



The Advance® 1000 design provides evenly balanced delivery of flow and pressure.

- Resin options enable this strong, durable, versatile unit to cover a broad range of fluid applications.
- The patented Impenatra® Seal properly handles challenging applications at a fraction of the cost of exotic alloys, by preventing fluids contact with metal parts.
- Ideal hydraulic coverage allows the Advance® 1000 to meet requirements where larger pumps are typically specified.

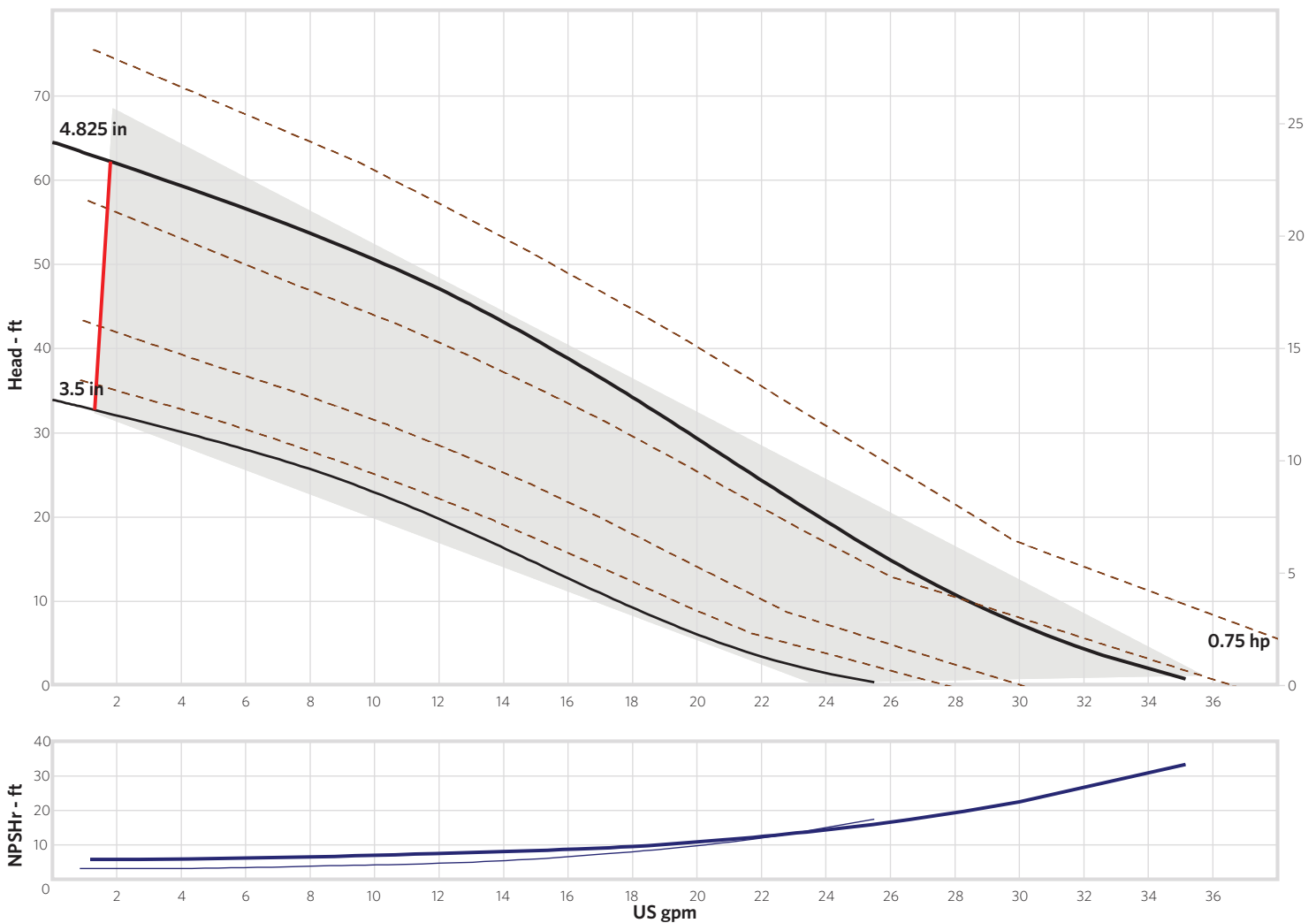
Performance Envelope

- 35 GPM
- 64' Head

Advance® 1000 2 Pole Full / Minimum Diameter Performance Curve

Speed: 3550 rpm

Size: 1000.051



Pump:

Size: 051
 Type: Advance 1000
 Synch speed: 3600 rpm
 Curve: 011212-4
 Specific Speeds:
 Dimensions:
 Speed: 3550 rpm
 Dia: 4.825 in
 Impeller: 1000.051
 Ns: 982
 Nss: ---
 Suction: 1.5 in
 Discharge: 1.5 in

Search Criteria:

Flow: --- Head: ---

Fluid:

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

Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 Size: 0.75 hp
 Speed: 3600
 Frame: 56

Pump Limits:

Temperature: 180 °F
 Pressure: 100 psi g
 Sphere size: 0.105 in
 Power: ---
 Eye area: ---

---- Data Point ----

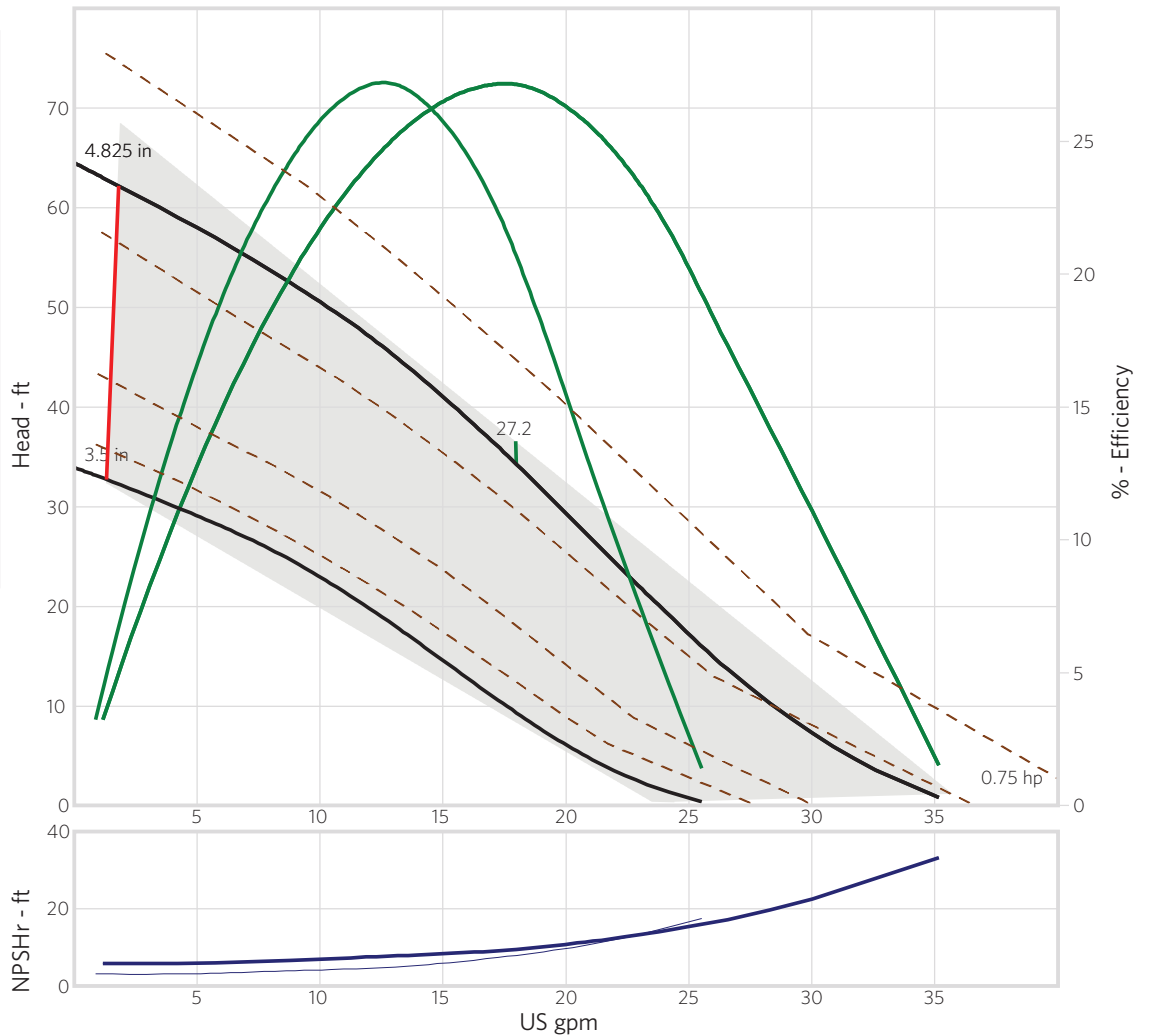
Flow: 18 US gpm
 Head: 34.3 ft
 Eff: 27.2%
 Power: 0.573 hp
 NPSHr: 9.55 ft

---- Design Curve ----

Shutoff head: 64.5 ft
 Shutoff dP: 27.9 psi
 Min flow: 1.8 US gpm
 BEP: 27.2% @ 18 US gpm
 NOL power:
 0.59 hp @ 11.9 US gpm

