

Sundyne LLC

# QUALITY MANUAL



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## 1.0 INTRODUCTION

### 1.1 General

Sundyne has implemented a Quality Management System (QMS) to:

- better understand and meet customer requirements,
- provide a mechanism for company personnel and customers to understand the company's policies and procedures clearly and
- promote continual evaluation and improvement of business and quality processes in pursuing organizational and operational excellence.

Sundyne recognizes that successfully implementing a QMS will improve the discipline and clarity of staff members' day-to-day job functions, reduce waste and scrap, improve customer satisfaction, and increase company profitability.

The QMS implemented by Sundyne, as outlined in this manual, is available to all company personnel and customers as a single-source document regarding the company's policies and procedures for assuring process control and quality of products and services. This manual reflects and enables Sundyne's relentless commitment to total customer satisfaction and continual improvement.

### 1.2 Company Information and History

*Private equity firm Warburg Pincus LLC owns Sundyne LLC.* Sundyne is the company's common name and one of the company's brand names for its products and services.

#### 1.2.1 What We Do

Sundyne designs and manufactures reliable industrial pumps and compressors.

Sundyne pumps are manufactured to meet industry standards, including ISO 13709, API-685, API-610, ANSI, & ISO. Pump types OH1, OH2, OH3, OH5, OH6, ANSI, BB1, BB2, BB3, VS2, & VS4, centrifugal, close-coupled, gear driven, single stage, multi-stage, sealless magnetic drive non-metallic/metallic, displacement, high-pressure, in-line, vertical, and vertically suspended. Legacy pump brands in the Sundyne family include Ansimag®, Sunflo®, HMD/Kontro® and Marelli®. The Sundyne family of centrifugal pumps are used in process industries including refining, petrochemical, fertilizer production, pharmaceutical processing, steel, silicon development, chemical processing, power generation, pulp and paper, pipeline, beverage production, food processing, including hot oils, municipal water, agricultural water, osmosis, wastewater, wash water, and fire suppression.

Sundyne centrifugal integrally geared compressors are engineered to run continuously under API-617 and API-614 standards for seven years. The high-speed, high-pressure compressors are available in single- and multi-stage configurations. Specialty-engineered skid packages are available to meet work in the harshest environments, including refineries and



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offshore platforms. Markets for Sundyne compressors include refining, petrochemical, gas processing, LNG, sulfur specialty gases, silicon manufacturing, chemical processing, power generation, oil and gas production, pipeline, and refrigeration.

Sundyne aftermarket services include Sundyne Genuine® spare parts, overhaul and repair, packaging, specialized engineering, and technical support.

## 1.2.2 Sundyne Headquarters

Arvada, Colorado (12 miles northwest of Denver, CO)

## 1.2.3 Manufacturing Facilities

- Arvada, Colorado
- Dijon, France
- Eastbourne, England
- Illescas, Toledo-Spain

## 1.2.4 Sundyne Employees

More than 900 – approximately 400 are located outside of the US.

## 1.2.5 Core Values





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## 1.2.6 Customers

More than 2,000 customer sites in 117 countries.

## 1.2.7 Sundyne Product Brands

- Sundyne centrifugal integrally geared low flow - high head ISO 13709/API-610 standard pumps
- Sundyne centrifugal integrally geared high-speed compressors API-614/617 standards
- Sunflo medium-duty centrifugal integrally geared non-API pumps especially suited for high-pressure water applications
- ANISIMAG centrifugal seal-less magnetic drive ANSI standard lined pumps
- HMD and Kontro centrifugal seal-less magnetic drive pumps, including standard API-685
- Marelli Bombas centrifugal multi-stage pumps that meet ISO 13709/API-610 standards
- Pressure Products Industries (PPI) diaphragm compressors

## 1.2.8 Patents

Sundyne owns several patents.

## 1.2.9 Technology and Business Milestones

- 1905 – The Rockford Milling Machine Company, owned by Edwin Cedarleaf and brothers Oscar and David Sundstrand, begins operations.
- 1926 – The Sundstrand Machine Tool Company is formed through the merger of the Rockford Tool Company and the Rockford Milling Machine Company.
- 1933 – The Sundstrand Machine Tool Company sells the first oil burner pump. Hydraulic pumps, motors, and valves have also been developed.
- 1957 – Sundstrand develops the first water injection pump for the commercial jet aircraft industry. The pump is designed to boost engine thrust during takeoff.
- 1962 – Sundstrand develops the first Sundyne high-speed centrifugal pump and sells it to Shell Chemical.
- 1965 – Sundstrand develops a high-speed process gas compressor and sells it to Union Carbide.
- 1970 – Sundstrand Fluid Handling Division is established in Denver, Colorado. Nikkiso-Sundstrand Fluid Handling Joint Venture was established in Japan, and Sundstrand Fluid Handling opened a manufacturing plant in Dijon, France. The new division manufactures



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industrial pumps, compressors, and other engineered packaging for the hydrocarbon and chemical processing industries.

