



Virtual Quality Control Inspections (VQC)
&
Return Merchandise Authorization (RMA)
Training

Virtual Quality Control Inspection

- What is a VQC?
- Types of VQC
- Identifying When a VQC is required
- Tips for Successful VQC

Return Merchandise Authorization

- What is an RMA?
- Xometry's RMA Process
- Tips to Avoid RMAs

What is Xometry's VQC?

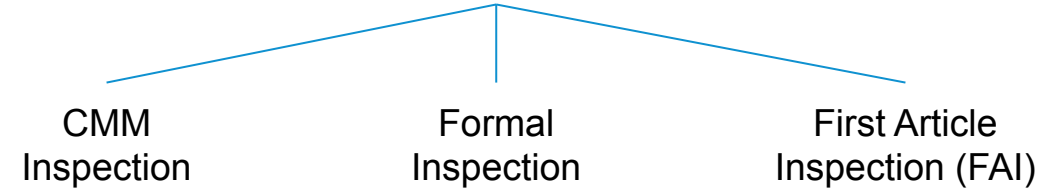
Xometry's Virtual Quality Control (VQC) inspection is an additional layer of evaluation to ensure parts are manufactured correctly. VQCs are a type of remote inspection that Partners, in certain situations, are required to complete with Xometry's Quality Inspectors.

Two Types of VQCs

Standard Inspection VQC



Report VQC



When is a Standard Inspection VQC Required?

Partners will be required to complete a Standard Inspection VQC for the following reasons:

- Quality Score < 80
- Inactivity over last 90 days
- High Profile Customer

After a job has been accepted, a Xometry inspector will email the instructions and requirements for the job to complete the VQC (typically 1 day). After all paperwork and pictures are uploaded to the partner portal, you will need to request a VQC through the Partner Portal or by emailing VQC@xometry.com.

When is a Report Inspection VQC Required?

Report Inspection VQCs will are required for any jobs that have the following inspection requirements:

- CMM Inspection
- Formal Inspection
- First Article Inspection (FAI)

Xometry will bubble the customer print and generate a report layout for you to complete. This report will be available to download from the partner portal as they are ready.

Please keep in mind that all dimensions need to be measured with calibrated equipment.

Current Work Job Details - Recognizing when a VQC is Required



Job Board Current Work Shop Finances Resources

< Back to Current Work

J0012345

Materials Ordered

Production Started

Inspection Started

Virtual QC Required

Files Uploaded

Request VQC

JOB OVERVIEW

\$60,482.44 Ship by December 08, 2020

Technology	CNC Machining	Requirements (1)	Finishing Certification
Materials (1)	Aluminum 6061-T6	Job Size	105000 total units
Finish	Clear Anodize		

J0012345

Report an Issue

Ask A Question

Materials Ordered

Production Started

Inspection Started

Virtual QC Required

Files Uploaded

Request VQC

JOB OVERVIEW

\$60,482.44 Ship by December 08, 2020

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Materials (1)	Aluminum 6061-T6	Job Size	105000 total units
Finish	Clear Anodize		

Parts

Part ID:

Example Part.stp

2.375 x 1.502 x 0.507 in

STP | STL | Traveler | PDF

Quantity 105000

Technology

Material

Finish

Notes

Features

Inserts: 2
Tolerances: precision
+/- .001" (+/- .025mm), 1
locations

Certifications (1)

Finishing Certification

Inspection

Formal Inspection with
Dimensional Report

Photo(s):

ANO-1009 (image #1).jpg

ANO-1009 (image #2).jpg

ANO-1009 (image #3).jpg

ANO-1009 (image #4).jpg

Add Files

Inspection Report(s):

ANO-100...spectio...QTY

510.pdf

ANO-100...spectio...QTY

720.pdf

ANO-100...spectio...QTY

1080.pdf

ANO-100...spectio...QTY

1080.pdf

Add Files

Formal Inspection with

Dimensional Report

016B105...drawin...

Finishing Cert:

PO10270...A-8625...

322241.pdf

PO10272...A-8625...

322324.pdf

Parts

Part ID:

Example Part.stp

2.375 x 1.502 x 0.507 in

STP | STL | Traveler | PDF

Quantity

105000

Technology

Material

Finish

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ANO-100...spectio...QTY
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Standard VQC Requirements

What is required for a Standard VQC?

