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
Composite PTC THE WORKHORSE · VACUUM TO ~150 PSI · DEEPEST STOCK	**The default for general plant air.** General industrial work, MRO replacement, machine air drops across the vacuum-to-150-PSI band. The highest-volume fitting in any pneumatic plant and the deepest line a distributor stocks: hundreds of SKUs once every configuration crosses every tube size and thread type.	BODY LIMITS CAP THE ENVELOPE Composite is unaffected by normal plant moisture and mild chemistry, but oils, solvents, sustained heat, and aggressive atmospheres push the spec to brass, stainless, or NSF. Cheap collets creep under vibration; premium lines use a stainless grab-ring for that reason.	4-16 mm metric · 1/4"-1/2" inch NPT · BSPT · BSPP · Metric	$	1 / 5 · SANG-A FACTORY PARTNER
Technopolymer PTC EUROPEAN SYSTEM FAMILY · ATEX OPTION · ~218 PSI	**Single-brand machine builds + hazardous-location duty.** Whole-machine standardization on a European pneumatic system (fittings + valves + cylinders + FRL from one brand), and ATEX-certified configurations for hazardous-classified areas: oil & gas, chemical, grain, mining where the area classification governs every component.	BRAND-LOCKED OR CERTIFICATION-DRIVEN Selected for one of two reasons: system-family compatibility or ATEX certification: not as a general substitute for composite. Composite PTC is the broader-coverage, lower-cost choice when neither driver applies.	4-16 mm metric typical SS grab-ring · technopolymer body · ATEX variant	$$	1 / 5 · AIGNEP ONLY
Metallic / Brass Fitting NICKEL-PLATED BRASS · PUSH-TO-CONNECT · ~230 PSI	**When composite runs out of headroom.** Higher-pressure machine air, oily environments, hot zones, and mechanically harsh service where composite is the wrong material but full stainless is overkill. Plated brass is the step-up that keeps push-to-connect convenience.	PREMIUM OVER COMPOSITE Several times the cost of an equivalent composite fitting. Plain brass corrodes in humid or chemical environments: nickel plating is the durability spec, not an aesthetic upgrade. A fully-metallic body with no polymer release sleeve is a separate made-to-order construction, not this type.	4-16 mm metric · 1/4"-1/2" inch NPT · BSPT · BSPP · Metric threads	$$	3 / 5 · SANG-A + AIGNEP + ALKON

Stainless Steel PTC 316L STAINLESS · ~290 PSI · -15°C TO +200°C	**Pharma, semiconductor, dairy, marine.** Pharmaceutical and semiconductor machine builds, dairy and wet-zone food processing, marine and offshore equipment, chemical-process lines, high-purity instrumentation. Anywhere the audit demands stainless materials or composite/brass aren't acceptable.	TOP TIER · TOP PRICE Premium over every other PTC tier. Stainless or hard tubing generally requires a stainless or compression fitting: a standard composite PTC will not reliably seal hard tube. Off-the-shelf line is narrower than composite; project-driven sourcing on uncommon configurations.	Metric + inch OD 316L body · collet · grab-ring · FKM seals	$$$	1 / 5 · AIGNEP ONLY
NSF Food-Grade PTC LEAD-FREE BRASS + FOOD-GRADE FKM · NSF/ANSI 169	**Food and beverage audit zones, short of full washdown.** Food and beverage plants that need to pass audit on pneumatic connections without stepping all the way to stainless. NSF/ANSI 169 certified for food equipment, often plus 61, 372, and EU food-contact: the right tier for food-adjacent and packaging-line air systems.	PAIR WITH CERTIFIED TUBE, OR THE CONNECTION ISN'T COMPLIANT A certified fitting on a non-food-grade tube does not give a compliant connection: spec the matching certified tube. True wet, washdown, and direct dairy-contact zones step up to full stainless, not NSF brass.	Vacuum to ~150 PSI · metric + inch OD Lead-free brass · food-grade FKM · SS grip ring	$$	1 / 5 · AIGNEP 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. Push-to-connect is the deepest brand cell in the Pneumatic Automation system, but the depth lives at the product-type level : most individual PTs run 1-3 brands deep because the specs are narrow (one Aignep here, one Alkon there). Sang-A is the anchor brand: 20+ years as SPC's Factory Partner pneumatic connection brand, deepest stock positions in the building on composite and brass PTC. Cross-listings to Aignep and Alkon cover the stainless, technopolymer, and NSF spec-driven edges Sang-A doesn't carry.