

**BOOK OF TECHNICAL CONDITIONS FOR
A WEIGHING FILLING AND PACKING
MACHINE FOR DRY YEAST PLANT**

- 1) Supplying and installing /one/ automatic filling and packing machine for dry yeast. This machine works depends on a weighing system with vacuum system for packs and operates within the plant conditions of temperature, humidity and dust ...etc.
- 2) **Material to be packed** are all types of instant dry yeast (bacillary and granular ...etc) instant solubility (Samples of dry yeast can be ordered from the plant).
- 3) **Type of filling and packing** : the package should be completely vacuumed and well compressed (value of vacuum pressure has to be mentioned) mentioning the percentage of not vacuumed packs, during the packing process.
- 4) **Machine capacity** is 800 Kg/h minimum of a well vacuumed packed yeast.
- 5) **The net weight of the pack** is 500 gr. The percentage of error in weight has to be mentioned the percentage of weight mistake not exceeding $\pm 3\%$ gr for one package .
- 6) **System of filling** is a weighing electronic system . (electronic loading cells) compatible with the capacity of the machine for packs of 500 gr net regardless the volume of pack during packaging and the specific density differentiation of the yeast during filling machine
 - that adopts volumetric filling system is not accepted nor machine that adopts program based on variety of density to achieve weight because the dry matter percentage of our yeast varies between (93-97%) so the specific weight of the yeast is not steady .
 - Supplying the machine with all needed of instruments to avoid any internal or external influences on the work of the machine (machine capacity – weight accuracy – the percentage of the vacuumed air inside the packageetc.
- 7) Shape of package is cuboid (rectangular parallelepiped) and contractor must choose the suitable section of the pack base to avoid the deference in packs length caused by the varying of specific dry yeast weight .

Contractor should offer samples filled with product of the offered package and mention the dimensions of the packages which will be filled by the machine to be evaluated through the study of technical

offers.

- 8) **Packaging material** : is aluminum foils packages to make dry yeast packages shape to be vacuumed from air, (and with high resistance against tearing , and against getting holes to prevent leak of air inside the package, and able for heat welding, can preserve yeast, not to use in it's composition materials which have bad effect on the yeast. Contractor should mention the specifications of the suitable packaging material which will be used by the machine for packing and preservation of the dry yeast (number of layers, thickness and composition of each layer, the roll width ...etc. it should be valid for the packing of the edible nutrients), and should supply a sufficient quantity of foils for operation tests and primary reception tests free (the quantity should be sufficient for two weeks ; six working days a week ; eight working hour per day) . A list includes the name and the address of foils manufacturing companies should be provided
- 9) **Machine control system** is a modern industrial operation system, totally automatic in all machine stages with possibility to control the speed (production capacity) of the machine .

Filling , wrapping, controlling are by PLC (all of control, observation and measurements equipments are manufactured in European common market or Japan).

All machine parts should be provided with necessary control and safety circuits with a property of machine automatic stop in case of any defect or problem is occurred in each stage of the machine production (from machine feeding with yeast to the vacuumed packed packages ready for storage.)

- 10)All parts that touch the product should be (304 or 316) stainless steel .
- 11)Power supply is /220-380/ \pm 15% V, 50 Hz.
- 12)Machine should be equipped with all necessary accessory equipments needed for optimal investment such as conveyer (from beginning till final product_) and needed instruments to move yeast from our storing basins to the machine tank automaticallyetc date and validity printing device works by pressure (heat printing roll is not accepted and offering a complete spare vacuum pump (SPARE) in addition to the one installed on the machine .
- 13)Any additional property will be taken into consideration in the study of the offers.
- 14)**Delivery period** is as short as possible. Countries and companies name, which the machine was supplied to, have to be mentioned (sales list).
- 15)contractor has to visit the plant to be aware of the quality and specifications of yeast to be packed and the method of dry yeast feeding to the machine from our silo and the place in which the machine will be installed.

- 16)Dimensions of erection place, the same place of existed two machines, in which the machine will be installed (length X width X height) is 5.5 x 6 x 5.5 m.
- 17)Operating tests will be /one/ week and primary reception trails will be also /one/ week in the presence of an expert for the machine.
- 18)The offer should include spare parts list for the machine and the accessory devices sufficient for /three/ years. The offer must include a spare parts for the weighing system and vacuum pump and printing device of date mentioning the unit and total prices for the parts.
- 19)All of the drawings, catalogues and documents needed for operating , maintenance, and investing the machine and modulating and spare parts, operation catalogues in English, three copies supplied with the machine.
- 20)Offering a copy of control programs with electrical drawings and controlling drawings on three copies in English .
- 21)Offering a video shooting for the machine on a CD which clarify the machine operating stages completely in technical offer .
- 22)Supplying quantity of a wrapping materials (aluminum foils) with the machine enough for filling /900/ ton of dry yeast according to the specifications mentioned in item nr /8/ of this book, mentioning the consumption rate of wrapping materials for each ton of dry yeast and the quantity of needed wrapping materials (by ton) mentioning the unit prices for each ton of wrapping material. The firm has the right after confirming the order to ask the seller to print any information it asked him on aluminum foils before supplying it like yeast specifications, product name address and the needed logo with a continuity of it. .
- 23)The buyer will send (2) engineers for /10/ days of actual work to the manufacturing companies country for the machine to observe the machine in the stages of manufacturing and assembling it before supplying they had the right to making experiments and tests which they find necessary, the inspection and two ways traveling visa fees, lodging, residing , transportation, visa, health insurance all other expenses completely free, and on seller cost . The attendance of engineers by buyer does not exempt the seller of his responsibility of nay missing or bad manufacturing or not matching of machine specifications supplied by seller according to his offer.
- 24)Training four members of technicians on maintenance and investing the machine at the factory site after erecting and operating, also training on controlling system which include PLC complete and indicators and controlling items panels, communication frames to cover drawings and maintenance , specify damages and fixing it, where the training period six days.