



WHAT DO THEY DO?

Air prep components condition and control compressed air before it reaches pneumatic equipment, improving reliability and system life. They remove contaminants, adjust pressure, add lubrication, and monitor performance.

Core Components

- **Air Filters:** Trap dust, rust, and other particles to protect valves and cylinders from premature damage and operational issues. Select models use coalescing filters to remove water and oil particles, or a carbon filter to remove odors.
- **Pressure Regulators:** Maintain consistent air pressure regardless of supply fluctuations, protecting sensitive tools and processes.
- **Air Lubricators:** Introduce controlled oil mist into the airstream to reduce friction and wear in moving pneumatic components.
- **Precision Regulators:** Offer highly accurate pressure control for demanding applications such as instrumentation or material handling.
- **Filter/Regulators:** Combines particulate/moisture removal and control of downstream pressure into a common body to save space and simplify installation.

Topics

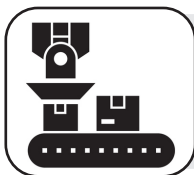
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- **Combination Units:** Integrate filtering, regulation, and lubrication in a compact assembly, minimizing installation space and simplifying maintenance.
- **Pressure Gauges:** Provide quick visual feedback on system pressure to aid setup, monitoring, and troubleshooting.
- **Digital Pressure Gauges:** Deliver clear, accurate readings with added features like peak capture and easy unit conversion.
- **Differential Pressure Gauges:** Monitor filter condition by measuring pressure drop, helping schedule timely replacements and avoid clogs.
- **Pressure Switches:** Trigger electrical signals at set pressures to coordinate machine functions or signal abnormal conditions.

Selecting the right air prep components ensures clean, dry, properly regulated air for any pneumatic system. Proper preparation reduces downtime, extends equipment life, and supports consistent performance in demanding environments.

APPLICATIONS

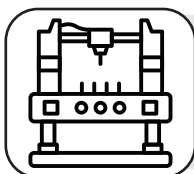
Air preparation components are essential for maintaining clean, regulated, and properly lubricated compressed air in industrial automation systems. Correct application safeguards equipment, improves efficiency, and extends component service life.



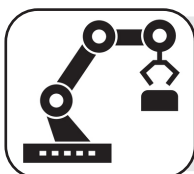
Assembly Lines: Air prep ensures pneumatic tools receive clean, dry air at stable pressure. This prevents inconsistent operation and reduces downtime caused by premature wear or contamination.



Packaging Equipment: Filter/regulator units maintain uniform airflow for actuators and cylinders. Stable pressure and contaminant removal prevent misalignment and improve sealing in automated packaging lines.



CNC Machining: Lubricators and precision regulators protect pneumatic components in high-speed tool changers. Clean, well-controlled air flow enhances accuracy and reliability under continuous operation.



Material Handling: Combination air prep units provide filtration, regulation, and lubrication. This maintains optimal cylinder performance for conveyors, lifts, and sorters with minimal maintenance interruptions.



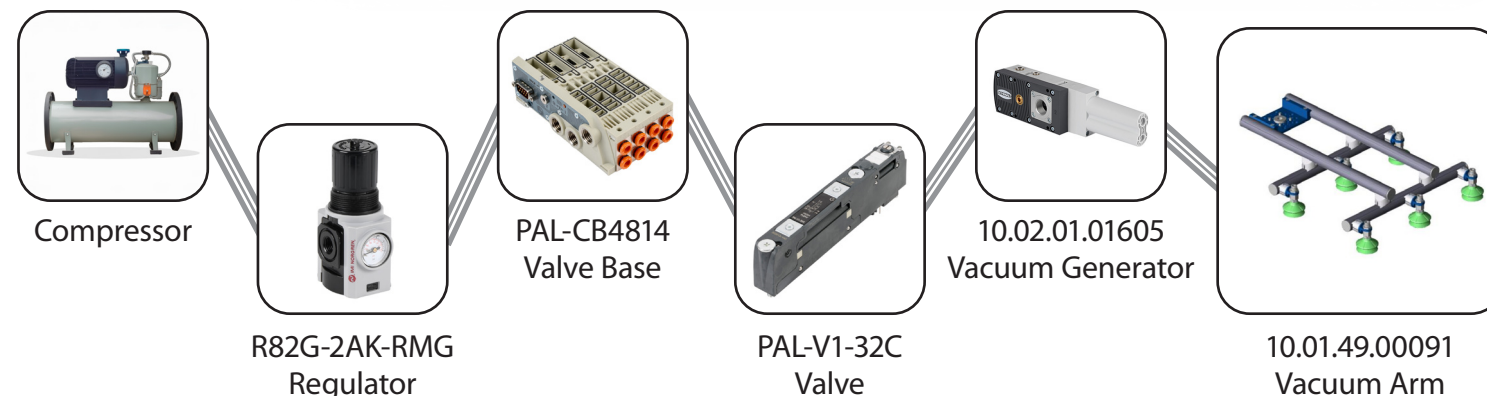
Fluid Dispensing: Precision regulators and filters ensure consistent flow rates in pneumatic-driven pumps. Clean, dry air prevents clogging and maintains accurate dispensing for adhesives, sealants, and coatings.



