



taconova
comfort solutions





I. VISION AND MISSION STATEMENTS

COMPANY VISION

To promote success for our family of employees, customers, partners, and communities globally by being the easiest company to do business with while providing innovative and dependable HVAC, plumbing, and industrial solutions.

COMPANY MISSION

We provide opportunity, growth, and support to all members of the Taco Family around the world. Through a persistent focus on exceeding customer expectations, we strive to be the first choice for dependable, high-efficiency heating, cooling, behind-the-wall plumbing, and fluid control solutions that help our customers save money, energy, and resources while maximizing their comfort and productivity.

CORE VALUES

People come first

Relationships are paramount at Taco. Whether an employee, customer, business partner, or member of the community, you will be treated with kindness, integrity, and mutual respect. We care about your success. We have the best workforce in the world. The foundation of our success is our people. Their dedication, commitment, and innovation built this company and will drive its future success. We will always strive to provide a secure, stable livelihood for our employees and their families as well as opportunities for growth.

Prosperity for all through profitability

We believe in prosperity throughout the Taco Family through profitability. We have an obligation to our employees, customers, business partners, and communities to remain profitable and financially stable in order to assist in their prosperity as well.

We support the communities that support us

We are supported and nourished by the communities where we work as well as the greater world around us. We have an obligation to give back by operating sustainably, purchasing locally whenever possible and supporting local non-profit work through our charitable arm, the White Family Foundation.

II. QUALITY OBJECTIVES

Welcome to Taconova (a part of Taco Comfort Inc.) a family-owned business built on core values, experience, and forward-thinking business practices. Together, we and our suppliers provide our customers innovative and high-quality products.

Quality of our products is a crucial aspect of our business, and we are committed to excellence in quality. As our products consist of large scale of various materials and sub-components, supplier quality performance is a substantial key of how to fulfil our commitments.

Therefore, we put high demands and expectations also on our suppliers. We are aware of various types and specific aspects of delivered products, so we set our targets for direct material suppliers (production items) in the following way:

	By end of 2023	by end of 2024	by end of 2025 onwards
A suppliers	200 ppm	100 ppm	50 ppm
B suppliers	300 ppm	150 ppm	50 ppm
C suppliers	500 ppm	250 ppm	150 ppm

This Manual provides important information concerning our business practices and expectations in supplier quality area. Please read this guide in its entirety and fill out, sign, and return to Taconova representative. All information contained in this guide is confidential and proprietary to Taconova.

We look forward to a mutually rewarding business relationship with you. Should you have questions or comments regarding our policies and procedures please contact your Taconova Supply Chain Contact.

III. GENERAL FRAMEWORK OF COOPERATION

By signing of this document, supplier adheres to fulfil all the requirements stated in this document.

Together with other documents - Purchase orders, Blanket purchase orders, Cooperation agreement of Taconova injection molds, our [Purchase order Terms and Conditions](#) and [Code of Conduct](#) this *Supplier Quality Manual* is the add-on to Taconova technical specification provided to suppliers for manufacturing of single Taconova parts - *Technical drawings* or *Product specifications*.



This *Supplier Quality Manual* is applicable to all Taconova raw materials and components that are directly mounted into Taconova finished products.

Special focus is given to injection molded components, brass products, and electronics.

IV. SUPPLIER QUALIFICATION AND AUDITING

Taconova is an ISO 9001 and ISO 14001 certified company and has a process of qualification and release of new suppliers. A special focus is given to suppliers of direct materials who are expected to become most important partners – A and B suppliers

- before approval the new supplier must commit to acceptance of our [Purchase order Terms and conditions](#) and to this Supplier Quality Manual
- for suppliers of direct materials that are expected to become future A or B suppliers, it is necessary to pass a qualification audit of Taconova representative(s) – typically Taconova Supplier quality specialist and strategic Buyer. Supplier is approved by Supply Chain Manager.

