

**(5) Electric-Discharge Lamps.** Starting and control equipment for electric-discharge lamps shall comply with the requirements of 502.120(B).

All lighting equipment in Class II, Division 1 locations and all portable lighting equipment in a Class II, Division 2 location must be identified for such use. If not identified for use in a Class II location, all fixed lighting equipment in a Class II, Division 2 location must be dusttight.

Section 502.130 requires luminaires in Class II locations to be marked to indicate maximum lamp wattage. In addition, lamps must be guarded or protected by their location to prevent damage that could allow the escape of sparks or burning material.

Exhibit 502.5 shows a listed luminaire suitable for use in Class II, Group E, F, and G locations. The portable hand lamp shown in Exhibit 501.12 is listed as a complete assembly for use in Class I locations and in any Class II, Group F or G location.

### 502.135 Utilization Equipment.

**(A) Class II, Division 1.** In Class II, Division 1 locations, all utilization equipment shall be identified for the location.

**(B) Class II, Division 2.** In Class II, Division 2 locations, all utilization equipment shall comply with 502.135(B)(1) through (B)(4).

**(1) Heaters.** Electrically heated utilization equipment shall be identified for the location.

*Exception: Metal-enclosed radiant heating panel equipment shall be permitted to be dusttight and marked in accordance with 500.8(C).*



**EXHIBIT 502.5** A typical luminaire for use in Class II, Division 1 locations. (Courtesy of Eaton, Crouse-Hinds Division)

**(2) Motors.** Motors of motor-driven utilization equipment shall comply with 502.125(B).

**(3) Switches, Circuit Breakers, and Fuses.** Enclosures for switches, circuit breakers, and fuses shall comply with 502.115(B).

**(4) Transformers, Solenoids, Impedance Coils, and Resistors.** Transformers, solenoids, impedance coils, and resistors shall comply with 502.120(B).

### 502.140 Flexible Cords — Class II, Divisions 1 and 2.

**(A) Permitted Uses.** Flexible cords used in Class II locations shall be permitted as follows:

- (1) For connection between portable lighting equipment or other portable utilization equipment and the fixed portion of its supply circuit. The flexible cord shall be attached to the utilization equipment with a cord connector listed for the protection technique of the equipment wiring compartment. An attachment plug in accordance with 502.145 shall be employed.
- (2) Where flexible cord is permitted by 502.10(A)(2) for fixed and mobile electrical utilization equipment; where the flexible cord is protected by location or by a suitable guard from damage; and only in a restricted industrial establishment.
- (3) For electric submersible pumps with means for removal without entering the wet-pit. The extension of the flexible cord within a suitable raceway between the wet-pit and the power source shall be permitted.
- (4) For electric mixers intended for travel into and out of open-type mixing tanks or vats.
- (5) For temporary portable assemblies consisting of receptacles, switches, and other devices that are not considered portable utilization equipment but are individually listed for the location.

**(B) Installation.** Where flexible cords are used, the cords shall comply with all of the following:

- (1) Be of a type listed for extra-hard usage.

*Exception to (1): Flexible cord listed for hard usage as permitted by 502.130(A)(3) and (B)(4).*

- (2) Contain, in addition to the conductors of the circuit, an equipment grounding conductor complying with 400.23.
- (3) Be supported by clamps or by other suitable means in such a manner that there will be no tension on the terminal connections.
- (4) In Division 1 locations, the cord shall be terminated with a cord connector listed for the location or a listed cord connector installed with a seal listed for the location. In