供应商
手册

Supplier
Handbook

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供应商手册
Supplier Handbook

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第 1 部分：简介

SECTION 1: Introduction

1.1 爱适易

爱适易是全球最大的家用和商用食物垃圾处理器及即热式饮水机的制造商。我们是艾默生 (EMR) 的一个子公司，总部位于威斯康辛州拉辛市，销售和客户服务支持遍及全球各地。公司在墨西哥雷诺萨还拥有其他生产资源。

艾默生是财富 200 强公司，为全球的商业、工业和消费市场提供服务。总部位于圣路易斯，是全球领先企业，面向以下五个业务领域的客户提供创新技术和解决方案： 工业自动化；过程控制；暖通和空调；电子与电信；设备和工具。

1.1 InSinkErator

InSinkErator is the world's largest manufacturer of food waste disposers and hot water dispensers for home and commercial use. InSinkErator, a division of Emerson (EMR), is headquartered in Racine, Wisconsin with sales and customer service support throughout the world. Additional manufacturing resources are located in Reynosa, Mexico.

Emerson is a Fortune 200 corporation serving commercial, industrial and consumer markets around the globe. St. Louis based Emerson is a global leader in providing customers with innovative technologies and solutions in five business segments: industrial automation; process control; heating, ventilation and air conditioning; electronics and telecommunications; and appliances and tools.

1.2 爱适易对供应商质量体系的期望

爱适易期望供应商除了其他事项外，还具备充分发挥作用的质量体系，确保：

- 过程和结果在规定的控制限内。
- 超出控制限或观察到显著的统计趋势时，会采取纠正措施。
- 超出规格限值时，停止生产并隔离不合格品。
- 设立适当的系统，防止任何不合格材料未经相应授权联系人的书面批准，运抵爱适易。
- 采取适当的纠正预防措施，纠正不合格品并防止其再次发生。

1.2 InSinkErator Expectations for a Suppliers Quality System

InSinkErator expects that a Supplier has a fully functioning quality system in place that, among other things, ensures the following:

- Processes and output are within defined control limits.
- Corrective action is taken when control limits are exceeded or statistically significant trends are observed.
- Production is stopped and nonconformances are contained when the specification limits are exceeded.
- Adequate systems are in place to prevent shipment of any nonconforming material to InSinkErator without documented approval from the appropriate authorized contact.

- Appropriate corrective and preventive action is taken to correct nonconformances and prevent their reoccurrence.

第 2 部分：供应商手册

SECTION 2: Supplier Handbook

2.1 用途和范围

《供应商手册》用作 爱适易 和供应商之间的指南。它的主要用途是描述责任、期望以及协定，它是与新的供应商建立良好合作关系的前提。

2.1 Purpose & Scope

The Supplier Handbook serves as a guideline between InSinkErator and a supplier. Its primary purpose is to describe the responsibilities, expectations, and understandings that must be present to establish a sound working relationship with new suppliers.

2.2 文件分发

采购员负责确保所有新的供应商收到《供应商手册》和相关附录以及最新更新。

2.2 Document Distribution

It is the Buyers responsibility to ensure that all new suppliers receive a copy of the Supplier Handbook and associated appendices, with updates sent when available.

2.3 目标

爱适易 及其供应商期望通过遵守《供应商手册》中的准则，达到以下目标。

- 以极富竞争力的价格按时交付 100% 零缺陷产品或服务。
- 对我们业务关系的方方面面进行持续质量改进。
- 及早沟通并预防问题。
- 建立良好的业务关系，为忠诚的供应商群体提供更多机遇。
- 始终如一的业务运营框架，使得 爱适易 能够提供最高品质的产品，改进库存流，以及缩短周期时间。
- 建立持续改善质量、生产力、客户服务和总体成本的坚实基础。

2.3 Objectives

InSinkErator and their suppliers expect to achieve the following objectives by observing the guidelines in the Supplier Handbook.

- 100% defect-free products or services, delivered on time and at a competitive total cost.
- Continual quality improvements in all aspects of our business relationship.
- Early communication and problem prevention.
- A business relationship that provides greater opportunities for a committed supplier base.
- A consistent business framework in which to operate, thus allowing InSinkErator to provide the highest quality products, improved inventory flow, and shortened cycle times.

- Build a foundation to continually improve quality, productivity, customer service, and total cost.

2.4 供应商责任

爱适易 对其供应商有以下期望：

- 追求世界一流的质量并持续改进。
- 不断肩负起相应责任来应对全球竞争。
- 能够遵守 爱适易 商业条款。
- 主动参与质量计划并及时提交审批文档。
- 杜绝将不合格产品交付给 爱适易。
- 为了足以保护产品不在运输过程中受损或老化, 必须提供完善的包装设计。
- 出现不合格品时，会及时采取有效的纠正措施。
- 通过准时交付，支持公司的看板程序。
- 使用适当的工具和问题解决方法（例如精益、SPC、六西格玛、DFSS 等）。
- 遵守本手册中介绍的适用程序。
- 遵守任何与产品相关的环境法律（包括RoHS,REACH 和 WEEE）。
- 在适用情况下，供应商需根据要求提供 NAFTA 证书。

