GRISWOLD 811LF

ANSI CENTRIFUGAL
PUMPS FOR
LOW FLOW
APPLICATIONS

PERFORMANCE

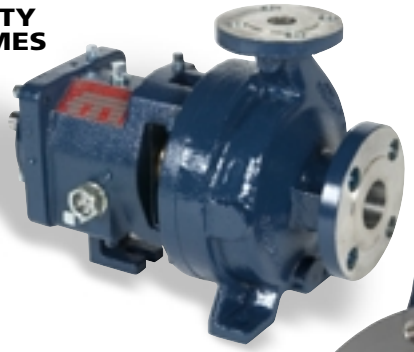
DARE TO **COMPARE**

GRISWOLD 811LF FOR LOW FLOWS

ANSI PROCESS PUMPS DESIGNED FOR LOW FLOW SERVICES.

INCREASED CAPABILITY FOR REDUCED VOLUMES

Standard ANSI pumps (with expanding style volute casing) are not designed for low flow, high head applications: the excessive radial loads and shaft vibration experienced can shorten bearing and seal life. Griswold's Model **811LF** series is designed with a circular concentric casing in conjunction with a radial vane impeller to reduce those excessive radial loads and minimize shaft deflection, thus extending MTBPM.



1

CIRCULAR CONCENTRIC VOLUTE CASING:

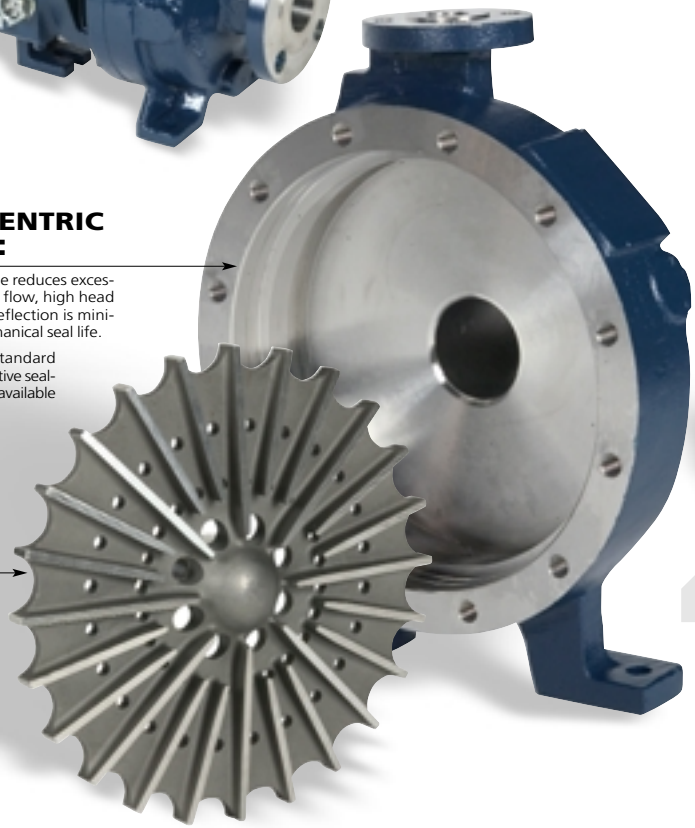
The fully machined concentric volute reduces excessive radial loads experienced in low flow, high head applications. Shaft vibration and deflection is minimized, extending bearing and mechanical seal life.

Class 150 raised face flanges are standard with the Model **811LF** series for positive sealing. Class 300 raised face flanges are available as an option.

2

LOW FLOW RADIAL VANE IMPELLER:

Griswold's radial vane impellers are specially designed to reduce the thrust load and seal chamber pressure normally associated with low flow applications. When operating in reduced volume conditions, the low flow impeller's vanes provide better hydraulic control than traditional ANSI impellers. Balance holes reduce both axial thrust and seal chamber pressure, extending bearing and seal life.

