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Guided By

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**Project Title**

**MODIFICATION OF DESIGN IN PL SERIES VACUUM PUMP TO  
ENHANCE PERFORMANCE OF PUMP**

**Abstract:**

Next to ejectors, Liquid Ring Vacuum Pumps (LRVP) is the most used vacuum producing devices in industry. Integration of Liquid Ring Vacuum Pumps with Steam Jet Ejectors, commonly referred to as a hybrid system, is one of the more efficient methods of producing process vacuum. The LRVP is a specific form of rotary positive displacement

Pump utilizing liquid as the principal element in gas compression. The compression is performed by a ring of liquid formed as a result of the relative eccentricity between the pump's casing and a rotating multiplied impeller. The eccentricity results in near complete

filling then partial emptying of each rotor chamber during every revolution. The filing-and-emptying action creates a piston action within each set of rotor of impeller blades.

The pump's components are positioned in such a manner as to admit gas when the rotor chamber is emptying the liquid, and then to allow the gas to discharge once compression is completed. Sealing areas between the inlet and discharge ports are provided, to close the rotor areas, and to separate the inlet and discharge flows.

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