

SUPPLIER QUALITY MANUAL



Sundyne Supplier Mission Statement

“Sundyne will partner with our Suppliers to ensure on time delivery of high-quality products. We will establish transparent communication, identify opportunities for improvement, and improve processes where needed.”



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1.0 INTRODUCTION

1.1 Purpose

This Supplier Quality Manual communicates the processes utilized by Sundyne to select, qualify, monitor, and improve its suppliers. Sundyne intends for each supplier to carefully review this Quality Manual to ensure that it understands Sundyne's expectations and requirements and can fully comply with them. This Supplier Quality Manual provides a high-level overview of the Sundyne-Supplier relationship.

1.2 Scope

This Supplier Quality Manual applies to all current and prospective suppliers to Sundyne during their business with Sundyne. Where appropriate, the Supplier shall also be responsible for communicating these requirements to any sub-tier supplier utilized in fulfilling a Sundyne requirement.

1.3 Definitions

Supply Chain Management: The group within Sundyne having responsibility for identifying, selecting, and monitoring, and improving suppliers; for disposition of nonconforming product related to those suppliers; and for purchasing components and services necessary to fulfill Sundyne customer requirements. Supply Chain Management at Sundyne includes both Purchasing and Materials Management. The Purchasing group comprises Buyers and Supplier Quality and Development roles.

EC	Engineering Change
ME02AA01	(ME02); Defines material specifications and requirements applicable to two-character code included in Sundyne part numbers
NCM	Nonconforming Material Report
PIA	Proprietary Information Agreement
PM-07-02-05	Defines sourcing and inspection requirements for raw castings and forgings.
PM-07-02-08	Defines requirements for material certification and test reports to be provided with purchased product
PO	Purchase Order
QMS	Quality Management System
SDP	Supplier Development Plan
SDR	Supplier Deviation Request
SCAR	Supplier Corrective Action Request

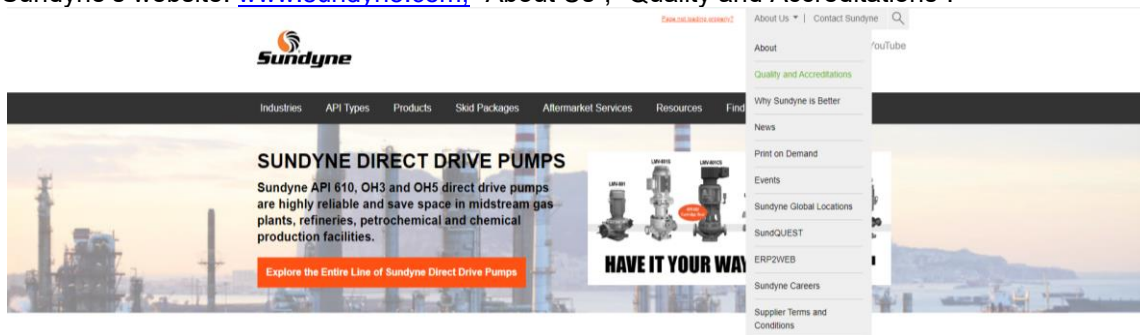
The Sundyne Quality Management System (QMS) utilizes terms and definitions included in ISO9001:2015. For additional Sundyne-specified terms, definitions, and acronyms, refer all inquiries to Purchasing/Supplier Quality.

For the purposes of this manual and all QMS supporting documents, the following apply:

- The words "will," "shall," and "must" indicate a requirement.
- The words "may" and "should" indicate a recommended practice.

1.4 Supplier Document Access

This manual and other documents listed will be maintained and made available to all suppliers via Sundyne's website: www.sundyne.com, "About Us", "Quality and Accreditations".



The website is kept up-to-date with current copies of relevant documentation. Suppliers are encouraged to recommend improvements to the website to their Purchasing contact at Sundyne.

The website may also contain training materials developed by Sundyne to assist suppliers with frequently noted problems or questions.

