

# Requirements Catalog: Systematic Specification of Procurement Requirements

A requirements catalog is the structured, complete compilation of all functional, technical, commercial and formal requirements relating to a good or service to be procured. It forms the basis for tenders, supplier selection and contract negotiations in technical procurement. The more precisely the catalog is drafted, the more comparable the bids and the lower the subsequent coordination effort.

## Key facts

- The requirements catalog translates internal demand into verifiable, unambiguous requirements.
- It distinguishes must-have criteria (mandatory) from nice-to-have criteria (desirable, assessable).
- Careful weighting of the criteria enables objective bid evaluation, for example via a bid matrix.
- The catalog forms the basis for enquiries, non-binding offers and subsequent contracts.
- Unclear requirements are regarded in practice as the most common cause of variations, delays and quality defects.
- The catalog is a living document and is updated throughout the entire procurement cycle.

## Definition: Requirements Catalog

The requirements catalog is a documented list of all requirements relating to an item being procured – from material properties and tolerances to quantities, delivery dates and logistics terms, through to quality, compliance and service requirements. It serves as a binding reference for all parties involved and is handed over to potential suppliers during the tendering process.

## Distinction from Functional Specification (Lastenheft) and Technical Specification (Pflichtenheft)

Based on the DIN standards for systems engineering, the requirements catalog largely corresponds in content to the functional specification (Lastenheft): it describes what the buyer needs, not how the supplier implements it. The technical specification (Pflichtenheft), by contrast, is the supplier's response and describes the planned solution. In practice, the terms functional specification, specification and requirements catalog are often used synonymously; what matters is the clear separation between requirements and solution description.

## Typical Components

A complete requirements catalog generally contains functional requirements, technical specifications with drawings and references to standards, quantity and delivery date breakdown, quality requirements including scope of inspection and documentation, logistics and packaging specifications as well as commercial framework conditions. Depending on the item procured, certification requirements, change management agreements and traceability requirements for materials are added.

## Structure and Methods: How a Requirements Catalog Is Created

Creating a requirements catalog usually follows a multi-stage process: capturing requirements from the user departments, consolidation and review by procurement, drafting in a uniform structure and final approval. A standardised structure significantly speeds up future enquiries and improves the comparability of bids.

### Structuring and Weighting Requirements

A structure based on must-have, nice-to-have and demarcation criteria has proven effective. Must-have criteria must be met, otherwise the bid is excluded; nice-to-have criteria are factored into the evaluation on a points basis. In addition, the buyer defines an evaluation model with weightings for technical quality, price, delivery capability and service. These weights feed directly into the bid matrix, making bid evaluation traceable and transparent towards suppliers.

### Drawing on Master Data and Standards

For repeat parts, it is worth looking at the material group hierarchy and existing specifications: standardised requirement templates per material group reduce effort and prevent ad-hoc, inconsistent specifications. Likewise, referencing DIN, ISO or material standards instead of individually drafted requirements reduces error rates and facilitates material approval in the quality process.

### Deriving Procurement Strategy and Contract Type

The requirements catalog influences the choice of contract type: for standardised demand with high volumes, a framework agreement with annual call-off is advisable, whereas for short-term additional demand, spot purchase vs. framework agreement is more suitable depending on market conditions. Planning parameters such as the safety time buffer or the agreement of Incoterms DAP for the delivery clause are also defined in the catalog or the accompanying terms and conditions.

## Key KPIs and Quality Characteristics of a Requirements Catalog

The quality of a requirements catalog can be measured – for example, via the bid quality of suppliers, the coordination effort in the clarification process and compliance with the required delivery dates. Anyone capturing these KPIs systematically will identify weaknesses in specification practice at an early stage.

### KPIs for Process Quality

Relevant indicators include the share of complete bids without queries, the number of change requests after contract award, and the time-to-quote until receipt of the non-binding offer. Subsequent operational adherence to the catalog is also measured, for example via the fill rate for deliveries or the results of the commercial invoice audit, in which invoiced items are checked against the agreed requirements.

### Quality Characteristics of Good Requirements

Good requirements are unambiguous, verifiable, manufacturer-neutral and complete. Wording such as "high quality" or "as fast as possible" is unsuitable because it can neither be verified nor evaluated. Every requirement should have an acceptance criterion that can later be objectively checked at goods receipt or during material approval.

## Risks, Controls and Legal Aspects

Errors in the requirements catalog impact the entire value chain: they cause renegotiations, quality deviations and liability risks. Controlled processes and clear responsibilities significantly reduce these risks.

### Typical Risks in Practice

Common sources of error are over- or under-specified requirements, a lack of coordination between engineering, quality and procurement, and outdated drawing revisions. Under-specified requirements lead to defects and complaints, while over-specified ones lead to unnecessary costs. Unclear inspection and documentation obligations also cause disputes later on during the commercial invoice audit or in the event of defects.