2.4 Supplier Responsibilities

InSinkErator expects the following from their suppliers:

- Commitment to world class quality and continuous improvement.
- Ongoing responsibility to meet global competition.
- Ability to meet InSinkErator's commercial terms.
- Participation in Quality Planning initiatives and timely submission of approval documentation.
- Containment of nonconforming product to prevent delivery to InSinkErator.
- Must provide packaging of sufficient design to adequately protect the product from damage or degradation during transit.
- Timely & effective corrective action in the event of a non-conformance.
- Support of Kanban programs through on-time delivery.
- Use of the appropriate tools and problem solving methodologies (i.e., Lean, SPC, Six Sigma, DFSS, etc.).
- Conformance to applicable procedures outlined in this handbook.
- Compliance with any and all applicable RoHS and product related environmental legislation (including REACH and WEEE).
- Where applicable, supplier will be required to provide NAFTA certificates upon request.

2.5 爱适易责任

供应商对 爱适易有以下期望：

- 令人尊敬的和道德的商业行为。
- 沟通质量要求并交流信息。
- 双方就规格和公差达成一致。
- 定期提供供应商绩效报告。

通过网上竞标获得与艾默生其他子公司发展业务的潜在机遇

2.5 InSinkErator Responsibilities

A supplier to InSinkErator expects the following:

- Honorable and ethical business dealings.
- Communication of quality requirements and exchange of information.
- Mutually agreed specifications and tolerances.
- Periodic supplier performance reports.

Potential opportunities with other Emerson divisions through e-Sourcing

第 3 部分： SPC

SECTION 3: SPC

3.1 SPC 的战略利益

制造公司面临着新技术和全球竞争快节奏的不断挑战。为了保持竞争力，成功的公司会采取战略措施，通过快速引入新的服务和技术，削减不必要的成本并制造质量和交付堪称完美的产品，拉开自己及其产品与竞争对手的差距。

爱适易的其中一个战略支持工具是统计过程控制 (SPC)。 SPC 通过以下方式提高公司的业绩：

- 减少/杜绝废品和返工
- 通过控制过程提高引进新产品的速度
- 通过减少产生不合格品的变量提高质量
- 在产生不合格零部件之前，及早识别潜在问题，改善交付质量。

3.1 Strategic Benefits of SPC

Manufacturing companies are continually challenged with the rapid pace of new technology and global competition. To compete, successful companies employ strategies that differentiate themselves and their products by rapidly introducing new offerings and technologies, driving unnecessary costs out, and manufacturing products with perfect quality and delivery.

One of the tools InSinkErator is uses to support these strategies is Statistical Process Control (SPC). SPC improves a company's performance by:

- Reducing/eliminate scrap and rework
- Improving new product introduction speed by mastering the process
- Improving quality by reducing the variables that cause non-conformances
- Improving delivery by identifying potential problems before producing nonconforming parts.

3.2 SPC 期望

爱适易一直致力于向功能完善的 SPC 供应商采购关键部件。爱适易 对此类 SPC 供应商的期望包括：

- 在管理方面承诺采用 SPC/六西格玛/或其他问题解决方法。
- 配备充足的资源/员工，实施和维护相应举措。
  1. 为每个生产班组提供支持。
  2. 拥有适当的统计软件。
  3. 安排训练有素的员工解读结果。
- 定期（至少每个月）例行评估业绩计划、目标和结果。
- 设立纠正预防措施体系，发现并解决业绩问题。

3.2 SPC Expectations

InSinkErator is intent on sourcing key components with fully functioning SPC Suppliers. Expectations for a fully functioning SPC supplier include:

- Management commitment to SPC/Six Sigma/ or other problem solving methodology.
- Provision of adequate resources/staffing to implement and maintain the initiative.
  1. Support for each production shift.
  2. Appropriate statistical software.
  3. Trained staff to interpret results.
- Routine periodic (at least monthly) review of performance plans, goals, and results
- Corrective and Preventive action system in place to identify and resolve performance issues.

第 4 部分：供应商评估

SECTION 4: Evaluation of Suppliers

通过报价、网上竞标、采购员/工程师推荐以及其他途径，来发现潜在供应商。

Potential suppliers are identified through the use of Request for Quotation, e-Sourcing, Buyer/Engineer recommendation and other means.

4.1 评估供应商

初次审批供应商时通过以下一个或多个方法评估：

- 供应商简介，自审
- 产品评估
- 质量体系评估
- 行业经验

4.1 Evaluating Suppliers

Suppliers are evaluated for initial approval by one or more of the following methods:

- Supplier Profile, Self Audit
- Product Evaluation
- Quality System Evaluation
- Industry Experience

4.2 供应商审核规程

爱适易采用了艾默生供应商审计核查单 (ESAC) 作为我们的审核规程。在现场审核之前，采购员或供应商质量经理向供应商提供一份 ESAC。

ESAC 采用 Microsoft Excel 格式并包含若干工作表。我们鼓励供应商通读整个文档。最初，供应商主要关注以下几个标签：

- 概述
- 供应商简介
- 标准核查单（自审）
- 供应商 CA-PA（纠正措施 – 预防措施）

如果认为有必要进行现场审计，则会提供本文档。

4.2 Supplier Audit Protocol

InSinkErator has adopted the Emerson Supplier Audit Checklist (ESAC) as our Auditing protocol. The Buyer or the Supplier Quality Manager provides a copy of the ESAC to the supplier prior to an on-site audit.

