# 1¾"
# PITOTLESS NOZZLE™

## PN1.75THD
# FLOW CHART

| 10 - 50 PSI | 2½" Hose Monster Model II | Open Atmosphere |
|---|---|---|
| PSI | GPM | GPM |
| 10 | 337 | 347 |
| 11 | 354 | 364 |
| 12 | 369 | 380 |
| 13 | 384 | 396 |
| 14 | 399 | 410 |
| 15 | 413 | 425 |
| 16 | 426 | 439 |
| 17 | 440 | 452 |
| 18 | 452 | 465 |
| 19 | 465 | 478 |
| 20 | 477 | 491 |
| 21 | 489 | 503 |
| 22 | 500 | 515 |
| 23 | 511 | 526 |
| 24 | 522 | 537 |
| 25 | 533 | 549 |
| 26 | 544 | 559 |
| 27 | 554 | 570 |
| 28 | 564 | 580 |
| 29 | 574 | 591 |
| 30 | 584 | 601 |
| 31 | 594 | 611 |
| 32 | 603 | 621 |
| 33 | 612 | 630 |
| 34 | 622 | 640 |
| 35 | 631 | 649 |
| 36 | 640 | 658 |
| 37 | 648 | 667 |
| 38 | 657 | 676 |
| 39 | 666 | 685 |
| 40 | 674 | 694 |
| 41 | 683 | 702 |
| 42 | 691 | 711 |
| 43 | 699 | 719 |
| 44 | 707 | 728 |
| 45 | 715 | 736 |
| 46 | 723 | 744 |
| 47 | 731 | 752 |
| 48 | 739 | 760 |
| 49 | 746 | 768 |
| 50 | 754 | 776 |

| 51 - 90 PSI | 2½" Hose Monster Model II | Open Atmosphere |
|---|---|---|
| PSI | GPM | GPM |
| 51 | 761 | 783 |
| 52 | 769 | 791 |
| 53 | 776 | 799 |
| 54 | 783 | 806 |
| 55 | 791 | 814 |
| 56 | 798 | 821 |
| 57 | 805 | 828 |
| 58 | 812 | 835 |
| 59 | 819 | 843 |
| 60 | 826 | 850 |
| 61 | 833 | 857 |
| 62 | 839 | 864 |
| 63 | 846 | 871 |
| 64 | 853 | 878 |
| 65 | 859 | 884 |
| 66 | 866 | 891 |
| 67 | 873 | 898 |
| 68 | 879 | 905 |
| 69 | 885 | 911 |
| 70 | 892 | 918 |
| 71 | 898 | 924 |
| 72 | 905 | 931 |
| 73 | 911 | 937 |
| 74 | 917 | 944 |
| 75 | 923 | 950 |
| 76 | 929 | 956 |
| 77 | 935 | 963 |
| 78 | 941 | 969 |
| 79 | 947 | 975 |
| 80 | 953 | 981 |
| 81 | 959 | 987 |
| 82 | 965 | 993 |
| 83 | 971 | 999 |
| 84 | 977 | 1005 |
| 85 | 983 | 1011 |
| 86 | 989 | 1017 |
| 87 | 994 | 1023 |
| 88 | 1000 | 1029 |
| 89 | 1006 | 1035 |
| 90 | 1011 | 1041 |

| Key Flow Test Points | 2½" Hose Monster Model II | Open Atmosphere |
|---|---|---|
| GPM | PSI | PSI |
| 250 | 5.9 | 5.4 |
| 375.0 | 12.4 | 11.7 |
| 500 | 22.0 | 20.8 |
| 562.5 | 27.8 | 26.3 |
| 750 | 49.5 | 46.7 |
| 1000 | 88.0 | 83.1 |

**The readings on this chart are based on which device the Pitotless Nozzle is connected to.**
It is the user's responsibility to verify that the correct chart and column is being used.

**• 2 ½" Hose Monster Model II or Flusher with flow splitter (HM2H, HM2HF).** Use this column if the Pitotless Nozzle is connected to the 2 ½" Hose Monster or Flusher. The built-in pitot or flow splitter must be installed for accuracy.

**• Open Atmosphere.** Use this column when the Pitotless Nozzle is connected directly to a test header or hydrant flowing openly to atmosphere.