-- Max Curve --

Max power:
 0.59 hp @ 11.9 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
33.7	3550	2.97	4.2	0.479	30.6
28.1	3550	11.4	14.5	0.519	20.2
22.5	3550	23.1	23.9	0.548	12.9
16.9	3550	36.7	27.1	0.578	9.09
11.2	3550	48.4	23.1	0.589	7.37



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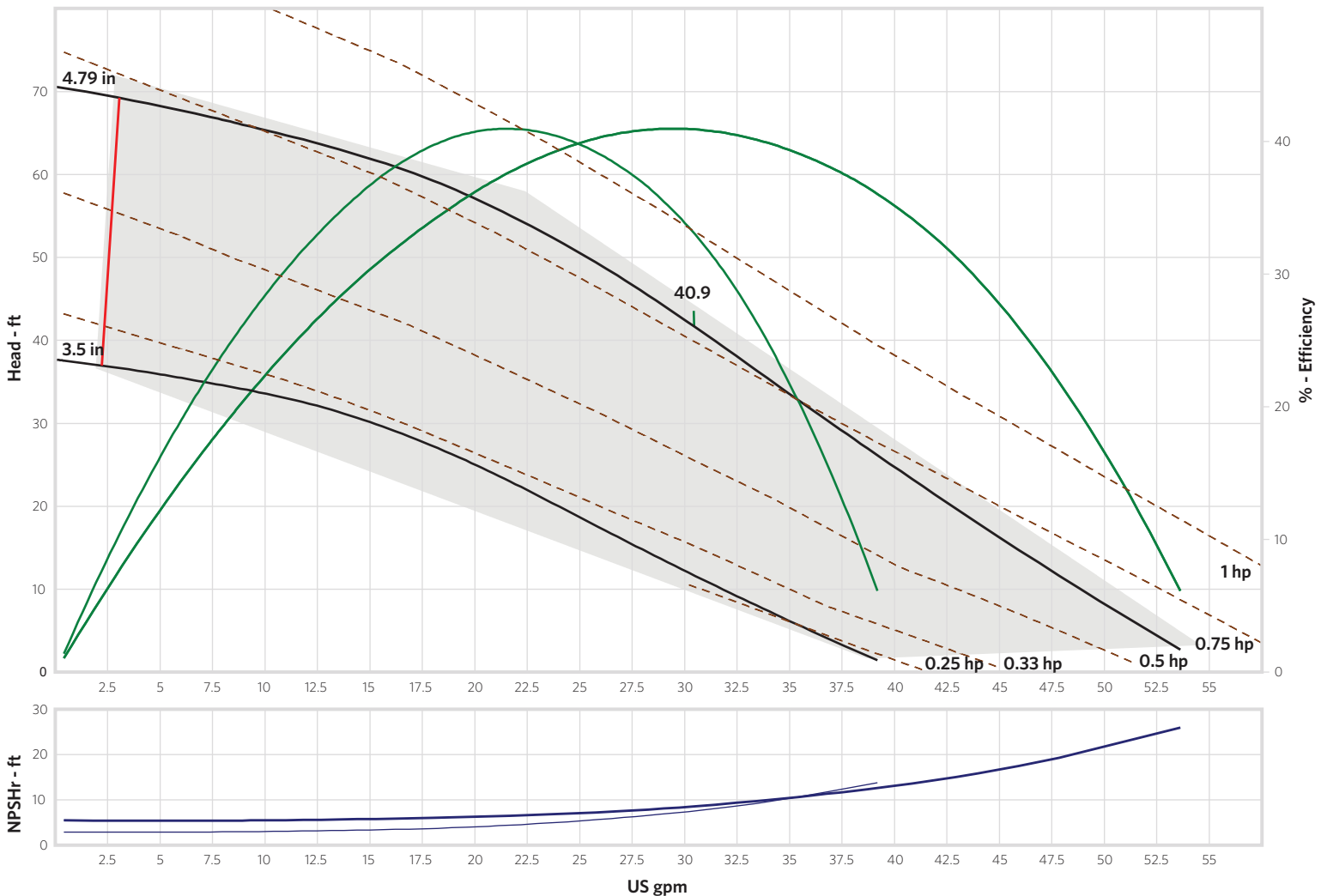
Performance Envelope

- 53 GPM
- 71' Head
- 40% Peak Efficiency

Advance® 1000 2 Pole Full / Minimum Diameter Performance Curve

Speed: 3550 rpm

Size: 1000.052



Pump:

Size: 052
 Type: Advance 1000
 Synch speed: 3600 rpm
 Curve: 011212-9
 Specific Speeds:
 Dimensions:
 Speed: 3550 rpm
 Dia: 4.79 in
 Impeller: 1000.052
 Ns: 1087
 Nss: ---
 Suction: 1.5 in
 Discharge: 1.5 in

Search Criteria:

Flow: --- Head: ---

Fluid:

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

Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 Size: 1 hp
 Speed: 3600
 Frame: 56J

Pump Limits:

Temperature: 180 °F
 Pressure: 100 psi g
 Sphere size: 0.12 in
 Power: ---
 Eye area: ---

---- Data Point ----

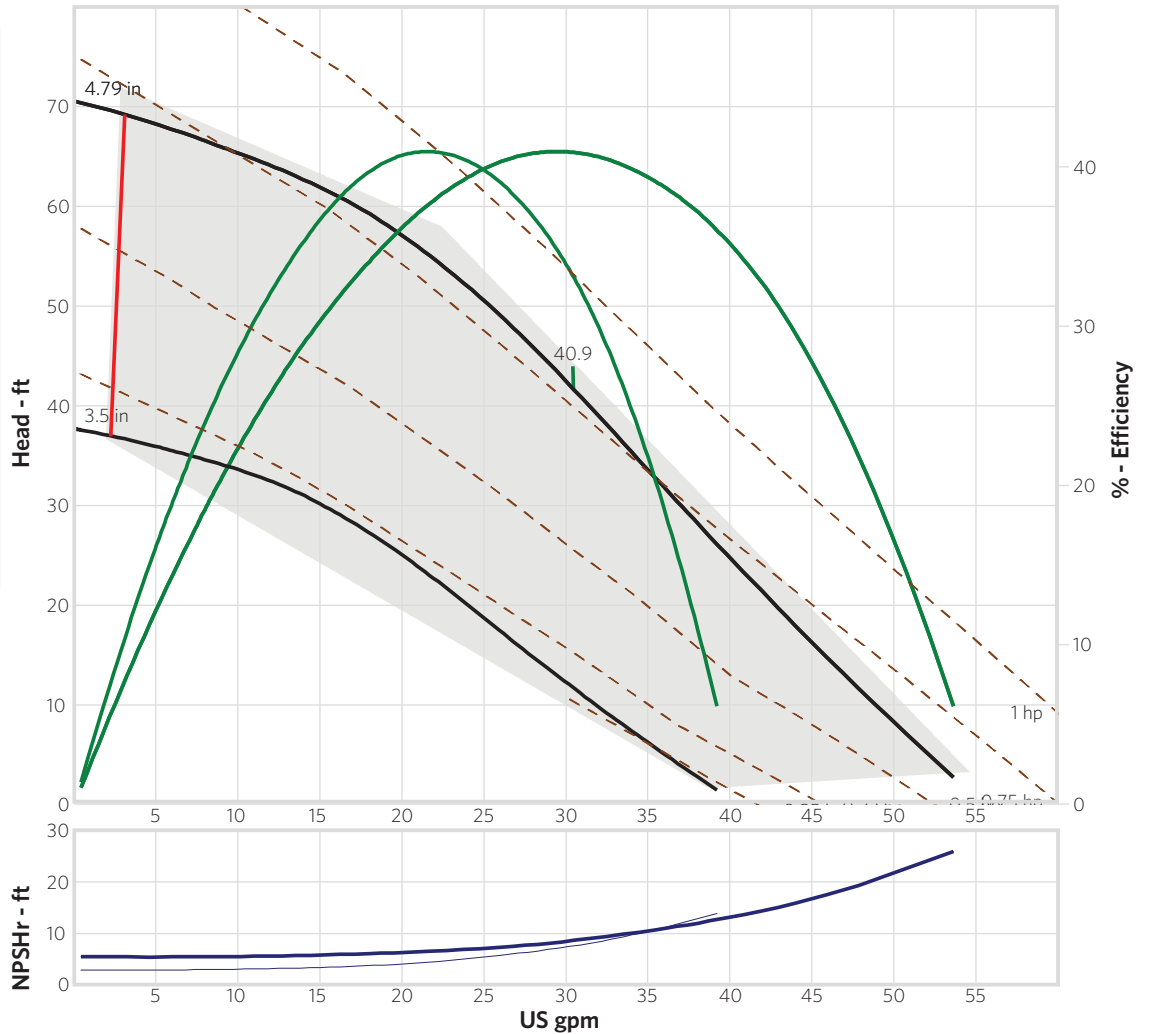
Flow: 30.4 US gpm
 Head: 41.7 ft
 Eff: 40.9%
 Power: 0.783 hp
 NPSHr: 8.62 ft

---- Design Curve ----

Shutoff head: 70.6 ft
 Shutoff dP: 30.6 psi
 Min flow: 3.04 US gpm
 BEP: 40.9% @ 30.4 US gpm
 NOL power:
 0.799 hp @ 21.7 US gpm