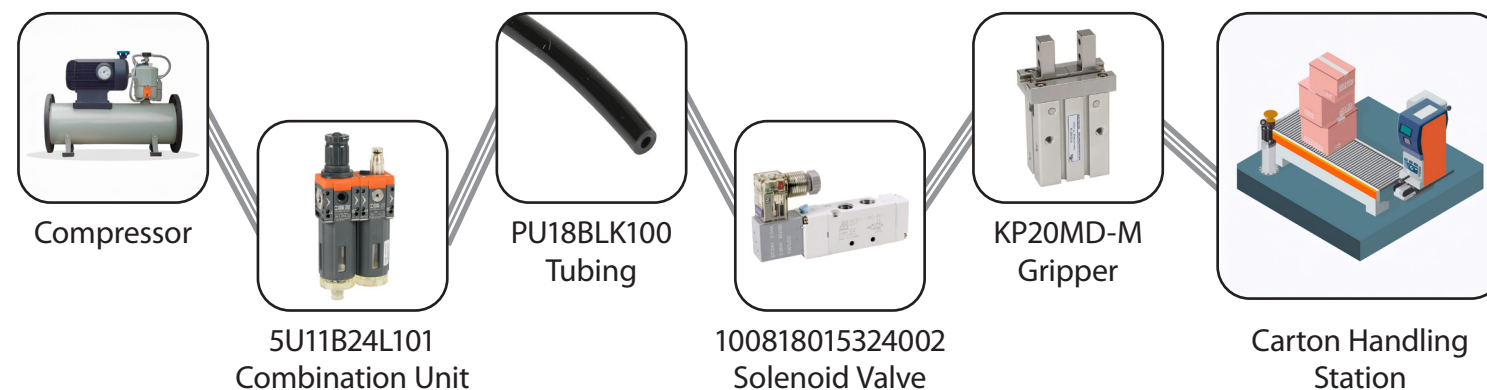
Machine Safety: Combination air prep units supply conditioned air to safety clamps and pneumatic locks. Reliable pressure control ensures consistent holding force and dependable operation during automated cycles.

APPLICATIONS: EXAMPLES

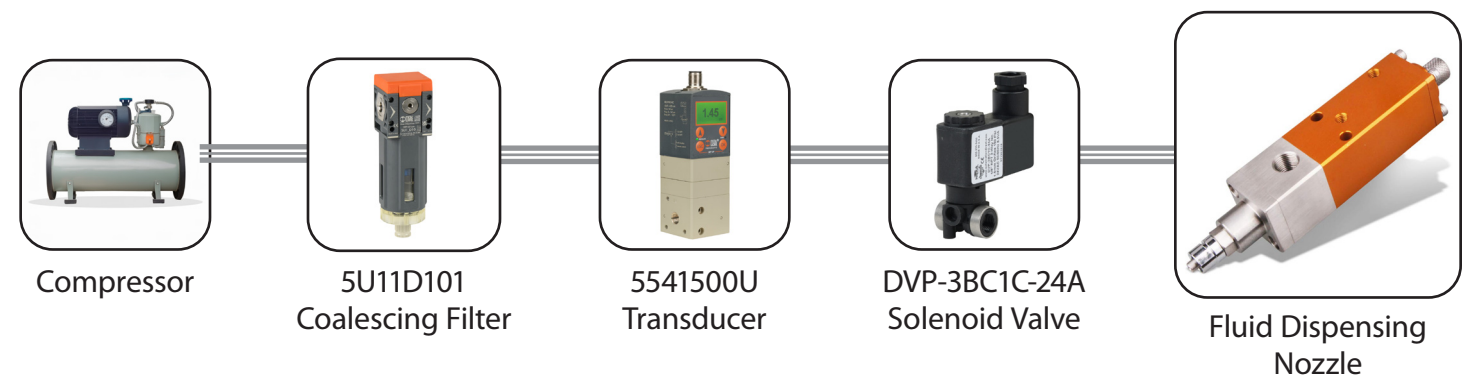
• **Robotic Pick-and-Place System:** Precision air regulators maintain stable vacuum pressure for robotic pick-and-place systems, ensuring consistent grip on delicate products and reducing handling errors in high-speed automation.



• **Automated Packaging Line:** Combination filter/regulator units deliver clean, dry air at controlled pressure for packaging actuators, minimizing contamination and wear while keeping high-speed carton handling equipment running reliably.



• **Precision Fluid Dispensing:** Coalescing filters remove oil and moisture from compressed air to protect precision dispensing valves, ensuring accurate dosing and preventing costly downtime in critical fluid control applications.



HOW TO CHOOSE

Selecting the right air prep equipment requires balancing application demands, air quality needs, and component integration. Industrial automation professionals should match specifications to operating pressure, flow, and environmental factors for reliable system performance.



- 1. Application Type:** Determine if your system requires filtration, pressure regulation, lubrication, or a complete air prep assembly to select the right solution.
- 2. Air Quality Needs:** Choose particulate, coalescing, or activated carbon filters based on contamination risks such as dirt, oil, or vapor in your compressed air supply.
- 3. Pressure Regulation:** Match regulator type, standard or precision, to the level of accuracy required for your downstream equipment.
- 4. Lubrication Requirement:** Identify if older pneumatic tools or rotary actuators need inline lubrication before adding a lubricator to your air prep system.
- 5. Combination Units:** Consider integrated filter/regulator (FR) or total air prep assemblies to save space and simplify installation.
- 6. Soft-Start Capability:** Select soft-start valves for applications where gradual pressure ramp-up is critical for safety and equipment protection.
- 7. Lockout/Isolation:** Include manual shut-off or lockout valves for systems requiring OSHA-compliant energy isolation during maintenance.
- 8. Pressure Monitoring:** Add modular pressure switches if your process needs real-time pressure feedback for control or safety interlocks.

