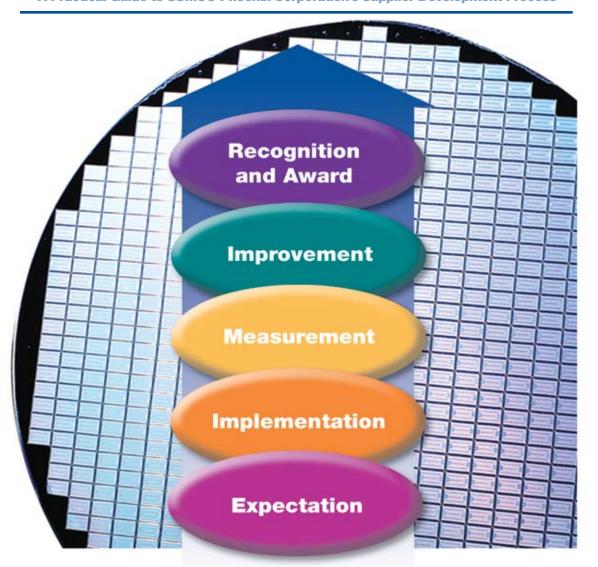


# Supplier Handbook

A Practical Guide to SUMCO Phoenix Corporation's Supplier Development Process

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anaging the Supply Chain effectively has become ever more critical in today's very competitive marketplace. Without strong customer/supplier relationships, especially in these challenging times, neither party will succeed. By working together as partners, we can both continue to grow in the future.

SUMCO Phoenix Corporation (SPX) presents its formal Commodity Management program with this thought in mind. We believe it is critical that you have a thorough understanding both of our business and of our expectations of your performance. This document is intended to provide an overview of the essential elements of this program that is focused, initially, on key suppliers in the commodity area. Their application across other commodities and the capital equipment area will evolve over time.

We need your cooperation and support in this effort - you can be assured that you will have ours in return.

Jim Fortman
Corporate Purchasing Director
SUMCO Phoenix Corporation (SPX)



## Introduction

SUMCO is a leading manufacturer of silicon wafers for the semiconductor industry. The company was formed on February 1, 2002 by the merger of the silicon operations of Sumitomo Metals Industries and Mitsubishi Materials Corporation. With the combination of these two well-established global silicon companies, SUMCO has emerged in a position to support the needs of major chip manufacturers throughout the world fully and efficiently. Offerings include:

- The broadest technology base in the wafer manufacturing industry, providing state-of-the-art products for DRAM, FLASH, ASIC, microprocessor, analog and discrete ICs
- · A commitment to all wafer diameters from 100 mm to 300 mm and
- Advanced products such as SOI, Epitaxy, iGEM<sup>Im</sup> and hydrogenannealed wafers.

SUMCO Phoenix Corporation (SPX) has two factories in the U.S. - Albuquerque, NM and Phoenix, AZ. SPX is committed to being the preeminent silicon wafer supplier to the leaders of the global semiconductor industry. To accomplish this, SPX will need suppliers who are also committed to being the best in the world.

#### **Purpose**

SPX's goal is to work with and, as appropriate, develop suppliers who are the best within their areas of expertise. We work with suppliers who continually improve their performance in the areas of cost reduction (our goal is lowest total cost), quality, productivity, service and support, all within the framework of a leading-edge provider. We are very interested in how your existing and future capabilities support our long-term goals and objectives. We will come to you for ideas and look to each of you to help us drive initiatives in these areas proactively. We expect and will count on your recommendations for reducing cost. Your role in this activity is extremely important to us. Please feel free to contact any of our sites at anytime to discuss how we might be able to improve our existing relationship, improve delivery and quality performance, and lower overall total cost — by working together.

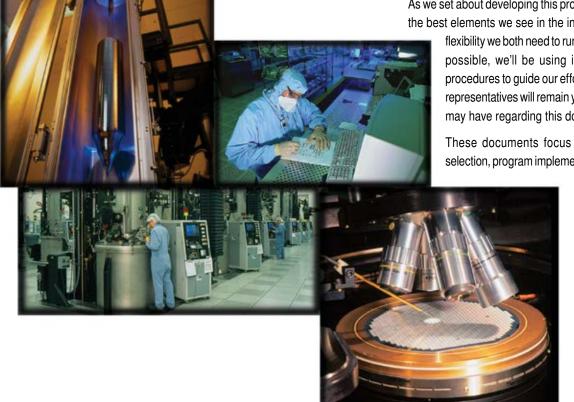
SPX is committed to your success. Our program depends upon the need we have for one another, as well as upon your active and continuous involvement in improving performance in all facets of your business. Our supplier program is dependent upon clear, concise and constant two-way communication. It is our responsibility to ensure that each of you understands our business and that we, in turn, understand yours, so that our relationship is, in fact, mutually beneficial.

As we set about developing this program, we've attempted to benchmark the best elements we see in the industry today, while still providing the

flexibility we both need to run our businesses. As a result, wherever possible, we'll be using internally documented policies and procedures to guide our efforts in these tasks. Your local SPX site representatives will remain your key contacts for any questions you may have regarding this document.

