

# SMQRM & SMQRMHF Series

UHP Surface Mount Miniature Pressure Regulator  
Stainless Steel

aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding

## Value Proposition:

Parker Hannifin Corporation's Veriflo Division presents the Surface Mount QRM and the Surface Mount QRM HF Series pressure regulator. The SMQRM and SMQRMHF are miniature high purity, threadless type, non-tied diaphragm regulators with a footprint designed to reduce system real estate.

The design of the SMQRM and SMQRMHF provide faster purge times and extend the seat life. Precise gas regulation and performance is achieved in a miniature regulator.



## Contact Information:

Parker Hannifin Corporation  
**Veriflo Division**  
250 Canal Blvd  
Richmond, California 94804

phone 510 235 9590  
fax 510 232 7396  
veriflo.sales@parker.com

www.parker.com/veriflo  
Mobile App: m.parker.com/veriflo

## Product Features:

- Standard Hastelloy C-22® diaphragm
- Miniature footprint with low internal volume
- No threads exposed to the wetted area
- Critically Dampened to improve MFC Flow Stability
- Meets SEMI Modular Interface specifications
- Standard full internal electropolish



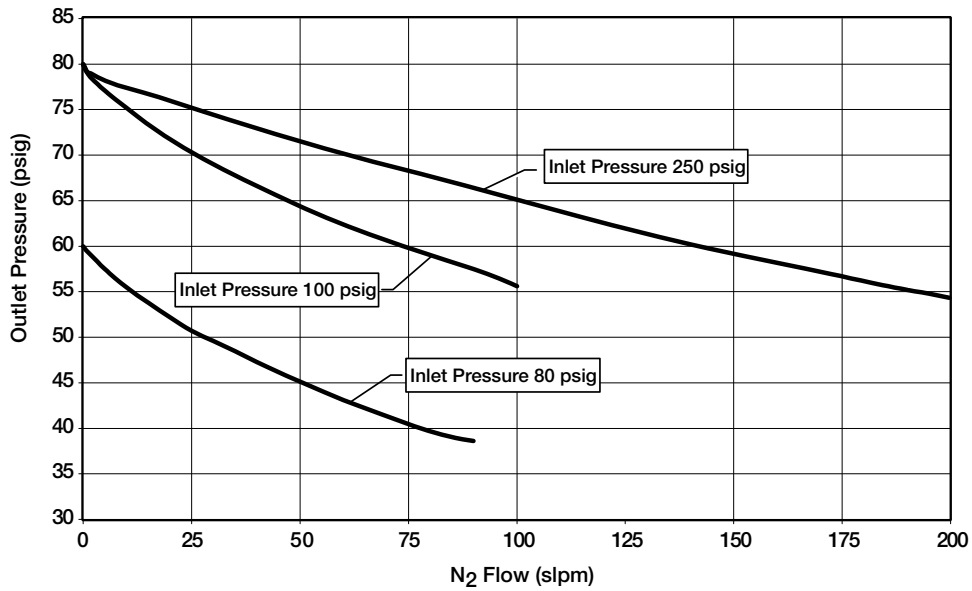
ENGINEERING YOUR SUCCESS.