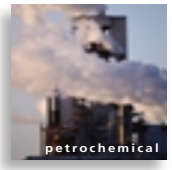


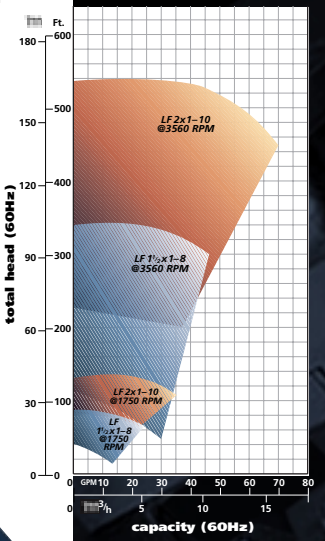
3

811LF PERFORMANCE:

With a traditional ANSI pump, throttling or recirculating flow to attain low flow conditions causes excessive radial load and shaft deflection—all of which can result in premature failure to bearings and mechanical seals.

Griswold **811LF** pumps feature flow capacities as low as 4 GPM, and heads as high as 550'—low flow/high head performance you can count on to further extend your MTBPM.





4

RETROFITTING:

Griswold Model **811LF** pumps are ANSI dimensional, so they can be installed without piping or base changes to existing equipment. In fact, since all other parts and features are identical/interchangeable within the entire 811 ANSI line, the **811LF** case and impeller can be easily retrofitted to an existing Griswold pump *as well as* 100,000s of other ANSI pumps already in service!

FOUR 811LF MODELS

LF 1½ x 1– 8@ 1750 RPM
LF 1½ x 1– 8@ 3500 RPM
LF 2 x 1– 10 @ 1750 RPM
LF 2 x 1– 10 @ 3500 RPM

811LF CAPACITIES

4 GPM to 70 GPM
Heads to 550'

GRISWOLD 811LF

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(4/04)

Griswold Pump Company

Selection list: ---

Search Criteria:
Flow: --- US gpm
Head: --- ft
Tolerance: --- % of head

Fluid: Water
Temperature: 60 °F
SG: 1
Viscosity: 1.105 cP
Vapor pressure: 0.2563 psi a
Atm pressure: 14.7 psi a

NPSHa: --- ft

Advanced Criteria:
Preferred Operating Area: ---
Secondary Operating Point: ---
Max temperature: --- °F
Max suction pressure: --- psi g
Max sphere size: --- in
Max power: --- bhp
Max suction specific speed: --- (Nss)
Min trim: --- % of max diameter
Min head rise: --- % to shutoff

Curve Corrections: none

Catalog: Griswold Pump Company 60hz 1.3 vers 1.3

Pump: 1.5x1-8 AA
Type: 811-LF
Synch speed: 1800 rpm
Speed: 1750 rpm
Dia: 8 in
Curve no.: GLF-1804

Specific Speeds
Ns: --- Nss: ---

Dimensions:
Suction: 1.5 in Discharge: 1 in

Pump Limits:
Temperature: --- °F
Pressure: --- psi g
Sphere size: --- in
Power: --- bhp

Motor: 2 hp
Speed: 1800
Frame: 145T
Standard: NEMA
Enclosure: TEFC
Sizing criteria: Max Power on Design Curve