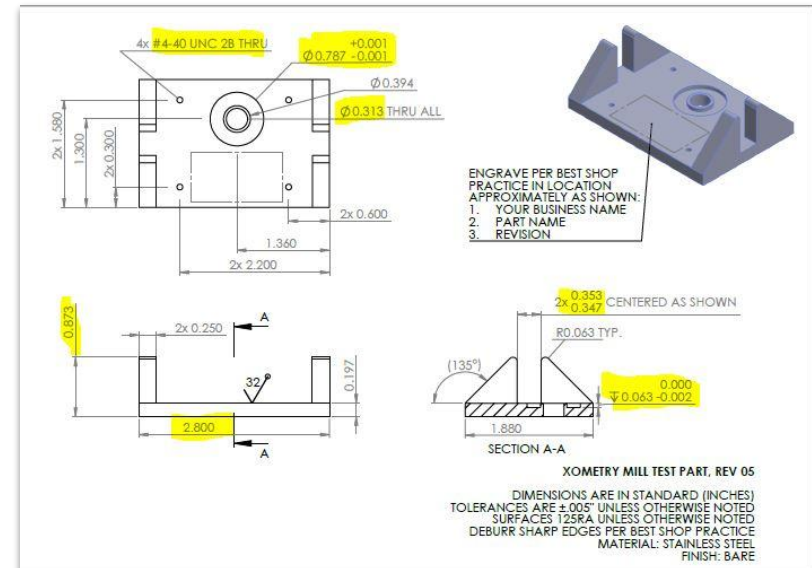
1. Photographs to upload 📁

- Take pictures of you actively measuring the highlighted dimensions
- A picture of the finishing of the parts and any installed hardware
- A picture of the part marking, if required
- Photos of all faces of the part for full sample size of each line item. SN tag visible in all photos



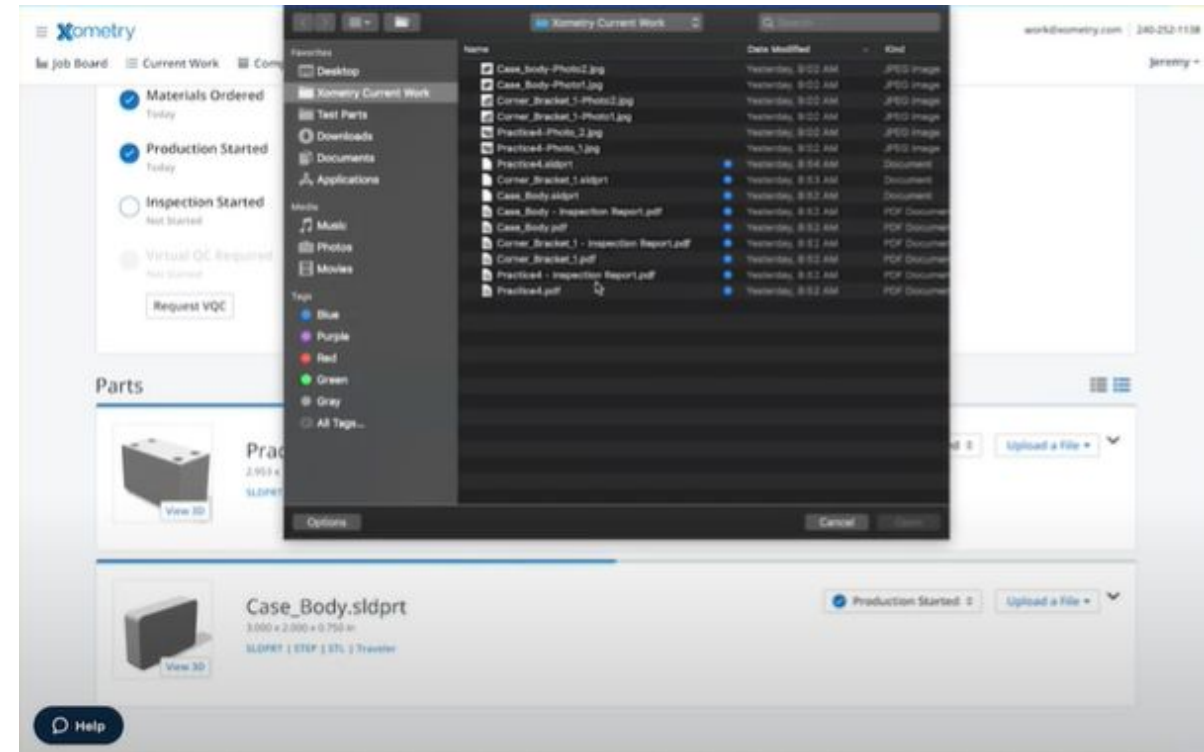
2. Documentation to upload 📁

- Completed inspection report (of at least all critical dimensions or **highlighted features**).
- Complete all CoCs, material certs, and finishing certs as requested.