- 1994 – Sundstrand Fluid Handling acquires Kontro, HMD Seal-less Ltd., and SINE Pump.
- 1998 – Sundstrand Fluid Handling acquires ANSIMAG Inc.
- 1999 – United Technologies Corporation acquired Sundstrand Corporation and merged it with its Hamilton Standard division. The new company, Hamilton-Sundstrand, is headquartered in Windsor Locks, Connecticut. Sundstrand Fluid Handling changed its name and logo to Sundyne Corporation under the Hamilton-Sundstrand Industrial Division.
- 2008 – Sundyne acquires Marelli Bombas in Illescas, Toledo-Spain.
- 2009 – Sundyne sells the MASO/Sine division in Ilsfeld, Germany, to Watson-Marlow.
- 2010 – Sundyne purchases 100% of the joint venture from NIKKISO, ending the partnership.
- 2012 – United Technologies sells Sundyne, Sullair, and Milton Roy to a joint venture owned by the Carlyle Group and BC Partners.
- 2013 – The Carlyle Group and BC Partners form Accudyne Industries, the parent company of Sundyne, Sullair, and Milton Roy.
- 2014 – Sundyne transitions manufacturing of Pressure Products Industries (PPI) diaphragm compressors from Milton Roy's Warminster, PA location to Arvada.
- 2017 – Sullair divested from Accudyne Industries.
- 2019 - Accudyne Industries sells Precision Flow Systems (including Milton Roy, LMI, Haskel) to Ingersoll Rand Inc. and transitions its company name to Sundyne LLC.
- 2020 - Sundyne LLC was acquired by the private equity firm Warburg Pincus, LLC; the company retains the Sundyne name.



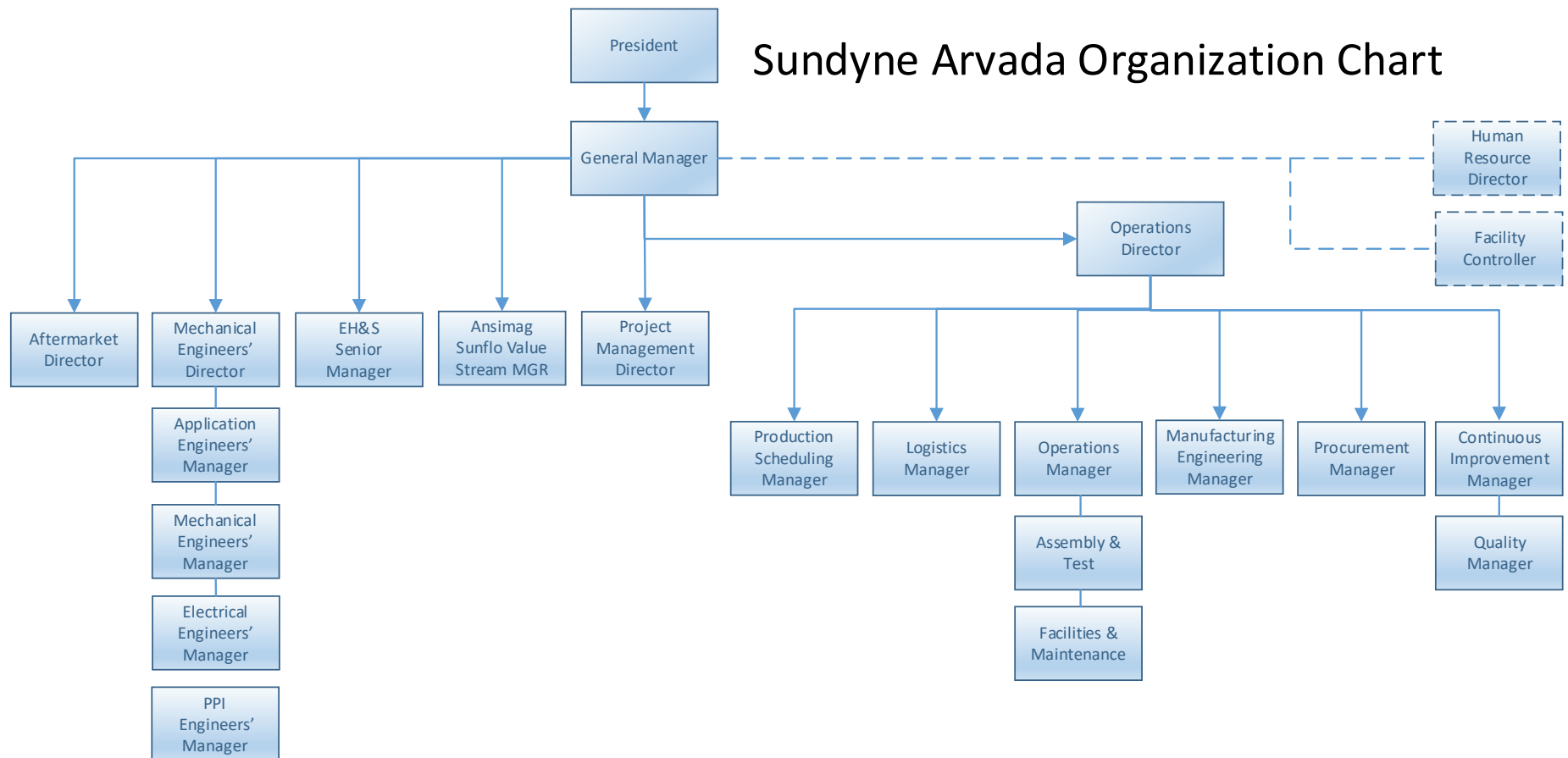
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**Figure 1: Sundyne Headquarters in Arvada, Colorado, USA**

