

GA Supplier Day 2024

Quality Matters

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Introductions

Welcome to General Atomics (GA) Supplier Day 2024.

The session presenters are Matthew Stenson and Jose Alatorre.

This session is moderated by Chris Langer.

A short question and answer period will follow the presentation.

Quality Matters

Agenda

- Introductions
- Overview
- GA Core Values
- GA Quality Policy
- Why is Quality Significant
- GA Products and Technology
- Powerful Partnership in Quality
- QMS, AS9100, Risk Management, CAPA and GIDEP
- Committing to Quality
- Contacting GA
- Questions

Introductions (cont.)



Matt Stenson spent the first 18 years of his life growing up in Great Falls, MT. Following in his Grandfathers' footsteps, he joined the Navy, where he spent the 20 years of his life as a Submarine Nuclear Mechanic. After retirement in 2019 he joined the General Atomics team as a Nuclear Quality Engineer. In 2022 he assumed the position of Supplier Quality Manager of Inspectors.

Introductions (cont.)



Jose Alatorre is a Senior Quality Manager of Supplier Quality for General Atomics Quality Assurance organization. Mr. Alatorre is a dynamic professional with over 30 years of experience in High Tech and Defense Industries, with a particular focus on supplier development and qualification and supplier performance management. Mr. Alatorre has been a member of the GA QA team since 2019 and has implemented and Supplier Quality Engineering team that ensure that GA's Supply Chain produces and delivers defect free products.

Doing Business with GA

Session Overview

Quality is not merely a function at General Atomics; it is a foundational pillar that drives innovation, enhances reputation, and ensures long-term success in both commercial and government sectors. Investing in quality translates to sustained performance and reliability in all products and services. Our suppliers play a crucial role in this commitment, as their expertise and best practices help enhance the quality of materials and components. By collaborating closely with suppliers and fostering a seamless supply chain, we can deliver superior value to our customers, ensuring greater satisfaction and trust in our offerings.

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GA Core Values

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GA Core Values

- We follow the letter and spirit of the law of the United States and all other countries in which we do business
- We act with integrity and conduct our business to the highest moral, legal and ethical standards
- We satisfy our customers by meeting our commitments and delivering high-quality, innovative, cutting-edge products and services
- We treat one another with respect and take pride in each other's contributions
- We value our Suppliers by treating them fairly and recognizing their role in our success

We value quality and you!

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GA Quality Policy

Quality Matters

GA Quality Policy

- We are committed to developing, producing, delivering, and supporting products that meet or exceed the requirements of our customers
- We continually improve our products and process through coordination with our customers, employees, and suppliers
- We regularly review our quality objectives and assess risk associated with the Quality Management System to ensure that we maintain customer satisfaction and business focus
- We maintain a dedicated, competent workforce and provide them with a safe work environment

Your contribution to quality matters!

