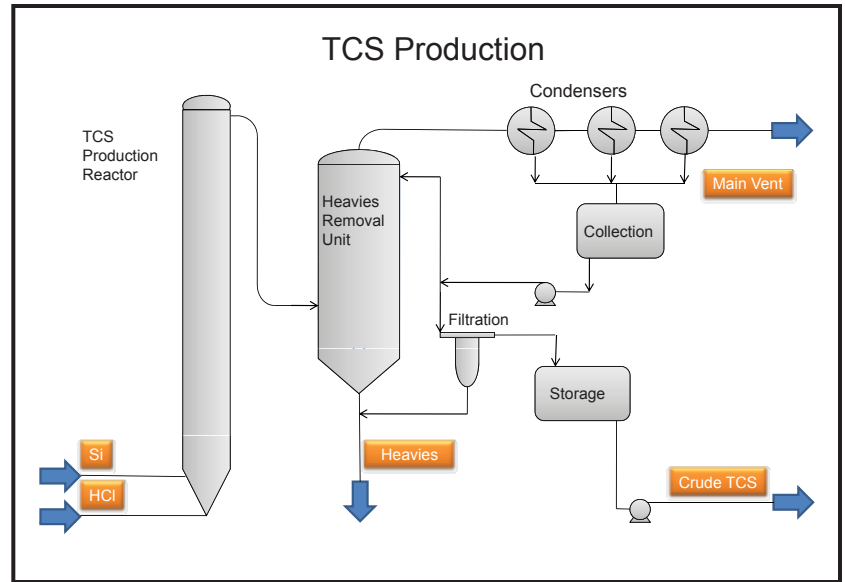


TCS Production Technology

Silicon Chemical Corporation (SCC) offers efficient, reliable, and safe crude trichlorosilane (TCS) production technology. This technology can be integrated into new greenfield projects or retrofitted into existing facilities. Our system provides many advantages that can be leveraged to create added value for your process.

Process Description:

- Hydrogen chloride (HCl) and metallurgical grade silicon (MGSi) react in a fluidized bed reactor creating TCS
- Solids and heavier metal chlorides are removed from the vapor in a quenching operation
- Chlorosilanes are condensed
- Liquid chlorosilanes are filtered to



Advantages:

- High up-time (>96 %) by eliminating common problems such as plugging and deactivation of the reactive mass
- High selectivity with greater than 92% by weight concentration of TCS in the TCS crude
- System design eliminates downstream condenser plugging issues
- Reduced equipment set resulting in capital cost savings
- Stable operation independent of raw material variability
- Easy startup and shutdown of system

The SCC Guarantee: The TCS production reactor guarantee covers the quantity and quality of produced materials, as well as the efficiency of overall raw material usage.