8 inputs determine the right silencer.

A distributor-facing pre-quote checklist. If the customer answers most of these at the first call, the second call is the quote.

01

How many valves are on the machine, and how many exhaust ports per valve?

One silencer per exhaust port × valve count = the install quantity. A 5/2 solenoid has 2 exhaust ports (3 and 5); a 3/2 has 1. Manifolds collapse multiple valves onto shared exhaust ports: read the manifold datasheet for the exhaust-port count, not the valve count. Capture the full quantity into the customer's MRO system at the quote stage; the reorder cadence is set against this number.

02

What's the exhaust port thread size and standard, NPT or BSPT?

M5, 1/8", 1/4", 3/8", 1/2" in NPT or BSPT covers nearly every modern directional control valve; larger industrial bodies extend to 3/4" and 1". NPT and BSPT are **not interchangeable**: mismatched threads leak under pressure or won't seal. Read the valve datasheet or photo the exhaust port; matching the thread is the first non-negotiable.

03

What's the exhaust temperature on the connected valve, hot or cool?

Polymer bodies cap around 120°F. Modern solenoids run their exhaust cool on standard duty, but high-cycle valve manifolds (robotic lines, pick-and-place, high-speed assembly) can push exhaust well above that range. If exhaust runs warm, bronze is mandatory. When in doubt, default to bronze: plastic above its temperature rating deforms in weeks.

04

Is the install indoor / outdoor / washdown / impact-zone?

Environment is the qualifier between bronze and plastic. Indoor general industrial → bronze default. Outdoor or impact-zone → bronze mandatory. Washdown / food / marine / chemical-vapor → plastic mandatory (bronze rusts and contaminates the air stream). Weight-sensitive moving sub-assembly → plastic for the mass savings. Confirm the environment at the quote stage, not after the first failure.

05

Are there abrasive contaminants in the discharge, oil mist, dust, particulate?

Loading rate sets the PM cadence. Clean indoor air = 12-month full-set replacement. Light industrial with some oil mist = 6 months. Foundry, cement, grain, woodshop, heavy lubricator over-oiling = 3 months or shorter. Document the environment so the PM reorder lands on the calendar; customers who skip PM rediscover silencer replacement after the valves act sluggish.

06

Is there a back-pressure spec from the valve manufacturer, or a high-Cv concern?

Undersized silencers create back-pressure that slows the cylinder. **Match silencer flow to valve Cv**: high-Cv valves and dense manifolds need the high-flow diffuser body style, not the standard threaded body. On cycle-rate-critical automation, a back-pressure gauge across the silencer turns clogging into measurable plant data rather than a "the line feels slower" complaint.

07

Does the machine need exhaust-side flow control on any of the cylinders?

The speed-control variant combines silencing and adjustable throttling in one part. Replaces flow control + silencer with a single component on cylinder-speed-tuned applications: cleaner manifold, fewer fittings, same acoustic performance. Often forgotten at quote time and added during install; ask before the silencer line is finalized.

08

Is there a PM calendar on this machine, and does it include silencer replacement?

Silencers load on dust and oil over months of cycling; the MRO calendar IS the recurring contract. **Set the next replacement at install**: 6-12 months out depending on duty: and stock a year's worth on the customer's MRO shelf. PM becomes a 30-minute walk-the-machine job rather than a parts-runner trip; the silencer line moves on schedule rather than as reactive single-piece callbacks.