9 inputs determine the right compressor internal valve.

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

01 **What's the compressor's OEM make, model, HP, and serial number?**

Every quote on this page starts here. **Inlet-valve configurations are more compressor-specific than separators or unloaders**: a year-of-manufacture difference within the same model line can mean a different valve body, actuator port, or mounting flange. Capture all four nameplate fields before pricing anything.

02 **What's the existing valve's OEM part number?**

Resolves the cross fastest and eliminates ambiguity about which year-of-manufacture variant the compressor uses. Pull it from the customer's parts manual or photograph the failed unit. For thermostatic valves, **also capture the setpoint temperature** stamped on the valve body: a 160°F valve and a 180°F valve are different parts.

03 **What's the failure symptom in the customer's words?**

"Won't load," "won't unload," "runs hot," "runs cold," "won't start," "oil out the intake," "electric bill spiked": each one points to a different valve and a different bundled quote. **Don't quote a part until the symptom is confirmed against the failure mode**; symptoms overlap across the inlet valve, unloader, pilot solenoid, and discharge check.

04 **Is the inlet-valve symptom actually the valve, or the control solenoid?**

Many "inlet valve failures" are a stuck or burnt-out solenoid driving a healthy valve. **With the intake filter housing off, watch the valve during a commanded load**: if the solenoid clicks but the valve doesn't move, the valve is the part. If the valve moves freely with the solenoid, the problem is the solenoid (cheaper part, different cross).

05 **For unloader symptoms, does the exhaust port vent on the unload command?**

"Won't unload" with no exhaust noise on unload command = pilot circuit failure (solenoid not energizing, control air line plugged, pilot valve stuck): different part, different price. **"Won't unload" with the unloader trying to vent but not seating properly** = unloader body failure: quote the cross-reference unloader.

06 **Is this a standalone valve or a combination piloted unit?**

Many older reciprocating and some smaller rotary-screw compressors use a piloted combination unit that integrates the unloader, pilot valve, and discharge check into one body. **Combination units cross to a different aftermarket part number** than standalone unloaders or check valves. Confirm visually (multi-port body with pilot line attached) before quoting.

07 **For thermostatic symptoms, has the cooler side been verified clear?**

Running hot with the cooler fouled or the fan failed is not a thermostatic problem: it's a cooler problem. **Eliminate cooler airflow, fin condition, and water-supply (on water-cooled machines) first.** Customers who've already replaced the cooler fan and are still hot are the warmest thermostatic-valve leads.

08

When was the last major service, separator, oil filter, intake filter, oil?

By the time one valve has failed, the rest are usually at end-of-life. **Bundle the inlet valve, unloader, thermostatic valve, and full service kit on the same PM event**: single-event invoices land $1,500–$4,000 in parts vs. multiple separate $400–$800 OEM service calls at multi-week leads. The cross-reference wins on price and on logistics.

09

What did the OEM quote, and what's the OEM lead time?

Sets the customer's reference frame for the cross-reference value. **Typical OEM list on a 100 HP rotary-screw inlet valve is $1,500–$2,000 with a 2–3 week lead**; the aftermarket cross lands $600–$1,200 at same-day or next-day stock. Once the customer sees the math, the next year's control-valve service is a no-question reorder.