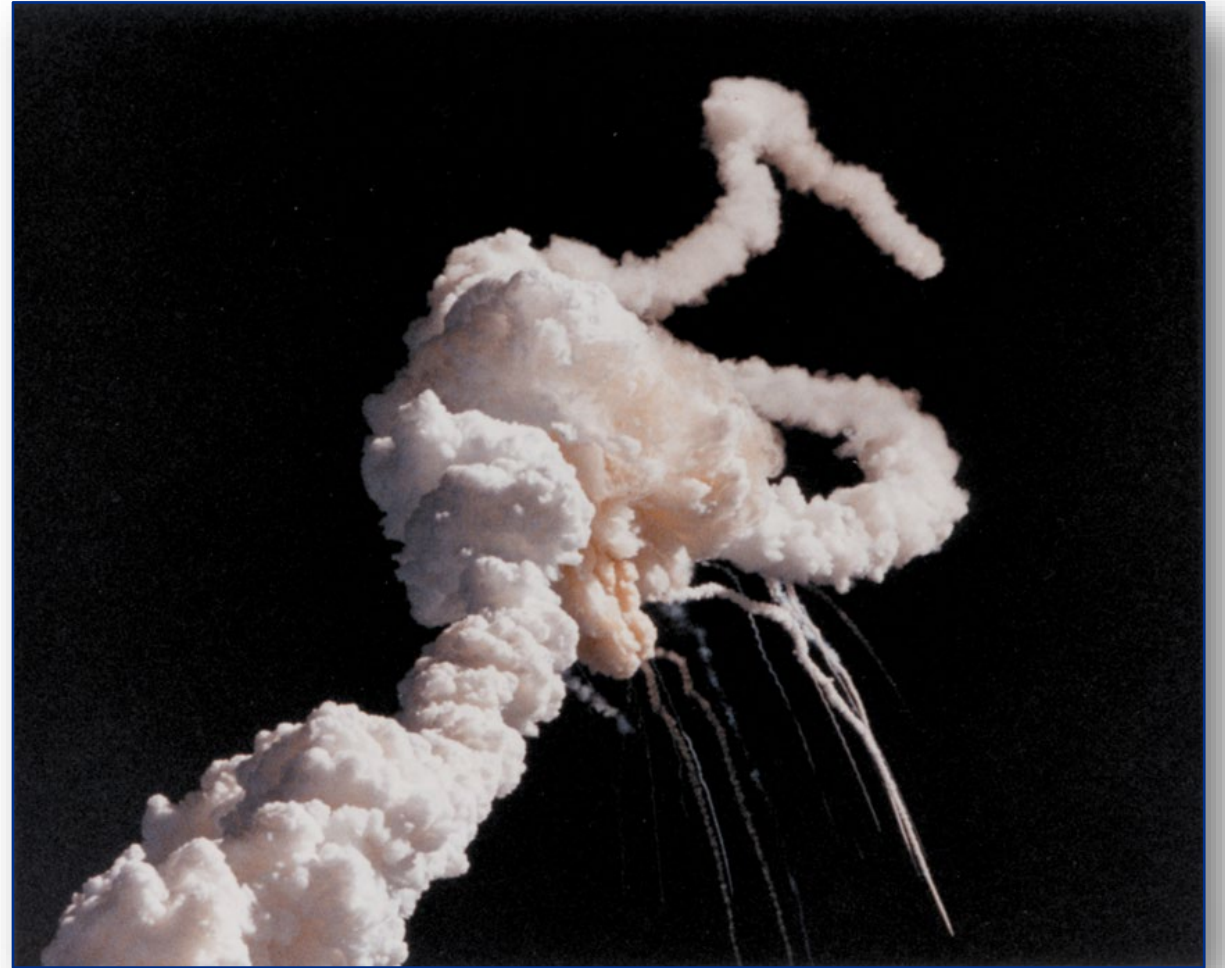
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Why is Quality Significant?

Why Quality Matters

Challenger Spacecraft (cont.)

- The primary cause of the disaster was the failure of an O-ring seal in one of the solid rocket boosters. The O-ring was not designed to function properly in the cold temperatures present on the day of the launch, which compromised its ability to seal the joint. This flaw was known to engineers, but the decision to launch was made despite concerns, reflecting a breakdown in quality assurance. The Challenger disaster is a poignant reminder of why quality, in all aspects—from engineering to decision-making and communication—is crucial in high-stakes environments like space exploration. The failure to uphold these standards can lead to catastrophic outcomes.



