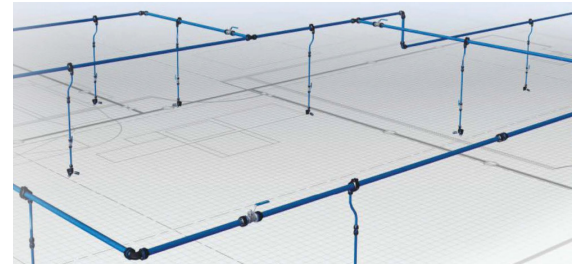


COMPRESSED AIR SYSTEM DESIGN CHECKLIST



PROJECT :

1 SYSTEM REQUIREMENTS

- ☐ Identify all compressed air tools and equipment that will be used.
- ☐ Determine the required operating pressure and airflow for each application
- ☐ Identify the required air quality for each application
- ☐ Locate all compressed air equipment and points of use on the facility layout.
- ☐ Determine the required location and total airflow demand for each air outlet.

2 COMPRESSOR ROOM

- ☐ Determine the required average airflow demand and compressor capacity based on current and future requirements.
- ☐ Select the appropriate compressor(s).
- ☐ Select the required water separator, filters, dryer, and condensate drains.
- ☐ Select an oil-water separator for condensate treatment.
- ☐ Design the compressor room layout, including piping, equipment and associated components.

3 MAIN DISTRIBUTION LINE

- ☐ Plan the routing of the main distribution line and determine its total length.
- ☐ Size the main distribution piping based on airflow and pipe length.
- ☐ Identify sections requiring thermal expansion compensation.
- ☐ Determine the location of isolation valves.
- ☐ Plan pipe slopes, drip legs, and condensate drains at all low points.
- ☐ Specify pipe supports and mounting hardware.

4 AIR OUTLETS

- ☐ Determine the type and mounting height of each point of use (hose reel or wall manifolds).
- ☐ Calculate the length of each drop and size the piping accordingly.
- ☐ Plan branch connections and pipe supports for each drop.
- ☐ Select the appropriate hose reel based on hose type and required length.
- ☐ Select the appropriate FRLs, outlet manifolds, and quick couplers.

5 FINAL REVIEW

- ☐ Verify the overall system layout.
- ☐ Select the required installation tools and accessories.
- ☐ Finalize the installation drawings.
- ☐ Compile the technical documentation and specifications.
- ☐ Verify the bill of materials.