

TWIN FLOW REACTOR SYSTEM FOR TWO STAGE REACTION



Unity
FLOW REACTORS
योग : कर्मसु कौशलम्

For chemical products involving multi stage reaction the flow reactors can be particularly useful as the output from one reactor can directly become input into the next reactor in series. The reaction conditions in the next reactor can be quite different from those in the previous reactor but they can be independently controlled and the entire line can be tuned and balanced for nonstop flow of the final product. The reactants are precooled/ heated by inline heat transfer devices to attain the desired reaction conditions quickly within the flow reactors and make the production process faster and energy efficient.

**Customized
Turnkey Engineering
Solutions**

Manufacture of Plant & Machinery
with Total System Integration, since 1988.

Unity Flowreactors is an engineering company based at Vadodara, Gujarat engaged in offering Customized Turnkey Engineering Solutions for process industry and manufacture of Plant & Machinery with total System Integration for more than 3 decades.

We offer customized solutions for the Chemical and Pharmaceutical industries with our wide range of FLOW REACTORS for various processes viz. Sulfonation, Chlorination, Hydrogenation, Halogenation, Nitration, Oxidation etc.



Advantages of Flow Reactor

- Flow reactors offer higher yields due to better control & consistency of process variables like temp, pressure, concentration and mixing within the reaction matrix.
- The distinct technical advantages include:
 - 1) High heat transfer area per unit volume of reactor.
 - 2) Rapid mass transfer.
 - 3) High Interfacial Area.
 - 4) Minimum interaction of reacted, unreacted and semi reacted mass.
 - 5) Enhanced safety as very high pressure can be very safely accommodated.
 - 6) Much lower space requirement.
 - 7) Lower generation of waste resulting in better yields.
 - 8) Reduction in downstream process.
 - 9) Greater Energy efficiency.

info@unityflowreactors.com

www.unityflowreactors.com

+91-9227555632
+91-9227555631

**Survey No. 1605, Village Varnama,
Besides Varnama Cotton Gin, N.H. 48,
Dist. Vadodara – 391 243.**