

# Run your slitting line. From the screen.

A step-by-step guide to OptiStack Pro for slitting line operators, planners, and plant managers. Every screen, every button, every path explained in plain English.

**28**

PAGES OF  
GUIDANCE

**60**

SECONDS PER  
JOB SETUP

**0**

EXCEL SHEETS  
REQUIRED



**OptiStack  
Pro**  
Slitting line  
software

Published by  
**Maxwell Slitter Industries**  
Rajpura, Punjab, India  
[www.optistackpro.com](http://www.optistackpro.com)

## START HERE

# Read this first.

OptiStack Pro replaces the calculator, the Excel sheet, and the senior operator's memory. You enter the coil and strips your order needs. The software produces the exact tooling sequence to load on the machine. Every job runs the same way, every shift.

**BEFORE YOUR FIRST JOB, YOU NEED**

- ✓ A web browser (Chrome, Edge, Safari, or Firefox).
- ✓ An account at **optistackpro.com**, or ask your administrator.
- ✓ One **machine** added to OptiStack (your slitting line specifications).
- ✓ At least one **knife** and a set of **spacers** added to your inventory.

1

**Set up your line**

Add your slitting machine (arbor lengths, clamp reserve, fixed side) under **Machines**. You do this only once.

2

**Add your tooling**

List every knife and spacer you have in your store under **Inventory**. The software will only pick from this list.

3

**Create a job**

Click **+ Create Job**. Enter the coil and the strip widths from your order. Pick a knife. The software builds the rest.

4

**Print and assemble**

Click **Export PDF**. Print the assembly sheet. Take it to the machine and load the tooling exactly as listed.

**TIP** If you are reading this guide on the shop floor, those four orange numbers are all you need to remember. Everything else in this guide explains the details of each step.

# Contents

## PART A · ONE-TIME SETUP

Add a slitting machine	04
Machine form: Identity and capacity	05
Machine form: Arbor lengths and reserves	06
Machine form: Separator disc configurations	07
Machine form: Dedicated tooling groups	08
Add knives and spacers to inventory	09
The Add Tool form	10
Settings (units, language, account)	11

## PART B · CREATE A JOB

Step 1: Job basics (coil, material, thickness)	12
Step 2: Slit requirements (strip widths)	13
Step 3: Knife selection	14
Step 3: Spacer material, engagement, setup style	15
Step 3: Plastic shim mode (zig-zag only)	16
When validation blocks you	17

## PART C · READING THE RESULT

The Assembly View: job summary tiles	18
Grouped BOM: your picking list	19
Detailed BOM: the stacking sequence	20
Assembly diagram: visual reference	21
Missing tooling: what to buy or pull	22
Save the job and export the PDF	23

## PART D · DAILY USE

The saved Setups list	24
Reopen a saved job and re-export	25
Rate edge quality after a run	26
Edge quality reference scale	27
Glossary of slitting terms	28

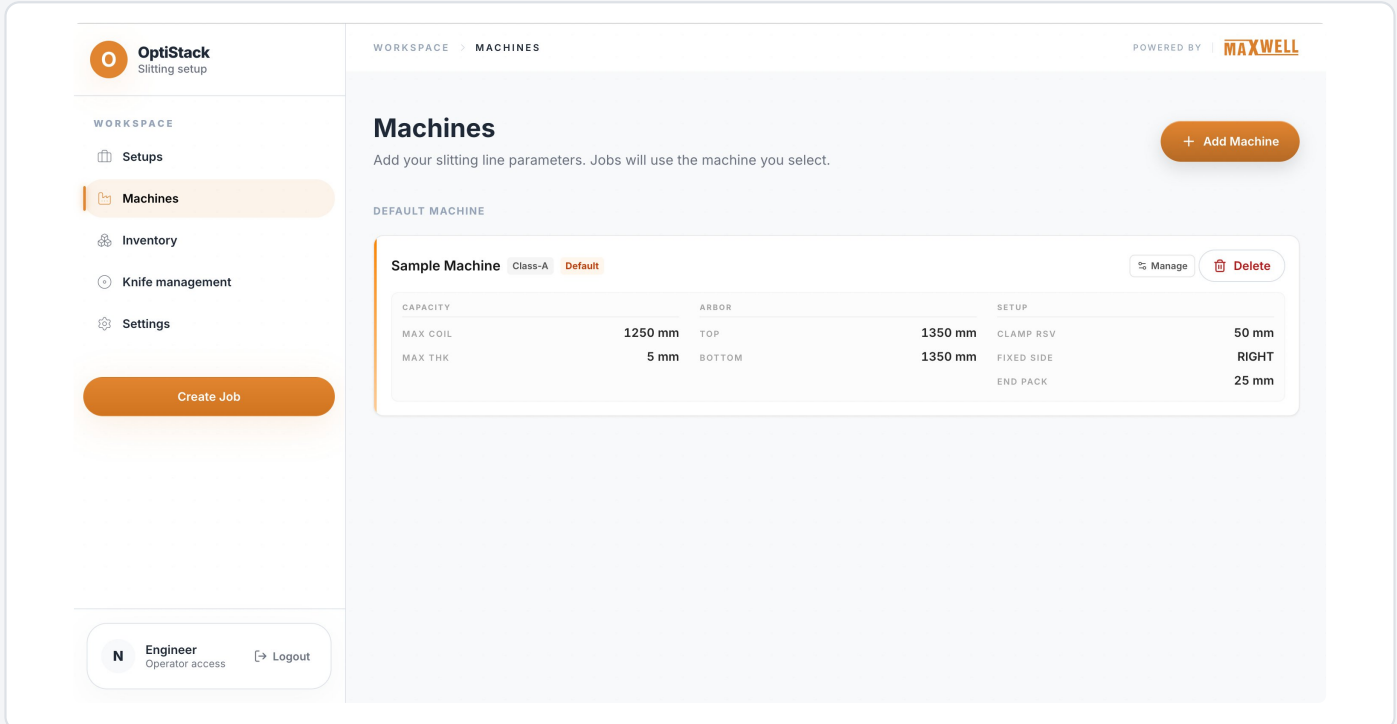
PART A · STEP 1

# Add your **slitting machine**.

Tell OptiStack the physical limits of your line. You do this only once per machine. After that, every job you create on this machine uses these limits automatically.

TO REACH THIS SCREEN

Left sidebar > click **Machines**



HOW TO ADD YOUR FIRST MACHINE

- 1 Click **Machines** in the left navigation.
- 2 Click the orange **+ Add Machine** button in the top right of the page.
- 3 The Manage Machine form opens. Fill in the fields described over the next pages.
- 4 Click **Save Changes** at the bottom of the form when finished.

**TIP** If your facility has more than one slitting line, add each one separately. Every job you create asks you which machine it is for. You can edit any machine later by clicking **Manage** on its card.

MACHINE FORM · IDENTITY AND CAPACITY

# Name your line. Set its **limits**.

TO REACH THIS SCREEN

Machines > click + Add Machine (or Manage on an existing card) > top of form

**Manage Machine**  
Update your slitting line parameters for accurate setups.

**MACHINE IDENTITY**

**Machine Name**  
Sample Machine  
A friendly name (example: 1250 Slitting Line).

**Machine Class (optional)**  
Class-A  
Used only for display/grouping.

**CAPACITY LIMITS**

**Max Coil Width**  
1250 mm  
Maximum coil width the line can run.

**Max Strip Thickness (optional)**  
5 mm  
Maximum thickness the line can run.

**ARBOR & USABLE LENGTHS**

**Top Arbor Length**  
1350 mm  
Total axial length available on the arbor. This includes clamp reserve (loading side) and fixed end reserve (datum side).

**Bottom Arbor Length**  
1350 mm  
Total axial length available on the arbor. This includes clamp reserve (loading side) and fixed end reserve (datum side).

WHAT EACH FIELD MEANS

- **Machine Name.** The name your team uses on the floor (e.g. "Line 3" or "1250 Slitting Line"). Required.
- **Machine Class.** Free-text tag for grouping (e.g. "Class-A", "Heavy Duty"). Optional.
- **Max Coil Width.** The widest coil this machine can run, in mm. Use the mechanical maximum. Required.
- **Max Strip Thickness.** The thickest material this machine can cut, in mm. Optional.
- **Top Arbor Length.** Total usable length of the top arbor, in mm. Required.
- **Bottom Arbor Length.** Total usable length of the bottom arbor, in mm. Required.

**TIP** To measure usable arbor length, measure from the inner face of the fixed-end nut to the start of the clamp zone on the loading end. Do not include the nut or clamp body itself.

**CAREFUL** Max Coil Width blocks any job with a wider coil from running on this machine. Set it to the true mechanical maximum, not a typical job width, so jobs are not falsely rejected.

# Define the safe zones. Pick the datum side.

TO REACH THIS SCREEN

Machines > Manage > scroll down past Capacity Limits and Arbor sections

The screenshot shows the 'MACHINES' configuration screen in the OptiStack Slitting setup. The interface includes a sidebar with navigation options like 'Setups', 'Machines', 'Inventory', 'Knife management', and 'Settings'. The main area contains several input fields and a settings section. The 'Top Arbor Length' and 'Bottom Arbor Length' are both set to 1350 mm. 'Clamp Reserve (loading side)' is 50 mm. 'Fixed End Pack Min (Datum)' is 25 mm. 'Fixed Side (Datum)' is set to 'RIGHT'. The 'Effective build length (both arbors)' is calculated as 1275 mm. A 'Make this my default machine' checkbox is checked.

WHAT EACH FIELD MEANS

- **Clamp Reserve (loading side).** Space at the loading end reserved for clamping hardware. Required.
- **Fixed End Pack Min.** The smallest allowed metal spacer pack at the datum end. Default 25 mm is safe.
- **Make this my default machine.** Tick this if this is your main line. New jobs will pre-select this machine.
- **Fixed Side (Datum).** Which physical end is the fixed datum side, LEFT or RIGHT, when you stand facing the entry end.
- **Effective build length.** Calculated for you. Total length available for knives and spacers after reserves.
- **Save Changes.** The orange button at the bottom. Click when all required fields are filled.

**FINDING THE DATUM SIDE** Stand at the loading end of the machine and look at which side has the fixed (non-removable) nut or gear. That is your datum side. Pick LEFT or RIGHT from the dropdown to match.

**NEXT** Two more sections appear further down on this same form: **Separator Disc Configurations** and **Dedicated Tooling Groups**. The next two pages explain each.