### Controls and Approval Process

A formal approval process with defined reviewers from engineering, quality and procurement, a documented version history and a structured change management process after catalog approval have proven effective. In addition, procurement policy compliance guidelines can incorporate requirements on standards, sustainability or supply chain due diligence. For critical suppliers, an analysis of supplier financial health is recommended to ensure that the stated requirements can be met at all.

### Legal Notice

From a legal perspective, the requirements catalog is an essential part of the contractual basis. Wording on warranty, retention of title to tooling, scope of inspection and liability should be legally reviewed on a case-by-case basis, especially for public contracts or cross-border transactions. The information in this article does not constitute legal advice.

## Current Developments: Digitalisation and Supplier Collaboration

Requirements catalogs are increasingly managed digitally: as structured data rather than static PDFs, they can be automatically transferred into tendering platforms, ERP systems and supplier portals. This speeds up tenders and improves data quality across the entire life cycle.

### Supplier Enablement and Digital Enquiries

Digital requirements catalogs significantly lower the barrier to entry for suppliers – a key building block of supplier enablement. Structured requirements with clear bid matrix logic lead to faster and more complete bids, particularly when onboarding new suppliers as part of supplier de-risking or diversified procurement strategies.

### Demand Planning and Catalog Maintenance as Ongoing Tasks

The catalog thrives on alignment with the sales forecast and the resulting quantity and delivery date requirements. Changes to the bill of materials, inspection requirements or material traceability must be incorporated promptly. In addition, sustainability and supply chain requirements are increasingly being added to the catalog, such as CO2 data, proof of origin or social standards in the supply chain.

## Typical metrics

**Bid completeness rate: > 90 %**

Share of bids submitted without queries – an indicator of catalog quality

**Change requests after contract award: < 5 %**

Share of line items with subsequent specification changes

**Time-to-Quote: typically 5–15 working days**

Time from enquiry to non-binding offer, depending on complexity

**Fill Rate: > 95 %**

Share of items delivered on time relative to catalog specifications

## Practical Example

A mid-sized mechanical engineering company is to procure a control cabinet assembly in several variants going forward. Previously, unstructured emails with attached drawings led to numerous queries and divergent bids. Procurement therefore draws up a standardised requirements catalog: must-have criteria cover material, ingress protection rating, scope of inspection and delivery terms, while nice-to-have criteria assess packaging format, response times and change flexibility. The weighting feeds into a bid matrix, and quantities are based on the agreed sales forecast and drawn down via an annual call-off.

- Standardised catalog template per material group with must-have and nice-to-have criteria
- Weighted evaluation model and bid matrix for objective bid comparison
- Framework agreement with annual call-off and defined Incoterms
- Formal approval process involving engineering, quality and procurement prior to every enquiry

## Conclusion

The requirements catalog is the backbone of any sound procurement process: it translates internal demand into verifiable requirements, makes bids comparable and forms the contractual basis. Its value depends entirely on the quality of the drafting – unambiguous, weighted and kept up to date. Investment in standardised templates and digital processes quickly pays off through faster enquiries and fewer disputes. Those who treat catalog maintenance as an ongoing process rather than a one-off task lay the foundation for robust supplier relationships and predictable procurement costs.

## Frequently asked questions

**What is a requirements catalog in procurement?**

A requirements catalog is the structured compilation of all requirements relating to a good or service to be procured – technical, commercial, quality-related and logistical. It necessarily distinguishes mandatory must-have criteria from assessable nice-to-have criteria. As part of the tender documentation, it forms the basis for bid comparison and contracting.

**What is the difference between a requirements catalog and a functional specification (Lastenheft)?**

In terms of content, the two largely coincide: both describe the buyer's requirements, not the supplier's solution. The term "functional specification" (Lastenheft) originates in systems engineering under DIN standards, whereas "requirements catalog" is the more general practitioner's term. The technical specification (Pflichtenheft), by contrast, is the supplier's response and describes how the requirements

will be implemented.

### **Which items belong in a requirements catalog?**

Typical contents include functional and technical specifications with references to standards, quantities and delivery dates, quality and inspection requirements, packaging and logistics specifications as well as commercial framework conditions such as delivery terms and payment terms. Depending on the item procured, certifications, change management and material traceability requirements are added. It is essential that every requirement has a verifiable acceptance criterion.

### **How are bids evaluated using the requirements catalog?**

Bids are evaluated on the basis of criteria and weightings defined in advance, for example using a bid matrix. Must-have criteria act as knock-out criteria, while nice-to-have criteria and price are factored into the overall evaluation on a points basis. Transparency towards suppliers about the weighting increases both bid quality and acceptance.

### **Who creates the requirements catalog – procurement or the user department?**

In practice, the user department provides the technical and functional requirements, while procurement adds commercial, logistical and strategic criteria and consolidates the overall document. A formal approval process involving quality and engineering has proven effective. This ensures that contradictions and over-specified requirements are identified at an early stage.

### **How often should a requirements catalog be updated?**

The catalog should be updated whenever there is a material change to the bill of materials, standards, inspection requirements or framework conditions – for serial parts, typically as part of an annual review. Changes after approval go through a structured change management process. Outdated drawing revisions are one of the most common sources of error in the procurement process.