

FESSMANN

LEADING IN SMOKING TECHNOLOGIES



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EXPERIENCE THAT CAN BE TASTED

FESSMANN – YESTERDAY AND TODAY

FESSMANN was founded by Wilhelm Fessmann in 1924. Much has happened since then. The technology has improved, the processes have been optimised and the family business has now become an enterprise whose high-tech systems for smoking, cooking, roasting, baking, maturing and air-conditioning are in use across the world.

What still remains is our insistence that our solutions must always be more mature, better worked out and better thought out, so that your customers get the best taste. Over 75.000 units supplied demonstrate that our customers share our view and are our reason to constantly improve ourselves.

INCLUDED IN THE SERVICE

The process of buying a FESSMANN system starts long before the actual purchase and does not stop with it. We support you in the project engineering, planning and adaptation of the correct solution for your requirements. We have technical advisers and contact persons who will guide you through the production process in word and deed.

You will rarely see our service personnel. That is however not due to the fact that they do not have any time for you, but rather because our systems are exceptionally low-maintenance and operate in a fail-safe manner. Should you nevertheless require the services of our trained service technicians, they will be quickly at your premises, fully equipped.

We are conscious of our responsibility towards our customers and our environment. We are constantly developing our systems further, in order to be able to offer you products, which are easy on the resources and your purse even in future.

DATES AND FACTS

- 1924** Founded by Wilhelm Fessmann
- 1969** Delivery of the first TURBOMAT universal system, over 75.000 units sold since then
- 1971** Development of the first semi-continuous system
- 1972** Development of the first transfer system
- 1976** The technical school at FESSMANN inaugurated
- 1982** Development of the first RATIO smoke generator
- 1993** The patented smouldering smoke generator RATIO-TOP completes the RATIO family
- 1998** FESSMANN develops systems for cooking and baking: AUTOVENT and RotathermCARAT



FESSMANN SYSTEMS OFFER BETTER

- Control of the smoke density for individual and uniform taste
- Patented smoke system for a uniform quality of the entire batch
- High economy due to minimum weight loss and the best uniformity
- Reproducible results thanks to FESSMANN control
- Individual adaptation of the smoke generators to your requirements
- Durable due to the best materials and processing
- The systems are flexibly expandable as a result of modular construction
- Energy-efficient due to the best insulation
- Future-proof: Alternative heating using electricity, high pressure steam, gas, thermo oil or oil possible

