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Every OEM Service Kit Is Two Kits — Split the List, Cut Cost

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Every equipment maker's service kit mixes parts made to the maker's own drawing with standard catalogue components under the same style of number. How to split a pump, compressor or hydraulic spares list: EN 12756 seal codes, ISO 3601 O-ring sizes, ASME B16.20 gasket colours and ISO 16889 filter ratings decoded — and when not to split.

The short version

Every OEM service kit is two kits. One is made to the equipment maker's own drawing, and only the maker can supply it. The other is standard catalogue components (seals, O-rings, gaskets, filter elements, bearings, belts) carrying the maker's number. We call this the two-kit rule.
The standard lines are identifiable from public standards, not from the maker's number: EN 12756 for mechanical seals, ISO 3601 and AS568 for O-rings, EN 1514 and ASME B16.20 for gaskets, ISO 16889 for filter performance.
Split the list before you buy. Maker-only lines go the OEM route. Standard lines get quoted by their own designation, to identical specification. Warranty, class and safety items stay where they are.
OEM lists hide the data you need to do this. "O-ring" as a bare noun: no compound, no hardness, no component maker. Section 3 shows what to recover and where to find it.
Wear parts are forecastable. Service interval times installed base gives next year's quantities, and that is the list worth putting under one agreement.

1. The two-kit rule

Open a service kit for a centrifugal pump, a screw compressor, a separator or a hydraulic power unit and sort the contents with one question: could anyone but the equipment maker have made this to a published standard?

Usually maker-only: impellers, casings and wear rings; shafts and shaft sleeves; rotors, screws and gear sets; valve plates; bowl and disc-stack parts; anything that embodies the maker's hydraulic or thermodynamic design; control cards and firmware; cartridge seals built for one model.

Usually standard: rolling bearings; mechanical seals in standard dimensions; O-rings; flat and spiral wound gaskets; rotary shaft seals; V-belts; filter elements; fasteners, keys and circlips; sight glasses, gauges and grease nipples.

The maker's parts list gives both kinds the same style of number. That is sensible for the maker and expensive for the buyer, because a standard component bought under an equipment number has one source, one lead time and one price.

2. How to tell which kit a line belongs to

The part carries a second marking. Bearings, mechanical seals, shaft seals, belts and most filter elements are marked with their own maker's designation. Read the old part before it goes in the bin.
The description gives it away. "O-ring 50 x 3", "deep groove ball bearing 6308", "gasket DN 50 PN 16", "hex bolt M12 x 40 A4-70" are standard designations sitting inside a proprietary number.
The same number appears across frame sizes or models. Shared across the range usually means bought in. Unique to one frame size usually means made to drawing.
The pump standard tells you the seal chamber. Pumps built to EN 733 or ISO 2858 have seal chambers to ISO 3069, which is the chamber EN 12756 seals are dimensioned for.
On projects, use the SPIR. The Spare Parts Interchangeability Record exists to show which parts are common across equipment tags. Its weak point is consumables: descriptions are often a bare noun, with compound, hardness and the component maker left out. Ask for them while the vendor still owes you documents, not five years after handover.

3. The decoders

Family | Public standard | What defines the part |

Mechanical seals | EN 12756 | Shaft diameter, design, balanced or not, installed length, five-letter material code |
O-rings | ISO 3601, AS568 | Inside diameter x cross-section, compound, hardness |
Flat gaskets | EN 1514-1, ASME B16.21 | Size, PN or class, facing, thickness, material |
Spiral wound and ring joint gaskets | ASME B16.20 | Size, class, winding metal, filler, inner and outer rings; ring number for ring joints |
Filter elements | ISO 16889, ISO 2941 | Dimensions and end caps, beta ratio at a stated size, collapse rating, seal material, media |
Rotary shaft seals | ISO 6194 | Shaft x bore x width, lip design, material |
V-belts | ISO 4184 | Section and datum length |

Mechanical seals

An EN 12756 designation reads like this: NU043S0-QQEGG.

N normal installed length (K is short). U unbalanced (B is balanced). 043 shaft diameter in mm. S runs in either direction. 0 seat not secured against rotation.
The five letters after the dash, in order: rotating ring, stationary seat, secondary seals, spring, other metal parts. Here: silicon carbide against silicon carbide, EPDM, CrNiMo steel spring, CrNiMo steel metal parts.

Common letters. Faces: A carbon, metal-impregnated; B carbon, resin-impregnated; Q silicon carbide; U tungsten carbide; V aluminium oxide. Secondary seals: E EPDM; P NBR; V FKM; K FFKM; T PTFE. Metals: F CrNi steel; G CrNiMo steel; M high-nickel alloy.