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GA Products and Technology

Quality Matters

Products & Technology

- **Energy Systems and Products**

- Innovative nuclear and alternative energy solutions, with a focus on research needed for sustainable, alternative technologies that are safe and economical

- **Defense**

- Diverse portfolio of first-of-kind electromagnetic solution and product lines like aircraft launch and recovery systems, multi-mission railgun weapon systems, satellite systems, and integrated power and energy technologies are helping revolutionize the way military forces address complex challenges and protect against evolving threats

- **Commercial Products**

- Range of advanced technologies, such as Gulftronic® electrostatic separators, TRIGA® non-power nuclear reactor, diagnostic reagents and enzymes, deicing technology, high-power microwave, hazardous waste destruction, radiation monitoring systems, robotics and automation, and many others

Our history of powerful partnerships has been the foundation of mutual business success

Quality Matters

GA Expanding in Space

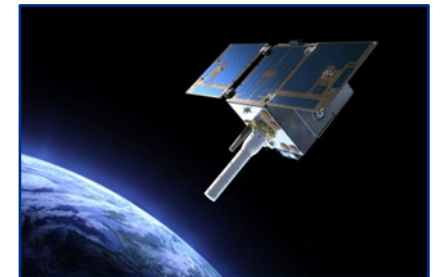
- **Several exciting programs in progress**
 - TSIS-2 (Total and Spectral solar Irradiance Sensor)
 - EWS (Electro-Optical/Infrared Weather System)
 - Manhattan (Space to Space Laser Communications)
 - Many more classified programs
- **Space customers have extremely stringent quality requirements**
 - Part selection (i.e., radiation, outgassing, survivability)
 - Environmental testing (i.e. Vibration, MOI, EMI/EMC)
 - Foreign Object Debris (FOD) prevention
 - Nonconformance / anomaly reporting
 - Preferred and prohibited materials
- **Achieving reliability and robustness in space is a significant challenge**

A robust quality management system is required to be successful

OTB-1: Launched 2019



GAzelle: Launched Oct 7, 2022



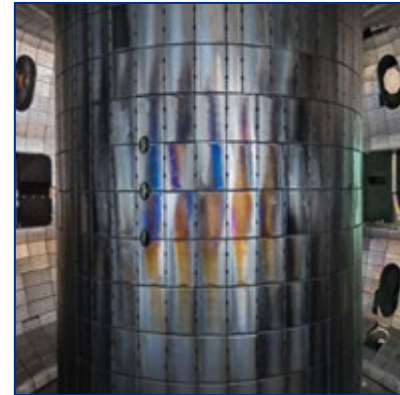
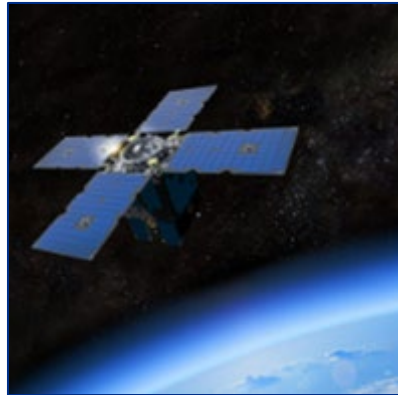
EWS: Launching 2025



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Unique Quality Imperative Faced by Aerospace & Defense

- **The Aerospace & Defense (A&D) industry has recognized the crucial role of quality in the performance of aviation, space, and defense products for decades**
 - GA continues to thrive in meeting and exceeding customer expectations.
- **There are no second chances in space, on board an aircraft carrier, or when operating a nuclear reactor**



Industry favors and often requires unique A&D certifications and accreditations

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Powerful Partnership in Quality

