

**For Residential and Commercial Applications**

Job Name \_\_\_\_\_  
 Job Location \_\_\_\_\_  
 Engineer \_\_\_\_\_  
 Approval \_\_\_\_\_

Contractor \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Contractor's P.O. No. \_\_\_\_\_  
 Representative \_\_\_\_\_

# Series N45B-M1

## Water Pressure Reducing Valves\*

**Sizes: 1/2" – 1" (15 – 25mm)**

Series N45B-M1 Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. This series is suitable for water supply pressures up to 400psi (27.6 bar) and may be adjusted from 25 – 75psi (172 – 517 kPa). The standard setting is 50psi (345 kPa). All parts are quickly and easily serviceable without removing the valve from the line. The standard bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main supply.

### Features

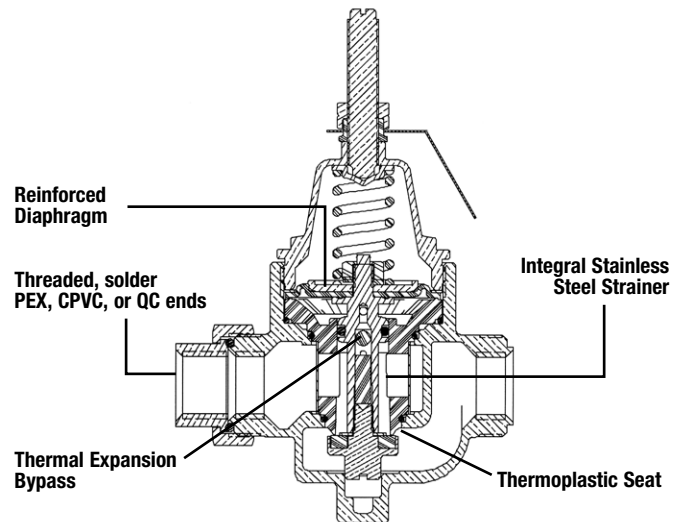
- Double union inlet & outlet connections (option DU)
- Integral stainless steel strainer
- Thermoplastic seat & cage
- Bronze body construction
- Serviceable in line
- Bypass feature controls thermal expansion pressure\*\*
- Sealed spring cage on all models for accessible outdoor or pit installations

### Models

N45B-M1	NPT threaded female inlet x NPT female outlet
N45BU-M1	NPT threaded union inlet x NPT female outlet
N45BU-S-M1	Solder union inlet x NPT female outlet
N45BU-QC-M1	Single Union – QC union inlet
N45BDU-M1	Double Union – NPT threaded union female inlet and outlet
N45BDU-S-M1	Double Union – Solder union inlet and outlet
N45BDU-PEX-M1	Double Union – PEX union inlet and outlet
N45BDU-CPVC-M1	Double Union – CPVC union inlet and outlet
N45BDU-QC-M1	Double Union – QC union inlet and outlet

\* A water saving test program concluded that reducing the supply pressure from 80 – 50psi (551 – 345 kpa) resulted in a water savings of 30%.  
 \*\* NOTE: The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressure above 150psi (10.3 bar).

N45BDU-M1



### Specifications

**Standard Specifications:** A Water Pressure Reducing Valve with integral strainer shall be installed in the water service pipe near its entrance to the building where supply main pressure exceeds 60psi (413 kPa) to reduce it to 50psi (345 kPa) or lower. The valve shall feature a bronze body suitable for water supply pressures up to 400psi (27.6 bar). Provision shall be made to permit the bypass flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main supply. Water Pressure Reducing Valve with built-in bypass check valves will be acceptable. Approved valve shall be listed to ASSE 1003 and IAPMO and certified to CSA B356. Valve shall be a Watts Series N45B-M1.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



## Materials

Body: Bronze  
 Seat: Thermoplastic  
 Cage: Thermoplastic  
 Integral Strainer: Stainless steel  
 Diaphragm: Reinforced EPDM  
 Valve Disc: Elastomer

## Pressure – Temperature

Temperature Range: 33°F – 180°F (0.5°C – 82°C)  
 Maximum Working Pressure: 400psi (27.6 bar)  
 Adjustable Reduced Pressure Range: 25 – 75psi  
 (172 – 517 kpa)  
 Standard Reduced Pressure Setting: 50psi (345 kpa)

