MINIMALTING SYSTEM

The minimalting system mod. MINIMALT-5, is an All-in-One system where the phases of steeping, germination and kilning take place in the same machine. It is capable of processing 500 kg of incoming product per cycle. The software developed by Zanin allows an automated management of the process, whose work parameters are defined by the user in his own recipe.

VERTICAL TANK
- Insulated vertical tank in AISI 304 stainless steel complete with service porthole
- Sectional ventilation and air ducts special, internal and external
- Motorisation with direct transmission to the vertical auger
- Temperature/humidity detection probes
- Construction support structure with reinforced profiles in AISI 304 stainless steel

WEIGHING
- 4 loading cells applied to the legs

HEATING-COOLING
- Finned air heating coil electrically operated
- Cooling finned coil of the air
- Electrical cooling system

ELECTRICAL CABINET
- built according to current standards CEI-EN-60204-1 with components of quality approved and selected
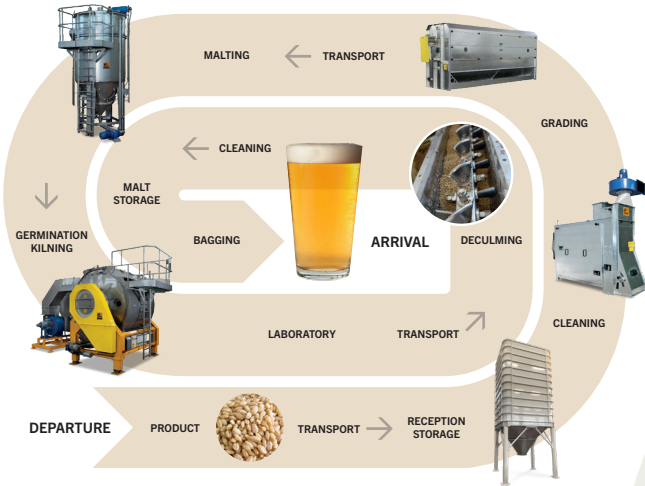- Command and control PLC on keyboard TOUCH SCREEN

MODEL	BARLEY CYCLE CAPACITY KG.*	CYCLES / MONTH N°	DIMENSIONS mm
MINIMALT-5	500	5	2750 x 1850 x h = 3750

*Capacity is calculated based on barley, entering with 14% moisture level, well cleaned and calibrated. Dimensions are approximative. Final data-sheets are valid.

1. BATTERIES
2. AIR RECIRCULATION SHUTTER
3. INSPECTION DOOR
4. LOADING CELLS
5. TOUCH SCREEN
6. FAN

THE PROCESS
Zanin is able to create tailor-made solutions for the customer ranging from the receipt of the raw material up to the packaging of the finished product. It is essential to remember that the product, before the malting process, must be cleaned and graded to obtain that homogeneity defining the final quality of the malt.

MALTING — TRANSPORT — GRADING
CLEANING — DECULMING
MALT STORAGE — ARRIVAL — CLEANING
GERMINATION KILNING — BAGGING
LABORATORY — TRANSPORT
DEPARTURE — PRODUCT — TRANSPORT — RECEPTION STORAGE

MALTING SYSTEMS
FOR CEREALS AND SPROUTED SEEDS

ZANIN

www.zanin-italia.com

ZANIN s.r.l.
Viale delle Industrie, 1
31032 Casale sul Sile (TV)
Italy

T. +39 0422 785444
F. +39 0422 785805

www.zanin-italia.com

DEALER

TÜV SUD
ISO 9001

MALTING SYSTEMS for cereals and sprouted seeds

The manufacturing of malting plants has been a natural step for our company, coming from experience acquired in the production of machines for cereal processing combined with a greater sensitivity in the food industry. After decades of products obtained from large transformation cycles, there is now a trend towards regionalization. Therefore the production of its own malt has regained importance for small and medium-sized companies. Mostly for craft breweries, terms like "origin" and "territory", now play a key role in their activity.

STEEPING VESSEL

The well cleaned and graded product is loaded into the steeping vessel through an auger or other type of conveyor.
Once the loading is finished, controlled temperature water is introduced for the steeping phase and, thanks to the forced movement of the water, residual impurities are expelled. The product reaches the desired humidity with alternating phases of steeping and resting times. Once the product is in compliant, it is transferred to the malting drum.


