

Installation example:

NEUBACHER

The long-established traditional business, Neubacher bakery, in Wieselburg, Lower Austria, has recently established a new production plant.

A surface area of 1400 m² is available at the new facility. The firm Neubacher engages in the old bakery craftsmanship and produces about 35 types of bread and as many pastry items. The high quality consciousness for the best and consistent dough has influenced the types of equipment installed at the raw material processing plant. (Silo, double ingredient machine and additional hand-add weighing.)

Special attention is placed on a regional distribution structure with 5 branches. A total of 42 employees are engaged.



Description of facility:

The objectives of automation:

- 1) As many raw materials as possible should be called up at one target point automatically and over the recipe computer. High dough accuracy through precise weighing and metering as well as raw-material management were the main objectives. Other raw materials such as olives, raisins, spices, nuts, etc., should be controlled and recorded by online linked hand-add ingredient scales. These special small components should be stored on the weighing tables with ingredient scales and hygienic ingredient containers.
- 2) The delivery, storage, conveyance and processing of raw materials should be hygienic and extensively dust-free. Three flour silos and 2 ingredient machines should enable an automatic process of the flour feeder and the ingredients.
- 3) The dough temperature controls should ensure the dough quality.
- 4) A traceability of raw materials and recipes with evaluations and statistics should also be available at the office.

The components of automation:

Storage 1:

The large components consist of 3 rectangular indoor silos with aluminium fluidised bed discharge and a discharge capacity of 1 to/h. The total silo capacity amounts to app. 18 tonnes of flour. The silo filter consists of cover filters. The silos are situated in the raw materials storage space according to ATEX guidelines. The silo bulking and flour feeding are pneumatically carried out by blowers from the machine room. The silo filling takes place over a tank lorry control cabinet attached to the outer wall of the building and individually laid silo filling pipelines.

Storage 2:

The medium and small components consist of 2 ingredient machines with a common weighing conveyor-belt emptying system. The metered ingredients are conveyed in an ingredient bowl and added manually in the kneader.

Storage 3:

The special components are manually weighed and computerised by means of linked ingredient scale. The special components like raisins, butter, ice, etc., can be added quickly and unerringly to the recipe from the flour scales below the worktop and ingredient containers on the table.

Flour supply:

The flour feeder consists of a conveyor line to the bakery. For hygienic purposes, the flour feeder lines are pneumatically driven. The pipelines are made of aluminium. A pipe filter machine is used behind the silos.

Liquid metering:

One water mixing and metering equipment for hot, cold and icy water is assigned at the target point – bakery.

Weighing:

The weighing of flour is done in one hopper weighing machine with standard filter. The weighing machines are pneumatically filled. It has a capacity of 100 kg. A tumbler barrel attached to the weighing machine can be pivoted between 2 kneading stations.

Controls:

The load control of the facility is performed decentrally in 2 switch cabinets. The Backcontrol software is used. One 15" touch-screen command unit has links to the office and remote maintenance.



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3 indoor silos, aluminium, 2 x 5 to, 1 x 8 to