---- Data Point ----

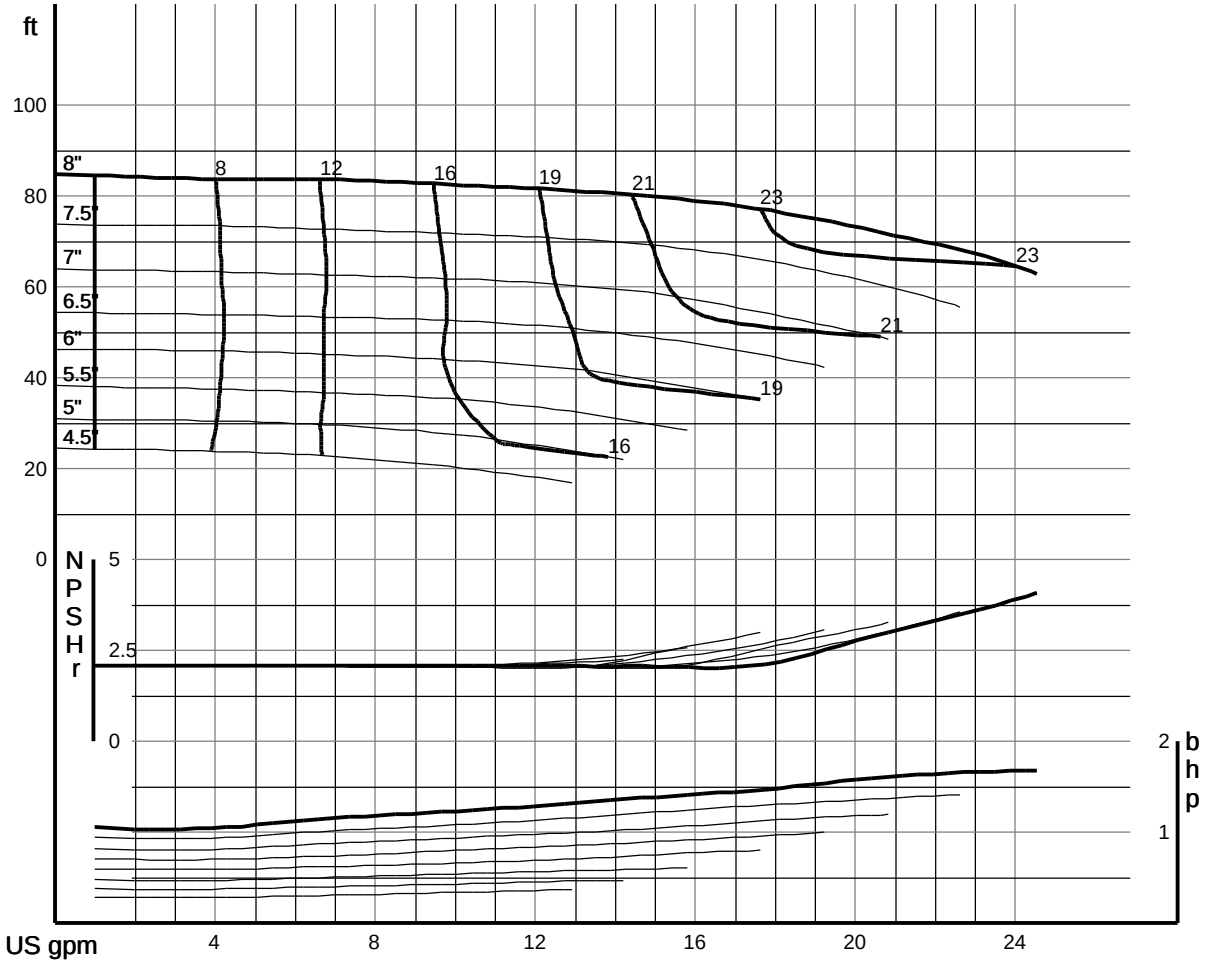
Flow: 20.8 US gpm
Head: 70 ft
Eff: 23%
Power: 1.59 bhp
NPSHr: 2.94 ft

-- Design Curve --

Shutoff Head: 83 ft
Shutoff dP: 35.9 psi
Min Flow: 1 US gpm
BEP: 23% eff
@ 20.8 US gpm
NOL Pwr: 1.66 bhp
@ 24 US gpm

-- Max Curve --

Max Pwr: 1.66 bhp
@ 24 US gpm



Griswold Pump Company

Selection list: ---

Search Criteria:
Flow: --- US gpm
Head: --- ft
Tolerance: --- % of head

Fluid: Water
Temperature: 60 °F
SG: 1
Viscosity: 1.105 cP
Vapor pressure: 0.2563 psi a
Atm pressure: 14.7 psi a

NPSHa: --- ft

Advanced Criteria:
Preferred Operating Area: ---
Secondary Operating Point: ---
Max temperature: --- °F
Max suction pressure: --- psi g
Max sphere size: --- in
Max power: --- bhp
Max suction specific speed: --- (Nss)
Min trim: --- % of max diameter
Min head rise: --- % to shutoff

Curve Corrections: none

Catalog: Griswold Pump Company 60hz 1.3 vers 1.3

Pump: 1.5x1-8 AA
Type: 811-LF
Synch speed: 3600 rpm
Speed: 3500 rpm
Dia: 8 in
Curve no.: GLF-3604