-- Max Curve --

Max power:
 0.799 hp @ 21.7 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
51.5	3550	6.05	11.3	0.616	23.8
42.9	3550	19.8	31	0.684	15.2
34.3	3550	34.8	39.5	0.757	10.2
25.7	3550	49.3	40	0.797	7.29
17.2	3550	59.9	33	0.786	6.02



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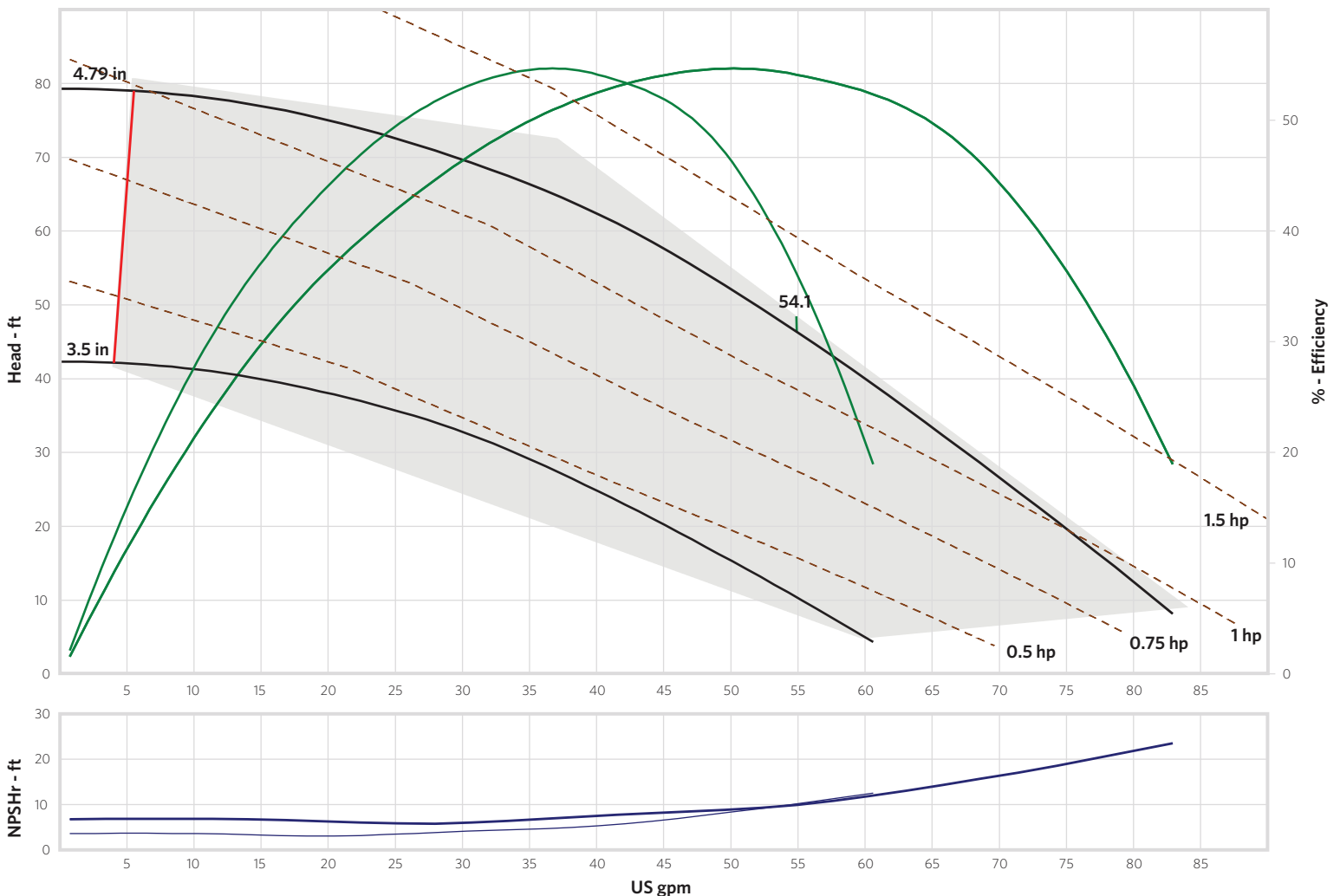
Performance Envelope

- 83 GPM
- 79' Head
- 55% Peak Efficiency

Advance® 1000 2 Pole Full / Minimum Diameter Performance Curve

Speed: 3550 rpm

Size: 1000.053



Pump:

Size: 053
 Type: Advance 1000
 Synch speed: 3600 rpm
 Curve: 011213-7
 Specific Speeds:
 Dimensions:
 Speed: 3550 rpm
 Dia: 4.79 in
 Impeller: 1000.053
 Ns: 1242
 Nss: ---
 Suction: 1.5 in
 Discharge: 1.5 in

Search Criteria:

Flow: --- Head: ---

Fluid:

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

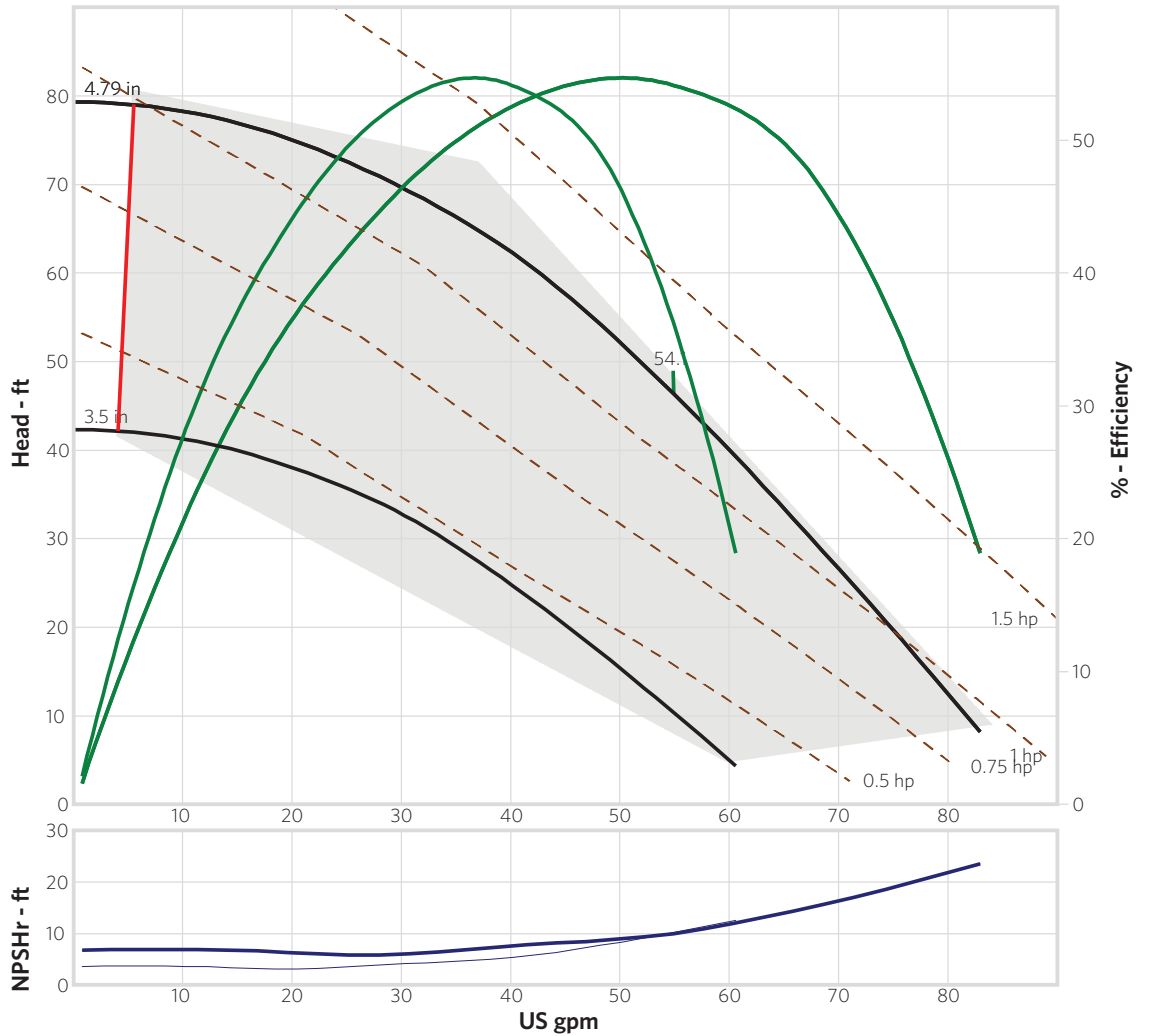
Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 Size: 1.5 hp
 Speed: 3600
 Frame: 56J

Pump Limits:

Temperature: 180 °F
 Pressure: 100 psi g
 Sphere size: 0.306 in
 Power: ---
 Eye area: ---

