

TROMBETTA'S SMALLER, MORE ECONOMICAL P/Q608 SOLENOIDS OFFER HIGH PUSH/PULL POWER

Trombetta P/Q608 SERIES Solenoids

P/Q 608 Features

Trombetta Corporation offers both push and pull versions of this powerful, highly efficient solenoid. It is designed to fit into tight spots and provides a stroke length of 3/4 inch. Depending upon the duty cycle, this solenoid is capable of delivering "pull" forces of up to 7.6 lbs. at 3/4 inch (pull forces can be greater at shorter strokes). Continuous duty "hold" forces of up to 20 lbs. can be attained. See the force curves in this publication for detailed values and parameters.

The P/Q 608 can be provided with or without a spring, and a protective boot is also an optional accessory.

This solenoid can operate on voltages from 12VDC to 120 VAC. A Trombetta Electronic Control Module is required to operate at 120 VAC but is not required for 12-24 VDC operation. However, if used, a Module can deliver significant benefits by:

- Enabling the solenoid to produce large "hold" forces continuously and at significantly reduced current levels (which reduces internal coil temperature rise)
- Eliminating the need for high current-capacity interposing relays or contactors
- Enabling the use of a low power signal (milliamp current level) to control the operation of the solenoid

P/Q 608 Applications

Trombetta's economical P/Q 608 solenoid is suited for a wide range of challenging push-or-pull applications including packaging machinery, door latching, diesel engine control, clutch engagement, transmission locking and many other situations where electric actuation is required, but mounting space is limited.

P/Q 608 General Specifications (at 100% rated voltage and 25° C coil temp.)

	12 VDC VERSION	24 VDC VERSION	120 VAC VERSION**
Pull Current	33.3 Amps	16.7 Amps	3.7 Amps
Pull Force at 0.75 inch	7.6 lb. (34 N)	7.6 lb. (34 N)	7.6 lb. (34 N)
Hold Current	0.33 Amps*	0.17 Amps*	0.04 Amps
Hold Force	20 lb. (93 N)	20 lb. (93 N)	20 lb. (93 N)
Solenoid Weight	0.8 lb.	0.8 lb.	0.8 lb.

Notes:

* Current drawn from the power source when the solenoid is used with an S500-A60 Module

** An S500-A300 Module is required to operate at 120 VAC

(* Hold* current values are measured at the power input to the Module)



Trombetta solenoid products have been designed and manufactured in the U.S.A. since 1932.

See Trombetta first for long-lasting, tough-duty solenoids to fit the toughest - or easiest - applications.

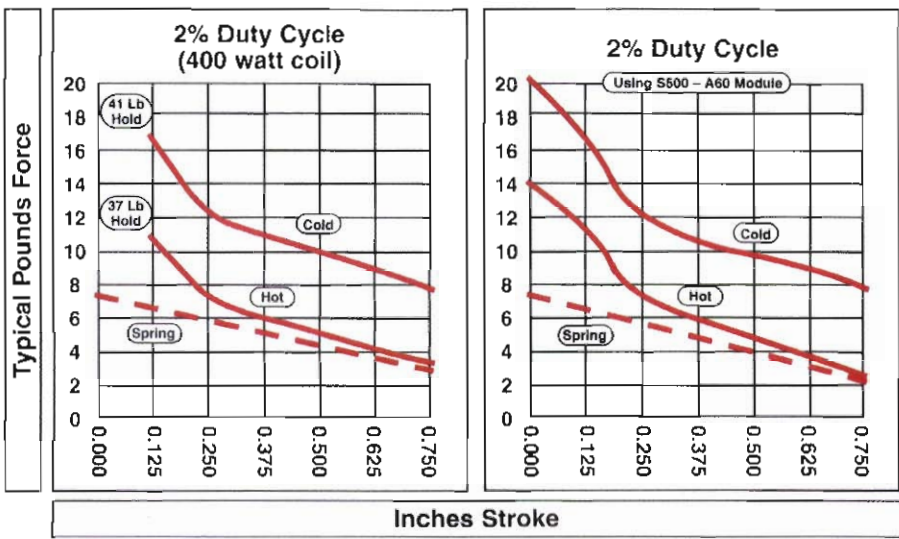
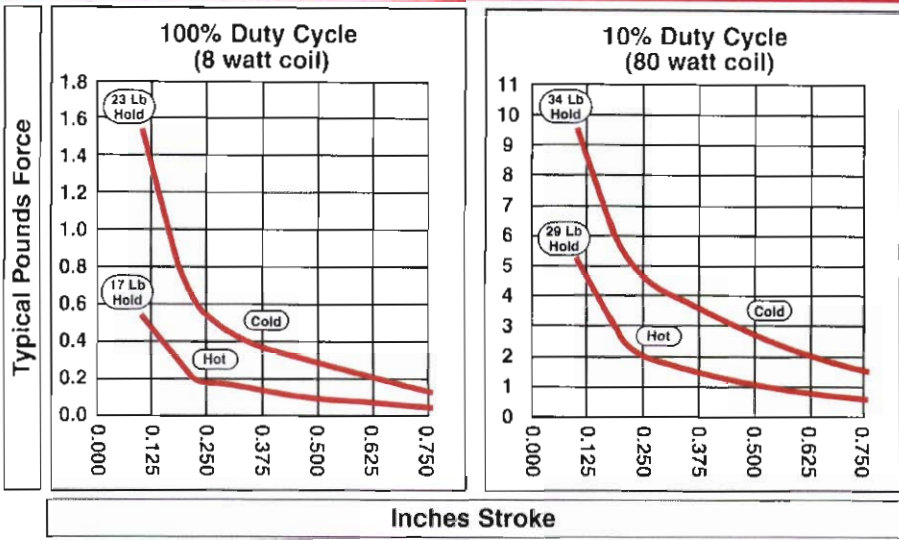
13901 Main Street
Menomonee Falls, WI 53051
(262) 251-5454
FAX: (262) 251-5757
www.trombetta.com

