Alfa Laval Plate Heat Exchanger Spares — Plates, Gasket Compounds and Regasketing

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Ordering spares for gasketed plate heat exchangers: how the M-series model and plate material are read, choosing the gasket compound (NBR, EPDM, HNBR, FKM) by medium and temperature, clip-on versus glued gaskets, and the regasketing and tightening-dimension discipline that decides whether a reconditioned pack seals.

What a plate order actually needs

A gasketed PHE is a stack of pressed channel plates between frame covers — every wetted part is a catalogue item. Three facts identify a plate: model (frame/plate family — M3, M6, M10, M30 in the stocked range), material, and pressing pattern (thermally long/short channels, often two patterns mixed in one pack). The stocked M6 plate in 316L covers most water and benign process duty; the M10 in titanium is the seawater answer — chloride pitting takes 316L packs out, and titanium is why coastal and marine coolers outlive their frames. Count plates and note end-plate variants before ordering; packs mix start/end plates with flow plates.

Gasket compound by medium

Compound | Happy with | Limits | Stocked example (M-series) |

NBR | Mineral oils, fuels, seawater at moderate temperature | Hot water and steam-adjacent duty age it fast | M30 NBR |

EPDM | Hot water, glycols, many chemicals — the HVAC/utility default | Swells in mineral oil; keep it away from hydrocarbons | M3 EPDM, M6 EPDM |

HNBR | Oils at temperatures plain NBR cannot hold | Costs more; specify where oil + heat meet | M6 HNBR |

FKM (FPM) | Aggressive chemicals, high temperature | Hot water/steam is its weak axis — chemistry decides, not temperature alone | M6 FKM |

Gasket attachment is its own spec: modern packs run clip-on (glue-free) gaskets that snap to the plate edge — faster regasketing, no oven cure — while older packs may be glued; the gasket variant must match the plate generation. The broader compound chemistry is tabulated in the gasket-material guide.

Regasketing that holds pressure

Record the tightening dimension first: the frame's plate-pack length (A-measure) is stamped or documented per unit — it, not bolt torque, is the closing spec. New gaskets close to the nominal dimension; chasing leaks by over-tightening cracks plates.

Inspect every plate when open: dye-check suspect ones; one pinholed plate cross-contaminates circuits and condemns the pack's purpose, not just the plate.

Keep the hanging order: plates are chevron-up/chevron-down alternates — photograph the pack before splitting it.

Full gasket sets beat singles: elastomers age as a population; mixing five-year-old and new gaskets leaves the pack sealing unevenly at one dimension.

Alfa Laval plates, gaskets and the separator spares next to them (MAPX/MOPX guide) are quoted within 24 hours from brand stock — send model, plate count, material and compound, or simply the frame's nameplate photo, and the pack list comes back itemised.

Frequently asked questions
Which gasket material does a plate heat exchanger in hot-water service need?EPDM — it is the compound built for hot water and glycols. NBR hardens there, and FKM, counter-intuitively, also dislikes hot water; FKM earns its price on aggressive chemistry instead.Can I replace only the leaking gaskets in a plate pack?It seals today and leaks next quarter — gaskets age as a set, and a mixed-age pack will not compress evenly at the specified tightening dimension. Regasket the pack, or at minimum a contiguous block, with one batch.Why titanium plates for seawater when 316L is stainless?Chlorides pit 316L through crevice corrosion exactly where plates touch gaskets; titanium is effectively immune at cooler temperatures, which is why seawater-cooled packs are ordered in Ti as a rule, not an upgrade.What is the tightening dimension on a PHE?The specified compressed length of the plate pack between frame plates — the unit's sealing spec. Close the frame to that measure; torque values are only the means of getting there evenly.How do I identify a plate when the nameplate is gone? Measure the plate (length, width, port diameter), note the pattern angle and count the pack, then photograph the gasket groove and hanging slot — that combination identifies model and generation for quotation.

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