The following documents which are critical to the success of suppliers' ability to meet Sundyne requirements are not posted on the company website. Sundyne will provide new suppliers with electronic copies of these documents, and Suppliers may request a copy of these at any time:

ME02AA01	(ME02); Defines material specifications and requirements applicable to two-character code included in Sundyne part numbers
460.P001	Pressure Products Industries (PPI) Material Code Book

The following documents are posted on the company website and are critical to suppliers' success in meeting Sundyne requirements.

PM-07-02-05	Defines sourcing and inspection requirements for raw castings and forgings.
PM-07-02-08	Defines requirements for material certification and test reports to be provided with purchased product

2.0 GENERAL REQUIREMENTS

2.1 General Expectations of Suppliers

The requirements of this Supplier Quality Manual apply to all suppliers who provide goods or services to Sundyne during the provision of such goods or services. They also apply to sub-tier suppliers.

All suppliers to Sundyne should maintain an effective Quality Management System (QMS) as a basic business requirement. The QMS should be based on the philosophy of collaboration and continuous improvement, emphasizing defect prevention and the reduction of variation and waste. Wherever possible, Sundyne prefers suppliers who maintain third party registration to recognized industry standards (i.e., ISO9001, AS9100). A supplier should maintain a basic Quality Management System that includes the following:

- A Quality Manual
- Processes to assess conformity of product before shipment to Sundyne
- Processes for control of nonconforming material

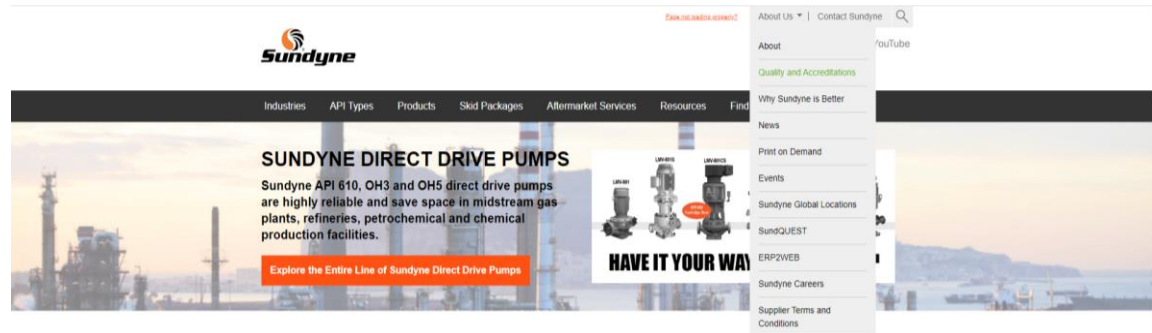
- Processes for responding to Corrective Action requests and NCM (defect) reports
- Calibration of inspection equipment/gages

2.2 Supplier Responsibility

2.2.1 Terms and Conditions

It is the responsibility of the Supplier to understand and ensure compliance with this Manual and the quality policies, procedures, and work instructions of Sundyne as they apply to business with the Supplier. Work performed by a sub-tier/subcontract supplier, or by an associated business of the Supplier, also shall be bound by these same requirements. Should the Supplier decide to subcontract any portion of work toward fulfillment of a Sundyne Purchase Order or similar agreement, Sundyne shall have right of access to any sites, plants, etc. where such work is being performed. Sundyne also reserves the right to review, approve and audit any such subcontractors. It is the responsibility of the contracting supplier to flow down such requirements as appropriate.

The Supplier Terms and Conditions are on our website: www.sundyne.com, under “About Us” and under “Supplier Terms and Conditions.”



Contact your Purchasing representative with any questions or concerns.

2.2.2 Supplier Confidentiality

Documents furnished by Sundyne to the supplier are solely for the purpose of doing business with Sundyne. These documents must be controlled by the Supplier and may not be transmitted to others without Sundyne’s written consent.

Sundyne may initiate completion of a documented Proprietary Information Agreement (PIA) with the Supplier where business cases dictate it to be appropriate.

2.2.3 Business Gifts / Gratuities

Sundyne understands that giving business gifts is commonplace and can represent merely a desire to build goodwill. However, Sundyne has very restrictive policies governing the receipt of business gifts by employees who have sourcing authority/procurement responsibility. Purchasing decisions must not be influenced by a conflict of interest and must not be tainted even by the appearance of a conflict of interest.

