The 3 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
Speed Controller CYLINDER-PORT MOUNT · METER-OUT (DEFAULT) OR METER-IN	**Two per double-acting cylinder, non-negotiable.** Every double-acting cylinder on every machine. Meter-out throttle points away from the cylinder, restricting exhaust while supply flows free: gives smooth, load-stable motion across the stroke. Meter-in only for single-acting (spring-return) or constant-load cases. Threads directly into the cylinder port.	PRESSURE-THROTTLING IS THE WRONG FIX Reducing regulator pressure to slow a cylinder cuts force, not speed: cylinder stalls under load and creeps when load drops. Speed = flow at exhaust, not pressure at supply. Meter-in on a double-acting cylinder produces lurching, load-dependent motion.	4 – 16 mm · 1/4" – 1/2" tube male connector · elbow · panel mount	$	1 / 5 · SANG-A ONLY
Flow Control Valve INLINE NEEDLE VALVE · BI-DIRECTIONAL METERING · NO CHECK	**Line balancing, pilot throttling, sub-circuit trim.** Balancing two parallel branches drawing from one supply. Slowing a pilot signal so a sequenced motion doesn't fire early. Trimming the feed to a low-demand sub-circuit. The right tool for general line metering: NOT for cylinder speed (that's a speed controller).	~1/3 OF RFQS ARE ACTUALLY SPEED CONTROLLERS Customers ask for "a flow control" when they mean a speed controller. The distinction is the integral check: speed controller meters one direction and free-flows the other (what cylinder speed needs); flow control meters both equally (what lines need). Pivot the quote when the application is a cylinder.	4 – 16 mm · 1/4" – 1/2" tube inline · knurled-knob adjustment	$	1 / 5 · SANG-A ONLY
Check Valve ONE-WAY FUNCTIONAL FITTING · LOAD HOLD, BACKFLOW, LOGIC	**Load-holding on every cylinder that holds a load.** Two pilot-operated check valves at every lift, clamp, and indexing cylinder: traps air on both sides of the piston if supply pressure is lost, locks the rod where it was. Standard inline checks on shared-supply branches prevent backflow causing unintended motion on adjacent cylinders.	PILOT PLUMBING DIRECTION MATTERS Pilot-operated check valves at cylinder ports; pilot line connects to the OPPOSITE cylinder chamber so the check releases on the commanded stroke. Wrong-direction install means the check never releases and the cylinder locks. Arrow on body indicates flow direction; reversed install is the #1 field miss.	4 – 16 mm · 1/4" – 1/2" tube inline · elbow · push-to-connect bodies	$	1 / 5 · SANG-A 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. Sang-A owns the functional-fitting half of Motion Control: check valve, flow control, speed controller: at the per-cylinder volumes the customer actually consumes; a narrow bench here means the comparison stops being a tier choice and becomes a single trusted source priced for consumable volume.