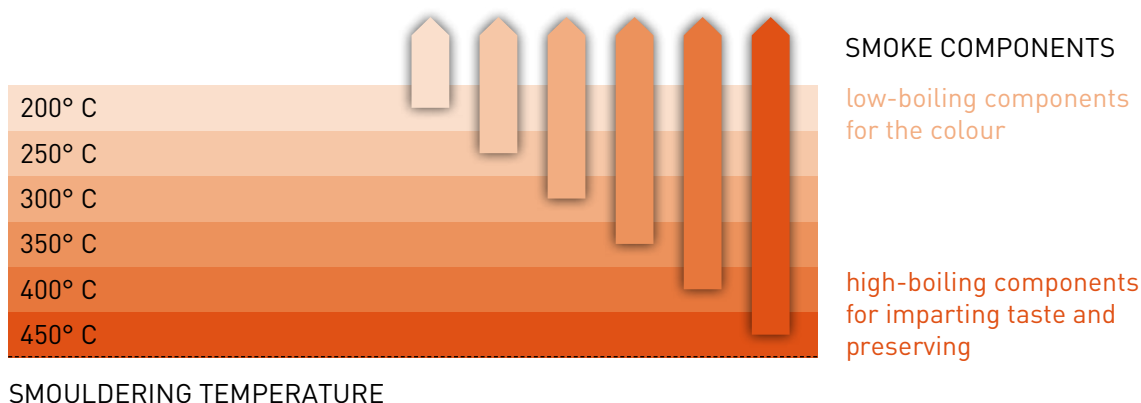
SMOKING SOLUTIONS PATENTS

LEADERS IN SMOKING TECHNOLOGIES

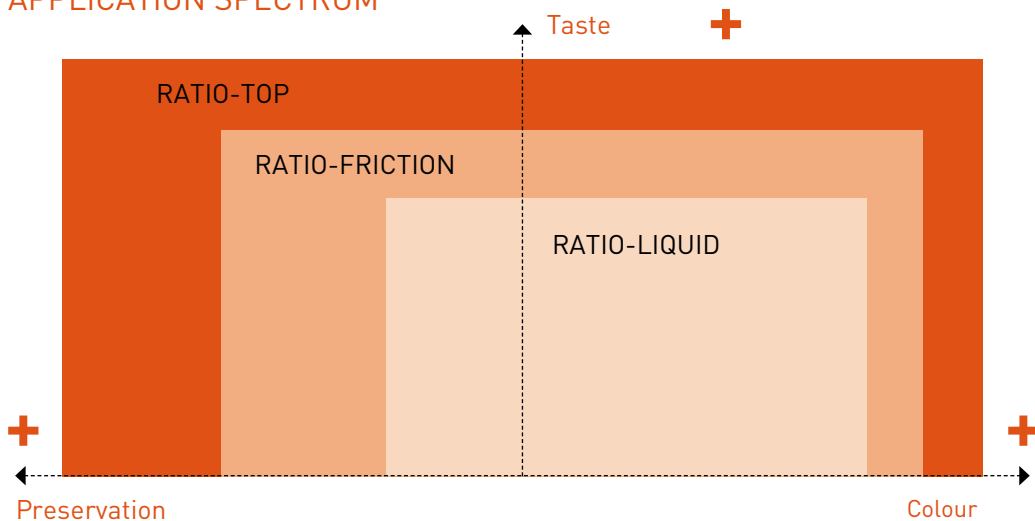
Whether you wish to smoke, cook, bake or cool – FESSMANN has the correct system for each job. Thanks to the modular construction, the system adapts itself flexibly to your operating size. And with many well thought out details and a choice between stand-alone or central units, the system can be combined to suit your own exact requirements.

Our strength are our patented smoke generators: The sophisticated smoke system strengths the best results in the shortest time. The variable smoke intensities permit wide variety of smoke aromas and colour nuances. And the FPc 100 control ensures that this first-class, uniform product quality in colour and taste remains reproducible. Depending upon the requirements, you have the choice between smouldering smoke generator (RATIO-TOP), friction smoke generator (RATIO-FRICTION) and liquid smoke generator (RATIO-LIQUID).

SMOKE GENERATION

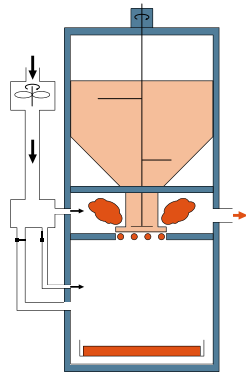
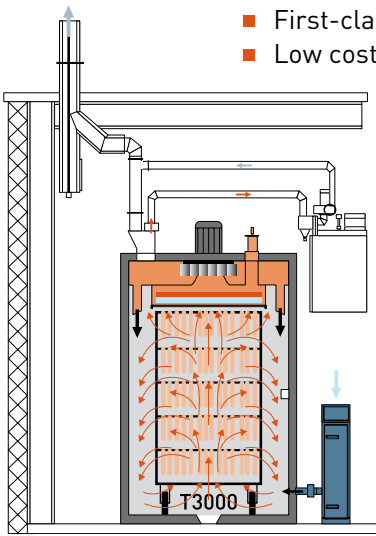


APPLICATION SPECTRUM



RATIO-TOP SMOULDERING SMOKE GENERATOR

- Short smoking times thanks to rapid generation of highest smoke concentrations
- Variable smoke intensity
- Wide variety of smoke aromas and colour nuances
- TOP's selectable based on FPc 100-control:
 - TOP 1: Light smoke
 - TOP 2: Medium smoke
 - TOP 3: Intensive smoke
- First-class, uniform product quality in colour and taste
- Low costs, economical consumption of smoking material

