

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 clearly understand the company's policies and procedures, and
- promote continual evaluation and improvement of business and quality processes in the ongoing pursuit of organizational and operational excellence.

Sundyne recognizes that successful implementation of a QMS will lead to improved discipline and clarity of day-to-day job functions for staff members, reduced waste and scrap, improved customer satisfaction, and increased 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 control of processes 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

Sundyne LLC is owned by private equity firm Warburg Pincus 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, waste water, wash water, and fire suppression.

Sundyne centrifugal integrally geared compressors are engineered to run continuously for 7 years under API-617 and API-614 standards. The high-speed, high-pressure compressors are available in both single and multi-stage configurations. Specialty engineered skid-packages are available to meet work in the harshest environments including refineries and off-shore 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 located outside of the US.

1.2.5 Core Values



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 40 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 are also 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 is established in Japan and Sundstrand Fluid Handling opens manufacturing plant in Dijon, France. New division manufactures industrial pumps and 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 acquires Sundstrand Corporation and merges it with its Hamilton Standard division. The new company, Hamilton-Sundstrand, is headquartered in Windsor Locks, Connecticut. Sundstrand Fluid Handling changes 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 bringing an end to the partnership.
- 2012 – Sundyne, Sullair, and Milton Roy are sold by United Technologies 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.; Accudyne Industries transitions company name to Sundyne LLC.
- 2020 – Sundyne LLC acquired by private equity firm, Warburg Pincus, LLC; retains Sundyne company name.



Figure 1: Sundyne Headquarters in Arvada, Colorado, USA

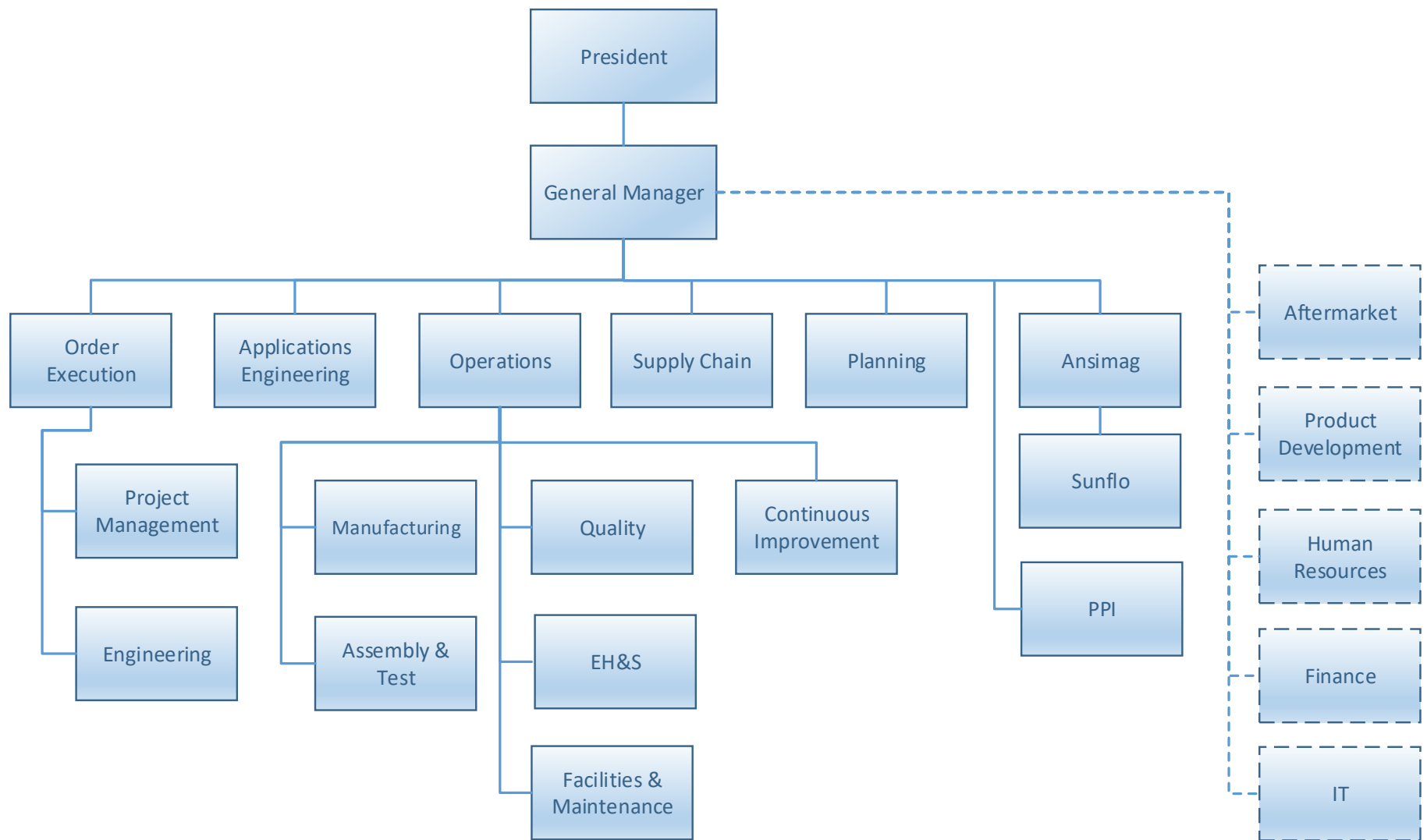


Figure 2. Sundyne – Arvada Organizational Structure

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 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 is achieved through the personal empowerment and commitment from every employee.