Quality Matters

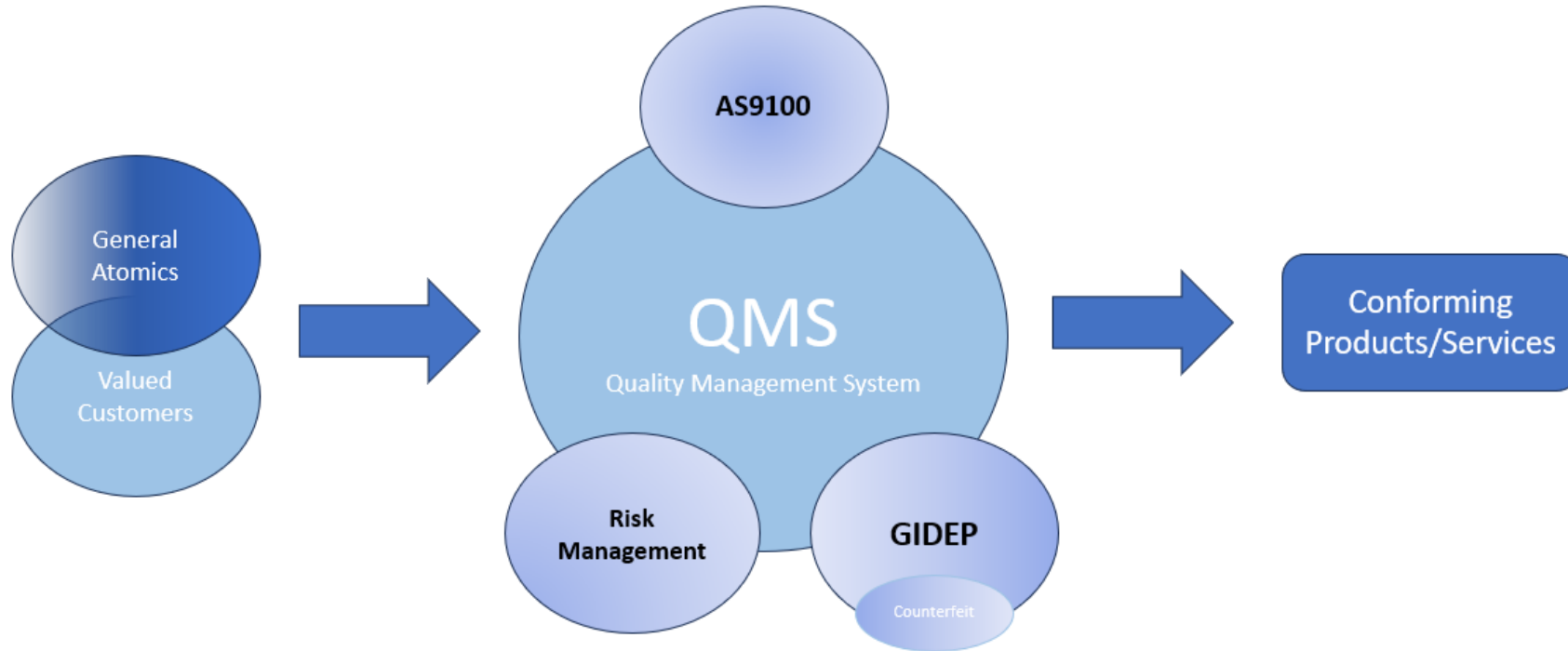
GA Preference for Partners in Quality

- **Suppliers with Aerospace & Defense (A&D) industry certifications and quality-focused organizational participation**
 - AS9100 certification
 - Risk Management Framework
 - GIDEP participation
- **Promote collaboration**
 - Consistency (delivery and product acceptance “defect free”)
 - Efficiencies (process, cost, etc.)
 - Compliance (product requirements, regulatory, etc.)
- **Supports GA’s ability to maintain its own certifications and accreditations**

You are critical to our continued success in existing and new frontiers!

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Powerful Partnership in Quality



Our transformational technology opens the door for more and even stronger relationships

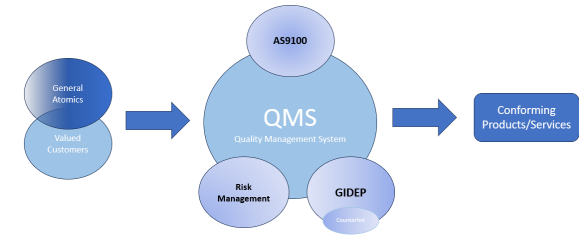
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QMS, AS9100, Risk Management, Corrective Action and Preventative Action (CAPA) and Government-Industry Data Exchange Program (GIDEP)

Quality Matters

A&D Quality Management System (QMS)