COMPONENTS:
- Vertical tank with conical bottom in AISI 304 stainless steel
- Air-water command and control valves
- CO_2 extraction fan
- Water overflow system
- Tank support structure, with reinforced profiles in AISI 304 stainless steel
- Pneumatic valves for process automation
- Level sensor
- Walkway with control ladder
- Steeping vessel cover

WEIGHING
- 4 loading cells applied to the legs

Optional:
- Product transfer pump (excluding piping)
- Water heating coil
- Steeping vessel insulation
- Temperature sensor
- Product loading elevator
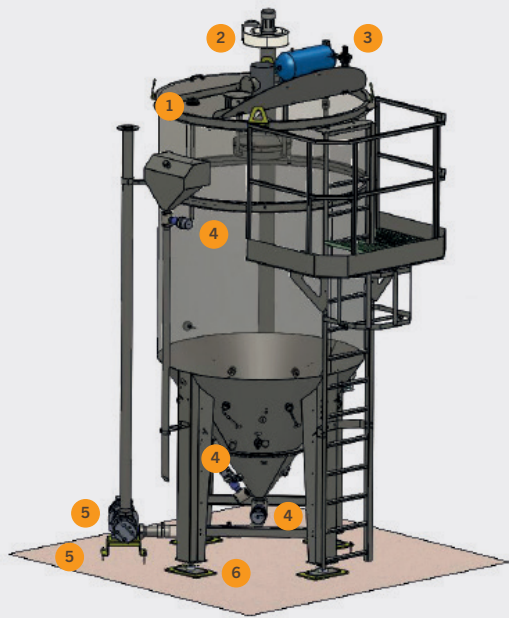
1. LEVEL SENSOR
2. CO_2 EXTRACTION FAN
3. AIR IMPULSE SYSTEM
4. PNEUMATIC VALVE
5. TRANSFER PUMP
6. LOADING CELLS

MODEL	CAPACITY ton*	LENGTH mm	WIDTH mm	HEIGHT mm
MAC 20	2	3200	2250	4500
MAC 40	4	3600	2750	5200
MAC 60	6	4000	3250	5600
MAC 120	12	4675	3950	7400

*Capacity is calculated based on barley, entering with 14% moisture level, well cleaned and calibrated. Dimensions are approximative. Final data-sheets are valid.
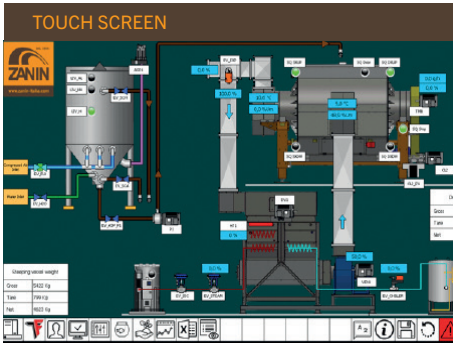

MALTING DRUM

The malting drum allows to carry out the subsequent stages of malting: germination and kilning. During these processes, the management software, designed by Zanin, controls the temperature, ventilation, mixing and times set by the user in its recipe. These parameters are essential for determine the final quality of the malt.

MANAGEMENT: Through a simple and intuitive interface the user is able to set the recipes for the production of different types of malt, check or change the parameters of process even from remote, view the logs and graphs of temperature and humidity. The software, therefore, is able to handle the whole process in an automated way according to the directives set by the user.

1. HEATING - COOLING SYSTEM
2. FAN
3. INLET AIR DUCT
4. MOTORISATION
5. ROTATING DRUM
6. OUTLET AIR DUCT

TOUCH SCREEN

MALTING DRUM AND STEEPING VESSEL

MODEL	BARLEY CYCLE CAPACITY ton*	CYCLES / MONTH N°	DRUM SYSTEM DIMENSIONS mm
MALT-T 20	2,0	5	5400 x 5500 x h = 3400
MALT-T 40	4,0	5	8300 x 6200 x h = 3800
MALT-T 60	6,0	5	7250 x 6800 x h = 5100
MALT-T 120	12,0	5	10100 x 9000 x h = 6700

*Capacity is calculated based on barley, entering with 14% moisture level, well cleaned and calibrated. Dimensions are approximative. Final data-sheets are valid.