

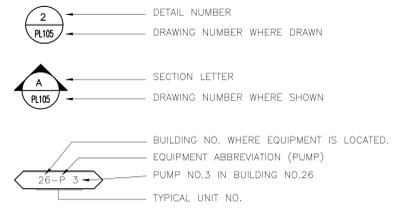
A
B
C
D
E
F
G

Three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

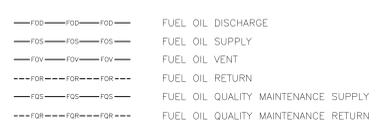
PLUMBING ABBREVIATIONS

| | | | |
|--------|---|----------------------|--|
| A/E | ARCHITECT / ENGINEER | N2 | NITROGEN |
| AD | AREA DRAIN | N2O | NITROUS OXIDE |
| AFF | ABOVE FINISH FLOOR | NC | NORMALLY CLOSED |
| AFO | ABOVE FINISH GRADE | NG | NATURAL GAS |
| AG | AIR GAP | NIC | NOT IN CONTRACT |
| AP | ACCESS PANEL | NO | NORMALLY OPEN |
| AS | AUTOMATIC SPRINKLER | NOM | NOMINAL |
| ASD | ADJUSTABLE SPEED DRIVES | NPW | NON POTABLE WATER |
| ASD | AUTOMATIC SPRINKLER DRAIN | NTC | NOT TO SCALE |
| ASHRAE | AMERICAN SOCIETY HEATING, REFRIGERATION, AIR CONDITIONING ENGINEERS | O2 | OXYGEN |
| ASME | AMERICAN SOCIETY MECHANICAL ENGINEERS | OC | ON CENTER |
| ASPE | AMERICAN SOCIETY PLUMBING ENGINEERS | OD | OUTSIDE DIAMETER |
| ASR | AUTOMATIC SPRINKLER RISER | OFD | OVERFLOW DRAIN |
| AV | ACID VENT | OR | OPERATING ROOM |
| AW | ACID WASTE | OVFL | OVERFLOW |
| BFP | REDUCED PRESSURE BACKFLOW PREVENTER | PA | PASCAL |
| BHP | BREAK HORSEPOWER | PD | PRESSURE DROP OR DIFFERENCE |
| BSP | BLACK STEEL PIPE | PDI | PLUMBING AND DRAINAGE INSTITUTE |
| BT | BATHTUB | PG | PRESSURE GAGE |
| BTU | BRITISH THERMAL UNIT | PP | PLUMBING PUMP |
| BTUH | BRITISH THERMAL UNIT PER HOUR | PPM | PARTS PER MILLION |
| C | CELSIUS | PRS | PRESSURE REDUCING STATION |
| CGA | COMPRESSED GAS ASSOCIATION | PRV | PRESSURE REDUCING VALVE |
| CI | CAST IRON | PSI | POUNDS PER SQUARE INCH |
| CO | CLEANOUT | PSIA | POUNDS PER SQUARE INCH ATMOSPHERE |
| CS | CLINICAL SINK | PSIG | POUNDS PER SQUARE INCH GAUGE |
| CV | CONTROL VALVE | PTRV | PRESSURE TEMPERATURE RELIEF VALVE |
| DCW | DOMESTIC COLD WATER | PW | POTABLE WATER |
| DHW | DOMESTIC HOT WATER | RD | ROOF DRAIN |
| DHWR | DOMESTIC HOT WATER RETURN | RDL | ROOF DRAIN LEADER |
| DHWR | DOMESTIC WATER RETURN | RL | ROOF LEADER |
| DHWS | DOMESTIC HOT WATER SUPPLY | RO | REVERSE OSMOSIS WATER |
| DI | DEIONIZED WATER | RWL | RAIN WATER LEADER |
| DN | DOWN | SAN | SANITARY SEWER |
| DOE | DEPARTMENT OF ENERGY | SACNA | SHEET METAL AND AIR CONDITIONING CONTRACTORS |
| DS | DOWNSPOUT | NATIONAL ASSOCIATION | |
| DW | DISHWASHER | SCFM | STANDARD CUBIC FOOT/MINUTE |
| DWG | DRAWING | SCW | SOFTENED COLD WATER |
| DWH | DOMESTIC WATER HEATER | SDMH | STORM DRAIN MANHOLE |
| DWR | DRINKING WATER RETURN | SP | SUMP PUMP |
| DWS | DRINKING WATER SUPPLY | SPR | SPRINKLER LINE |
| DWV | DRAIN WASTE VENT | SQFT | SQUARE FEET |
| EL | ELEVATION | SS | STAINLESS STEEL |
| EMCS | ENERGY MONITORING AND CONTROL SYSTEM | ST | STORAGE TANK |
| EPA | EPA ENVIRONMENTAL PROTECTION AGENCY | STW | STORM WATER |