---- Data Point ----	
Flow:	54.9 US gpm
Head:	46.4 ft
Eff:	54.1%
Power:	1.19 hp
NPSHr:	9.98 ft
---- Design Curve ----	
Shutoff head:	79.3 ft
Shutoff dP:	34.3 psi
Min flow:	5.49 US gpm
BEP:	54.1% @ 54.9 US gpm
NOL power:	1.21 hp @ 41.5 US gpm
-- Max Curve --	
Max power:	1.21 hp @ 41.5 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
79.6	3550	12.9	25.2	0.943	21.8
66.3	3550	31.5	47.5	1.09	14.8
53	3550	48.4	54	1.19	9.68
39.8	3550	62.3	52	1.19	7.56
26.5	3550	71.6	43	1.1	5.95



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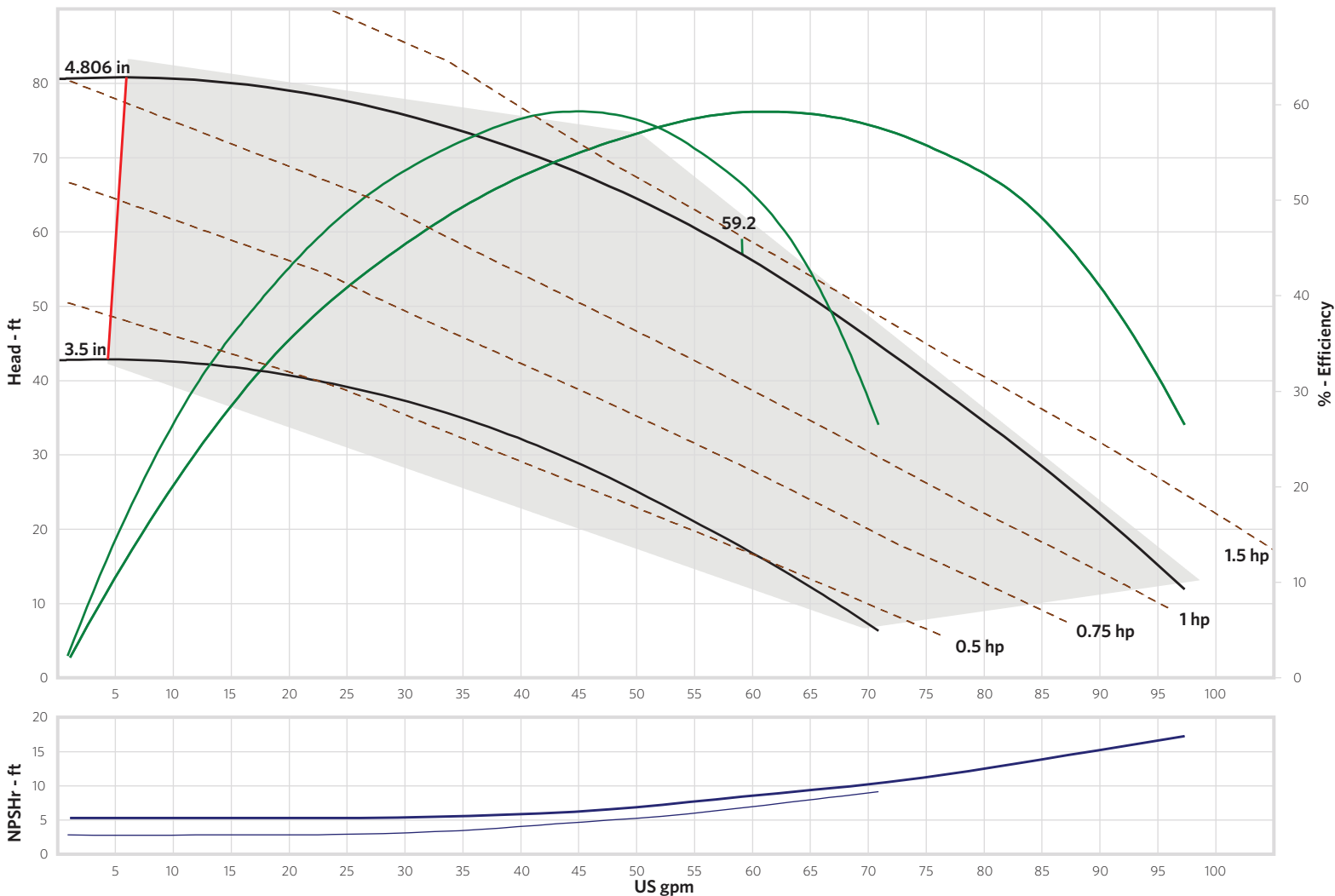
Performance Envelope

- 97 GPM
- 80' Head
- 60% Peak Efficiency

Advance® 1000 2 Pole Full / Minimum Diameter Performance Curve

Speed: 3550 rpm

Size: 1000.054



Pump:

Size: 054
 Type: Advance 1000
 Synch speed: 3600 rpm
 Curve: 011213-16
 Specific Speeds:
 Dimensions:
 Speed: 3550 rpm
 Dia: 4.806 in
 Impeller: 1000.054
 Ns: 1305
 Nss: ---
 Suction: 1.5 in
 Discharge: 1.5 in

Search Criteria:

Flow: --- Head: ---

Fluid:

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

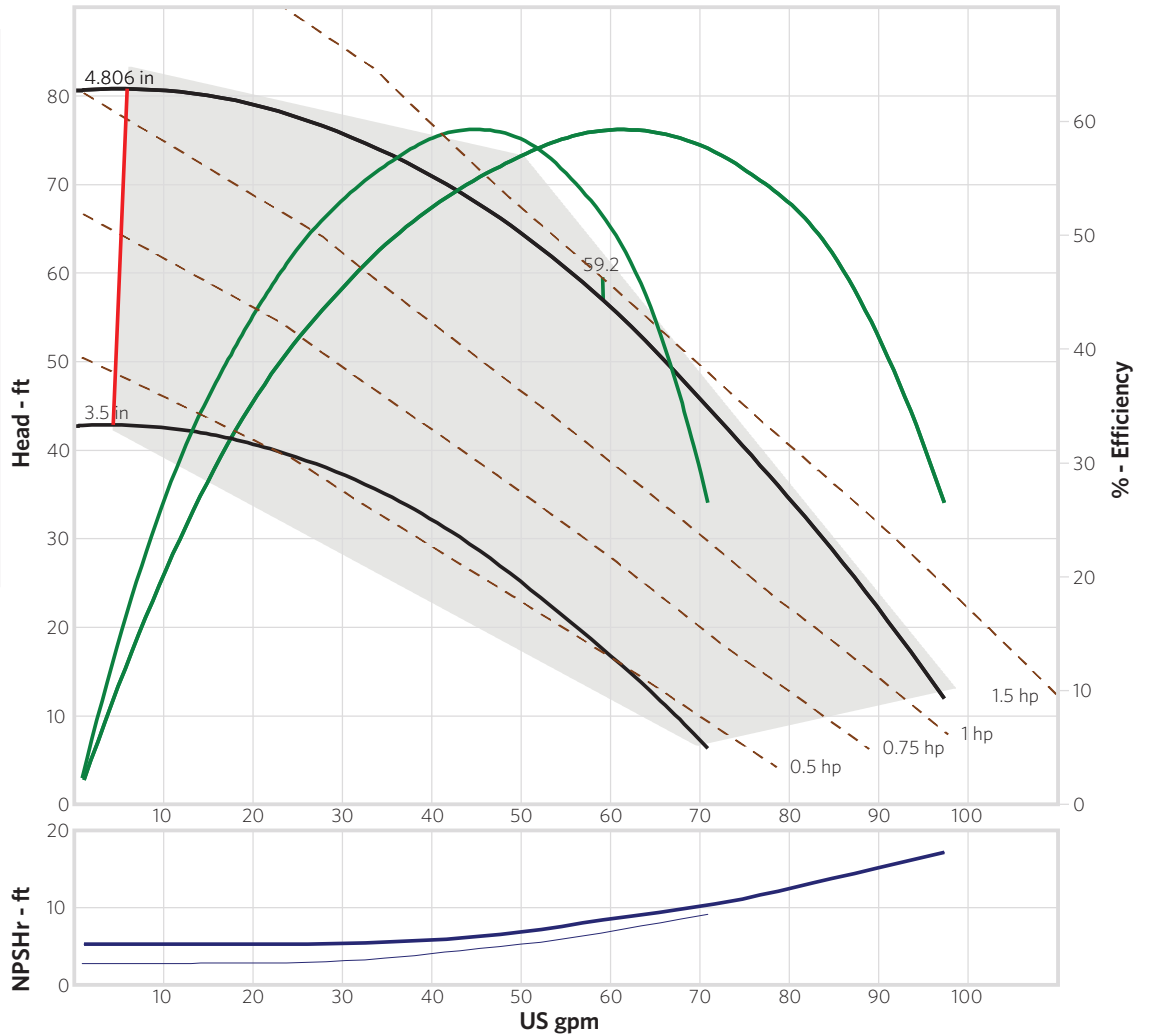
Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 Size: 1.5 hp
 Speed: 3600
 Frame: 56J

Pump Limits:

Temperature: 180 °F
 Pressure: 100 psi g
 Sphere size: 0.397 in
 Power: ---
 Eye area: ---

---- Data Point ----	
Flow:	59.1 US gpm
Head:	57 ft
Eff:	59.2%
Power:	1.44 hp
NPSHr:	8.43 ft
---- Design Curve ----	
Shutoff head:	80.6 ft
Shutoff dP:	34.9 psi
Min flow:	5.91 US gpm
BEP:	59.2% @ 59.1 US gpm
NOL power:	1.44 hp @ 59.1 US gpm
-- Max Curve --	
Max power:	1.44 hp @ 59.1 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
93.4	3550	17.1	33.2	1.16	16.2
77.8	3550	36.9	53.6	1.34	12
62.2	3550	53.7	58.5	1.42	8.98
46.7	3550	66.7	55.5	1.41	6.5
31.1	3550	75.1	46	1.27	5.45