Anytime during business relationship Taconova is entitled to verify Quality Management System, the supplier's process and technological competence, or product compliance with a regular audit. The audit results provide the information of the process capability to supply products of required quality.

Frequency of supplier audits (or visits) is at least following:

- A suppliers: 1 × year
- B suppliers: 1 × every 2 years
- C suppliers: when necessary

V. CERTIFICATION & COMPLIANCE REQUIREMENTS

All our suppliers of raw materials and components that are mounted directly into Taconova products shall have valid certification of at least ISO 9001 level, and at least have basic awareness of QM principles requested by IATF 16949 or ISO 13485. When the supplier doesn't possess with valid ISO 9001 certification, must provide an action plan of how and when this will be reached.

Some supplied products are subjected to specific certification requirements. Such as

- Brass and plastic components – some are subjected to drinking water specification. At these materials we request to get material CoC (certificate of conformity) together with each shipment. This need is stated on the drawings of specific parts.
- Electronical devices or components need to be declared as CE certified and RoHS compliant.
- All products must be REACH compliant

VI. SAMPLING PROCESS

Sampling requirements are defined by Taconova Supplier Quality specialist.

For new development products supplier will receive the checklist with specification of requested sampling size and documentation – PPAP level 1-3.

For running serial production parts following criteria shall be met:

- samples to be sent physically to Taconova Supplier Quality specialist together with all relevant documentation in one complete package
- sample parts are taken from serial tooling and run under standard serial manufacturing conditions
- standard quantity are 5 fully measured pieces that supplier declares as OK pcs. In some cases where multi-cavity tools are in place – Taconova specific injection molded components etc. – the optimum quantity are 12 pcs per cavity, the minimum are 5 pieces from each cavity
- supplier must submit a complete dimensional report for each item, certificate of material composition in case of products subjected to special certification (drinking water certification.) and draft of serial production control plan
- a sampling package must be visibly marked with a "Product sampling" label. After delivery of the sample parts, the items will be subjected to a complete dimensional and visual inspection and overall evaluation. After the end of the inspection process at Taconova the supplier is informed about the results of product sampling inspection
- in justified cases supplier can ask for conditional release of the parts – which always must be followed by change of the drawing (long-term solution) or future re-sampling (temporary solution) where the release is limited to specific timeframe or manufacturing batches
- we set our internal Taconova target to evaluate every initial sampling in 5 working days



VII. IN PROCESS CONTROL OF SERIAL PRODUCTION

The Supplier undertakes, at its own liability, to plan, organize and implement the production process and quality assurance so that all requirements for product quality assurance are ensured.

Supplier must secure production control plan for all products manufactured for Taconova. Control plan needs to reflect critical and functional parameters and dimensions that are always determined by Taconova and marked on the technical drawing, or other Taconova requirements, if there are any.

Also, for standard serial production suppliers shall proceed with manufacturing capability studies such as measure Cp and Cpk values where we request to be at value $>1,33$.

In case of multi-cavity injection molded parts, the supplier must conduct a 100 % dimensional and visual check of the first pieces at start of each manufacturing batch.

All products must be free of flashes, burrs, oil, grease, dirt, and visual damage. If any defect is discovered, the production of components needs to be immediately stopped, the supplier conducts an analysis of the root cause and take actions to eliminate the defect. After the production is renewed, a 100% quality check will be performed until the defect is fully eliminated. The supplier must ensure that any defective components will be immediately removed from the production process and determined as "non-conforming". If there is a risk that non-conforming components are already in transit or at Taconova, the Supplier must immediately inform Taconova Supplier quality specialist and jointly define adequate actions to eliminate the non-conformity. The quantity and cause of a defects must be determined and documented.

Based on the buyer's documentation, the supplier may ask conditional release of non-conforming products. If the products are released by the buyer, the supplier must properly mark the non-confirming products before shipping.

