

NP 3531/735 3~ 1470

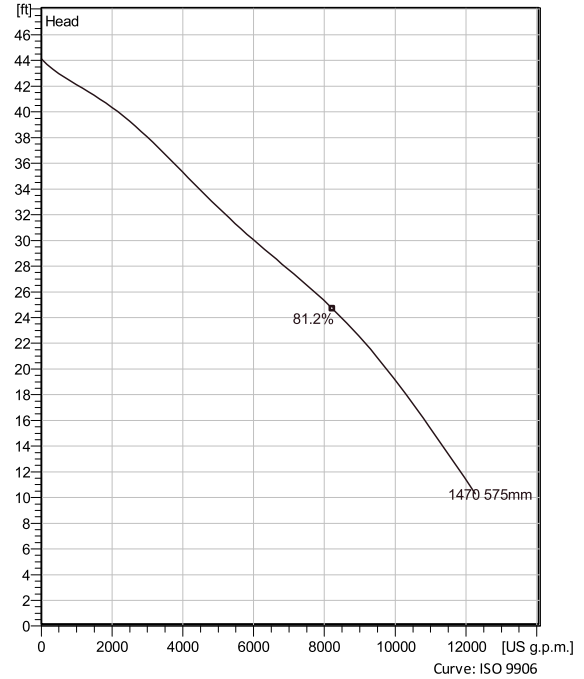
Patented self cleaning semi-open channel impeller, ideal for pumping in waste water applications. Modular based design with high adaptation grade.



Technical specification



Curves according to: Water, pure Water, pure [100%], 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft²/s



Nominal (mean) data shown. Under- and over-performance from this data should be expected due to standard manufacturing tolerances.
Please consult your local Flygt representative for performance guarantees.

Configuration

Motor number N0735.000 43-44-14AA-W 90hp	Installation type P - Semi permanent, Wet
Impeller diameter 575 mm	Discharge diameter 20 inch

Configuration

Pump information

Impeller diameter 575 mm
Discharge diameter 20 inch
Inlet diameter 600 mm
Maximum operating speed 500 rpm
Number of blades 3

Material

Impeller Hard-Iron™

Max. fluid temperature 40 °C
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Created on	9/8/2023
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Technical specification



Motor - General

Motor number N0735.000 43-44-14AA-W 90hp	Phases 3~	Rated speed 500 rpm	Rated power 90 hp
ATEX approved No	Number of poles 14	Rated current 163 A	Stator variant 1
Frequency 60 Hz	Rated voltage 460 V	Insulation class H	Type of Duty S1
Version code 000	Direct media cooling system		

Motor - Technical

Power factor - 1/1 Load 0.57	Motor efficiency - 1/1 Load 90.0 %	Total moment of inertia 249 lb ft ²	Starts per hour max. 15
Power factor - 3/4 Load 0.50	Motor efficiency - 3/4 Load 89.6 %	Starting current, direct starting 590 A	
Power factor - 1/2 Load 0.38	Motor efficiency - 1/2 Load 87.4 %	Starting current, star-delta 197 A	

