

EMERGENCY COMPRESSED AIR PLANNER:

Your PRACTICAL GUIDE to maintaining compressed air operations.

If you plan ahead, your compressed air systems won't have to shut down because of a compressor failure or utility outage. With a solid contingency plan in place, you'll know what to do and whom to call to keep your air compressors up and running and your revenue stream flowing.

This Emergency Compressed Air Planner will help you and your team build a contingency plan. The checklist format will help you cover the key elements quickly and easily; an established supplier of rental air compressor equipment, supplies, and service will help you fill in the details.

Sooner or later a compressor will go down or your operation will require additional capacity. The time to plan for the inevitable is now.

Important Notice: Running mechanical equipment can be dangerous. Use qualified personnel to size and operate the equipment.

Step 1: CHOOSE YOUR AIR COMPRESSOR SUPPLIER. To implement a successful plan, look for a rental dealership that offers the following qualifications and capabilities:

- Well maintained and pre-tested equipment.
- Rental units in stock that suit your application requirements.
- Modern equipment meeting emissions standards, designed for rental use.
- Complete ancillary equipment in stock.
- Quick, efficient delivery and pickup to meet your time constraints.
- Complete fuel service.
- Spare parts inventory in stock.
- Staff qualified to deliver turnkey service and technical support.
- Experience in your industry.
- Capability to train your staff.
- Flexible financial options that include weekly and monthly rental contracts; rental purchase options.
- Pre-approved credit arrangements.
- 24-hour response including weekends and holidays.

Step 2: DETERMINE THE TYPE(S) OF AIR COMPRESSOR(S) YOU WILL NEED. Portable diesel units can keep you up and running. Once you have determined which air-operated equipment cannot be shut down, make sure you choose the same kind of air compressors you currently use, or units that are compatible with your applications. Planning considerations must include:

| TYPE | NUMBER/SIZE(S) OF UNIT(S) | TYPE | NUMBER/SIZE(S) OF UNIT(S) |
|--|---------------------------|--------------------------------------|---------------------------|
| <input type="checkbox"/> Rotary screw | ____ / _____ | <input type="checkbox"/> Rotary vane | ____ / _____ |
| <input type="checkbox"/> Reciprocating | ____ / _____ | <input type="checkbox"/> Centrifugal | ____ / _____ |

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Step 3: DETERMINE THE AIR QUALITY YOUR OPERATIONS REQUIRE. You will need to decide which type(s) of air compressors will provide the air quality that best suits your specific applications. For example: If oil-free compressors are currently installed at your facility, you might be able to use oil-flooded equipment that supplies oil-free air quality.

NUMBER/TYPE(S) & SIZE(S)

- Standard compressed air. General purpose, for construction and other non-critical applications.
- Instrument quality air. Free of oil aerosols, particulates and other contaminants larger than 0.01 microns. Ideal for instrumentation, process equipment, and other sophisticated industrial applications.
- Oil-free air. The purest quality, 100% free of oil contaminants. Ideal for food and beverage, pharmaceutical, chemical, textile, and electronics industries where purity is critical.

_____ / _____
_____ / _____
_____ / _____

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Step 4: SELECT APPROPRIATE AIR COMPRESSOR FEATURES. Choose from a variety of features to suit your specific equipment and application requirements, including:

- Auto start-stop. Automatically starts a rental unit if the primary air compressor goes down.
- Aftercoolers and filters. Provide instrument-quality air.
- Engine block heaters. To keep engine temperature constant for quick start-up.
- Cold weather starting aid. To ensure quick start-up.
- Cold weather shutter package. Lowers the low temperature capability of aftercooled compressors to -20°F.
- Fuel gauge. Simplifies monitoring of fuel levels.

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Step 5: DETERMINE IF DRYERS AND/OR AIR RECEIVER TANKS ARE REQUIRED. Dryers are used to remove moisture from the compressed air and receiver tanks to hold reserve pressure for use downstream in the air system.

