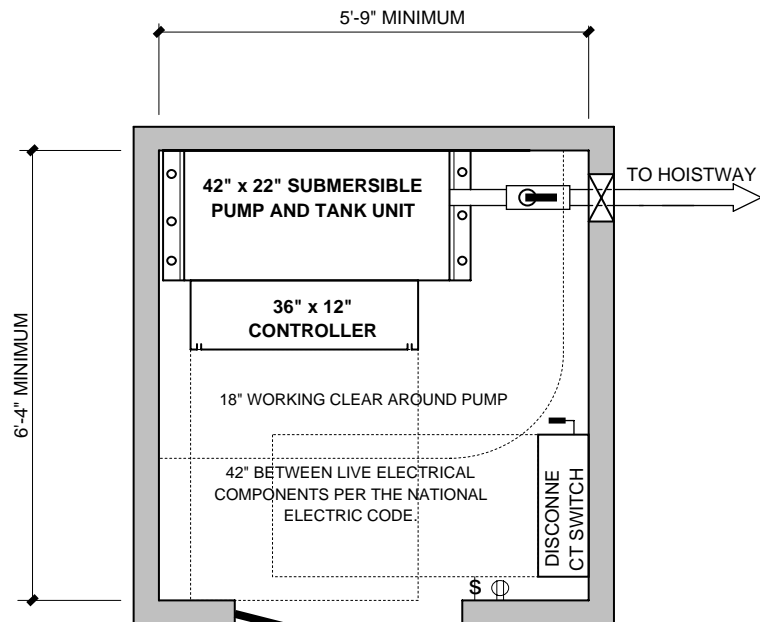


HYDRAULIC MACHINE ROOM NOTES

- MINIMUM MACHINE ROOM HEIGHT IS 7'-6".
- DOOR MUST BE MINIMUM 3'-0" x 6'-8" CLEAR, SELF-LOCKING AND CLOSING.
- PROVIDE THE FOLLOWING ELECTRICAL CLEARANCES: 1) 36" FROM CONTROLLER TO UNGROUNDED SURFACE, 2) 42" CLEAR TO GROUNDED SURFACE, OR 3) 48" BETWEEN LIVE ELECTRICAL COMPONENTS. SAME CLEARANCE FOR DISCONNECT SWITCH.
- PROVIDE LOCKABLE HORSEPOWER RATED DISCONNECT SWITCH.
- COORDINATE OIL AND ELECTRICAL RUNS BETWEEN HOISTWAY AND MACHINE ROOM WITH ELEVATOR CONTRACTOR.



TYPICAL MACHINE ROOM LAYOUT

RELATED WORK NOT BY MITSUBISHI

1. Hoistways and Other Elevator Equipment Areas

- Legal hoistway sized to elevator contractor drawings, and vertically plumb within 1" per 100 feet. Provide finished floor elevations at each landing.
- Hoistway ventilation as required by local building code.
- Earthwork if oil line is to be run underground, trenching and back filling from the machine room to the pit. Do not pour floors until elevator contractor has installed the pipeline and conduit.
- Finish and fireproof hoistway, delete protruding nails, sheet metal, etc. All seams and nail holes fire taped.
- Hoistway projections, recesses and setbacks exceeding 2 inches must be beveled to 75 degree, or per code.
- Non-elevator equipment, such as conduit, wiring, pipes, drain lines, access doors are prohibited by the code.
- Provide full hoistway width support for sills, and supports for other elevator equipment loads imposed and as shown on the elevator drawings.
- Provide rail supports acceptable to the elevator contractor at intervals shown on the elevator drawings.
- Rough opening in concrete or masonry walls measuring 6" on three sides of elevator entrances.
- For drywall construction hoistway, do not erect the hoistway entrance wall until the jambs are installed.
- Grout hall entrance sills, after installation of sill supports and hall sills by the Elevator Contractor.
- Adequate access for off-loading equipment dollies upon delivery at site.
- Cutting of walls, floors or partitions, and associated repair, fireproof patching and painting of all finish surfaces.
- OSHA approved, removable, hoistway guards, temporary barricades, screening, steps and ladders required during construction.
- All necessary sleeves, blockouts, and wall penetrations as required by elevator contractor.
- Building exit graphics at each floor as required by local building code.
- Permanent lighting in elevator lobbies in conformance to code.
- 5000 pound capacity hoist beam centered over rails at top of hoistway. Removal of the beam may be required to obtain legal overhead, after elevator installation.
- 20 foot by 20 foot material staging and storage area adjacent to hoistway (based on three stop standard elevator) with wheeled dolly access. Coordinate with Elevator Contractor for increased stops and large capacity.