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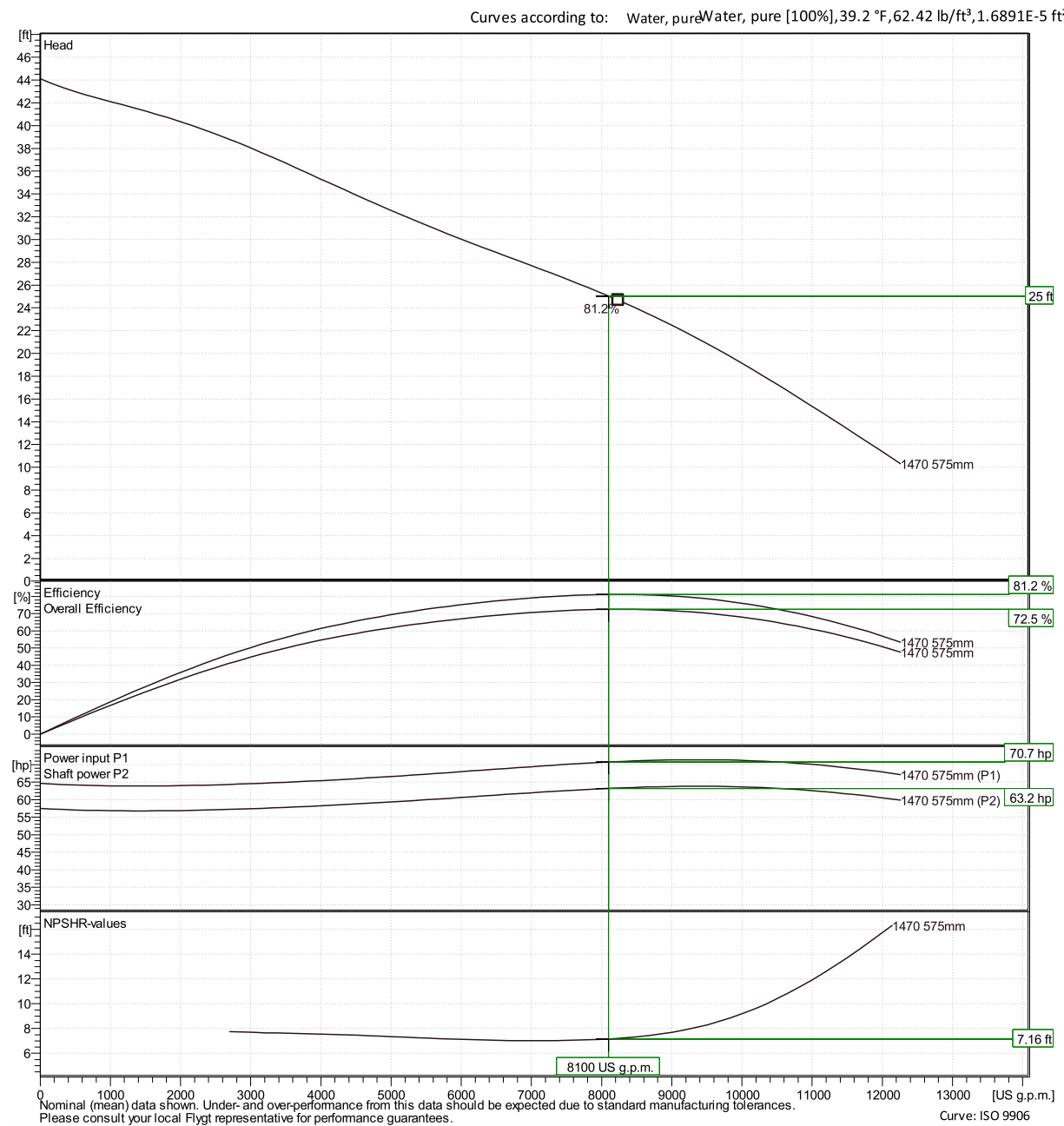
Performance curve



Duty point

Flow
8100 US g.p.m.

