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GRISWOLD[®] 850 SERIES INTERCHANGEABLITY GUIDE FOR HISTORIC E, F & G SERIES PUMPS

Griswold recently announced the launch of the 850 Series centrifugal pumps that have been designed to meet DOE efficiency requirements. These pumps will provide pump-for-pump interchangeability with Griswold's E,F&G Series, ultimately replacing the E,F&G Series. Additionally, the 850 Series offers minimal part changes from the original E,F&G Series line. This guide covers the basic pump for pump, and part for part interchangeability questions.

Below is a summary of pump for pump interchangeability between the 850 Series and the E,F&G Series.

E,F&G Series	850 Series	Speed	Pole	Design Changes	Hydraulic Changes
R2FH	3X2-8	1800	4	None	Maintains hydraulic coverage*
R2GH	3X2-8	3600	2	None	Maintains hydraulic coverage*
R2GM	3X2-8M	3600	2	None	Maintains hydraulic coverage*
R3FM	4X3-10	1800	4	Impeller Redesigned Only	Redesign to eliminate R4FM
R3GM	4X3-10T	3600	2	Impeller Redesigned Only	BEP moved right
R3EM	4X3-12	1800	4	None	Maintains hydraulic coverage*
R4FH	5X4-10	1800	4	Case and Impeller Redesigned	Maintains hydraulic coverage
R4GH	5X4-10T	3600	2	Case and Impeller Redesigned	Maintains hydraulic coverage
R4EM	5X4-12T	1800	4	Case and Impeller Redesigned. Suction Flange incorporated into the case.	Redesigned as low head model
R5EM	6X5-14T	1800	4	Case and Impeller Redesigned. Suction Flange incorporated into the case.	Maintains hydraulic coverage
R6FM	8X6-10	1800	4	Impeller Redesigned Only	Redesigned to overlap R6FL
R6FL	8X6-10	1800	4	Impeller Redesigned Only	Redesigned to overlap R6FM
R6EM	8X6-14T	1800	4	Case and Impeller Redesigned. Suction Flange incorporated into the case.	Maintains hydraulic coverage
R8FH	8X8-13	1800	4	None	Maintains hydraulic coverage*
RL8FH	8X8-13	1200	6	None	Maintains hydraulic coverage*
NEW	3X1.5-10	1800	4	New	High head, low flow model
NEW	3X1.5-10T	2600	2	New	High head, low flow model

850 Series and E, F & G Series Interchangeability Chart

*Griswold is republishing performance curves to improve accuracy

With the new 850 Series launch, three of the E,F&G Series models will be obsolete. The decision for the obsolescence is due to either low unit volume sales or extreme pump inefficiency, making it difficult to justify keeping the model. Below is an overview of each E,F&G model that will be obsolete. For more information on E,F&G obsolescence, see Technical Bulletin 1027.

E, F & G Series Obsolescence

E,F&G Series	Impact
R3GL	Hydraulically covered by other models
R4FM	Will be replaced by future R3FM (4X3-10)
R4GM	Will be replaced by future R3GM (4X3-10T)





850 Series and E, F & G Series Interchangeability Frequently Asked Questions (FAQ)

Pumps requiring no design changes

Q1. If an E,F&G Series pump is listed with no design change required, is there any impact to pump for pump interchangeability?

In the case that no design changes were required, the 850 Series pumps offer pump for pump interchangeability with the historic E,F&G Series pumps.

NOTE: In some cases, we are republishing performance curves to improve the accuracy of the curves. We recommend re-sizing a pump based on the application rated condition with ordering a replacement pump.

Q2. If an E,F&G Series pump is listed with no design change required, is there any impact to part for part interchangeability?

In the case that no design changes were required, the 850 Series offers part for part interchangeability with the historic E,F&G Series pumps.

NOTE: In some cases, the 850 Series will have new part numbers for some of the components. This would include impellers, wear rings, and sleeves. The part numbers have changes to accommodate strategic changes in materials of construction. The 850 Series parts are dimensionally interchangeable and can be installed in historic E,F&G Series pumps.

Pumps that will become obsolete

Q1. What are my options if the pump model is becoming obsolete?

At this time, there is no plan to replace the models that are listed to become obsolete. We will continue to sell spare parts for these models while supplies last. Please refer to TB1027 for more details.





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R3FM and R3GM interchangeability with 850 Series 4X3-10 and 4X3-10T

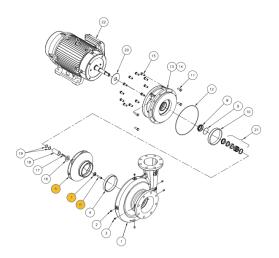
Q1. What 850 Series pumps will be pump for pump interchangeable with these E,F&G Series pumps?

The 850 Series 4X3-10 will be pump for pump interchangeable with the R3FM The 850 Series 4X3-10T will be pump for pump interchangeable with the R3GM

Q2. What changes were made on this pump?

The following parts were changed:

- o Impeller
- o Impeller Screw
- o Impeller Screw Washer
- Eliminated the need for the balance line tubing (for 3600 rpm models)



Q3. What do I need to do if I want to replace the entire pump?

Select an 850 Series 4X3-10 or 4X3-10T pump based on the rated conditions of the original R3FM or R3GM.

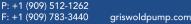
Q4. What do I need to do if I need to replace components on my historic E,F&G Series pump?

For parts other than the impeller, the new 850 Series parts are interchangeable with the historic E,F&G Series pump. A complete part list can be found in the pump specification sheet.

For replacement of the impeller, resize the impeller based on the rated performance using the published 850 Series performance curves.









