

MEMO

From: F. Baneyx
To: Team C
Subject: Pump Characteristics

We have acquired two pumps from LabX, and we would like to know their characteristics and where they can be used. Unfortunately, we do not have the pump characteristics provided by the manufacturers. Your first assignment is to find out what types of pumps do we have.

For each pump, determine the electrical power consumption (watts), the pump head (m), and the efficiency. You can prepare a chart similar to that shown in Fig. 10-47, page 10-31 of Perry's Handbook, 7th Edition.

One of the pumps includes a motor speed controller. Please study the performance of this pump at different percentages of full speed. Determine the second pump's efficiency from measurements of the power input and the work done by the pump at various flow rates to be selected by you.

Based on your findings, suggest applications for each pump. How can we use them?