

BACK WASHING PROCEDURE FOR SEWAGE COMBINATION AIR VALVE
"800 SERIES"

In order to properly back wash, clear water supplied through a 1" pipe with a minimum of 30 P.S.I. should be used. This supply should be connected to the rubber hose with quick disconnect couplings as provided with the sewage valve. Because of the variance of sewage in each installation, the frequency with which the valve is to be back washed and the length of time the valve is to be back washed must be determined by experience on the job.

Note, use drawing number VM-802BWA in conjunction with the following procedures.

- 1.) The 1" ball valve at the base of the valve should be piped to a drain prior to back washing.
- 2.) Close the isolation valve at the valve inlet (bottom).
- 3.) Open the 1" ball valve piped to the drain.
- 4.) Connect the water supply to the quick connector (1/2") at the top of the valve, open the 1/2" ball valve and back wash. This will wash the body area.
- 5.) Additional washing of the seating area can be accomplished by placing the water supply over the valve discharge at the top of the valve or by using a 1" N.P.T. quick connector. Close the 1/2" ball valve at the top of the valve and back wash.
- 6.) After back washing is completed close the 1" ball valve at the base of the valve body and the 1/2" ball valve at the top of the valve.
- 7.) Open the isolation valve at the bottom of the valve to place the unit back in service.

BACK WASHING PROCEDURES

DATE
10-23-87

VAL-MATIC

VALVE AND MANUFACTURING CORP.

DRWG. NO.

SS-604

Contact us for more information: Valve & Equipment Consultants, Inc. • Phone: 281-324-1500 • Email: sales@valveandequipment.com

Website: www.ValveAndEquipment.com

SEWAGE COMBINATION AIR VALVE

OPERATION AND MAINTENANCE

THE VAL-MATIC SEWAGE AIR VALVE IS A FULLY AUTOMATIC VALVE AND REQUIRES ONLY PERIODIC MAINTENANCE.

OPERATION

NOTE: TO PLACE VALVE IN OPERATION, BALL VALVES "A" MUST BE OPEN AND BALL VALVES "B", "C", "E" AND "G" MUST BE CLOSED. (SEE DRAWING #VM-CBW-1)

AIR RELEASE: (SMALL ORIFICE)

THE AIR RELEASE PORTION OF THE COMBINATION VALVE AS SHIPPED IS A NORMALLY OPEN VALVE. AS THE SYSTEM IS FILLED, AIR IS RELEASED THRU THE VALVE VENTING ORIFICE. AS THE SEWAGE ENTERS THE VALVE, THE FLOAT RAISES AND SHUTS OFF THE ORIFICE PREVENTING ANY LEAKAGE OF FLUID.

DURING THE PUMPING CYCLE, AIR WILL ACCUMULATE IN THE VALVE DISPLACING THE SEWAGE AND ALLOWING THE FLOAT TO DROP. AS THE FLOAT DROPS, AIR WILL AGAIN BE RELEASED TO ATMOSPHERE. AS THE AIR IS RELEASED, THE SEWAGE LEVEL WILL RISE AGAIN SHUTTING OFF THE VENTING ORIFICE. THIS CYCLE IS REPEATED AUTOMATICALLY AS OFTEN AS REQUIRED.

AIR & VACUUM: (LARGE ORIFICE)

THE AIR AND VACUUM PORTION OF THE COMBINATION VALVE IS ALSO A NORMALLY OPEN VALVE. THE VALVE ONLY OPERATES WHEN THE LINE IS BEING FILLED, DRAINED OR WHEN A VACUUM OCCURS. AS THE LINE IS BEING FILLED, LARGE QUANTITIES OF AIR ARE BEING VENTED FROM THE LARGE ORIFICE. DURING THE DRAINING OF THE SYSTEM OR WHEN A VACUUM OCCURS, THE VALVE WILL OPEN AND ALLOW AIR TO RE-ENTER.

MAINTENANCE

(SEE "BACK WASHING PROCEDURES")

REV. 2-10-88

SEWAGE COMBINATION AIR VALVE OPERATION AND MAINTENANCE 1", 2" & 3"

DATE
9-25-75

VAL-MATIC VALVE and MFG. CORP.

