

LASER CLEANING, SURFACE PREPARATION AND COATING REMOVAL

Laser Cleaning Project Brief and Sample Evaluation Request

EMAIL THIS FORM TO
sales@vytek.com

All forms: vytek.com/smp

QR CODE
vytek.com/smp?process=cleaning

Use this form to describe your cleaning application and request a sample evaluation. You do not need a laser system to start, and you are not expected to know process times, achievable quality or cycle times. Those are what sample evaluation is for. Complete what you know; where you are unsure, choose "Vytek to determine" or leave it blank.

1 DESCRIBE	2 SEND FILES	3 SHIP SAMPLES	4 CONFIRM SCOPE	5 GET RESULTS
Complete Parts 1 to 3. Skip anything you do not know.	Email this form, drawings, photos and video to sales@vytek.com . Forms for each process are at vytek.com/smp .	Print a copy of this form and include it with labeled samples.	Vytek confirms scope, timing and any cost within three business days of receiving complete information.	Receive a Sample Evaluation Report with photos, results and cycle-time estimates.

SAMPLE EVALUATION SCOPE AND COST

Most initial sample evaluations are performed at no charge. Where testing requires custom fixturing, extended development, multiple iterations or formal reporting, Vytek will confirm scope and any cost before work begins. Results are laboratory estimates; production performance is confirmed during acceptance testing of the final system.

PART 1 · PROJECT BRIEF

About you, your part and your production

01 CONTACT AND COMPANY

Company		Facility / location	
Primary contact	Title / department	Date	
Phone	Email		
Project name / reference		How did you hear about Vytek?	
Industry ☐ Aerospace / defense ☐ Electronics / semiconductor ☐ General fabrication ☐ Automotive / transportation ☐ Energy / batteries ☐ Other ☐ Medical device ☐ Tooling / molds			

02 PROJECT STATUS AND TIMING

Project status ☐ Initial investigation ☐ Replacing existing equipment ☐ Other			☐ Budgetary planning ☐ Production problem / capacity need			☐ Active capital project ☐ Approved project / sourcing		
Desired equipment timing ☐ Immediately ☐ 6–12 months			☐ Less than 3 months ☐ More than 12 months			☐ 3–6 months ☐ Not yet determined		
Target installation date, if known				Budget range, if established (optional)				

03 APPLICATION AND CURRENT PROCESS

Briefly describe what you need to remove or prepare, and why

What are you trying to improve?

- | | | |
|---|---|---|
| ☐ Speed / throughput | ☐ Consistency / repeatability | ☐ Remove blasting media or chemicals |
| ☐ Reduce waste / disposal | ☐ Operator safety / ergonomics | ☐ Selective / precise removal |
| ☐ Operating cost / consumables | ☐ Automation | ☐ Other <input type="text"/> |

Is this process performed today?

- ☐ Yes ☐ No ☐ New product / new process

Current method

- | | | |
|--|---|--|
| ☐ Abrasive / grit blasting | ☐ Chemical stripping | ☐ Dry ice blasting |
| ☐ Grinding / sanding / wire brush | ☐ Solvent / wipe | ☐ Ultrasonic / wash |
| ☐ None / new | ☐ Other <input type="text"/> | |

Existing equipment make / model

Current time per part or rate, if known

What problems or limitations do you have today?

04 PART AND MATERIAL

Part name

Part number(s)

Number of part types

Smallest part (L × W × H)

Largest part (L × W × H)

Weight range

Material

- | | | |
|--|---|---|
| ☐ Carbon / mild steel | ☐ Stainless steel | ☐ Tool steel |
| ☐ Aluminum | ☐ Anodized aluminum | ☐ Titanium |
| ☐ Copper / brass | ☐ Nickel alloys | ☐ Cast iron |
| ☐ Galvanized steel | ☐ Composite | ☐ Stone / concrete |
| ☐ Rubber / tire molds | ☐ Other <input type="text"/> | |

Specific alloy / grade, if known

Coating or finish type and thickness, if any

Surface condition

- | | | |
|--|---|--|
| ☐ Bare / as received | ☐ Machined | ☐ Polished / ground |
| ☐ Painted | ☐ Powder coated | ☐ Anodized |
| ☐ Plated | ☐ Heat treated / passivated | ☐ Oxidized / rusted |
| ☐ Oily / contaminated | ☐ Other <input type="text"/> | |

05 PRODUCTION AND HANDLING

Required output (parts per hour or takt)

Shifts per day / days per week

Annual volume

Required cycle time per part, if known

Typical batch size / changeovers per shift

Do not know your cycle time? Leave it blank. The sample evaluation measures laser process time and estimates total cycle time for different ways of loading and unloading parts.

