The 5 types · side-by-side

Distributor-facing reading. Each row gives best-for, key trade-off, capacity, price band, and how many of SPC's tier slots carry an option at that product type.

PRODUCT TYPE	BEST FOR	KEY TRADE-OFF	TYPICAL CAPACITY	PRICE BAND	BRANDS SPC CARRIES
Refrigerated THE DEFAULT · DEW POINT ~38°F	**Most plants, most jobs.** Standard plant air, assembly, packaging, paint shops with downstream filtration, anything inside a heated building with reliable electrical.	FLOOR AT +38°F Cannot go below freezing dew point. If the air sees outdoor pipe runs in winter, or an end-use needs instrument-grade dryness, this type alone is not enough.	5 – 3,000+ CFM non-cycling · cycling · digital	$ – $$	5 / 5 · DEEP
Desiccant · Regenerative TWIN TOWER · DEW POINT -40°F TO -100°F	**Instrument-grade dry air.** Outdoor or freezer-line distribution, paint booths with electrostatic guns, laser optics, pharmaceutical, semiconductor, transit-applied compressed air on rolling stock.	PURGE LOSS + FOOTPRINT Heatless designs consume ~15% of dried-air capacity as purge to regenerate the off-line tower. Twin-tower footprint is double a refrigerated of the same flow. Desiccant media is a consumable on a 3–5 year cycle.	20 – 3,000+ CFM heatless · heated · heated-blower purge	$$ – $$$	4 / 5 · SOLID
Deliquescent SINGLE TOWER · DEW POINT ~20-25°F BELOW INLET	**Portable, remote, no power.** Pipeline operators, well-pad service, construction sites, contractors with diesel-driven portables. Anywhere the dryer has to follow the air, not the air follow the dryer.	SALT IS A CONSUMABLE Desiccant tablets dissolve as they work — refill is on a regular service interval. The dissolved brine drains as a corrosive byproduct that has to be handled. Dew-point performance is the shallowest of the five types.	Portable to ~600 CFM no electrical required	$	1 / 5 · VAN AIR ONLY
Membrane POINT-OF-USE · DEW POINT TO -40°F	**Small, dry, no power.** Instrument enclosures, analytical loops, single-machine air-prep drops, hazardous-area instrumentation, dental / lab benches. Acts like a filter cartridge — bolts into a line and runs.	TINY · EXPENSIVE PER-CFM Capacity tops out around 100 SCFM. Sweep-air loss is continuous (no regeneration). $/CFM is the highest of the five types, but the total dollars on a small line are small.	< 100 CFM typical in-line cartridge form	$$	1 / 5 · BEKO ONLY

Explosion-Proof Desiccant CLASS I DIV 2 / ATEX · SAME DEW POINTS AS DESICCANT	**Hazardous-location duty.** Oil & gas refining, petrochemical, offshore, paint mixing rooms, anywhere a Class I Div 2 / Zone 2 (or stricter) area classification applies to the dryer's footprint.	PREMIUM PER CERTIFICATION Certified motors / heaters / controls add a meaningful premium over standard desiccant. Brand bench is narrow because few makers certify the full assembly — Van Air is SPC's lead here for that reason.	20 – 3,000+ CFM heatless EP · heated EP	$$$	1 / 5 · VAN AIR ONLY

Reading the brand bench column — the bar shows how many of SPC's tier slots (Industry Leader · Emerging · Economical · adjacent) carry an option at that product type. A deep bench means a price-driven and a spec-driven option both close cleanly; a narrow bench means the available brands map closely to the technical requirements and the comparison stops being a tier choice.