

WHAT TO LOOK FOR WHEN SELECTING A SERVICE PROVIDER

In selecting a service provider, a compressed air user should consider the following guidelines.

I. Familiarity with the Systems Approach

The Compressed Air Challenge® (CAC) provides Fundamentals of Compressed Air Systems and Advanced Management of Compressed Air Systems training to end users and service providers. One way to gauge a service provider's commitment to the systems approach is whether they have staff who have received CAC training. If they do, ask whether these individuals will be providing or supervising services for your facility. Providers who are familiar with using a systems approach are much more likely to address situations, both inside and outside the compressor room, that are having an effect on the reliability of your compressed air supply.

II. Availability of Compressed Air System Assessment Services

Does the provider offer compressed air system analysis services? If yes, how well do these services fit your needs? If no, can the provider outsource these services to an experienced system specialist? How experienced are the individuals who will be providing these services? Once a walk-through, assessment, or audit is performed, what kind of follow-up services are available to ensure that the recommendations are properly implemented and produce the desired results? Ask for a sample of similar work that the provider has done for others, resumés of the personnel who will be performing the work, and client references. Please note that while leak detection is a useful element of a system assessment, a true system assessment should include much more. See www.compressedairchallenge.org for additional guidance.

Important Note: recommendations resulting from system analysis activities should provide product-neutral solutions to system problems and include, only if needed, performance-based rather than brand-based equipment recommendations.

III. Compressor Knowledge and Expertise

Does the service provider have the expertise to work on your equipment? Can the service provider work on all types of compressors in your facility? How much experience do the service technicians have? How are the service technicians trained? Is formal schooling involved? Knowledgeable service technicians are worth the premium price they may demand

because of their ability to troubleshoot and get equipment back on line efficiently and effectively.

IV. System Components and Controls Knowledge and Expertise

Treatment, accessory, and ancillary equipment—Does the service provider have the expertise to perform refrigeration and other work on dryers and related equipment? Is the service provider capable of servicing the types of filters, drains, distribution and point of use equipment found in your facility?

System controls—Does the service provider have the diagnostic and technical controls capability to determine how to optimize your existing control configuration and make recommendations for improvements? Can they help network compressors together or remotely monitor, if necessary? Advanced controls can save energy and improve reliability through automatic start and stop, as well as turning compressors off that can then serve as back-ups. Advance warning through remote monitoring may help identify a problem before it turns into a major shutdown.

V. Company Capabilities

Ask about the standards of performance that the prospective service provider has established for:

- Emergency service response
- Parts shipments
- Other factors which may influence your decision, such as:
 - Installation capabilities internally or through a mechanical contractor
 - Emergency rental fleet availability—electric or portable diesel-driven
- Your company may request information on the service provider's
 - Financial stability
 - Insurance coverage
 - Compliance with specific government regulations or those of your company.

VI. Service Facilities

Visit the facilities of two or three service providers under consideration to see first hand the type of repair shop and parts warehouse with which you will be dealing.

COMPRESSED AIR CHALLENGE®

LEVELS OF ANALYSIS OF COMPRESSED AIR SYSTEMS

OVERVIEW

The Levels of Analysis of Compressed Air Systems listed below have been developed in an effort to provide commonality of terminology, methods, and procedures to be used by service providers and the results to be expected by end users. This overview is essentially brief. More detailed versions of these Levels of Analysis are under development, at this time, and will be available through the CAC Web site at www.compressedairchallenge.org.

Energy utilities are actively involved in these efforts and some provide incentives to use these analyses to improve the energy efficiency of compressed air systems.

Conducting a walk-through evaluation is the first step in analyzing a compressed air system. Depending on individual needs, this can be conducted either by plant personnel or by

an experienced compressed air system services provider. A walk-through evaluation is not intended to provide the level of detail found in a system assessment or a system audit but significant reductions in energy (25 percent or more) and lower maintenance costs frequently have resulted from a walk-through evaluation alone. Once initial opportunities have been identified, a decision should be made concerning whether additional analysis services are required to further define system dynamics and corresponding system improvement opportunities. This decision will depend, in part, on the size and complexity of the system being examined (both supply and demand) and whether critical issues surfaced during the Evaluation that require further investigation to understand the root cause and suggest potential remedies.

LEVELS OF ANALYSIS

Walk-through Evaluation (1/2 to 2 days)

A walk-through evaluation is an overview of a plant compressed air system by identifying the types, needs, and appropriateness of end uses, pressures and air quality requirements.

- The distribution system is analyzed for any apparent problems of size, pressure drops, storage, leaks, and drains.
- The supply side is analyzed for types of compressors, and the types, suitability and settings of capacity controls.
- A simple block diagram of the system is drawn.
- Maintenance procedures and training are also analyzed.
- Written report of findings and proposed solutions is submitted.
- Solution and product neutrality should be maintained with any recommendations.

System Assessment (2 to 5 days)

A system assessment is more detailed than a walk-through evaluation of a plant compressed air system.

- In addition to identifying the items and problems of the walk-through evaluation, readings are taken at appropriate locations to identify the dynamics of the system.
- A simple block diagram of the system is drawn, also a pressure profile and a demand profile, to help identify potential problems and how they could be resolved.
- Again, maintenance procedures and training are reviewed.
- A written report of findings and recommendations is submitted.
- Solution and product neutrality should be maintained with any recommendations.

System Audit (3 to 10 days)

A system audit is similar to a system assessment but in more depth and detail.

- Data logging of readings throughout the system is conducted for more in-depth analysis of the dynamics of the system and resulting problems.
- Again, maintenance procedures and training are reviewed.
- The objective is a proper alignment of the supply side and the demand side for optimum efficiency, energy savings, and reliability. A baseline is established, against which the results of any proposed changes are measured.
- A comprehensive written report of all findings, recommendations, and results is submitted.
- Solution and product neutrality should be maintained with any recommendations.