Professional Pump Selection Analysis

Project Information

Prepared For:	Valued Customer
Report Date:	June 07, 2025
Generated By:	AI Selection System

Executive Summary

Confidence Level: Excellent

Site Requirements

PARAMETER	VALUE	UNITS
Flow Rate	342.0	m³/hr
Total Head	27.4	m
Liquid Type	water	-
Application	general	-
Temperature	20	-
Specific Gravity	1.00	-

Selected Pump Specification

General Information

Manufacturer:	APE Pumps
Model:	
Series:	ALE Series - High Efficiency End Suction
Pump Code:	6/8 ALE
Description:	APE ALE Series - High Efficiency End Suction pump designed for reliable water handling applications
Construction Type:	
Orientation:	
Impeller Size:	
Nominal Speed:	
Quality Rating:	

Performance Analysis

Operating Point Performance

PARAMETER	REQUIRED	ACHIEVED	STATUS
Flow Rate	342.0 m³/hr	342.0 m³/hr	✓ Met
Total Head	27.4 m	27.4 m	✓ Met
Efficiency	-	82.0%	Excellent
Power Consumption	-	112.1 kW	Optimized
NPSHr	< NPSHa	2.8 m	Adequate

Technical Reasoning & Selection Rationale

Best Efficiency Point (BEP) Analysis

Selection Criteria Matching

Application Suitability

Alternative Options Considered

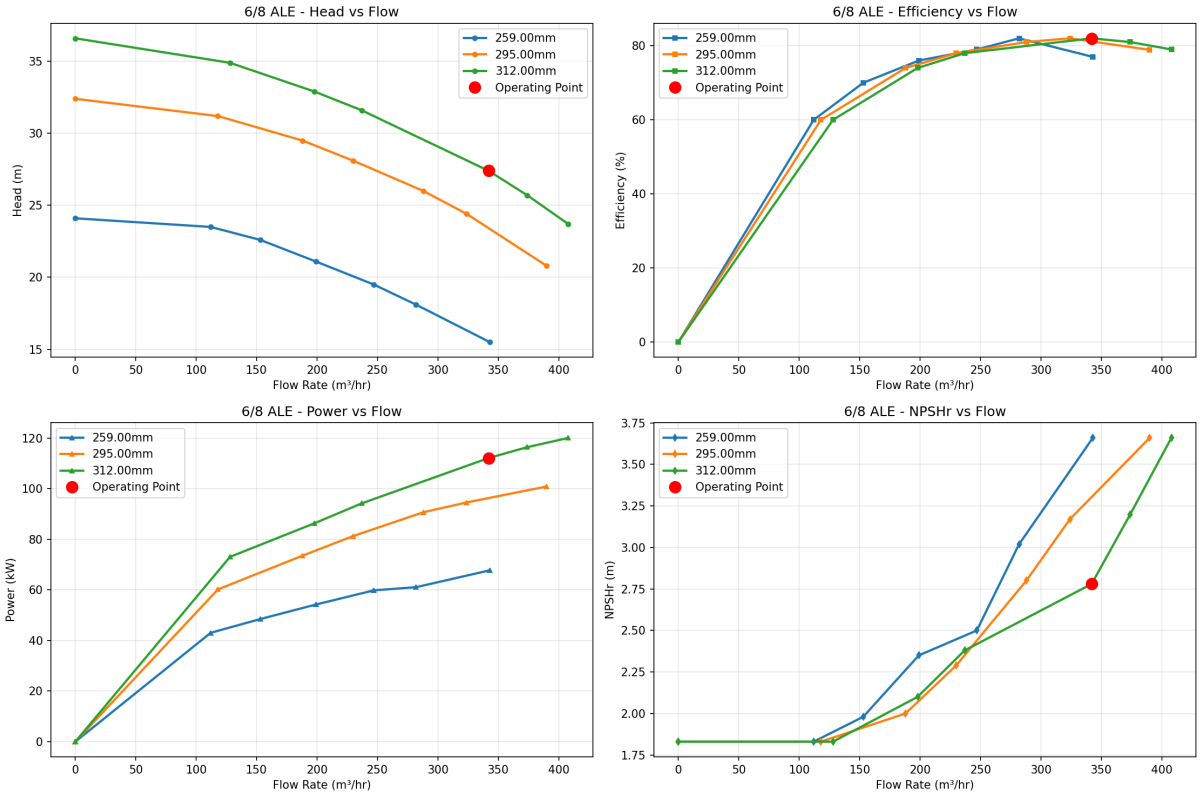
MODEL	MANUFACTURER	EFFICIENCY	POWER	SCORE	KEY DIFFERENCE
6 K 6 VANE	APE Pumps	74.8%	147.5 kW	77.0/100	Lower overall suitability score
5 K	APE Pumps	59.0%	114.2 kW	73.7/100	Lower overall suitability score

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



Operating point for selected impeller (312.00mm) shown in red. Comprehensive performance analysis showing head, efficiency, power, and NPSH characteristics for the 6/8 ALE pump at the specified operating conditions.

Advanced Pump Engineering Solutions

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

This report was generated by the APE Pumps AI Selection System on June 07, 2025 at 15:47.