

**SECTION 11373 - COMPRESSORS, BASE-MOUNTED**

**City of San Diego, CWP Guidelines**

**PART 1 -- GENERAL**

1. WORK OF THIS SECTION

- A. The WORK of this Section includes providing [ ] base plate mounted, reciprocating compressors complete with all necessary appurtenances and accessories to provide a workable installation as indicated.

1.2 RELATED SECTIONS

- A. The WORK of the following Section applies to the WORK of this Section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of this WORK.
  - 1. Section 11370 Blowers, Compressors, and Vacuum Pumps, General

1.3 SERVICES OF MANUFACTURER

- A. **Inspection, Startup, and Field Adjustment:** An authorized service representative of the manufacturer shall visit the site for not less than [one] day for each compressor to furnish the indicated services.
- B. **Instruction of OWNER'S Personnel:** The authorized service representative shall also furnish the indicated services for instruction of the OWNER'S personnel in the operation and maintenance of the equipment including step-by-step troubleshooting procedures with necessary test equipment for not less than [one] day.

**PART 2 -- PRODUCTS**

2.1 GENERAL

- A. **Operating Conditions:** Compressor operating conditions shall be as follows:

Identification number	-	[	]
Location	-	[	]
Service	-	[	]
Elevation above sea (ft)	-	[	]
Piston displacement (cfm)	-	[	]
Discharge pressure (psig)	-	[	]
Motor size, min (hp)	-	[	]
Max compressor speed (rpm)	-	[	]
Motor speed, max (rpm)	-	[	]

- 1. **Equipment Requirements:** Base plate mounted compressors shall be of the vertical, positive displacement, [air-cooled] [water-cooled], [single stage] [2-stage], V-belt driven, [lubricated] [non-lubricated] type.

2. **Drive:** Drive shall be V-belt-type with heavy-duty electric motor suitable for [indoor] [outdoor] installation, in accordance with Section 16040 and for [ ]-volt, [ ]-phase, [ ]-Hz supply.
3. **Accessories:** Each compressor shall be provided and installed complete with the following minimum accessories and all other controls and appurtenances indicated:
  - 1 - common steel or cast-iron base plate,
  - 1 - set of restrained spring-type vibration isolators,
  - 1 - set of stainless steel anchor bolts and nuts,
  - 1 - intake filter-silencer,
  - 1 - flexible connector, stainless steel, corrugated or braided,
  - 1 - pressure relief valve,
  - 1 - check valve, silent, spring-loaded,
  - 1 - shut-off valve,
  - [ ] - pressure switches,
  - 1 - safety guard,
  - 1 - pressure gauge with valve
  - [ 1 - aftercooler]
  - [ 1 - temperature switch]
  - [ 1 - low oil level switch]

4. **Equipment Construction:** Basic equipment construction and materials required shall be as follows:

Common base-plate	- cast-iron or steel, with sliding motor base
Crankcase	- cast-iron
Pistons	- cast-iron or aluminum
Rings	- [oil control and compression rings] [teflon rings]
Heads	- cast-iron or aluminum
Crankshaft	- ductile iron or carbon steel
Bearings	- heavy duty anti-friction bearings with a minimum L-10 life of [ ] hours
Lubrication	- splash-type oil lubrication
Valves	- stainless steel
Flywheel	- cast-iron
Suction filter-silencer	- dry-type
Starting unloader	- built-in centrifugal type
[Intercooler (if 2-stage)]	- finned copper tubes]
Safety shut-down switches	- low oil level and high temperature

Starter and disconnect switch - automatic start and stop control, as indicated

## 2.2 NAMEPLATES, TOOLS AND SPARE PARTS

A. **Spare Parts:** The WORK includes the following spare parts:

1. 2 sets of all gaskets, O-rings and washers
2. 1 set of all piston rings
3. 2 sets of drive belts
4. 4 sets of all intake filter elements

## 2.3 MANUFACTURERS

A. Compressors of the type or model indicated shall be manufactured by one of the following (or equal):

1. Gardner-Denver Co., model [ ]
2. Ingersoll-Rand, model [ ]
3. Kellogg-American, model [ ]
4. Quincy (Colt Industries), model [ ]
5. Worthington, model [ ]

## PART 3 -- EXECUTION

### 3.1 INSTALLATION

A. **General:** The compressors with all the auxiliary equipment shall be installed in accordance with the manufacturer's written instructions.

### 3.2 FIELD TESTING

A. Field testing of the compressors shall be performed as follows:

1. The units shall be started and stopped several times and checked for proper operation without excessive vibration and overheating.
2. The setting of all pressure switches, relief valves, and pressure reducing valves shall be verified and adjusted with the pressure gauges. The automatic starting and shutoff functions shall be checked as well as the functioning of the condensate traps.

\*\* END OF SECTION \*\*