- 9. Flow Capacity:** Verify that air prep components can handle the required flow rate for all connected actuators and valves without excessive pressure drop.
- 10. Mounting Method:** Choose between panel-mounted, inline, or modular assemblies based on available space and accessibility for service.
- 11. Operating Pressure Range:** Ensure regulators and filters are rated for your system's maximum pressure to prevent failure or leakage.
- 12. Environmental Conditions:** Confirm materials and seals can withstand temperature extremes, humidity, or exposure to chemicals in your facility.
- 13. Maintenance Access:** Select designs with easy-to-remove bowls and elements for quick cleaning and replacement to minimize downtime.
- 14. Connection Type:** Match ports and fittings to your tubing size and thread standard (NPT, BSPT, or metric) for leak-free installation.
- 15. Cost vs. Integration:** Balance budget with performance by considering modular systems like total air prep units for streamlined assembly and reduced labor costs.

MAINTENANCE AND SERVICE LIFE

Proper upkeep of air prep equipment ensures reliable operation, consistent air quality, and extended service life. Matching replacement parts to specific models avoids downtime and maintains factory performance.



Combination Units

Inspect filters, regulators, and lubricators regularly for wear or contamination; replace elements and seals per manufacturer intervals to maintain high system efficiency.



Air Filters

Change filter elements when differential pressure rises; this minimizes energy loss and protects pneumatic components from particulates and moisture.



Pressure Regulators

Verify pressure setpoints and seals; replace worn diaphragms or springs to retain precise control in demanding applications.



Lubricators

Refill reservoirs with correct oil grade; inspect drip mechanisms for blockages and clean bowls to preserve component lubrication and prevent excessive wear.



Distribution Blocks

Inspect ports, fittings, and seals for leaks or looseness; retighten connections and replace worn seals to maintain consistent airflow and prevent pressure losses across multiple pneumatic circuits.



Precision Devices

For precision regulators or filter/regulators, monitor performance drift; change fine filter media and recalibrate controls for optimum accuracy over time.

PRODUCT CATEGORY OVERVIEW

Get the right air prep solution the first time. Quickly compare filtration, pressure control, and lubrication options to match your application and keep your pneumatic system operating reliably.

Category	What it does	When to Choose This	Typical Applications	Key Selection Types
Combination Air Prep Units	All-in-one units that filter, regulate pressure, and often lubricate air in a single package	You want the simplest, fastest way to get clean, controlled air with minimal setup	Machines, production cells, general factory equipment	Pre-assembled FRL units, all-in-one "total air prep" systems
Filter / Regulators	Combines air filtration and pressure control in one compact unit	You need both clean air and consistent pressure but don't need lubrication	Workstations, individual machines, mid-level air prep upgrades	Combination filter/regulator units with different pressure ranges
Air Filters	Removes dirt, moisture, and oil from compressed air	Start here if air quality is your main concern or you already have pressure control	Any pneumatic system, especially where contamination causes wear or failure	Particulate filters, coalescing filters (oil/water removal), multi-stage filtration
Air Regulators	Maintains steady, adjustable air pressure for equipment	Choose when pressure stability matters more than filtration	Machines requiring consistent force/speed, downstream components	General-purpose regulators with adjustable ranges
Air Lubricators	Adds a controlled mist of oil to the air stream to reduce wear	Needed when pneumatic tools/components require lubrication for long life	Air tools, cylinders, legacy systems that require oil	Inline lubricators, adjustable oil feed types
Control Valves	Starts, stops, or safely dumps compressed air to protect systems	When you need controlled startup/shutdown or safety air isolation	Machine safety circuits, maintenance shutoff points	Soft start/dump valves, shutoff valves
Air Prep Pressure Switches	Monitors air pressure and signals when it reaches set levels	You want alerts or automation based on air pressure changes	System monitoring, alarms, machine interlocks	Adjustable pressure switch styles
Air Prep Distribution Blocks	Splits one air supply into multiple outlets	When multiple devices need air from a single source	Multi-tool stations, machine distribution points	Multi-port manifolds and distribution blocks
Pressure Gauges	Displays system air pressure for quick visual monitoring	Add wherever operators or maintenance need to see pressure	Panels, regulators, air lines across the system	Analog gauges with various ranges and mounting styles
Precision Regulators	Provides highly accurate and stable pressure control	When exact pressure is critical for performance or measurement	Instrumentation, testing, sensitive processes	High-accuracy, low-drift regulators
Precision Filter / Regulators	Combines fine filtration with precise pressure control	For clean, stable air in sensitive or high-performance systems	Labs, instrumentation, high-quality manufacturing	High-precision combo units with fine filtration

