

This Issue

Problem: Hydraulic Cylinder



Illustration: John Speiser

A hydraulic cylinder has the following dimensions: 40-cm x 200-cm x 30-cm and is operating with 4-liter per-minute pump. What would the velocity be in inches/minute?

The teaser is posted on the IFPS website (www.ifps.org) and also printed in the Fluid Power Journal. Submit your information via the website, or fax it to 856-424-9248 attn: Donna Pollander. The deadline to submit an answer is the 15th of the month following release of the Journal. Anyone who submits the correct answer before the deadline date will have his/her name printed in the Society Page newsletter and in Fluid Power Journal. The winner will also be entered into a drawing for a special gift.



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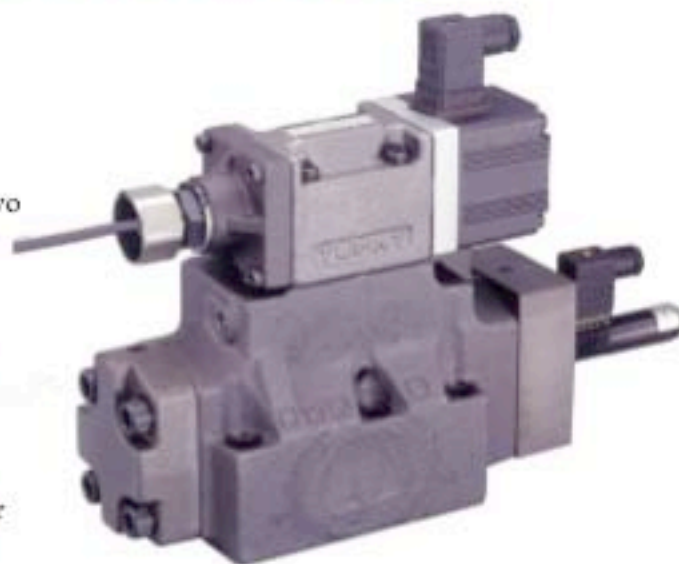
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INTRODUCING THE LSVHG-EH PILOT-OPERATED SERVO

COMPACT. The LSVHG-EH is based on the high-speed linear servo valve, but with a downsized pilot valve and improved user-friendliness. Integrating the on-board amplifier and the linear servo valve provides a simple, compact solution.

CONVENIENT. Fault diagnosis is easy to conduct with alarm indication when the command signal and the spool position differ due to any abnormality in system. Simple control can be obtained by supplying 24 V DC power and inputting a command signal of ± 10 V, ± 10 mA or 4-20 mA.

PERFORMANCE. Revolutionary linear motor and sensor technology results in unparalleled closed-loop control. This valve achieves excellent linearity, hysteresis, and stability, while maintaining frequency response as high as 125 Hz.



Contact the reliability experts at ALA Industries, Ltd., for more information on this and other solutions.

Use the space below to calculate your solution:

Previous Solution: Hydraulic Motor

$$Q = V_p N / 231, T = P_v p / 6.28 \text{ and } H_p \\ \text{TN} / 63025$$

$$V_p = 6.28 - T / P = 6.28 \times (10 \times 1000) / \\ 1000 = 62. \text{in}^3$$

$$Q = 6.28 \times 30 / 231 = 8.16\text{-gpm}$$

$$H_p = (10 \times 1000) \times 30 / 63025 \\ = 4.76\text{-Hp}$$

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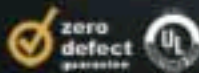
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