

# FK 0922

## Quality requirements for suppliers

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The supplier shall agree to these minimum requirements by signing this page and sending to [power-quality-hse@man-es.com](mailto:power-quality-hse@man-es.com) not later than five working days after receipt.  
(Signed once a time at the beginning of the supply relationship)

	<b>Supplier consent</b>	Date: _____
	Signature: _____	
	Company stamp: _____	

## Release table

Version	Author	Approved	Released
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## 1 General section

### 1.1 Background information

MAN Energy Solutions SE produces large diesel engines, power plants, marine propulsion systems, exhaust turbochargers, gearboxes, propellers and the associated electronic safety and control systems in a global company network. The parts in these products and/or the products themselves are produced using state-of-the-art production and assembly processes within a very short production time.

This production and assembly is based on the extremely precise timing of the delivery of parts which always comply with drawings and specifications. A full technical incoming goods inspection of the parts provided by the suppliers shall no longer be performed in the production and assembly plants of MAN Energy Solutions SE.

Any delays which occur as a result of the delivery of components not being on time or the delivery of defective parts can therefore quickly lead to significant delays in production and assembly. This must be prevented in any event, otherwise it can result in delays in delivery, customer dissatisfaction and significant penalties.

**For this reason, all suppliers – as partners of the MAN Energy Solutions SE supply chain – must always ensure, in the long term, the on-time delivery of parts, which fully comply with specifications.**

### 1.2 Scope of applicability

These General Quality Conditions shall apply to all deliveries made to MAN Energy Solutions SE and must be complied with by all suppliers worldwide.

For suppliers of branch PBS Turbo the corresponding modification FK 0513 applies.

### 1.3 Quality requirements for the suppliers

MAN Energy Solutions SE (MAN ES) shall enter into a partnership with the supplier. The quality requirements for this should therefore clearly present the binding framework conditions for deliveries/services before the initial commissioning.

- ! Supplier approval requires the acceptance of the following minimum quality requirements.

## 1.4 Minimum quality requirements for supplier approval

The supplier must comply with the purchase order specifications, all the requirements and specifications associated with the purchase order set out in the applicable documents, as well as with the legal provisions. The supplier shall set up a quality management system (e.g. DIN EN ISO 9001) and, following a successful MAN ES approval process, shall receive delivery approval.

### 1.4.1 REACH Regulation

The supplier is obliged to strive to ensure maximum protection of the environment. The supplier undertakes to comply with all the requirements of the current REACH Regulation (Regulation (EC) No 1907/2006). These include, in particular:

- Fulfilling registration obligations on time
- Querying identified uses three months in advance
- Complying with substance limitations
- Complying with information obligations (Title IV REACH), e.g.:
  - Delivery of safety data sheets
  - Information about SVHC substances in products.

The supplier is aware that the relevant candidate list for the SVHC substances in products and Annex XIV of the REACH Regulation must be continuously updated. If, by updating the REACH Regulation, changes need to be made in the supplier's production processes, which concern MAN ES, the supplier, shall contact MAN ES immediately

### 1.4.2 RoHS, WEEE

The supplier hereby confirms that all supplied components correspond to the specifications and restrictions of the current versions of the European Directives RoHS (RL 2011/65/EU) and WEEE (RL 2012/19/EU) and with any national legal implementations.

### 1.4.3 Secrecy clause

All information and technical details made known to the supplier as a result of contact or a supply relationship with MAN ES shall be treated confidentially towards any third parties, at all times, including before an existing supply relationship commences and after it ends. MAN Purchasing shall request an appropriate statement to this effect.

### 1.4.4 Ambiguities in the order

**!** Any lack of clarity in the order shall be agreed by the supplier via MAN ES Purchasing before the start of production.  
⇒ Any resulting binding statements/facts shall be documented.

#### 1.4.5 Auditing

The supplier shall grant MAN ES the right to perform audits at its premises and to take part in production tests. After previous corresponding announcement and coordination, the MAN ES employees shall gain access to the relevant production facilities of the supplier or sub-suppliers commissioned by the latter.

### 1.5 Special requirements for delivery to plants/assembly sites of MAN Energy Solutions SE

#### 1.5.1 Quality assurance measures required from MAN ES

The supplier is responsible for ensuring compliance with the applicable purchase orders and regulations, i.e. the following are binding:

- All the required quality assurance measures
- Ensuring all processing takes place within stable processes (in accordance with ISO 9001 or comparable)
- Clear Production processes (planning, implementation and documentation)
- Outgoing goods inspections (performance and documentation of results)
- Exclusion of all components that are defective or deviate from the specifications
- Packaging and preservation which guarantees protection of the components and meets transport requirements.