PRODUCT LINEUP



COMBINATION UNITS

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
Metal Work Syntesi Combination Assemblies	Scalable machines and systems that may grow or change	Modular design, multiple configurations, supports different machine sizes	Flexible system design that grows with your application	\$-\$\$
Metal Work BIT Series Filter-Regulator-Lubricators	Compact machines and tight panel spaces	Small footprint, lightweight, pre-assembled, basic filtration/regulation/lube	Easy, space-saving all-in-one solution	\$\$
Norgren Excelon Plus Filter-Regulator-Lubricators	Industrial systems needing durability and safety	Robust build, integrated shutoff, consistent air quality	Reliable performance in demanding environments	\$\$\$
NITRA Total Air Prep (TAP) Units	OEMs and fast machine builds	Fully integrated unit with shutoff, filter, regulator, dump valve	Fastest installation with minimal design effort	\$\$\$

METAL WORK SYNTESI COMBINATION ASSEMBLIES STARTING AT \$54.00

Syntesi combination units are factory-assembled from a modular air prep platform, offering scalable performance and configuration flexibility while reducing assembly time. Models available include manual shut-off with filter/regulator and lubricator, filter/regulator with lubricator, filter with lubricator, and filter with coalescing filter assemblies.

- Modular architecture supports consistent system design across multiple machine sizes
- Ideal for applications where expansion or reconfiguration may be required
- Clear, guarded bowls and accessible service points simplify maintenance
- Size 1 units serve compact and mid-range machinery with 1/8 in to 3/8 in NPT ports and 217 psi max inlet pressure
- Size 2 units scale flow and durability with 3/8 in to 1 in NPT ports for heavier-duty systems



METAL WORK BIT SERIES FILTER-REGULATOR-LUBRICATORS STARTING AT \$74.00

BIT series filter-regulator-lubricators combine air filtration, pressure regulation, and lubrication in compact, pre-assembled units designed to simplify air prep while delivering dependable performance at an excellent value.

- Compact, lightweight design fits easily in tight panels and machine spaces
- Durable technopolymer bodies with corrosion-resistant internal components
- Replaceable 20-micron filter element standard; optional 5- and 50-micron elements available
- Multiple pressure setpoint ranges up to 180 psig, supporting 188 psi max inlet pressure
- Clear bowls allow quick visual inspection of filter condition and oil level
- 1/8 in to 1/4 in NPT ports cover common low-flow pneumatic connections



NORGREN EXCELON PLUS FILTER-REGULATOR-LUBRICATORS STARTING AT \$194.00

Excelon Plus combination units deliver premium air prep performance with a strong emphasis on safety, serviceability, and consistent air quality.

- Designed to match compact size with industrial durability
- Series 82 supports machine-level systems with 1/4 in to 3/8 in NPT ports and 4–58 or 4–145 psi regulation range options
- Series 84 increases flow capacity with 3/8 in to 3/4 in NPT ports for higher-demand applications
- Integrated manual shut-off and safety bowl-locking features enhance operator protection
- Well suited for industrial equipment requiring repeatable performance and defined air quality

NITRA TOTAL AIR PREP (TAP) UNITS STARTING AT \$232.00

NITRA TAP units consolidate multiple air prep functions into a single, high-flow assembly designed to minimize installation time and eliminate component selection complexity.

- All-in-one design combines filter, relieving regulator, gauge, lockable shut-off, and dump valve
- Standard 1/2 in NPT inlet/outlet with interchangeable inserts supporting 1/4 in to 1 in NPT or BSPP connections
- Adjustable pressure range of 7–116 psi covers common machine-level requirements
- Electric models add soft-start and pressure switch functionality in the same compact housing
- Ideal for OEMs and machine builders seeking fast, repeatable, error-resistant installation



FILTER / REGULATORS

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
Metal Work BIT Series Filter/Regulators	Simple, low-flow point-of-use applications	Compact, basic filtration + pressure control	Affordable, no-frills solution	\$
Metal Work Syntesi Series Filter/Regulators	Standard platforms across multiple machines	Modular, scalable sizing, interchangeable components	Consistency across designs and easier expansion	\$\$-\$\$
Norgren Excelon Plus Filter/Regulators	Industrial environments requiring stable pressure	Durable, lockable adjustment, integrated gauge options	Reliable, repeatable performance	\$\$-\$\$\$

METAL WORK BIT SERIES FILTER/REGULATORS STARTING AT \$36.50

Compact filter/regulators are designed for straightforward, value-focused air preparation. The BIT series delivers reliable filtration and pressure control for point-of-use pneumatic systems where simplicity, space efficiency, and ease of installation matter most.

- Compact filter-regulators designed for low-flow pneumatic circuits
- 1/8 in and 1/4 in NPT port sizes fit common machine connections
- Multiple pressure ranges available up to 180 max psi
- Cost-effective solution for localized air prep needs



PRECISION FILTER / REGULATORS

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
NITRA Precision Filter/Regulators	Instrument air and sensitive processes	Fine filtration + accurate pressure control	Clean, stable air in one compact unit	\$\$



NITRA PRECISION FILTER/REGULATORS STARTING AT \$66.00

NITRA precision filter/regulators combine accurate pressure control with high-quality air filtration, delivering clean, stable instrument air in a single compact assembly.

- Die-cast aluminum body with durable internal components
- Models available with 1/4 in or 1/2 in NPT ports
- Standard 40-micron filter; optional 5-micron element available
- Dual gauge ports support flexible system layout
- Multiple pressure ranges available up to 120 max psi
- Manual drain design
- Pipe, bracket, or through-body mounting options
- Made in the USA

METAL WORK SYNTESI SERIES FILTER/REGULATORS STARTING AT \$40.00

Modular filter/regulators are engineered for scalable industrial air prep. The Syntesi series supports consistent system design while allowing performance to grow across multiple machine sizes and application demands.