The ESAC is in Microsoft Excel format and contains several sheet tabs. The supplier is encouraged to read through the entire document. Initially the supplier focuses on the following tabs:

- Overview
- Supplier Profile
- Standard Checklist (Self-Audit)
- Supplier CA-PA (Corrective Action – Preventive Action)

If an on-site audit is deemed necessary, the documentation is provided.

4.3 供应商简介和自审

供应商简介和自审收集供应商的信息，帮助评估以下方面：

- 工厂地点和产能
- 制造过程
- 技术能力
- 业务操作
- 质量体系管理

对于非产品目录中的定制设计零部件的新供应商，必须至少填写并提交供应商简介和自审，然后才能被列入 爱适易 的已批准供应商名单。

供应商简介和自审含在“艾默生供应商审计核查单 (ESAC)”内。采购员或指定人员要确保供应商收到电子版的艾默生供应商设计核查单 (ESAC) 文件。填写完的文件必须要返回给采购员或请求者。

4.3 Supplier Profile and Self-Audit

The Supplier Profile and Self-Audit collect supplier information to aid in evaluating the following:

- Facility location and capacity
- Manufacturing processes
- Technical capabilities
- Business practices
- Quality System management

At a minimum, new suppliers (of non-catalog, custom designed parts) must complete and submit the Supplier Profile and Self-Audit prior to being placed on InSinkErator’s’ approved supplier list.

The Supplier Profile and the Self-Audit are contained within the “Emerson Supplier Audit Checklist (ESAC)”. The Buyer or their designate ensures that the supplier receives an electronic copy of the Emerson Supplier Audit Checklist (ESAC) file. The completed file must be returned to the Buyer or requester.

4.4 产品评估

供应商可能会通过有关零部件、材料和服务的评估获得审批，以确保他们符合质量和设计要求。

4.4 Product Evaluation

A supplier may be approved based on the evaluation of parts, materials, and services to ensure they conform to quality and design requirements.

4.5 质量体系评估

供应商的质量体系评估依据下列一个或多个标准：

- 按照本手册 4.2 部分进行供应商现场审计。
- 由具备相应资质的第三方进行审计（例如 ISO 或 QS 认证）
- 可接受由另一家艾默生子公司根据艾默生供应商审计核查单执行的审计

4.5 Quality System Evaluation

The quality system of a supplier is evaluated based on one or more of the *following criteria:*

- On-site audit of supplier per Section 4.2 of this handbook.
- Audit by a qualified third party (such as ISO or QS Certification)
- Acceptable audit conducted by another Emerson Division per the Emerson Supplier Audit Checklist

4.6 行业经验

检查供应商的 ISO 证书、国家认可证书以及行业领导颁发的奖励或另一家艾默生子公司的正式批准。

4.6 Industry Experience

Review of the Supplier's ISO certification, nationally recognized certificates, and awards from industry leaders, or approval from another Emerson Division.

第 5 部分：零部件/过程批准 (PPA)

SECTION 5: Part/Process Approval (PPA)

爱适易采用一个名为"零部件过程批准"的管理工具，记录零部件批准过程的所有环节，记录从初始质量计划一直到最终认可。

InSinkErator uses a management tool called Part Process Approval to record all aspects of the Part Approval Process, from initial Quality Planning to Final Approval.

5.1 质量计划

爱适易通过运用质量计划工具，力求确保客户满意。我们期望我们的供应商有相同的承诺，并要求供应商参与质量计划活动。

5.1 Quality Planning

InSinkErator is committed to ensuring customer satisfaction through the use of quality planning tools. We expect the same commitment of our suppliers and require supplier participation in Quality Planning activities.

5.1.1 质量计划活动触发点

制造地点的变更、零部件设计状态和/或生产零部件所使用的工具状态，都会引起质量计划活动。上述条件可能重叠。

质量计划要求和 PPA 活动由以下因素触发：

- 制造地点变更
  - 向爱适易的新供应商购买零部件
  - 向爱适易的老供应商再次购买零部件
  - 供应商变更了其组织内的制造地点

- 新零部件/修正了关键特性
  - 新的零部件、原材料或组件
  - 新的成品（买断、自有品牌等）
  - 关键特性的工程设计修正
- 新工具
  - 专为新的零部件设计和生产
  - 用于更换磨损的工具（除非工具正常“消耗”或频繁更换生产期间使用的标准工具，例如冷镦工艺需要频繁更换工具）

5.1.1 Quality Planning Activity Trigger Points

A change in the manufacturing location, the part design status and/or the status of the tool used to make the part lead to quality planning activities. These conditions may overlap.

