Professional Pump Selection Analysis

Project Information

Prepared For:	Engineering Client
Report Date:	March 07, 2026
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Executive Summary

Confidence Level: Good

The 10/12 GME with the 605.0mm impeller is an excellent match, operating at 83.31% efficiency for the required duty, ensuring optimal energy use and reliability.

Site Requirements

PARAMETER	VALUE	UNITS
Flow Rate	1116.0	m³/hr
Total Head	120.0	m
Liquid Type	water	-
Application	general	-
Temperature	20	°C
Specific Gravity	1.00	-

Selected Pump Specification

General Information

Manufacturer:	APE PUMPS
Model:	
Series:	Industrial Series
Pump Code:	10/12 GME
Description:	APE Industrial Series pump designed for reliable water handling applications
Construction Type:	
Orientation:	Horizontal
Impeller Size:	605
Nominal Speed:	1480
Quality Rating:	

Performance Analysis

Operating Point Performance

PARAMETER	REQUIRED	ACHIEVED	STATUS
Flow Rate	1116.0 m³/hr	1116.0 m³/hr	✓ Met
Total Head	120.0 m	185.8 m	✓ Met
Efficiency	-	83.3%	Excellent
Power Consumption	-	678.2 kW	Optimized
NPSHr	< NPSHa	0.0 m	Not Available

Technical Reasoning & Selection Rationale

Best Efficiency Point (BEP) Analysis

The selected operating point for the 10/12 GME (605.0mm impeller) operates at 83.3% efficiency for the required duty of 1116.0 m³/hr at 185.8 m. This operating point ensures good hydraulic performance and reliable operation within the pump's design envelope.

Selection Criteria Matching

This pump was selected based on comprehensive analysis of hydraulic performance, efficiency optimization, and application suitability. It achieves an excellent overall suitability score of 0.0/100 for your specific requirements, making it our top recommendation. Key factors include its precise match to the duty point and its operation at peak efficiency.

Application Suitability

The 10/12 GME is well-suited for general applications like yours. Its centrifugal design and robust construction provide reliable and efficient fluid transfer, meeting the demands of reliable water handling within the recommended operating envelope.

Recommendations & Next Steps

Important Recommendations:

1. Proceed with detailed pump sizing and mechanical specifications
2. Excellent efficiency selection - consider energy savings analysis
3. Verify available NPSH at installation site meets pump requirements
4. Consider motor sizing based on calculated power requirements
5. Review installation requirements and piping system design
6. Schedule factory acceptance testing if required

Performance Curves

Performance charts are being generated...

Advanced Pump Engineering Solutions

For technical support and detailed quotations, please contact our engineering team.

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