- Modular filter-regulators integrate directly into Size 1: 1/8 in to 3/8 in NPT ports with 217 psi max inlet pressure
- Size 2: 3/8 in to 1 in NPT ports for higher-flow systems
- Interchangeable springs allow pressure range changes without replacing the unit
- Supports scalable machine designs with consistent component selection



NORGREN EXCELON PLUS FILTER/REGULATORS STARTING AT \$70.00

The Excelon Plus 82 and 84 series filter-regulators combine all the features of general purpose air filters and regulators, including built-in padlock feature, in-bowl filtration cartridge removal, and bowl double safety lock.

- Engineered filter-regulators with lockable adjustment and integrated gauge options
- Series 82: 1/4 in to 3/8 in NPT, 4–58 or 4–145 psi ranges
- Series 84: 3/8 in to 3/4 in NPT, 4–145 psi range
- Designed for industrial environments requiring stable, repeatable pressure control



FILTERS

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
Metal Work BIT Series Filters	Compact systems needing basic air cleaning	Small size, particulate & coalescing options	Cost-effective protection for components	\$
Metal Work Syntesi Series Filters	Modular systems needing scalable filtration	Multiple sizes, integrates into assemblies	Flexible system integration	\$-\$\$
Norgren Excelon Plus Filters	High-quality or critical air applications	High-efficiency filtration, water & oil removal options	Premium air quality and system protection	\$-\$\$\$



METAL WORK BIT SERIES FILTERS STARTING AT \$20.50

BIT series filters and coalescing filters provide dependable air quality protection in compact, lightweight packages, helping extend component life and system reliability while delivering strong value and easy maintenance for industrial pneumatic systems.

- Compact particulate and coalescing filters for localized air cleaning
- 20-micron element standard; 5- and 50-micron options available
- Manual and semi-automatic drain options support basic maintenance needs
- 1/8 in and 1/4 in NPT port sizes

METAL WORK SYNTESI SERIES FILTERS STARTING AT \$24.00

Metal Work Syntesi particulate filters provide particulate and moisture removal; coalescing filters provide oil mist removal. These compact filters are an exceptional value.

- Modular filters available in multiple body sizes and filtration levels
- Size 1: 1/8 in to 3/8 in NPT ports for machine-level filtration
- Size 2: 3/8 in to 1 in NPT ports for higher-flow applications
- Particulate options down to 5 micron and coalescing filtration to 0.01 micron
- Designed for seamless integration with full air prep assemblies



NORGREN EXCELON PLUS FILTERS STARTING AT \$36.00

Excelon Plus 82 and 84 series general purpose air filters offer supreme particulate removal with water extraction levels greater than 95%. Coalescing filters remove oil and carbon filters remove oil vapor (odor) from the compressed air supply. When used together, these filters deliver air at purity class 0 according to ISO 8573-1, making any compressed air system suitable for use in the most critical industrial applications.

- High-performance filters focused on air quality and service safety
- Series 82: 1/4 in to 3/8 in NPT ports for compact systems
- Series 84: 3/8 in to 3/4 in NPT ports for higher-flow installations
- 40-micron particulate filtration standard; 5-micron, coalescing, and vapor removal options available



REGULATORS

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
Metal Work BIT Series Regulators	Small machines or budget-conscious builds	Compact, lightweight, basic pressure control	Simple and economical	\$
Metal Work Syntesi Series Regulators	Modular systems with changing requirements	Scalable design, interchangeable pressure ranges	Flexibility without redesign	\$\$
Norgren Excelon Plus Regulators	Demanding industrial applications	Stable pressure, lockable adjustments, durable design	Consistent performance and reliability	\$\$-\$\$\$



METAL WORK BIT SERIES REGULATORS STARTING AT \$22.00

BIT series regulators deliver reliable pressure control in a compact, lightweight package, making them an easy choice for space-constrained machines and cost-conscious industrial air systems.

- Compact regulators for basic pressure control
- Pressure ranges up to 180 psi
- 1/8 in and 1/4 in NPT port sizes
- Ideal for small machines and OEM equipment

METAL WORK SYNTESI SERIES REGULATORS STARTING AT \$29.00

Low-cost Metal Work Syntesi air regulators provide reliable pressure adjustment and are lockable using an optional padlock to prevent unintentional changes in system pressure.

- Modular regulators designed for flexibility and scalability
- Size 1: 1/8 in to 3/8 in NPT ports
- Size 2: 3/8 in to 1 in NPT ports
- Interchangeable springs support 0–30, 0–60, 0–120, and 0–180 psi ranges
- Lockable adjustment options enhance setpoint security



NORGREN EXCELON PLUS REGULATORS STARTING AT \$47.50

Excelon Plus regulators deliver precise, stable pressure control with built-in safeguards to maintain setpoints in demanding industrial environments. Designed for reliability and safety, they support consistent performance across a wide range of pneumatic applications.