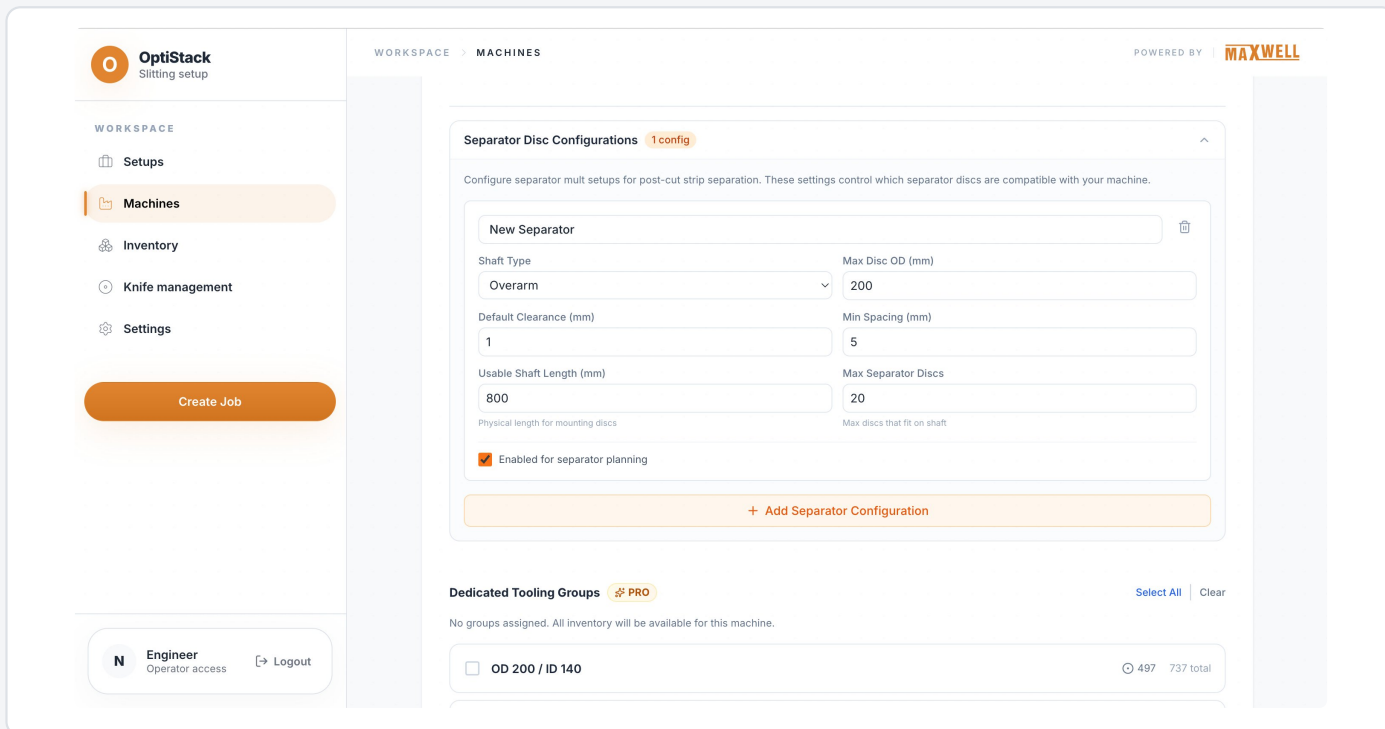
MACHINE FORM · SEPARATOR DISC CONFIGURATIONS

# Configure your separator shafts.

If your slitting line has separator disc shafts for post-cut strip separation, define them here. Most standard lines do not need this section. Skip to the next page if your machine has no separator shafts.

TO REACH THIS SCREEN

Machines > Manage > scroll down to Separator Disc Configurations



WHAT EACH FIELD MEANS

- **Configuration Name.** A label for this separator shaft (e.g. "New Separator", "Overarm 200").
- **Max Disc OD (mm).** The largest disc outer diameter that physically fits on this shaft.
- **Min Spacing (mm).** The minimum allowed spacing between consecutive discs.
- **Max Separator Discs.** Maximum number of discs that fit on the shaft.
- **Shaft Type.** Pick Overarm or Underarm based on the physical mounting position of the shaft.
- **Default Clearance (mm).** The default clearance between separator discs.
- **Usable Shaft Length (mm).** Physical length available for mounting discs.
- **Enabled for separator planning.** Tick this to activate this shaft for job planning.

HOW TO ADD A SEPARATOR CONFIGURATION

- 1 Click the **Separator Disc Configurations** section header to expand it.
- 2 Click **+ Add Separator Configuration**.
- 3 Fill in the name, shaft type, and the technical limits.
- 4 Tick **Enabled for separator planning**.
- 5 Repeat for additional shafts if your machine has more than one.
- 6 Click **Save Changes** at the bottom of the form.

**WHEN TO USE** If you are not sure whether your machine has separator disc shafts, ask your maintenance team or check the machine manual. Most simple slitting lines do not have them, and this section can be left empty.

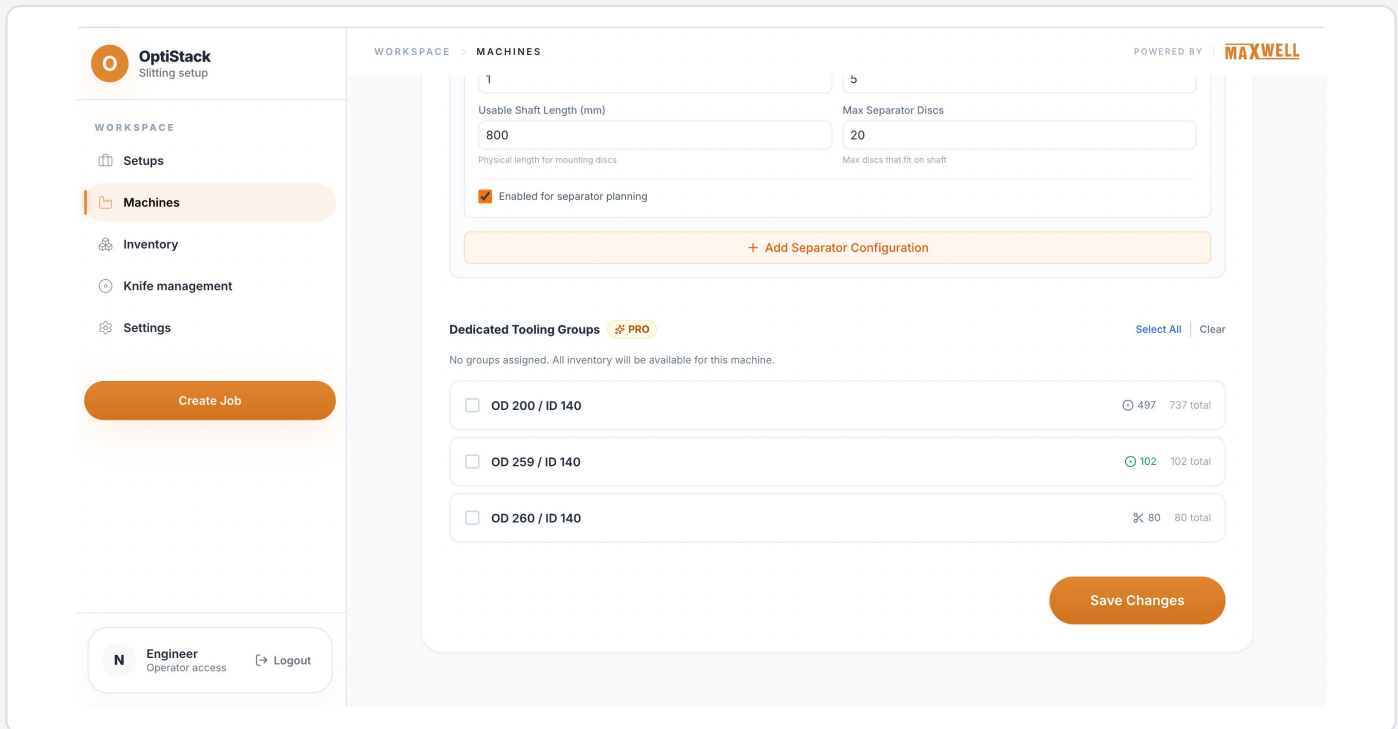
MACHINE FORM · DEDICATED TOOLING GROUPS

# Tag tooling to a **specific machine**.

By default, every machine can use every tool in your inventory. If certain tools (with specific OD and ID) only fit a particular machine, tag them here. The solver will then offer those tools only to this machine, keeping your inventory accurate per line.

TO REACH THIS SCREEN

**Machines** > **Manage** > scroll to the bottom of the form to **Dedicated Tooling Groups**



WHAT THIS SCREEN SHOWS

- **Dedicated Tooling Groups.** The section header. Each row below represents one tooling family identified by its OD and ID (e.g. "OD 200 / ID 140").
- **Select All / Clear.** Quick selectors at the top right.
- **Group rows.** Each row has a checkbox. Tick a row to assign that group exclusively to this machine.
- **Stock indicator on each row.** Shows how many pieces in that group are currently in inventory.
- **Save Changes.** The orange button at the bottom of the form. Saves all your selections.

HOW TO TAG TOOLING TO A MACHINE

- 1 Open the machine you want to tag tooling to, by clicking **Manage** on its card.
- 2 Scroll down to **Dedicated Tooling Groups** at the bottom of the form.
- 3 Find the OD / ID family you want to assign to this machine.
- 4 Click the checkbox on that row to tick it.
- 5 Repeat for each family you want assigned to this machine.
- 6 Click **Save Changes** at the bottom of the page.

**TIP** If no groups are ticked, all inventory is available for this machine (which is the default). Only tag specific groups when a tool family physically belongs to one line and should not be used on another.