These documents focus on general expectations, supplier selection, program implementation, measurement and continuous

improvement, as well as recognition and reward. Each step in the SPX supply chain process was evaluated and is reflected in this document. Your support for helping us take this effort to the next step—implementing and making this program real, will be counted on from this point forward.





# **General Expectations**

#### **Non-Disclosure Agreements**

SPX asks that all suppliers complete and return a non-disclosure agreement to protect both SPX and our suppliers in the event that confidential information is exchanged in the normal course of business activity. This agreement should be in place and reflect the appropriate language in advance of information exchange. This confidentiality agreement does not serve as a contract between parties for other purposes, nor does it substitute for any other agreements, e.g., purchase agreements, consulting agreements, development agreements or technology agreements.

#### **Environmental**

SPX is committed to environmental excellence and we expect our suppliers to demonstrate a similar commitment. All purchased materials and delivery methods shall comply with current government and safety regulations for restricted, toxic and hazardous materials. We encourage our suppliers to seek and maintain ISO14001 certification, and we expect them to respect and protect our shared environment.

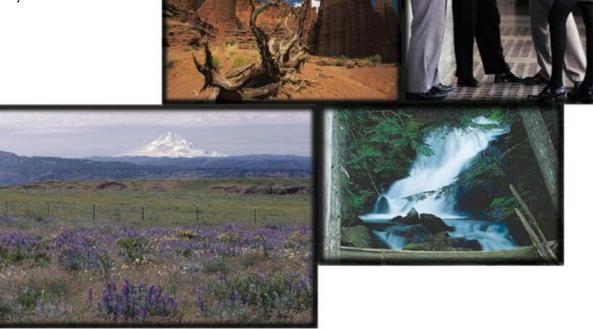
#### **Right of Entry**

SPX and our customers shall have the right to enter the supplier's facility and verify that the supplier's product conforms to specified requirements. Verification shall not absolve the supplier of the responsibility to provide acceptable product, nor shall it preclude subsequent rejection by SPX.

#### **Business Continuity Plans**

All suppliers are expected to develop and maintain a business continuity plan that assigns responsibilities and actions to be taken to enable them to continue to provide critical materials and services to SPX in the event of an unexpected business interruption. These plans should be part of the supplier's document control system and available for review by SPX, upon request.

As part of the business continuity plan, suppliers should have a risk management policy that identifies contingencies in the event of a disruption in their supply chain. SPX customers should never experience a delay in on-time delivery due to a delay in our supplier's supply chain.





# **General Expectations**

#### **Delivery Requirements**

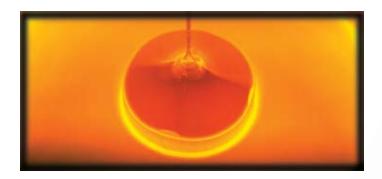
SPX requires 100% on-time delivery performance from all of our suppliers. We constantly monitor and report performance in this area (along with corrective actions, as appropriate), as noted in the measurement section of this document.

Suppliers need to take all necessary action to avoid premium freight charges. In the event that premium freight cannot be avoided, the supplier shall contact SPX and receive approval prior to shipment. Failure to comply will result in the premium charges being debited to the supplier's account.

#### **Quality System**

Suppliers are selected on the basis of their ability and commitment to meet specified quality requirements consistently, to deliver product on time and to provide a high level of support.

It is SPX's policy to work with our key suppliers to assure that their quality system is comprehensive and robust. It is our expectation that suppliers' quality systems will conform to the requirements of the most recent version of IATF 16949, with certification to the most recent version of ISO 9001 as the first step in achieving this goal. This includes but is not limited to continuous improvement (maintenance, production, costs, etc.), FMEA and control plans. In addition, suppliers are required to keep records of PPAP (production part approval process) compliance, level 5, on file for viewing upon request by SPX. SPX's Quality team will work with you to help define and develop your plans to meet these expectations.



# **Implementation**

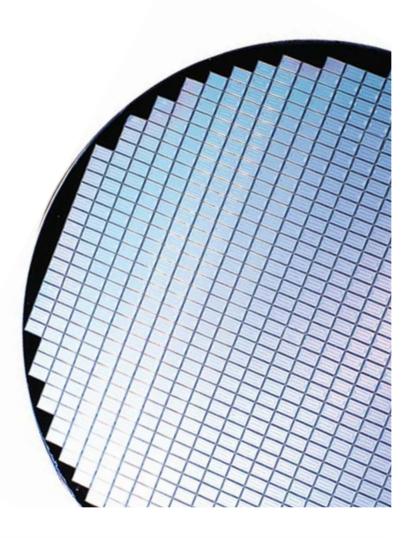
#### Supplier Requirements

In general, suppliers are expected to be cost-competitive, meet delivery and capacity requirements, maintain adequate quality systems, agree to support value-added programs and initiatives, and have the financial and technical resources to meet current and future requirements.