- Designed to handle high upstream pressures while maintaining accurate downstream regulation
- Series 82 supports compact and mid-flow systems with 1/4 in to 3/8 in NPT port sizes
- Series 84 scales performance for higher-flow applications with 3/8 in to 3/4 in NPT port sizes
- Available regulation ranges include low-range control and broader general-purpose ranges
- Lockable adjustment knob helps prevent unintended pressure changes during operation
- Integrated gauge options simplify setup and ongoing monitoring



LUBRICATORS

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
Metal Work BIT Series Lubricators	Compact systems needing basic lubrication	Small, lightweight, visible oil level	Easy addition of lubrication in tight spaces	\$
Metal Work Syntesi Series Lubricators	Scalable machine designs	Modular sizing, durable construction	Flexible fit across machine platforms	\$\$
Norgren Excelon Plus Lubricators	Complex or high-speed pneumatic systems	Advanced micro-mist technology	Efficient lubrication across long air paths	\$\$-\$\$\$

METAL WORK BIT SERIES LUBRICATORS

STARTING AT \$28.50

BIT series lubricators provide controlled oil delivery in a compact, easy-to-integrate design, helping extend the life of downstream pneumatic components while maintaining consistent system performance.

- Compact, lightweight design ideal for space-limited panels and machine-mounted air prep
- Transparent dome makes oil drip rate and fill level easy to monitor at a glance
- Durable technopolymer construction balances corrosion resistance and long service life
- 1/8" to 1/4" NPT port sizes to support common pneumatic system layouts
- Rated for up to 188 psi max input pressure to meet typical industrial air system demands
- Compatible with recommended ISO and UNI FD22 oils for reliable lubrication performance



METAL WORK SYNTESI SERIES LUBRICATORS

STARTING AT \$30.00

An exceptional value for any system, Metal Work Syntesi air lubricators provide oil to downstream devices that require lubrication such as air tools.

- Modular lubricators designed to scale with system size
- Size 1: 1/8 in to 3/8 in NPT ports, and a maximum input pressure of 217 psi
- Size 2: 3/8 in to 1 in NPT ports, and a maximum input pressure of 188 psi
- Clear technopolymer bowl with guard

NORGREN EXCELON PLUS LUBRICATORS

STARTING AT \$62.00

Excelon Plus lubricators deliver precise, controlled lubrication using advanced micro-mist technology that carries oil efficiently through complex pneumatic systems. This design helps prevent over-lubrication while supporting reliable performance in fast-moving applications.

- Unique micro-mist fog generator creates 2 micron oil particles, suspended in airflow for consistent lubrication over long distances through complex pneumatic pathways
- Series 82 supports compact installations with 1/4 in to 3/8 in NPT port sizes
- Series 84 scales lubrication capacity with 3/8 in to 3/4 in NPT port sizes
- Available with die-cast zinc or guarded polycarbonate bowl depending on configuration



PRECISION REGULATORS

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
NITRA BR Series Precision Regulators	General instrument air applications	Compact, durable, stable control	Reliable accuracy for everyday precision needs	\$
NITRA ER Series Precision Regulators	Tight spaces requiring high accuracy	Ultra-compact, highly repeatable	Precision in space-limited designs	\$\$
NITRA CR Series Precision Regulators	High-flow systems needing stable control	Handles flow changes well, maintains consistency	Stable control under varying demand	\$\$
NITRA DR Series Precision Regulators	Ultra-sensitive processes	Extremely fine pressure control	Best choice for critical precision applications	\$\$\$

NITRA BR SERIES PRECISION REGULATORS

STARTING AT \$59.00

BR series precision regulators deliver stable, accurate instrument air control in a compact, durable design. Built for industrial environments, they provide dependable regulation where consistent pressure and repeatability are critical.

- Designed for clean, accurate instrument air
- Die-cast aluminum body with epoxy finish for industrial durability
- Pressure ranges available: 0-30, 0-60, and 0-120 psi
- Available port sizes: 1/4 in and 1/2 in NPT
- High sensitivity with minimal supply pressure influence
- Pipe, bracket, or through-body mounting options
- Made in the USA



NITRA ER SERIES PRECISION REGULATORS

STARTING AT \$96.00

ER series miniature precision regulators deliver exceptional accuracy and repeatability in a compact footprint, making them ideal for space-constrained applications requiring exact pressure control.

- Ultra-compact design with force-balanced pilot control
- 1/8 in NPT size ports
- Dual gauge ports for flexible installation
- Pressure ranges support low-pressure and higher-pressure control
- Excellent repeatability with minimal drift over time
- High exhaust capacity for responsive regulation
- Pipe or bracket mounting options
- Made in the USA