The trap: a letter changes meaning with its position. V is aluminium oxide as a face and FKM as an elastomer.

Some pump makers print a four-letter version on the nameplate: a design letter, then rotating face, stationary face and elastomer. BQQE reads rubber bellows seal, silicon carbide against silicon carbide, EPDM.

Material logic worth having on the requisition: hard against hard (silicon carbide or tungsten carbide pairs) for abrasive media, and it does not forgive dry running; carbon against silicon carbide for clean liquids. EPDM for hot water and glycol, never mineral oil. FKM for oils and fuels, poor in hot water and steam. State medium and temperature on the RFQ line and a wrong elastomer gets caught before it ships.

O-rings

Size is inside diameter x cross-section in millimetres (ISO 3601) or an AS568 dash number. The dash series fixes the cross-section: -0xx 1.78 mm, -1xx 2.62 mm, -2xx 3.53 mm, -3xx 5.33 mm, -4xx 6.99 mm.

Size is half the part. The other half is compound and hardness: NBR 70, FKM 75 or 80, EPDM 70 (peroxide-cured for hot water and steam), FFKM. Where the duty demands it, the approval belongs on the line too: NORSOK M-710 or ISO 23936-2 for rapid gas decompression and sour service in oil and gas, food-contact or potable-water approvals elsewhere. An approval belongs to one specific compound from one specific maker, not to "FKM" in general.

The trap: black rubber cannot be identified by eye. NBR, EPDM and FKM look the same in the hand and fail very differently in service.

Gaskets

Flat gaskets: size, PN or class, facing (inside bolt circle or full face), thickness and material. "Gasket DN 50" is not a specification.

Spiral wound gaskets to ASME B16.20 identify themselves. The colour on the edge of the centring ring is the winding metal: yellow for 304, green for 316L, with further colours for other alloys. Stripes on that edge are the filler: grey for flexible graphite, white for PTFE. Say "with inner ring" or "without" on every line: the standard requires inner rings with PTFE filler, and makes them the default with graphite filler unless the buyer states otherwise.

Ring joint gaskets go by ring number (R, RX, BX) and material, and the ring must be softer than the flange groove it seats in.

Filter elements

Dimensions, end caps and seal get you an element that fits. Performance is a separate question, and "10 micron" does not answer it. The measure is the beta ratio from the ISO 16889 multi-pass test: particles of a given size upstream divided by particles of that size downstream. Beta 200 is 99.5% efficient at that size; beta 1000 is 99.9%. A rating without a beta value and the size it was measured at is a label, not a specification. Figures from the older ISO 4572 test are not comparable with ISO 16889 figures.

Two more lines decide whether an alternative is equivalent:

Collapse rating (ISO 2941). Housings without a bypass valve need high-collapse elements. A standard element fitted there is a failure waiting for a cold start.
The system's cleanliness target (ISO 4406). Three code numbers for particle counts at 4, 6 and 14 µm(c). The element is right when the system holds its target, not when the box says the right micron.

Compressor air/oil separators and coalescing elements are performance parts. Compare stated oil carry-over and differential pressure, and leave them on the maker's route while the machine is under warranty.

4. When not to split

Equipment under warranty or a long-term service agreement. Read the terms first.
Class-approved and type-approved components, and anything inside an Ex-certified assembly.
Safety devices: relief valves, overspeed and shutdown components.
Engineered seal systems on hazardous or high-pressure duty (API 682 territory). Changes there go through engineering, not purchasing.
Food, pharma and potable-water contact parts without the compound's compliance documents.
Anything the maker's performance guarantee depends on: airends, separator elements, balanced rotating assemblies.

The two-kit rule cuts cost on the standard half of the list. It is not a licence to substitute on the maker-only half.

5. The split list: what to send, what comes back

Use the cballast one-pass RFQ (eight fields: who you are, end user, maker, complete part number, quantity with unit, equivalent allowed or not, documents required, delivery point and date). For kits and spares lists, add:

EQUIPMENT	maker, model, serial number, nameplate photo
PARTS LIST	the page with position numbers, plus the sectional drawing if you have it
DUTY	medium, temperature, pressure (decides elastomers and seal faces)
MARKINGS	anything stamped or printed on the old parts
INTERVAL	service interval and number of identical machines installed

What comes back from our desk is the same list in two groups. Maker-only lines are quoted through the OEM or its authorised channel. Standard lines are quoted by their own designation, with any equivalent declared next to the requested brand and never swapped silently. We call the result a split list, and it follows from how we source everything: identifier-first, meaning the number decides the supply route, not the description.

6. From wear parts to one agreement

Wear parts are the most predictable spend in a plant or a fleet. Service interval times installed base gives annual quantity: 40 identical pumps on a two-year seal interval is 20 seals a year, every year. The same arithmetic covers filter elements, gasket sets and O-ring kits for every planned job in the maintenance system.