2.2 Performance Objectives

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

- Safety (TRIR) ≤ 0.6
- Cost of Poor Quality $\leq 1.6\%$ Cost of Sales
- Delivery (On-Time Units) $\geq 90\%$
- Delivery (On-Time Aftermarket) $\geq 92\%$
- Cash Flow $\geq 100\%$ to Plan
- EBITDA $\geq 100\%$ to Plan
- Revenue $\geq 100\%$ to Plan

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). Utilizing 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)

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.

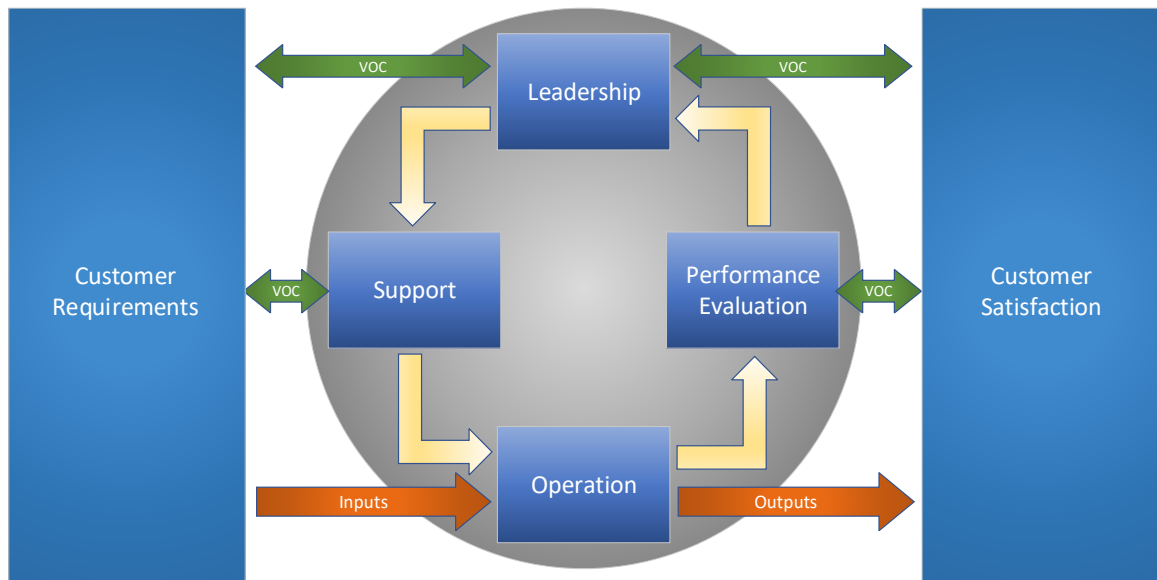


Figure 3: Process-Based QMS

2.4 Continuous Improvement Program

Results-driven continuous improvement involves all employees – leaders and associates alike – and it 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.

3.0 SCOPE

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

PPI Doylestown Site: Engineering, Design, and Aftersales Servicing of Compressors.

3.1 General

This Quality Manual outlines the requirements of the Sundyne QMS 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 complimentary to contractual, statutory and regulatory requirements. If a conflict exists between this manual and contractual, statutory, or regulatory requirements, the latter shall take precedence.

3.2 Application

All aspects of the QMS scope are administered from and applicable to all operations of the Sundyne Arvada site which is located at 14845 West 64th Avenue, Arvada, Colorado 80007. A subset the QMS scope is performed at Pressure Products Industries (PPI) Doylestown site, which is located at 68 E. Court Street, Doylestown, PA 18901. The PPI site-specific, sub-scope consists of Engineering, Design, and Aftersales Servicing of Compressors. The PPI sub-scope is limited to Compressors and no Manufacturing is conducted at the PPI Doylestown site. The PPI sub-scope includes ISO9001:2015 sections 8.1, 8.2, 8.3, 8.5.5, 8.5.6; all other elements of the QMS are not applicable to the PPI Doylestown site and administered by the Sundyne Arvada site.

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 procedure-level documents of the QMS.

4.0 CONTEXT OF THE ORGANIZATION

4.1 Understanding the Organization and its Context

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

4.2 Understanding the Needs and Expectations of Interested Parties

Interested parties to be considered will 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

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.