| EPACT | EPA ENERGY POLICY ACT | TCV | TEMPERATURE CONTROL VALVE |
| ESC | ESCUTCHEON | TD | TEMPERATURE DIFFERENCE |
| ESH | EMERGENCY SHOWER | TD | TRENCH DRAIN |
| ET | EXPANSION TANK | TDH | TOTAL DYNAMIC HEAD |
| EW | ELECTRIC WATER COOLER | TEMP | TEMPERATURE |
| EW | ELECTRIC WATER HEATER | TMV | THERMOSTATIC MIXING VALVE |
| EWS | EYE WASH STATION | TP | TRAP PRIMER |
| EX | EXISTING | TSTAT | THERMOSTAT |
| F | FAHRENHEIT | TWR | TEMPERED WATER RETURN |
| FCO | FLOOR CLEANOUT | TWS | TEMPERED WATER SUPPLY |
| FCW | FILTERED COLD WATER | TYP | TYPICAL |
| FD | FLOOR DRAIN | UPC | UNIFORM PLUMBING CODE |
| FDC | FIRE DEPARTMENT (HOSE) CONNECTION | V | VENT |
| FM | FLOW METER | VAC | VACUUM |
| FOP | FUEL OIL PUMP | VB | VACUUM BREAKER |
| FOR | FUEL OIL RETURN | VCO | VACUUM CLEANER OUTLET |
| FOS | FUEL OIL SUPPLY | VP | VACUUM PUMP |
| FV | FUEL OIL VENT | VS | VENT STACK |
| FS | FLOOR SINK | VTR | VENT THROUGH ROOF |
| FS | FLOW SWITCH | W | WASTE |
| FU | FIXTURE UNITS | WC | WATER CLOSET |
| GAL | GALLON | WCO | WALL CLEANOUT |
| GCO | GRADE CLEANOUTS | WG | WATER GAGE |
| GPD | GALLONS PER DAY | WH | WALL HYDRANT |
| GPH | GALLONS PER HOUR | WH | WATER HEATER |
| GPM | GALLONS PER MINUTE | WHA | WATER HAMMER ARRESTER |
| GR | GAS PRESSURE REGULATOR | WL | WATER LINE |
| GRS | GAS REGULATOR STATION | WM | WATER METER |
| GT | GREASE TRAP | WPD | WATER PRESSURE DROP |
| GTR | GAS VENT THROUGH ROOF | WS | WASTE STACK |
| GWH | GAS FIRED WATER HEATER | YCO | YARD CLEANOUT |
| H&CW | HOT AND COLD WATER | YH | YARD HYDRANT |
| HB | HOSE BIBB | | |
| HD | HUB DRAIN | | |
| HEX | HEAT EXCHANGER | | |
| HP | HORSEPOWER | | |
| HS | HAND SINK | | |
| HST | HOT WATER STORAGE TANK (DOMESTIC) | | |
| HWB | HOT WATER BOILER | | |
| HWP | HOT WATER CIRCULATING PUMP | | |
| HWP | HOT WATER PUMP | | |
| HYD | HYDRANT | | |
| ICW | INDUSTRIAL COLD WATER | | |
| INV | INVERT | | |
| IPC | INTERNATIONAL PLUMBING CODE | | |
| IRW | IRRIGATION WATER | | |
| IW | INDIRECT WASTE | | |
| WH | INSTANTANEOUS WATER HEATER | | |
| IWR | INDUSTRIAL WATER RETURN | | |
| IWS | INDUSTRIAL WATER SUPPLY | | |
| KW | KILOWATT | | |
| KWHR | KILOWATT-HOUR | | |
| L/S | LITER PER SECOND | | |
| LA | LABORATORY AIR | | |
| LAV | LAVATORY | | |
| LBS/HR | POUNDS PER HOUR | | |
| LW | LABORATORY COLD WATER | | |
| LHW | LABORATORY HOT WATER | | |
| LNG | LIQUID NATURAL GAS | | |
| LX | LIQUID OXYGEN | | |
| LV | LABORATORY VACUUM | | |
| LW | LOW WATER | | |
| M | METER | | |
| MA | MEDICAL AIR | | |
| MAV | MANUAL AIR VENT | | |
| MBH | 1000 BTUH | | |
| MED | MEDICAL | | |
| MER | MECHANICAL EQUIPMENT ROOM | | |
| MH | MANHOLE | | |
| MOU | MEMORANDUM OF UNDERSTANDING | | |
| MSB | MOP SERVICE BASIN | | |
| MV | MEDICAL VACUUM | | |