Specific Speeds
Ns: --- Nss: ---

Dimensions:
Suction: 1.5 in Discharge: 1 in

Pump Limits:
Temperature: --- °F
Pressure: --- psi g
Sphere size: --- in
Power: --- bhp

Motor: 15 hp
Speed: 3600
Frame: 254T
Standard: NEMA
Enclosure: TEFC
Sizing criteria: Max Power on Design Curve

---- Data Point ----

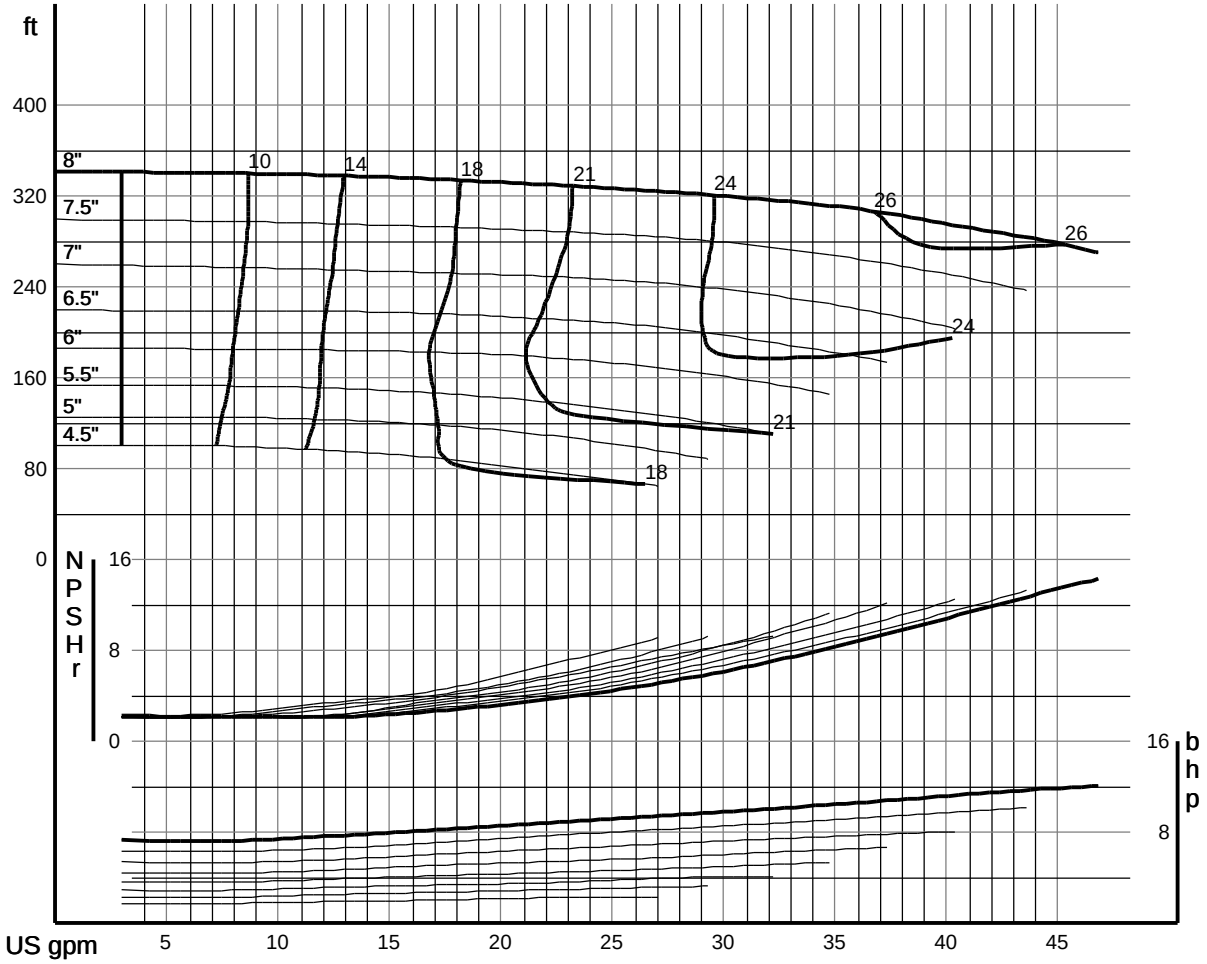
Flow: 40.8 US gpm
Head: 285 ft
Eff: 26%
Power: 11.3 bhp
NPSHr: 11.1 ft