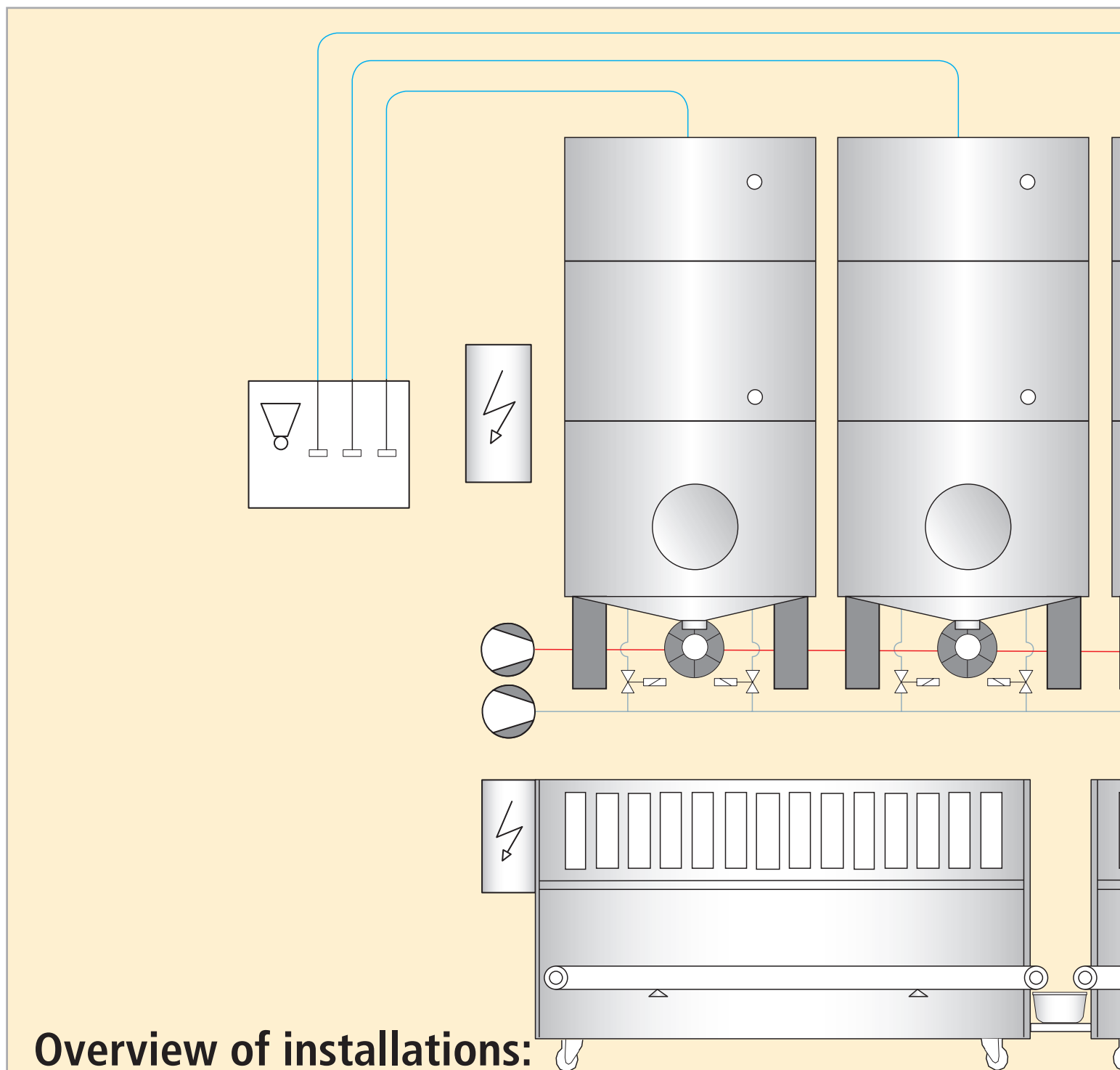
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Backcontrol 15", water mixing devise HB11, weighing hooper Sewa 100 with swival pipe