DRWG. NO.
VM-SC-1

SEWAGE COMBINATION AIR VALVE

OPERATION AND MAINTENANCE

THE VAL-MATIC SEWAGE AIR VALVE IS A FULLY AUTOMATIC VALVE AND REQUIRES ONLY PERIODIC MAINTENANCE.

OPERATION

NOTE: TO PLACE VALVE IN OPERATION, PLUG VALVE A AND GATE VALVE B MUST BE OPEN AND GATE VALVES C, D, E AND F MUST BE CLOSED. (SEE DRAWING #48/304BWA OR DRAWING #49/304BWA).

AIR RELEASE: (SMALL ORIFICE)

THE AIR RELEASE PORTION OF THE COMBINATION VALVE AS SHIPPED IS A NORMALLY OPEN VALVE. AS THE SYSTEM IS FILLED, AIR IS RELEASED THRU THE VALVE VENTING ORIFICE. AS THE SEWAGE ENTERS THE VALVE, THE FLOAT RAISES AND SHUTS OFF THE ORIFICE PREVENTING ANY LEAKAGE OF FLUID.

DURING THE PUMPING CYCLE, AIR WILL ACCUMULATE IN THE VALVE DISPLACING THE SEWAGE AND ALLOWING THE FLOAT TO DROP. AS THE FLOAT DROPS, AIR WILL AGAIN BE RELEASED TO ATMOSPHERE. AS THE AIR IS RELEASED, THE SEWAGE LEVEL WILL RISE AGAIN RAISING THE FLOAT AND SHUTTING OFF THE VENTING ORIFICE. THIS CYCLE IS REPEATED AUTOMATICALLY AS OFTEN AS REQUIRED.

AIR & VACUUM: (LARGE ORIFICE)

THE AIR AND VACUUM PORTION OF THE COMBINATION VALVE IS ALSO A NORMALLY OPEN VALVE. THE VALVE ONLY OPERATES WHEN THE LINE IS BEING FILLED, DRAINED OR WHEN A VACUUM OCCURS. AS THE LINE IS BEING FILLED, LARGE QUANTITIES OF AIR ARE BEING VENTED FROM THE LARGE ORIFICE. DURING THE DRAINING OF THE SYSTEM OR WHEN A VACUUM OCCURS, THE VALVE WILL OPEN AND ALLOW AIR TO RE-ENTER.

MAINTENANCE

(SEE "BACK WASHING PROCEDURES")