NITRA CR SERIES PRECISION REGULATORS STARTING AT \$108.00

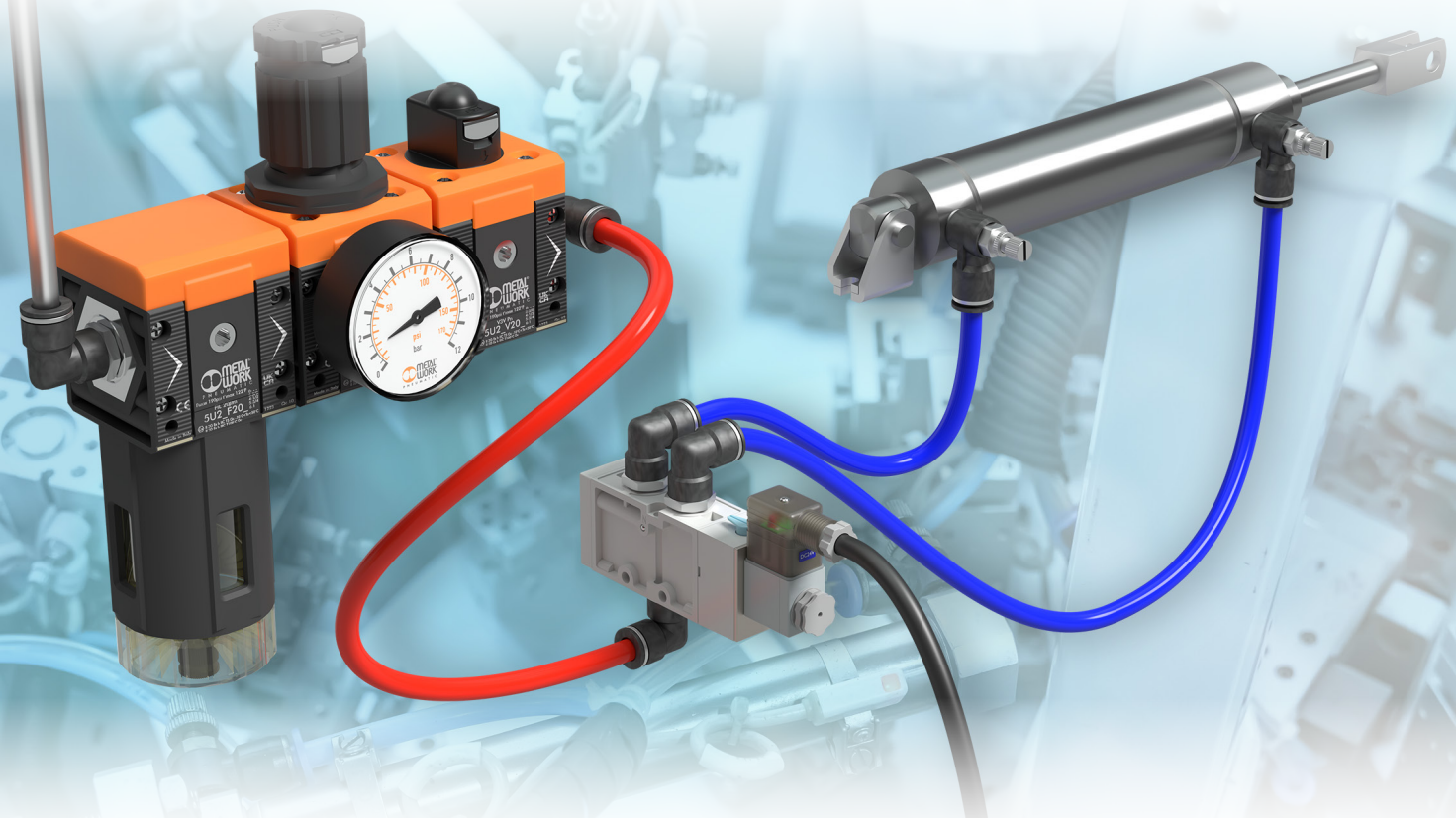
CR series precision regulators are engineered for high-flow applications requiring accurate and stable pressure control, even under wide supply pressure variations and changing flow demands.

- Designed for high flow and high relief capacity
- Balanced poppet valve with rolling diaphragm for stable output
- Port sizes: 1/4 in, 3/8 in, and 1/2 in NPT
- Pressure ranges available: low-pressure control and full-range regulation
- Maintains consistent output under fluctuating supply conditions
- High exhaust capacity supports fast pressure relief
- Pipe or bracket mounting options
- Made in the USA

NITRA DR SERIES PRECISION REGULATORS STARTING AT \$125.00

DR series precision regulators are ideal for processes requiring extremely fine pressure control, such as air gauging, calibration, fluid control, and web tensioning applications.

- Designed for precision regulation in pipes and vessels
- Die-cast zinc alloy body with industrial-grade internals
- Includes dual gauge ports for flexible monitoring
- Available port sizes: 1/4 in and 3/8 in NPT
- Very low sensitivity to supply pressure variation
- Pipe or bracket mounting options
- Made in the USA



CONTROL VALVES

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
Metal Work Syntesi Shut-Off Valves	General-purpose air isolation	Modular design, integrated exhaust	Simple, reliable system shutoff	\$
Norgren Excelon Plus Manual Shut-Off Relief Valves	Basic safety and maintenance isolation	Manual or electric options, pressure relief	Safe and simple air isolation	\$
Metal Work Syntesi Soft Start Valves	Protecting equipment during startup	Gradual pressure ramp-up, reduces shock	Extends component life	\$\$
Norgren Excelon Plus Soft Start/Dump Valves	Systems needing safety + controlled startup	Soft start + quick exhaust capability	Improved safety and controlled pressurization	\$\$\$

METAL WORK SYNTESI SHUT-OFF VALVES STARTING AT \$37.50

Syntesi shut-off valves provide safe air isolation with integrated downstream exhaust, helping protect equipment and personnel during maintenance and system shutdowns. Their modular design supports flexible machine-level and industrial air prep layouts.