## Standards



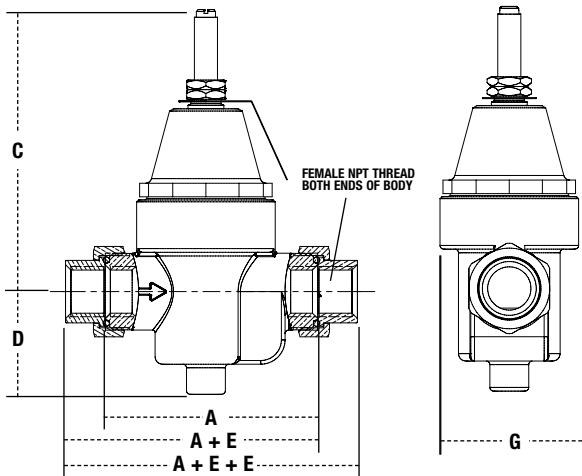
Meets requirements of ASSE Standard 1003; (ANSI A112.26.2) and CSA Standard B356. Listed by IAPMO and City of Los Angeles.

## Options

### Add Suffix

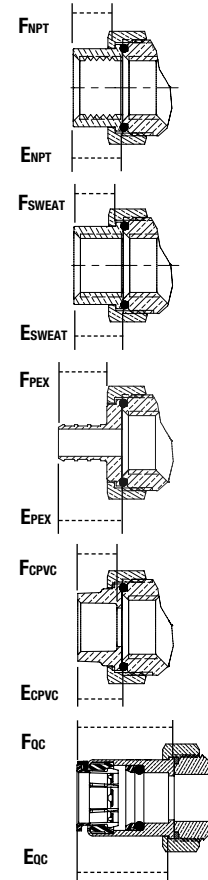
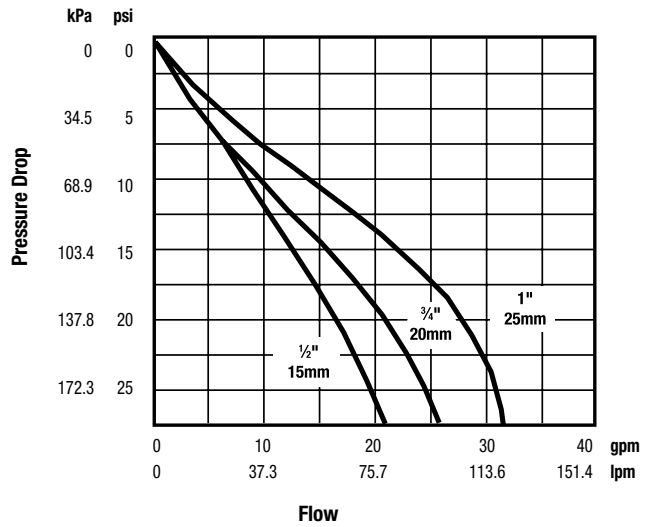
G Gauge tapping  
 GG Gauge tapping and 160psi (11 bar) gauge

## Dimensions – Weights



ABOVE VALVE SHOWN WITH SINGLE NPT UNION CONNECTION ON INLET  
 VALVES MAY BE ORDERED WITH 0, 1, OR 2 UNION CONNECTIONS  
 USING ANY COMBINATION OF NPT, SOLDER, PEX OR CPVC  
 CONNECTIONS REQUIRED  
 \*"F" DIMENSIONS ARE APPROXIMATE ENGAGEMENT LENGTHS.

## Capacity



SIZE (DN)		DIMENSIONS										WEIGHT					
in.	mm	A	C	D	ENPT	ESWEAT	EPEX	ECPVC	EOC	FNPT	FSWEAT	FPEX	FCPVC	FOC	G	lbs.	kgs.
1/2	15	3/16 88	49/16 116	1 11/16 43	5/8 16	5/8 15	13/16 21	9/16 15	1 7/16 36	1/2 13	1/2 13	5/8 16	1/2 13	1 1/2 38	2 1/4 57	2	.91
3/4	20	3/16 88	49/16 116	1 11/16 43	5/8 16	7/8 21	1 5/16 24	1 3/16 21	1 9/16 40	9/16 14	3/4 19	5/8 16	3/4 18	1 11/16 42	2 1/4 57	2	.91
1	25	4/8 105	49/16 116	1 11/16 43	3/4 20	1 26	1 1/8 29	1 1/16 26	1 11/16 43	1 1/16 17	1 5/16 23	1 3/16 21	1 5/16 23	1 3/4 45	2 1/4 57	3	1.36



A Watts Water Technologies Company



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