Head
25 ft



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Curve: ISO 9906

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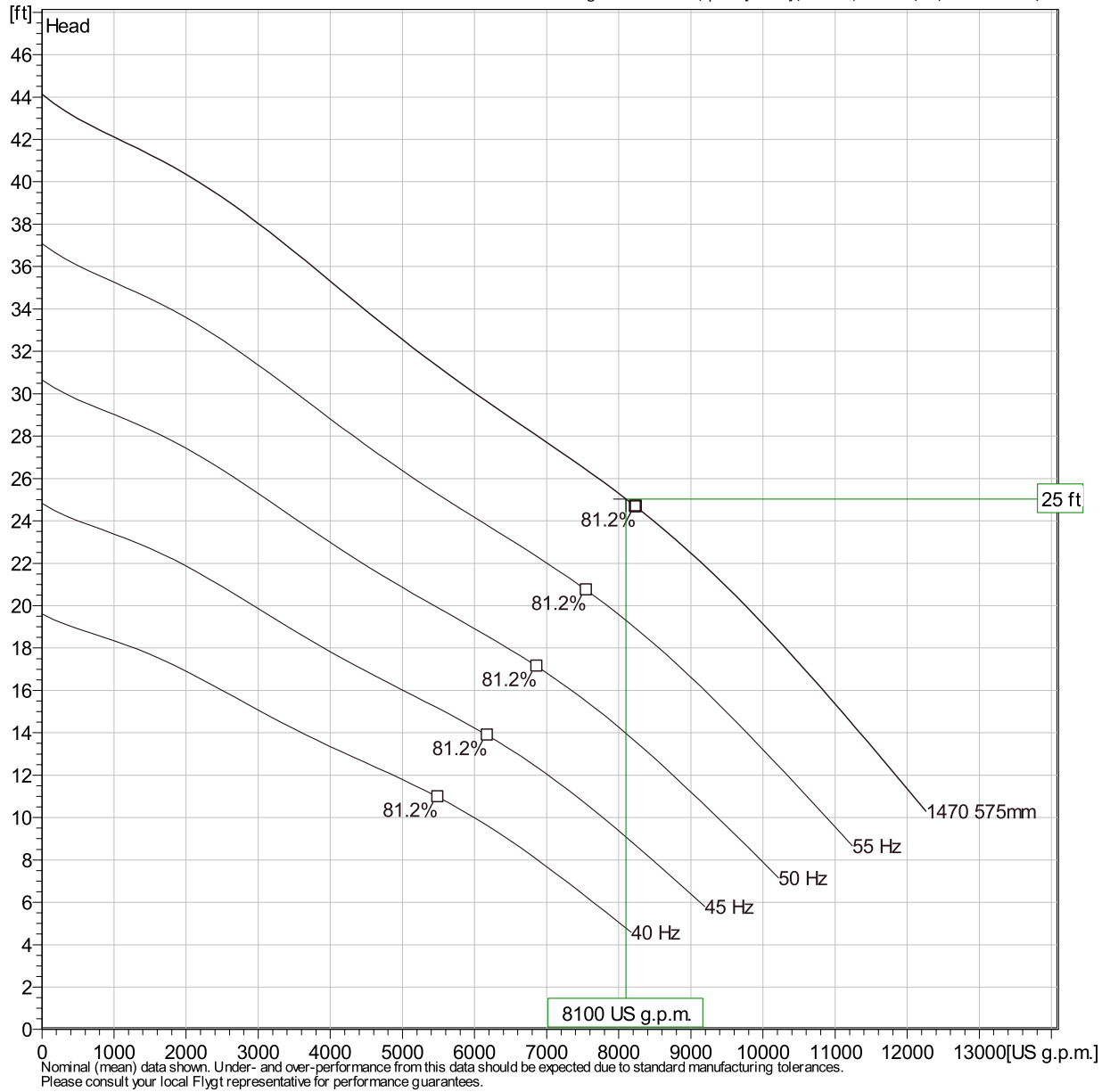
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Duty Analysis



Curves according to: Water, pure [100%] ; 39.2°F; 62.42lb/ft³; 1.6891E-5ft²/s



Operating characteristics

Pumps / Systems	Flow US g.p.m.	Head ft	Shaft power hp	Flow US g.p.m.	Head ft	Shaft power hp	Hydr. eff.	Spec. Energy kWh/US MG	NPSHre ft
1	8100	25	63.2	8100	25	63.2	81.2 %	109	7.16

