

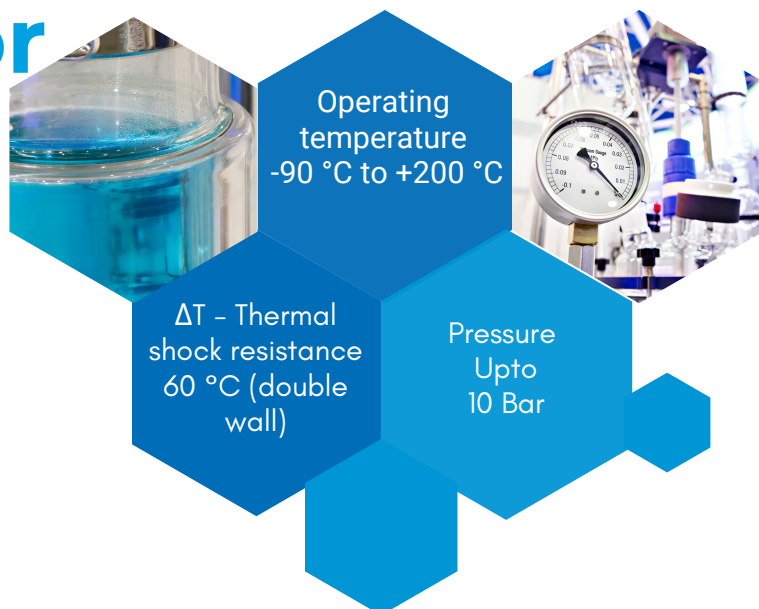


Goel Scientific Glass Works Ltd.

A BOROSIL Company

# High Pressure Glass Reactor

Goel - A Borosil Company



A high-pressure glass reactor is a specialized vessel designed for chemical reactions under elevated pressure, achieved by the reaction itself or externally supplied sources like hydrogen. Operating at temperatures above solvent boiling points, these reactors impact reaction dynamics by increasing concentration and collision frequency among molecules, accelerating reactions.

## Catalysis

High pressure primarily accelerates reactions, suppressing competing reactions and maintaining cleaner reaction profiles. While temperature can speed up reactions, it may risk product decomposition. These reactors expedite reactions while preserving specificity and purity.

## Versatile Uses

Widely used in industries requiring precise control over reactions, such as organic synthesis and pharmaceutical development, these reactors enable controlled and accelerated reactions for specific chemical compounds. Their controlled environment facilitates efficient exploration and optimization of various chemical reactions.

## Why Choose Goel – A Borosil Pressure Reactor?

When considering a pressure reactor for your specific industrial or laboratory needs, the Goel- A Borosil Company Pressure Reactor stands out as a superior choice. Meticulously designed by industry experts, this reactor is engineered to offer users exceptional control over pressure, high performance, and utmost safety. Goel - A Borosil Company leverages its extensive expertise in scientific glass fabrication and its proficiency in catering to diverse chemical processing industries to create a state-of-the-art system with several distinct advantages:



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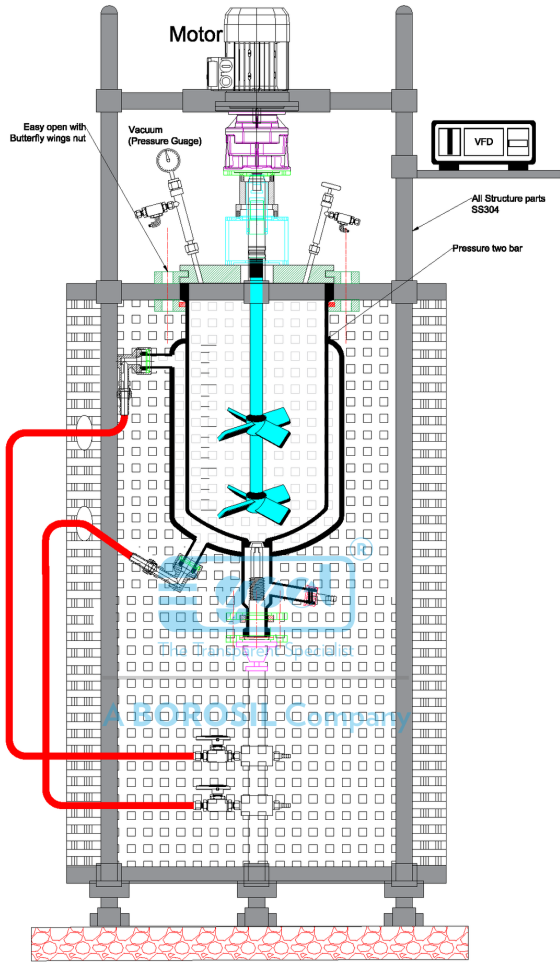


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Operating Jacket Pressure  
Up to +0.5 barG (0.05 MPa)

\*Automation on Request

**1. Pressure Control:** The Goel-A Borosil Company Pressure Reactor provides an operating pressure capability of up to 10 barG Ranges with different size capacity. This range allows for precise pressure control, catering to a wide array of processes that require varying pressure conditions.

**3.Safety Assurance:** The reactor prioritizes safety by incorporating a protective cage and undergoing individual pressure testing to ensure optimum safety standards. These safety measures are integrated to safeguard both the user and the integrity of the processes carried out within the system.

**5.Wide Temperature Range:** The Goel -A Borosil Company Pressure Reactor offers a wide process temperature range, from -90 °C to +200 °C (with the option to reach up to 300 °C). This expansive range of temperatures enhances the reactor's versatility, enabling it to accommodate a variety of processes requiring specific temperature conditions.

**2. Removable Flush Valve:** Equipped with a flush valve featuring a removable glass shaft, the reactor offers ease of maintenance and cleaning. This design element allows for convenient cleaning procedures and ensures smooth operation.

**4.Visual Monitoring:** An all-glass body construction enables real-time visual monitoring of the ongoing processes. This transparency allows users to observe and analyze reactions as they progress, ensuring a comprehensive understanding of the processes taking place inside the reactor.

**6.Efficient Stirring and Mixing:** Equipped with a high-speed motor capable of reaching up to 1000 revolutions per minute, the reactor ensures efficient stirring and thorough mixing of substances. This feature is particularly beneficial for handling products with a wide range of viscosities, ensuring excellent heat transfer within the system.

**7. Chemical Resistance:** Crafted from corrosion-resistant materials such as SS316, the reactor ensures durability and resilience against chemical corrosion. This feature ensures longevity and reliability, even in the presence of corrosive substances.

Vessel Capacity Vs Pressure