#### 1.5.2 Regulations and standards

If applicable, the supplier shall assume producer responsibility. For components for marine plants, (Project 4 XXX XXX) the supplier shall comply with the "Rules & Regulations" of the responsible ship classification companies as well as other specifications (e.g. SOLAS, IMO) and shall inform and commission the companies in good time where there is an acceptance obligation.

If applicable, the supplier shall carry out a conformity assessment for components or parts (Power Plants: Project 5 XXX XXX) and demonstrate conformity with the EC directives vis-à-vis the party placing the order by means of a suitable document. MAN ES shall be granted the right to inspect or ask to see, at any time, internal producer documentation and any risk assessments (where the EC directives require this for the scope of services). The supplier shall hand over the required technical documentation to MAN ES. If the EC pressure directive applies to the scope of services or parts, AD 2000 respectively the European harmonised directives have to be used.

## 2 Delivery to MAN Energy Solutions SE plants

### 2.1 Forward quality planning

Effective quality planning by the supplier before the start of production is the basis for producing parts corresponding to the specifications and for the permanent improvement of products and processes in accordance to ISO 9001 or comparable.

For this reason, the supplier must prepare a forward quality plan (FQP) for all products ordered by MAN Energy Solutions SE during the preparation of its first internal work order processes. The FQP must be continuously updated and improved by the supplier during normal serial production.

The FQP must show which test and/or inspection steps are planned at which stage of product development at the supplier or at its sub-suppliers. The FQP must indicate whether the individual test/inspection step is a "HOLD point" (production is stopped until the test/inspection step is complete), or if only a subsequent review of the test results – "REVIEW point" – is to be carried out (the results of the test/inspection steps are checked without stopping production). If tests/inspections are supervised by departments which are independent from production (e.g. quality department of the supplier) or by a third party, this shall be indicated as a "WITNESS point" inspection step in the FQP.

Finally, the supplier must list in the FQP all features of the tests/inspections in the final, mandatory end of line inspection (EOLI)

As part of the initial sample test process, the supplier shall, without being asked to do so, submit the FQP, together with the initial sample test report, to the quality department at MAN Energy Solutions SE for inspection.

At the request of MAN Energy Solutions SE, additional tests/inspections shall be recorded in the FQP by the supplier.

If MAN Energy Solutions SE has not ordered an initial sample, the FQP shall be archived at the supplier and made available to MAN Energy Solutions SE upon request.

By handing over or archiving the FQP in-house, the supplier is declaring it has frozen its production process.

The supplier shall remain fully responsible for the quality of all deliveries (i.e. meeting in full the agreed specifications of MAN Energy Solutions SE) even if the FQP is inspected by MAN Energy Solutions SE.

A detailed test plan shall always be expected, whereby the special features should be taken into account in particular in accordance with our AN51. The testing specifications at workshop level shall be recorded in a test plan. MAN ES reserves the right to be able to see, at any time, the critical features and the evaluation thereof recorded via a quality assurance concept.

**If, as part of the subsequent series delivery, changes need to be made to the FQP, these shall be agreed with MAN Energy Solutions SE and the modified FQP handed over by the supplier to MAN Energy Solutions SE.**

### 2.2 Approval for series deliveries

Before approving series deliveries, the supplier shall deliver an initial sample with an initial sample test report in accordance with the MAN ES quality guideline Q 10.09012-4503, if this is demanded in the purchase order.

If process capability requirements are required in the purchase order in accordance with the quality guideline Q10.09012-4504, the process control plan in accordance with FK 0573 and a measuring system analysis for the special features must be provided to MAN ES before the start of production of the initial samples. Initial samples must always be produced under series conditions and using serial tools.

If required, the investigation for short-term capability must be presented together with the initial sample documentation.

### 2.3 Ensuring process stability

If process capability requirements are required in the purchase order in accordance with the quality guideline Q10.09012-4504, the characteristic values for short-term and long-term capability for the special features must be provided to MAN ES. The supplier undertakes to keep the production process within the specified minimum capability characteristic values.

Before the supplier introduces any optimisation measures or other changes which influence the specifications provided by MAN Energy Solutions SE to the frozen production processes, the supplier must analyse the intended measures very critically with regard to potential negative impacts on the quality of the products delivered. This analysis must be documented in writing in the changed process together with the point at which the measure will be used and (if this is present on the product) the identification mark of the first products produced. The supplier shall provide MAN Energy Solutions SE with this analysis.

If MAN Energy Solutions SE establishes a risk that the measure could worsen the situation, it must not be implemented.