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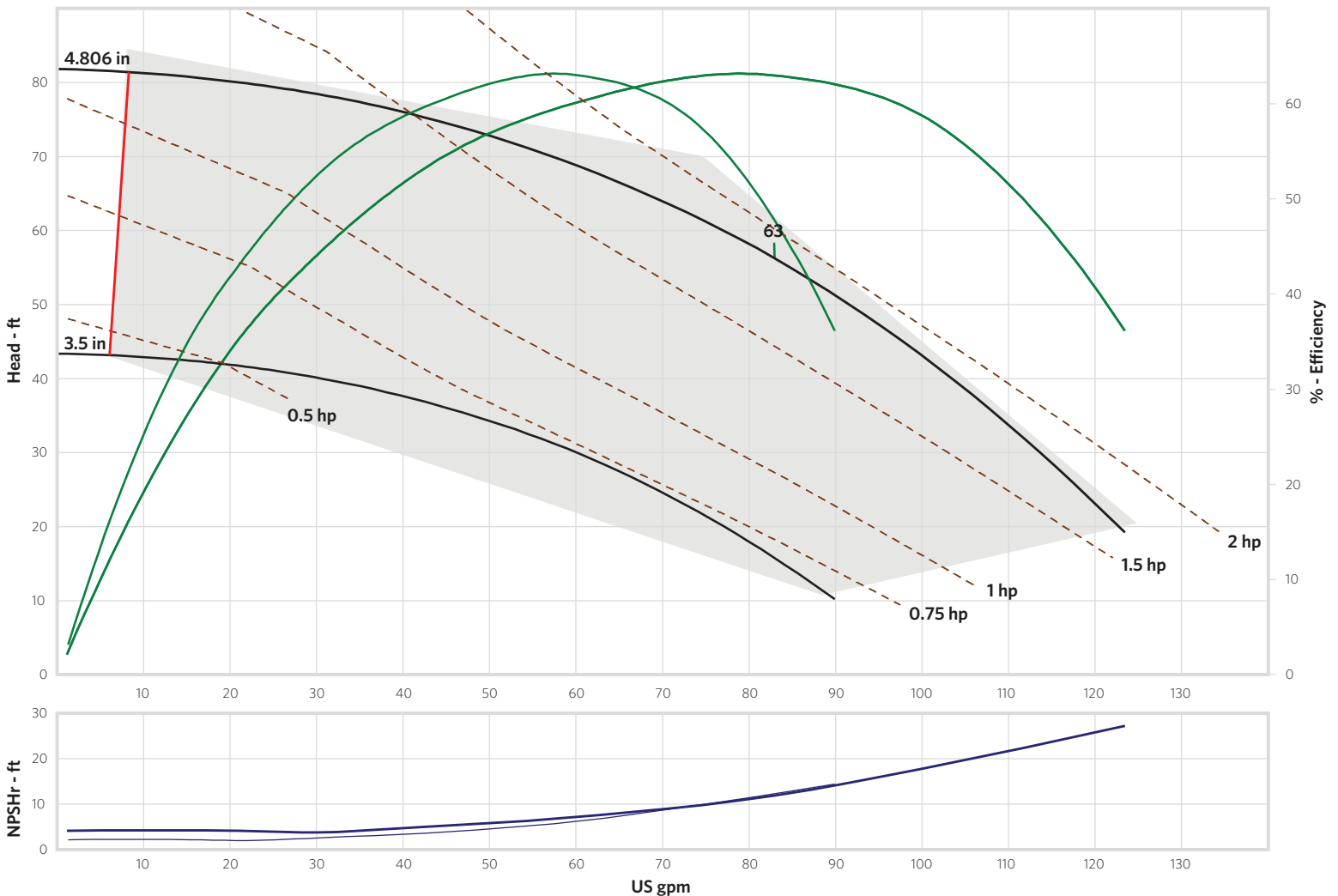
Performance Envelope

- 122 GPM
- 81' Head
- 62% Peak Efficiency

Advance® 1000 2 Pole Full / Minimum Diameter Performance Curve

Speed: 3550 rpm

Size: 1000.055



Pump:

Size: 055
 Type: Advance 1000
 Synch speed: 3600 rpm
 Curve: 011214-03
 Specific Speeds:
 Dimensions:
 Speed: 3550 rpm
 Dia: 4.806 in
 Impeller: 1000.055
 Ns: 1488
 Nss: ---
 Suction: 1.5 in
 Discharge: 1.5 in

Search Criteria:

Flow: --- Head: ---

Fluid:

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

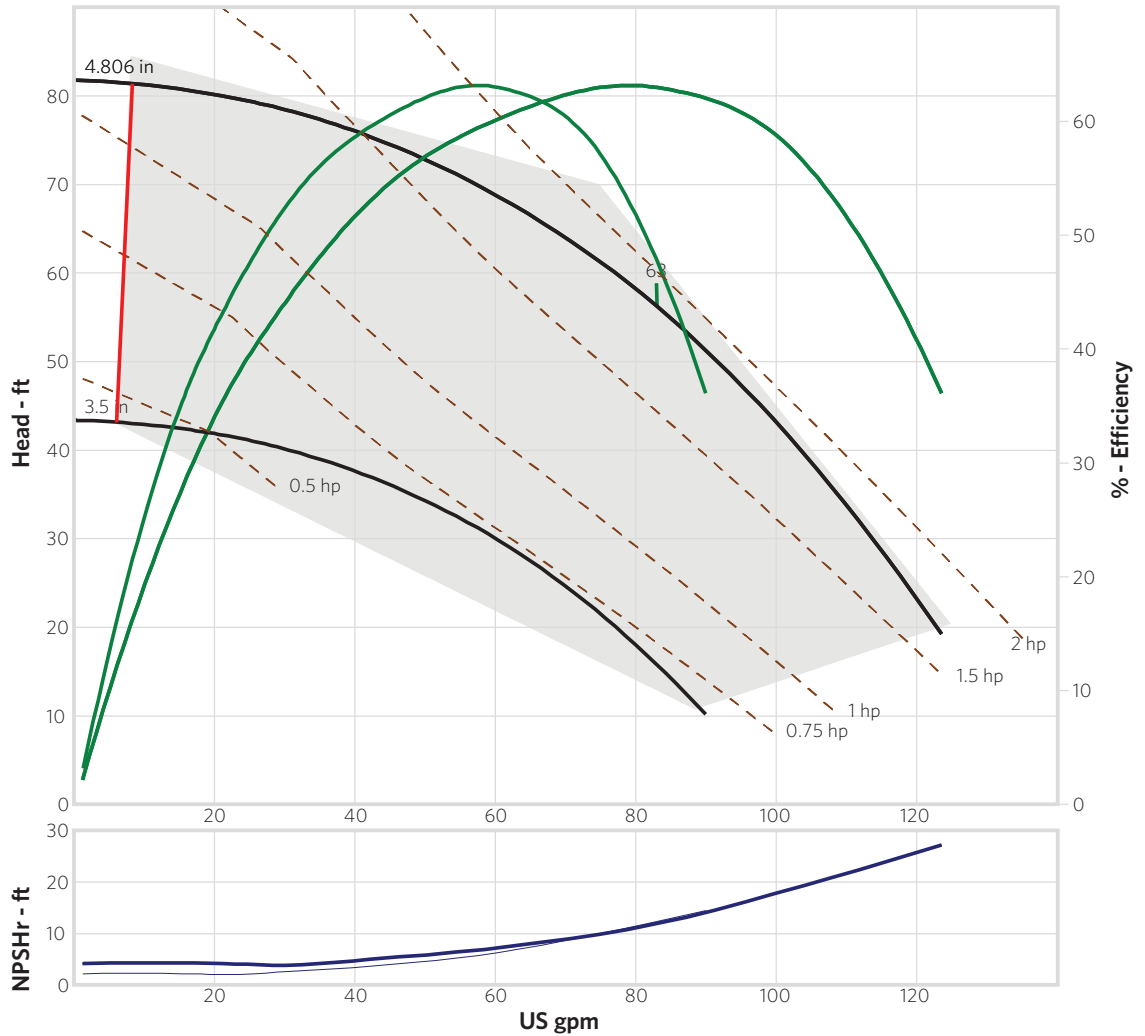
Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 Size: 2 hp
 Speed: 3600
 Frame: 56J

Pump Limits:

Temperature: 180 °F
 Pressure: 100 psi g
 Sphere size: 0.306 in
 Power: ---
 Eye area: ---

---- Data Point ----	
Flow:	82.9 US gpm
Head:	56.3 ft
Eff:	63%
Power:	1.87 hp
NPSHr:	11.9 ft
---- Design Curve ----	
Shutoff head:	81.8 ft
Shutoff dP:	35.4 psi
Min flow:	8.29 US gpm
BEP:	63% @ 82.9 US gpm
NOL power:	1.87 hp @ 82.9 US gpm
-- Max Curve --	
Max power:	1.87 hp @ 82.9 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
118	3550	24.8	41.7	1.71	25
98.7	3550	43.7	58.1	1.85	17.5
79	3550	58.4	62.5	1.85	11.1
59.2	3550	68.9	59.5	1.72	7.18
39.5	3550	76.1	51.1	1.48	4.75