Production type

- ☐ Continuous
 ☐ Batch
 ☐ High-mix / low-volume
 ☐ Low-mix / high-volume
- ☐ Prototype / R&D
 ☐ Job shop / contract

How do parts arrive and get presented today?

- ☐ Operator loads one at a time
 ☐ Fixture / nest
 ☐ Tray / pallet
- ☐ Conveyor
 ☐ Robot / cobot
 ☐ Existing production line
- ☐ Bulk / loose
 ☐ Unknown
 ☐ Other

Desired level of automation

- ☐ Handheld
 ☐ Manual workstation
 ☐ Semi-automatic
- ☐ Robot / fully automatic
 ☐ Integrated into existing line
 ☐ Automation Ready (automate later)
- ☐ Vytek to recommend

06 WHAT GOOD LOOKS LIKE

Describe acceptance criteria: what makes a part good or rejected?

Can you provide good and rejected examples (parts or photos)?

☐ Yes
 ☐ No
 ☐ Some

Top priorities (choose up to three)

- ☐ Cleaning rate (area per hour)
 ☐ Surface quality / cleanliness
 ☐ No damage to base material
 ☐ Selective / precise edges
- ☐ Portability
 ☐ Capital cost
 ☐ Operating cost
 ☐ Ease of operation
- ☐ Future automation

07 WHAT VARIES?

Variation drives automation. Mark what changes from part to part or batch to batch. The perfect part is easy; production lives in the exceptions.

- ☐ Coating / contamination thickness
 ☐ Contaminant type
 ☐ Part size / geometry
- ☐ Base material
 ☐ Area to clean per part
 ☐ Surface curvature / access
- ☐ Part position / orientation
 ☐ Batch-to-batch condition
 ☐ Indoor / outdoor location
- ☐ Other

Describe the variation or exceptions you see most often

PART 2 · CLEANING DETAILS

Tell us what must come off, what must stay, and what the surface must look like afterward

08 WHAT MUST BE REMOVED

Contaminant or coating

- | | | |
|---|---|--|
| ☐ Rust / oxide | ☐ Mill scale | ☐ Paint |
| ☐ Powder coat | ☐ E-coat / primer | ☐ Oil / grease |
| ☐ Mold release / residue | ☐ Weld discoloration / heat tint | ☐ Weld spatter |
| ☐ Carbon / soot | ☐ Adhesive / sealant | ☐ Anodize / plating |
| ☐ Other <input type="text"/> | | |

Layer or coating thickness, if known

Number of layers / coats

Coating product name, if known

Coating may contain (check if possible)

- | | | | |
|----------------------------------|-------------------------------------|----------------------------------|--------------------------------------|
| ☐ Lead | ☐ Chromate | ☐ Cadmium | ☐ Isocyanates |
| ☐ Unknown | ☐ None known | | |

Hazardous coatings change how fumes and debris must be captured. If unsure, tell us; do not send samples with known hazardous coatings without a safety data sheet.

09 AREA, GEOMETRY AND ACCESS

Area to clean per part (dimensions or area)

Total area to clean per day or week

Surface to clean

- | | | | |
|--|---|---|--|
| ☐ Flat | ☐ Curved / contoured | ☐ Edges / weld seams | ☐ Holes / internal features |
| ☐ Crevices / textured | ☐ Molds / tooling cavities | | |

Where will cleaning happen?

- | | |
|--|---|
| ☐ Parts come to the laser | ☐ Laser goes to large parts / structures |
| ☐ Outdoors / field | ☐ Inside existing line or cell |

Must only part of the surface be cleaned (masked edge)?