Quality Planning Requirements and PPA activities are triggered by:

- Manufacturing Location Change
  - Sourced part with supplier that is new to InSinkErator
  - Re-sourced part to an established InSinkErator supplier
  - Supplier changed manufacturing location within it’s organization
- New Part / Revised Key Characteristic
  - New part, raw material or sub-assembly
  - New finished product (Buy-out, private label, etc.)
  - Engineering revision of a key characteristic
- New Tool
  - Designed and built for new part
  - Built to replace worn tool (Unless tool is normally “consumed” and frequently replaced standard tooling used during production, i.e., cold-heading process requires frequent tool replacement)

5.1.2 质量计划/要求

供应商必须完成下述质量计划活动。其中包括提交书面计划以及样品检验数据和过程能力分析。目的在于：

- 验证供应商理解 爱适易的要求。
- 验证供应商具备生产和检验符合我们要求的零部件的能力。
- 验证供应商设定了适当的过程控制措施以满足过程能力参数。

供应商必须向 爱适易采购员或质量工程师提交要求的文档。在提交的样品、检验数据和其他文档获得批准后，该生产批次的产品才可发货。

虽然一般仅在初始阶段要求执行相关活动并提交相关文档，但 爱适易质量保证部门可能会发现有必要让供应商重新执行某些质量计划步骤。要求供应商执行的具体操作将在零部件和过程批准 (PPA) 文档中进行介绍。

5.1.2 Quality Planning Requirements

Suppliers must complete the Quality Planning activities described below. This includes submitting documented plans, as well as, sample inspection data and process capability analysis. The intent is to:

- Verify that the supplier understands InSinkErator's requirements,
- Verify that the supplier is able to produce and measure parts that meet our requirements.
- Verify that the supplier has adequate process controls in place to meet the process capability parameters.

The supplier must submit the required documentation to the InSinkErator Buyer or Quality Engineer. Approval of submitted samples, inspection data and other documentation must occur prior to shipping production lots.

Although the activities and related documentation is generally required only at startup, InSinkErator Quality Assurance may find it necessary for the supplier to repeat some Quality Planning steps. Specific required supplier activities are communicated in the Part & Process Approval (PPA) document.

5.2 预生产阶段的活动和文档

5.2 Pre-Production Stage Activities and Documents

5.2.1 过程流程图

生产之前，供应商需提供过程流程图给指定的 爱适易质量工程师，待其批准。过程流程图（流程图）确定所有操作的顺序，包括加工、存放、检验、包装、分包过程等。流程图至少要介绍材料流以及执行的所有质量检查。具体格式可以随意。*有关可接受格式的示例，请参见附录。*

5.2.1 Process Flow Diagrams

Prior to production, the supplier provides a Process Flow Diagram(s) to obtain approval by the assigned InSinkErator Quality Engineer. Process flow diagrams (flowcharts) identify the sequence of all operations including handling, storage, inspections, packaging, sub-contracted processes, etc. At a minimum, the flowchart illustrates material flow and all quality checks performed. Any format is acceptable. *See example of acceptable format in Appendix.*

5.2.2 过程失效模式及效果分析 (PFMEA)

生产之前，供应商需提供过程失效模式及效果分析 (PFMEA) 给指定的爱适易质量工程师，待其批准。失效模式和效果分析有助于预防潜在的质量问题。

可接受的格式包括：

- 爱适易的 FMEA 表（参见附录示例）
- 美国汽车工业行动集团 (AIAG) FMEA 格式
- 爱适易QA 人员批准的其他格式

5.2.2 Process Failure Mode and Effects Analysis (PFMEA)

Prior to production, the supplier provides a Process Failure Modes & Effects Analysis (PFMEA) to obtain approval by the assigned InSinkErator Quality Engineer. Failure Modes and Effects Analysis help prevent potential quality problems.

Acceptable formats include:

- InSinkErator's FMEA form (See example in Appendix)
- Automotive Industry Action Group (AIAG) FMEA format
- An alternative format approved by InSinkErator QA staff

5.2.3 过程控制计划

生产之前，供应商需提供过程控制计划给指定的 爱适易质量工程师，待其批准。编撰控制计划时，只要内容包含下列项目，便可使用任何格式。过程流程图也可以纳入控制计划。*请参阅附录中的"控制计划"示例和说明。*

控制计划至少需明确：

- 爱适易零部件编号和图纸修订级别
- 产品/过程特性
- 控制限值
- 控制方法（例如 SPC、抽样检验、100% 检验/测试等）
    - 关键特性要求使用 SPC
- 所用测量仪表的类型
- 检验频率和样本量
- 针对失控情况的应变措施
- 包装方案 – 在首次给 InSinkErator 发货前应就包装方案达成一致意见。

5.2.3 Process Control Plan

Prior to production, the supplier provides a process Control Plan(s) to obtain approval by the assigned InSinkErator Quality Engineer. Any format can be used to document the Control Plan as long as it includes the items listed below. Process flow diagrams may be incorporated into the Control Plan. *See sample "Control Plan" and instructions in Appendix.*

At a minimum, the Control Plan identifies:

- InSinkErator Part Number and drawing revision level
- Product / process characteristic
- Control limits
- Control method (i.e., SPC, sample inspection, 100% inspection/test, etc.)
    - Critical Characteristics require SPC
- Type of gage used
- Inspection frequency and sample size
- Reaction plan for out-of-control conditions
- Packaging Plan – Packaging shall be agreed upon prior to the first direct material shipment to InSinkErator.