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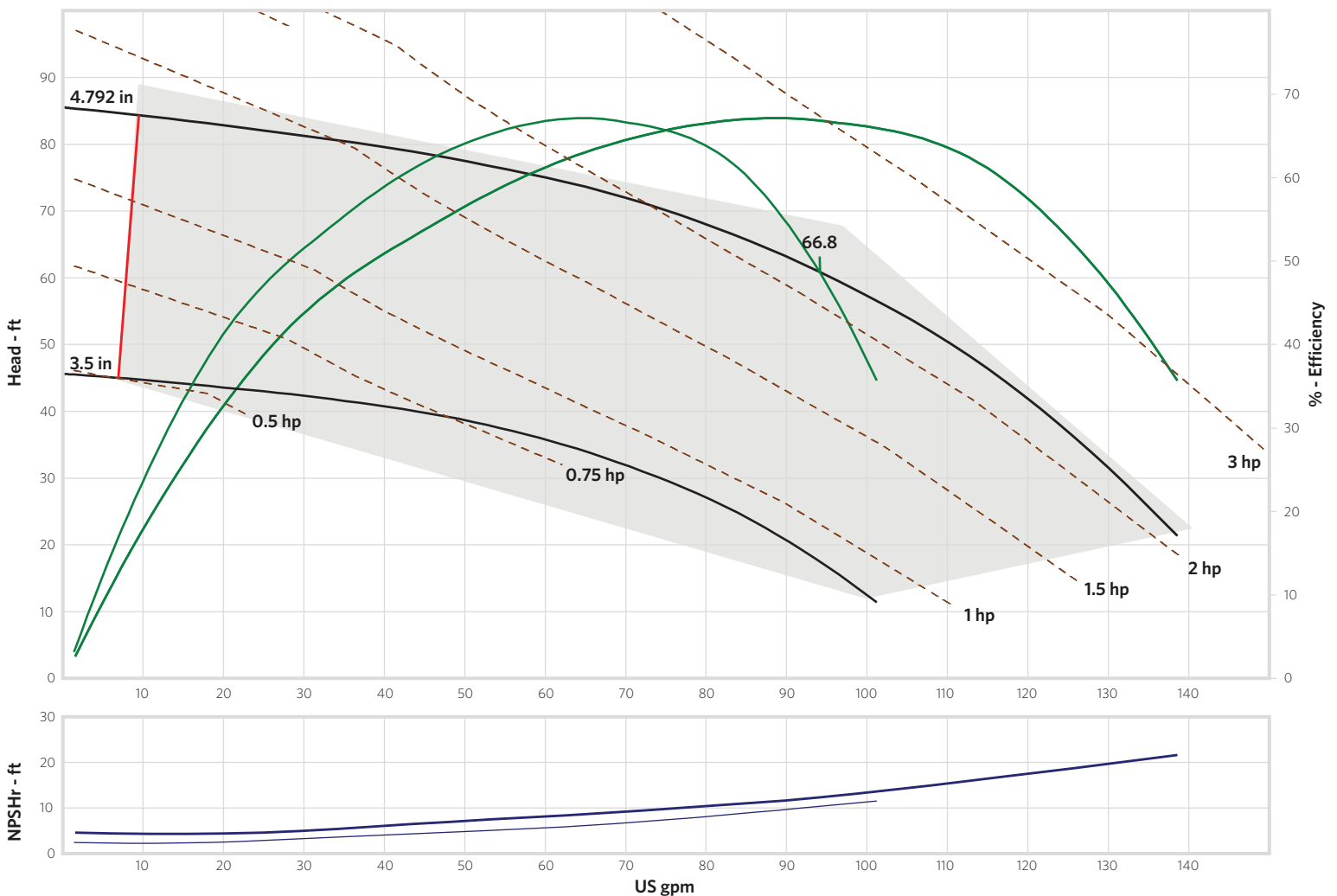
Performance Envelope

- 139 GPM
- 85' Head
- 67% Peak Efficiency

Advance® 1000 2 Pole Full / Minimum Diameter Performance Curve

Speed: 3550 rpm

Size: 1000.056



Pump:

Size: 056
 Type: Advance 1000
 Synch speed: 3600 rpm
 Curve: 011214-11
 Specific Speeds:
 Dimensions:
 Speed: 3550 rpm
 Dia: 4.792 in
 Impeller: 1000.056
 Ns: 1430
 Nss: ---
 Suction: 1.5 in
 Discharge: 1.5 in

Search Criteria:

Flow: --- Head: ---

Fluid:

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

Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 Size: 3 hp
 Speed: 3600
 Frame: 56J

Pump Limits:

Temperature: 180 °F
 Pressure: 100 psi g
 Sphere size: 0.388 in
 Power: ---
 Eye area: ---

---- Data Point ----

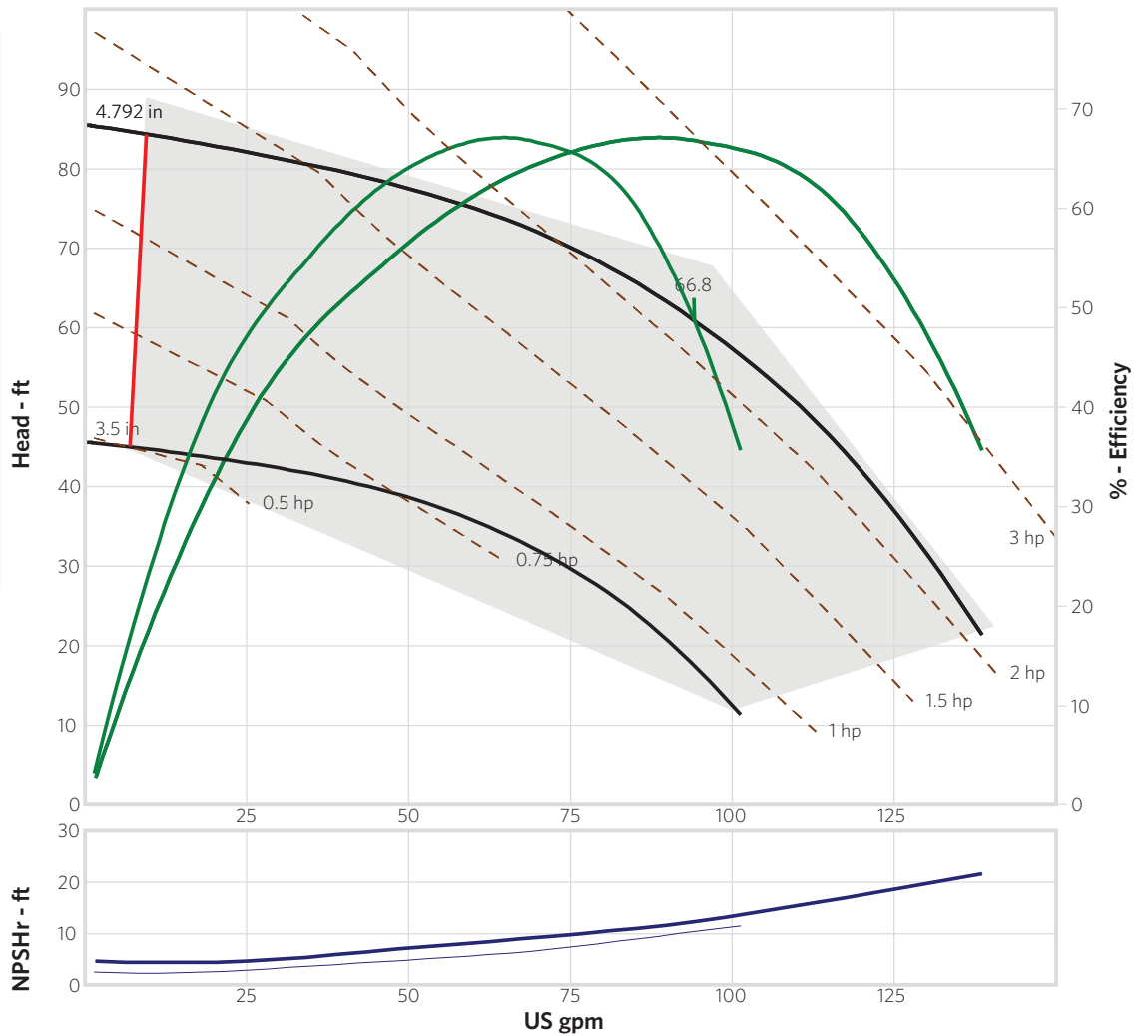
Flow: 94.1 US gpm
 Head: 60.9 ft
 Eff: 66.8%
 Power: 2.16 hp
 NPSHr: 12.4 ft

---- Design Curve ----

Shutoff head: 85.5 ft
 Shutoff dP: 37 psi
 Min flow: 9.41 US gpm
 BEP: 66.8% @ 94.1 US gpm
 NOL power:
 2.21 hp @ 117 US gpm

-- Max Curve --

Max power:
 2.21 hp @ 117 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
133	3550	27.4	41.9	2.13	20.5
111	3550	48.9	61.6	2.2	15.7
88.8	3550	63.4	66.4	2.12	11.7
66.6	3550	72.7	62.9	1.93	8.94
44.4	3550	78.6	52.8	1.65	6.63