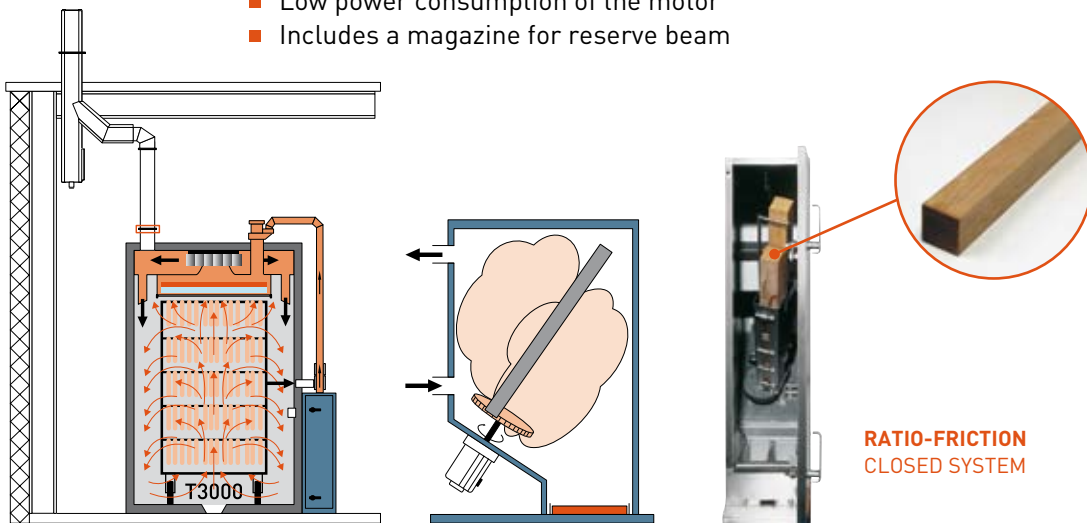


RATIO-TOP
OPEN SYSTEM WITH
REDUCED EXHAUST



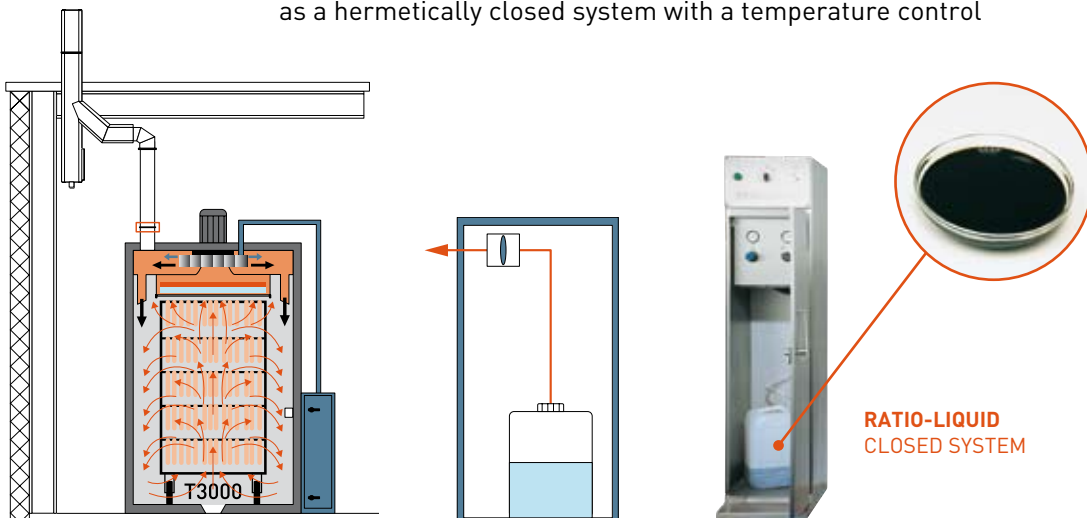
RATIO-FRICTION FRICTION SMOKE GENERATORS

- Mild smoke aroma
- Variable smoke intensities thanks to controllable smoke intervals
- Integrated cleaner
- low cost smoking material, beechwood beam, grade II, 80 x 80 x 800 mm or 120 x 120 x 1000 mm
- Low consumption rate
- low noise
- Unparalleled service life of the friction wheel
- Low power consumption of the motor
- Includes a magazine for reserve beam



RATIO-LIQUID LIQUID SMOKE GENERATOR

- Low purchase costs
- Top product quality: finest atomization thanks to the maintenance-free fuel injection nozzle with highest availability developed in-house
- Minimal consumption of liquid smoke concentrate
- FESSMANN system: during the smoking process, the system works as a hermetically closed system with a temperature control