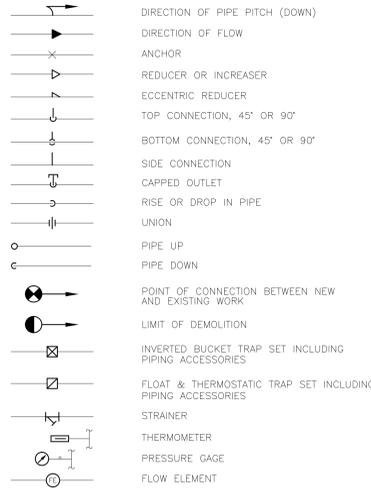
DRAWING SYMBOLS



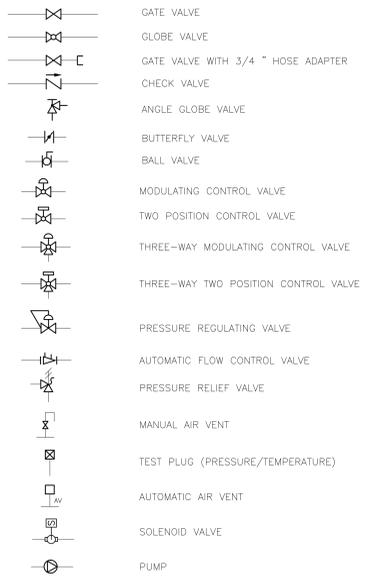
PLUMBING PIPING SYMBOLS



GENERAL PLUMBING SYMBOLS



PLUMBING VALVE SYMBOLS



100% CONSTRUCTION DOCUMENTS

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| ENGINEERS/ARCHITECT: Raleigh, NC Indianapolis, IN Atlanta, GA Columbia, MD www.apogee.com (919) 858-7420 Apogee Project # 2010 228 | WALDON STUDIO ARCHITECTS & PLANNERS, PC 6025 Woodside Court, Suite 310 Columbia, Maryland 21046 Tel: 410.290.9680 Fax: 410.290.5777 www.waldonstudio.com | Professional Stamp/Seal | Drawing Title PLUMBING SYMBOLS AND ABBREVIATIONS | | Project Title COATESVILLE - VA MEDICAL CENTER A/E INSTALL EMERGENCY GENERATOR | | Date 9/23/11 | |
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