- Available in manual twist-lock and solenoid-actuated versions
- 3-port, 2-position, normally closed valve design
- Manual version includes a lockable handle for added safety
- Port sizes from 1/8 in to 1 in NPT
- Rated for 217 psi max input pressure (188 psi for Size 2)
- Solenoid coils sold separately



NORGREN EXCELON PLUS MANUAL SHUT-OFF RELIEF VALVES STARTING AT \$46.50

Excelon Plus shut-off valves provide reliable air isolation and controlled exhaust to support safe operation and maintenance of pneumatic systems. Designed for industrial environments, they offer manual or electrically actuated options to match system control requirements.

- Designed to isolate upstream air supply and manage downstream pressure safely
- Available in both manual, lockable shut-off configurations, as well as solenoid actuated control valve configurations
- Automatically relieves downstream pressure when closed or de-energized
- Electrically actuated models operate on 24 VDC and include field-wireable DIN connectors
- Series 82 supports compact installations with NPT port sizes from 1/4 in to 3/8 in
- Series 84 scales flow capacity with NPT port sizes of 3/8 in, 1/2 in, and 3/4 in



METAL WORK SYNTESI SOFT START VALVES STARTING AT \$99.00

Syntesi soft start valves combine air isolation with controlled system pressurization, reducing startup shock and helping extend component life in pneumatic systems.

- Gradually increases downstream pressure during startup
- Adjustable pressure ramp-up speed
- Functions as a shut-off valve with soft-start capability
- 3-port, 2-position, normally closed configuration
- Body sizes 1 and 2 for machine-level and higher-flow systems
- Port sizes from 1/8 in to 1 in NPT
- Rated for 217 psi max input pressure (188 psi for Size 2)
- Solenoid coils sold separately





NORGREN EXCELON PLUS SOFT START/DUMP VALVES STARTING AT \$239.00

Excelon Plus soft start/dump valves control system pressurization and exhaust to improve machine safety and reduce startup shock. Integrated dump functionality allows rapid air release during power loss or emergency stops.

- Gradually ramps downstream pressure before fully opening air supply
- Series 82 port sizes: 1/4 in and 3/8 in NPT
- Series 84 port sizes: 3/8 in, 1/2 in, and 3/4 in NPT
- Electrically actuated using 24 VDC solenoid
- Rapid dump function exhausts air quickly when de-energized
- High-flow dump capacity supports larger pneumatic systems
- Includes field-wireable DIN connector

PRESSURE MONITORING

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
Metal Work Syntesi Pressure Gauges	Visual pressure monitoring	Mechanical, multiple sizes, easy mounting	Quick, reliable system visibility	\$

METAL WORK SYNTESI PRESSURE GAUGES STARTING AT \$8.50

Metal Work mechanical pressure gauges provide clear, reliable pressure indication for pneumatic systems. Designed for easy integration, they support accurate monitoring during setup, operation, and troubleshooting.

- Provides direct, mechanical pressure indication without electrical power
- Available in multiple dial sizes for readability in different installations
- Offered in low-range and higher-range pressure scales to match application needs
- Designed for panel or direct mounting on air prep components
- Process connections available in BSPP and BSPT thread styles
- Suitable for use with regulators, filter/regulators, and air prep assemblies



MORE PRESSURE SENSORS, TRANSMITTERS, AND GAUGES

Additional mechanical gauges, pressure switches, and electronic pressure sensors designed for air and inert gas applications are also available. [Click here to view our Pressure Sensors and Gauges Overview.](#)



PRESSURE SWITCHES

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
Metal Work Syntesi Pressure Switches	Monitoring pressure for control or alerts	Adjustable setpoints, modular integration	Simple system monitoring and feedback	\$\$

METAL WORK SYNTESI PRESSURE SWITCHES STARTING AT \$55.00

Syntesi pressure switches provide a simple, modular way to monitor air pressure conditions and signal system status for control, safety, or diagnostics applications.

- Detects high or low pressure conditions
- Adjustable pressure setpoint knob
- Provides normally open and normally closed complementary outputs
- Body sizes 1 and 2 integrate directly into Syntesi assemblies
- Port sizes from 1/8 in to 1 in NPT
- Rated for 217 psi max input pressure (188 psi for Size 2) with setpoint ranges from 7.5–145 psi
- Includes 2-meter, 3-wire cable
- Electrical rating: SPDT, 5A @ 250 VAC / 5A @ 30 VDC



DISTRIBUTION BLOCKS

Series Name	Best For	Key Attributes	Primary Benefit	Price Tier
Metal Work Distribution Blocks	Splitting air lines in compact layouts	Multiple outlets, modular mounting	Clean, organized air distribution	\$

METAL WORK DISTRIBUTION BLOCKS STARTING AT \$8.00

Metal Work air distribution blocks provide a compact, modular way to add multiple air outlets from a single supply point. Designed to simplify pneumatic layouts, they support clean system expansion for machine-level and industrial air prep applications.

- Designed for inline or modular integration within air prep assemblies
- Select models feature a through-port design for direct line mounting
- Supports compact layouts and space-constrained installations
- Inlets from 1/8 in to 1 in NPT
- Up to 3 takeoff outlets sized from 1/8 in to 1/2 in NPT
- Series-specific models are available for Metal Work Syntesi, and BIT series systems



AIR PREP ACCESSORIES

Air prep accessories provide components needed to complete an air prep assembly, including:

- Mounting brackets
- Filter elements
- Port adapters
- Drains
- Regulator springs
- Solenoid coils
- Connection hardware
- Miscellaneous replacement parts