When do you reach back to VQC@xometry.com?

1. Upload **everything** to the partner portal.
 - a. Certs **MUST** be uploaded in **PDF format**
2. Email vqc@xometry.com and let the inspector know that everything is uploaded
3. Once the inspector reviews everything, they will respond with any additional information that is needed
 - a. VQC will let you know that you are able to ship if all docs are in order



What is required for a Report Inspection VQC?

- Bubble Drawing & Report
- Template downloaded from Partner Portal
- Proper Sample Size
- Measuring Equipment identified on each line with calibration exp. date
- Must be reviewed by Xometry VQC Team before shipping
- Included in box at time of shipment

	Formal Inspection	CMM Inspection	First Article Inspection Report (FAIR)
What is it?	Inspection Report on Xometry's Formal Template	Inspection Report on Xometry's Formal Template completed with CMM	Similar to Formal Inspection with 2 Additional Forms
What does it include?	Use of Calibrated Measuring Equipment	Inspection Completed with a CMM	AS9102 - 3 Forms <ul style="list-style-type: none">• Part Number Accountability• Product Accountability• Characteristic Accountability, Verification, and Accountability Evaluation

Standard VQC Examples

Clear, Crisp, Explicit - Good



Blurry, Hiding Non-Conformance - Bad

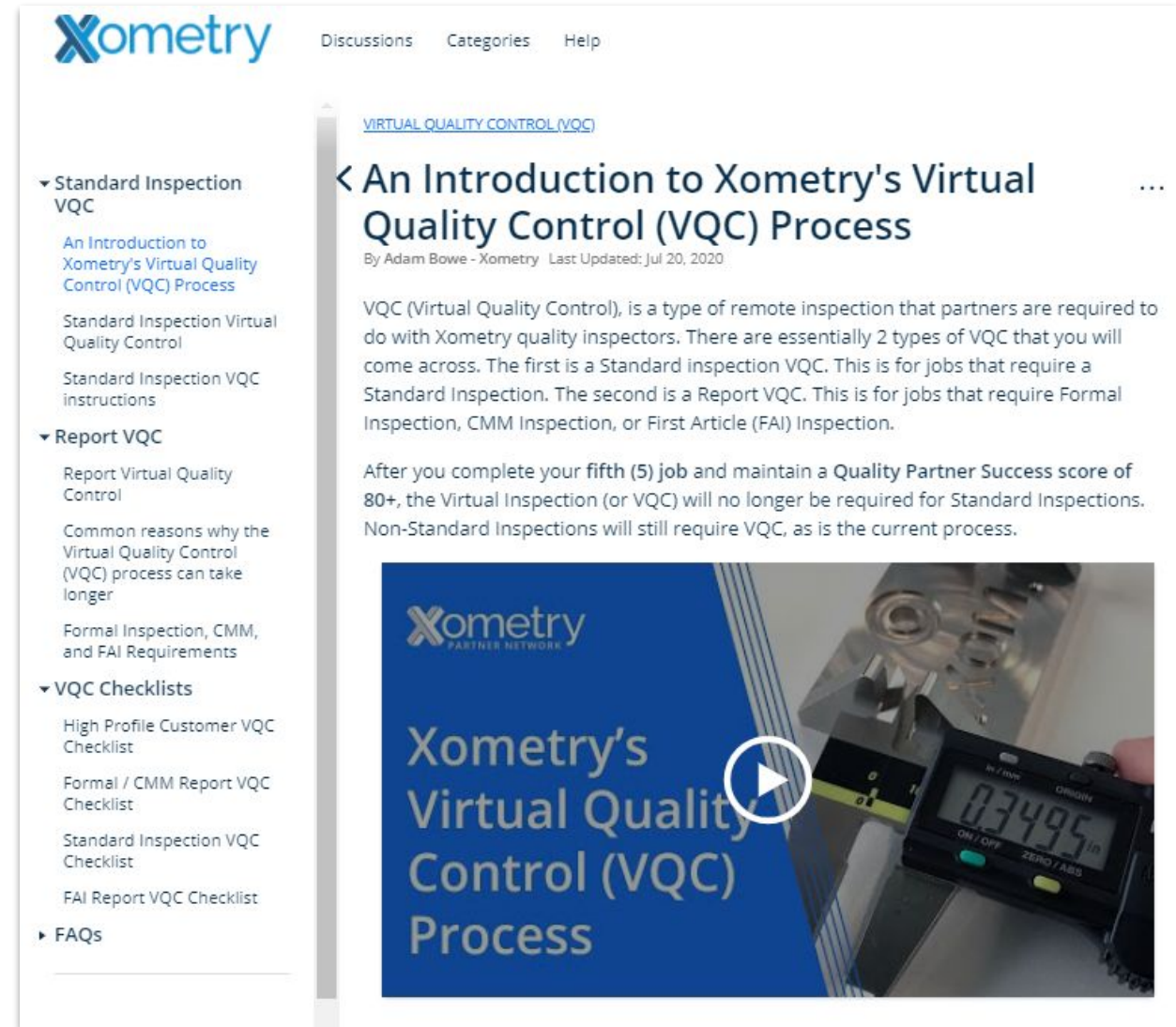


Successful VQC

1. Utilize the Inspection Checklists available in the Partner Portal and Partner Guide
2. Carefully review all job requirements including any traceability requirements before starting production
3. Proactively communicate (and photograph) inspection non-conformances
4. Leverage Xometry's expertise and guidance by using VQC@xometry.com should you have any questions or concerns about inspecting your part.
5. Complete the VQC at least one day before your part is due and consider shipping pick-up times.
6. Only inspect your part with calibrated equipment.

Questions?

- Consult the Partner Guide (xometry.com/partner-guide) for information on shipping, inspection, and traceability.
- Email vqc@xometry.com with any questions - we're here to help!



The screenshot displays the Xometry website's 'VIRTUAL QUALITY CONTROL (VQC)' page. The page features a navigation bar with the Xometry logo and links for 'Discussions', 'Categories', and 'Help'. A sidebar on the left contains a list of links under the heading 'Standard Inspection VQC', including 'An Introduction to Xometry's Virtual Quality Control (VQC) Process', 'Standard Inspection Virtual Quality Control', and 'Standard Inspection VQC instructions'. Below this, there is a section for 'Report VQC' with links for 'Report Virtual Quality Control', 'Common reasons why the Virtual Quality Control (VQC) process can take longer', and 'Formal