-- Design Curve --

Shutoff Head: 335 ft
Shutoff dP: 145 psi
Min Flow: 3 US gpm
BEP: 26% eff
@ 40.8 US gpm
NOL Pwr: 11.9 bhp
@ 46.5 US gpm

-- Max Curve --

Max Pwr: 11.9 bhp
@ 46.5 US gpm



Griswold Pump Company

Selection list: ---

Search Criteria:
Flow: --- US gpm
Head: --- ft
Tolerance: --- % of head

Fluid: Water
Temperature: 60 °F
SG: 1
Viscosity: 1.105 cP
Vapor pressure: 0.2563 psi a
Atm pressure: 14.7 psi a

NPSHa: --- ft

Advanced Criteria:
Preferred Operating Area: ---
Secondary Operating Point: ---
Max temperature: --- °F
Max suction pressure: --- psi g
Max sphere size: --- in
Max power: --- bhp
Max suction specific speed: --- (Nss)
Min trim: --- % of max diameter
Min head rise: --- % to shutoff

Curve Corrections: none

Catalog: Griswold Pump Company 60hz 1.3 vers 1.3

Pump: 2x1-10 A05
Type: 811-LF
Synch speed: 1800 rpm
Speed: 1750 rpm
Dia: 9.75 in
Curve no.: GLF-1810

Specific Speeds
Ns: --- Nss: ---

Dimensions:
Suction: 2 in Discharge: 1 in

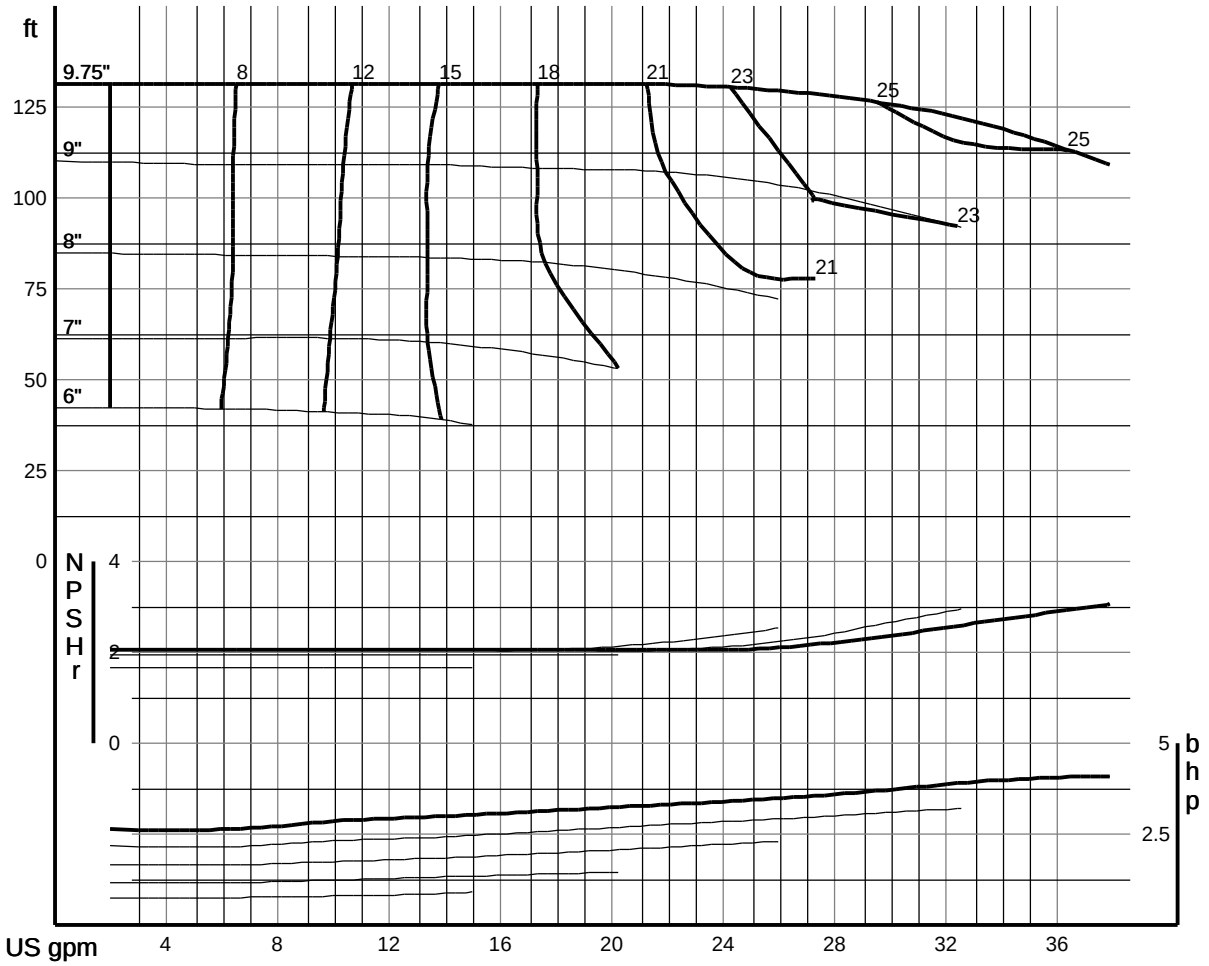
Pump Limits:
Temperature: --- °F
Pressure: --- psi g
Sphere size: --- in
Power: --- bhp

