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1. Static acceptance

1.1. Conformity of the installation with the specification requirements

In a general manner, the requirements that can be the object of a calculation note, a certificate, a measurement,..., must be documented by the supplier.

1.1.1. Vessels

◇ **Test protocol:**

- Verify the conformity of the installation with each requirement in the specification (§ “general characteristics of vessels” of the specification document), where appropriate, on the basis of the documents furnished by the supplier
- Register the conformity or the nonconformity of each requirement in the specification

Document	Available (Y/N)	Comments
Calculation notes		
Results of welding tests and qualification certificates of welders		
Materials certificates		
Pressure test certificates		
Measurement of the Ra		
Stamp of the local authorities responsible for the validation of equipment under pressure		

◇ **This stage is validated if the installation is in conformity with the specification requirements, and is backed up by the documentation**

Date	Signature of L'Oréal Representative	Signature of Supplier Representative	Accepted/Non-Accepted	Remarks

1.1.2. Supporting platform

◇ Test protocol:

- Verify the conformity of the installation with each requirement in the specification (§ “Supporting platform” of the specification document), where appropriate, on the basis of the documents furnished by the supplier
- Register the conformity or the nonconformity of each requirement in the specification

Document	Available (Y/N)	Comments
Calculation notes		
Materials certificates		
Required equipments	Conform (Y/N)	Comments
Made in one or a few sub-groups, easy to transport and to reassemble		
Made using closed and sealed sectional stainless steel		
Construction of the upper workstation, and construction of the stairs using anti-slip and non-perforated plates (no grate)		
Platform equipped with one air extraction system per RM loading station (such as manholes and suction station at the bottom of the vessel), channelled outside and manually operated		
Platform equipped with a stainless steel protective rail for the staff safety		
Platform equipped with stairs (one or several flights of stairs) equipped with two handrails		
Platform equipped with a protective lock for receiving pre-weighed raw material pallets at the upper workstation		
Easy to clean platform		
Maximum allowable working affixed to the platform		
Place provided for the sprinklers piping		

◇ This stage is validated if the installation is in conformity with the specification requirements, and is backed up by the documentation

Date	Signature of L'Oréal Representative	Signature of Supplier Representative	Accepted/Non-Accepted	Remarks

1.1.3. Transfer panel

◇ Test protocol:

- Verify the conformity of the installation with each requirement in the specification (§ “Transfer panel” of the specification document), where appropriate, on the basis of the documents furnished by the supplier:
- Register the conformity or the nonconformity of each requirement in the specification

Document	Available (Y/N)	Comments
Calculation notes		
Results of welding tests and qualification certificates of welders		
Materials certificates		
Required equipments	Conform (Y/N)	Comments
A drip pan which can be dismantled, and drained by gravity		
Detectable caps, connected to the corresponding opening, by a small chain		
“ U “ shape pipes (telephone type), fitted with detectors, to ensure that proper connections are made		
The transfer panels holes are not located directly straight up the other holes in order to avoid useless stain.		
Suction pipes have a proper location within the platform (while not in use)		
Nozzles on the transfer panel are identified in a readable and lasting manner		
The whole system is easy to clean and to dismantle		
We are able to eliminate any pressure left in the pipes before the dismantling of the connexions in the transfer panel		
Special care has been taken for the ergonomics of the transfer panel and its accessories, as well as for the ease of use (proximity of openings, vessel supports...).		

- ◇ This stage is validated if the installation is in conformity with the specification requirements, and is backed up by the documentation

Date	Signature of L'Oréal Representative	Signature of Supplier Representative	Accepted/Non-Accepted	Remarks

1.1.4. Piping, valves , fittings, pumps, marking, insulation

◇ **Test protocol:**

- Verify the conformity of the installation with each requirement in the specification (§ “Piping, valves, fittings and pumps” of the specification document), where appropriate, on the basis of the documents furnished by the supplier:
- Register the conformity or the nonconformity of each requirement in the specification

Document	Available (Y/N)	Comments
Calculation notes		
Results of welding tests and qualification certificates of welders		
Materials certificates		
Pressure test certificates		
Pump specifications (water consumption for vacuum pump, CIP pump pressure, etc)		
Required equipments	Conform (Y/N)	Comments
All the parts in contact with bulk or raw material included in its composition must be made of 316 L stainless steel. Parts of the installation, which are not in contact with the product, are to be made of 304 L stainless steel. All of the materials and equipment will comply with the AFNOR, ISO or SMS Standards		
All of the pipes must be able to be drained, and have no fluid retention points: upper and lower bleed points must be provided (the pipes must be installed with a slight slope to allow fluids to flow towards these bleed points).		
Concentric reducers must be used for the vertical parts and eccentric reducers for the horizontal parts in order to maintain the pipe work slopes and thus allow complete drainage.		
The valve connections must be able to be dismantled. Valves in contact with the product, and in particular sampling valves, must be sealed, without retention, washable and thermally sanitizable in place		
All the valves must be equipped with a visual indicator of valve state (open or close) on the solenoid		
All the valves for dangerous fluids branch must be padlockable and uncouplable , in order to avoid any hazard due to the eventual leak of the joint during an intervention		
All the pumps must be assembled on studs and anti-vibrating mounts.		
Each utility must be clearly marked and identified: with the name of the fluid in the local language, indicating the direction of fluid flow. These markings will be placed every 6 meters and in each change of direction. Visible and easily legible. Any markings required by the regulations must be included		