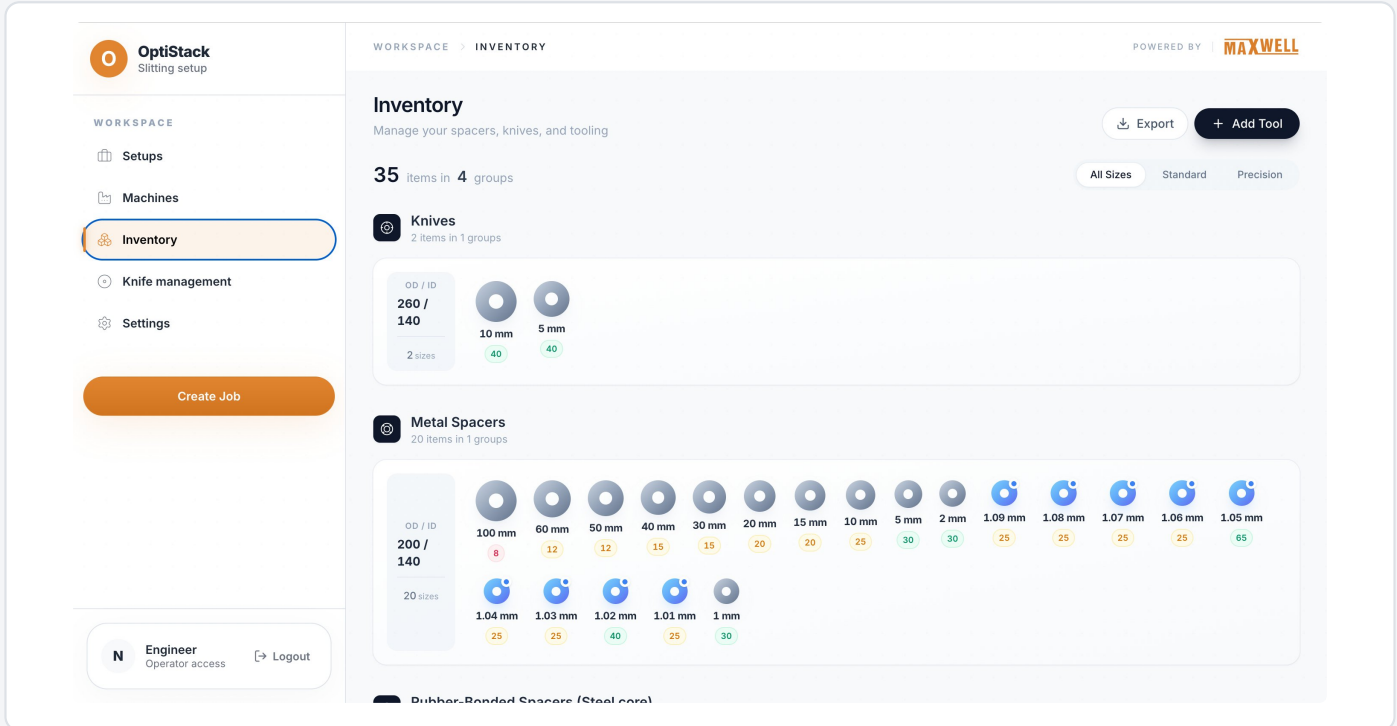
PART A · STEP 2

# Add your tooling.

Every knife, every metal spacer, every rubber-bonded spacer, every plastic shim you have in your store goes here. The solver picks only from this list, so the more accurate this is, the better your job results.

TO REACH THIS SCREEN

Left sidebar > click Inventory



WHAT THIS SCREEN SHOWS

- **Inventory page heading.** At the top of the content area.
- **Export.** Downloads your inventory as a file.
- **Knives group.** All knives grouped by their OD and ID. Each circle shows a thickness.
- **Stock badge under each size.** Number shown is current quantity in stock.
- **Add Tool.** Dark button at the top right. Opens the Add Tool form.
- **All Sizes / Standard / Precision filter.** Top right of the inventory area.
- **Metal Spacers group.** Same for metal spacers. Each circle is one size.
- **Rubber-Bonded Spacers group.** Visible if you scroll further down.

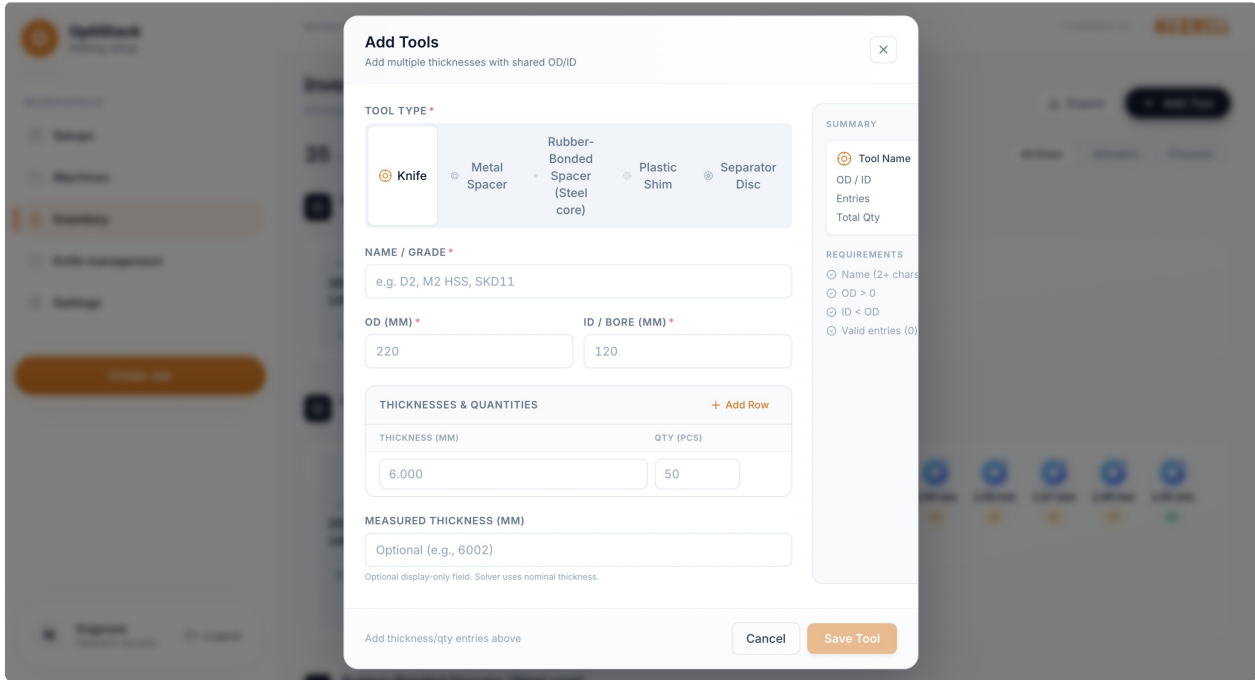
**STOCK COLOURS** Green badge means plenty in stock. Yellow means running low. Red means out of stock or critically low. The solver flags missing items in red before a job runs.

ADD A KNIFE OR SPACER

# One form. All sizes at once.

TO REACH THIS FORM

Inventory > click **Add Tool** (top right)



WHAT EACH FIELD MEANS

- **Tool Type.** Pick Knife, Metal Spacer, Rubber-Bonded Spacer, Plastic Shim, or Separator Disc.
- **OD (mm).** Outer diameter. Required for knives, spacers, and discs.
- **Thicknesses & Quantities table.** One row per size. Width and quantity for each.
- **Measured Thickness.** Optional. Stores the actual micrometer reading.
- **Name / Grade.** A label your team recognises (e.g. "D2", "M2 HSS").
- **ID / Bore (mm).** Inner bore. Must match the arbor diameter.
- **+ Add Row.** Adds a new size with the same OD and ID.
- **Save Tool.** Saves all sizes you added in one step.

FAST WAY TO ADD A FULL SET OF SPACERS

- 1 Click **Add Tool** on the Inventory page.
- 2 Pick **Metal Spacer** as Tool Type.
- 3 Enter the OD and ID once at the top.
- 4 Type the first thickness and its quantity in row one.
- 5 Click **+ Add Row**. Type the next thickness and its quantity.
- 6 Repeat for every size in the same OD / ID family.
- 7 Click **Save Tool**. All sizes save in one step.

**CAREFUL** The quantity is not adjusted automatically when you use the tools in a job. Update the inventory after each setup run so the solver knows what is actually on the shelf.

## PERSONAL SETTINGS

# Units, language, **account.**

These settings affect only how you see the application. They do not change anything about your saved jobs or your machine setup.

## TO REACH THIS SCREEN

Left sidebar > click **Settings** at the bottom of the list

The screenshot displays the 'Settings' page in the OptiStack application. On the left sidebar, the 'Settings' option is highlighted. The main content area is titled 'Settings' and includes the following sections:

- Unit System:** Choose your preferred unit system for measurements. Options: Metric (mm) (selected), Imperial (in).
- Language:** Choose your preferred language. Option: US English (selected).
- Account:** Manage your subscription and payment methods. Link: [Go to Billing](#).

The user profile at the bottom left shows 'N Engineer Operator access' and a 'Logout' button.

## WHAT THIS SCREEN OFFERS

- **Unit System: Metric (mm).** Default. All measurements in millimetres. Use this for India, Europe, and most of the world.
- **Unit System: Imperial (in).** Switches all measurements to inches. Use this if your shop floor works in imperial units.
- **Language.** Pick your preferred display language for menus and labels.
- **Go to Billing.** Opens the subscription page. Shows trial days remaining or upgrade options.

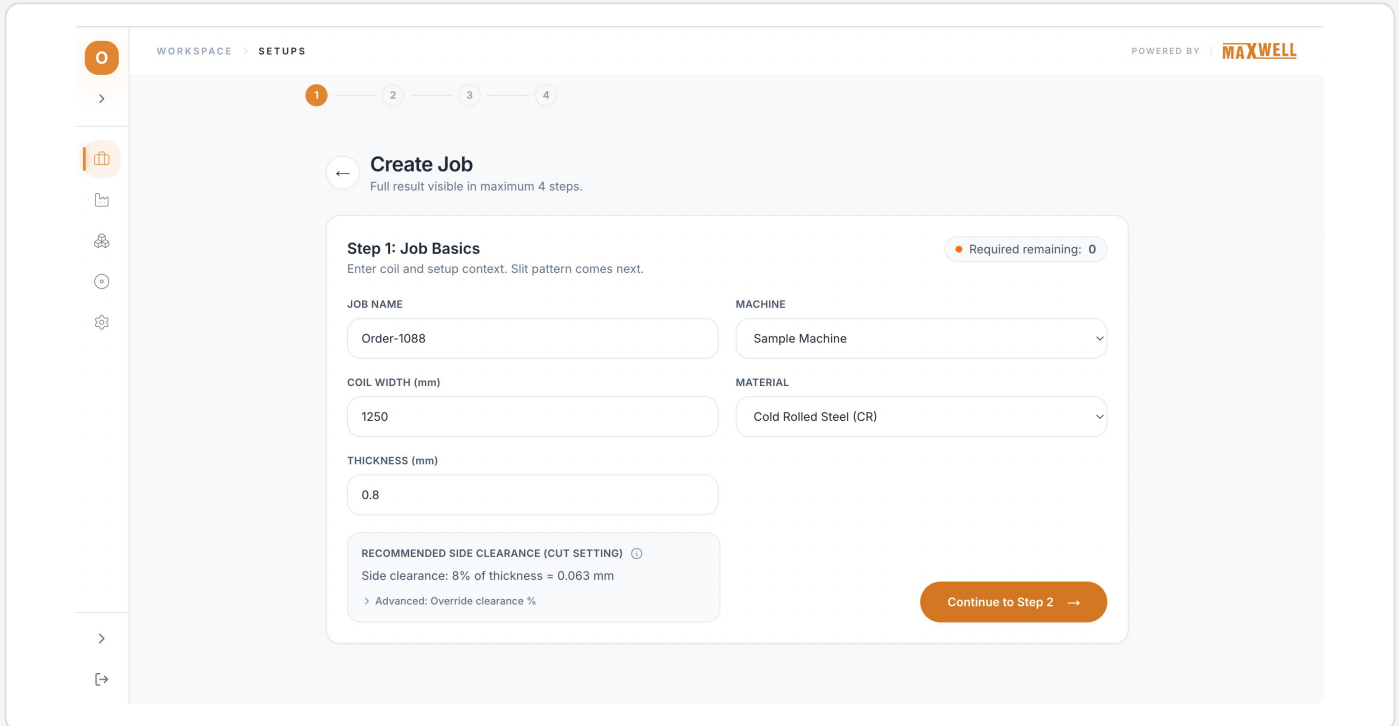
**PER USER** This setting is per user, not per machine. Each person using OptiStack can pick the unit system they prefer. Your saved jobs and machine data are stored neutrally and shown in the unit system each user has chosen.