- ☐ Yes ☐ No ☐ Unknown

Required edge accuracy, if selective

Largest part or structure to clean

10 REQUIRED RESULT

Purpose of cleaning

- | | | |
|--|--|---|
| ☐ Bare metal | ☐ Prepare for paint / coating | ☐ Prepare for bonding |
| ☐ Prepare for welding | ☐ Remove weld discoloration | ☐ Clean molds / tooling |
| ☐ Restoration / maintenance | ☐ Uniform appearance | ☐ Other <input type="text"/> |

Effect on the base material

- | | | |
|--|--|--|
| ☐ No change allowed | ☐ Slight discoloration acceptable | ☐ Slight texture acceptable |
| ☐ Unknown | | |

Cleanliness or preparation standard

- | | | | |
|---|---|--|--|
| ☐ None specified | ☐ SSPC / NACE surface prep | ☐ ISO 8501-1 visual grade | ☐ Surface energy / dyne level |
| ☐ Water-break test | ☐ Customer specification | ☐ Unknown | |

Required surface roughness or profile, if any

Time allowed before painting / bonding

11 RATE, OPERATION AND SITE

Target time per part or rate (area per hour)

Current cleaning time or cost per part

Expected operation

- ☐ Handheld
 ☐ Fixed workstation
 ☐ Robot / gantry
 ☐ Mobile cart
 ☐ Vytek to recommend

Available power at point of use

- ☐ 120 V
 ☐ 208 / 240 V single phase
 ☐ 208 / 240 V three phase
 ☐ 480 V three phase
 ☐ Unknown

Is fume and debris extraction already in place?

- ☐ Yes
 ☐ No
 ☐ Unknown

Laser type, if you have a preference

- ☐ Pulsed
 ☐ Continuous wave (CW)
 ☐ Vytek to recommend

PART 3 · SAMPLES, FILES AND SUBMISSION

What to send and where to send it

12 SAMPLES

Can sample parts be supplied?

☐ Yes ☐ No ☐ To be determined

Send parts or coupons with the actual contaminant or coating, ideally at least 4 × 4 in (100 × 100 mm). Include the heaviest and lightest conditions you see, and a clean reference piece if available. Label each sample with your company name and a sample ID.

SAMPLE ID	DESCRIPTION / VARIATION (TYPICAL, WORST CASE, FINISH)	QTY	NOTES

May samples be permanently processed or destroyed?

☐ Yes ☐ No ☐ Limited quantity

May Vytek section or cut samples if needed?

☐ Yes ☐ No ☐ Ask first

After testing, samples should be

☐ Returned to address below ☐ Scrapped by Vytek ☐ Untested parts returned only

Coated, treated or hazardous material? Safety data sheet attached

☐ Yes ☐ No ☐ Not applicable

Export control: do not send export-controlled technical data or parts (ITAR / EAR) without contacting Vytek first. Files and data you send are kept for the evaluation and follow-up, and deleted on request.

What should the evaluation tell you?

☐ Feasibility / can it be done ☐ Cleaning rate (area per hour) ☐ Surface result (photos, close-up)
☐ Effect on base material ☐ Selective edge definition ☐ Handheld versus automated rate
☐ Cycle-time estimate per part ☐ Recommended laser and configuration

13 FILES, PHOTOS AND VIDEO

Included with this request

☐ Part drawing (PDF with dimensions) ☐ STEP / 3D CAD ☐ Part photos
☐ Video of current process ☐ Good / rejected examples ☐ Quality specification
☐ Fixture / tray drawings ☐ Coating / contaminant data sheet ☐ Cleanliness specification
☐ Photos of large parts or structures ☐ Other

Photo tips: photograph each part beside a ruler, show the area to be processed close up, show how parts arrive and leave the station, and include good and rejected examples. Large files: email sales@vytek.com and we will send a secure upload link.

14 RETURN SHIPPING AND SUBMISSION

Return ship-to company and attention

Carrier / account number (optional)

Return street address, city, state, ZIP

Date samples will ship

Tracking number

Submitted by

Additional notes or instructions for the applications engineer

SEND FILES AND SAMPLES

Email this form and your files to sales@vytek.com. Ship samples, with a printed copy of this form, to: Vytek, Attn: SMP Dept, 195 Industrial Road, Fitchburg, MA 01420, USA. Questions: 978-342-9800.

QR CODE
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WHAT YOU WILL RECEIVE

A Sample Evaluation Report with before-and-after photos and close-ups, measured cleaning rate at the tested settings, observations on the base material, consistency across samples, estimated cleaning time per part or per area for handheld and automated options, identified risks, and a recommended laser type, power class and next step.

FOR VYTEK USE

SMP number

Date received

Applications engineer

Sales contact

Evaluation level

☐ Feasibility check

☐ Process evaluation

☐ Process development (quoted)

Scope and cost confirmed with customer (date / by)

Report due