5.3 验证阶段活动和文档

在验证阶段，供应商按照 PPA 中的要求，提供零部件样品、初次样品检验报告以及能力分析结果。 ISIR 和能力 分析信息按相互协议的格式记录。

提交能力结果之前，必须具备三个条件：

1. 执行了测量系统分析 (MSA) 并且结果合格。
2. 验证过程是稳定的（仅存在导致情况变化的常见原因）。
3. 验证数据遵守正态分布，如果是非正态分布，则套用相应的分布。

5.3 Verification Stage Activities & Documentation

During the verification stage, the supplier provides sample parts, initial sample inspection report, and capability study results as requested in the PPA. ISIR and Capability Study information is recorded on a mutually agreed to format.

Three conditions are required prior to submitting capability results:

1. A Measurement System Analysis (MSA) is conducted and acceptable results achieved.
2. Verification that the process is stable (only common causes of variation exist).
3. Verification that the data follows a normal distribution or, if non-normal, is modeled according to an appropriate distribution.

5.3.1 测量系统分析 (MSA)

在能力分析之前，需对生产期间使用的测量仪表和测试设备完成测量系统分析 (MSA)。

接受标准：

误差率低于 10% – 视为合格的测量系统。

误差率为 10% 到 30% – 特定条件下合格，具体依据应用的重要性、测量设备的成本、维修成本等条件。 对于落在这个范畴的测量系统的合格性，由计量工程服务主管、质量工程师及供应商代表共同确定。

误差率大于 30% – 视为不合格。 使用的测量系统及合格性落在这一范畴，需要提交“测量仪表和测试设备差异报告”。 同时要求提供解决该差异的纠正措施。

5.3.1 Measurement System Analysis (MSA)

An MSA on the gaging and test equipment used during production is completed prior to the capability study.

Acceptability Criteria:

Under 10% error – Considered an acceptable measurement system.

10% to 30% error – Conditional acceptance based upon the importance of application, cost of measurement device, cost of repair, etc. The acceptability of measurement systems falling in this category is determined by the Metrology Engineering Services Leader in conjunction with the Quality Engineer and the Supplier Representative.

Over 30% error – Considered not acceptable. The acceptability and use of measurement systems falling in this category require the initiation of a “Gages and Test Equipment Discrepancy Report”. Corrective action is required to resolve the discrepancy.

5.3.2 检验样品

生成零部件/过程批准提交材料数据时使用的特定零部件，将和纸质数据一起，送至爱适易计量部门。 电子文件将发送给产品工程师、采购员、质量工程师以 及计量部门。 **检验样品将贴上标签或进行标记，将其明确标识为样品，以便查 验提供的检验记录。** *请参阅“附录/ISIR 说明标签”了解详细说明。*

5.3.2 Inspection Samples

The specific parts used in generating the data for the Part/Process Approval submission, along with a hard copy of the data, are sent to InSinkErator Metrology. The electronic file is sent to the Product Engineer, Buyer, Quality Engineer, and Metrology. **The inspection samples are tagged or marked to clearly identify them as samples for traceability to the inspection records provided.** *See “Appendix, ISIR Inst Tab” for further instruction.*

5.3.3 首件样品检验报告

爱适易向供应商提供一份图纸以识别 ISIR 上测量和记录的特征码。 ISIR 将以 相互协议的格式记录，一般包括：日期、零部件识别（批号、熔炼炉号、修订版本号等）、工具编号、模腔编号、检验人、特征码、名义尺寸、规格上限、规格下限、所用测量仪器的类型或测量方法、测量值、结果（合格或不合格）以及任何适当的注释。

5.3.3 Initial Sample Inspection Report

InSinkErator provides a drawing to the supplier for identifying the characteristic number that is measured and recorded on the ISIR. The ISIR will be in a mutually agreed to format and typically includes the date, part identification (lot number, heat number, revision number, etc.), tool number, cavity number, inspected by, characteristic number, nominal, upper spec limit, lower spec limit, type of gage or method used, values, results (compliant or not compliant), and any appropriate remarks.

5.3.4 能力分析

所有关键的重要特征和主要的重要特征均需要能力分析。

关键的重要特征在图纸上用“带圈的星号”标示。 这些特征需要全面的能力分析。 全面的能力分析采用的批次规模大于 300 件，按分析的特征至少 100 件，分 3、4 或 5 个小组每 30 分钟（或根据指令）提取一次。

主要的重要特征在图纸上用“星号”标示。 这些特征要求至少一项基本能力分析。 一项基本能力分析使用 30 件连续样品，一个小组。

在计划生产的制造地点，进行基本或全面的能力分析。 能力分析以相互协议的 格式记录，并符合图纸所需的特征分析，同时还确定所采用的仪表/测量方法。 如有关于能力分析的任何问题或讨论使用其他测量仪表，请供应商联系质量工程师或计量实验室主管。 请注意，能力分析期间使用的检验测量仪表或方法可能有 别于控制计划中规定的生产检验测量仪表或方法。

供应商提供关于规定的主要特性的供应商能力分析报告 (SCSR)。 提交的 SCSR 要求通过指定的爱适易质量工程师的批准，方可开始生产。

5.3.4 Capability Studies

All Critical Key Characteristics and Major Key Characteristics require capability studies.