PART B · STEP 1 OF 4

# Job basics. Coil and material.

TO REACH THIS SCREEN

Setups > click + New Setup or Create Job in the left sidebar



WHAT EACH FIELD MEANS

- **Job Name.** Top-left field. Use the customer order number for easy recall later.
- **Coil Width (mm).** Middle-left. The actual coil width from the material certificate.
- **Thickness (mm).** Bottom-left. The actual material thickness.
- **Advanced: Override clearance %.** Optional. Expand this only if your quality procedure calls for a different clearance.
- **Machine.** Top-right dropdown. Pick the slitting line for this job.
- **Material.** Middle-right dropdown. Pick the type of metal. Affects clearance.
- **Side Clearance.** Displayed in a box below thickness. Calculated for you, shown as a percentage.
- **Continue to Step 2.** Orange button at the bottom right. Click when all fields are filled.

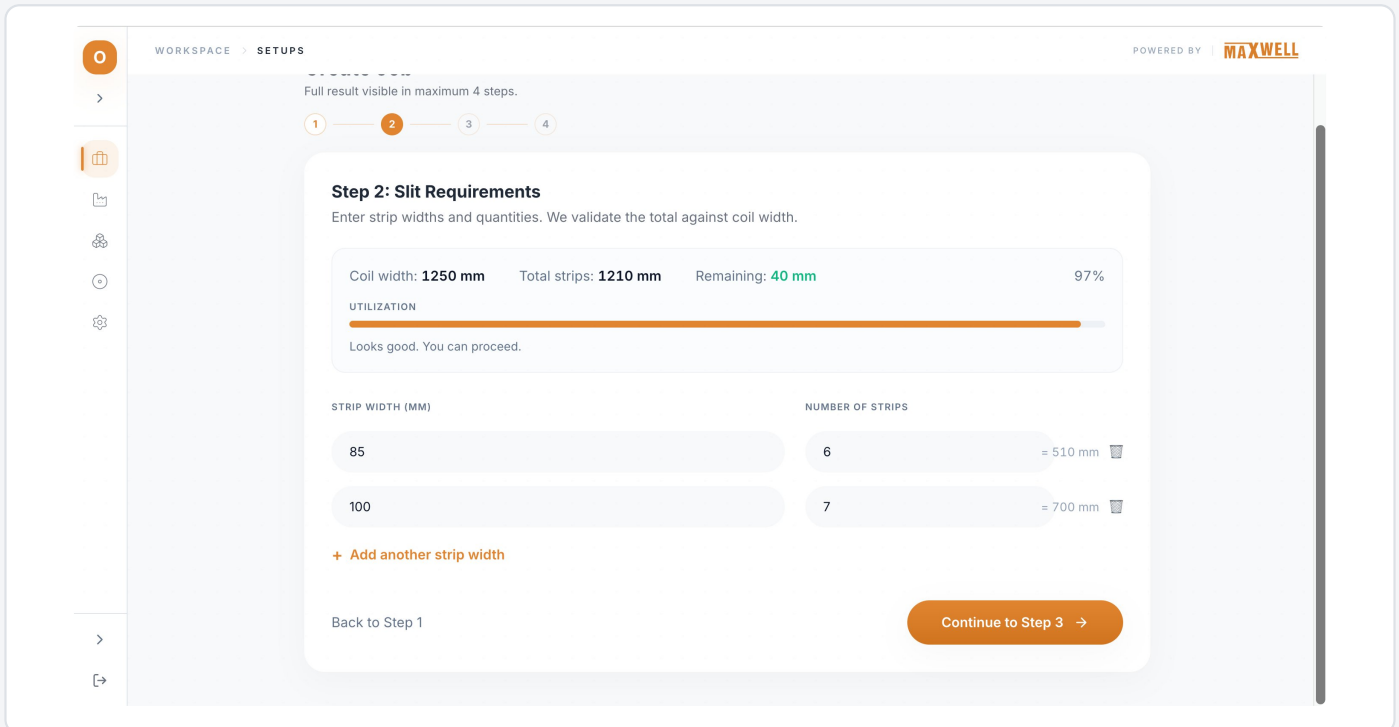
**TIP** Include the customer order number in the job name so you can link this setup back to the order later. For example: "Order-1088 Cold Rolled 1250mm".

# Slit requirements. Your strip pattern.

Enter the finished strip widths and how many of each width your customer ordered. The utilization bar tells you in real time whether the pattern fits the coil.

TO REACH THIS SCREEN

Step 1 > click **Continue to Step 2**



WHAT EACH ELEMENT MEANS

- **Coil width.** Carried from Step 1 as a reference. Shown at the top of the summary bar.
- **Remaining.** What is left after your strips. Becomes edge trim.
- **Strip Width column.** The finished width of one strip family in mm.
- **Row total.** Width × quantity, displayed on the right of each row.
- **+ Add another strip width.** Adds another row for a different width.
- **Total strips.** Sum of all strip widths multiplied by quantities. Updates live.
- **Utilization bar.** Visual fill that shows how much of the coil your pattern uses.
- **Number of Strips column.** How many strips of that width.
- **Trash icon.** Right end of each row. Removes that strip family from the plan.
- **Continue to Step 3.** Orange button → at the bottom right. Blocked if your total exceeds the coil width.

**TIP** One row per distinct strip width. If your order is 6 strips of 85 mm and 7 strips of 100 mm, that is 2 rows: one with width 85 qty 6, one with width 100 qty 7. Not 13 rows.

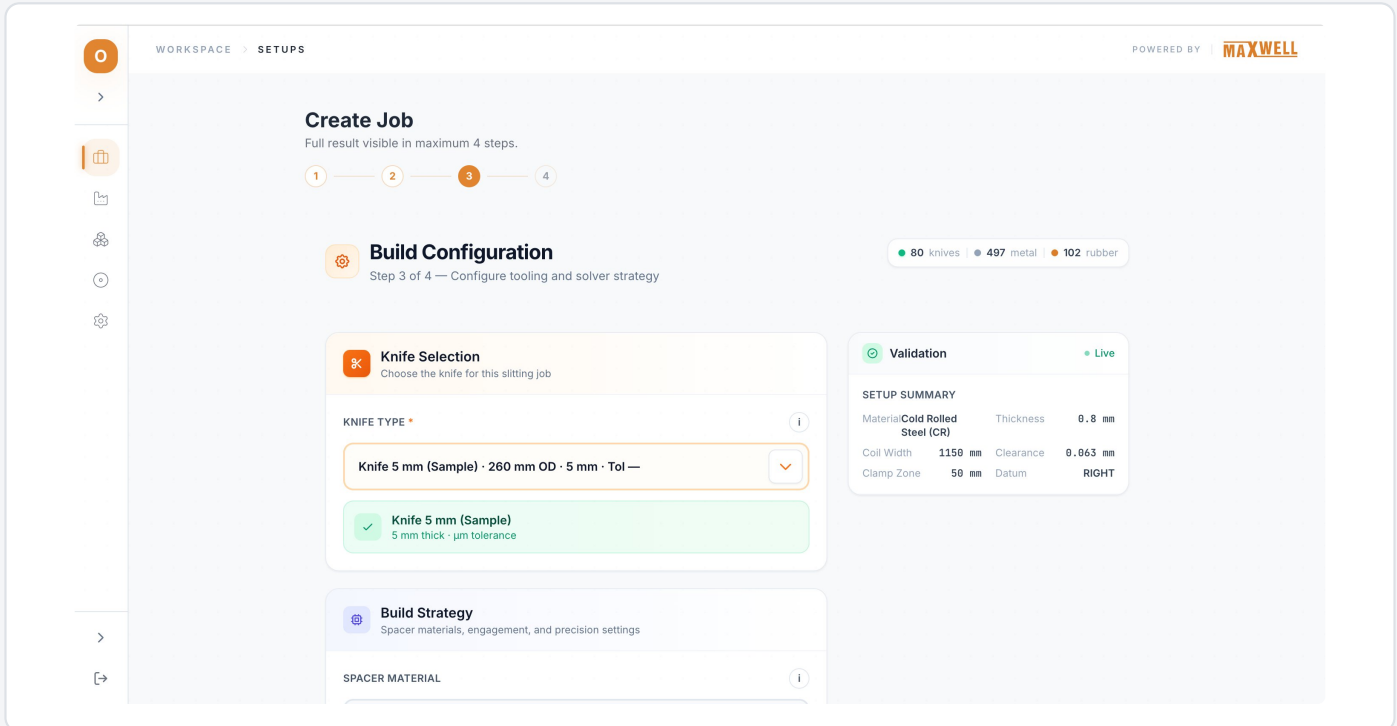
**CAREFUL** If Remaining turns red, your strips add up to more than the coil width. Reduce strip widths or quantities until the bar fits inside the coil.

PART B · STEP 3 OF 4 · KNIFE SELECTION

# Pick the knife for this job.

TO REACH THIS SCREEN

Step 2 > click **Continue to Step 3** > top section of Build Configuration



WHAT EACH ELEMENT MEANS

- **Inventory counts.** Top right of the Build Configuration card. Live count of knives, metal, and rubber items available.
- **Knife Type dropdown.** Pick from your saved knives. Each option shows the knife name, OD, thickness, and tolerance.
- **Green confirmation box.** Appears below the dropdown once a knife is selected. Confirms thickness and tolerance.
- **Validation panel.** Right side of the page. Shows live setup summary and any validation issues.
- **Knife Selection section.** The first section in the form.

