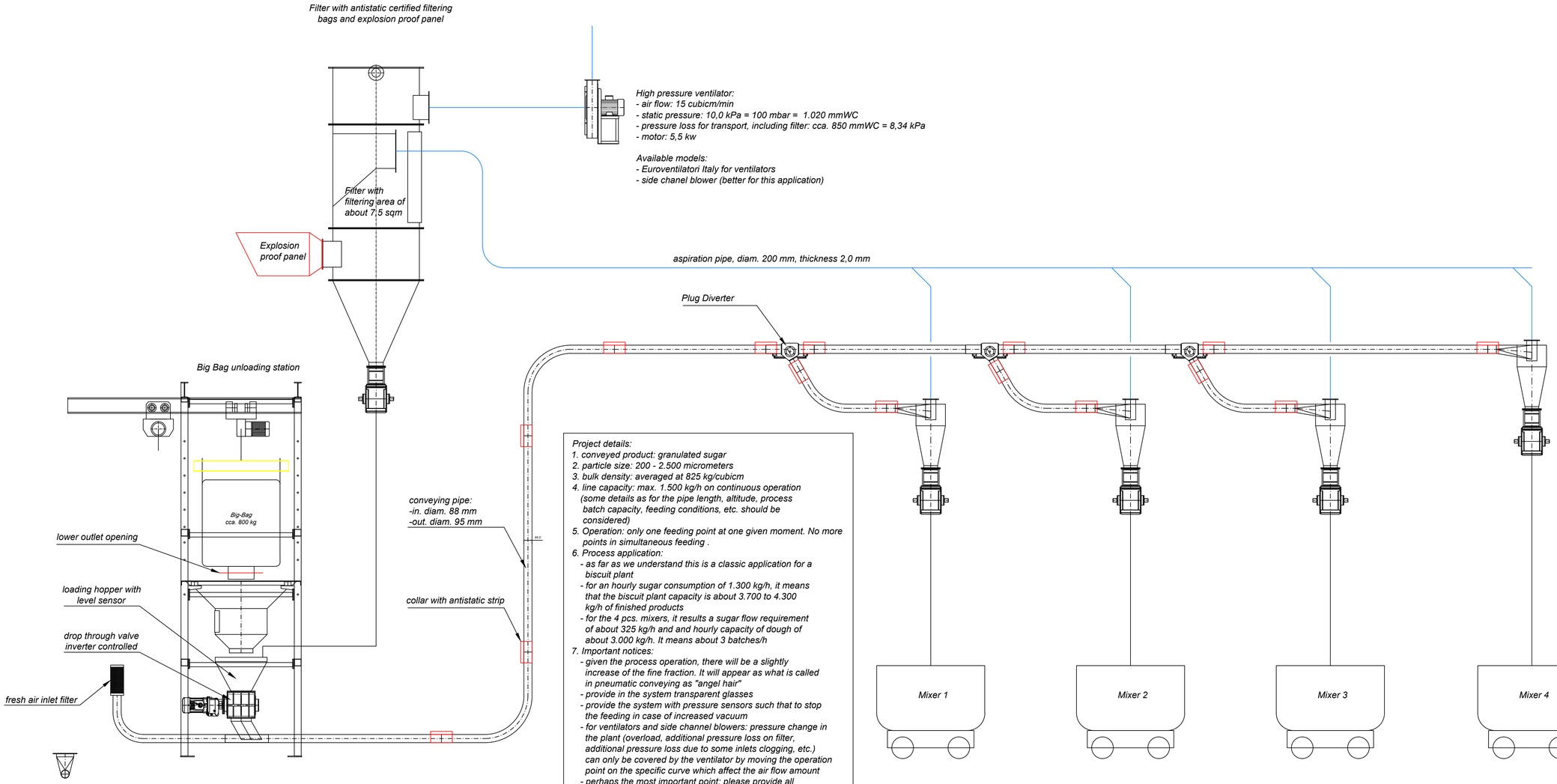
GRANULATED SUGAR MIXER FEEDING FLOW CHART, cap. 1.500 kg/h



Project details:
1. conveyed product: granulated sugar
2. particle size: 200 - 2.500 micrometers
3. bulk density: averaged at 825 kg/cubicm
4. line capacity: max. 1.500 kg/h on continuous operation (some details as for the pipe length, altitude, process batch capacity, feeding conditions, etc. should be considered)
5. Operation: only one feeding point at one given moment. No more points in simultaneous feeding .
6. Process application:
   - as far as we understand this is a classic application for a biscuit plant
   - for an hourly sugar consumption of 1.300 kg/h, it means that the biscuit plant capacity is about 3.700 to 4.300 kg/h of finished products
   - for the 4 pcs. mixers, it results a sugar flow requirement of about 325 kg/h and and hourly capacity of dough of about 3.000 kg/h. It means about 3 batches/h
7. Important notices:
   - given the process operation, there will be a slightly increase of the fine fraction. It will appear as what is called in pneumatic conveying as "angel hair"
   - provide in the system transparent glasses
   - provide the system with pressure sensors such that to stop the feeding in case of increased vacuum
   - for ventilators and side channel blowers: pressure change in the plant (overload, additional pressure loss on filter, additional pressure loss due to some inlets clogging, etc.) can only be covered by the ventilator by moving the operation point on the specific curve which affect the air flow amount
   - perhaps the most important point: please provide all antistatic certified equipment as well as electric potential equalization along all the pneumatic conveying plant. Sugar and friction together, gives a very dangerous potential.

Project: Pneumatic Conveying plant for Sugar - preliminary lay-out, cap. 1.500 kg/h

TECNOCEREAL
ENGINEERING INDUSTRIAL

Designed: dr. eng. Tanase TANASE
Date: 29.07.2021
Scale: not applying

Tecnocereal srl, Constanta-Romania
office@tecnocereal.com
tecnocereal@yahoo.com
www.tecnocereal.com