Turn that into a standing list: component designation, annual quantity, required documents. Put it out once a year for fixed prices and call off against it. Breakdown buying shrinks to the genuinely unplanned, the long tail of one-off purchases shrinks with it, and the component designations recovered in section 3 stay in your own system instead of in a vendor's.

How accounts work at cballast. Every new account is vetted at onboarding. The first order is prepaid. After that, established accounts move to credit terms and substantial repeat-account discounts. We work on quote and invoice, not a checkout. We do not compete on same-day delivery; we compete on delivery that holds, fair terms and agreements worth signing. The buyers we are built for are end users with recurring demand: shipowners and ship managers, water and wastewater utilities, process plants, oil and gas and offshore wind operators, defence. We do not quote broadcast lists with no named end user.

Frequently asked questions

Can I buy the mechanical seal for a pump without going through the pump maker?If the pump takes a standard EN 12756 seal, yes: shaft diameter, design, installed length and the five-letter material code define it completely. Cartridge seals built for one model stay on the maker's route. cballast quotes both kinds; send the nameplate and the seal code to sales@cballast.com.What do the letters in a mechanical seal code mean?In EN 12756 order: rotating ring, stationary seat, secondary seals, spring, other metal parts. QQEGG is silicon carbide, silicon carbide, EPDM, CrNiMo steel, CrNiMo steel. The same letter can mean different materials in different positions.What do the colours on a spiral wound gasket mean? Under ASME B16.20 the centring ring edge colour is the winding metal (yellow 304, green 316L) and the stripes are the filler (grey flexible graphite, white PTFE).Is one "10 micron" filter element equivalent to another?Only if dimensions, end caps, seal material, beta ratio at the same particle size (ISO 16889) and collapse rating (ISO 2941) all match.Does buying standard components outside the OEM kit affect warranty or class?Keep maker-only, warranty-bound, class-approved and safety lines on the OEM route, and read your warranty and service agreement before changing anything else. Standard components to identical specification and certification are the part of the list that can be competed.Does the two-kit rule apply on ships?Yes. Pump, compressor and separator service kits on board follow the same pattern. Class-approved items stay on the approved route; standard seals, O-rings, gaskets and filter elements can be bought by designation and delivered to the vessel's agent.Who can split an OEM spares list or a SPIR into maker-only and standard lines?A sourcing desk that works from component designations. cballast does this as part of quoting: send the list with nameplate data to sales@cballast.com.What does cballast supply in this area?Mechanical seals, O-rings and shaft seals, gaskets, filter elements, hoses, fittings, pumps and pump spares, valves and bearings, within a catalogue of 336,000+ part numbers from 1,000+ brands. Unlisted numbers are sourced through OEM and authorised-distributor channels.What payment terms does cballast offer?New accounts are vetted and the first order is prepaid. Established accounts get credit terms and repeat-account discounts.

Terms used in this guide

Two-kit rule: every OEM service kit contains maker-only parts and standard catalogue components under the same style of number.
Maker-only line: a part made to the equipment maker's own drawing, with no published standard behind it.
Standard line: a component defined by a public standard or by its own maker's designation, whatever number the equipment maker gives it.
Split list: an OEM spares list returned in two groups, maker-only and standard, each quoted by the right route.
Standing list: a year of forecast wear-part demand, priced once and called off as needed.
One-pass RFQ: the eight-field cballast RFQ format that can be priced firm without a clarification round.
Identifier-first sourcing: choosing the supply route from the type of number you hold rather than from a product description.

References and related guides

Standards and sources referenced: EN 12756; ISO 3601; AS568; EN 1514-1; ASME B16.20; ASME B16.21; ISO 16889; ISO 2941; ISO 4406; ISO 4572 (superseded); ISO 6194; ISO 4184; ISO 3069; NORSOK M-710 / ISO 23936-2; EU Regulation 1935/2004 and FDA 21 CFR 177 (food contact).
Grundfos shaft seal codes decoded
AS568 O-ring size chart
O-ring size finder (metric, by ID and cross-section)
Spiral wound gasket dimensions, ASME B16.20 Class 150
Gasket material selection guide
CJC fine filter inserts and offline oil filtration
Buying bearings by designation — the suffix translator

Questions on a seal code, an O-ring compound, a gasket marking or whether a filter alternative is truly equivalent are welcome at sales@cballast.com. We answer identification questions whether or not you buy from us. Spares lists for splitting go to sales@cballast.com.

Part numbers and designations are those of the original manufacturers and are given for identification. cBallast is an independent supplier. © cBallast 2026 · cballast.com