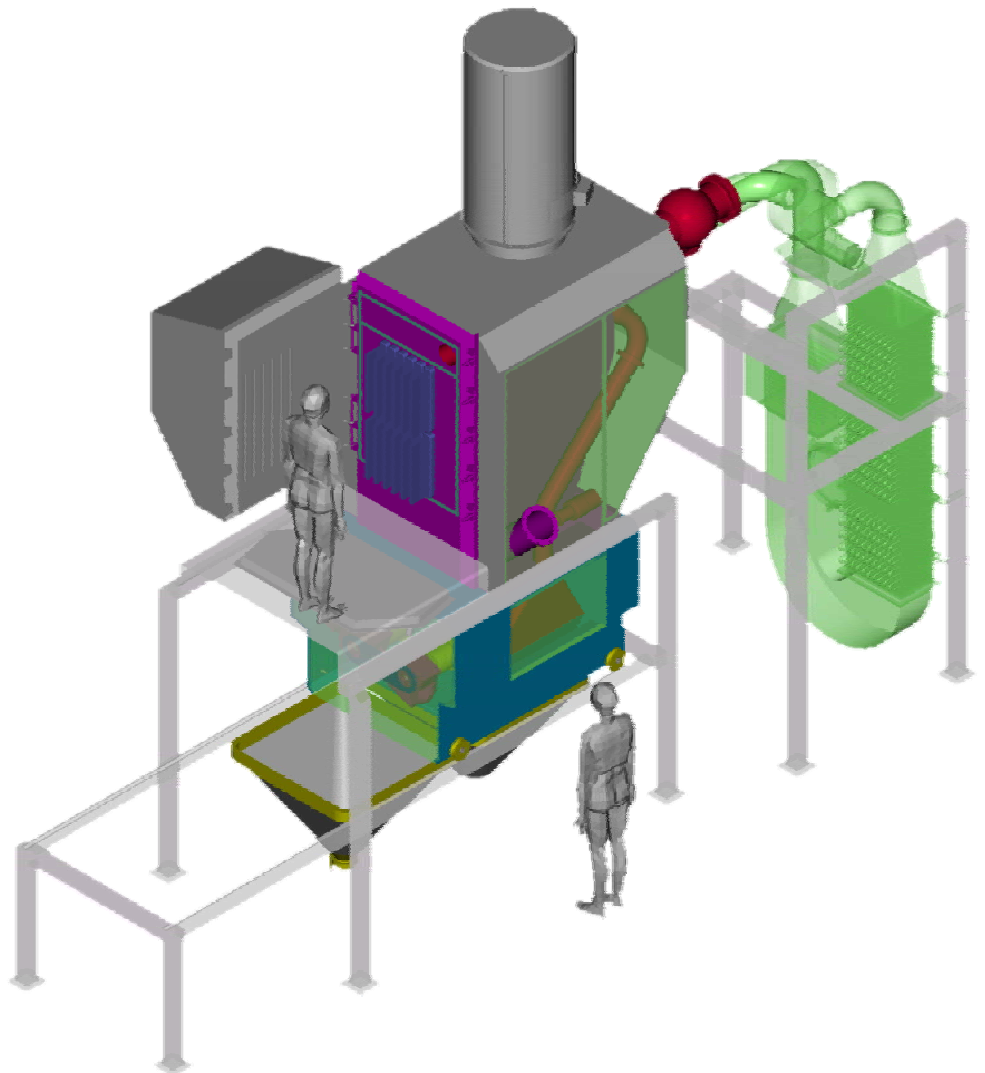
The Forberg® drying technology is built on the well known components and principles, which ensure a well arranged and reliable process. It consists of a modified Forberg® mixer, a heater (electric, steam or combustion), a cooler (for condensation and cooling of air), a heat exchanger, a centrifugal fan and a 2-step filter system. The primary filter with continuous cleaning and the secondary filter for collection of fine particles. Heat pump can also be offered to increase the total thermal efficiency.

### Process function:

Heated air is blown into the mixer and mixed with moist product. During this heat exchange, the moisture will evaporate from the product. Moist air passes through the filter before it is drawn into the fan. The air is thereafter blown through the cooler for condensation before it is reheated. When drying very moist products, the wet product is mixed with dry products first to ensure that the fluidisation and the high drying rate is maintained.

### Type of drying systems:

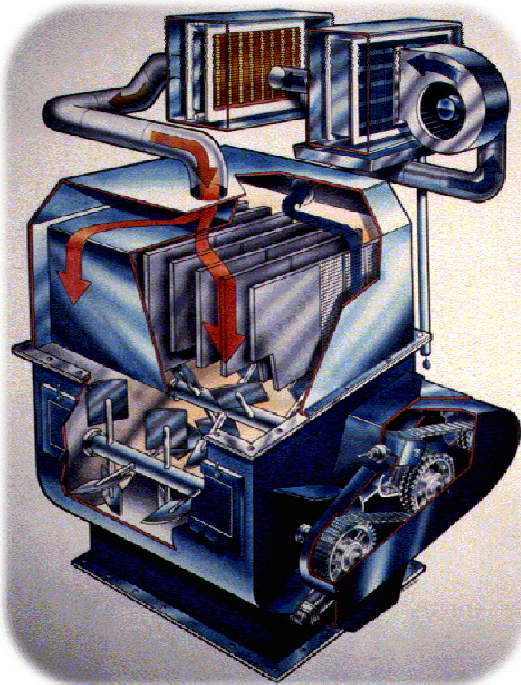
Today Forberg offers the drying system as a closed or open system. The system usually operates with a batch dryer, producing multiple batches. For special applications the dryer can operate continuously where product is separated from the exhaust air in a cyclone or a filter system.



