

Requirements and Responsibilities for Fire Pump Packages

Philosophy

The performance and long term reliability of a fire pump is directly related to proper assembly and installation of the fire pump package components. For this reason FM Approvals requires that the assembly and installation of a complete fire pump package is the responsibility of the fire pump manufacturer.

Only fire pumps that comply with all of the requirements defined in this document, the appropriate FM Approvals fire pump standards, and supplied as part of a complete pump package are FM Approved.

Pump packages can only be supplied by one of the following entities, fully described in the sections below:

- Fire Pump Manufacturer
- Fire Pump Alternate Manufacturing Location
- Fire Pump Packager

Fire Pump Manufacturer

The manufacturer of the FM Approved fire pump, is also referred to as the Original Equipment Manufacturer (OEM) of the fire pump.

Responsibilities:

1. FM Approvals and the Fire Pump Manufacturer have jointly signed a “Master Agreement for Approval Services”, which defines the contractual relationship between the two entities.
2. The Fire Pump Manufacturer “owns” the FM Approvals certification of the fire pump as listed in the FM Approval Guide. This responsibility includes control for: design, component sourcing, manufacturing, certification testing, production testing, quality control, and assembly locations.
3. The Fire Pump Manufacturer must be capable of performing a flow test to the full flow capability of the pump including the pump maximum required power point.
4. The Fire Pump Manufacturer shall be able to provide the necessary pump accessories (See Appendix D of any FM Approvals Fire Pump

Standard) to supply a complete pump package.

5. The Fire Pump Manufacturer shall be accountable for the complete pump package (as detailed above and in Appendix D) and satisfactory performance of the "Field Acceptance Test" (i.e., commissioning) for fire pumps which they manufacture bearing the FM Approvals Certification Mark. This accountability includes proper operation and sizing of the fire pump and accessories listed in Appendix D.
6. The Fire Pump Manufacturer shall not sell or release an unpackaged ("bare shaft") FM Approved fire pump unless it is for replacement purposes.

Auditing Requirements:

The Fire Pump Manufacturer shall maintain design/documentation control, and manufacture FM Approved Fire Pumps only at the location(s) audited by FM Approvals and as specified in the FM Approval Report. Audits are conducted at a quarterly frequency for all locations producing FM Approved fire pumps in accordance with FM Approvals' Surveillance Audit program.

Marking Requirements:

All FM Approved fire pumps shall have a permanently-marked, legible, corrosion-resistant nameplate securely attached to the pump or bedplate where it shall be easily visible. The nameplate shall include the following information:

- Manufacturer's name and address
- Country of Manufacture (if different than above)
- Model or type designation
- Rated capacity
- Rated total head
- Rated speed
- Maximum power required
- Impeller diameter(s)
- Number of stages
- Pump serial number
- Manufacturer and serial number of the driver
- Manufacturer and serial number of the controller
- FM Approval's Certification Mark

The above required markings may be provided on two nameplates, at the discretion of the manufacturer.

**Fire Pump
Alternate
Manufacturing
Location**

A location that manufactures a complete pump to the design requirements of the Fire Pump Manufacturer (OEM) or modifies (i.e. trimming of a pump impeller) an OEM supplied fire pump.

The Fire Pump Alternate Manufacturing Location may be an alternate facility owned and operated by the OEM or a facility owned by others that performs the complete, or partial, manufacturing of the complete fire pump and/or package under direct control of the OEM.

Responsibilities:

1. The Alternate Manufacturing Location must be capable of performing a flow test to the full flow capability of the pump including the pump maximum required power point.
2. The Alternate Manufacturing Location must conduct performance testing and supply certified pump curves for pumps modified or assembled by the Alternate Manufacturing Location.
3. The Alternate Manufacturing Location is responsible for the assembly of the complete fire pump using documents and instructions provided by the OEM.
4. The Alternate Manufacturing Location shall be able to provide the necessary pump accessories (See Appendix D of any FM Approvals Fire Pump Standard) to supply a complete pump package.
5. The Alternate Manufacturing Location shall not sell or release an unpackaged (“bare shaft”) FM Approved fire pump unless it is for replacement purposes.

Auditing Requirements:

Identical auditing requirements to those discussed above under Fire Pump Manufacturer, apply to alternate manufacturing locations with the exception of design / documentation control (which are the sole responsibilities of the OEM). The OEM is responsible to rectify any non-conformances discovered at the Alternate Manufacturing Location to the satisfaction of FM Approvals.

Marking Requirements:

All of the required markings shown under the Fire Pump Manufacturer section are required. If the alternate manufacturing location is in a different country than the OEM, the additional requirement “Assembled in xxxx (where “xxxx” is the country of final trimming or assembly) is also required.

**Fire Pump
Packager**

The Fire Pump Manufacturer can delegate, through a legal agreement, the function of assembling the fire pump package to a third party known as the fire pump packager. Alternatively or in addition to, a Fire Pump Packager may package or just distribute complete private labeled fire pump packages.

The Fire Pump Packager may be a facility owned and operated by the Fire Pump Manufacturer or a facility owned by others that performs the assembly of the complete fire pump package under direct control of the OEM.

Only Fire Pump Packagers recognized and audited by FM Approvals can undertake the assembly of, or distribute private labeled, fire pump packages utilizing FM Approved Pumps.

Responsibilities:

1. At a minimum, the Fire Pump Packager will receive a fully tested FM Approved bare-shaft pump, along with the performance curve, from the OEM.
2. The Fire Pump Packager shall assemble the complete fire pump package to the specifications supplied by the OEM.
3. The Fire Pump Packager is not allowed to trim impeller or otherwise modify the fire pump.
4. The responsibilities for Fire Pump Manufacturers to supply a complete pump package (as detailed above and in Appendix D) and ensure satisfactory performance of the “Field Acceptance Test” (i.e., commissioning) may be, at the OEMs discretion, delegated to a Fire Pump Packager. This delegation does not relieve the Fire Pump Manufacturer of their accountability and responsibility for the satisfactory performance of the complete fire pump package (as detailed in Appendix D).
5. The fire pumps being packaged by the Fire Pump Packager are listed in the FM Approval Guide, an online resource of FM Approvals, under the name of the Fire Pump Manufacturer or Private Labeler (if applicable).
6. The Fire Pump Packager shall not sell or release an FM Approved bare-shafted fire pump.

Auditing Requirements:

The Fire Pump Packager shall package or distribute pump packages only at location(s) audited by FM Approvals and as specified in the FM Approval Report. Audits are at a quarterly frequency for all locations packaging FM Approved fire pumps in accordance with FM Approvals' Surveillance Audit program. The OEM is responsible to rectify any non-conformances discovered at the Fire Pump Packager facility to the satisfaction of FM Approvals.

Marking Requirements:

All of the required markings shown under Fire Pump Manufacturer are required. If the packaging location or private labeler address is a different country than the Fire Pump Manufacturer location, the additional requirement "Assembled in xxxx" (where "xxxx" is the country of assembly) is also required.

**Fire Pump
Private Labeler**

A company, other than the Fire Pump Manufacturer (OEM), that has a legal agreement with the OEM whereby the pump is manufactured and labeled by the OEM in the name of the Private Labeler.

In order to enter into a Fire Pump Private Label agreement, a Fire Pump Private Labeler must be one of the following entities:

- a Fire Pump Manufacturer
- a Fire Pump Alternate Manufacturer
- a Fire Pump Packager

Responsibilities:

See the responsibilities of the specific entity referenced above.

Auditing Requirements:

See the auditing requirements of the specific entity referenced above.

Marking Requirements:

See the marking requirements of the specific entity referenced above.