Employees who have direct purchasing responsibilities, including all Supply Chain Management employees, or any other individual having a role in supplier selection and appraisal, may accept only (a) beverages, light snacks and business meals served during business meetings held at the facilities of suppliers; (b) business meals when in travel status; (c) promotional or advertising items having a truly nominal value; and (d) any other business gift or thing of value over \$25 if reported to and approved in writing by the Business Practices/Compliance Officer of Sundyne.

Sundyne requests that suppliers be cognizant of this policy and refrain from placing Sundyne employees in situations that may lead to its violation.

All ethics policies including the Gratuities policy are maintained on the Sundyne website at: <https://www.sundyne.com/sundyne-standard-terms-and-conditions-of-purchase-americas/>

2.2.4 Environment, Health, and Safety

Sundyne expects suppliers to conduct business with a high degree of integrity and in a socially and environmentally responsible manner. This includes a commitment to several key expectations:

- Provide safe working conditions for all employees, customers, and contractors.
- Adhere to all applicable National, Regional, State, and Local laws and regulations governing Environment, Health, and Safety.
- Operate in a manner that minimizes the impact on the environment.
- Limit the use of natural resources and promote sustainable natural resource practices.
- Extend and communicate these EH&S expectations to employees, partners, and sub-tier suppliers.

Sundyne is committed to sustainability and environmentally conscious business and expects the same from its supply base. Suppliers are expected to:

- Identify and control both hazardous substances and substances of concern per international regulation.
- Strive for enhancements in energy-efficient manufacturing methods at their facilities.
- Promote sustainable packaging wherever possible, including reduced, recyclable, or reusable packaging methods; and
- Actively engage Sundyne with suggestions for improvement in these areas where noted by the Supplier.

3.0 PRODUCT REQUIREMENTS AND QUALIFICATION PROCESS

3.1 Part Specific Requirements

Sundyne part requirements are flowed down via various methods.

3.1.1 Part Drawings

The most basic qualification requirements are flowed down by way of a parts drawing where available. A part drawing may specify requirements related to:

- Material
- Dimensional characteristics
- Testing
- Certification
- Inspection

In situations where both the Supplier and Sundyne control differing drawings for a similar product, requirements of the Sundyne drawing shall be considered governing, except where otherwise agreed upon in writing.

3.1.2 Part Specific Requirements – Item Master / Purchase Order Text

Item Master text prints on the face of each Sundyne Purchase Order. When referenced on a Purchase Order, this text forms a description of requirements that exist in addition to the drawing; where no drawing is available, this text is the primary flow down of requirements. Purchase Order text may also reference previous quotes obtained from the Supplier. When a quote is referenced on the face of a Purchase Order, all stated conditions of the quote shall apply to the relevant Purchase Order.

Supplier contract review processes should pay close attention to Purchase Order text when it appears on the Purchase Order. Failure to comply with stated requirements may result in Sundyne rejecting products and requiring replacement at Supplier expense.

3.1.3 Part Specific Requirements – Part Number

Sundyne utilizes a “smart” part numbering scheme that flows down requirements through the part number characters rather than explicit drawing notes or requirements. Most often, requirements are flowed down through a single or multiple-character alphanumeric suffix applied to the part number. The Supplier should pay specific and exacting attention to the part number flowed down by Sundyne.

Sundyne’s QMS maintains three complementary internal procedures, which define internal requirements for part numbering schemes:

- *ME02AA01 Sundyne Materials List*

Sundyne part numbers often contain two-digit alphabetical suffixes that define the product's raw material requirements. These suffixes refer back to ME02AA01.

- *PM-07-02-05 Part Number Codes for Sourcing and Inspection of Castings and Forgings*
- *PM-07-02-08 Part Number Codes for Sourcing, Certification and Special Requirements*

In addition to raw material suffixes, Sundyne part numbers often flow down sourcing, certification, inspection, and special requirements as defined by PM-07-02-05 and PM-07-02-08. These are also present as alphanumeric part suffixes.

It is crucial that the Supplier take steps to familiarize itself with requirements flowed down in this manner.