DRYERS

Are dryers used in the primary air system? If yes, can they be transferred for use in the rental system? If dryer(s) must be rented, determine what size(s) will be needed according to compressor cfm:

AIR RECEIVER TANKS

Are air receiver tanks used in the primary system? If yes, can they be transferred to the rental system? If air receiver tank(s) must be rented, determine which industry standard size(s) will be needed:

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Step 6: DETERMINE THE SIZES REQUIRED FOR HOSES AND FITTINGS. Most compressors come with 2-inch or 3-inch outlets to accommodate standard 2- or 3-inch hoses, and must be bushed to fit. Fittings will also be needed to make hose-to-hose connections.

| HOSE SIZE | LENGTH/NUMBER OF LENGTHS NEEDED | | |
|--|---|---|--|
| <input type="checkbox"/> 2 in. diameter | <input type="checkbox"/> 25 ft. / _____ | <input type="checkbox"/> 50 ft. / _____ | <input type="checkbox"/> Other _____ / _____ |
| <input type="checkbox"/> 3 in. diameter | <input type="checkbox"/> 25 ft. / _____ | <input type="checkbox"/> 50 ft. / _____ | <input type="checkbox"/> Other _____ / _____ |
| FITTING TYPE | SIZE/NUMBER NEEDED | | |
| <input type="checkbox"/> Machine-to-hose or hose-to-facility | <input type="checkbox"/> 2 in. / _____ | <input type="checkbox"/> 3 in. / _____ | |
| <input type="checkbox"/> Hose-to-hose | <input type="checkbox"/> 2 in. / _____ | <input type="checkbox"/> 3 in. / _____ | |

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Step 7: PROVIDE FOR FUELING. A reliable fuel supply is essential for emergency operation. You should arrange for fuel service in advance, ideally through your rental equipment supplier, or through another source if necessary. Considerations include:

- Tank capacity. Determine the fuel consumption rate of the air compressor. The unit should be able to operate for at least eight hours between refuelings.
- Auxiliary fuel. Having an auxiliary fuel tank enables longer runs between refuelings.
- Delivery access. Make sure you can provide a clear and easily navigable access route for fuel delivery vehicles.
- Spill containment. Regulations typically require containment equal to the tank capacity.
- Credit approval. Prior credit approval from the fuel supplier is essential to keep emergency operations on track.

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Step 8: PLAN FOR DELIVERY AND OPERATION. There are a number of factors you will need to consider and discuss with your air compressor rental supplier, including:

- Approximate length of rental
- Environmentally sound location away from drains, work areas, and residences
- Location with adequate surrounding open space away from traffic, trees, and obstructions
- Level parking location
- Identification of connection points
- Designated access route for delivery
- Opening for hose access to the building
- Planned route for hose inside the building
- Security fencing

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Step 9: CONDUCT A DRY RUN. Practice makes perfect. Stage a drill in which your team and, ideally, your equipment supplier run through the plan step by step, just as if an emergency were really happening.

- Make sure that each person fully understands his or her role in the event of an actual outage.
- Time how long it takes to get the emergency air compressor(s) back on line after the system compressed air goes down.

Step 10: DESIGN

during
primary

Step 10: DESIGNATE EMERGENCY PERSONNEL. Make a list of the key emergency contacts who will be in charge during outages. Make this list accessible to your team members and keep it up-to-date. Be sure to include a primary contact and alternate for each of the following job functions:

- In-house operations and maintenance
 - Electric utility representative
 - Air compressor operation
 - IT, security, data recovery
 - Rental equipment representative
 - Systems engineer or contractor
 - Air compressor hookup
 - Fuel supplier

A FINAL WORD. We are a supplier of complete air compressor systems for planned shutdowns, auxiliary needs and emergency situations. Our engineers and field technicians are experienced in applications of every size, in every sector. We are prepared to answer your questions about contingency planning and to be your business partner any time you need a compressed air system backup.

Contact Wheeler Power Systems today for support on sizing, planning, and a facility walk through.

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