

1.0 **GENERAL**

1.1 **Related UBC Guidelines & Documents**

- .1 Section 20 00 05 Mechanical - General Requirements
- .2 Section 22 00 00 Plumbing (and all subsections)
- .3 All other Tech Guidelines as may be applicable to a given project.

1.2 **Related Documents External to UBC**

- .1 BC Plumbing Code and all references contained there within
- .2 BC Building Code and all references contained there within
- .3 Work Safe BC Occupational Health and Safety Regulation

1.3 **Description**

- .1 The Guidelines apply to all work completed within buildings on both UBC Vancouver and UBC Okanagan campuses unless stated otherwise.
- .2 In instances where conflicts are found between these guidelines and provincial regulations or codes, please notify UBC Mechanical Engineer.
- .3 These guidelines are intended to be read by designers and their content integrated into construction drawings and specifications. Construction documents are not to reference the technical guidelines directly.
- .4 It is the requirement of the mechanical designer to coordinate these requirements with other disciplines.

2.0 **MATERIAL AND DESIGN REQUIREMENTS**

These are requirements specific to UBC that may not exist in code or other jurisdictions. Any deviation from these guidelines requires a variance be granted.

2.1 **Design Requirements**

- .1 **Normal Compressed air systems (opposed to oil free, with desiccant dryers)** shall avoid the use of proprietary packaged compressors as these can have very high first costs and very high maintenance costs associated with them. If you have questions, please reach out to UBC Building Ops to coordinate. In general, compressors installed at UBC should include:
 - .1 Two receiver mounted, air cooled compressors
 - .2 Two air dryers piped in parallel c/w auto drain valves
 - .3 Two filter packages piped in parallel
 - .4 Factor installed controls including
 - .1 Adjustable pressure switches
 - .2 Low oil level alarm wired to BMS
 - .3 Low pressure alarm wired to BMS
 - .5 Provide the first service kit for all compressors. Place it beside the compressor in a clearly marked plastic container that includes re-ordering information.

2.2 Construction and Material Requirements

- .1 Acceptable Piping Systems
 - .1 Compressed Air
 - .1 Copper

3.0 LESSONS LEARNED & COMMON MISSES ON UBC PROJECTS

Items in this section are not specific requirements of UBC but are code or industry best practices which have been missed on past jobs. These items should be considered in mechanical designs at UBC. However, if they're not applicable then a variance is not required.

- .1 When connecting new compressors to new systems, ensure that adequate provisions are included to purge old piping which may be contaminated with oil.

*****END OF SECTION*****