REV. 12-9-82

4" & 6" SEWAGE COMBINATION AIR VALVE OPERATION & MAINTENANCE

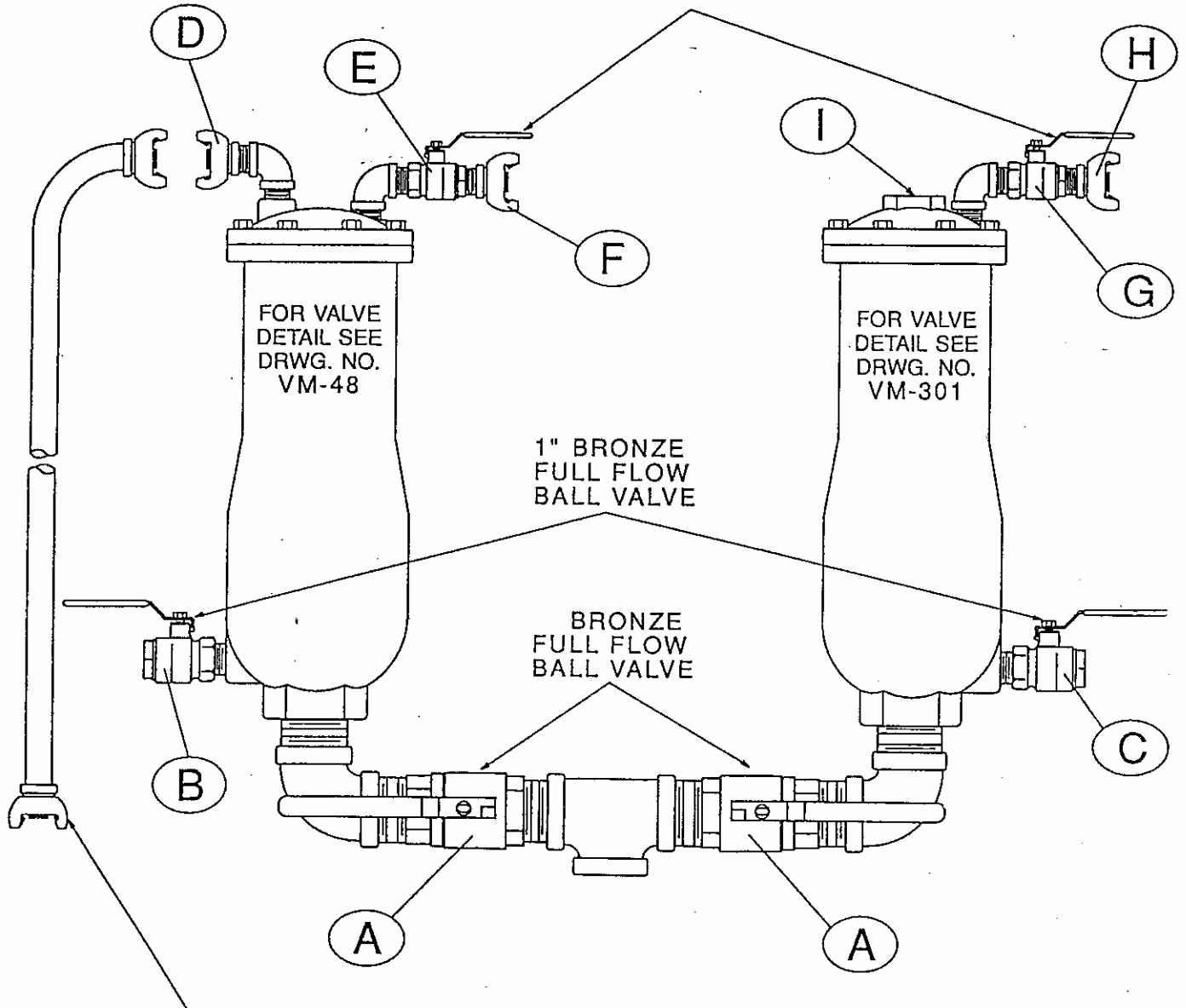
DATE
9-7-76

VAL-MATIC VALVE and MFG. CORP.

DRWG. NO.

VM-SC-2

1/2" BRONZE FULL FLOW BALL VALVE WITH QUICK DISCONNECT COUPLING.



RUBBER HOSE WITH QUICK DISCONNECT COUPLING ON EACH END.

REVISED 11-24-92

COMBINATION SEWAGE AIR VALVE w/ ACCESSORIES

DATE 5-17-69

VAL-MATIC

VALVE AND MANUFACTURING CORP.

DRWG. NO.

VM-CBW-1

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SEWAGE AIR RELEASE VALVE
OPERATION AND MAINTENANCE

THE VAL-MATIC SEWAGE AIR RELEASE VALVE IS FULLY AUTOMATIC IN OPERATION AND REQUIRES ONLY PERIODIC MAINTENANCE.

OPERATION:

DURING SYSTEM OPERATION, SMALL AMOUNTS OF AIR WILL ENTER THE VALVE FROM THE SYSTEM, DISPLACE THE LIQUID AND BEGIN TO LOWER ITS LEVEL RELATIVE TO THE FLOAT. WHEN THE FLOAT IS NO LONGER BUOYANT, IT WILL DROP. THIS ACTION OPENS THE VALVE ORIFICE AND ALLOWS THE AIR WHICH HAS ACCUMULATED IN THE UPPER PORTION OF THE VALVE BODY TO BE RELEASED TO ATMOSPHERE. AS THIS AIR IS RELEASED THE LIQUID LEVEL WITHIN THE VALVE, RISES, LIFTING THE FLOAT AND CLOSING THE VALVE ORIFICE. THIS CYCLE AUTOMATICALLY REPEATS ITSELF AS OFTEN AS NECESSARY.