All pipe work conveying fluids whose specified temperature is higher or lower than ambient temperature must be lagged. For these pipes, the purpose of the insulation will be either to conserve heat and protect the personnel or to preserve cold and prevent condensation		
The insulating material used will be chemically inert, in order to avoid any corrosion on contact with the pipe surface. It must be inalterable at the operating temperature and under the mechanical stresses encountered, rot-proof, odourless and non-flammable. The pipe lagging will be protected by a sliding stainless steel jacket that covers the lagging in a regular manner		

- ◇ **This stage is validated if the installation is in conformity with the specification requirements, and is backed up by the documentation**

Date	Signature of L'Oréal Representative	Signature of Supplier Representative	Accepted/Non-Accepted	Remarks

1.1.5. Work stations and ergonomics

◇ **Test protocol:**

- Verify the conformity of the installation with each requirement in the specification (§ “Work stations and ergonomics” of the specification document), where appropriate, on the basis of the documents furnished by the supplier
- Register the conformity or the nonconformity of each requirement in the specification

Document	Available (Y/N)	Comments
Maintenance documentation of the skid		
Required equipments	Conform (Y/N)	Comments
All of the intervention points must be easily accessible and regrouped in order to optimise movement of the operators		
Connections to vessels must be easy		
The lowest parts of the installation must be located more than 500 mm above the ground level for ease of cleaning and maintenance		
The loading height of the manhole must be designed to limit efforts and must be in the range between 0.9 and 1.2 m from the platform		
Each workstation must be equipped with an efficient lighting system		
The size of the control stations must be reduced to the maximum extent possible and be less than 600 x 600 x 1500		
<u>Ease of Maintenance Requirements</u>	Conform (Y/N)	Comments
Easy access to the various parts		
Ease of dismantling and extraction of the parts		
Uniformity of equipment throughout the whole skid		
Availability on-site or locally of the spare parts		
Coherence and clarity of the nomenclature and the parts identification		

◇ **This stage is validated if the installation is in conformity with the specification requirements, and is backed up by the documentation**

Date	Signature of L'Oréal Representative	Signature of Supplier Representative	Accepted/Non-Accepted	Remarks

1.1.6. Automation

◇ Test protocol:

- Verify the conformity of the installation with each requirement in the specification (§ “Automation” of the specification document), where appropriate, on the basis of the documents furnished by the supplier
- Register the conformity or the nonconformity of each requirement in the specification

Required equipments	Conform (Y/N)	Comments
The skid is monitored and controlled in an autonomous manner by an Industrial Programmable Logic Controller and an interactive interface, whose role is to manage the manufacturing functionalities described in these specifications, to ensure reproducibility of the operations, to ensure traceability of each manufactured batch and to provide safety interlocking for the protection of the people, the goods and the environment		
The installation must have several operating modes: Automatic mode: The recipe system must enable the management (creation, modification, deletion and printing) of a minimum of X recipes, each one with X steps. Semi-automatic mode « Maintenance » mode: This mode must be accessible only by persons who have the proper training		
L'installation doit disposer d'un pupitre de commande par poste de travail.		
<u>Main control panel</u>		
An operator interface with a coloured synoptic, readable at a minimum of 1 meter, connected to the PLC (keyboard/display)		
Indicators, with as a minimum for each vessel: - Agitating speeds - Temperature (continuous display) - Pressure (continuous display) - Time remaining time for the functions in progress, taking into consideration a delay time - Weight (continuous display)		
A turning switch with key, or access by password, Automatic mode / semi-automatic mode / degraded mode		
A button or a control on the synoptic, start cycle		
A button or a control on the synoptic, stop cycle		
A button or a control on the synoptic, -suspension of cycle		
An emergency stop with key		
A button to reset the cycle		
A button (with key) to switch the mains on		
A surface allowing notes to be taken during manufacture		
A stand for instruction and procedure binders (A4 format)		
<u>Secondary control panel</u>		
A button to stop or suspend the cycle		
A button for start cycle		
A control button for end of manual transfer		
An emergency stop with key		
Indications on the control panel must be written in French or English, and in the local language. The installation must be fitted with a column of lights, placed in a visible location, and comprising: a fixed orange light for operator calls and a flashing red light for failures		
<u>Manufacturing report</u>		
The installation must enable printing of a manufacturing report, including as a minimum: - Indications enabling identification of the operator and the manufacturing batches (name, date, bulk, n° of recipe....)		