- **Society of Automotive Engineers(SAE) International Aerospace Standard 9100 – “AS9100”**
 - “Quality Management Systems – Requirements for Aviation, Space and Defense Organizations” (current revision is AS9100D)
 - Created by the International Aerospace Quality Group (IAQG) in collaboration with representatives from aviation, space and defense companies worldwide
 - First released by Society of Automotive (SAE) in October 1999, replacing AS9000
- **Fully incorporates requirements of International Standards Organization (ISO) 9001**
 - Adds 100+ requirements
- **Designed specifically for manufacturing and services companies in Aerospace sector**
 - Satisfies quality requirements for multiple agencies, including:
 - Department of Defense (DoD)
 - National Aeronautics and Space Administration (NASA)
 - Federal Aviation Administration (FAA)
- **“AS9100 Certified” means an organization has met the requirements of AS9100 as certified by an independent certification body**



General Atomics is proud to be certified to AS9100D

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Benefits of AS9100 Certification

- **Global recognition as a reputable supplier**
 - Certification is recognized internationally and accepted throughout industry supply chains
 - Industry benchmark for sourcing suppliers
- **Access to large Original Equipment Manufacturers (OEMs)**
 - All companies registered to an Aerospace standard are listed in the Online Aerospace Supplier Information System (OASIS) database
- **Product improvement**
- **Process effectiveness**
- **Customer satisfaction**



An AS9100 certification offers many benefits, including more effective participation in the industry

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Risk Management

- **Important element of an effective Quality Management System**

- Understand, communicate, and manage risk to the achievement of objectives

- **Especially critical for Aerospace & Defense Industries**

- Nonconformances could result in loss of mission, serious injury, or loss of life

- **AS9100 Risk Management Requirements**

- “Plan, implement, and control the process for managing operational risks toward achieving all applicable requirements”
 - “Ensure QMS will achieve intended results and it will prevent or reduced undesirable effects.
 - Sub-tier supplier management (scope out your supply chain)
 - Cyber Security compliance
 - Identify and manage Key Risk Indicators



Risk management can prevent undesirable results that have serious consequences

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Continual Improvement

• What is a nonconformity?

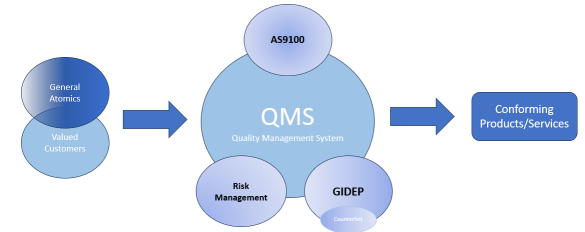
- A failure to meet a customer, regulatory body, or your own organizational requirement

• Corrective Action & Preventive Action (CAPA)

- Requirement of ISO 9001 and AS9100
- Elements:
 - Root Cause – identify direct cause to the failure.
 - Corrective Actions eliminate the cause of nonconformances and prevent reoccurrence
 - Prevent Actions prevent nonconformities, generally as a result of risk analysis
 - Both Corrective and Preventive Action can improve processes and lead to continual improvement
 - Helps avoid the cost of mistakes and potential loss of reputation

• Continual improvement

- Can improve processes, resulting in greater efficiency and lower costs
- Can mitigate risk of nonconformances



A robust CAPA program can prevent costly mistakes and promote greater efficiency

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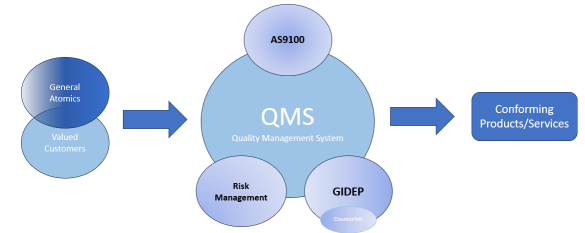
Government-Industry Data Exchange Program (GIDEP)

- **Cooperative activity between government and industry participants**

- Reduce or eliminate expenditures of resources by sharing technical information
- Membership is free! Visit gidep.org today