Project

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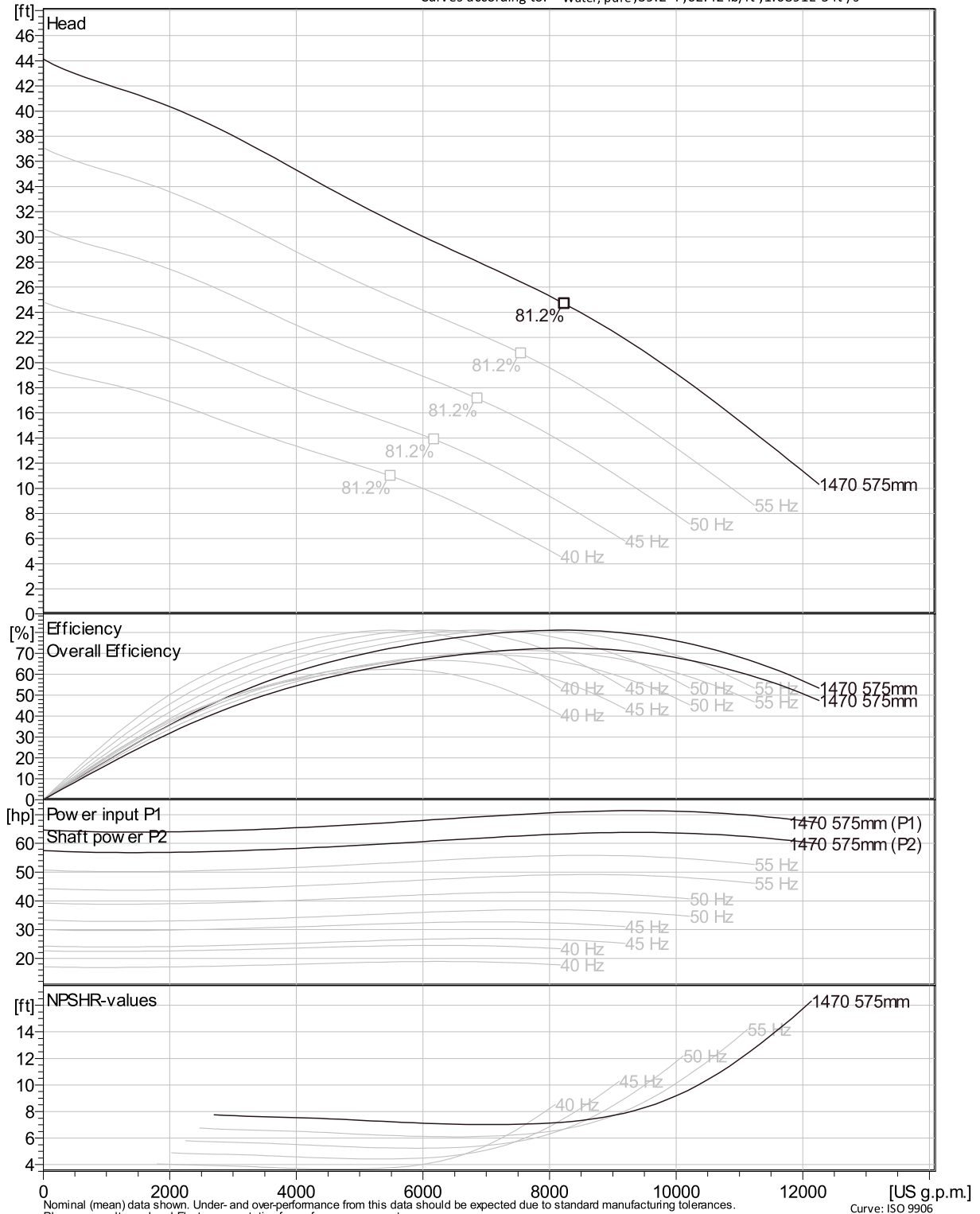
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VFD Curve



Curves according to: Water, pure, 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft²/s