- Totality of operations carried out, including washing and thermal sanitization - Value of operating parameters (mixing speeds, agitating speeds, temperature, pressure, duration of operations, weight...) - Failures and alarms		
Each user having access to the manufacturing control system must identify himself with an electronic signature: name and password. The installation must enable management of a list of users and access levels: operator, supervisor.		

◇ **This stage is validated if the installation is in conformity with the specification requirements, and is backed up by the documentation**

Date	Signature of L'Oréal Representative	Signature of Supplier Representative	Accepted/Non-Accepted	Remarks

1.1.7. Electricity

◇ **Test protocol:**

- Verify the conformity of the installation with each requirement in the specification (§ “Electricity” of the specification document), where appropriate, on the basis of the documents furnished by the supplier
- Register the conformity or the nonconformity of each requirement in the specification

Required equipments	Conform (Y/N)	Comments
In case of a power cut the installation must be stopped in a sure way, without any hazard for the persons. After the power return, the installation mustn't start automatically		
Cabinets, switch and junction boxes must be wired in such a way to allow easy disassembling, and quick remounting at our site, after testing in your workshop (Quick release electrical connections)		
Sensors must be installed in a way that allows easy dismantling		
The electrical switch gear cabinets will have a minimum Protection Rating of 65 and must be anti-corrosion treated. They must be also capable of being locked out, as appropriate		
The electrical cabinets will be placed 200 mm above the ground in order to allow the ground to be cleaned and to ensure that the electrical parts are not damaged if the containment zones are filled		
The electrical boxes must be able to withstand any local stresses (mechanical impacts, thermal shocks, projection of water or dust, etc.).		
If the temperature is greater than 35 °C, a cooling system should be provided (ventilator, water cooling, etc.).		
All of the doors will be fitted with lockable handles with key locking devices.		

- ◇ **This stage is validated if the installation is in conformity with the specification requirements, and is backed up by the documentation**

Date	Signature of L'Oréal Representative	Signature of Supplier Representative	Accepted/Non-Accepted	Remarks

1.1.8. Technical documentation

◇ **Test protocol:**

- Verify the conformity of the installation with each requirement in the specification (§ “Technical documentation” of the specification document), where appropriate, on the basis of the documents furnished by the supplier
- Register the conformity or the nonconformity of each requirement in the specification

Document	Available (Y/N)	Comments
“As built” overall and detailed drawings		
“As built” flow diagrams		
Calculation notes		
List of parts / nomenclatures		
Material specifications		
Details on the agitating systems		
Details on raw material dispensing system		
Calibration graphs and data tables for measuring, regulation and weighing instruments. With regard to measuring chains (weighing), the graphs will be traced with and without flexible transfer hoses		
Welding procedures, results of tests and qualification certificates of welders		
“As built” electrical and instrumentation diagrams		
Details of control panel		
Listings with comments of the PLC programmes with cross-references		
Start-up, operating, cleaning and maintenance instructions		
Maintenance schedule (list of spare parts, frequency of change...)		
CD of drawings (Autocad files), electrical diagrams and automatic system programmes		
Final risk analysis report and verification of the good installation and function, in the final work environment, of the SHE control equipment placed.		

- ◇ **This stage is validated if the installation is in conformity with the specification requirements, and is backed up by the documentation**

Date	Signature of L’Oréal Representative	Signature of Supplier Representative	Accepted/Non-Accepted	Remarks

1.2. Conformity of the installation with the studies

1.2.1. Conformity of the installation with the drawings and the list of parts

◇ **Test protocol:**

- Verify the presence and the conformity of the installation of the elements that constitute the manufacturing skid with the general and detailed drawings:
 - Verification that all equipment noted on the P&ID are present
 - Agitating systems and vessel drawings
- Verify the conformity of the elements with the lists of parts
- Register the conformity or the nonconformity

◇ **This stage is validated if the elements that constitute the manufacturing skid, provided for in the drawings, are present, in conformity with the lists of parts, and are installed in conformity with these drawings**

Date	Signature of L'Oréal Representative	Signature of Supplier Representative	Accepted/Non-Accepted	Remarks

1.2.2. Conformity of the automation with the design studies

◇ **Test protocol:**

- Verify the conformity of the PLC programs with the systems analysis
- Verify the conformity of the control panels with the studies
- Register the conformity or the nonconformity

Document	Available (Y/N)	Comments
Required equipments	Conform (Y/N)	Comments

- ◇ **This stage is validated if the programming of the control panels is in conformity with the systems analysis and the studies**

Date	Signature of L'Oréal Representative	Signature of Supplier Representative	Accepted/Non- Accepted	Remarks

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