SLES Mixing and Dilution Unit

2019 | 1



SLES Mixing and Dilution Unit

SLES* is an organic chemical compound with excellent cleansing and foaming properties. For this reason it is an ingredient of various detergents, household products, soaps and shampoos.

SLES is usually supplied to the producers of above liquids at a concentration of 70%.

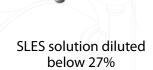
Due to its physical properties, this concentrated solution is difficult to handle and must be diluted below 27% before using it in the process.

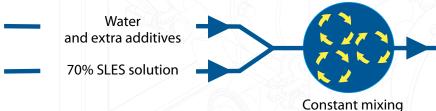
viscosity over 90.000 cP rapid viscosity decrease
70 % 27 % 5 %

Solution concentration

The innovative SLES Mixing and Dilution Unit designed by Tapflo enables an immediate and continuous preparation of a less concentrated SLES solution. This device gives a full control over the process of mixing and dilution while eliminating the necessity of purchasing and maintaining a complex technological installation.







Features



Continuous supply of SLES solution at a given concentration



Immediate start of mixing process



Small in size, lightweight and well thought-out construction



Local or remote control over the Unit



Constant tracing and recording of operation parameters



Possible extensions:

- dosing of additional ingredients
- feeding 70% SLES solution directly from a road tanker

*SLES - sodium laureth sulfate

Benefits



Independence from deliveries of diluted SLES



Flexibility and continuity of production



Significant costs reduction of SLES purchase, transportation and storage



Additional savings on the warehouse space



High quality of the on-site prepared SLES solution



 $\textbf{Simple and user-friendly} \ control\ system$

SLES Mixing and Dilution Unit



Design and materials

Pumps:	 Progressive Cavity Pump for 70% SLES solution feed Centrifugal Pump for mixing SLES with water and pumping the solution
Control and automation:	 Control Unit including PLC with a touch screen Pressure transmitters Temperature transmitter Frequency inverters Flowmeters Valves with dedicated control system
Piping:	Standard execution in AISI 316 stainless steel
Frame:	• Construction steel coated with anti-corrosive paint or AISI 316 stainless steel

Technical data

Flow rate:	up to 30 m³/h
Discharge pressure:	up to 6 bar-g
Concentration of obtained SLES solution:	0 - 27 %

Example of SLES Mixing and Dilution Unit