MAINTENANCE: SEE "BACK WASH PROCEDURE".

SEWAGE AIR RELEASE VALVE OPERATION AND MAINTENANCE

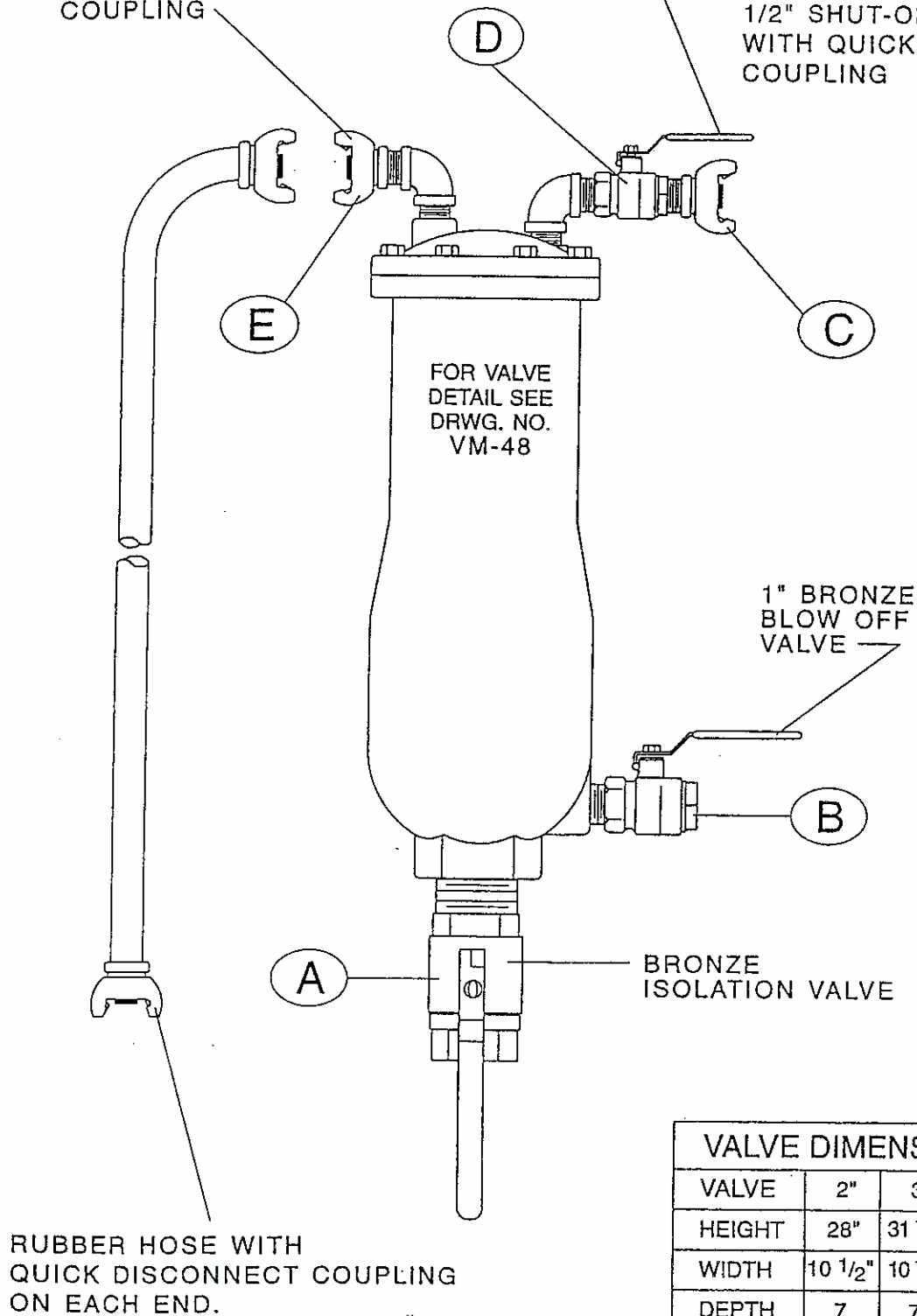
DATE
5-2-69

VAL-MATIC VALVE and MFG. CORP.