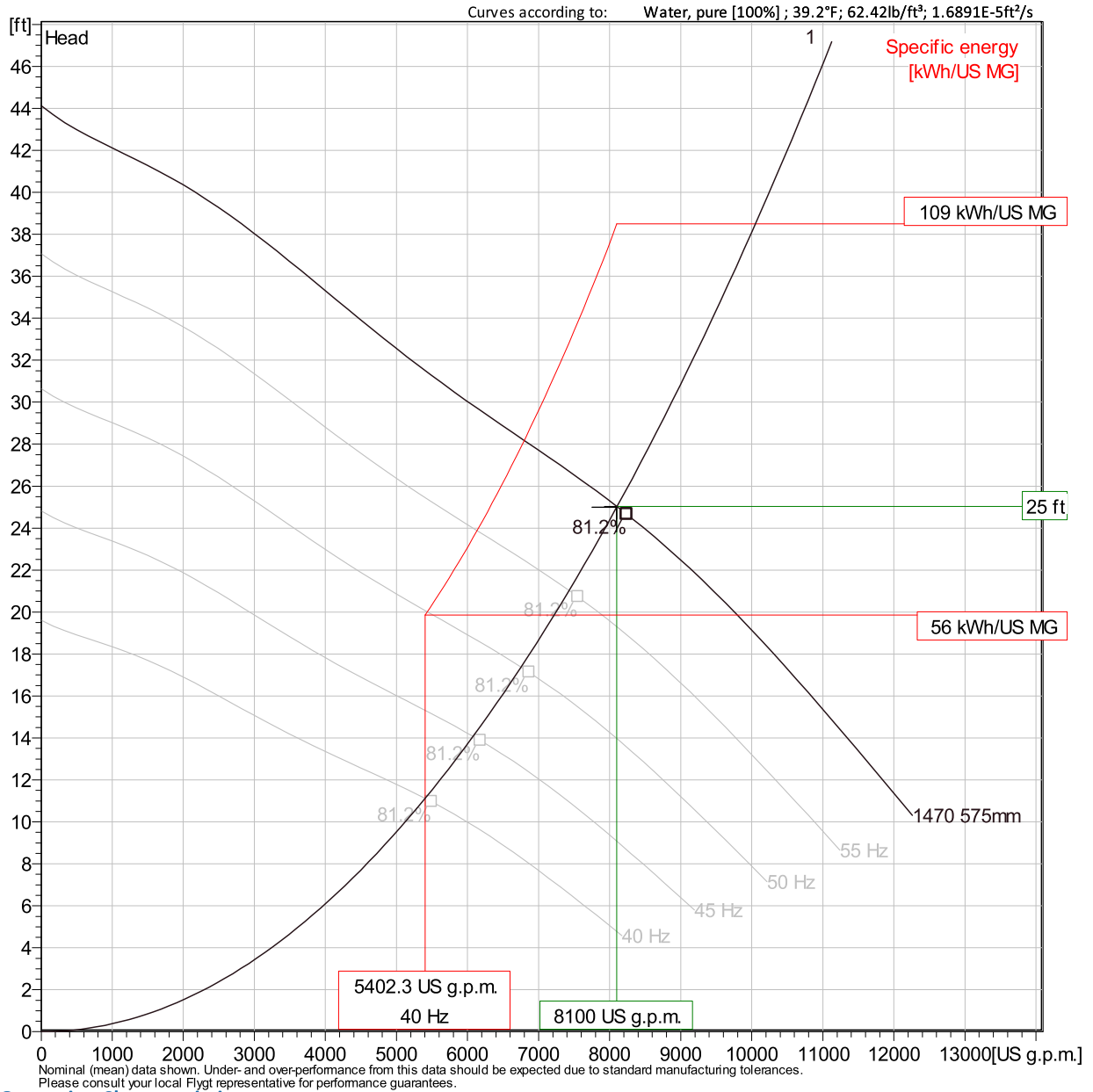
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VFD Analysis



Operating Characteristics

Pumps / Systems	Frequency	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr. eff.	Specific energy	NPSHr
		US g.p.m.	ft	hp	US g.p.m.	ft	hp		kWh/US MG	ft
1	60 Hz	8100	25	63.2	8100	25	63.2	81.2 %	109	7.16
1	55 Hz	7430	21	48.7	7430	21	48.7	81.2 %	92.6	6.23
1	50 Hz	6750	17.4	36.6	6750	17.4	36.6	81.2 %	78.6	5.35
1	45 Hz	6080	14.1	26.7	6080	14.1	26.7	81.2 %	66.4	4.52

