

## Byron Jackson® Electrical Submersible Pumps and Oil-filled Motors

### ► Maintenance Checklist



## **⚠ DANGER**

Read User Instructions **before** installing, operating or maintaining this pump.  
Copies available from Flowserve pump representatives.

### Pump End

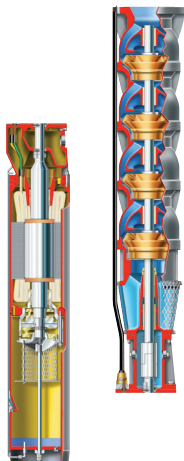
Pump checklist on nameplate or datacard	
Flow	m <sup>3</sup> /h - gpm
Head	m - ft
Riser pipe connection	threaded/flanged
Shut-off head	m - ft
Pump unit dry running protection	Install dry running sensor 10 m above pump

### Oil-filled Motor

Motor checklist on nameplate or datacard	
Network voltage and frequency	Check network voltage and frequency with nameplate motor
Motor oil <sup>1</sup>	Before installing motor re-fill with refined mineral oil <sup>2</sup>
Insulation resistance	Minimum insulation value is 10 Mohm at 20°C (new windings)
Cable installation	Protect cable at riser pipes with clamps to ensure safe installation
Connection to power source	Check cable connection to power source
Adjust motor current at relay	Set at maximum rated current to guarantee motor protection
Motor and pump rotation	Verify total delivered head of pump

1. Motors are pre-filled with oil.
2. Mineral oil needs to be approved by Flowserve.

### Submersible Pump End



**Submersible Motor**  
(pre-filled with oil on delivery)

**For sales and product information, go to [www.flowserve.com](http://www.flowserve.com)**

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(Formerly FPD-1447)

Byron Jackson electrical submersible pumps  
and oil-filled motors are manufactured in  
Taneytown, MD (USA).

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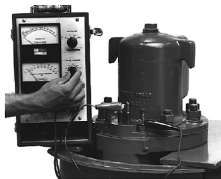
Flowserve Corporation Motor  
Center of Excellence  
5310 Taneytown Pike  
Taneytown, MD 21787

# Pre-installation Instruction for Pump and Motor in Well

## 1. Pump and motor with accessories



## 2. Measure insulation resistance (before and after installation)



## 3. Open vent valve of motor



## 4. Refill motor oil into coupling housing (max. two shipping caps)



## 5. Close vent valve



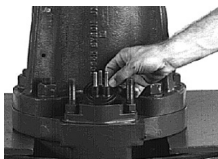
## 6. Install pump and motor coupling



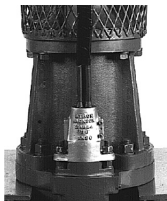
## Torque for half coupling screws

Unit Size, in	Torque, Nm (ft-lbs)
8	27 (20)
10	41 (30)
12	54 (40)
14	54 (40)
17	68 (50)
18	68 (50)
21	68 (50)

## 7. Install plug seal



## 8. Install plug cable



Submersible pump is ready for installation

## Maintenance Schedule After Installation

Periodic testing of performance parameters such as head, flow, line voltage, driver current, starting time, etc., is recommended to identify appropriate maintenance schedules. This helps to ensure improved performance and to compensate for the higher recirculation flow in a used pump as compared to a new pump. The scope and frequency of testing can be determined by the customer based on pump operating conditions. If direct or projected periodic test readings indicate reduced shut-off head, maintenance can be planned as follows:

Reduction in Shut-off Head	Maintenance Schedule
By 5%	No maintenance required
By 5% to 10%	Before reduction in shut-off head exceeds 15%