HOW TO PICK THE RIGHT KNIFE

- 1 Click the **Knife Type** dropdown.
- 2 Scroll through the available knives. Each line shows the name, OD, and thickness.
- 3 Click the knife you want for this job. A green confirmation appears below.
- 4 Look at the Validation panel on the right. If it stays green, you can proceed.

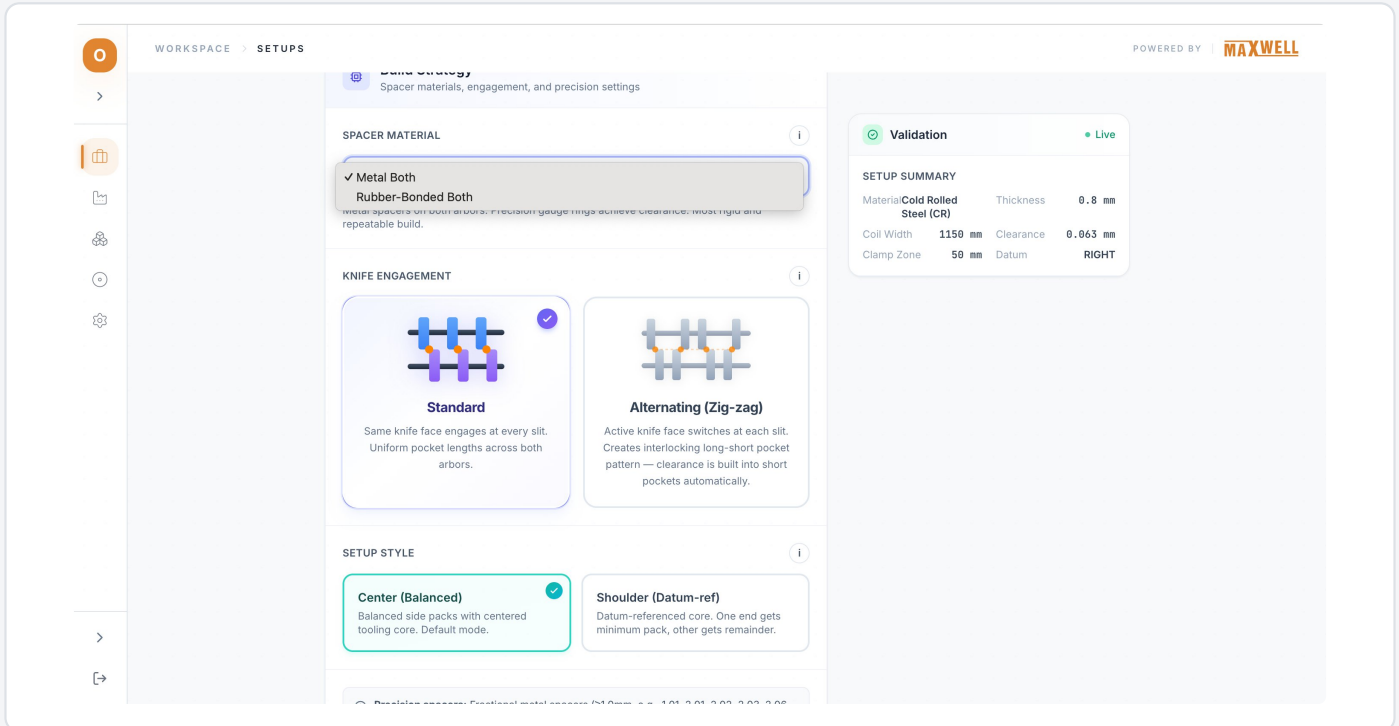
**EMPTY DROPDOWN** If the knife list is empty, no knives are in your inventory yet. Go to **Inventory**, add at least one knife, then return to this step.

PART B · STEP 3 OF 4 · BUILD STRATEGY

# Spacer material. Engagement. Setup style.

TO REACH THIS SCREEN

Step 3 > scroll down past Knife Selection to the **Build Strategy** section



WHAT EACH OPTION MEANS

- **Spacer Material: Metal Both.** Metal spacers on both arbors. Most rigid and repeatable. Default.
- **Spacer Material: Rubber-Bonded Both.** Rubber-bonded spacers on both arbors. Used when grip is critical.
- **Knife Engagement: Standard.** Same knife face engages at every slit. Uniform pocket lengths across both arbors. Default and safest for new operators.
- **Knife Engagement: Alternating (Zig-zag).** Active knife face switches at each slit. Creates an interlocking long-short pocket pattern. Clearance is built into short pockets automatically.
- **Setup Style: Center (Balanced).** Balanced side packs with centered tooling core. Default and recommended for most jobs.
- **Setup Style: Shoulder (Datum-ref).** Datum-referenced core. One end gets the minimum pack, the other end gets the remainder.

**WHEN UNSURE** Leave the defaults: **Metal Both, Standard, Center.** These work for most jobs on most lines. Only change them when your supervisor or quality procedure specifically tells you to.

**NEXT** If you pick **Alternating (Zig-zag)** as the engagement, an extra option appears below the Setup Style section: **Plastic Shim Mode.** The next page explains it.

## Plastic shim mode. Two choices.

This setting appears in Step 3 only when you have selected Alternating (Zig-zag) engagement. It controls whether the solver may use thin plastic shims to close residual gaps that rigid spacers cannot.

### WHEN THIS OPTION APPEARS

**Step 3** > Knife Engagement set to **Alternating (Zig-zag)** > scroll down below Setup Style

#### PLASTIC SHIM MODE ⓘ

Shimless

OFF — Shimless

ON — Allow Shims

All gaps will be filled with rigid spacers only ( $\geq 1.000\text{mm}$ ). Recommended for precision slitting.

SHIMLESS MODE (DEFAULT, RECOMMENDED FOR PRECISION)

#### PLASTIC SHIM MODE ⓘ

Shims Enabled

OFF — Shimless

ON — Allow Shims

Plastic shims (0.050–0.999mm) will be used to close residual gaps when rigid spacers cannot achieve exact fit.

**Note:** Plastic shims may be used for knife-to-knife clearance and for pocket width adjustment. Final strip accuracy may still require minor tuning by the operator during setup.

ALLOW SHIMS MODE (FOR LINES THAT USE PLASTIC SHIM SETS)

### WHAT EACH MODE DOES

- **OFF — Shimless.** Only metal spacers are used. The setup is built entirely from rigid spacers in your inventory. Recommended for precision slitting where dimensional accuracy is critical.
- **ON — Allow Shims.** Plastic shims may be added to close residual gaps for knife-to-knife clearance and pocket width adjustment. Useful when rigid spacers alone cannot achieve exact fit.

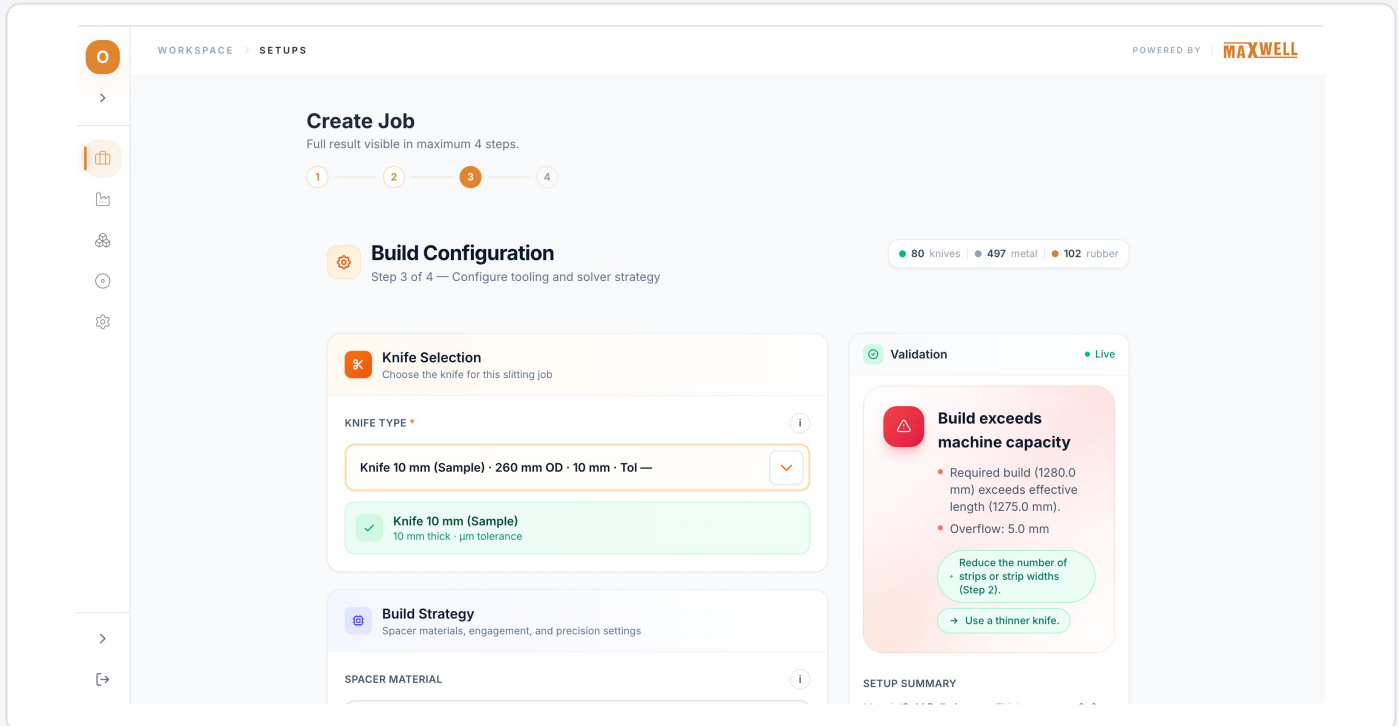
**SHOP-FLOOR NOTE** Allow Shims helps with clearance and minor corrections. It does **not** correct for inventory tolerance variation, which can be significant. Even with plastic shims enabled, final strip accuracy may still need minor manual tuning by the operator during setup. Plan to verify the build on the line before running the full coil.

**DEFAULT IS SHIMLESS** For most precision jobs, leave this **OFF (Shimless)**. Only switch to ON when your line has plastic shim sets available in inventory and your supervisor approves their use.

## WHEN THE VALIDATOR COMPLAINS

# Read the validator.

If your job will not fit on the machine or your knife is too thick for the strips you chose, the Validation panel on the right turns red and tells you exactly what to fix. Here is an example.



