

QUESTIONNAIRE

BAKER'S YEAST PLANT

GENERAL DATA

Client (end user)	
Address, telephone, email	
Project code/name	
Site location	
Responsible project manager	
Form completed by (name, company)	
Date	

1. PROJECT DATA

Provisional time schedule	
Contract award	
Plant start-up	
Implementation of a new plant	<input type="checkbox"/> Yes <input type="checkbox"/> No
Expansion of an existing plant	<input type="checkbox"/> Yes <input type="checkbox"/> No
Budget available	<input type="checkbox"/> No, development of new business case <input type="checkbox"/> Approval pending feasibility study <input type="checkbox"/> Approval pending financing <input type="checkbox"/> Financing approved

2. BASIC DATA FOR PRODUCTION

<p>Desired Production</p> <p>Fresh baker's yeast (% d.s.¹); t/year</p> <p>Active dry yeast (% d.s.; t/year)</p> <p>¹) dry matter substance</p>	
<p>Working Time (weeks per year, days per week)</p> <p>Daily Working Time for</p> <p>a) preparation of raw material and fermentation: 3 shifts</p> <p>b) filtration and packing of fresh yeast (number of shifts)</p> <p>c) drying of yeast (number of shifts)</p> <p>d) packing of dry yeast (number of shifts)</p> <p>Remark: 1 shift = 8 hours</p> <p>In total therefore (shifts per week)</p>	
<p>Should the production capacity</p>	<p><input type="checkbox"/> Be reached constantly, or</p> <p><input type="checkbox"/> Be designed for a peak capacity of t/week fresh/active yeast</p>
<p>Packing sizes</p> <p>- Fresh yeast (% of production)</p> <p>- Active dry yeast (% of production)</p>	<p>..... % in packings with 0,5 kg</p> <p>..... % in small packings with g</p> <p>..... % in large packings with kg</p> <p>..... % in packings with g</p> <p>..... % in packings with g</p> <p>..... % in large packings with kg</p>
<p>Packing material (compound foil/bags/tins/others)</p>	
<p>Quality Requirements</p> <p>If special quality requirements are desired, please let us know the minimum values:</p>	<p>a) Rising power (acc. to analysis method)</p> <p>b) Durability</p> <p>c) Particle size (for active dry yeast only)</p>

Raw material	<input type="checkbox"/> Beet molasses <input type="checkbox"/> Cane molasses <input type="checkbox"/> Other:
Analysis of raw material: Please enclose the analysis values of your raw material for which the plant should be designed, or make your remarks in the enclosed list of minimum requirements for the molasses.	

Auxiliary materials available to cover the nitrogen demand (ammon sulfate, ammonia water, urea) Specification of the N - content:	
Auxiliary materials available to cover the phosphate demand (phosphoric acid, mono phosphate, diammonium phosphate, triplesuperphosphate, superphosphate) Specification of the P ₂ O ₅ - content	
Specification of the defoaming agent, please indicate which is available (vegetable oil or synthetic defoamer)	
Auxiliary materials available for pH-correction Na ₂ CO ₃ , HCl, H ₂ SO ₄	

3. UTILITIES

Process water supply

Secured supply quantity during the whole working time of the factory, m ³ /h	
Quality Please enclose the water analysis, for which the plant shall be designed or make adequate notes at the attached standard analysis.	
Temperature, °C max/min	

Cooling water supply

Origin	<input type="checkbox"/> Well or tap water <input type="checkbox"/> Surface water <input type="checkbox"/> Recooling towers (in addition of process water)
Quantity Secured supply quantity during the whole working time of the factory, m ³ /h	
Temperature, °C max/min	
Recooling towers: maximum design wet bulb temperature, °C (If exceeding 23°C a water chilling machine for cooling of the fermentation may be necessary.)	
Cooling towers	<input type="checkbox"/> Available <input type="checkbox"/> Not available

Power supply

Available voltage up to the main distributing frame in the plant, V / ± V	
Available frequency, Hz / ± Hz	
Connected load, MW	
Offset time	

Which time has to be spanned typically (short time, a few hours, days) and how frequently.	
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Steam supply

Available steam quantity, t/h	
Steam pressure, bar	
Steam temperature, °C	

4. BUILDING SITE

<p>Available area for erection of the plant Please adjoin map to this questionnaire.</p> <p>Altitude of the site above sea-level, m</p> <p>Seismic factor</p>	
<p>Climatic conditions on site</p> <p>Outdoor temperature, °C min/max Relative humidity, % min/max Special conditions (floodwater, rainfall, wind velocity, snow loads)</p>	
<p>Storage Capacities</p> <p>Available/required capacities (tanks, pumping station) in weeks for:</p> <ul style="list-style-type: none"> Raw material Solid auxiliary material (nutrient salts) Liquid auxiliary material (sulfuric acid) Alcohol Thick sludge 	
<p>Logistics</p> <p>Kind of supply and dispatch to/from plant</p>	<input type="checkbox"/> Rail <input type="checkbox"/> Road
<p>Buildings</p> <p>Please provide plans of existing buildings, if available.</p>	

Waste water situation

<p>Waste water treatment</p> <p>Following waste water is obtained: slops (high biological load), rinsing and wash water (low biological load), cooling water outlets (no biological load), possibly molasses sludge.</p>	<p><input type="checkbox"/> Available</p> <p><input type="checkbox"/> Not available</p> <p><input type="checkbox"/> Not required</p>
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Standard of equipment

<p>Automation</p> <p>We provide our plants with a medium degree of automation, which is especially reliable in service.</p> <p>If you prefer higher automation, please tell us your conceptions.</p>	
<p>Stand-by units</p> <p>Stand-by units are provided where it is necessary for the processing of the plant (especially at critical pumps, sieves, etc.).</p> <p>If you have special wishes, please let us know.</p>	

ANNEX I

STANDARD ANALYSIS FOR PROCESS WATER

The water required for the process and for cooling shall meet the following analysis; the actual water analysis will be supplied by the customer. The water may have to be treated according to the requirements of the different application in the process.

The raw water for use in the process shall be of good quality and neither too hard nor too ferruginous. It should be free of solid impurities like sand, sludge, etc. If it is biologically contaminated, it must be chlorinated.

The following characteristics are assumed for offers:

Total hardness	15° dH max. (i.e. 150 mg CaO/l)
Iron	less than 0.1 mg/l
Manganese	less than 0.05 mg/l
KMnO ₄ demand	less than 10 mg/l
Cl	less than 250 mg/l
NO ₃	less than 50 mg/l
SO ₄	less than 500 mg/l
Temperature	maximum of 28° centigrade