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R4FH and R4GH interchangeability with 850 Series 5X4-10 and 5X4-10T

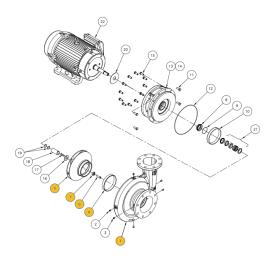
Q1. What 850 Series pumps will be pump for pump interchangeable with these E,F&G Series pumps?

The 850 Series 5X4-10 will be pump for pump interchangeable with the R4FH The 850 Series 5X4-10T will be pump for pump interchangeable with the R4GH

Q2. What changes were made on this pump?

The following parts were changed:

- o **Case**
- o Impeller
- \circ Front wear ring
- Impeller screw
- o Impeller screw washer
- \circ $\;$ Eliminated the need for the balance line tubing
- o (for 3600 rpm models)



Q3. What do I need to do if I want to replace the entire pump?

Select an 850 Series 5X4-10 or 5X4-10T pump based on the rated conditions of the original R4FH or R4GH.

Q4. What do I need to do if I need to replace components on my historic E,F&G Series pump?

For parts other than those listed in Q2, the new 850 Series parts are interchangeable with the historic E,F&G Series pumps. A complete part list can be found in the pump specification sheet.

For this model, the case and impeller must be replaced together. In this situation, resize the impeller based on the rated performance using the published 850 Series performance curves.









R4EM interchangeability with 850 Series 5X4-12T

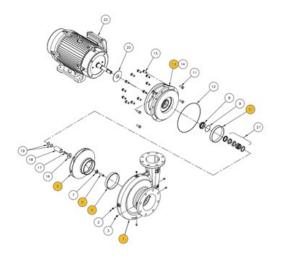
Q1. What 850 Series pumps will be pump for pump interchangeable with these E,F&G Series pumps?

The 850 Series 5X4-12T will be pump for pump interchangeable with the R4EM

Q2. What changes were made on this pump?

The following parts were changed:

- o Impeller
- Case / Suction Flange (new single piece case)
- o Bracket
- Back Wear Ring
- o Impeller screw



Q3. What do I need to do if I want to replace the entire pump?

Select an 850 Series 5X4-12T pump based on the rated conditions of the original R4EM.

Q4. What do I need to do if I need to replace components on my historic E,F&G Series pump?

Due to the extensive changes to this model, a new pump will be required. We will sell historic spare parts while supplies last.









R5EM interchangeability with 850 Series 6X5-14T

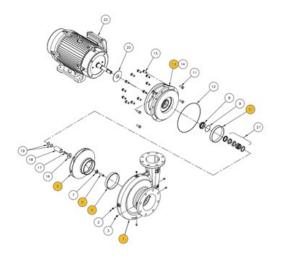
Q1. What 850 Series pumps will be pump for pump interchangeable with these E,F&G Series pumps?

The 850 Series 6X5-14T will be pump for pump interchangeable with the R5EM

Q2. What changes were made on this pump?

The following parts were changed:

- o Impeller
- Case / Suction Flange (new single piece case)
- o Bracket
- Back Wear Ring
- o Impeller screw



Q3. What do I need to do if I want to replace the entire pump?

Select an 850 Series 6X5-14T pump based on the rated conditions of the original R5EM.

Q4. What do I need to do if I need to replace components on my historic E,F&G Series pump?

Due to the extensive changes to this model, a new pump will be required. We will sell historic spare parts while supplies last.









R6FL and R6FM interchangeability with 850 Series 8X6-10

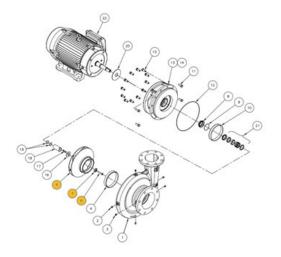
Q1. What 850 Series pumps will be pump for pump interchangeable with these E,F&G Series pumps?

The 850 Series 8X6-10 will be pump for pump interchangeable with the R6FL & R6FM

Q2. What changes were made on this pump?

The following parts were changed:

- o Impeller
- Impeller Screw
- Impeller Washer



Q3. What do I need to do if I want to replace the entire pump?

Select an 850 Series 8X6-10 pump based on the rated conditions of the original R6FL or R6FM.

Q4. What do I need to do if I need to replace components on my historic E,F&G Series pump?

For parts other than the impeller, the new 850 Series parts are interchangeable with the historic E,F&G Series pump. A complete part list can be found in the pump specification sheet.

For replacement of the impeller, resize the impeller based on the rated performance using the published 850 Series performance curves.









R6EM interchangeability with 850 Series 8X6-14T

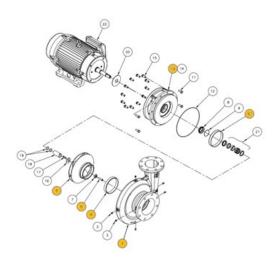
Q1. What 850 Series pumps will be pump for pump interchangeable with these E,F&G Series pumps?

The 850 Series 8X6-14T will be pump for pump interchangeable with the R6EM

Q2. What changes were made on this pump?

The following parts were changed:

- Case / Suction Flange (New single piece case)
- o Impeller
- o Bracket
- o Impeller screw
- Impeller washer (for 1.625" bore impellers)
- o Eliminated the need for the balance line tubing



Q3. What do I need to do if I want to replace the entire pump?

Select an 850 Series 8X6-14T pump based on the rated conditions of the original R6EM.

Q4. What do I need to do if I need to replace components on my historic E,F&G Series pump?

Due to the extensive changes to this model, a new pump will be required. We will sell historic spare parts while supplies last.