# SMQRM & SMQRMHF Series

## Flow Curves

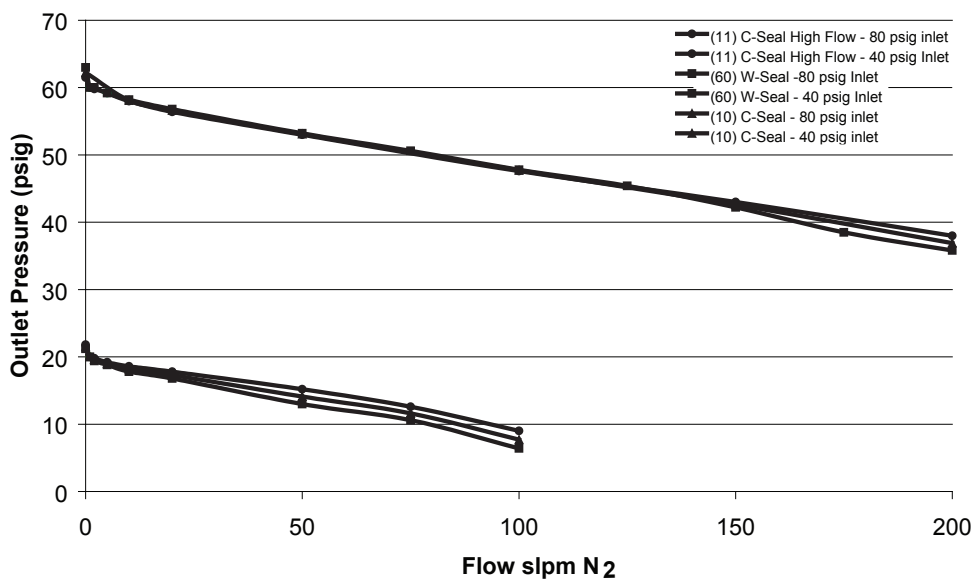
Additional flow curves available upon request

### SMQRM



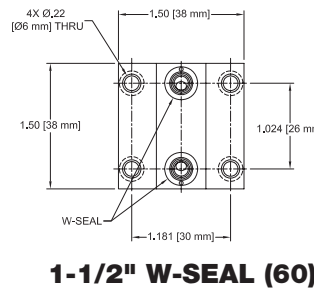
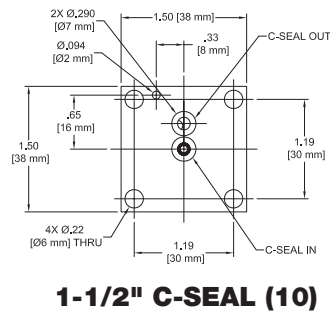
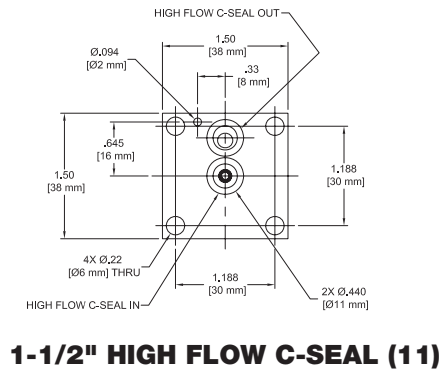
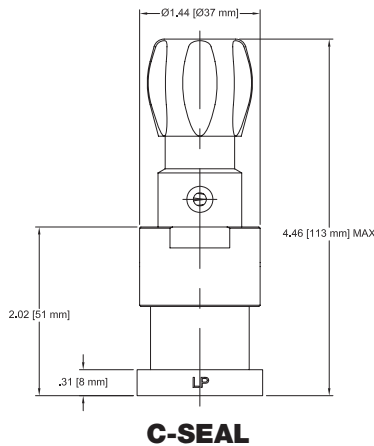
### SMQRMHF

#### (11) C-Seal High Flow, (10) C-Seal and (60) W-Seal Flow Curve



# SMQRM & SMQRMHF Series

## Dimensional Drawing



## Ordering Information

Build an SMQRM or SMQRMHF Series regulator by replacing the numbered symbols with an option from the corresponding tables below.

**Color Explanations:** Black = Standard Configurations  
Blue = Non-Standard Configurations




For an explanation of Ordering options please reference literature 25000275 at [www.parker.com/veriflo](http://www.parker.com/veriflo)

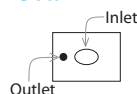
Sample: **SMQRM 30 S 10 PA**  
Finished Order: **SMQRM30S10PA**

**1 Basic Series**  
SMQRM  
SMQRMHF

**2 Pressure Range**  
SMQRM  
30 = -10 - 30 psig  
60 = 1 - 60 psig  
100 = 2 - 100 psig  
250 = 3 - 250 psig  
SMQRMHF  
30 = 1 - 30 psig  
60 = 1 - 60 psig  
100 = 2 - 100 psig  
150 = 3 - 150 psig