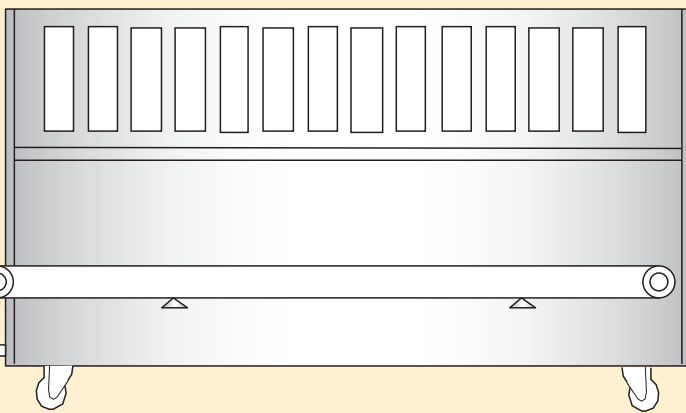
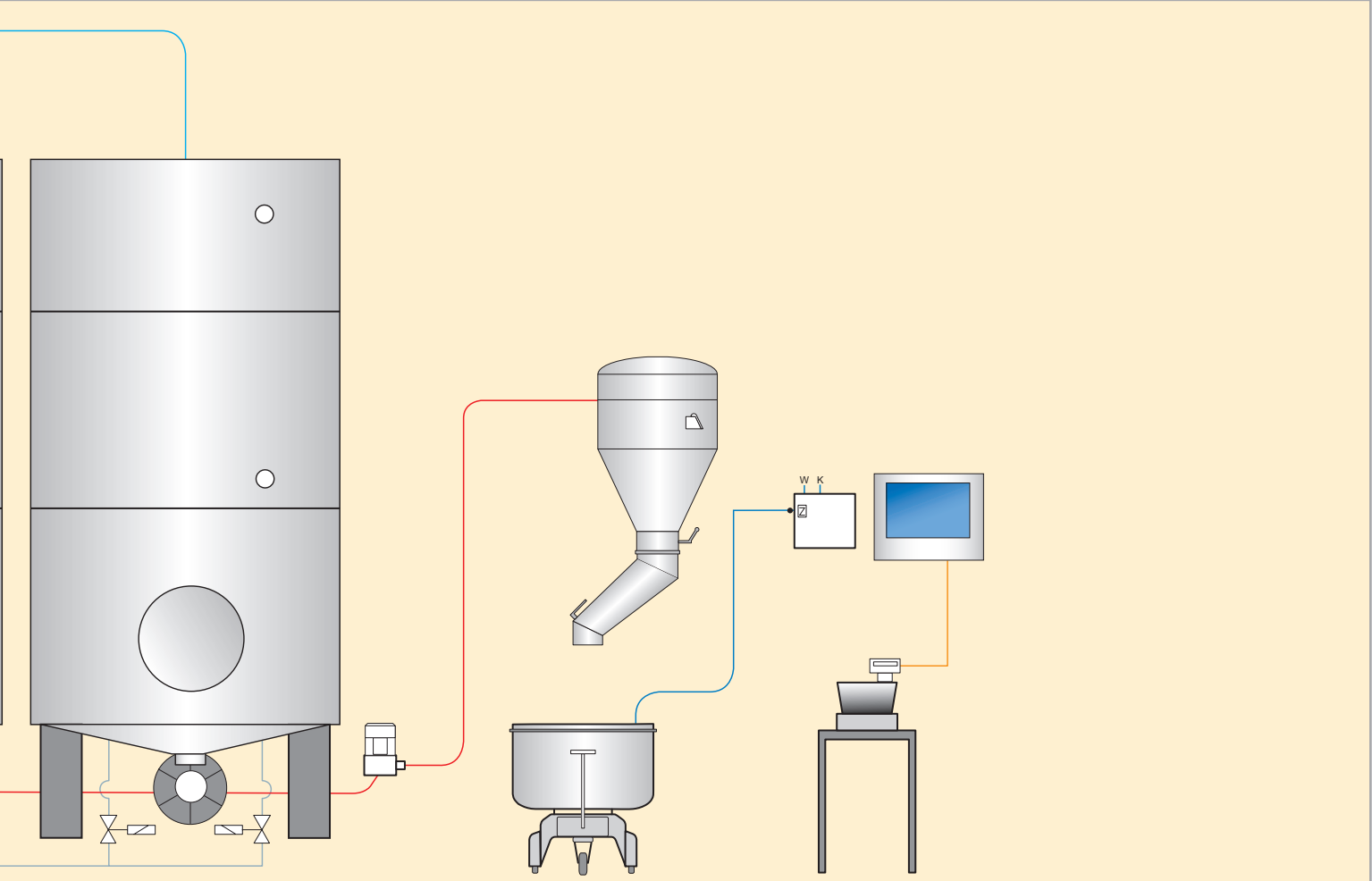


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Overview of installations:

Item	Description	Units
A	Flour silo, aluminium, quadrate, indoor, fluidizing system	3
B	Silo filling with individual pipeline	3
C	Pneum. bulking f. fluidised silo bed	1
D	Pneumatic flour feeder line 1	1
E	Ingredient machine with weighing conveyor belt for ingredient bowl	2
F	Flour weighing	1



Item	Description	Units
G	Water metering with dough temperature controls	1
H	Hand-add ingredient machine	1
I	Ingredient weighing table with ingredient containers and scale	1
J	Recipe computer with links to office and remote maintenance	1
K	Switch cabinet	2