Inspection, CMM, and FAI Requirements'. Further down, a 'VQC Checklists' section lists 'High Profile Customer VQC Checklist', 'Formal / CMM Report VQC Checklist', 'Standard Inspection VQC Checklist', and 'FAI Report VQC Checklist'. At the bottom of the sidebar is a link for 'FAQs'. The main content area on the right features the article title 'An Introduction to Xometry's Virtual Quality Control (VQC) Process' by Adam Bowe, dated July 20, 2020. The article text explains that VQC is a type of remote inspection and describes two types: Standard Inspection VQC and Report VQC. It also mentions that after completing five jobs and maintaining a Quality Partner Success score of 80+, the Virtual Inspection (or VQC) will no longer be required for Standard Inspections. Below the text is a video player with a play button icon and the title 'Xometry's Virtual Quality Control (VQC) Process'. The video thumbnail shows a close-up of a digital depth gauge measuring a metal part.

What is an RMA?

A Return Merchandise Authorization (RMA) is a process that allows customers to return parts that do not meet the as-ordered specifications. Customers should typically report a non-conformance within 30 days of receiving their order. Xometry will review any RMA requests from the customer to determine the root cause of the non-conformance.

All RMAs are reviewed by our Case Management team. Customer-provided information and job order details are reviewed to determine the root cause of the non-conformance.



Xometry's RMA Process

We consider the following:

- Was the order placed correctly with the reported non-conforming specification called out correctly?
- Did Xometry record critical information correctly and effectively?
- Was the non-conformance a result of Partner Processing?

Common Partner RMA Root Causes

- Surface Finishing Damage
- Incorrect Part Marking
- Shipping Damage
- Wrong Material Used
- Missing Parts or Pieces
- Warping/Bubbling
- Misaligned Holes/Threading Issues

I was notified of an RMA, what does this mean for me?

After our Case Management team has determined the root cause of the reported non-conformance, Partners will receive an email and/or call if the Case Management team has reviewed an RMA and determined the non-conformance occurred in Partner processing.

RMA Notification/Documentation Process

1. Partner Care Team - Initial notification
2. Case Manager - Follow-up email/phone call
3. The following will be provided:
 - Description of Non-Conformance
 - Relevant Documentation (e.g. Inspection Reports, Part Photos, etc.)
 - Non-conforming parts will likely be returned to your shop

It is required that the partner rework or remake the non-conforming parts as appropriate.
We will establish an expected ship date for the new parts in early communication.