## WHAT YOU SEE IN A RED VALIDATION

- **Build exceeds machine capacity.** The headline of the red validation panel.
- **Required vs effective length.** The panel shows the build length your setup needs and the actual usable arbor length. The difference is your overflow.
- **Suggested fix 1: Reduce strips.** Go back to Step 2 and reduce strip count or widths.
- **Suggested fix 2: Use a thinner knife.** Change the knife dropdown to one with less thickness.

## HOW TO FIX A VALIDATION ERROR

- 1 Read the red box carefully. It always says what is wrong and what to do.
- 2 Pick the fix that suits your job. Usually changing the knife is faster than changing the order.
- 3 If both suggestions would change your order, contact your planner before proceeding.
- 4 Once you make a change, the validator updates immediately and turns green if everything fits.

**DO NOT IGNORE** The Calculate Setup button stays disabled while a red validation error is shown. There is no way to bypass it. Fix the issue first.

PART C · THE ASSEMBLY VIEW

# The whole build, on one screen.

After Calculate Setup finishes, the Assembly View opens. Every number you need to assemble the line is here. Review it, then either Save and Export, or click Back to change something.

TO REACH THIS SCREEN

**Step 3** > click **Calculate Setup** at the bottom of the form

The screenshot shows the 'Assembly View' interface. At the top, there is a navigation bar with a 'Back' button, the title 'Assembly View' with a subtitle 'Complete build specification', and 'Save Job' and 'Export PDF' buttons. Below this is a 'Job Summary' section with a 'SYSTEM: READY' indicator. The summary includes fields for COIL WIDTH (1100 mm), PRODUCED (1060 mm), STRIPS (12), SLIT LINES (13), DATUM / LOAD (RIGHT / LEFT), CLAMP RESERVE (50 mm), KNIFE (T) (10 mm), CLEARANCE (0.063 mm), EFFECTIVE LENGTH (1325 mm), and SETUP STYLE (Center). Below the summary is a 'Slit Pattern' section with a table showing finished strip widths from Step 2.

WIDTH (MM)	QTY	TOTAL (MM)
100	5	500
80	7	560
TOTAL PRODUCED	12 strips	1060 mm

WHAT EACH TILE MEANS

- **Coil Width.** Carried from Step 1. The starting width.
- **Strips.** Total count of strips across all widths.
- **Datum / Load.** Which side is the fixed datum, which is the loading side.
- **Knife (T).** The thickness of the knife selected.
- **Effective Length.** The total usable build length after reserves.
- **SYSTEM: READY pill.** Top right. Green means inventory has everything needed.
- **Produced.** Total width of strips that will be cut and used.
- **Slit Lines.** Number of knife cuts (always one fewer than strips).
- **Clamp Reserve.** Space to keep clear at the loading end.
- **Clearance.** The side clearance per knife side, in mm.
- **Setup Style.** Center or Shoulder. Carried from Step 3.
- **Slit Pattern table.** Below the Job Summary. Final width breakdown by quantity.

**VERIFY FIRST** Before clicking Export PDF, glance at the tiles. Coil Width should match your coil. Strips and Slit Lines should match your order. If anything looks wrong, click Back and check Step 1 and Step 2.

YOUR PICKING LIST

# Grouped BOM. Pull all parts at once.

Use the Grouped view to prepare your parts tray before going to the machine. Each line tells you what to pick and how many.

TO REACH THIS SCREEN

Assembly View > scroll to **Assembly Instructions** > click the **Grouped** toggle

ASSEMBLY INSTRUCTIONS

**Grouped BOM**

Start from LOADING side and stack toward DATUM side. Parts aggregated by type and width. Pull all pieces before starting assembly.

Detailed
  **Grouped**

**PARTS LIST — AGGREGATED** Loading → Datum

**TOP ARBOR**

COMPONENT	WIDTH	OD	QTY	NOTES
CLAMP RESERVE: 50 mm — Keep Clear				
Knife	10	—	13	
Rubber-bonded	20	—	3	
Rubber-bonded	30	—	4	
Rubber-bonded	40	—	2	
Rubber-bonded	50	—	4	
Total pieces:			<b>39</b>	

**PARTS LIST — AGGREGATED (MASTER)** Loading → Datum

**BOTTOM ARBOR**

COMPONENT	WIDTH	OD	QTY	NOTES
CLAMP RESERVE: 50 mm — Keep Clear				
Knife	10	—	13	
Rubber-bonded	20	—	3	
Rubber-bonded	30	—	4	
Rubber-bonded	40	—	2	
Rubber-bonded	50	—	4	
Total pieces:			<b>40</b>	

WHAT EACH COLUMN SHOWS

- **Detailed / Grouped toggle.** Top of the assembly section. Switches between summary and step-by-step views.
- **CLAMP RESERVE row.** Amber highlighted. Not a part. Reminds you to leave this space empty.
- **Width column.** The width of each piece in mm.
- **Qty column.** How many of that size to pick from the store.
- **Total pieces.** Grand total for that arbor, shown at the bottom.
- **TOP ARBOR (dark navy) and BOTTOM ARBOR (green).** The two arbor tables shown side by side.
- **Component column.** What kind of part (Knife, Rubber-bonded, Metal spacer).
- **OD column.** Outer diameter if specified.
- **Notes column.** Any extra information per row.
- **Loading → Datum.** Direction badge on each arbor card.

USING THE GROUPED VIEW

- 1 Take this list to your tool store before walking to the machine.
- 2 Pull every piece in the quantities shown. Use a tray or sequenced cart.
- 3 Once all parts are on the tray, switch to the Detailed view (next page) to know the stacking order.

YOUR STACKING SEQUENCE

# Detailed BOM. Step by step.

Once your parts are on the tray, switch to Detailed view to load them in the right order. Start at Step 1 from the LOADING side and work toward the DATUM side.

TO REACH THIS SCREEN

Assembly View > Assembly Instructions > click the **Detailed** toggle

UPPER SHAFT (METAL SPACERS) — TOP ARBOR				
STEP	COMPONENT	WIDTH (MM)	OD	NOTES
CLAMP RESERVE: 50 mm — Keep Clear (Hardware)				
1	Metal spacer	25	—	Fixed Reserve — 25mm
2	Metal spacer	100	—	Metal 100mm
3	Metal spacer	40	—	Metal 40mm
4	Knife	10	—	Slit line 1
5	Rubber-bonded	100	—	Rubber 100mm
6	Knife	10	—	Slit line 2
Total:		39	@ Knives:	13
Metal:		5	Rubber:	21

LOWER SHAFT (RUBBER SPACERS) — MASTER — BOTTOM ARBOR				
STEP	COMPONENT	WIDTH (MM)	OD	NOTES
CLAMP RESERVE: 50 mm — Keep Clear (Hardware)				
1	Metal spacer	25	—	Fixed Reserve — 25mm
2	Metal spacer	10	—	Metal 10mm
3	Metal spacer	100	—	Metal 100mm
4	Metal spacer	40	—	Metal 40mm
5	Knife	10	—	Slit line 1
6	Rubber-bonded	100	—	Rubber 100mm
Total:		40	@ Knives:	13
Metal:		6	Rubber:	21

WHAT EACH COLUMN SHOWS

- Detailed / Grouped toggle.** Detailed is selected.
- STEP column.** The numbered sequence. Install pieces in this exact order from loading to datum.
- WIDTH column.** The width of the piece to install at this step, in mm.
- NOTES column.** Extra info (e.g. "Fixed Reserve", "Slit line 1", "Metal 100mm").
- Total row at the bottom.** Total pieces and a breakdown by type (Knives, Metal, Rubber).
- UPPER SHAFT / LOWER SHAFT headers.** Bottom shaft is labelled MASTER.
- COMPONENT column.** What this piece is (Knife, Metal spacer, Rubber-bonded).
- OD column.** Outer diameter where applicable.
- CLAMP RESERVE row.** Amber highlight at the top. Skip this physical space, do not load anything in it.

**CRITICAL** Always load in the order shown by the Step column. Skipping or reordering steps changes the slit positions and produces wrong-width strips. Build the bottom (MASTER) arbor first, then match the top arbor to it.

**PRINT THIS** Click Export PDF in the top right of the Assembly View and print the resulting sheet. Take the printed sheet to the machine. Do not rely on the screen during physical assembly.

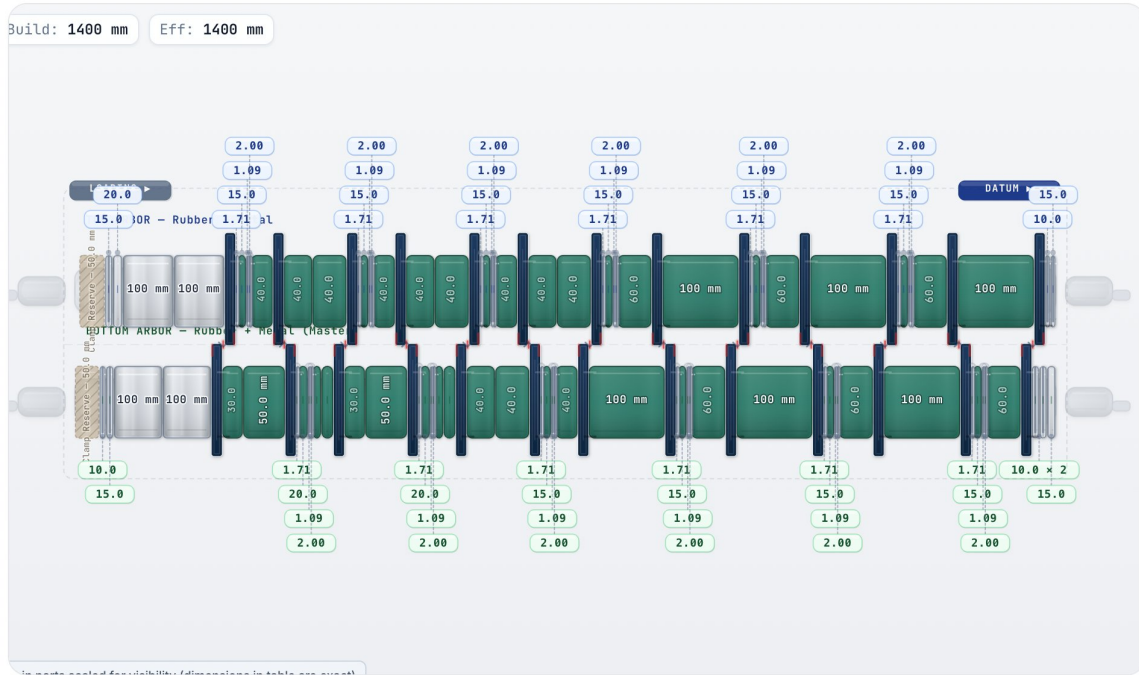
VISUAL REFERENCE

# The diagram. A scaled view of your build.

The diagram shows your complete build at a glance. Each piece on the arbor is drawn to scale and labelled with its width and OD. Use this as a quick visual confirmation before you start loading parts on the machine.

