Up to two questions “Funnel the Spec” to one product type.

Start at the top, follow the path down, end on the recommendation. Designed for distributors to send a customer ahead of a quote call.

QUESTION 1

How does the customer actually use compressed air?

CONTINUOUS PLANT DUTY · RUNS ALL DAY

QUESTION 2A

Does air demand stay within ~30% of rated, or swing wider?

IF STEADY WITHIN ~30%

RECOMMEND

Rotary Screw — Fixed-Speed

The industrial default. Lowest upfront cost at continuous duty, simple load/unload control, 60-75 dB, 100% duty cycle. Deepest brand bench in the category — five tiers available.

IF SWINGS WIDER THAN ~30%

RECOMMEND

Rotary Screw — VFD

Slows the motor to track demand instead of cycling loaded/unloaded. 25-50% energy savings versus fixed-speed on swinging loads; typical 1-3 year payback. Holds pressure on a single setpoint.

INTERMITTENT SHOP USE · RUNS IN BURSTS

QUESTION 2B

Does the compressor stay bolted to the floor, or does it move with the work?

IF FIXED INSTALL · SHOP OR BAY

RECOMMEND

Reciprocating

Lowest upfront cost of any compressor type, field-rebuildable with common parts. Two-stage cast-iron at 5-10 HP is a 15-year machine in honest intermittent duty. Quincy QR-25 class for the durable spec; ABAC / Castair for the cost-driven shop.

IF MOVES TO THE WORK · CREWS OR SERVICE

RECOMMEND

Portable / Contractor

Reciprocating mechanics on a wheeled or skid frame. Sized for one crew's air budget; single-phase, generator, or off-grid power. Pair with a deliquescent dryer when the job site has no electricity.

AIR-QUALITY CRITICAL · OIL CONTACT IS A PROBLEM

UPTIME CRITICAL · OUTAGE STOPS PRODUCTION

QUESTION 2D

Is the demand redundancy-driven, or capacity-and-redundancy?

IF SINGLE-PUMP-OUT COVERAGE

RECOMMEND

Duplex / Triplex System

Two or three pumps on a shared receiver with lead-lag staging. Size so a single pump covers full demand; the second is the insurance policy. Standard for NFPA 99 medical air and JIT-contract production plants.

IF EXISTING PUMP STILL SERVICEABLE

RECOMMEND

Duplex / Triplex (replace-as-duplex)

The cleanest sale in the category. Old pump becomes the backup; new matched pump becomes the lead; lead-lag panel coordinates. Customer gets redundancy at the cost of a single new pump + panel + tank.

If the customer doesn't know the answer to the root question, work it backward from the tool list and the production schedule: **"Across an average hour, how many minutes is the compressor actually compressing — not just powered on?"** Under ~40 minutes is intermittent (recip or portable). Over ~40 minutes is continuous (rotary screw — fixed-speed or VFD). Oil-free is layered on top regardless: if the air touches food, drug product, medical patients, semiconductor wafers, paint, or breathing air, route to oil-free first and pick the size second. Redundancy is the same overlay logic: if a day's outage scraps a batch or fails a customer contract, duplex / triplex is the right form factor for whichever type the duty cycle picks.

“The compressor decision sets the air system. Get it wrong and every other piece of the system gets compromised — get it right and the rest of the layers have a clean foundation to work against.”

SPC DISTRIBUTOR PLAYBOOK COMPRESSORS · HOW TO QUOTE IN ONE CALL