VIII. DOCUMENTATION RECORDS

In order to support guarantees and product liabilities of Taconova products supplied to final customers our suppliers undertake to archive following production and quality records at least for 5 years from production date:

- initial sampling records of products provided to Taconova
- records of in process control from serial production (based on control plan)
- production data such as production parameters for single manufacturing batches
- retain samples from last manufacturing batch
- register sub-suppliers manufacturing batches used for production of Taconova products
- provide Taconova with a copy of all available quality certificates and submit all renewals automatically to Taconova Supplier quality specialist.

All these records shall be available for Taconova representatives in case of an audit or upon request.

IX. PRODUCT TRACEABILITY

Suppliers shall support full traceability of the goods back to its sub-suppliers as specified for example in IATF 16949 or ISO 13485. That means supplier need to be able to trace back the specific manufacturing batches produced for Taconova into the level of single sub-supplier manufacturing batches of components used for the production.

This feature is obligatory for all A and B suppliers of Taconova to be implemented by latest 30.6.2024 and needs to be declared at supplier audits for selected products.

X. NOTIFICATION OF CHANGE

As an ISO 9001 certified facility we maintain careful surveillance of all suppliers of goods and services that may have an effect on our product quality and certifications. The procedures are specific in stating that no changes or substitutions of materials may be made without approval by appropriate Taconova authority.

Suppliers are responsible to ensure that the goods supplied to Taconova are the same as those that were originally approved against current engineering specification(s). Occasionally, a vendor will mistakenly assume a similar part that meets a "better" grade will be an acceptable substitute, but this assumption cannot be made. Any changes must be approved by your appropriate Taconova contact.

If, for any reason, you are not able to supply product that is within the said specification(s) as that which was originally approved, you must obtain prior authorization in writing from Taconova (and if applicable, submit a full first article sample and supporting inspection data) before any shipment.

“Within specification” implies that goods are made from the same specified material, using the same manufacturing process, manufactured in the same facility and receive exactly the same treatments and tests as formerly received.

For Taconova specific materials and components, supplier must communicate any proposed changes in writing a minimum of 6 months prior to the planned change in order for Taconova to review its potential impact to the business. All proposed changes must be submitted for First Article Inspection and review. Changes are defined as a change in material composition or manufacturing process.

Supplier must ensure that changes are planned, such that no disruption in supply to Taconova.

XI. MEASURING AND TESTING EQUIPMENT

The Supplier should put in place a procedure for monitoring used measuring and testing equipment and periodically calibrate the measuring equipment. The measuring standards used for calibration must comply with international or national measuring standards. If such measuring standards are not available, the basis of calibration or verification must be documented.

Taconova possesses with 3D and optical measuring devices that are mostly used for incoming inspection and initial sampling measurements. In case of disputable measurement results between supplier and Taconova, both parties need to agree the same way of measurement for problematic dimensions. If the exact measurement of some requirements or features is not possible, then Taconova defines reference samples (O.K. parts) that are kept at both sides to set a future quality standard. Another possibility is to develop a catalogue of failures showing features that are not allowed, if not specified on the drawing.

XII. INCOMING INSPECTION

Taconova normally does not conduct a 100% incoming goods inspection, we are doing just random incoming inspection checks. Target is to limit number of inspections to a minimum level. We are working with dynamic control plans which are based on product criticality, supplier reliability and failure occurrence frequency. Therefor we expect the control is done by our suppliers and they need to have robust internal quality management system with early anticipation of failures and reliable implementation of defined corrective actions.

XIII. COMPLAINTS

All goods that do not fulfil Taconova technical or quality requirements are considered as non-compliant. Supply of such a goods is almost always accompanied with costs resulting from this non-conformance. If such costs arise (internal or external) they will be fully transferred back to supplier.