TURBOMAT 1900 / 3000

QUALITY FROM TRADITION

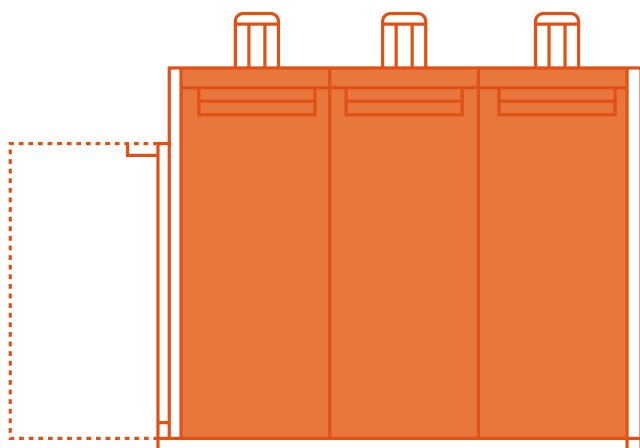
In modern fish-smoking operations, today's challenge lies in producing high volumes in the best and consistent quality, as cost-efficiently as possible. With a Turbomat from FESSMANN you can achieve both: quality and productivity. The proven FESSMANN technology with multi-stage turbine fan provides the finest smoking taste and accurately reproducible results. Thanks to minimum weight-loss, fast process times and low maintenance and operating cost, this universal system starts paying for itself in the shortest period. The automatic control lets you have everything under control with low deployment of manpower. And when your capacities increase, thanks to the modular construction, the system also just grows with them. Model selection and optional equipment features permit an optimal adaptation of the Turbomat Universal System to your needs.

TECHNICAL DATA

TURBOMAT ¹⁾		T 1900	T 3000			
DIMENSIONS			1 TROLLEY	2 TROLLEYS	3 TROLLEYS	4 TROLLEYS
Base HP (WxD)	cm	126 x 109	151 x 127	151 x 237	151 x 347	151 x 457
Height with EL/HP heating, corpus	cm	220	250	250	250	250
Height with gas/oil heating, corpus	cm	220	265	265	265	-
Minimum room height EL/HP heating	cm	265	316	372	372	372
Recommended room height EL/HP heating	cm	275	333	397	397	397
Smoke-trolley dimensions (HxWxD)	cm	168 x 91 x 80	198 x 104 x 102	198 x 104 x 102	198 x 104 x 102	198 x 104 x 102
Max. stick length	cm	90	100	100	100	100
HEATING CAPACITIES						
Connected load for HP heating	kW	-	37	74	111	148
Connected load for EL heating	kW	22.5	28.5	56.8	85.2	113.6
Connected load for gas heating	kW	25	37	74	111	-
Connected load for oil heating	kW	25	37	74	-	-

¹⁾ These are summary specifications, and therefore not to be used for the structural application. The complete dimensions and power connections are to be taken from the respective latest dimensions sheets.

HP = high pressure-steam-heated, EL = electrically heated, oil = oil heated, gas = gas heated



SIDE VIEW T3000
(WITH INDIVIDUAL UNITS)

ALL BENEFITS AT A GLANCE

- Completely made of stainless steel with low overall height
- Automatic cleaning as standard
- Different kinds of heating to select from
- Optionally with climatic package for optimal maturing
- Two to three-stage turbine fan for uniform smoking climate in the entire system and the best smoking results
- Standard equipment with one of our proven controls for reproducible results
- Modular construction for flexible extension of up to 8 trolleys. Each attachment with its own heating and circulation for short production times with maximum quality
- Can be combined with all smoke generators of the RATIO family