DRWG. NO.
VM-SAR-1

QUICK DISCONNECT
COUPLING

BRONZE
1/2" SHUT-OFF VALVE
WITH QUICK DISCONNECT
COUPLING



| VALVE DIMENSIONS | | | |
|------------------|---------|---------|---------|
| VALVE | 2" | 3" | 4" |
| HEIGHT | 28" | 31 1/2" | 33" |
| WIDTH | 10 1/2" | 10 1/2" | 10 1/2" |
| DEPTH | 7 | 7 | 7 |

REVISED 8-9-93

SEWAGE AIR RELEASE VALVE w/ ACCESSORIES

DATE 5-2-69

VAL-MATIC[®] VALVE AND MANUFACTURING CORP.

DRWG. NO.
VM-ARBW-1

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SEWAGE AIR AND VACUUM-VALVE OPERATION AND MAINTENANCE

THE VAL-MATIC SEWAGE AIR VALVE IS A FULLY AUTOMATIC VALVE WHICH REQUIRES NO FIELD ADJUSTMENTS AND ONLY PERIODIC MAINTENANCE.

OPERATION:

THE VALVE AS SHIPPED IS A NORMALLY OPEN VALVE. AS THE SYSTEM IS FILLED, AIR IS EXHAUSTED THRU THE VALVE DISCHARGE. AS THE SEWAGE ENTERS THE VALVE, THE FLOAT RAISES AND SHUTS OFF THE DISCHARGE PORT, PREVENTING ANY LEAKAGE. THE VALVE WILL REMAIN CLOSED DURING SYSTEM OPERATION AND WILL ONLY OPEN TO ALLOW AIR TO RE-ENTER THE SYSTEM WHEN DRAINED INTENTIONALLY OR DUE TO A FRACTURE IN THE SYSTEM.

MAINTENANCE:

SEE "BACK WASH PROCEDURES".

SEWAGE AIR AND VACUUM - OPERATION AND MAINTENANCE

DATE

5-2-69

VAL-MATIC VALVE and MFG. CORP.

DRWG. NO.

VM-SAV-1

Contact us for more information: Valve & Equipment Consultants, Inc. • Phone: 281-324-1500 • Email: sales@valveandequipment.com

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1/2" FULL FLOW
BALL VALVE
WITH QUICK DIS-
CONNECT COUPLING.

VALVE DIMENSIONS

HEIGHT - 29"

WIDTH - 10"