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**Figure 2. Sundyne – Arvada Organizational Structure**





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## 2.0 QUALITY POLICY, PERFORMANCE OBJECTIVES, AND CONTINUOUS IMPROVEMENT

### 2.1 Quality Policy

Sundyne is committed to delivering world-class engineering products and services and strives to exceed customer and stakeholder expectations. To achieve this, Sundyne will:

- Establish performance objectives that are aligned with customer satisfaction and world-class performance.
- Implement and comply with the ISO9001-certified Quality Management System.
- Employ a highly trained and skilled staff, maintain modern facilities and equipment, and utilize standardized processes, tools, and methods; and
- Utilize the Sundyne Continuous Improvement Program to improve the effectiveness of the Quality Management System in delivering customer and stakeholder value.

Quality is engrained in the Sundyne culture and achieved through every employee's empowerment and commitment.

### 2.2 Performance Objectives

Sundyne's Performance Objectives are aligned with customer requirements and strategic business objectives.

- Safety (TRIR)
- Cost of Poor Quality
- Delivery (On-Time Units)
- Delivery (On-Time Aftermarket)
- Continuous Improvement

### 2.3 Process-Based Quality Management System (QMS)

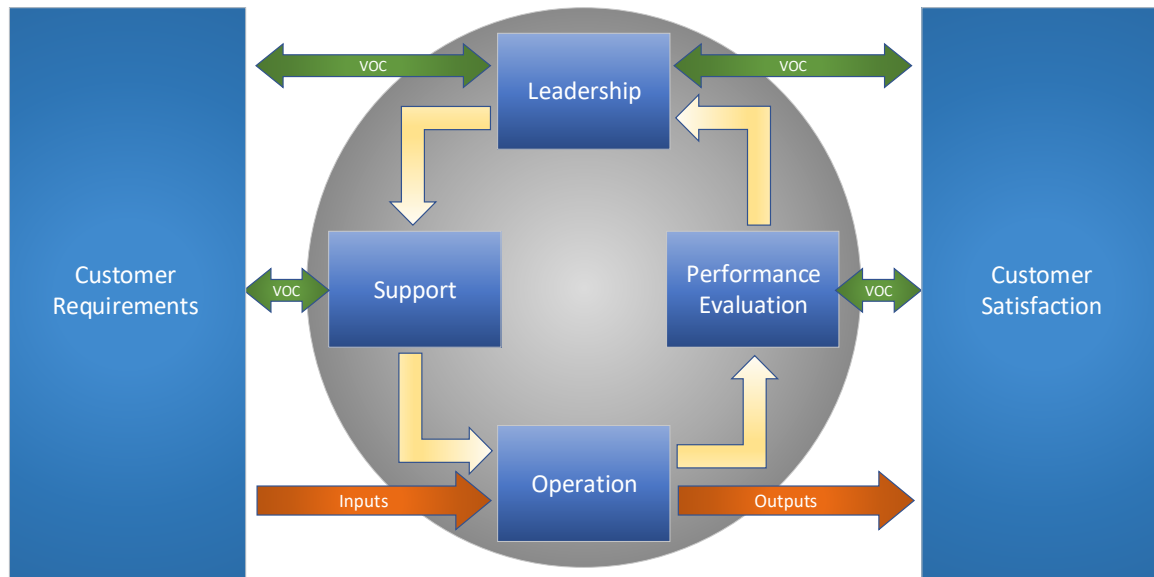
To implement its Quality Policy and achieve its Performance Objectives, Sundyne utilizes a *process* approach to develop, implement, and improve its Quality Management System (QMS). Using a process approach enables Sundyne to link together individual departments, functions, and processes into a complete value stream, thus allowing management to fully understand the potential effects of changes in customer requirements or changes in upstream processes on downstream outputs.

