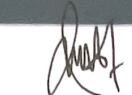



<b>PROJECT NAME</b>	Vacuum Pump	<b>DEPARTMENT</b>	RnD
<b>COMPANY</b>	PT Zeus Kimiatama Indonesia	<b>TYPE OF INVESTMENT</b>	Project Equipment
<b>LOCATION</b>	KBI	<b>DATE</b>	3/11/2025

PREPARED BY		REVIEWED BY	
<b>Project Manager</b>	Muhamad Banu Ali Ridha  Sign	<b>Finance/ Accounting</b>	Zainal Arifin  Sign
<b>R&amp;D Manager</b>	Satriyo Dibyo Sumbogo  Sign	<b>Capex Coordinator</b>	Rindu Wahono  Sign

## PROJECT DETAIL

### Justification of the project, main objectives and assumptions

The vacuum pump is an essential supporting equipment to complement the multifunctional glass reactor system in the R&D Laboratory of PT Zeus Kimiatama Indonesia. The reactor setup requires a reliable vacuum source to perform synthesis reactions under reduced pressure conditions and to assist in feeding materials into the reactor when internal pressure is elevated. Without a proper vacuum system, several chemical processes cannot be performed effectively or safely, which limits the operational range and performance of the existing reactor setup.

The installation of a vacuum pump is therefore urgently required to enable vacuum-assisted synthesis, solvent removal, and controlled material addition under pressure. The pump will improve process flexibility, safety, and reproducibility, while supporting various R&D experiments that demand precise control of pressure conditions.

The main objectives of this project are to:

- Provide a reliable vacuum pump system to complete the multifunctional glass reactor setup.
- Enable synthesis and operation under vacuum conditions for specific chemical processes.
- Facilitate safe and efficient material feeding when internal reactor pressure is high.
- Enhance the laboratory's operational flexibility, safety, and capability for advanced R&D work.

### Scope definition of proposed project

The scope of this project covers the procurement of a vacuum pump system to support the multifunctional glass reactor setup for the R&D Laboratory at PT Zeus Kimiatama Indonesia (KBI).

### Breakdown of CAR Amount

Item	Currency	Cost	Item	Cost in IDR
Vacuum Pump AC Mesin Pompa Vacuum AC 3/4 HP Orion VP-RS-4	IDR	1,659,800.00	1	IDR 1,659,800.00
<b>Subtotal</b>				<b>IDR 1,659,800.00</b>




### Rejected Alternatives

Rejected due to insufficient vacuum capacity and inability to maintain stable pressure during reactions requiring controlled vacuum conditions. Existing units are also not chemically resistant enough for diverse synthesis applications.

### Project Schedule

The roject will be buy immediately after payment confirmation.

APPROVAL

<b>OPERATION DIRECTOR</b>	Indra Gunawan	 Sign	<b>VICE CEO</b>	Indra Gunawan	 Sign
<b>FINANCE DIRECTOR</b>	Evirna Lisnawaty	 Sign			