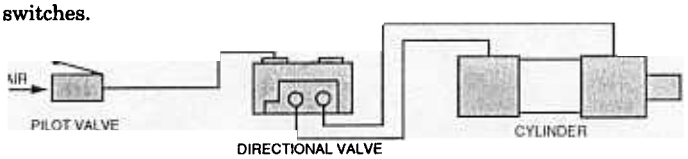
HELPFUL ANSWERS TO FREQUENTLY ASKED QUESTIONS

GENERAL INFORMATION; AIR CIRCUITRY

Question: What is a typical air circuit?

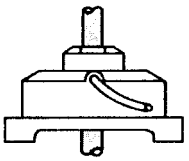
Answer: The simplest and most common air circuit consists of a double–acting cylinder which is controlled by a four-way directional valve. The directional valve is actuated by air pilot valves or electric switches.



GENERAL INFORMATION; COLLET FIXTURES

Question: Is there a way of firmly holding smooth round bars with an air powered device?

Answer: Use a Mead air collet fixture. See page 47 for details.



GENERAL INFORMATION; Cv FLOW FACTORS

See the "Valves; Cv" question on page 6.

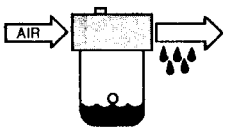
GENERAL INFORMATION; FILTER & LUBRICATOR MAINTENANCE

Question: How should a filter-lubricating system be maintained?

Answer: To get peak efficiency from your air powered components, clean, lubricated air is a must. See page 54 for ordering filters, regulators, and lubricators.

Once a filter and lubricator have been installed, they must be checked periodically. The filter must be drained of excess water and contaminants and the filter element checked to see that it is not clogged. If it is, the element should be removed and cleaned in a solvent.

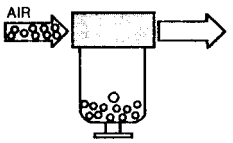
The lubricator should also be checked. Oil should be added and the lubricator adjusted so the right amount of lubricant is added to your system. For the recommended oil type, see the "Lubrication; Oil Recommendation" question, column two.



GENERAL INFORMATION; FILTRATION

Question: Should the air entering cylinders and valves be filtered?

Answer: The filtration of air entering air-driven devices will extend operating life by reducing the wear on seals and bearings. The 40 micron screen that is supplied with most filters is adequate for practically all air equipment. See page 54 for details.



GENERAL INFORMATION; FITTINGS, PUSH-IN

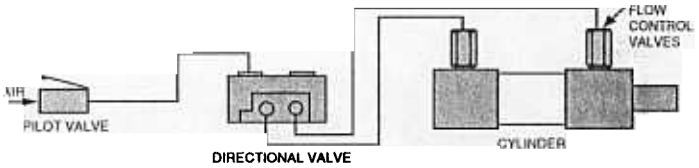
Question: What are the advantages of push-in fittings?

Answer: Push-in fittings allow tubing to be inserted and removed dozens of times without the use of a tool. This speeds up installation and facilitates trouble-shooting and circuit alterations. See pages 52-53 for details.

GENERAL INFORMATION; FUNCTION OF AIR DEVICES

Question: What is the general purpose of the products shown in this catalog?

Answer: Pneumatic products such as those provided in this catalog form the basis for low cost manufacturing automation. In fact, they might be described as the "Building Blocks of Automation".



Air cylinders provide a fast-moving linear force for operations such as parts feeding, holding, clamping, positioning, crimping, forming, swaging, and many other similar operations.

Directional air valves control the flow of air to cylinders and other air products.

Pilot valves and switches tell the directional valve when to shift.

There are many accessories such as flow control valves, timing valves, pulse valves, quick exhaust valves, fittings, tubing, silencers, and air line filters, regulators and lubricators that support the development of a comprehensive and complete air circuit.

GENERAL INFORMATION; HIGH TEMPERATURE OPERATIONS

Question: I have a cylinder application that will be used in a high temperature environment. What should I do to avoid complications?

Answer: The control valve powering the cylinder should be mounted as far away from the heat as possible. Temperatures exceeding 100° (212°F) can cause breakdown in Buna N seals, which are commonly used in most cylinders. Most of Mead's cylinder line may be supplied with Viton™ seals instead of Buna N. Viton™ seals are effective to 204°C (400°F) ™DuPont

GENERAL INFORMATION; LUBRICATION, OIL RECOMMENDATION

Question: What type of lubricating oil works best with air valves and cylinders?

Answer: SAE 10 weight non-detergent, non-additive oil is generally the best choice. See page 54 for information on air line lubricators.

GENERAL INFORMATION; NON-LUBRICATED AIR CIRCUIT

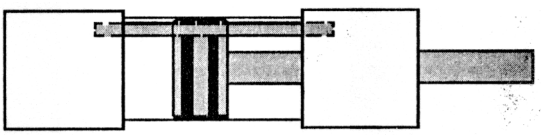
Question: Is it possible to build an air circuit using components that do not require lubrication?

Answer: Mead Micro-Line pilot valves (page 36-37) and Capsula (page 30-31) directional valves, and Centaur cylinders (page 22-23) will provide excellent service without lubrication.

GENERAL INFORMATION; PRESSES, NON-ROTATING

Question: How do I prevent the tooling attached to my air press rod from turning?

Answer: Order the press power cylinder with a non-rotating rod. See pages 13 and 48 for details.



CYLINDER WITH NON-ROTATING ROD

GENERAL INFORMATION; SOUND SUPPRESSION, SILENCERS

Question: How do I reduce the noise generated by air exhausting from a valve?

Answer: Use air silencers, shown on page 43.