ALL BENEFITS AT A GLANCE

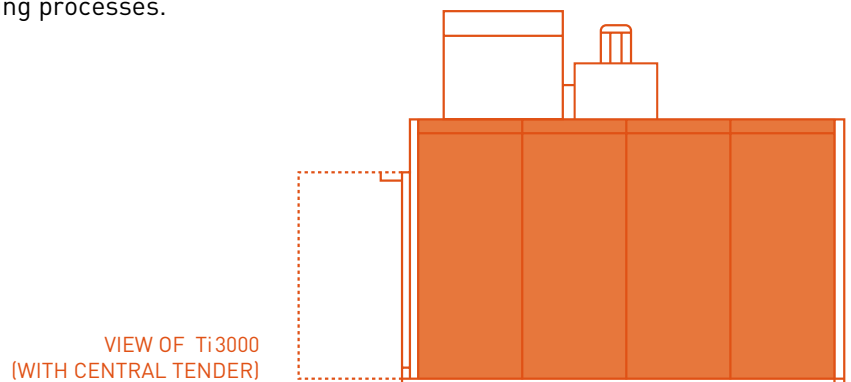
- Panel construction and central tender technology for highest air and process capacities
- Higher flexibility in the implementation of customized product requirements thanks to infinitely variable fan speed
- Higher system capacities thanks to faster process times = higher yield
- Use of all well-known feed trolleys possible for the industrial application
- Use of "extra long" feed trolleys and transport frames
- Automatic door opener as standard
- Automatic CIP cleaning systems as standard

INDUSTRIAL SYSTEM Ti 3000

WE LEAVE WEIGHT LOSS TO OTHERS

The Ti3000 fish-smoking system for industrial use offers you over 1.5% greater output when compared with other systems, and on top of that you enjoy proven FESSMANN quality. Completely made of stainless steel and produced in panel construction, the Ti3000 is universal and can be employed according to your specific requirements. The central unit technology also makes it flexible and cost saving including the highest circulating air capacity with short process times.

Look forward to higher system capacities with decreasing weight-loss. A new fan technology with central air circulation unit provides effective production processes and unparalleled fast smoking with even faster drying times. All this with a very high degree of dryness, the best taste and the highest quality. The Ti3000 is an absolute multi-talent as far as the processing of your sausage, meat and fish products is concerned. It can execute complete product manufacturing processes with heating, drying, reddening, smoking, roasting, baking, hot-air refining and cooking as well as optional shower cooling and cooling/dehumidification functions. The intelligent FPc 100 control is intuitive and accurate to use and permits storage of 99 different product manufacturing programs up to cold smoking processes.



TECHNICAL DATA

INDUSTRIAL SYSTEM ¹⁾		Ti 3000			
DIMENSIONS		3 TROLLEYS	4 TROLLEYS	5 TROLLEYS	6 TROLLEYS
Base (WxD)	cm	151x356	151x466	151x576	151x686
Height with HP heating	cm	421	421	421	421
Minimum room height HP heating	cm	450	450	450	450
Recommended room height HP heating	cm	500	500	500	500
Smoke-trolley dimensions (HxWxD)	cm	198 x 104 x 102	198 x 104 x 102	198 x 104 x 102	198 x 104 x 102
Max. stick length	cm	100	100	100	100
HEATING CAPACITIES					
Connected load for HP heating	kW	135	180	225	270
Connected load for EL heating	kW	118.8	158.4	198	237.6

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HP = high pressure-steam-heated, EL = electrically heated, oil = oil heated, gas = gas heated

GOURMET-MASTER

PRODUCTS TO SATISFY THE CONNOISSEUR

The GOURMET-MASTER provides particularly even enhancement of fish, meat and poultry products, and also saves energy as it does so.

Yields up – costs down.

The proven FESSMANN crossflow process ensures that the atmosphere used in product processing is kept constant across the entire chamber. When smoking, cooking and cooling, the outcome is products which precisely match your specifications – because with the crossflow process, all products on the racks or trays or in pans undergo an identical treatment.

The GOURMET-MASTER facilitates production with considerably-reduced weight loss. That increases your yields.

Minimal energy consumption, but full performance

The GOURMET-MASTER saves you energy: its intensive, horizontal air injection system reduces processing time significantly. That lowers operating costs, reduces weight loss in the product, and is kind to the environment.

Automatic cleaning saves time and money

Minimum time and costs for you: the integrated cleaning device on the GOURMET-MASTER cleans the whole unit automatically, with the lowest possible consumption of water and cleaning agents.