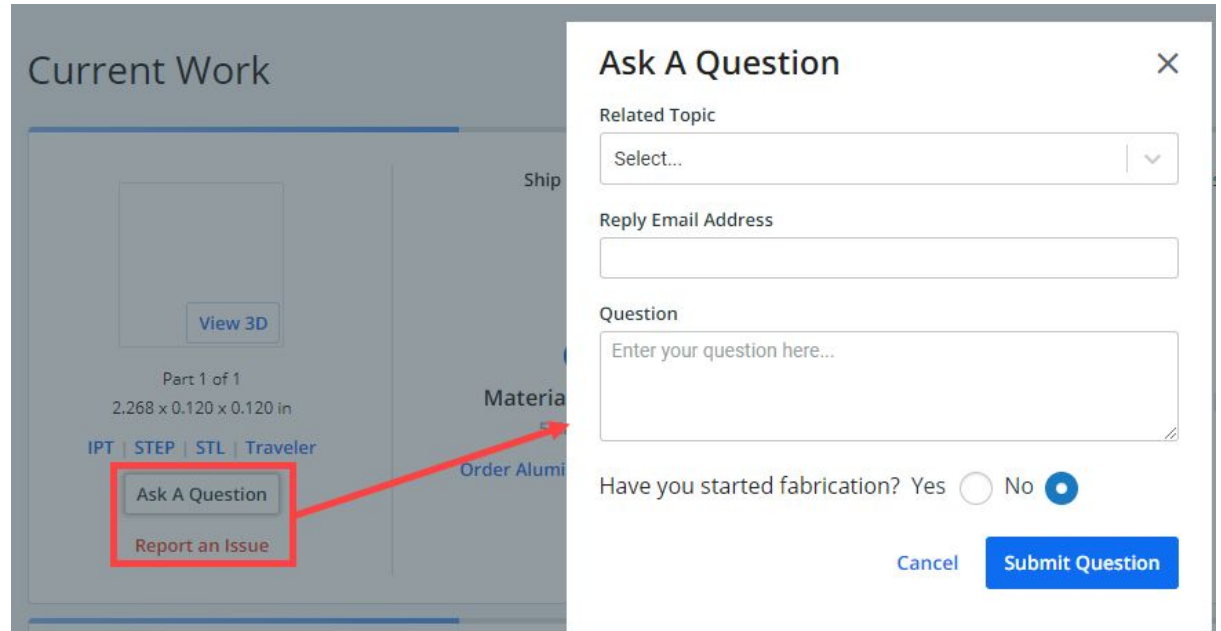
1. Review Job Details

Carefully review job details before accepting and starting a job to ensure the job is a good fit for your shop's capabilities:

- General Job Details
 - Finish
 - Material
- Part Files
 - Tolerances on the Print supercede tolerances in the provided CAD file
- Job Notes
 - Traceability Requirements (if any)
 - Any other requirements

2. Production

- Proactively communicate any encountered issues during production
- Review the Partner Guide for general resources
- Ask questions if any job requirements are unclear
- Rework any QC concerns before shipping



The screenshot shows the 'Current Work' interface on the Xometry platform. A modal titled 'Ask A Question' is open on the right side. The modal contains the following fields and options:

- Related Topic:** A dropdown menu with 'Select...' as the current selection.
- Reply Email Address:** A text input field.
- Question:** A large text area with the placeholder 'Enter your question here...'.
- Have you started fabrication?** A question with two radio buttons: 'Yes' (unselected) and 'No' (selected).
- Buttons:** 'Cancel' and 'Submit Question'.

In the background, the 'Current Work' page is visible, showing a 3D model of a part with dimensions '2.268 x 0.120 x 0.120 in' and a 'View 3D' button. A red arrow points from the 'Ask A Question' button in the background to the 'Ask A Question' modal.

3. Shipping (From the Partner Guide!)

Please ensure that all parts have been deburred and are free of dirt and oil prior to shipping. To ensure all parts are received by the customer unharmed and free of dings and scratches, we recommend the following packaging procedures provided.

- Use Cardboard separators between heavy parts. This will prevent them from hitting each other during shipment.
- Keep a minimum of 1 inch between the part and box.
- If you can feel a sharp edge or corner of the part through the bubble wrap or foam, then add more packaging material.
- Conduct a “Shake Test” on the box. If you can hear parts hit each other, or parts moving in the box, then it needs to be packed tighter. This can be achieved by adding more filler into the box or adding more bubble wrap to the parts.
- Thin parts (less than $\frac{1}{8}$ ”) should be sandwiched between 2 pieces of cardboard.
- Large bubble wrap ($\frac{1}{2}$ inch or bigger) is not preferred for large parts. The voids between the bubbles will cause part-to-part contact, which will ultimately result in damage.

Questions?

- Consult the Partner Guide (xometry.com/partner-guide) for information on shipping, inspection, and traceability.
- Email work@xometry.com with any questions - we're here to help!