Critical Key Characteristics are denoted on the drawing with a “Circle Star”. These characteristics require a full capability study. A full capability study uses a lot size of greater than 300 pcs., 100 minimum per characteristic studied, subgroups of 3, 4, or 5 taken every 30 minutes, or as directed.

Major Key Characteristics are denoted on the drawing with a “Star”. These characteristics require at least a basic capability study. A basic capability study uses 30 consecutive samples, one subgroup.

Basic or full capability studies are performed at the manufacturing location intended for production. The capability studies are recorded in a mutually agreed to format, match the characteristic studies to the drawing, and identify the gage/measurement method used. The supplier contacts the Quality Engineer or Metrology Lab Leader if questions arise regarding the capability study or to discuss use of alternative gaging. Note that the inspection gage or method used during a capability study may differ from the production inspection gage or method stated on the Control Plan.

The supplier provides a Supplier Capability Study Report (SCSR) on defined Key Characteristics. The submitted SCSR requires approval by the assigned InSinkErator Quality Engineer prior to production.

最低能力目标

下表提供了 PPA 批准的最低能力目标。

最低能力目标	**关键产品特性分类**	
	级别 2 – 主要	**级别 3 - 关键**
基本能力分析	1.33 Cpk	1.33 Cpk
	1.33 Ppk	1.33 Ppk
全面能力分析	1.33 Cpk	初次为 1.33 Cpk，然后继续降低变数；目标是达到 1.5 Cpk。
	1.33 Ppk	1.33 Ppk
属性能力分析	100% 合格 - 有 1 件不合格品就拒绝	100% 合格 - 有 1 件不合格品就拒绝

Minimum Capability Targets

The following table provides the minimum capability targets for PPA approval.

Minimum Capability Target	Key Product Characteristic Classification	
	Level 2 – Major	Level 3 - Critical
Basic Capability Study	1.33 Cpk	1.33 Cpk
	1.33 Ppk	1.33 Ppk
Full Capability Study	1.33 Cpk	1.33 Cpk initially, then continue to reduce variation; the goal is to achieve a Cpk of 1.5.
	1.33 Ppk	1.33 Ppk
Attribute Capability Study	Pass 100% - reject with 1 nonconformance	Pass 100% - reject with 1 nonconformance

5.4 PPA 验证 - 测试/试运行

测试：某些情况下需要特殊测试。 测试要求通过 PPA 传达。 测试针对生产样品进行。 爱适易测试在内部进行。

试运行：某些情况下需要试运行。 试运行要求通过 PPA 传达。 一般来说，试运 行有两个步骤，包括全天生产和一周的生产运行。 具体长度和重复次数可能 不同。

5.4 PPA Validation – Testing / Pilot Run

Testing: In some instances special testing is required. Testing requirements are communicated via the PPA. Testing is done on production samples. InSinkErator testing is done internally.

Pilot Run: In some instances Pilot Runs are required. Pilot run requirements are communicated via the PPA. Typically a pilot run has two steps that include a full days' production and a production run of one week. Specific lengths and iterations may differ.

5.5 PPA 决定

PPA 决定有以下三种：

批准： 表示要求活动的结果符合 PPA 的最低阈值要求。过程稳定，符合能力目标。

暂时批准： 如果过程不稳定，生产能力有限，并且正在整改过程以符合能力目标，则适用此决定。生产零部件的制造商负责暂时批准期间所需的任何附加检验，以防止产出不合格零部件。

拒绝： 如果在提交的样品零部件中发现了不合格品，不符合能力目标或不满足其他提交的要求，PPA 会被拒绝。

5.5 PPA Disposition

The PPA is dispositioned in one of three ways:

Approved: Indicates that the results of the required activities meet the minimum threshold requirements of the PPA. The process is stable with the capability targets met.

Interim Approval: Used if the process is unstable and limited production is made while the process is being corrected to meet the capability target. The manufacturer of the production parts is responsible for any additional inspection needed to contain nonconforming parts made during the Interim Approval.

Rejected: If a nonconformance is found in the submitted sample parts, the capability targets are not met, or other submitted requirements are insufficient, the PPA is rejected.