Motor: 5 hp
Speed: 1800
Frame: 184T
Standard: NEMA
Enclosure: TEFC
Sizing criteria: Max Power on Design Curve

---- Data Point ----
Flow: 32.7 US gpm
Head: 119 ft
Eff: 25%
Power: 3.91 bhp
NPSHr: 2.57 ft

-- Design Curve --
Shutoff Head: 129 ft
Shutoff dP: 55.8 psi
Min Flow: 2 US gpm
BEP: 25% eff
@ 32.7 US gpm
NOL Pwr: 4.07 bhp
@ 37.6 US gpm

-- Max Curve --
Max Pwr: 4.07 bhp
@ 37.6 US gpm



Griswold Pump Company

Selection list: ---

Search Criteria:
Flow: --- US gpm
Head: --- ft
Tolerance: --- % of head

Fluid: Water
Temperature: 60 °F
SG: 1
Viscosity: 1.105 cP
Vapor pressure: 0.2563 psi a
Atm pressure: 14.7 psi a

NPSHa: --- ft

Advanced Criteria:
Preferred Operating Area: ---
Secondary Operating Point: ---
Max temperature: --- °F
Max suction pressure: --- psi g
Max sphere size: --- in
Max power: --- bhp
Max suction specific speed: --- (Nss)
Min trim: --- % of max diameter
Min head rise: --- % to shutoff

Curve Corrections: none

Catalog: Griswold Pump Company 60hz 1.3 vers 1.3

Pump: 2x1-10 A05
Type: 811-LF
Synch speed: 3600 rpm
Speed: 3560 rpm
Dia: 9.75 in
Curve no.: GLF-3610

Specific Speeds
Ns: --- Nss: ---

Dimensions:
Suction: 2 in Discharge: 1 in

Pump Limits:
Temperature: --- °F
Pressure: --- psi g
Sphere size: --- in
Power: --- bhp

Motor: 30 hp
Speed: 3600
Frame: 286TS
Standard: NEMA
Enclosure: TEFC
Sizing criteria: Max Power on Design Curve

---- Data Point ----

Flow: 65.8 US gpm
Head: 497 ft
Eff: 30%
Power: 27.4 bhp
NPSHr: 7.16 ft

-- Design Curve --

Shutoff Head: 537 ft
Shutoff dP: 232 psi
Min Flow: 9 US gpm
BEP: 30% eff
@ 65.8 US gpm
NOL Pwr: 28.6 bhp
@ 72.6 US gpm

-- Max Curve --

Max Pwr: 28.6 bhp
@ 72.6 US gpm