5.2.2 Communicating the Quality Policy

Is communicated to and understood by all company personnel via new-hire orientation and on-going 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 and Awareness

MT-06-02-00, Preventive Maintenance

QA-04-02-00, Document Control

QA-04-03-00, Records Control

QA-07-13-00, Control of Monitoring and 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 Outputs**

Related Documents:

Passport Process

PM-07-01-00, Quoting and Contract Reviews

PM-07-02-00, Design and 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

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

SA-07-11-00, Service Control

MF-07-12-00, Identification and Traceability

QA-07-13-00, Control of Monitoring and Measuring Equipment

PM-07-14-00, Design Control

QA-08-03-00, Product Measurements

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

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

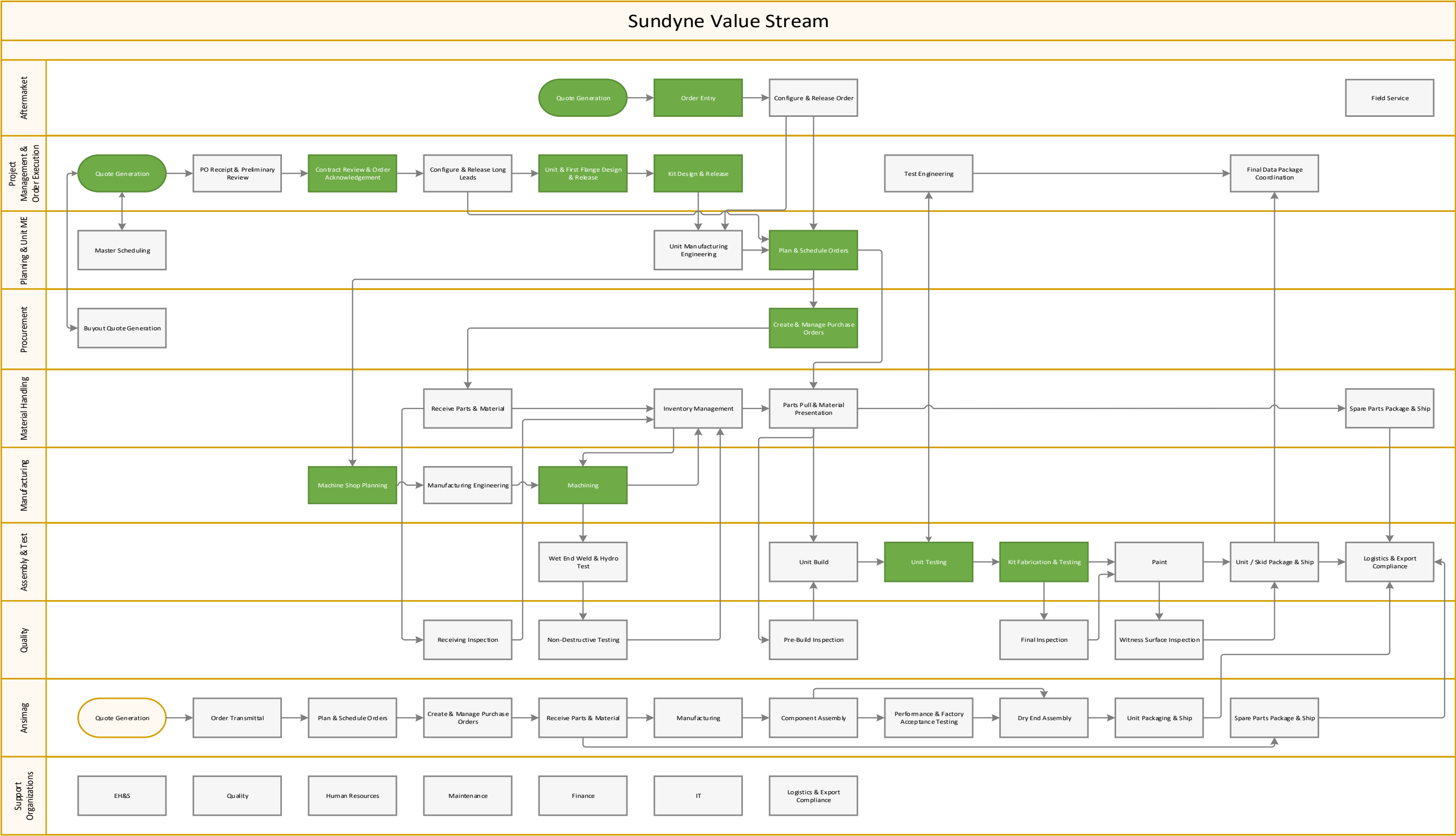
Related Documents:

SC-04-04-00, Supplier Quality Manual

QA-08-04-00, Control and Disposition of Nonconforming Product

QA-08-05-00, Continual Improvement

Appendix A1: Sequence and Interaction of Processes



*** GREEN highlight represents Sundyne key processes ***