TO REACH THIS SCREEN

Assembly View > scroll down to the Arbor Diagram section



HOW TO READ THE DIAGRAM

- **Orientation.** LOADING side is on the left, DATUM side is on the right. The same in real life when you stand at the entry end of the machine.
- **Top row and bottom row.** Top arbor (upper shaft) shown above. Bottom arbor (lower shaft, MASTER) shown below. Build the bottom first.
- **Hatched cream blocks at each end.** Clamp reserve on the loading end, fixed reserve on the datum end. Do not load anything in these zones.
- **Green blocks.** Rubber-bonded spacers. Each shows its width in mm.
- **White / light blocks.** Metal spacers. Numbers show widths.
- **Dark navy vertical bars.** Knives. Positioned exactly at each slit line.
- **Numbers above the top row.** Knife and spacer widths visible from the upper arbor.
- **Numbers below the bottom row.** The same for the lower arbor.

**SANITY CHECK** Compare the top and bottom rows. Knife positions should align vertically (or interlock if you chose Alternating). Spacer widths should sum to roughly the coil width minus trim.

## WHEN PARTS ARE NOT IN STOCK

## Missing tooling. What to buy or pull.

If the solver builds a setup that needs a piece you do not have in inventory, the Assembly View shows a Missing Tooling panel. The setup can still be exported, but the assembler will need those pieces before the run.

## WHEN THIS APPEARS

**Assembly View** > shown automatically below the Job Summary when inventory is short

The following items are required to complete this build. Add these items to your inventory to proceed.

## REQUIRED TO BUILD THIS JOB

TYPE	WIDTH	OD	LOCATION	HAVE	NEED	SHORT
Metal Spacer	1.000 mm	—	—	0	3	<b>3</b>
Metal Spacer	1.000 mm	—	—	0	1	<b>1</b>

**Action Required:** Navigate to the Inventory tab to add these items to proceed with this build.

## WHAT THIS PANEL TELLS YOU

- **Required to build this job.** The header of the missing items list.
- **TYPE column.** The kind of part missing (Metal Spacer, Rubber-Bonded, Plastic Shim).
- **WIDTH column.** The exact width needed in mm.
- **OD column.** Outer diameter if specified.
- **LOCATION column.** Where in the build this piece is needed (top or bottom arbor, position).
- **HAVE column.** How many you currently have in inventory.
- **NEED column.** How many you need for this job.
- **SHORT column.** The shortfall (NEED minus HAVE). Highlighted in red.
- **Action Required note.** Below the table. Tells you to navigate to the Inventory tab and add those items to proceed.

## WHAT TO DO WHEN YOU SEE THIS PANEL

- 1 Read every row. Note the type, width, and shortfall quantity.
- 2 Click **Export PDF**. The shortfall items appear on the PDF as "SHORT, needs purchase".
- 3 Take the PDF to your purchasing or tool store team.
- 4 Order or source the missing pieces.
- 5 When the pieces arrive, go to **Inventory** and add them with their quantities.
- 6 Return to the saved job and re-export the PDF for assembly.

**YOU CAN STILL EXPORT** The Save Job and Export PDF buttons remain enabled even when items are missing. The PDF clearly marks shortfall items. Many teams use this to prepare a purchase order before the assembly date.

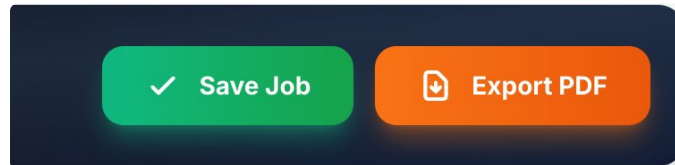
## FINISH THE JOB

# Save the job. Print the sheet.

Two buttons in the top right of the Assembly View do most of the heavy lifting. Save Job keeps the setup for later recall. Export PDF gives you the document to take to the shop floor.

## WHERE TO FIND THESE BUTTONS

**Assembly View** > top right header bar > green **Save Job** and orange **Export PDF**



THE TWO BUTTONS YOU NEED, AT THE TOP RIGHT OF THE ASSEMBLY VIEW

## WHAT EACH BUTTON DOES

- **Save Job (green).** Saves this complete setup to your account. You can reopen it from the Setups page at any time.
- **Export PDF (orange).** Generates a printable assembly sheet with the job summary, both BOMs, and the diagram. Downloads to your device.

## RECOMMENDED FINISH SEQUENCE

- 1 Review the Job Summary tiles one final time.
- 2 Click **Save Job** first. A confirmation appears in green.
- 3 Click **Export PDF**. The PDF downloads.
- 4 Open the PDF and print it on A4. Take the print to the machine.
- 5 Begin physical assembly using the printed sheet, not the screen.

**SHOP FLOOR USE** The printed PDF works without internet, on any device, and in any lighting. The screen does not. Print every job before walking to the machine.

**DO NOT SKIP SAVE** Save Job before Export PDF. If you only export and do not save, the setup is gone the moment you close the browser tab.

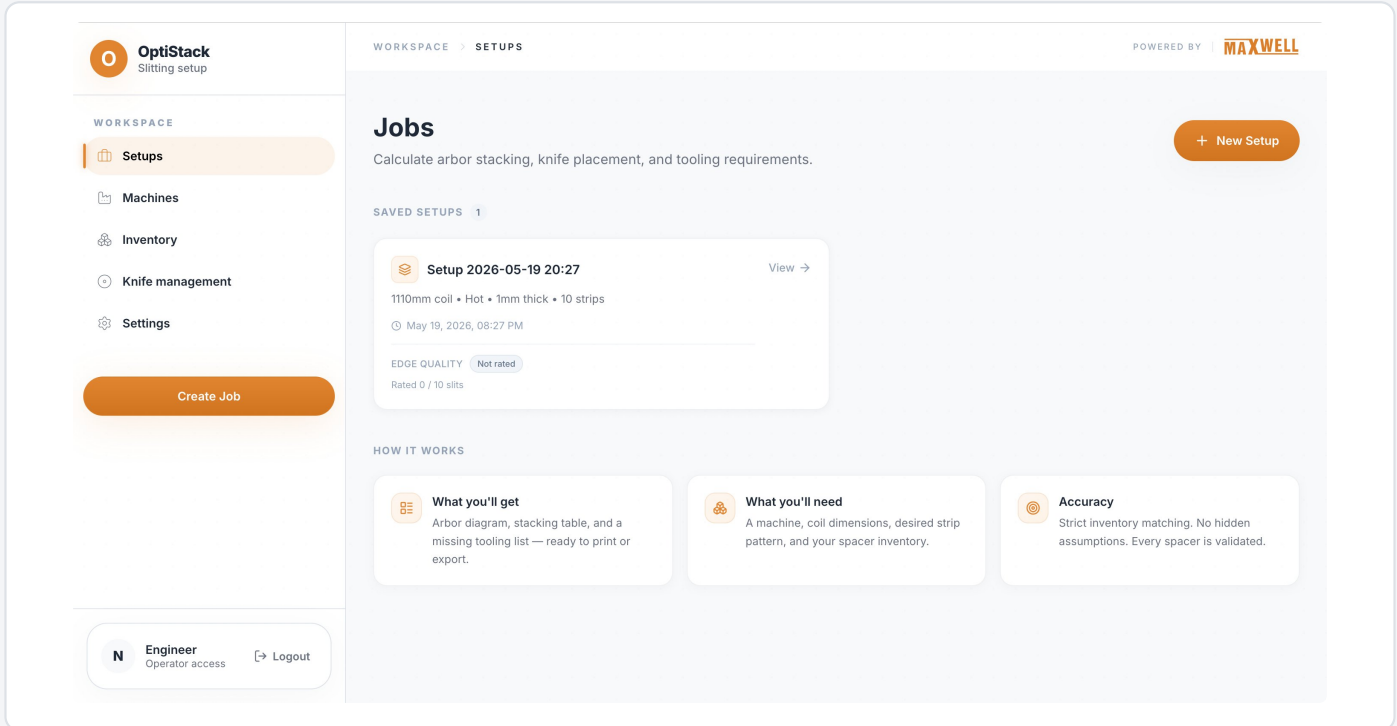
PART D · DAILY USE

# Your saved setups.

Every job you save lives on the Setups page. Use it to find old jobs, re-print PDFs, or rate the edge quality after a run is complete.

TO REACH THIS SCREEN

Left sidebar > click **Setups**



WHAT THIS SCREEN SHOWS

- **Setups page heading (Jobs).** The main heading at the top.
- **+ New Setup.** Orange button at the top right. Starts a new job (same as Create Job in the sidebar).
- **SAVED SETUPS section.** Each saved job is shown as a card.
- **Setup card.** Shows job name, coil and material summary, creation date.
- **EDGE QUALITY badge.** Shows whether edge quality has been rated for this run.
- **Rated X / Y slits.** Quick indicator of rating progress.
- **View link.** Bottom right of each card. Opens the saved job detail page.
- **How It Works cards.** Reference cards at the bottom for new users.

**SEARCH BY NAME** Use a clear naming convention for jobs (e.g. "Order-1088 Customer-A Cold-Rolled 1mm"). Saved jobs sort by date, but a clear name lets you scan the list quickly.