2. Sprinklers, Heat and Smoke Detectors, and Shunt Trip Devices

- Sprinkler systems conforming to building and fire codes are permitted in hoistways and machine rooms.
 - Keep risers and returns outside of hoistways and machine room spaces (sprinklers cannot run through these areas, but must be terminated). Branch lines may serve only one floor. Provide guards where applicable or required by code.

RELATED WORK NOT BY MITSUBISHI (continue page 2 of 2)

- (2) Provide shunt trip device, outside machine room, with manual reset and independent of elevator control.
- (3) If battery lowering, provide a normally closed contact to shutoff battery power prior to shunt trip activation .
- (4) If sprinklers provided, all electrical equipment located less than 48 inch above pit floor shall have NEMA 4 enclosure and be NFPA 70 compliant.
- (5) Sprinklers located within 2'-0" of the pit floor are not required to comply with shunt trip operation.
- b. Smoke detectors may not be used to activate sprinklers or disconnect the main line power.
 - (1) Arrange to service heat and smoke detectors without entering the hoistway.
 - (2) Locate heat and smoke detectors within 2'-0" of sprinkler head if shunt trip device is used to shut down power prior to sprinkler activation.

3. Electrical

- a. Flexible conduit to elevator equipment is prohibited by code. Provide hard piped with rigid conduit or EMT.
- b. 3 pole lockable fused main line disconnect switch for each elevator.
 - (1) Power supply feeders, including a ground wire, delivered from the mainline disconnect switch to each elevator controller.
 - (2) If standby power, provide one normally open contact that closes and one normally closed contact that opens, on activation by the automatic transfer switch. Wire to elevator controller.
 - (3) If battery lowering specified, provide auxiliary disconnect switch contacts that allow termination of battery power at same time as mainline power.
- c. If oil cooler is specified, provide 20 amp, 110 vac, 1 phase lockable disconnect switch wired to elevator controller.
- d. Separate 110 volt, 20 amp circuit with lockable disconnect to elevator controller for elevator lighting.
- e. Temporary power of 220v, 30a, minimum required for construction tools.
- f. Lights, light switches, and GFCI convenience outlets in pit and machine room.

4. Pits

- a. Provide a drain or sump pump if required by code. Do not connect directly to sewer. Coordinate provision and location with elevator contractor.
- b. Pit screens required where car are adjacent. Screens must extend 6'-0" above pit floor and run the full hoistway length. If the pit ladder is mounted on the same side as the divide screen, screen must extend 6'-0" above the lowest landing level, and 2'-0
- c. Seal the pit against the entry of ground water. Pit floor must be smooth, clean, and dry.
- d. Blockouts for piping and wiring, pit pockets and jack blockout in pit floor. If required, sealing and reparation of these blockouts.
- e. Coordinate location of steel pit ladder.
- f. Pit lighting, with guard, to obtain 100 lx (10fc) at the pit floor. Mount approximately 18" above pit floor. Coordinate with
- g. GFCI duplex 120-volt, 15 amp outlet adjacent to the light switch.

5. Machine Rooms

- a. Properly sized machine room with legal access and code legal equipment working clearances.
- b. 3'-0" by 6'-8" self-closing and locking machine room door. Coordinate installation and door swing with elevator contractor.
- c. Sign mounted in the machine room indicating strength of the machine room floor per code.
- d. Machine room lighting, with guards, to provide 200 lx (19fc) over the surface of the machine room floor.
- e. Light switch adjacent to strike side of machine room door.
- f. GFCI duplex 120-volt, 15 amp outlet adjacent to the light switch.
- g. Code compliant ventilation to insure maximum temperature of 35 c (95 f). Provide heating.
- h. Dedicated phone line in machine room. Provide 24-hour emergency service to answer calls from elevator cab.
- i. Fire life safety speaker circuit, if required by code.
- j. Fire phone jack circuit if required by code.

6. Miscellaneous

- a. Finish flooring installed in elevator cab.
- b. All other equipment not normally in the scope of the elevator contract, normally supplied by other trades, and not specifically noted.