TECHNICAL DATA

GOURMET MASTER ¹⁾					
DIMENSIONS		1 TROLLEY	2 TROLLEYS	3 TROLLEYS	4 TROLLEYS
Base (WxD)	cm	151 x 127	151 x 237	151 x 347	151 x 357
Height with HP heating	cm	330	376	385	385
Height with gas/oil heating	cm	345	391	400	400
Minimum room height HP heating	cm	345	385	390	390
Minimum room height gas/oil heating	cm	360	400	405	405
Recommended room height HP heating	cm	355	395	400	400
Recommended room height gas/oil heating	cm	370	410	415	415

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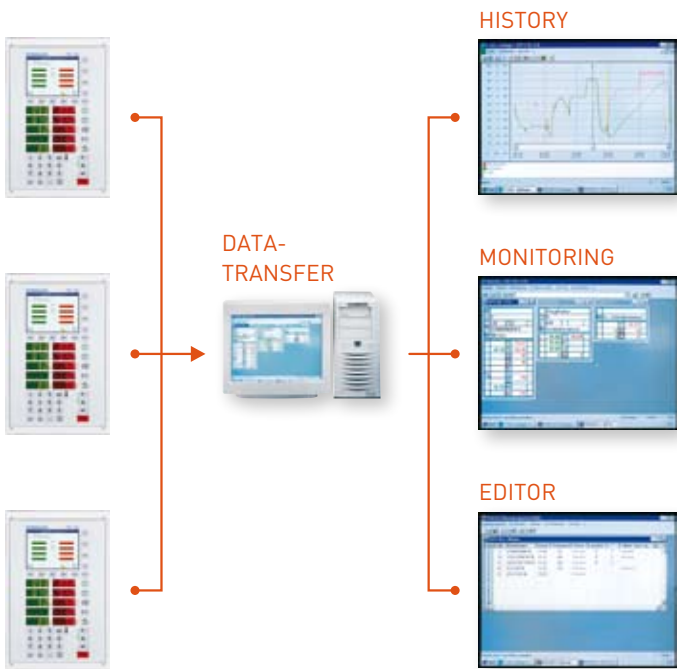
ALL BENEFITS AT A GLANCE

- Motor with 3 rotation speeds: 750 / 1500 / 3000 rpm
- Crossflow: the conditioned air, and the smoke, is fed to the processing chamber through horizontal slits to the left and right of the unit
- Rear wall doors can be provided on the unit
- Integrated CIP cleaning system
- Range of different heating types available: electric, steam, oil/gas (up to 3 trolleys)
- The full stainless steel construction means the unit is rust-resistant and corrosion-resistant
- Pt 100 measurement sensor for recording temperature and humidity
- FPc100 controller as standard
- Optionally with refrigeration

ProCES CONTROL / FPc 100

EVERYTHING UNDER CONTROL WITH THE ProCES CONTROL

The ProCES software documents, monitors and optimises all processes in the meat, sausage, poultry and fish production.



THE RANGE OF SERVICES OF ProCES AT A GLANCE:

- Process monitoring
- Process documentation
- Verification
- Batch logging
- Production optimisation
- Program maintenance
- Error management
- System monitoring
- Integration into EN ISO 9000 - 9004
- Networks up to 32 systems, cooling and storage rooms per PC

Minimum requirements for computer standard commercially available PC (starting from Pentium Processor)

