INDUSTRIAL LUBRICANT TECHNICAL DOCUMENT

METALWORKING OIL SERIES

Neat-aceite fluido para metalmecánica Series

OPERATION AND HANDLING INSTRUCTIONS

N.º de documento	Revisión	Fecha de emisión	Release status
MOTTA-NEATCUT-OHI-ES	REV.05	2026-09-13	Emitido para use

Read Antes del uso: Este documento must be used together con the grado-specific TDS, SDS y fabricante del equipo's 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 y aplicación

Este documento applies to the filling, operating monitoring y replacement de MOTTA neat-aceite fluido para metalmecánica (non-diluible en agua cutting aceite, H6 honing aceite, E100 EDM aceite). Additional EDM-aceite requisitos appear in Section 2. For use only by trained personnel on equipo whose condition has been confirmed.

MOTTA productos covered by this handbook

Producto	grados	Standards y nivel de desempeños	Formatos de envase
MOTTA E100 Heavy	E100 HEAVY	—	18L / 200L
MOTTA E100 Light	E100 LIGHT	—	18L / 200L
MOTTA H6	Viscosidad 6	—	18L / 200L
MOTTA M500	Viscosidad 15, Viscosidad 23, Viscosidad 32, Viscosidad 46	ISO 6743-7	18L / 200L
MOTTA M600	Viscosidad 15, Viscosidad 32, Viscosidad 46	ISO 6743-7	18L / 200L
MOTTA M800	Viscosidad 10, Viscosidad 18, Viscosidad 36	ISO 6743-7	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 previa al uso Inspección

- Seleccionar cutting, honing or aceite-based EDM fluid para the especificado process, workpiece material y máquina. E100 orientación is para equipo especificado to use an aceite dielectric, not a general instruction para water-based wire EDM.
- For cutting y honing, verificar viscosity, material compatibilidad, aceite-mist extraction y the máquina fire-Seguridad requisitos. Flash point alone is not a safe operating-temperatura limit.
- For aceite-based EDM, verify the manufacturer-especificado working fluid level, temperatura limits, filtration, abnormal-discharge protección y installed fire-detection or suppression equipo antes de machining. Inspect Seguridad devices at the especificado interval; Nunca bypass level or temperatura protección.
- Maintain the required dielectric condition y Purgaring around the machining zone. Investigate contamination, abnormal discharge or excessive heating antes de resuming machining.

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

3 Filling y Operation

- Fill using dedicated, limpieza transfer equipo, Eviteing the introduction de moisture, cutting-fluid residue or a different aceite.
- Regularly limpieza sediment y swarf from the bottom de the tank y keep the filtration sistema functioning normally.
- Operate per the equipo's ventilation y extraction requisitos, minimising the build-up de aceite mist/smoke in the work area.

4 Operating Monitoring

Item	Minimum Operating Requirement	Key Judgement Point
Apariencia / contamination	Watch para discolouration, an unusual odour or swarf build-up	Abnormalities require limpiezaing or filtration-sistema maintenance
aceite mist / smoke point	Watch conditions in the machining zone	An abnormal increase suggests local overheating or an unsuitable producto selection
Dielectric strength (EDM only)	Test per the equipo or laboratory's recommended interval	A decline suggests particulate contamination - increase filtration or replace
Level	Verify periodically y record top-up quantity	Abnormal consumption suggests excess evaporation or leakage

5 Replacement Judgement

Observation	Continue in Service	Requires Attention	Should Be Replaced
Apariencia	Normal colour y consistency	Slight discolouration	Clear darkening, unusual odour or heavy sediment
Dielectric strength (EDM)	Within the equipo requisito	Approaching the lower limit	Below the equipo's required minimum, affecting machining stability
Machining quality	Normal surface finish	Slight variation	Persistently declining machining quality or abnormal electrode wear

Nota: the above is an initial field-screening reference only; it is not a producto guarantee or a universal scrap criterion.

6 Top-Up y Replacement

- Before topping up, verify el producto type; aceites para different processes (cutting/honing/EDM) must not be mixed.
- Where contamination is severe or dielectric strength persistently fails to meet requisitos, limpieza the tank y filtration sistema antes de replacing con fresh fluid.

7 Abnormal-Condition Manejo

Situation	Primary Action
Clear increase in aceite mist / smoke	Check machining parameters y the ventilation sistema; verify el producto selection is appropriate
Declining machining quality	Check the degree de aceite contamination y the filtration-sistema condition
Dielectric strength persistently below requisito (EDM)	Increase filtration or replace con fresh fluid
Unusual odour / clear contamination	Check tank limpieza y replace if necessary

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8 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
Flash point de the in-use aceite	Falling against the new-aceite reference	A falling flash point usually means contamination by a lighter fluid — a fire-risk question, not only a performance one
aceite mist in the working area	Visible mist or condensate on surfaces	Mist control is a health-exposure control; follow the occupational exposure limit that applies at your site
Tramp aceite y swarf carry-over	Accumulation in the tank	Fines change the effective viscosity y the surface finish antes de any test shows it

Neat cutting aceites are used undiluted. Nunca add water to correct viscosity or temperatura.

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.

9 Almacenamiento y Eliminación

- Keep in the original sealed container, stored in a cool, dry, ventilated area away from ignition sources.
- Transfer containers must be limpieza y clearly labelled; aceites para different processes should be stored separately.
- Fluido usado y aceite-contaminated materials must be collected separately y handed to a compliant Eliminación organisation per local regulations.

Use y documento information

Use this guide con the current producto TDS, SDS y equipo instructions. Resolve conflicting requisitos con the equipo y lubricante technical contacts antes de proceeding. Follow site energy-isolation, spill-response y residuos-Manejo procedures. producto-specific limits y equipo requisitos govern selection y intervalo de servicios.

Revisión 02: Clarified process Alcance y EDM Seguridad controls; corrected pagination. 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. Revisión 05: removed a leftover review-copy notice that contradicted the Emitido status. No technical content changed.

Recommended Records to Retain

Record Category	Minimum Recommended Content
equipo	equipo number, process type (cutting/honing/EDM)
Producto	Full producto name, lote number, fill quantity
Operation	Filling, limpiezaing y replacement dates, person responsible
Testing	Dielectric strength (EDM), appearance-verificar record
Maintenance	Filtration-sistema maintenance, limpiezaing/replacement events

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