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Force vs. Stroke Curves (at various duty cycles)



- Use the "Cold Coil" curves if your solenoid will be energized infrequently, such as in door unlatching or transfer switch applications.
- Use the "Hot Coil" curves if your solenoid will perform work on a regular, continuous basis, such as in packaging or assembly machine applications.
- Use the "2% Duty Cycle" curves if your application requires energizing the solenoid for periods of 2% ON-Time and 98% OFF-Time, and where the 2% ON-Time does not exceed 30 seconds.
- Use the "10% Duty Cycle" curves if your application requires energizing the solenoid for periods of 10% ON-Time and 90% OFF-Time, and where the 10% ON-Time does not exceed two minutes.

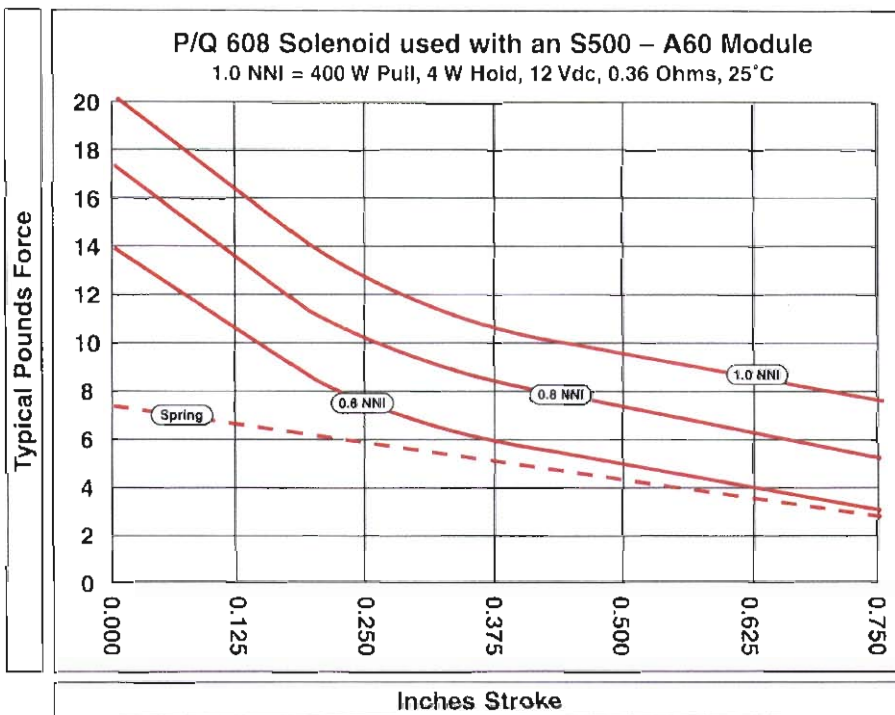
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Force vs. Stroke Curves (at various NNI values)

This graph represents expected performance in a manner somewhat different than the "Duty Cycle" curves of this document. The curve identified as "1.0 NNI" shows performance when applied voltage is at 100% of rated value (example: For a 12 VDC solenoid, the voltage is at 12 V) and the solenoid coil temperature is at 25° C.

The curve identified as "0.8 NNI" shows performance when the current drawn by the solenoid is at 80% of its rated level due to a combination of several possible factors, such as when applied voltage is 80% of rated value and the coil temperature is at 25° C, or when applied voltage is 100% of rated value, but the coil temperature is raised to 88° C (due to high ambient temperature or internal coil temperature rise caused by higher-duty cycle).

The curve identified as "0.6 NNI" shows performance when the current drawn by the solenoid is at 60% of its rated level due to a combination of several possible factors, such as when applied voltage is 60% of rated value and the coil temperature is at 25° C, or when applied voltage is 97% of rated value but the coil temperature is raised to 180° C (due to high ambient temperature or internal coil temperature rise caused by higher duty cycle).



Contact Trombetta for assistance
in selecting the proper solenoid for your application.

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