This chart is FM Approved for flow rate accuracy. Please call us or instruct the Authority Having Jurisdiction to call us if there are any questions. Additional copies of flow charts are available at: www.hosemonster.com

FM APPROVED

The Pitotless Nozzle™
1 3/4"
PN1.75
US Patent 6,874,375
Hydro Flow Products, Inc.
888-202-9987, www.HoseMonster.com
FM Approved Operating Range 10 - 90 PSI
SN 17-0105B

RED HEAD NH
MADE IN USA
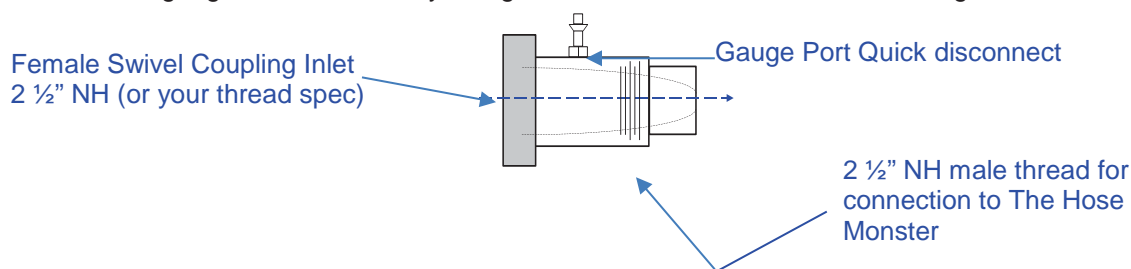
# Pitotless Nozzle™ Threaded
## INSTRUCTIONS
US Patent 6,874,375

The Pitotless Nozzle Threaded (PN#THD) must be used with the 2 ½" Hose Monster Model II (HM2H, HM2HF) **or** attached directly to a hydrant or test header valve discharging into open atmosphere. *Note: If you intend to use the Pitotless Nozzle with the Little Hose Monster (HML), then a Pitotless Nozzle Grooved (PN#GRV) is required. Do not use the Pitotless Nozzle Threaded (PN#THD) with the Little Hose Monster. Call us if you are considering a configuration not listed here.*

## SETUP
The gauge connection on the Pitotless Nozzle is a factory-installed male end of a quick disconnect coupling. One female counterpart is included and additional ones can be purchased separately. Attach the female end of the quick disconnect coupling directly to the gauge or remote reader adapter and use the quick disconnect feature to attach and remove. Do not remove the male quick disconnect from the Pitotless Nozzle as it will damage the threads on the Pitotless Nozzle.

We recommend a gauge with an accuracy rating of ½% or better and of a suitable range.

Female Swivel Coupling Inlet 2 ½" NH (or your thread spec)

Gauge Port Quick disconnect

2 ½" NH male thread for connection to The Hose Monster

## Using the Pitotless Nozzle with the 2 ½" Hose Monster® or Flusher
Insert the male outlet end of the Pitotless Nozzle into the swivel coupling of the Hose Monster. Hand-tighten plus about a quarter turn using a common rocker lug spanner wrench on the swivel coupling and a hole type spanner wrench (WSPA104) for a holdback. Attach the male end of a hose into the swivel coupling on the Pitotless Nozzle, hand-tighten plus about a quarter turn using spanner wrenches. The pitot/flow splitter must be installed on either unit in order to collect accurate flow rates. Make sure the hose lays flat and is not twisted.

## If using the Pitotless Nozzle without the Hose Monster
The Pitotless Nozzle must be attached securely to a pump test header valve or hydrant. Secure the female swivel coupling of the Pitotless Nozzle directly to a hydrant nozzle or test header valve. The Pitotless Nozzle points in the direction the water will flow. Clear water discharge path.

## Flow Charts
Pitotless Nozzle flow charts must be used to determine discharge flow rate. The use of flow charts of a different device or size will result in incorrect readings. Within the flow chart is a column for "2 ½" Hose Monster Model II" and for "Open Atmosphere". Use the "2 ½" Hose Monster Model II" flows if the Pitotless Nozzle is attached to a 2 ½" Hose Monster Model II. Use the "Open Atmosphere" flows if the Pitotless Nozzle is attached directly on a hydrant or test header valve discharging out into the open. Flow charts are provided with the Pitotless Nozzle and additional copies are available on our website at **www.HoseMonster.com/literature.html**

## WARNING:
- **Do not** attach the Pitotless Nozzle to the end of a hose unless the Hose Monster is attached to it or unless it is permanently secured.
- **Do not** attach a hose to the male outlet end of the Pitotless Nozzle under any circumstance. The resulting backpressure will distort flow rate measurement.
- **Do not** remove the quick disconnect gauge port fitting. The aluminum threads will be damaged. Contact Hydro Flow Products directly for any repairs.

HOSE MONSTER
COMPANY