**3 Body Material**  
S = 316L Stainless Steel

**4 Porting**  
10 =  = 2 Ports, C-Seal  
11 =  = 2 Ports, High Flow C-Seal  
60 =  = "W" Seal



**5 Optional Features**  
This section can have multiple options  
PA= MPa Max Inlet Pressure Unit Marking  
EV= 5Ra Surface Finish

# SMQRM & SMQRMHF Series

## Specifications

Materials of Construction	
<b>Wetted</b>	
Body	VeriClean™ 316L Stainless Steel
Compression Member	VeriClean™ 316L Stainless Steel
Diaphragm	Hastelloy C-22® or equivalent
Poppet	
SMQRM	Inconel X-750® or equivalent
SMQRMHF	Hastelloy C-276® or equivalent
Poppet Spring	Inconel X-750®
Poppet Pin	Hastelloy C-22® or equivalent
Seat	PCTFE
Seat Retainer	VeriClean™ 316L Stainless Steel
<b>Non-wetted</b>	
Cap	Nickel Plated Brass
Adjusting Screw	316L Stainless Steel
Knob	ABS (Black)
Operating Conditions	
Maximum Inlet	
SMQRM	500 psig (35 barg)
SMQRMHF30	250 psig (17 barg)
SMQRMHF60	500 psig (35 barg)
SMQRMHF100	
SMQRMHF150	

Operating Conditions Continued	
Outlet Options	
SMQRM	-10 psig - 30 psig (5 psia, 250 torr-2 barg)
	1 - 60 psig (0.07 - 4 barg)
	2 - 100 psig (0.14 - 7 barg)
SMQRMHF	1 - 30 psig (0.07 - 2 barg)
	1 - 60 psig (0.07 - 4 barg)
	2 - 100 psig (0.14 - 7 barg)
SMQRMHF	3 - 250 psig (0.21 - 17 barg)
	1 - 30 psig (0.07 - 2 barg)
	1 - 60 psig (0.07 - 4 barg)
SMQRMHF	2 - 100 psig (0.14 - 7 barg)
	3 - 150 psig (0.21 - 10.5 barg)
	Temperature
Operating	-40°F to 150°F (-40°C to 66°C)
Storage	-40°F to 150°F (-40°C to 66°C)

Functional Performance	
<b>Design</b>	
Burst Pressure	1,500 psig (103 barg)
Proof Pressure	750 psig (52 barg)
<b>Flow Capacity</b>	
SMQRM	C <sub>V</sub> 0.1
SMQRMHF	C <sub>V</sub> 0.17*
<b>Leak Rate</b>	
Inboard Test Method	
Internal	< 4 x 10 <sup>-8</sup> cc/sec He
External	< 2 x 10 <sup>-10</sup> cc/sec He
<b>Surface Finish</b>	
Standard	10 micro inch Ra
Optional	5 micro inch Ra
<b>Internal Volume</b>	4.0 cc (approximately)
<b>Approx. Weight</b>	1 lbs. (0.45 kgm)

\* SMQRMHF: For high flow C-Seal

For additional information on materials of construction, functional performance and operating conditions, please contact factory.

VeriClean™ is a trademark of Parker Hannifin Corporation  
Inconel® is a registered trademark of Special Metals Corporation  
Hastelloy C-22®, and Hastelloy C-276® are registered trademarks of Haynes International, Inc.

### OFFER OF SALE:

The items described in this document are hereby offered for sale by Parker-Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the detailed "Offer of Sale" elsewhere in this document or available at [www.parker.com/veriflo](http://www.parker.com/veriflo)

### WARNING USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE. THIS DOCUMENT IS FOR REFERENCE ONLY. PLEASE CONSULT FACTORY FOR LATEST PRODUCT DRAWINGS AND SPECIFICATIONS

This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing are subject to change by Parker Hannifin Corp and its subsidiaries at any time without notice.

Proposition 65 Warning: This product contains chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.

© 2009 Parker Hannifin Corporation



Use mobile device to scan this QR Code.

LitPN: 25000215

Rev: B

Date of Issue 10/2011



ENGINEERING YOUR SUCCESS.