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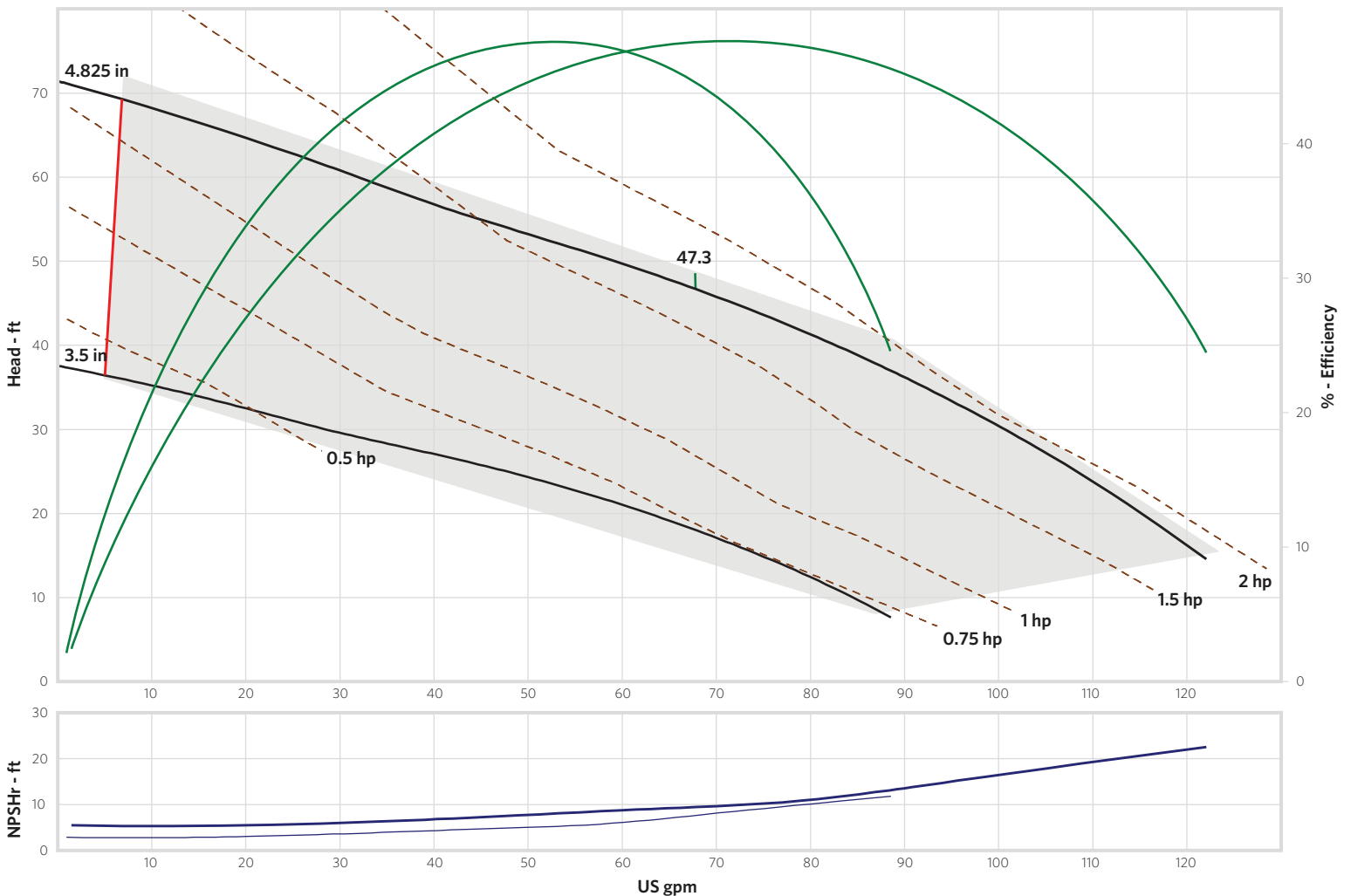
Performance Envelope

- 122 GPM
- 71' Head
- 48% Peak Efficiency

Advance® 1000 2 Pole Full / Minimum Diameter Performance Curve

Speed: 3550 rpm

Size: 1000.056S



Pump:

Size: 056S
 Type: Advance 1000
 Synch speed: 3600 rpm
 Curve: 011207-1
 Specific Speeds:
 Dimensions:
 Speed: 3550 rpm
 Dia: 4.825 in
 Impeller: 1000.056S
 Ns: 1697
 Nss: ---
 Suction: 1.5 in
 Discharge: 1.5 in

Search Criteria:

Flow: --- Head: ---

Fluid:

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

Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 Size: 2 hp
 Speed: 3600
 Frame: 56J

Pump Limits:

Temperature: 180 °F
 Pressure: 100 psi g
 Sphere size: 0.484 in
 Power: ---
 Eye area: ---

--- Data Point ---

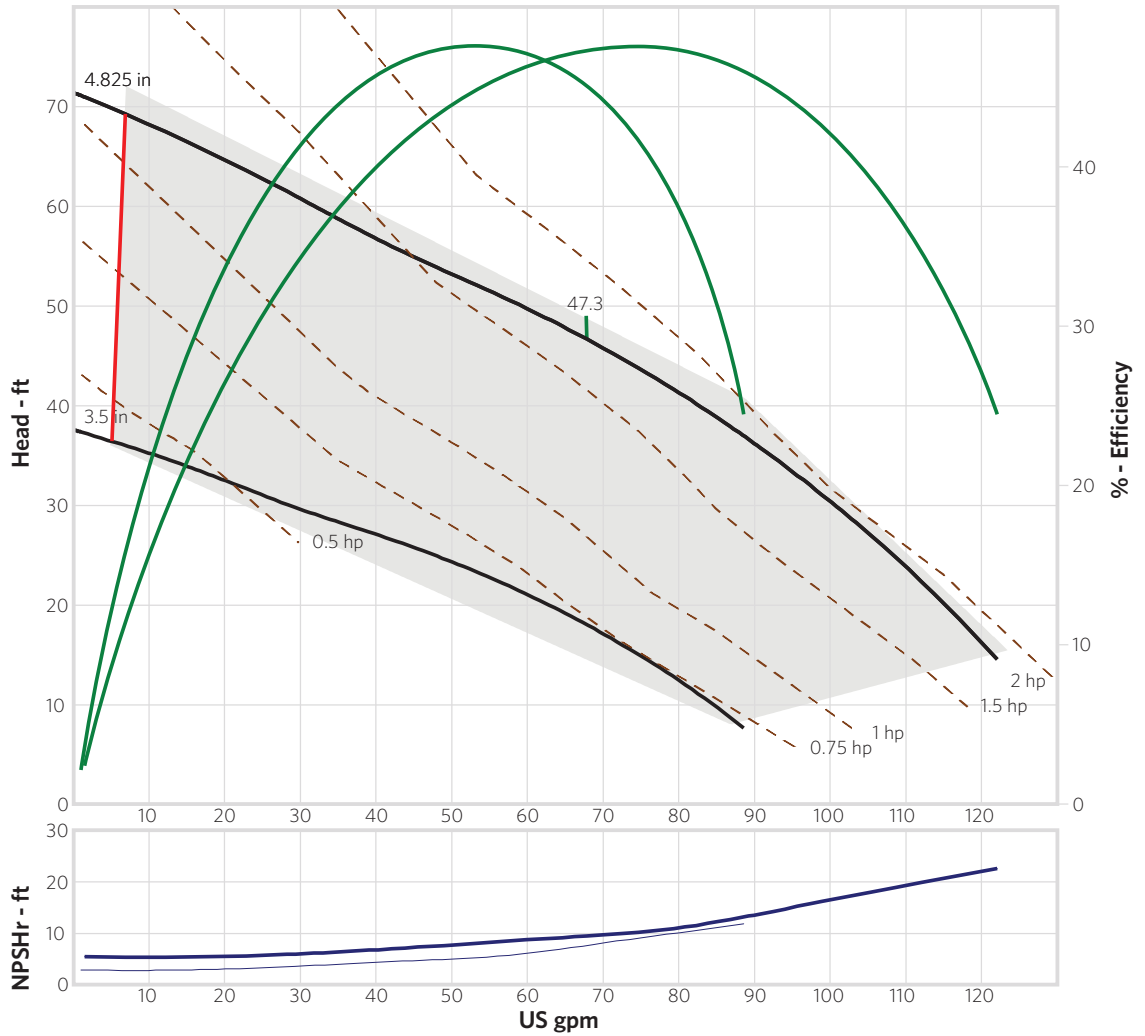
Flow: 67.7 US gpm
 Head: 46.7 ft
 Eff: 47.3%
 Power: 1.69 hp
 NPSHr: 9.49 ft

--- Design Curve ---

Shutoff head: 71.4 ft
 Shutoff dP: 30.9 psi
 Min flow: 6.77 US gpm
 BEP: 47.3% @ 67.7 US gpm
 NOL power:
 1.94 hp @ 98.9 US gpm

-- Max Curve --

Max power:
 1.94 hp @ 98.9 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
117	3550	18.3	28.6	1.85	21.2
97.6	3550	31.8	40.6	1.93	15.8
78.1	3550	42.2	47.1	1.76	10.8
58.6	3550	50.2	45.5	1.63	8.66
39	3550	57.1	38.4	1.46	6.74