- **FAR 52.246-26, Reporting Nonconforming Products (Nov 2021)**

- Included in GA's standard terms and conditions for government contracts
- Requires government contractors and subcontractors to screen for, report, and retain (until customer disposition) nonconforming items, including suspect counterfeit using GIDEP
- Flow down to subcontractors:
 - Required for items subject to higher-quality standards; critical items; electronic parts or end items, components, parts, or materials containing electronic parts
 - Not required for subcontracts for commercial products and services



Participation in GIDEP is required under FAR 52.246-26 for DoD Procurements

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The Cost of Counterfeit Parts

- **Counterfeit parts have become a multi-billion-dollar industry**
 - Technological advancements and increasingly global supply chain have made the threat even more likely
- **Comply with all regulatory requirements, quality standards, and best practices regarding counterfeit avoidance, detection, and reporting**
- **Proactive focus on avoidance as opposed to just detection**
 - Detection can be too late to avoid costly impacts
 - Schedule delays, rework, loss of reputation, potential loss of life
- **GIDEP membership provides access to industry reports and critical technical data**
 - Helps avoid counterfeit issues before they materialize
 - Reporting to GIDEP is an important element of counterfeit part avoidance



Avoid the cost of counterfeit parts

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Committing to Quality

Quality Matters

Support our Quality Policy

- **Meet or exceed all PO requirements**
- **We need your support to continually improve our products and processes!**
 - Improvements you make to your products and processes have the potential to improve ours
 - Product compliance – delivery of product conformity documentation or OQE (Objective Quality Evidence)
- **Regularly review your quality objectives and assess risks associated with your Quality Management System**
- **Maintain a dedicated, competent workforce and provide them with a safe work environment**

<https://www.ga.com/procurement/quality-policy>

Your contribution to Quality Matters!

GA Quality Policy

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Quality Matters

Commit to Supporting GA's Supplier Code of Conduct

- **GA's Supplier Code of Conduct is posted at:**
<https://www.ga.com/procurement/supplier-code-of-conduct>
- **Includes GA's Core Values**
- **Includes many "Practical Commitments", including:**
 - **"Quality Assurance"**
 - "Employ quality assurance processes and best practices that conform to U.S. and international standards"
 - "Proactive identification of nonconformance and appropriate corrective action to ensure delivery of quality products or services that meet or exceed contract requirements"
 - **Counterfeit Avoidance**
 - Employ counterfeit electronic part detection and avoidance programs
 - Provide required documentation to authenticate reliability and conformity

Quality is a big part of our Code!

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What can you do to be a Powerful Partner in Quality?

- **Maintain a robust Quality Management System that includes effective Risk Management**
- **Pursue A&D certifications and industry accreditation**
- **Maintain a robust Counterfeit Prevention Program and participate in the Government-Industry Data Exchange Program (GIDEP)**
- **Maintain a robust Corrective Action and Preventive Action (CAPA) program**
- **Focus on Continual Improvement**
- **Support our [Quality Policy](#)**
- **Commit to our [Supplier Code of Conduct](#)**
- **Contact us immediately with any quality, or product reliability or safety, concerns!**

Our success depends on your commitment to Quality!

Quality Matters

Contacting GA

Quality Matters

Contacting GA

- **Contact your Authorized Procurement Representative immediately to notify GA regarding any quality concerns**
- **Utilize the Supplier Disposition Request (SDR) process to submit nonconformances (NCs) to GA Quality for disposition of NCs, including:**
 - NCs that cannot be reworked to print
 - Needed design modifications
 - Clarifications of the drawing or specification requirements
- **SDR Forms are available on [GA.com](https://www.ga.com) under “Procurement”, “Quality-assurance”, “Forms”**
 - Use [EMS-0196](#) for GA Electromagnetic Systems Group (GA-EMS) Orders
 - Use [GA-2329](#) for all other GA Orders

Quality Matters

Thank you

Questions?