### 2.4 Obligation to perform an end of line inspection (EOLI) at the supplier

The supplier undertakes to perform an end of line inspection (EOLI) on each delivery lot before delivery according to the scope of tests/inspections specified in the FQP. The results of the EOLI shall be documented in English using test certificate 3.1 in accordance with EN 10204. The test certificate shall be confirmed by means of the handwritten signature of the supplier's quality manager.

The test certificates shall be stored at the supplier for at least 10 years after delivery and made available to MAN Energy Solutions SE without delay upon request.



## 2.5 Restricted incoming goods inspection at MAN Energy Solutions SE

The incoming goods inspection at MAN Energy Solutions SE is restricted to transport damage visible from the outside and to establishing compliance with the quantity and identity of the ordered products. The supplier waives the objection of late complaint of the defects. The supplier undertakes to orientate its quality process to this fact.

## 2.6 Processing of defective products

**The procedure for processing parts which have deviations and the consequences for subsequent deliveries are described in the MAN ES guideline FK 0911.**

## 2.7 Immediate measures for quality problems, insurance cover

If there is a risk of production and/or assembly delays or production downtimes at MAN Energy Solutions SE due to the delivery of products not corresponding to specifications, the supplier must – in agreement with MAN Energy Solutions SE – provide an immediate remedy through suitable immediate measures carried out by the supplier (replacement delivery, sorting work at the supplier's or at MAN ES's warehouse; if necessary by independent third parties, night or weekend shifts, etc.). It is highly recommended that the supplier take out insurance which covers any claims for compensation arising from the deliveries of non-conforming parts.

## 2.8 Further quality agreements

For specific purchase parts, in particular for plant accessories which are delivered by the supplier directly to the installation site at the plant or to the shipyard, MAN Energy Solutions SE shall conclude detailed quality agreements with the supplier.

### 3 Deliveries via direct shipment

#### 3.1 Defective delivery

**!** Defective deliveries identified by MAN ES when goods are received, during commissioning or within the warranty period shall not be accepted.

⇒ MAN ES shall make a complaint and request a response with suitable measures to rectify the defect.

The supplier shall without delay, and no later than three working days after receiving the notification of complaint, issue a response in writing and provide its solution. Furthermore, the supplier shall inform MAN ES how defective deliveries will be avoided in the future.

Irrespective of the above, all further measures taken by and rights of MAN ES shall remain unaffected.

The supplier shall assume producer responsibility, i.e. it shall carry out a conformity assessment for components for onshore plants or parts and demonstrate conformity with the applicable EC directives vis-à-vis the party placing the order by means of a suitable document.

MAN ES shall be granted the right to inspect, at any time, internal producer documentation and any risk assessments (where the EC directives require this for the scope of services).

The supplier shall hand over the required technical documentation to MAN ES. If the EC directive on printers applies to the scope of services or parts, AD 2000 shall be applicable.

#### 3.2 Quality documentation

For components subject to obligatory monitoring from a quality point of view, MAN ES shall order quality documentation. For power plant projects, quality directive Q10.09028-2101 must be complied with as binding. Q10.09028-2103 shall apply to marine projects.

Enter "<http://www.mandieselturbo.com/documentation>" in your browser to access the quality directives.

Any certificate required in addition to the documentation from the quality directive Q10.09028-2101 shall always be supplied to MAN ES Quality separately and so that it can be assigned.

**!** The order shall only be deemed fulfilled if MAN ES (Power Quality department) has received the required complete and accurate quality documentation on time.

MAN ES shall perform a quality assessment of the deliveries. The resulting quality score is an important criterion for the supplier evaluation and thus decisive for the further consideration in follow-up orders.

### 3.3 Final provisions

The supplier's responsibility for ensuring the products it delivers are free from defects shall not be limited by these General Quality Conditions.

Where MAN Energy Solutions SE must meet quality specifications which go beyond those set out in these General Quality Conditions vis-à-vis its customers, the supplier undertakes to check these requirements and approve these provided there are no compelling reasons not to do so.

Should one or more of the above provisions be or become invalid, the effectiveness of remaining provisions of these General Quality Conditions shall remain unaffected. The contracting parties undertake to act in accordance with the objective of these General Quality Conditions and to agree on a legally permissible replacement provision that most closely approximates to the economic purpose of the ineffective provision. This also applies to filling any loopholes in these General Quality Conditions.

Additional verbal agreements have not been concluded. Amendments and additions to these General Quality Conditions shall be effected in writing in order to become legally valid. This shall also apply to changes and amendments of this written form clause.

In addition to the provisions of these General Quality Conditions, the law of the Federal Republic of Germany governing the legal relationships between parties within Germany shall apply exclusively.

The place of jurisdiction and the place of performance is Augsburg, Germany.