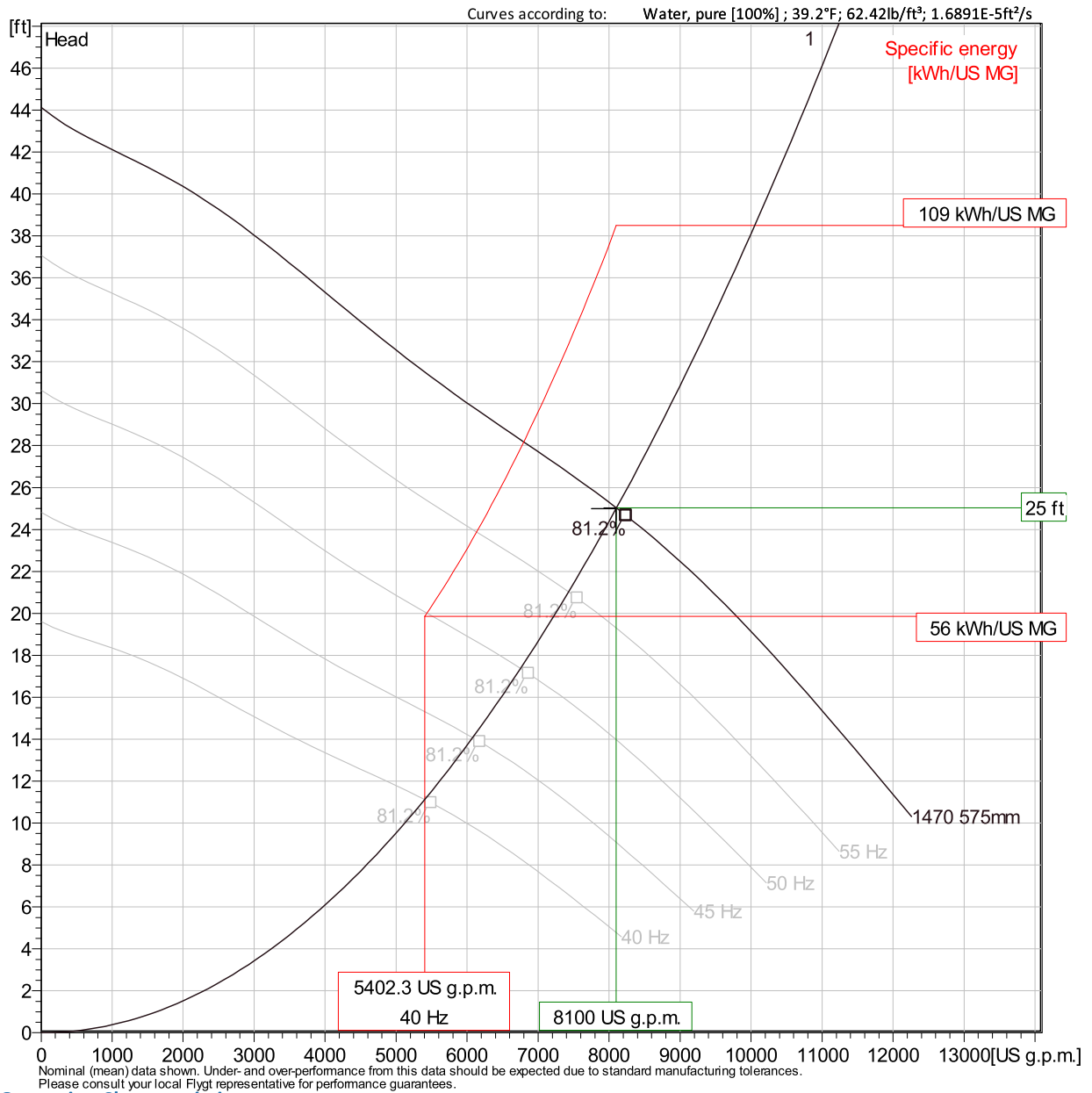
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VFD Analysis



Operating Characteristics

Pumps / Systems	Frequency	Flow US g.p.m.	Head ft	Shaft power hp	Flow US g.p.m.	Head ft	Shaft power hp	Hydr. eff.	Specific energy kWh/US MG	NPSHre ft
1	40 Hz	5400	11.1	18.7	5400	11.1	18.7	81.2 %	56	3.74