第 6 部分： 生产阶段活动和文档

SECTION 6: Production Stage Activities and Documents

6.1 控制计划变更或过程变更通知

在实施变更之前，供应商必须将控制计划的提议变更或生产活动的任何重要变更，通知相应的 爱适易采购员。 大部分情况下，这些变更要求提交新的 PPA。对于要求在实施之前通知提议变更并获得 PPA 批准的情况，包括但不限于：

- 生产地点变更为另一制造厂
- 新的或重新设计的过程
- 检验/测试方法发生变更
- 材料供应商发生变更
- 分包服务的供应商发生变更

6.1 Notification of Control Plan change or Process Change

A supplier is required to notify the appropriate InSinkErator Buyer of any proposed changes to their control plan or any significant change to the production process prior to implementing the change. In most cases, these changes require a new PPA submission. Situations that require notification of proposed changes and PPA approval prior to implementation include but are not limited to:

- Relocation of production to another manufacturing facility
- New or re-built process
- Change in inspection / test methods
- Change in material suppliers
- Change in suppliers of subcontracted services

第 7 部分：商业条款

SECTION 7: Commercial Terms

7.1. 产品标签要求

每个包装箱上的产品标签至少应包括供应商名称、InSinkErator 零部件编号、图纸版本号、每个包装箱内的零部件数量以及生产批号或制造日期。

如果需要其它产品标识，则将在零件图纸上注明。

7.1. Product Labeling Requirements

Minimum product marking on each container must include the Supplier Name, InSinkErator Part Number, Revision Level, the Quantity per Container, and Lot Number or Date of Manufacture.

If additional product marking is required, it will be noted on the part drawing.

7.2 付款周期

艾默生的标准付款周期是第 3 个月的 5 号。现有和潜在供应商需要遵守此条款。

7.2 Payment Terms

Emerson's standard payment terms are 5th 3rd Prox. Existing and potential suppliers are expected to comply with these terms.

7.3 国内运费

每张采购单正面列明了相关条款。标准条款是：

- 100 磅以下，联邦陆运。
- 100 磅以上，请参阅 爱适易路线指南或遵照采购员或 爱适易物流部门指示。
- 通过 CASS Logistics 收集第三方付费表给爱适易。

7.3 Domestic Freight

Terms are stated on the face of each purchase order. Standard terms are:

- FedEx Ground for shipment < 100 lbs.
- Refer to InSinkErator routing guide, or as directed by the Buyer or InSinkErator Logistics > 100 lbs.
- Collect third party billing to InSinkErator through CASS Logistics.

7.4 国际运费

相关条款在 EMR 2006 中规定；请联系采购员了解此标准的详情。

7.4 International Freight

Terms are defined in EMR 2006; contact the buyer for details of this standard.

7.5 法律条款

艾默生标准条款与条件列于采购单背面。

7.5 Legal Terms

Emerson standard terms and conditions appear on the back of the purchase order.

7.6 包装指导规范

InSinkErator 遵守 1991 年修订的针对包装/人工物料搬运的 NIOSH 指导规范。为了在典型的仓库中满足一般安全搬运要求, 所有纸板箱均应符合普遍实行的指导规范。

包装指导规范审查表

单个包装箱重量：

- 除非 InSinkErator 另有规定，否则单个包装箱最大重量为 35 磅（15.88Kg）。

单个包装箱标签

- 标签必须符合图纸上注明的所有特殊要求。
- 当没有注明特殊要求时，单个包装箱标签必须至少包括：
    - 供应商名称
    - InSinkErator 零部件编号
    - 修订版本号
    - 每个包装箱内的数量
    - 生产批号或制造日期

单个包装箱上的自动化看板（Kan Ban）标签（需要时）：

- 使用自动化看板时，标签由使用的程序决定。

托盘货物负载重量及尺寸：

- 除非另有说明，否则根据木制托盘的统一标准制作尺寸为 40”x48”（101.6 cm x 121.92 cm）四向进叉的托盘。
- 最大预定重量为 2,000 磅（907 Kg. ）。
- 最大预定高度是 60 in.（152.4 cm. ）。

托盘标签 – 同类产品必须包括：

- 供应商名称
- 零部件编号
- 修订版本号
- 托盘上的总数量

托盘标签 – 混合装载

- 主托盘标签必须显示所有零部件编号和数量
- 单个包装箱放置在托盘上，应保证在托盘外围能够看到包装箱上的标签。

可多次利用的包装

- InSinkErator 提供的包装
    - 零部件明确的包装可包括箱子、托盘、专用衬垫、塑料托盘、筐子等。
    - 对属于 InSinkErator 所有的包装做明确标注。
- 供应商提供的包装
    - 可包括铁丝筐、专用托盘、隔板等。
    - 所有供应商提供的包装均明确标注了供应商名称。

7.6 Packaging Guidelines

InSinkErator adheres to the 1991 revised NIOSH Guidelines for packaging/manual material handling. All cartons should conform to generally practiced guidelines sufficient to meet normal safe handling requirements in the typical stockroom.

Packaging Guideline Checklist

Individual Container Weights:

- The maximum weight is 35 lbs (15.88Kg) unless otherwise specified by InSinkErator.

Individual Container Labeling

- Labeling must comply with all special requirements noted on the drawing.
- Minimum Individual Container labeling requirements, when no special requirements are noted, must include:
    - Supplier Name
    - InSinkErator Part Number
    - Revision Number
    - Quantity per Container
    - Lot Number or Date of Manufacture

Automated Kan Ban Labeling (when required) on individual containers:

- For participants in Automated Kan Bans the labeling is determined by the program in use.