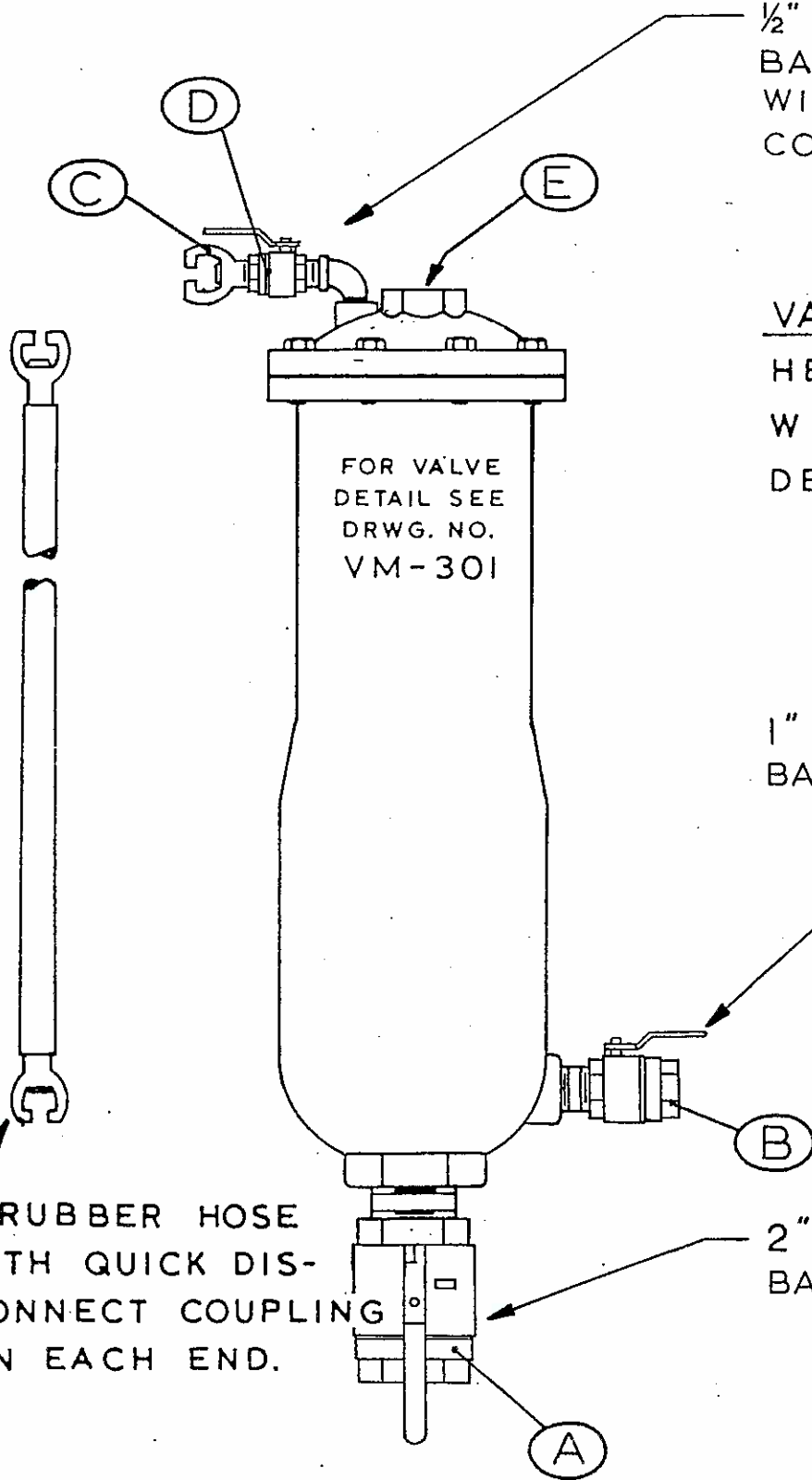
DEPTH - 7"

FOR VALVE
DETAIL SEE
DRWG. NO.
VM-301

1" FULL FLOW
BALL VALVE

2" FULL FLOW
BALL VALVE

RUBBER HOSE
WITH QUICK DIS-
CONNECT COUPLING
ON EACH END.



REVISED 3-31-88

SEWAGE AIR and VACUUM VALVE w/ ACCESSORIES

DATE
5.2.69

VAL-MATIC VALVE and MANUFACTURING CORP.

DRWG. NO.
VM-AVBW-1

Contact us for more information: Valve & Equipment Consultants, Inc. - Phone: 281-324-1500 - Email: sales@valveandequipment.com

Website: www.ValveAndEquipment.com

IN ORDER TO PROPERLY BACK WASH, CLEAR WATER SUPPLIED THROUGH A 1" PIPE WITH A MIN. OF 30 P.S.I. SHOULD BE USED. THIS SUPPLY SHOULD BE CONNECTED TO THE RUBBER HOSE WITH QUICK DISCONNECT COUPLINGS AS PROVIDED WITH THE SEWAGE VALVE. BECAUSE OF THE VARIANCE OF SEWAGE IN EACH INSTALLATION, THE FREQUENCY WITH WHICH THE VALVE IS TO BE BACK WASHED AND THE LENGTH OF TIME THE VALVE IS TO BE BACK WASHED MUST BE DETERMINED BY EXPERIENCE ON THE JOB. NOTE; USE DRAWING #VM-AVBW-1 IN CONJUNCTION WITH THE FOLLOWING PROCEDURES:

- (1) VALVE "B" AS SHOWN ON DRAWING #VM-AVBW-1 SHOULD BE PIPED TO A DRAIN PRIOR TO BACK WASHING.
- (2) CLOSE INLET VALVE "A".
- (3) OPEN VALVE "B".
- (4) CONNECT WATER SUPPLY TO QUICK CONNECTOR "C", OPEN VALVE "D", AND BACK WASH. THIS WILL WASH THE BODY AREA.
- (5) ADDITIONAL WASHING OF SEATING AREA CAN BE ACCOMPLISHED BY PLACING WATER SUPPLY OVER VALVE DISCHARGE "E" OR BY USING A 1" NPT QUICK CONNECTOR. CLOSE VALVE "D" AND BACK WASH.
- (6) AFTER BACK WASHING IS COMPLETED CLOSE VALVE "B".
- (7) OPEN VALVE "A" TO PLACE UNIT BACK IN SERVICE.

BACK WASHING PROCEDURE FOR SEWAGE AIR & VACUUM VALVE

DATE
5.2.69

VAL-MATIC VALVE and MFG. CORP.

DRWG. NO.
VM-AVBW-2

IN ORDER TO PROPERLY BACK WASH, CLEAR WATER SUPPLIED THROUGH A 1" PIPE WITH A MIN. OF 30 P.S.I. SHOULD BE USED. THIS SUPPLY SHOULD BE CONNECTED TO THE RUBBER HOSE WITH QUICK DISCONNECT COUPLINGS AS PROVIDED WITH THE SEWAGE VALVES. BECAUSE OF THE VARIANCE OF SEWAGE IN EACH INSTALLATION, THE FREQUENCY WITH WHICH THE VALVES ARE TO BE BACK WASHED AND THE LENGTH OF TIME THE VALVES ARE TO BE BACK WASHED MUST BE DETERMINED BY EXPERIENCE ON THE JOB.

NOTE; USE DRAWING #VM-CBW-1 IN CONJUNCTION WITH THE FOLLOWING PROCEDURES:

- (1) VALVES "B" AND "C" AS SHOWN ON DRAWING #VM-CBW-1 SHOULD BE PIPED TO A DRAIN PRIOR TO BACK WASHING.
- (2) CLOSE INLET VALVES "A".
- (3) OPEN VALVE "B" ON #48 VALVE.
- (4) CONNECT WATER SUPPLY TO QUICK CONNECTOR "D" ON #48 VALVE AND BACK WASH. THIS WILL WASH SEAT AND MECHANISM AREA.
- (5) REPEAT PROCEDURE BY CONNECTING WATER SUPPLY TO QUICK CONNECTOR "F" AND OPENING VALVE "E", BOTH FOUND ON THE #48 VALVE. THIS WILL WASH THE BODY AREA AND THE LOWER CONNECTING PIPE.
- (6) ONCE BACK WASHING ON THE #48 VALVE IS COMPLETED, CLOSE VALVES "E" AND "B".
- (7) OPEN VALVE "C" ON #301 VALVE.
- (8) CONNECT WATER SUPPLY TO QUICK CONNECTOR "H", OPEN VALVE "G", BOTH FOUND ON THE #301 VALVE, AND BACK WASH, THIS WILL WASH THE BODY AREA.
- (9) ADDITIONAL WASHING OF SEATING AREA OF VALVE #301 CAN BE ACCOMPLISHED BY PLACING WATER SUPPLY OVER VALVE DISCHARGE "I" OR BY USING A 1" NPT QUICK CONNECTOR. CLOSE VALVE "G" AND BACK WASH.
- (10) AFTER BACK WASHING IS COMPLETED CLOSE VALVE "C".

NOTE: BEFORE PLACING UNIT BACK IN SERVICE CHECK THAT VALVES "B", "C", "E", & "G" ARE CLOSED.

OPEN VALVES "A" TO PLACE UNIT BACK IN SERVICE.

REV. 6-16-88

BACK WASHING PROCEDURE FOR SEWAGE COMBINATION AIR VALVES

DATE
5-17-69

VAL-MATIC VALVE and MFG. CORP.

DRWG. NO.
VM-CBW-2