The Supplier is highly encouraged to contact Purchasing/Supplier Quality to clarify these requirements before commitment to supply.

All certifications, test reports, and other documentation required to accompany the product or service should be sent to certs@sundyne.com per the following:

- Attached files must use one of the following naming conventions:

[PO #]_[Line #]_[Part Identifier] or

[PO #]-[Line #]-[Part Identifier]

[PO #] = Sundyne Purchase Order number

[Line #] = Sundyne Purchase Order line number

[Part Identifier] = Heat number when possible; otherwise, part number or other specific identifier (e.g., calibration cert, LPI report, etc.)

Example: 1973415_01_H3114 or

1973415-01-H3114

PO # = 1973415

Line # = 1

Part Identifier = H3114 (heat #)

- Each file attachment must follow this naming convention
- Suppliers will be notified of files submitted with incorrect filename format.
- The preferred file format is PDF

NOTE: Suppliers who cannot scan, rename, and send documents must contact the Buyer or Supplier Quality Engineer to request an exemption to send hard copies with the product. Suppliers who send documents electronically can also send hard copies of these documents if they so desire. If a document package file size exceeds 30MB, please coordinate with the buyer to have the certs added to the Sundyne System.

3.1.4 Material Traceability – Part Marking

Sundyne requires that every piece of raw material be marked or tagged with the Sundyne Purchase Order number, part number, and heat number/lot number. This includes all bar stock, pipe, plate, channels, and tubing. The physical marking/tagging must agree with the material certification supplied with each order. Factors such as exposure to elements (wind, water, dirt/dust, etc.), surface cleanliness, risk of surface contamination, etc., must be considered when determining the method of marking/tagging.

All other special part marking requirements will be called out in the Purchase Order or drawing.

3.2 Sample Submission and Approval

When qualifying a new product, or a first run of an existing product at a new supplier, the overall process may be defined by the Sample Submission and Approval (SSA) and associated attachments (see *ISO2901*). Sundyne Purchasing/Supplier Quality defines the requirements of the SSA and serves as the approving party for product qualification. It is important that the Supplier and Sundyne work to clarify qualification expectations when the SSA is issued, and before commencement of production operations, where appropriate. During qualification, unless specifically dictated in writing by Sundyne, the Supplier should not proceed with production runs until full qualification approval is given.

The SSA serves to flow down additional qualification requirements beyond those flowed down by Section 4.2 above. Typically, the SSA will specify product/material test, Quality Management System, and/or documentation requirements necessary to demonstrate conformity as part of the qualification process.

The SSA may specify requirements for any or all the following as part of the Product Qualification Process:

- Sample Pieces
- Dimensional Analysis
- Material Test Results
- Performance Test Results
- Reliability Test Results
- Process Capability Study

- Design FMEA
- Process FMEA
- Control Plan
- Gage R&R
- Supplier Survey
- Other requirements

Purchasing/Supplier Quality personnel can provide details regarding any of the above and should do so when the SSA is first submitted.

Where the SSA specifies requirements for the submission of various test results, the Supplier may submit reports in acceptable industry-standard formats.

Where the SSA specifies requirements for higher-level analyses (Process Capability, FMEA, Gage R&R), the Supplier may utilize Sundyne-provided reporting formats available on the Sundyne website or from Purchasing/Supplier Quality. Alternatively, the Supplier may utilize its own reporting format with prior approval from Sundyne.

All qualification requirements are flowed down via the Purchase Order as appropriate.

Visit the Sundyne website at www.sundyne.com to obtain copies of the required forms.

4.0 ORDER REQUIREMENTS

4.1 Point of Contact

While the processes in this manual attempt to reduce the number of individuals a supplier must work with, the need for speedy and efficient resolution of issues may require direct communications between different parties at Sundyne and at the Supplier. In general, the Sundyne Commodity Manager/Buyer with whom the supplier regularly deals is the primary contact for all matters regarding Sundyne contracts. For technical support, Corrective Action Requests, Supplier Deviation Requests, and other quality related matters, Supplier Quality should be the primary contact.

Sundyne expects the Supplier to provide the names and contact information of Sales/Customer Service, Quality, Engineering, and Warranty focal points at their location.