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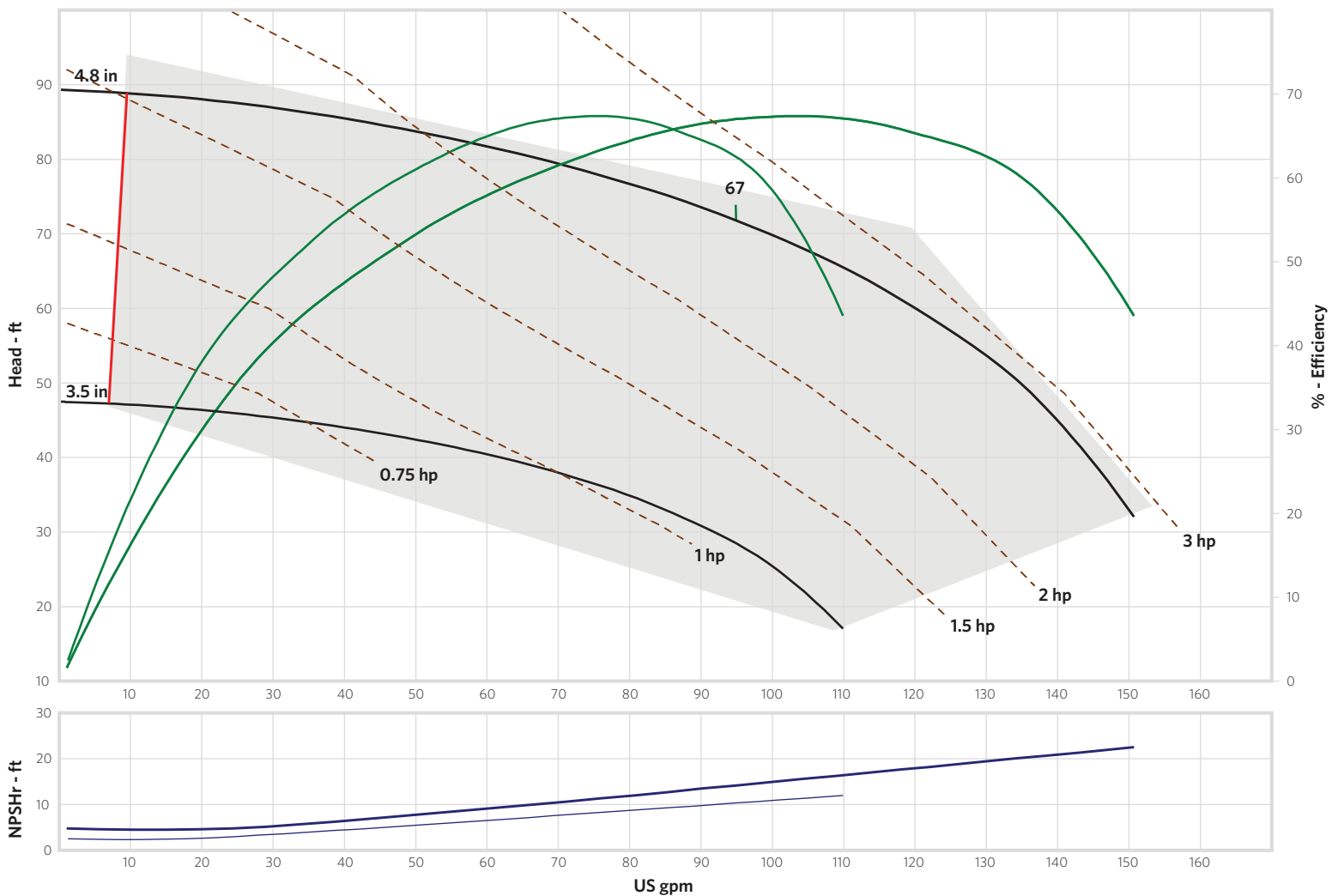
Performance Envelope

- 150 GPM
- 90' Head
- 67% Peak Efficiency

Advance® 1000 2 Pole Full / Minimum Diameter Performance Curve

Speed: 3550 rpm

Size: 1000.057



Pump:

Size: 057
 Type: Advance 1000
 Synch speed: 3600 rpm
 Curve: 011215-02
 Specific Speeds:
 Dimensions:
 Speed: 3550 rpm
 Dia: 4.8 in
 Impeller: 1000.057
 Ns: 1495
 Nss: ---
 Suction: 1.5 in
 Discharge: 1.5 in

Search Criteria:

Flow: --- Head: ---

Fluid:

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

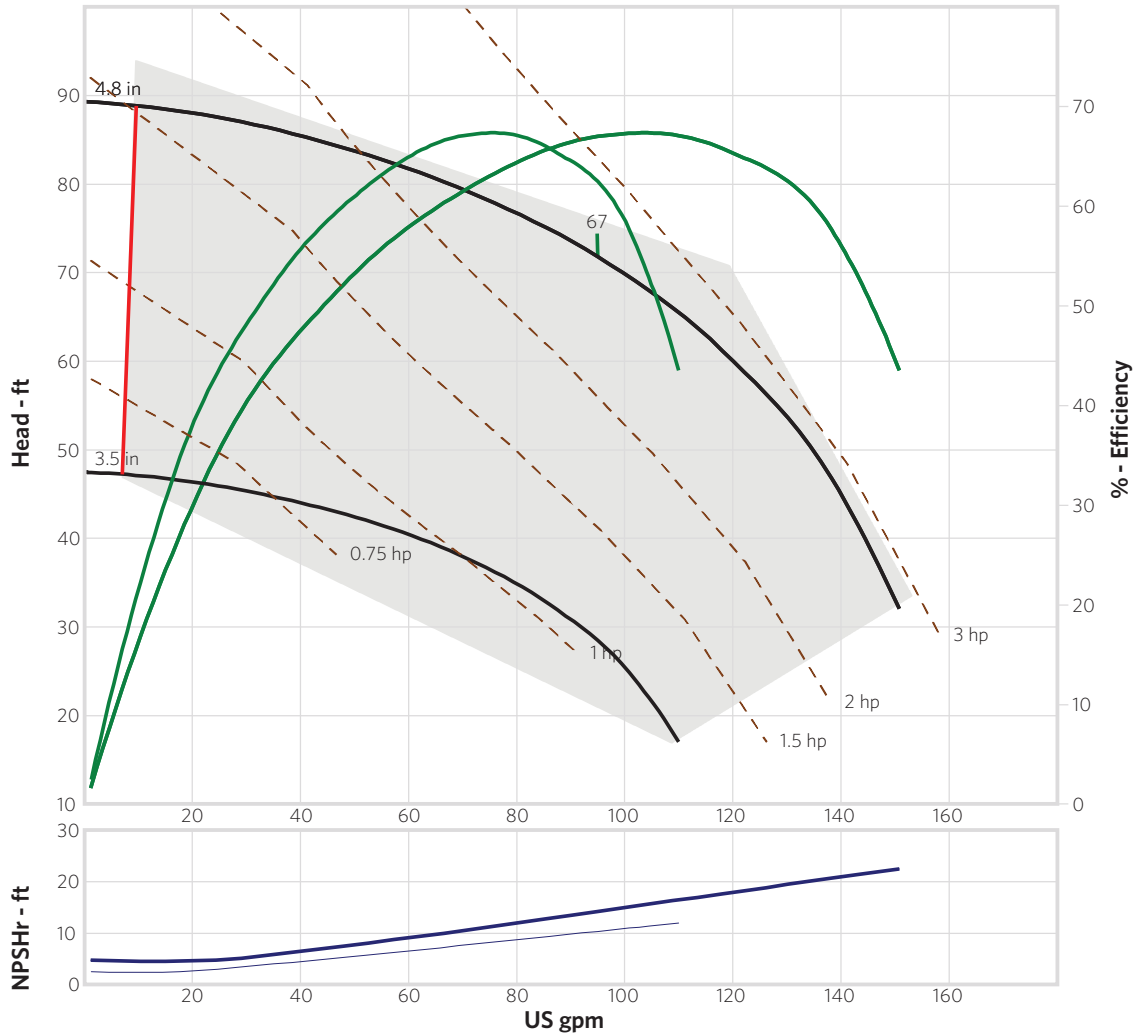
Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 Size: 3 hp
 Speed: 3600
 Frame: 56J

Pump Limits:

Temperature: 180 °F
 Pressure: 100 psi g
 Sphere size: 0.499 in
 Power: ---
 Eye area: ---

---- Data Point ----	
Flow:	94.9 US gpm
Head:	71.8 ft
Eff:	67%
Power:	2.57 hp
NPSHr:	14.2 ft
---- Design Curve ----	
Shutoff head:	89.3 ft
Shutoff dP:	38.7 psi
Min flow:	9.49 US gpm
BEP:	67% @ 94.9 US gpm
NOL power:	2.83 hp @ 138 US gpm
-- Max Curve --	
Max power:	2.83 hp @ 138 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
145	3550	38.7	50	2.81	21.7
121	3550	59	64.6	2.78	18.1
96.8	3550	70.9	66.9	2.58	14.5
72.6	3550	78.7	62.2	2.31	10.9
48.4	3550	84	52.4	1.96	7.62