Palletized Loads Weights and Dimensions:

- Pallet size is 40”x48” (101.6 cm x 121.92 cm) 4-way, constructed per uniform standards for wooden pallets, unless otherwise specified.
- The target maximum weight is 2,000 lbs (907 Kg.).
- The target maximum height is 60 in. (152.4 cm.).

Pallet Labeling - Homogeneous Product must include:

- Supplier Name
- Part Number

- Revision Number
- Total Quantity on Pallet

Pallet Labeling - Mixed Load

- Master pallet label must show all part numbers and quantities
- Individual containers should be palletized so that labels are visible on the outside perimeter of the pallet.

Returnable Packaging

- InSinkErator provided packaging
    - Part specific packaging may include Bins, Trays, Special Liners, Plastic Pallets, Baskets, etc.
    - Is clearly identified as InSinkErator owned packaging.
- Supplier provided packaging
    - May include wire baskets, special pallets, dividers, etc.
    - All supplier provided packaging is clearly identified with the suppliers name.

第 8 部分：供应商质量反馈

SECTION 8: Supplier Quality Feedback

8.1 不合格材料通知

不合格零部件和材料会被立即隔离，并详细记录为材料不合格。所有不合格材料都将经过 爱适易相关人员的检查。采购员或指定人员将发送一份材料不合格通知给供应商，沟通该问题并要求立即采取必要措施。供应商至少要提供整改该情况的措施记录，并采取措施预防将其他不合格品出货。

8.1 Notification of Nonconforming Material

Nonconforming parts and materials are immediately segregated and the details are recorded as a Material Nonconformance. All nonconforming material is reviewed by InSinkErator personnel. The Buyer or designate sends a copy of the Material Nonconformance to the supplier to communicate the issue and to request immediate action where necessary. At a minimum, the supplier provides a record of actions taken to correct the condition, take action to prevent shipment of any additional nonconformances.

8.2 整改要求

必要时，将发出整改要求。 供应商整改要求 (SCAR) 发布所针对的是：

- 重复出现不合格问题
- 所有重要特征的不合格
- 被认为适当的任何其它问题

8.2 Request for Corrective Action

When necessary, a request for corrective action is generated. A Supplier Corrective Action Request (SCAR) is issued for:

- Repeat non-conformance issues
- All non-conforming key characteristics
- Any other issues deemed appropriate

8.3 供应商对 SCAR 的响应

要求供应商

- 在 3 日内确认收到 SCAR
- 完成调查、确定根本原因，并在 14 日内答复。

8.3 Supplier Response to SCAR

It is expected that the supplier

- Acknowledge the receipt of the SCAR within 3 days
- Complete investigation, identification of root cause and provide a response within 14 days.

8.4 供应商绩效评估

爱适易定期提供供应商绩效评估报告。

8.4 Supplier Performance Measurement

InSinkErator provides periodic Supplier Performance Measurement Reports.

第 9 部分：其他供应商手册文件

SECTION 9: Additional Supplier Handbook Files

9.1 附录

“附录”文件是一个 Microsoft Excel 工作簿，其中包含《供应商手册》内提及的供应商和 爱适易使用的示例、表单和说明。

该文件将提供给所有 爱适易供应商和潜在供应商，可通过 爱适易采购员、采购工程师或供应商质量经理索取。

“附录”工作簿涵盖几个主题，包括：

- 过程流程图
- 失效模式及效果分析 (FMEA)
- 控制计划
- 初次样品检验报告 (ISIR)
- 供应商能力分析报告 (SCSR)

9.1 Appendix

The ‘Appendix’ file is a Microsoft Excel workbook containing the examples, forms and instructions used by the supplier and InSinkErator as described within the Supplier Handbook.

The file is provided to all InSinkErator suppliers and potential suppliers when requested through the InSinkErator Buyer, Procurement Engineer or the Supplier Quality Manager.

The ‘Appendix’ workbook addresses several topics including:

- Process flowchart
- Failure Modes and Effects Analysis (FMEA)
- Control Plan
- Initial Sample Inspection Report (ISIR)
- Supplier Capability Study Report (SCSR)

9.2 供应商质量审计核查单

“艾默生供应商审计核查单”文件是一个 Microsoft Excel 工作簿，其中包含《供应商手册》内提及的供应商和 爱适易使用的表单和说明。

该文件将提供给所有 爱适易供应商和潜在供应商，可通过 爱适易采购员、采购工程师或供应商质量经理索取。

“艾默生供应商审计核查单”工作簿包括：

- 供应商简介
- 供应商自审（在标准核查单内）
- 过程审计

9.2 Supplier Quality Audit Checklist

The ‘Emerson Supplier Audit Checklist’ file is a Microsoft Excel workbook containing forms and instructions used by the supplier and InSinkErator as described within the Supplier Handbook.

The file is provided to all InSinkErator suppliers and potential suppliers when requested through the InSinkErator Buyer, Procurement Engineer or the Supplier Quality Manager.

The “Emerson Supplier Audit Checklist” workbook includes:

- Supplier Profile
- Supplier Self-Audit (within the Standard Checklist)
- Process Audit