

Ointment / Cream / Lotion / Gel / Toothpaste Mfg.



Ointment Manufacturing Plants are ideal tools for the pharmaceutical & cosmetic industries for the production of Ointment, Cream, Lotions, Tooth paste & other emulsions & homogenizations.

It is specially designed to take care of two critical factors which directly affects the quality of the Ointment / Cream

Minimum man handling of Ointment. Negligible vacuum drop during mixing & blending.

Needless to say, it also provides the benefits if the effective manpower utilization.

GEM's Ointment Manufacturing plant consist the following equipment and accessories.

- 1) Manufacturing Vessel - with Top entry agitators
- 2) Wax / oil phase Vessel with Top / Bottom entry stirrers
- 3) Water phase Vessel with Top / Bottom entry stirrers
- 4) Storage Vessel
- 5) Vacuum Pump
- 6) Product Piping (Interconnecting)
- 7) Working Platform
- 8) Transfer Pump
- 9) Metering Pump
- 10) Electrical Control Panel - PLC Based System / Standard Auto Control System
- 11) Online Weighing System

OPERATION SEQUENCE FOR OINTMENT / CREAM / LOTION / GEL / TOOTHPASTE MFG.

- Ensuring body internals of the works are cleaned thoroughly
- Charging of pre-determined water quantity to water phase vessel
- Supply of steam and heat the water
- Addition of additives manually and mix at preset temperature
- Charging of oil / petroleum jelly / wax to oil phase vessel
- Supply of steam & heat them
- Addition of additives manually and mix at preset temperature
- Vacuum transfer the heated oil and heated water to Ointment / cream
- Addition of additives manually and mix at preset temperature
- Starting Homogenizer for emulsification and dispersion
- After confirmation of cream / ointment discharge the product to storage Tank using lobe pump
- Keeping the product under slow speed agitation in storage vessel
- Transferring the product to filling through metering pump



THE SALIENT FEATURES OF THE OINTMENT MFG. PLANT ARE AS FOLLOWS :

- The Plant is designed to be operated only by one operator and one helper.
- All material transfers are done by vacuum or by transfer pump.
- All the vessels are cGMP.
- The gaskets used are of silicon (food grade).
- All contact parts are of SS316L quality material & finished to class 4B (Mirror) finish and are crevice free.
- the entry of all agitators are from top & High Speed Emulsifier from bottom or In-line Emulsifier (as per customer choice).
- All vessels are suitable for internal pressure of 1 kg/cm² and hence can be sterilized.
- All pipes, pipe fittings and valves are of SS316L (as per customer requirement) seamless quality, internally electro polished, with tri-clover ended joints.
- The entire plant is equipped with CIP & SIP connections, so that customer can use these facility, if have CIP & SIP requirement.
- All values of temperature & time of the plant are indicated digitally on the control panel. Ampere indicates on Ampere meters.
- PLC based automatic operating plant can be designed as per requirement.

All the inlet & outlet connections are provided with tri clover joints, which are very easy for cleaning & replacement.



Oral Liquid Sugar Mfg. Plant



SUGAR SYRUP Manufacturing Plants are ideal tools for the pharmaceutical industries for the production of Oral Liquids.

It is specially designed to take care of two critical factors which directly affects the quality of the Liquids.

Minimum man handling of Liquid. Effective cleanness during manufacturing.

Needless to say, it also provides the benefits if the effective manpower utilization.

GEM's Sugar syrup Manufacturing plant consist the following equipment and accessories.

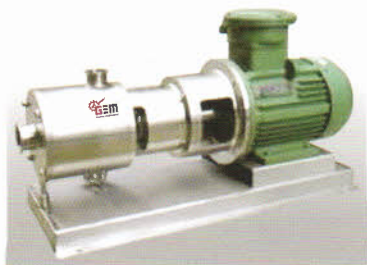
- 1) Sugar Melting Vessel with bottom / top entry stirrer
- 2) Manufacturing Vessel with bottom / top entry stirrers
- 3) Storage Vessel with bottom / top entry stirrer
- 4) Zero hold up filter press with centrifugal pump / Lobe pump
- 5) Bucket type sugar filter
- 6) Transfer pump - centrifugal pump / Lobe pump
- 7) Inter connecting pipe lane (Sugar melting Vessel to Mfg. Vessel to storage vessel)
- 8) Working platform
- 9) Control Panel - Standard Auto Control System / PLC Based System
- 10) Sugar transfer system - Vacuum conveying system
- 11) Online Weighing System

OPERATION SEQUENCE FOR SUGAR SYRUP MFG.

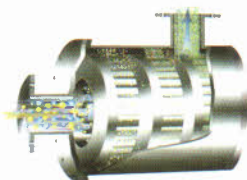
- Ensuring body internals of the works are cleaned thoroughly
- Charging of pre-determined Sugar & water quantity to Sugar melting vessel
- Supply of steam and melting down the Sugar
- Addition of additives manually and mix at preset temperature
- Transferring the melt down Sugar to the manufacturing vessel after filtration through lobe pump
- Supply of steam & heat them in manufacturing vessel
- Addition of additives manually and mix at preset temperature
- Starting Homogenizer for emulsification and dispersion
- After confirmation of Sugar syrup discharge the product to filterpress for filtration which then transferred by lobe pump to storage vessel
- Keeping the product under agitation
- Transferring the product to the filling line through transfer pump



Different Type Mixing Blade Design



Inline Homogenizer



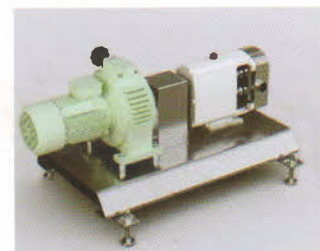
Colloid Mill



Zero Holdup Filter Press

THE SALIENT FEATURES OF THE SUGAR SYRUP MFG. PLANT ARE AS FOLLOWS :

- The Plant is designed to be operated only by one operator and one helper.
- All material transfers are done by vacuum or by transfer pump.
- All the vessels are cGMP.
- The gaskets used are of silicon (food grade).
- All contact parts are of SS316L quality material & finished to class 4B (Mirror) finish and are crevice free.
- The entry of all stirrer & High Speed emulsifier from bottom. In-line emulsifier (as per customer choice) provided on demand. (optional)
- All vessels are suitable for internal pressure of 1 kg/cm² and hence can be sterilized.
- All pipes, pipe fittings and valves are of SS316L (as per customer requirement) seamless quality, internally electro polished with tri-clover ended joints.
- The entire plant is equipped with CIP & SIP connections, so that customer can use these facility, if have CIP & SIP requirement.
- All values of temperature & time of the plant are indicated digitally on the control panel. Ampere indicates on Ampere meters.
- PLC based automatic operating plant can be designed as per requirement.



All the inlet & outlet connections are provided with tri clover joints, which are very easy for cleaning & replacement.



Lobe Pump

