

Part 1 General

1.1 SUMMARY

- .1 Section Includes:
 - .1 Materials and installation for piping, fittings, equipment used in compressed air systems.
- .2 Related Sections:
 - .1 Section 21 05 01 - Common Work Results for Mechanical.

1.2 REFERENCES

- .1 American Society of Mechanical Engineers (ASME)
 - .1 ASME B16.5-[03], Pipe Flanges and Flanged Fittings.
 - .2 ASME B16.11-[01], Forged Fittings, Socket-Welding and Threaded.
- .2 American Society for Testing and Materials International (ASTM)
 - .1 ASTM A53/A53M-[04], Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
 - .2 ASTM A181/A181M-[01], Standard Specification for Carbon Steel Forgings for General Purpose Piping.

Part 2 Products

2.1 PIPING

- .1 Type L hard copper tube to ASTM B88M.
- .2 Dissimilar metal junctions: use dielectric unions.
- .3 Joints:
 - .1 Solder 95/5.

2.2 BALL VALVES

- .1 Three piece design or top entry for ease of in-line maintenance.
 - .1 Toyo fig 5050 or 5051 ball valve, full bore.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheet.

3.2 COMPRESSED AIR PIPING CONNECTIONS AND INSTALLATION

- .1 Install shut-off valves at outlets, major branch lines and in locations as indicated.
- .2 Install unions to permit removal or replacement of equipment.
- .3 Grade piping at 1% slope minimum.
- .4 Make branch connections from top of main.
- .5 Provide drain from air dryer.

3.3 FIELD QUALITY CONTROL

- .1 Site Tests/Inspection:
 - .1 Testing: pressure test in accordance with requirements of Section 21 05 01 - Common Work Results for Mechanical, for 4 h minimum, to 1100 kPa, with outlets closed and with compressor isolated from system without loss.
- .2 Manufacturer's Field Services:
 - .1 Have manufacturer of products supplied under this Section review work involved in handling, installation/application, protection and cleaning of its product[s], and submit written reports, in acceptable format, to verify compliance of work with Contract.

3.4 CLEANING

- .1 Cleaning: blow out piping to clean interior thoroughly of oil and foreign matter.
- .2 Check entire installation is approved by authority having jurisdiction.
- .3 Upon completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

END OF SECTION