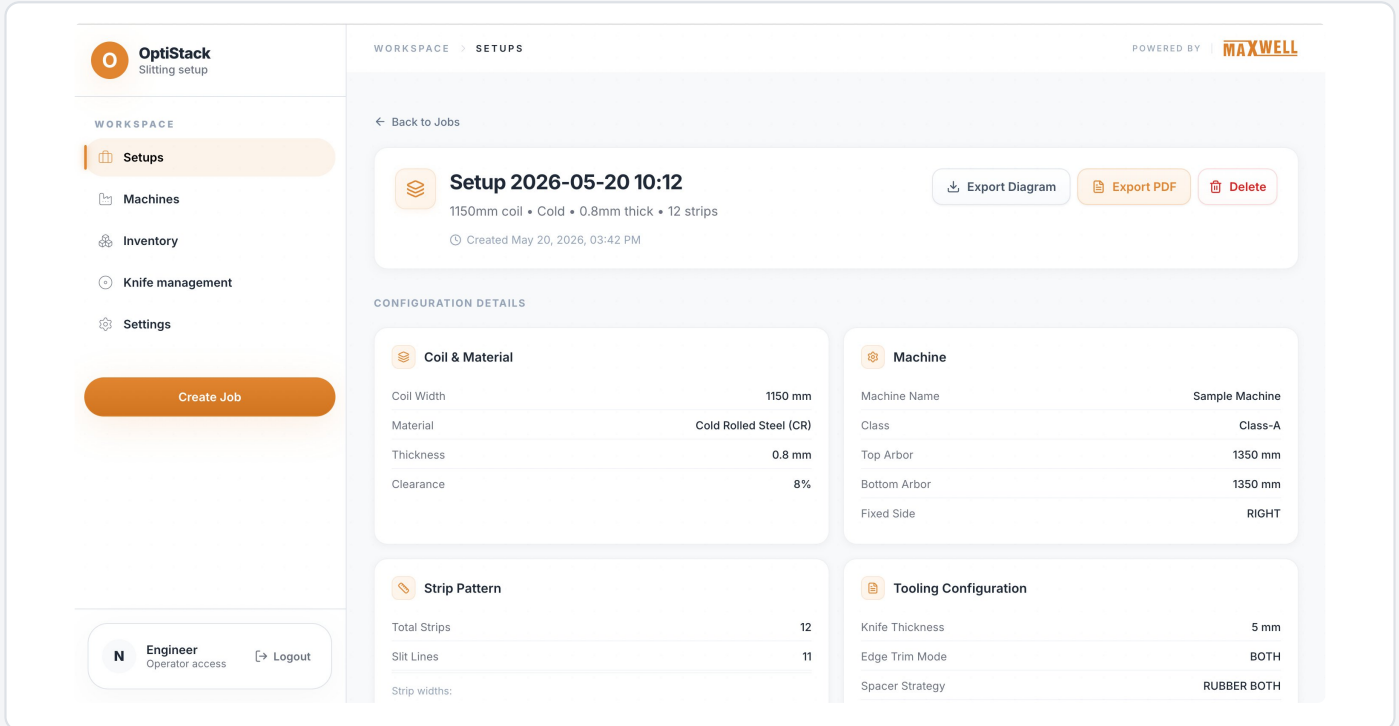
REOPEN A SAVED JOB

# Same order back? Reprint, do not rebuild.

When a customer reorders the same coil cut to the same widths, you do not need to recreate the job. Open the saved setup, verify it matches, and re-export the PDF.

TO REACH THIS SCREEN

Setups > click **View** on a saved job card



WHAT THIS SCREEN SHOWS

- **Back to Jobs.** Top left. Returns to the Setups list.
- **Export Diagram.** Downloads only the arbor diagram as a separate file.
- **Delete.** Red button. Permanently removes this setup.
- **Configuration Details: Machine card.** Machine name, class, arbor lengths, fixed side.
- **Tooling Configuration card.** Knife thickness, edge trim mode, spacer strategy.
- **Setup header.** Job name, coil and material summary, creation date.
- **Export PDF.** Re-downloads the full assembly sheet.
- **Configuration Details: Coil & Material card.** Coil width, material, thickness, clearance.
- **Strip Pattern card.** Total strips, slit lines, and strip widths (scroll down).

HOW TO RE-RUN A SAVED JOB

- 1 Open the **Setups** page from the left sidebar.
- 2 Find the saved job card and click **View**.
- 3 Compare Coil & Material details to your current coil.
- 4 Compare Machine name to the line you plan to run on.
- 5 If everything matches, click **Export PDF** and print.
- 6 If anything is different, click Back to Jobs and create a new job instead.

AFTER THE RUN

# Rate the edge quality.

After a coil is cut, inspect the slit edges and record what you see. This builds a quality history for the job and helps your team spot when knives need attention or clearance needs adjustment.

TO REACH THIS SCREEN

Setups > click **View** on a saved job > scroll down to **Edge Quality**

The screenshot shows the 'EDGE QUALITY' section of the OptiStack Pro interface. On the left is a sidebar with navigation options: Setups (selected), Machines, Inventory, Knife management, and Settings. Below the sidebar is a 'Create Job' button and a user profile for 'Engineer' with 'Operator access' and a 'Logout' button. The main content area is titled 'EDGE QUALITY' and includes a 'MAXWELL' logo. It features two main sections: 'Edge Quality Reference' and 'Edge Quality Ratings'. The 'Edge Quality Reference' section contains eight reference images labeled 1 to 8, each with a description: 1. Too Loose, 2. Good (Slightly Loose), 3. Good (Balanced), 4. Too Tight (Slightly Low), 5. Too Tight (Very Low), 6. Extremely Tight, 7. Knife Dull, 8. Misalignment. The 'Edge Quality Ratings' section contains a table for recording ratings for each slit. The table has columns for Row #, Width, Qty, Inbound Edge, Outbound Edge, and Notes. The table shows five rows of data, each with a width of 100 mm and a quantity of 1. The Inbound and Outbound Edge columns have dropdown menus, and the Notes column has a text input field.

ROW #	WIDTH	QTY	INBOUND EDGE	OUTBOUND EDGE	NOTES
1	100 mm	1	—	—	Optional notes...
2	100 mm	1	—	—	Optional notes...
3	100 mm	1	—	—	Optional notes...
4	100 mm	1	—	—	Optional notes...
5	100 mm	1	—	—	Optional notes...

WHAT THIS SCREEN OFFERS

- **Edge Quality Reference card.** Eight photos, severity 1 (too loose) to 8 (misalignment).
- **Edge Quality Ratings table.** One row per slit. Rate inbound and outbound separately.
- **Inbound / Outbound dropdowns.** Pick severity 1 to 8.
- **Reference thumbnails.** Click any to enlarge and compare.
- **Row # / Width / Qty.** Identifies each slit (carried from job).
- **Notes field.** Optional free text per slit.

HOW TO RATE EDGE QUALITY

- 1 After the coil is cut, inspect each slit strip's edge under good lighting.
- 2 Compare what you see to the eight reference thumbnails.
- 3 In the ratings table, pick severity from the **Inbound Edge** dropdown for each slit.
- 4 Repeat for the **Outbound Edge**. Ratings save automatically.
- 5 Add notes for anything unusual (defect type, knife condition).

**RATINGS 1, 2, 7, 8** These mean the edge is outside acceptable quality. Do not ship coils with these ratings without quality approval. Inform your supervisor.

SEVERITY SCALE

# Edge quality reference scale.

A quick reference for what each severity rating means and what action to take. Use this alongside the photo references in the app.

<b>1 · Too Loose</b>	Knife gap is far too wide. Heavy burr, fracture, or rollover extending into strip thickness. Edge looks collapsed. <b>Do not ship without quality approval.</b>
<b>2 · Very Loose</b>	Gap is still too wide. Significant burr and rollover. Less severe than 1 but still outside spec. <b>Inform supervisor. Reduce clearance next run.</b>
<b>3 · Loose</b>	Gap is noticeably too wide. Visible burr or rollover. Borderline. <b>Check customer specification. Some applications tolerate this.</b>
<b>4 · Slightly Loose</b>	Gap is marginally too wide. Small burr, slight rollover. Acceptable for most standard applications. <b>Monitor on subsequent runs.</b>
<b>5 · Slightly Tight</b>	Gap is marginally too narrow. Edge is mostly clean with minimal mark. Within spec. <b>Acceptable, no action needed.</b>
<b>6 · Tight</b>	Gap is noticeably too narrow. Burnish marks, surface scoring, polished cut face. Material is being squeezed. <b>Increase clearance next run.</b>
<b>7 · Very Tight</b>	Gap is very narrow. Heavy burnish, scoring, possibly heat marks. Knife wear accelerates. <b>Check knife condition. Report to supervisor.</b>
<b>8 · Misalignment</b>	Knife faces essentially touching or knives misaligned. Severe edge damage, scoring, cracking. Knives may be damaged. <b>Stop the line. Call supervisor. Inspect knives before next run.</b>

**SWEET SPOT** The target rating is **4 or 5**: a clean cut with minimal visible defect. Consistent ratings of 6 or 3 suggest a small clearance adjustment is needed for that material and thickness combination.

QUICK REFERENCE

# Glossary of **slitting terms.**

Plain-English meaning of every term used in OptiStack and on the shop floor.

<b>Arbor</b>	The horizontal shaft that holds the knives and spacers. Each slitting line has a top arbor and a bottom arbor.	<b>BOM</b>	Bill of Materials. The complete list of all parts needed for a job.
<b>Clamp Reserve</b>	Space at the loading end of the arbor reserved for the clamping hardware. No tooling goes here.	<b>Clearance (Side)</b>	The small gap between the top and bottom knife at each cut, expressed as a percentage of material thickness.
<b>Coil Width</b>	The total width of the metal strip coming off the master coil before cutting.	<b>Datum Side</b>	The fixed end of the arbor (opposite of the loading end). All tooling is referenced from here.
<b>Dedicated Tooling Group</b>	A family of tooling (defined by OD and ID) assigned exclusively to one machine.	<b>Effective Length</b>	The actual usable arbor length after subtracting clamp reserve and fixed reserve.
<b>Engagement</b>	How the knife faces engage the material. Standard uses the same face every slit. Alternating switches each slit.	<b>Knife OD</b>	Outer Diameter of the knife. Must fit within the machine's maximum.
<b>Knife ID / Bore</b>	Inner bore of the knife. Must match the arbor diameter.	<b>Loading Side</b>	The end where the operator stands and where tooling is loaded onto the arbor.
<b>Master Arbor</b>	In OptiStack, the bottom arbor is the master. Build this one first.	<b>Pack Style</b>	How the tooling is positioned on the arbor. Center (balanced) or Shoulder (datum-anchored).
<b>Plastic Shim</b>	A very thin spacer (0.050 to 0.999 mm) used to close residual gaps. Only available in Alternating mode.	<b>Rubber-Bonded Spacer</b>	A spacer with a rubber outer surface bonded to a steel core. Used to grip the strip and reduce slip.
<b>Separator Disc</b>	A disc mounted on a separator shaft (overarm or underarm) used after slitting to keep strips apart.	<b>Shimless</b>	Plastic Shim Mode set to OFF. Only metal spacers used. Recommended for precision slitting.
<b>Slit Line</b>	One cut position between two strips. Always one fewer slit line than strips per cut.	<b>Spacer</b>	A metal or rubber ring that sits between knives on the arbor and controls the gap (= strip width).
<b>Strip Width</b>	The finished width of one cut piece. Multiple strip widths can be cut from one coil.	<b>Trim</b>	Material at the coil edges that is not part of any strip. Becomes scrap.
<b>Utilization</b>	How much of the coil width is used by your strip pattern. Shown as a percentage.		