

How to Size an On-Site Solvent Recycler

A practical, no-sales-pitch guide to choosing the right unit for your shop — and the one certification you should never compromise on.

Get the size right and a recycler pays for itself fast — most shops in under a year. This guide covers the single most important safety factor, the handful of questions that determine the right unit, and the payback math. Ten minutes here saves an expensive mistake.

■ THE #1 FACTOR: UL 2209 CLASS 1 DIVISION 1 EXPLOSION PROOF

Distilling used solvent means heating flammable vapors. The **only** safe way to do that is in a recycler that is **certified UL 2209 Class 1 Division 1 Explosion Proof** — this is the most important thing to check when sourcing any recycler, full stop. **Every SolventRS recycler is certified UL 2209 Class 1 Division 1 Explosion Proof.** If a unit you're comparing isn't, walk away — it's a serious fire and liability risk, no matter how good the price looks.

Step 1 • How much used solvent — and how dirty?

Your volume of used solvent drives the size; how contaminated it is drives your usable yield.

- **How much used solvent do you dispose of on a regular basis?** (gallons per week or month)
- **How saturated is that solvent?** Light shop soils reclaim more per batch; heavy paint/ink/resin sludge leaves less usable solvent, so you may run more often.

Step 2 • How hard will the unit work? (and can it run unattended?)

How many hours the recycler needs to run tells us the throughput you need — and whether one unit can keep up.

- **How many hours a day do you operate?** How many shifts, and how long is each?
- **Are you comfortable running the machine “lights-out”** with no one there? Because our units are UL 2209 Class 1 Division 1 Explosion Proof, **it's safe to do** — so you can distill overnight and one unit handles far more volume without tying up labor, floor time, or a shift.

Step 3 • What solvent are you running? (send the SDS)

What type of solvent are you using? Please send us the **SDS** — it tells us the boiling range and any special residues so we can confirm whether your application needs **vacuum assist** (used for higher-boiling solvents and certain residues). Getting this right protects both your yield and your safety.

Step 4 • Your current costs (this is your payback)

These four numbers let us show you exactly what a recycler saves you and when it pays for itself:

- **How much does hazardous-waste disposal cost you?** (per pickup and how often)
- **What is your current generator status?** (VSQG / SQG / LQG) — recycling on-site cuts the waste you generate and can help lower your status and regulatory burden.
- **How much do you spend on virgin solvent?** A recycler reclaims 90–95% for reuse, so most of this goes away.

How sizing actually works

Sizing isn't a simple gallons-per-week chart — it comes down to **cycle time and how many hours you run**. Our 8- and 16-gallon units run a roughly 4–6 hour cycle, so your daily capacity is just how many cycles fit in your operating hours — and, run lights-out, you can add an overnight cycle safely. Larger 48- and 64-gallon units can run longer cycles depending on the solvent. That is exactly why we ask your run hours, shifts, and solvent type: we size the unit to your actual runtime, not a generic table.

The payback math

An on-site recycler reclaims roughly **90–95%** of your used solvent back to clean. You save on virgin solvent *and* on hazardous-waste pickups — and running lights-out means no added labor.

Example shop	Figure
Used solvent per month	55 gallons
Reclaimed at ~90%	~50 gallons back to clean
Virgin solvent avoided (~\$9/gal)	~\$450 / month
Hazardous-waste pickups avoided	\$150–\$400+ / month
Typical combined savings	\$600–\$850+ / month

Most units pay for themselves in well under a year, then keep saving every month. Send us your real numbers and we'll run your specific payback — plus any generator-status savings.

Ready for a recommendation? Send us these answers

Answer these and we'll spec the right UL 2209 Class 1 Div 1 recycler for you — usually same day:

- How much used solvent do you dispose of on a regular basis?
- How saturated / contaminated is that solvent?
- How many hours per day do you operate? How many shifts? How long is each shift?
- Are you comfortable running the machine lights-out with no one there? (It's safe with our UL 2209 Class 1 Div 1 units.)

- What type of solvent are you using? — and please send the SDS so we can check if vacuum assist is needed.
- How much does hazardous-waste disposal cost you?
- What is your current generator status?
- How much do you spend on virgin solvent?

Send us your answers (and your SDS) and we'll do the rest.

We'll recommend the right UL 2209 Class 1 Division 1 Explosion Proof unit, your lead time, and your payback — no pressure.

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Solvent Recycling Systems LLC • www.solventrs.com • All SolventRS recyclers are certified UL 2209 Class 1 Division 1 Explosion Proof. This guide is general information; always confirm the right setup with us for your specific solvent.