4.2 Communication of Product/Service Requirements

4.2.1 Purchase Orders

The relationship between Sundyne and its Suppliers typically is comprised of discrete Purchase Orders. The Purchase Order will specify:

- The product(s) and/or service(s) to be purchased.
- Requirements supplemental to those defined on the part drawing
- Quantities purchased.
- Delivery expectations.
- Product/service acceptance requirements; and
- Terms and conditions of purchase.

The text information provided with the Purchase Orders may also be used to control the configuration of our parts. On parts with accompanying drawings, Purchase Order text may be used to supplement or modify drawing information. See Section 3.1 above for further details regarding product requirements.

It is critical that the Supplier make note of Sundyne part numbering schemes, suffixes, and PO text descriptions. These are used to define product requirements either in full or in complement to drawing requirements.

Guidance is available on the Sundyne Supplier Website or from Purchasing/Supplier Quality. It is the Supplier's responsibility to determine product requirements prior to contract acceptance.

Where no product drawing exists, the Purchase Order text is the governing document and should provide sufficient information for the Supplier to respond. The Supplier must resolve any lack of clarity regarding order requirements before accepting the Purchase Order.

4.2.2 Other Agreements

Sundyne maintains different agreements with the supply base to ensure a more stable supply flow, higher quality, and price advantages. While Sundyne may initiate these relationships, Sundyne encourages its suppliers to identify opportunities for mutually advantageous business relationships.

Some of these relationships include:

- Consignment Agreements
- Long Term Agreements
- Kanban
- Vendor Managed Inventory
- Blanket Purchase Orders

Where such arrangements exist, discrete Purchase Orders may not be issued before the provision of goods or services to Sundyne. Sundyne shall work with the Supplier to establish scheduling, pricing, delivery terms, etc. All such arrangements shall be fully documented in writing.

4.3 Order of Precedence

In cases of conflict between requirements, suppliers shall respect the following hierarchy:

1. Supplier Deviation Requests
2. Sundyne Purchase Order.
3. Sundyne part drawing/part-specific requirements
 - Note that part-specific requirements may be referenced in several different formats. See Section 4.2 above.
4. Sundyne proprietary testing/qualification/configuration specification.
 - In some cases, Sundyne will provide a proprietary specification defining specific product configuration details. This Sundyne Specification document will be referenced in the drawing or the Purchase Order text. The Supplier is responsible for ensuring compliance with the Sundyne specification, including any requirements it places on sub-tier or subcontract sources per other sections of this Quality Manual.
5. Industry specification.
 - Industry-standard specifications are used whenever possible. Suppliers may find references to ASTM, DIN, JIS, BS, and other international standards organizations. It is the supplier's responsibility to ensure compliance with the current version of any stated specification. Sundyne will not provide the Supplier with copies of industry standards.
6. This Quality Manual and associated requirements flowed down herein.

The Supplier shall address any unclear hierarchical conflicts with their Sundyne Commodity Manager/Buyer prior to the acceptance of any contract.

4.4 Order Acceptance

Once the Supplier has determined all product or service requirements, and confirmed their ability to meet them, the Supplier shall confirm its commitment to supply the product or service. The Supplier should work with their Sundyne Buyer to agree upon a communication method. Sundyne's agreement to the supply contract shall be in writing. Verbal commitment never constitutes a contract.

When confirming its ability to supply per Sundyne's requirements, the Supplier must provide a confirmation of cost and delivery to Sundyne. If delivery date cannot be confirmed at the time of order acceptance, the Supplier shall be responsible for working with the Buyer to agree upon a course of action. The Supplier's confirmed committed receipt date shall be used in assessing Supplier On-Time Delivery (OTD). Therefore, it is critical that the Supplier provide an accurate committed receipt date to Sundyne to facilitate reliable planning against material requirements. The Supplier is responsible for coordinating its own Ship Date with Sundyne's expected receipt date.

Suppliers shall be solely responsible for the quality performance of the logistical supply chain, except where Sundyne specifies a transit carrier and bears all transit costs.