For the cases that are subjected to claim the following procedure is used:

- Information to the supplier about a non-conformity discovered, in the form of 8D-Report. If a complaint is justified, Taconova can apply a fee of € 150 per case for preparation of an 8D-Report, internal testing and other related expenses. This fee will be applied for the same type of repeated failure despite supplier claims successful implementation of corrective actions in the last 8D.
- The initial Supplier's feedback to Taconova with suggestion of immediate temporary solution is required within 48 hours. Most common solutions are:
 - Repair or rework by supplier
 - Free of charge replacement of goods organized by supplier
 - Sorting (arranged by supplier or by Taconova)
- In case that Supplier is not able to exchange or repair / rework the goods before production stops, Taconova automatically starts to sort non-conforming components to keep the production running. In that case, Taconova will charge € 35 per hour / per worker + other costs associated with the repair, additional works, or idle time to the supplier. Following principles to be kept:
 - Sorting at Taconova is considered as the very latest option and is arranged only for absolute minimum of pieces that are required to keep the production running.
 - Before start of sorting Taconova provide the information to supplier, what is expected sorting output (necessary time per piece sorted) and how many pieces are planned to be sorted
 - After end of sorting, Taconova provides supplier final quantity sorted together with the invoice for sorting works.
 - The rest of the goods is sent back to supplier for rework or replacement or scraped (based on agreement with supplier).
- Supplier has to provide root cause analysis as well defining corrective actions within filled-in 8D report by 30 days after receipt of complaint



- Any rejected goods need to be picked-up by supplier latest by 10 working days after a complaint is closed
- The Supplier is required to implement defined corrective measures latest by 60 days after receipt of complaint and need to proof implementation to Taconova (show photos, videos or provide any other documents). Implementation will be double checked during next supplier audit.
- For the consecutive 3 shipments (with each delivery) after a claim is reported, Taconova requests to get measured and declared claimed dimensions (can be a copy of standard measurement protocol from a supplier based on actual control plan)

XIV. WARRANTY & PRODUCT LIABILITY

As stated in our [Purchase order terms and conditions](#), section XX, the required warranty period is 24 months guarantee from date of goods receipt.

Besides the standard product warranty suppliers must comply to EU regulation 85/374/EHS and must take responsibility also for consecutive damages caused by their failing products, even mounted into the Taconova finished products and delivered to the market. Supplier is obligated to maintain an appropriate commercial insurance (please also see section IX., of the [Terms and Conditions](#) mentioned above) that will cover potential product liability costs resulting from manufacturing defects for 10 years from date of manufacture and at least of 1 000 000 EUR per case as insurance coverage.

These potential high value insurance cases must be handled with top priority and supplier must involve his insurer immediately. In 2 weeks from notification, together with his insurer, supplier shall provide Taconova with a checklist of all necessary information required for successful claim handling (requirements on providing documentation, product samples, photos, videos etc.).

Within 2 months after receipt of all required data, supplier must investigate root cause of the failure and give a clear statement whether the failure is caused by his manufacturing process or not. Taconova may involve supplier and his insurer into the direct discussions with the end customer.

XV. PACKAGING & CONSIGNMENT MARKING

Taconova usually doesn't prescribe specific way of packaging that must be used. Unless otherwise defined on the drawing of specific parts, the supplier must only ensure that used packaging will not have negative impact on product quality during transportation and storage of the products. Recyclable and reusable packages are preferred.

Each packaging unit must contain a mark confirming that the shipment passed outgoing quality inspection check of a supplier.

Each packaging unit must contain a label with product details. The details are based on the Taconova order and at least contain the following data:

- Component name
- Taconova component number
- Quantity contained in single packaging

The shipment must be accompanied still with additional information that can be stated on delivery note (all data preferably also in form of QR code):

- Order number
- Manufacturing batch number
- Raw material used (only for plastic and brass components)
- Taconova drawing number including change index.

XVI. COST RECOVERY

At Taconova's discretion the below charge back fees may apply if deemed necessary to prevent or avoid future quality issues. Suppliers are liable for those costs incurred by Taconova when the cause is the supplier's responsibility.