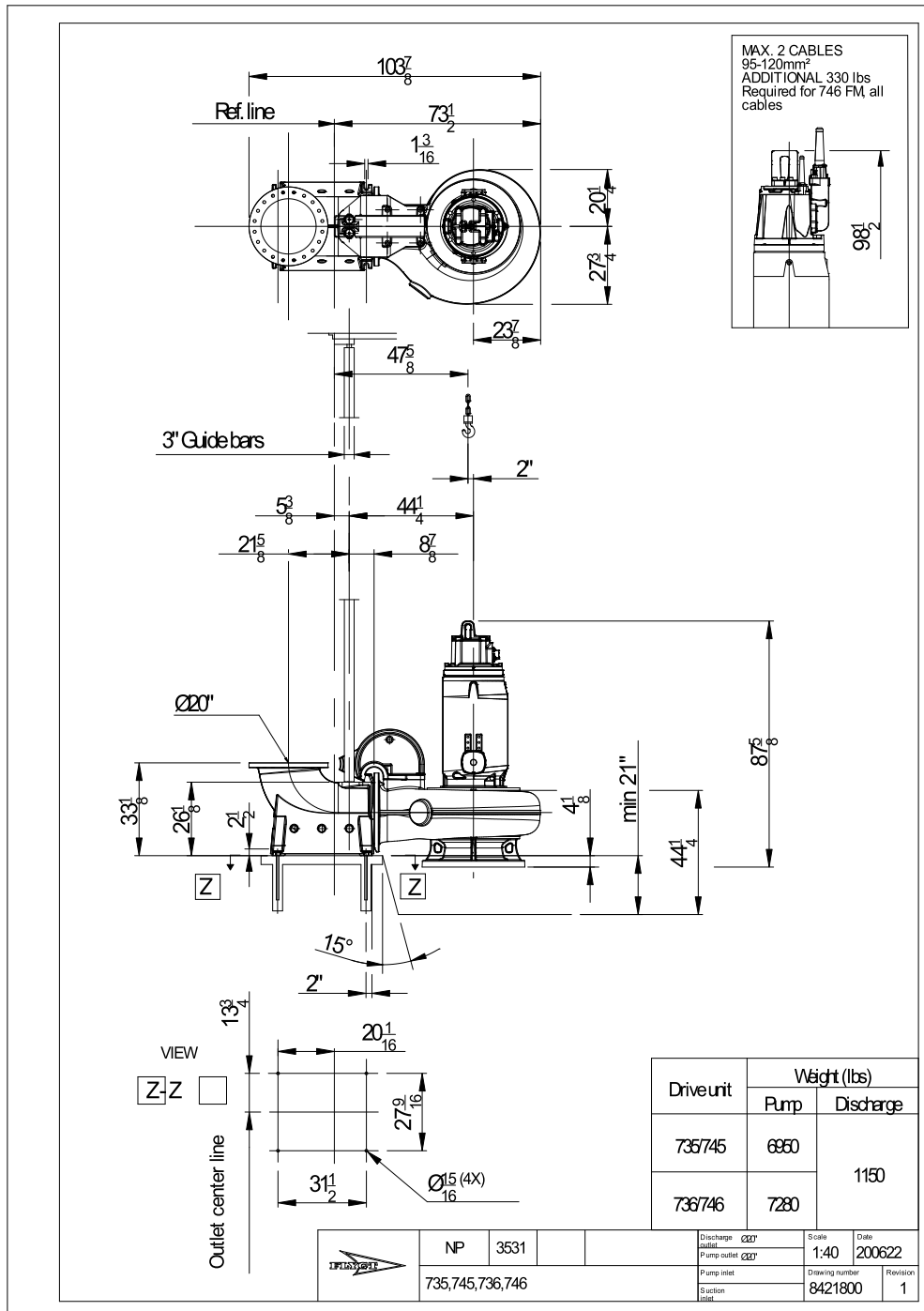
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Dimensional drawing



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