# Advantages

## Homogeneous drying:

- No local overheating
- No local overdrying
- Gentle drying
- Low drying temperature possible
- Good correlation between product temperature and exhaust temperature
- The integrated mixing technology always ensures a homogeneous batch



## Capacity:

- High thermal capacity
- Can operate close to the products maximum temperature, increasing the drying efficiency
- Constant and controlled air supply
- No change of fresh air
- Increased total thermal efficiency with the optional use of a heat pump
- Batch or continuous drying
- Possible drying to absolute dryness



## Inertgas drying:

For special applications Forberg® offers the drying system with inertgas as a drying medium.

Advanges are:

- Prevents oxidation of the product
- Drying of solvent based products
- Reduces the possibility of explosion
- Closed loop reduces inertgas consumption

## Closed loop:

- No odour to the environment
- Constant drying conditions
- No effluent gases or dust
- Condensation of water vapour
- Energy saving due to recuperation of heat
- Inertgas drying as an option
- Open system as an option

## Control system:

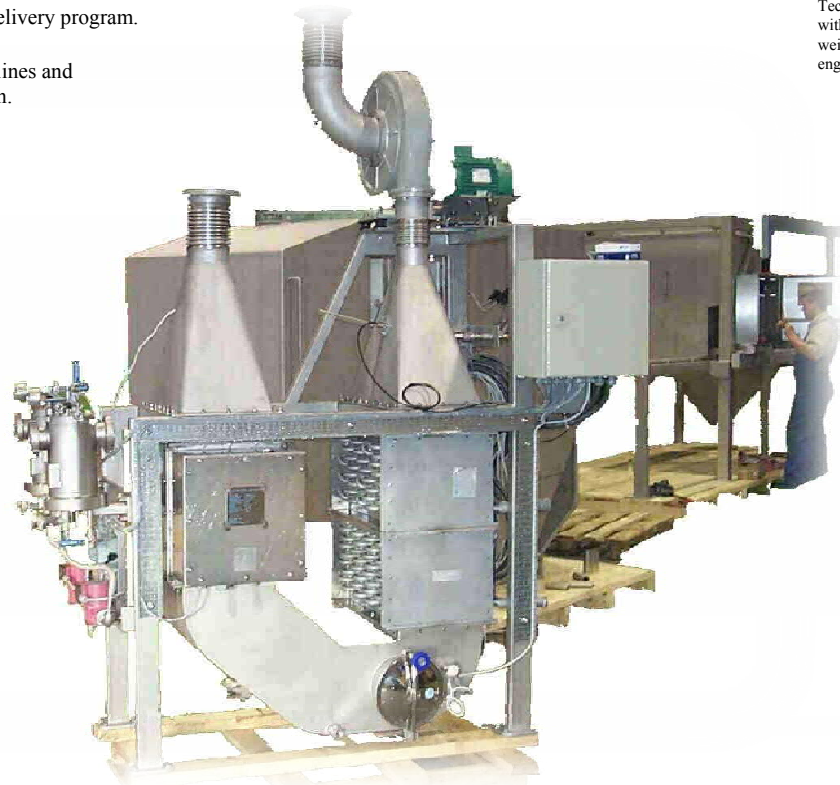
- Customized control system
- Temperature monitoring, together with homogene mixture avoids variations
- Easy definition of stop parameters for batch process
- Overfilling and overdrying are automatically avoided
- Filter cleaning and monitoring give no effluent dust
- Automatic operation possible

# Dimensions of the Forberg® Drying System

Model volume	Motor size (kW)	Air flow m3/h	Fan motor kW	Filter area m2	Heating* kW	Length (mm)	Width (mm)	Height (mm)
FT-20	2,2	250	0,25	3	11	2000	700	2400
FT-60	2x2,2	850	1,1	11	37	2900	2500	2300
FT-120	2x3	1400	2,2	18	60	3400	2400	3300
FT-200	2x4	2400	3	30	105	3600	3900	3500
FT-350 *	2x5,5	3300	4	40	144	3600	4200	3900
FT-500 *	2x7,5	4800	5,5	60	210	3800	4300	4200
FT-750	2x11	6300	7,5	80	275	4000	4400	4800
FT-1000 *	2x15	9300	15	120	407	5800	4500	5300
FT-1500 *	45	12400	22	160	540	8900	6100	6000
FT-2000 *	75	15500	30	190	680	9600	6800	6900
FT-2500	75	16500	30	210	720	11000	7200	7500
FT-3600 *	90	24000	45	300	1050	13000	7600	7900
FT-5000 *	110	27000	55	340	1180	15500	8100	8500

Models marked \* are our standard delivery program.  
 Heating air from 20°C to 150°C.  
 Measures and powers are only guidelines and can deviate, depending on application.

Technical data can be changed without any notice. Measures and weights must not be used in engineering.



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