### **Quality Data and Process Control**

The rapid pace of advancement in today's semiconductor industry often outpaces our ability to specify adequately the quality parameters of parts and materials. Consistency and predictability of product characteristics are more likely to determine product performance than mere adherence to a specified limit. Subtle shifts in distributions, even within specified limits, can have disastrous consequences to a process developed and tuned to the characteristics of the initial sets of materials procured.

SPX expects its suppliers to recognize the importance of providing materials and products that not only meet the specification, but that also are manufactured in statistically capable and controlled processes. As critical process materials are identified, SPX will request verification of statistical control, as well as verification of adherence to specification limits. Our purchasing team will work with you to determine the best means of satisfying this need.





#### Measurement

SPX uses multiple tools to evaluate and manage all interactions with major suppliers. The Supplier Rating Guide was implemented in the second half of 2003 to help drive and monitor continuous improvement.

#### **Business Reviews**

On an annual basis or as otherwise determined as appropriate, SPX Commodity Team Managers will schedule business reviews of key suppliers. The purpose of these meetings will be to review items such as:

- Supplier performance
- · Progress toward established goals
- Review of open/unresolved issues
- · Goal setting
- Technical issues
- Cost-reduction opportunities
- · Market conditions
- Future requirements

These reviews will be critical to forming and maintaining strong relationships with our key suppliers. We want to encourage suppliers to communicate openly with us at these periodic reviews so that we jointly understand each other's overall goals and barriers.

#### **Quality System Assessments**

Supplier assessments are used to determine whether a supplier's quality system meets our corporate quality standard requirements. SPX's assessment of key suppliers may be performed in one of two ways, onsite or through the use of self-assessments, as the needs of the business dictate.

#### **Performance Rating**

SPX has developed a Supplier Rating System (SRS) that measures key suppliers in the areas of cost, quality, service/support and roadmap (technology) development. The rating system will be tracked on a quarterly basis and will be reviewed frequently (monthly) to ensure suppliers are meeting our requirements. Each category is weighted based on its criticality to SPX (see *SPX Supplier Rating Guide*).

The rating system will serve as a useful tool for our suppliers, as well as

for our Commodity Teams, by cutting across all factories to provide the basis for the consistent evaluation of performance. Please refer to the *Supplier Rating Guide* for details. The measurement criteria defined for each area follows:

Total Cost	28pt
Cost Containment	
Price Competitiveness	6
Freight	6
Product Life Competitiveness	
Product Life Improvement	
Quality	49pt
Incoming Quality	8
Corrective Actions	6
Quality System	
Audit Results	20
Specification Trend Data	4
Variability within Specification	4
Change Horizon Forecast	2
Delivery	<b>22</b> pt
On-Time Delivery	10
Lead-Time	
Capacity	
Business Continuity Plans	
Service	16pt
Responsiveness	
Inventory Management	
Flexibility	
Technology	5pt
Technology  General	<b>5pt</b> :3

Suppliers with scores below 65 will have specific development plans established to address key areas for improvement.



#### **Improvement**

Continuous improvement is critical to everything we do at SPX. Equally important is the need for suppliers to work with us to drive process, product and cost improvements on an ongoing basis. The SPX Supplier Development Plan (SDP) process uses the identified goals and opportunities for improvement based on criteria developed in previous status assessments, performance ratings, etc. The SDP process has been adopted to assist us in establishing, prioritizing and tracking the accomplishment of goals and objectives. Working together with our suppliers, we strive for total customer satisfaction.

#### **Supplier Goal Plan**

As noted, the SPX Commodity Team will first evaluate performance (see the *Supplier Rating Guide*). Next, as required, the team will work individually with selected suppliers to develop an SDP plan, with its status reviewed annually.

# **Recognition and Award**

The final step in our Supplier Management Program is supplier recognition. SPX believes in recognizing suppliers for their support. Your efforts to drive continuous improvement in all that you do serves to set the standard for performance against which all others will be judged.

#### **SPX Supplier of the Year**

Once a year, SPX will evaluate overall supplier performance in the areas of total cost, quality, delivery, customer service and technology. The company will identify and recognize the top-performing supplier(s) with a Supplier of the Year Recognition Award. Supplier Recognition requirements must be met in order to be eligible for this achievement.





# **Closing Statement**

PX would like to thank all of our suppliers for the many years of support you have provided our operations. We're excited about the changes being made and we look forward to your support for the program's implementation in the months ahead.

We appreciate your efforts to provide on-going communications regarding product continuous improvement plans, product variability reduction plans, changes that impact product or packaging form / fit / function, business continuity plans and technological roadmaps. Updates are required for each of these at least once a year or sooner if there are changes that require communication / notification. In addition, change notifications / change horizon forecast are required to be sent to SUMCO at a minimum of six months in advance of implementation.

Continuous improvement is critical to our business and yours; we must work together more closely to make positive change. We ask that all of our suppliers use these documents as tools to gain a better understanding of all of the issues that drive our business. As issues, concerns or questions arise, please contact your local SPX representative for clarification. We welcome your feedback and look forward to working with you as we begin this journey.



# new mexico

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