This process-based QMS approach is accomplished by identifying the

**Supplier – Input – Process – Output – Customer (SIPOC)**

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interactions that exist within all processes and business activities. Figure 3 illustrates this approach, and **Appendix A1** illustrates how the Sundyne value stream and QMS are linked via this model.



**Figure 3: Process-Based QMS**

## 2.4 Continuous Improvement Program

Results-driven continuous improvement involves all employees, leaders, and associates alike and touches all our manufacturing, engineering, business, and supporting processes that create and deliver customer and stakeholder value.

Sundyne's Continuous Improvement Program stands on four pillars:

- A system founded on internationally recognized principles of ISO9001, ISO9004, Lean and Six Sigma,
- Continuous Improvement strategies and leadership that are aligned with delivering unmatched value to our customers and stakeholders,
- Application of proven, industry-standard tools for improving our processes by eliminating waste and reducing variation, and
- Competence, commitment, engagement, and accountability of the entire organization.

## 2.5 Quality Manual Distribution

The Sundyne Quality Manual and all QMS documentation are available to company personnel via the company network. The Sundyne Quality Manual is available to all customers, suppliers, and regulatory agencies on request.



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## 3.0 SCOPE

*Sundyne Arvada Site: Engineering, Design, Manufacturing, and Aftersales Servicing of Pumps and Compressors.*

### 3.1 General

This Quality Manual outlines the Sundyne QMS's requirements and the supporting procedures developed to meet those requirements. The system is structured to comply with conditions and requirements defined in ISO9001:2015.

The QMS requirements and the company policies and procedures by which those requirements are met are complementary to contractual, statutory, and regulatory requirements. The latter shall take precedence if a conflict exists between this manual and contractual, statutory, or regulatory requirements.

### 3.2 Application

All aspects of the QMS scope are administered from and applicable to all operations of the Sundyne Arvada site, located at 14845 West 64th Avenue, Arvada, Colorado 80007.

The Sundyne QMS complies with all requirements of ISO9001:2015. No requirements of ISO9001:2015 are excluded from the Sundyne QMS; however, due to the nature of their product lines and business models, some company-specific procedures may not apply to the Sunflo, Ansimag, or PPI product lines for a given product model or sales order. Applicability or exclusion of company-specific procedures to these product lines shall be noted in the QMS procedure-level documents.

## 4.0 CONTEXT OF THE ORGANIZATION

### 4.1 Understanding the Organization and its Context

Sundyne develops and maintains an effective Quality Management system that genuinely adds value and is aligned with the organization's strategic direction by periodically performing a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis. This SWOT analysis allows Sundyne to determine internal and external issues relevant to its purpose.

### 4.2 Understanding the Needs and Expectations of Interested Parties

Interested parties to be considered include internal and external entities such as External Providers (Suppliers), Channel Partners, Customers, Employees, Local Government, Community, Regulators, and Corporate Owners.

Related Documents:

*EX-04-01-00, Quality Manual*

*QA-04-02-00, Document Control*

*QA-04-03-00, Records Control*



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*SC-04-04-00, Supplier Quality Manual*

## 5.0 LEADERSHIP

### 5.1 Leadership and Commitment

#### 5.1.1 General

Sundyne leadership is actively involved in the implementation and operation of the QMS. To continue to provide leadership and show commitment to the continual improvement of the QMS, management will:

- Establish the Sundyne Quality Policy,
- Establish company Quality Objectives or Metrics,
- Communicate the importance of meeting customer, statutory, and regulatory requirements,
- Conduct management reviews of the effectiveness of the QMS and
- Ensure the availability of resources for the proper and effective operation of the QMS.