5.0 NONCONFORMING MATERIALS (NCM)

5.1 NCM Report

Sundyne uses a process called NCM to document all product or service nonconformities, commonly referred to as "escapes." Examples of supplier-related occurrences that may result in a documented escape include:

- Material and test certifications are unavailable at the point of receiving inspection
- Material and test certifications are incomplete or incorrect
- A product is received physically damaged
- The wrong product is received
- Product does not conform to dimensional requirements
- A Sundyne subcontractor discovers a defect in Supplier's product
- A Sundyne customer discovers a defect in Supplier's product
- Sundyne discovers a defect in Supplier's product after receipt and during product realization

When an escape is determined to be caused by the Supplier, Supplier Quality may contact the Supplier for resolution. Depending on the disposition of the product/service, the complexity involved in correcting the error, and Sundyne's material requirements, one or more of the following dispositions may be given:

- Rework
- Scrap
- Return to Vendor (RTV)
- Use as Is (UAI)

Where Sundyne dispositions an escape event as Rework, the Supplier may be responsible for the remuneration of costs incurred by Sundyne for the rework. Any such requirement will be communicated by Purchasing before the commencement of such rework operations.

Where Sundyne dispositions an escape event as RTV, the Supplier may be solely responsible for bearing replacement costs, including return freight, provision of replacement product, and/or remuneration of product costs. Any such responsibility will be communicated by Purchasing prior to destruction or return of the product. Sundyne requires documented Return Material Authorizations (RMA) for any product physically returned to the Supplier. The Supplier must maintain a process for providing such documentation.

All NCM-documented escape events determined to be Supplier-caused will negatively affect the Supplier's quality ratings.

5.2 Corrective Action Request

Where determined appropriate by Sundyne or as dictated by its customers, Sundyne utilizes a Corrective Action Request (CAR) form to document root cause analysis and corrective action, *ISO3190*. The CAR is an electronic document that facilitates failure analysis and subsequent communication between the Supplier and Sundyne. Examples of situations that may result in the generation of CARs include:

- Repeated failures of the same product or service
- Repeated failures of similar products or services
- Repeated instances of failures with the same or similar cause
- High-impact failures (includes customer escapes, escapes affecting Sundyne on-hand inventory)
- As the result of activities per a Supplier Development Plan
- At the discretion of Sundyne customers or Supplier Quality

Once the CAR is received, the Supplier should take immediate containment action to mitigate exposure to defective conditions where and as appropriate. Containment documentation is expected within 2 business days of receipt of the CAR. It is critical that the Supplier promptly identifies similar shipments, products, etc., where the same defect may be present, if appropriate.

The Supplier is expected to provide a complete root cause analysis and implement corrective action within 60 days after successful containment. The Sundyne Quality Manager will handle requests and grant extensions. The Supplier is expected to demonstrate its root cause analysis process upon request from Supplier Quality.

For assistance completing a thorough, robust CAR response, the Supplier is encouraged to contact Supplier Quality.

5.3 Supplier Deviation Request

Sundyne maintains a Supplier Deviation Request (SDR) process to document acceptance of products that do not meet stated requirements. The SDR process may be initiated when rework to meet requirements requires significant cost, delivery commitments could be significantly affected, or potential design or manufacturability improvements are identified.

The SDR should be initiated by the Supplier using the form *ISO2903*. This form is available on the Sundyne Website or from Supplier Quality. Suppliers should contact Supplier Quality before initiating the SDR process to discuss the situation openly. Such discussion should not be construed as a commitment to accept the product. Instead, the initial discussion should determine if an SDR may be in order.

The Supplier should complete the SDR form to the best of its ability. The SDR should include:

- Part number information
- Current requirement
- Proposed Deviation
- Reason for requesting deviation
- Duration of deviation (time limit, lot limit, quantity limit)
- Sundyne evaluation, disposition, and approval

Once dispositioned, Supplier Quality will communicate with the Supplier concerning the disposition of the SDR and related products. The SDR, as written, temporarily modifies Sundyne requirements and is considered a product requirement for its duration. Suppliers shall not ship nonconforming products without an approved Supplier Deviation Request.

Detailed Standard Work regarding the SDR process is available on the Sundyne Website (see Section 1.4 above).