MOTTA LUBRICATION | TECHNICAL GUIDANCE

VP100 SERIES

VP100 Vacuum Pump aceite

OPERATION AND HANDLING INSTRUCTIONS

N.º de documento	Revisión	Fecha de emisión	Release status
MOTTA-VP100-OHI-ES	REV.04	2026-09-13	Emitido para use

Use con the current producto TDS, SDS y equipo service instructions. Emitido by MOTTA Lubricants. The current Revisión de Este documento is published at motta-lube.com/documentos/ — if your copy differs, that list governs.

1 Alcance

For MOTTA VP100 in compatible oil-sealed vacuum pumps, including suitable rotary-vane pumps. Match the pump y process to el producto Antes del uso. This guide does not cover dry-pump process chambers, diffusion-pump fluids, oxygen service or reactive/hazardous processes que requiere specialist fluids y procedures.

MOTTA productos covered by this handbook

Producto	grados	Standards y nivel de desempeños	Formatos de envase
MOTTA VP100	DIN 12185, ISO 3448, ISO 6743-3, ISO VG 100	DIN 12185 · ISO 3448 · ISO 6743-3 · ISO VG 100	18L / 200L

grados, standards y Formatos de envase as published on each producto's Ficha técnica at motta-lube.com/productos/. Where a data sheet y this table differ, the data sheet governs.

2 Selección y process preparation

- Confirm the pump model, required lubricante, existing aceite, process gas/vapours y operating range. The VP100 designation is not a guarantee de an ultimate pressure para every pump. Similar viscosity does not establish compatibilidad con another aceite or con the process.
- Assess condensable vapours, particles y entrained liquids. Use the especificado inlet traps, separators y exhaust treatment donde required; maintain them under their own procedures. aceite selection alone does not protect the pump against liquid slugs or an incompatible process gas.

3 Safe draining, filling y restart

- Stop the pump, isolate electrical power y automatic restart, isolate it from the process y establish the safe vented/depressurised condition especificado by the equipo. Allow safe Manejo temperatura. Contaminated pumps may need decontamination y additional protective measures antes de opening.
- Use only the designated fill port; No pour aceite into the suction connection. Drain y service filters or exhaust separators as especificado. Fill to the pump-specific level or quantity under the stated verificaring conditions; No use a universal sight-glass midpoint or fill volume.
- Refit seals, plugs y guards. Restore the correct valve y exhaust arrangement antes de starting. Confirm lubrication, safe exhaust discharge y no leaks; verify level again under the prescribed stopped/running y temperatura conditions. Nunca loosen a fill plug while the pump is operating.

Traducción de la versión inglesa. En caso de diferencia, prevalece la versión inglesa.

4 Gas ballast y condensable vapours

- Where the pump has gas ballast, follow its especificado warm-up, valve setting y gas supply para the actual vapour load. Use only the permitted ballast gas y flow. Opening an air ballast is not a universal instruction para hazardous or oxygen-sensitive processes.
- Gas ballast can reduce condensation but can raise the achievable inlet pressure. Record its state when comparing vacuum results. Carry out any post-process purge under the pump procedure y restore the especificado operating mode; No prescribe one purge time para all pumps.

5 Monitoring y fault diagnosis

- Record aceite level, consumption, temperatura, noise y the pressure or pump-down time at identified measuring points. Compare absolute pressure using consistent unidades, gauge type, gas, load, temperatura y valve/ballast settings. A process-vessel reading is not automatically the pump ultimate pressure.
- If vacuum performance falls, investigate leaks, gauge condition, restrictions, vapour load, aceite contamination y pump condition. Cloudiness or colour change prompts investigation; clear aceite does not establish fitness. Check exhaust restrictions or separator condition donde fitted when aceite mist or consumption rises.
- For serious overheating, abnormal mechanical noise, major leakage or unsafe exhaust, stop under the equipo/site procedure y investigate antes de restart. No open a hot or contaminated pump to diagnose it while running.

6 aceite service y contamination control

- Set the intervalo de servicio from the pump instructions y actual process duty. When contamination is suspected, assess representative samples using Métodos suited to the contaminants; no universal viscosity percentage or colour rule is an aceite-discard limit.
- Use the especificado aceite para top-up y investigate persistent loss. For a producto change, confirm compatibilidad y the pump-specific draining/limpiezaing Método; No use an unprescribed solvent. Correct the contamination source y service affected componentes as well as replacing the aceite.
- Used aceite can contain hazardous process substances not described by the fresh-aceite SDS. Identify those contaminants y segregate the aceite y filters para appropriate Manejo; provide a contamination declaration when sending equipo para service.

7 Valores de referencia — indicativos, no una especificación de MOTTA

The figures below are published industry references, given so that a reading can be judged on site when the máquina documentación is not to hand. They are screening prompts, not scrap limits. Where the fabricante del equipo, the component manufacturer or your aceite analysis laboratory states a figure, that figure governs y this table does not apply.

When a reading is worth investigating

What is measured	Prompt to investigate	Why this figure
Ultimate pressure the pump reaches	Worse than the pump's own established baseline	The aceite's vapour pressure sets the floor; a rising floor is usually condensate or process contamination
aceite appearance	Cloudy, separated, or darkened	Cloudiness is usually condensed vapour; darkening is usually thermal or process attack
Water content	Above 0.05 % (500 ppm), or any free or emulsified water	Free water attacks additive sistemas y bearing surfaces at any level

The VP100 designation is not a guarantee de an ultimate pressure para every pump. Pump condition, process vapours y the gas ballast setting all affect what a given aceite can reach.

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A single result is a reason to look, not a reason to drain. Establish the new-aceite reference para el producto actually in use, trend against it, y find the cause antes de changing the aceite — changing the aceite does not remove a contamination source or a mechanical fault.

8 Almacenamiento y residuos Manejo

- Keep original containers closed, dry y clearly labelled. proteger de la contaminación, ignition sources y incompatible materials; follow el producto SDS para Manejo y protective equipo.
- Use limpieza, dry, labelled transfer containers, Nunca food containers. Collect used aceite, filters y aceitey materials separately para appropriate Eliminación; keep aceite out de drains y saceite.

Use y documento information

Selección y service depend on the exact producto, máquina y process. Resolve conflicting instructions con the equipo y lubricante technical contacts antes de work; follow the site Seguridad y residuos-Manejo procedures.

Revisión 02: Revised process Alcance, isolation y gas-ballast orientación; separated process vacuum from pump test conditions y replaced appearance-only discard rules. Revisión 03: added a reference-Valores section — published industry figures para on-site screening. Revisión 04: corrected the reference Valores para slideways, spindles, sintético aceites de engranajes y ready-to-use refrigerante; added the table de MOTTA productos covered; added the copyright y trademark notice.

Recommended Records to Retain

Record	Details to retain
Operation / service	Pump model, process gas, gauge point/unidades, ballast state, aceite/lote/quantity, hours, filters, samples, faults y corrective action.
Responsibility	Date, technician, findings, actions y next review.

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