Vacuum Filter

LT-M0618 | Solid-liquid separation of mineral suspensions

Two-stage pump • Steel filter vessel • Glass collection flask



9.0 m³/hour

PUMP SUCTION CAPACITY

Ø250 × 60 mm

FILTER VESSEL

40 µm filter paper • 0.37 kW pump motor • 220 V, 50 Hz, single phase

Photographs and Components

Steel vessel, filter support, glass flask and vacuum pump

The LT-M0618 separates mineral suspensions into solid and liquid phases using vacuum. Solids remain on the filter surface while liquid passes into the glass collection flask. A two-stage pump establishes the pressure difference.

STEEL FILTER VESSEL

The Ø250 × 60 mm two-part vessel carries the suspension and filter medium.

COLLECTION FLASK

Liquid passing through the filter is collected in the vacuum-connected glass flask.



FILTER SUPPORT

Wire mesh and cloth backing support the filter paper in the vessel.

VACUUM PUMP

The two-stage pump creates suction in the hose-connected arrangement.



Filter vessel and stainless steel mesh support



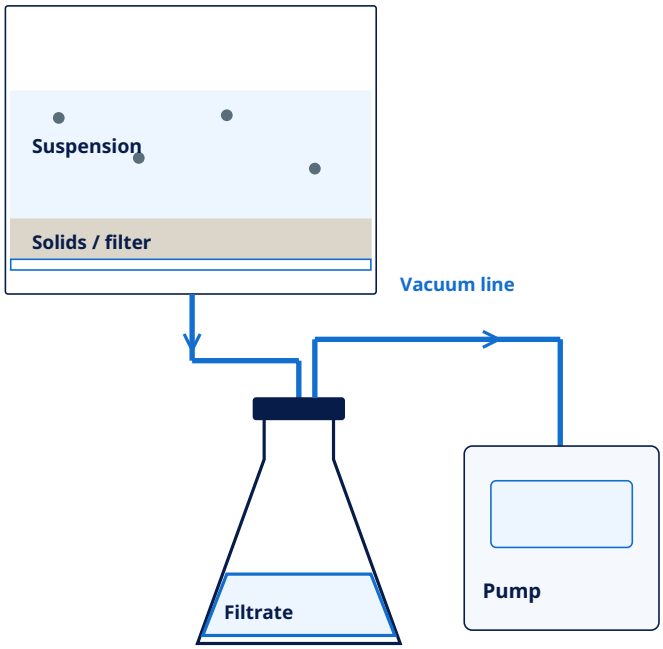
Pump body, oil sight glass and connections

LT-M0618

Vacuum-assisted Solid-Liquid Separation

Solids retained on the filter • Filtrate collection • Vacuum line

FILTRATION ARRANGEMENT



Filter Surface

Filter paper retains solid particles. Liquid passes through the support to the lower connection.

Filtrate Collection

Filtered liquid accumulates in the flask; the pump draws gas from its headspace.

Pressure Difference

The pump lowers pressure beneath the filter. This difference drives liquid through the medium.

The 9.0 m^3/hour value is the pump suction capacity. Liquid filtration rate depends on suspension properties, filter medium, cake thickness and operating conditions.

Filter Medium and Supports

The system includes 100 filter papers, 400 × 400 mm in size, with 40 µm pores. The Ø340 mm cloth backing includes one working piece and one spare. The Ø240 mm stainless mesh has 1 mm openings.

Collection and Sample Tracking

Glass flask options of 1000 or 2000 ml support separate filtrate collection. Track the solid sample and filtrate under the same sample identifier. Assess collection volume against the expected liquid quantity.

Technical Data and Filtration Workflow

LT-M0618 • Pump, filter vessel and filtration materials

Technical Specification	Value
Product Code	LT-M0618
Pump Type	Two-stage vacuum pump
Pump Suction Capacity	9.0 m^3/hour
Ultimate Vacuum	Approximately 0.02 mbar*
Pump Motor Power	0.37 kW
Pump Motor Speed	2800 rpm
Pump Oil Capacity	500 ml
Steel Filter Vessel	Ø250 × 60 mm, two-part
Glass Collection Flask	1000 or 2000 ml
Filter Paper	40 µm, 400 × 400 mm, 100 sheets
Filter Supports	Cloth backing and stainless wire mesh
Power Supply	220 V, 50 Hz, single phase

* Ultimate Vacuum Reference Condition

0.02 mbar (2×10^{-5} bar) is the stated pump vacuum at 20 °C with the gas ballast closed.

Filtration Workflow

01
Prepare Filter
Place paper on its support and connect the hoses.

02
Load Sample
Transfer suspension into the filter vessel.

03
Apply Vacuum
Collect filtrate in the flask and monitor its level.

04
Recover Solids
Stop the pump, release vacuum and recover solids.

Product Page | liyatest.com.tr/en/urun/vacuum-filter/