#### 5.1.2 Customer Focus

Sundyne management recognizes that customer satisfaction is a key indicator of organizational and operational excellence and of the effectiveness of the QMS. In support of its commitment to meeting or exceeding customer requirements and expectations, Sundyne management will:

- Ensure that customer requirements are determined and reviewed in accordance with this manual with the intent of enhancing customer satisfaction and
- Ensure that product and service quality, on-time delivery, and customer satisfaction are measured and/or reviewed and that appropriate action is taken if customer requirements will not be (or have not been) met.

## 5.2 Policy

### 5.2.1 Establishing the Quality Policy

Sundyne management shall establish and regularly review the company Quality Policy in accordance with Section 9.3 to ensure that it:

- Is aligned to the purpose, ethics, and morals of Sundyne and its parent companies and
- Demonstrates the company's commitment to the QMS.



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## 5.2.2 Communicating the Quality Policy

It is communicated to and understood by all company personnel via new-hire orientation and ongoing Sundyne QMS training sessions.

### Related Documents:

*ISO3245 Management Review Template*

*ISO2555, Management Review of QMS*

## 6.0 PLANNING

### 6.1 Actions to Address Risks and Opportunities

### 6.2 Quality Objectives and Planning to Achieve Them

### 6.3 Planning of Change

#### Related Documents, Strategies, and Communications:

*SC-07-07-00 Supply Chain Management*

*Management Review / Quality Policy / Sundyne Quality Objectives / SWOT / All-Hands Meeting / X-Matrix*

*Change Management – Management Review / QA-08-02-00 Internal Audit / QA-08-01-00 Customer Satisfaction / QA-08-05-00 Continual Improvement*

## 7.0 SUPPORT

### 7.1 Resources

### 7.2 Competence

### 7.3 Awareness

### 7.4 Communication

### 7.5 Documented Information

#### Related Documents:

*HR-06-01-00, Competence, Training & Awareness*

*MT-06-02-00, Preventive Maintenance*



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*QA-04-02-00, Document Control*

*QA-04-03-00, Records Control*

*QA-07-13-00, Control of Monitoring & Measuring Equipment.*

*SC-04-04-00, Supplier Quality Manual*

## **8.0 OPERATION**

### **8.1 Operational Planning and Control**

### **8.2 Requirements for Products and Services**

### **8.3 Design and Development of Products and Services**

### **8.4 Control of Externally Provided Processes, Products and Services**

### **8.5 Production and Service Provision**

### **8.6 Release of Products and Services**

### **8.7 Control of Nonconforming Output**

#### Related Documents:

*Passport Process*

*PM-07-01-00, Quoting & Contract Reviews*

*PM-07-02-00, Design & Release*

*RS-07-03-00, Unit Manufacturing Engineering*

*RS-07-04-00, Production Scheduling*

*PM-07-05-00, Product Validation*

*PM-07-06-00, Configuration Control*

*SC-07-07-00, Supply Chain Management*

*QA-07-08-00, Receiving Inspection*

*MH-07-09-00, Material Handling*

*AT-07-10-00, Production Control – Assembly & Test*

*MF-07-10-00, Production Control – Manufacturing*



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*AN-07-10-00, Production Control – Ansimag*

*SA-07-11-00, Service Control*

*MF-07-12-00, Identification & Traceability*

*QA-07-13-00, Control of Monitoring & Measuring Equipment*

*PM-07-14-00, Design Control*

*QA-08-03-00, Product Measurements*

*QA-08-04-00, Control & Disposition of Nonconforming Product.*

*QA-04-05-00, Addendum for the Provision of ATEX Certified Products*

## **9.0 Performance Evaluation**

### **9.1 Internal Audit**

### **9.2 Management Review**

Related Documents:

*QA-08-01-00, Customer Satisfaction*

*QA-08-02-00, Internal Audits*

*QA-08-05-00, Continual Improvement*

*ISO2555, Management Review of QMS*

## **10.0 IMPROVEMENT**

### **10.1 General**

### **10.2 Nonconformity and Corrective Action**

### **10.3 Continual Improvement**

Related Documents:

*SC-04-04-00, Supplier Quality Manual*

*QA-08-04-00, Control & Disposition of Nonconforming Product*

*QA-08-05-00, Continual Improvement*



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Appendix A1: Sequence and Interaction of Processes