Item	Details	Cost
Creation of 8D Report – reoccurring issues (repeated failure on same material from same supplier)	Admin Fee	EUR 150,- / justified case
Sort, Rework and material handling of con-conforming material	Sorting arranged by Taconova	EUR 35,- / hour
Business Interruption	Fee due to business interruption	EUR 1 200,- / hour



XVII. SUPPLIER EVALUATION

As a part of Taconova quality system, Taconova proceed with regular (annual) supplier evaluation. Results are calculated from all shipments received throughout fiscal year. Is done for all A, B and C direct material suppliers and reflects the following criteria:

- **On-time delivery**

The criteria has a 40% weight in overall score. It evaluates on-time delivery of each purchase line - supplier promised delivery date against date of receipt. All discrepancies against 0-3 working days are penalized.

- **Quality**

This criteria has a 40% weight in overall score and is calculated as quantity of failing parts from each delivery.

This criteria is linked to quality targets stated in section II.

- **Quantity**

This criteria has a 20% weight in overall score and penalizes the under/over deliveries of more then 5% against ordered quantity.

Singe suppliers are then grouped based on overall ranking (max. 100 points) into following groups:

- 100 – 90 points – very well performing suppliers. Preferred partners for future growth and new business.
- 90 – 80 points – stable performing suppliers, no special action required
- 80 – 70 points – underperforming suppliers. Supplier with this rank need to work-out action plan how to improve weak areas. Measures and implementation will be subject for revision at next supplier audit
- Under 70 points – poor performing suppliers, not fulfilling Taconova requirements. Reduce business, potentially to be replaced.

XVIII. CONCLUSION

This document is binding for all suppliers of raw materials and components and serves as a “Quality Agreement” between Taconova and its suppliers. Together with Purchase order terms and conditions this document is an integral part of our Purchase orders.

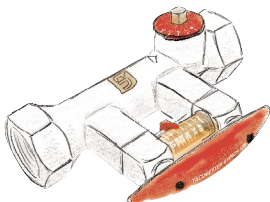
The suppliers are required to read it and fulfil the stated requirements. Failure to meet the requirements specified in this document may result in loss of existing and/or future cooperation and payment of compensation for damages and associated extra costs. If there is a conflict between the express provisions of the Framework Purchase Agreement / Framework Contract for Work / Purchase order and these quality requirements for suppliers, the provisions of the Framework Purchase Agreement / Framework Contract for Work / Purchase order will prevail over the provisions of these quality requirements.

Please sign and e-mail this document to your applicable Strategic Buyer contact.

Supplier Name

Supplier Signature:
(Highest Responsible Authority)

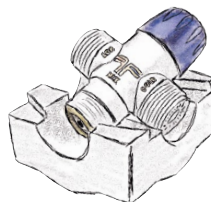
Date



HYDRONIC BALANCING

Increased energy efficiency

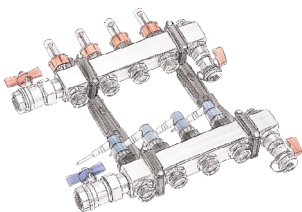
Heat distribution for any system, matched to demand.



VALVES AND ACCESSORIES

Compact aids

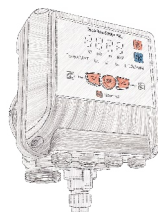
For safety, greater effectiveness and convenience.



AREA HEATING SYSTEMS

Perfect interaction

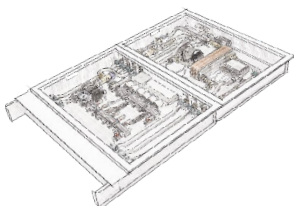
For a pleasant, individual room climate.



PUMP TECHNOLOGY

Upwardly efficient

For low operating costs and greater energy efficiency.



SYSTEM TECHNOLOGY

Intelligent units

For reliable operation, reduced maintenance and optimised energy costs.



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