ALL BENEFITS OF FPc 100 AT A GLANCE

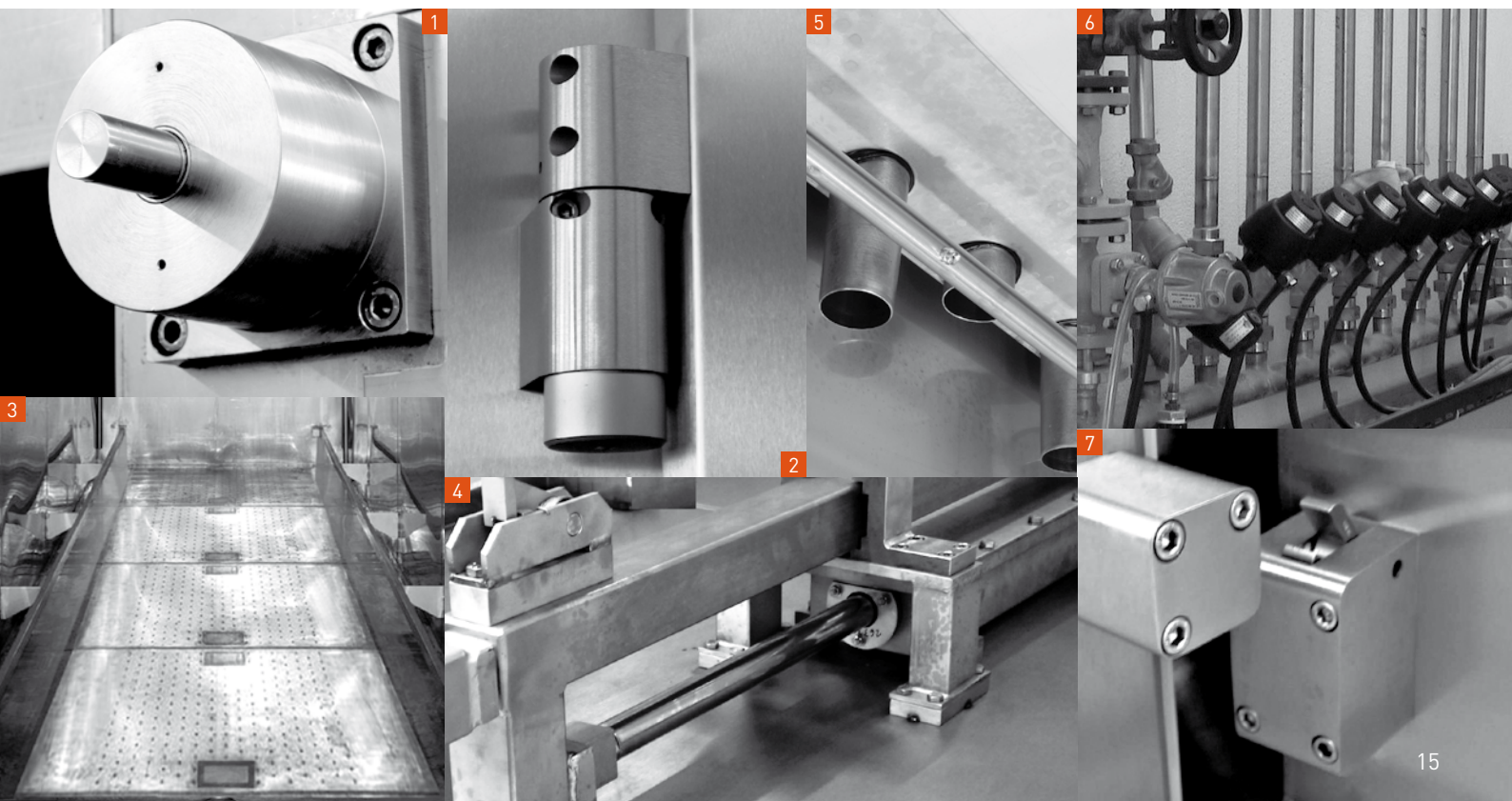
- Clearly arranged display with permanent display of the most important parameters such as temperatures, humidity, time etc.
- Anyone can start the product programs easily
- Quick and easy change of product programs even during operation for individual programs
- Intuitively guided product program creation for easiest operation
- Displays using coloured backgrounds for rapid comparison of target and actual values
- Timer facility allowing for programmes to be started overnight or at the weekend
- Customer-specific adaptations in standard programmes possible, e.g. for colour or aroma

DETAILS

A CLOSER LOOK IS WORTH ITS WHILE

It is often the little things, which make the difference. Therefore we not only ensure that the entire system functions optimally, but give particular attention to details. With careful processing and thoroughly thought out, partially patented detailed solutions, we make the work easier for you. So you can enjoy your FESSMANN system for a long time to come.

- 1 The automatic door opener is supplied as a standard accessory with the Ti3000.
- 2 The FESSMANN lifting hinge ensures that neither smoke nor steam can come out of the system door and the door gasket is protected.
- 3 The robust, skid-proof floor plate can be fitted in existing factory buildings and permits hermetic sealing.
- 4 The pneumatic transport system with higher loading capacity provides smooth operational workflow with maximum loading of the trolley.
- 5 The innovative air circulation provides fast smoking and drying times and can be customised for all product types.
- 6 The CIP cleaning provides reliable cleanness and hygiene.
- 7 The door-lock system made of stainless steel for optimal sealing prevents energy-loss.





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