

"NORMALLY CLOSED"

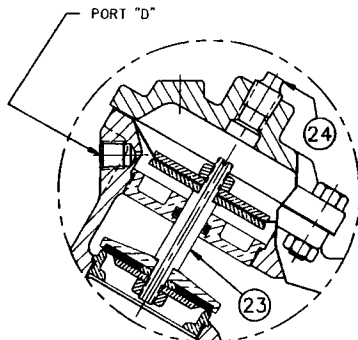
LINE PRESSURE AGAINST THE DISC WILL CLOSE THE VALVE. (PRESSURE IS TRANSFERRED THRU THE VALVE'S HOLLOW SHAFT TO THE TOP OF THE DIAPHRAGM)

CONTROL PRESSURE AT PORT "D" WILL OPEN THE VALVE. ADDITION OF "SPRING ASSIST CLOSED" FEATURE IS RECOMMENDED TO ASSURE DRIP-TIGHT CLOSURE UNDER THE FOLLOWING CONDITIONS:

1. LOW PRESSURE &/OR FLOW.
2. VALVE DISCHARGES TO ATMOSPHERE.

NORMALLY CLOSED FEATURE IS NOT RECOMMENDED IF THE FOLLOWING CONDITIONS EXIST:

1. LINE MEDIA CONTAINS FLOCCULENT OR UNDISSOLVED SOLID MATERIALS.
2. HIGH TEMPERATURE OR OTHER MEDIA CHARACTERISTICS WHICH MIGHT DAMAGE THE DIAPHRAGM.



V42F-0030-0000
NORMALLY CLOSED

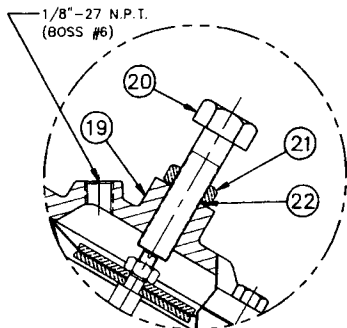
| NO. | DESCRIPTION | STD. | PART NO. | QTY |
|-----------------------------------|--------------------------------------|------|---------------------|--------|
| LIMIT STOP MODEL | | | | |
| 19 | CAP | * | 425-CCC | 1 M1 |
| 20 | HEX HD. MACH. SCREW (5/8-18 X 2 1/2) | * | SCS-0042 | 1 M25 |
| 21 | HEX NUT (5/8-18) | * | 426-U | 1 M39 |
| 22 | O-RING | | BUNA N * ORB-112 | 1 E2 |
| NORMALLY CLOSED MODEL | | | | |
| 23 | SHAFT | * | 425-LL | 1 M17B |
| 24 | SQ. HD. PIPE PLUG (1/4 N.P.T.) | * | PLZ-0008 | 1 M40 |
| SPRING ASSIST CLOSED MODEL | | | | |
| 25 | CAP | * | 425-CA | 1 M1 |
| 26 | CENTERING WASHER | * | 421-AH | 1 M49 |
| 27 | GASKET | | COPPER * 205-M | 1 M50 |
| | | | LEAD ALLOY * 205-ML | 1 M38 |
| 28 | SQ. HD. PIPE PLUG (1/8" N.P.T.) | * | PLZ-0005 | 1 M40 |
| 29 | RETAINER NUT | | BRASS * 426-TT | 1 M13 |
| | | | STN. STL. * 426-TTS | 1 M17 |
| 30 | SPRING | * | 426-SS | 1 M16 |
| SPRING ASSIST OPEN MODEL | | | | |
| 7 | GASKET | | COPPER * 424-R | 1 M50 |
| | | | LEAD ALLOY * 424-RL | 1 M38 |
| 31 | CENTERING WASHER | * | 426-V | 1 M13 |
| 32 | SPRING | * | 426-S | 1 M16 |

CONVERSION KITS

| DESCRIPTION | PART NO. |
|---|----------|
| LIMIT STOP MODEL CONSISTS OF STANDARD (*) INCLUDES ITEMS 19, 20, 21 & 22 | 425-LS |
| SPRING ASSIST CLOSED MODEL CONSISTS OF STANDARD (*) INCLUDES ITEMS 25, 26, 27, 28, 29 & 30 | 425-SC |

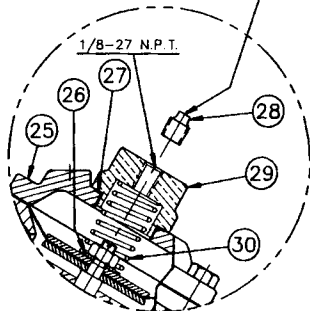
NOTE:

1. SPRING ASSIST CLOSED MODEL CANNOT BE COMBINED WITH LIMIT STOP MODEL.
2. SEE SHEET NO. V42F FOR STANDARD NORMALLY OPEN MODEL.
2. SEE SHEET NO. V42Z FOR POSITION INDICATOR MODEL.

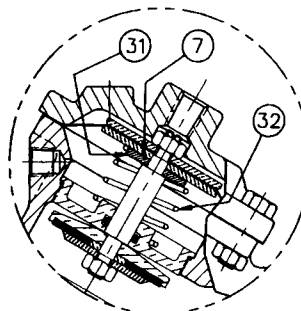


V42F-0010-0000
LIMIT STOP

USED ONLY WHEN COMBINED WITH NORM. CLOSED MODEL



V42F-0002-0000
SPRING ASSIST CLOSED



V42F-0001-0000
SPRING ASSIST OPEN

"FLOW CONTROL LIMIT STOP"- AN ADJUSTABLE TURNSCREW WHICH LIMITS THE VALVE SHAFT TRAVEL FROM FULLY CLOSED TO FULLY OPEN POSITION THUS ALLOWING CONSTANT FLOWRATE.

NOTE: FLOWRATE WILL VARY WITH FLUCTUATION IN PRESSURE.

"SPRING ASSIST TO CLOSE"- SPRING SERVES AS A BIAS TO ASSURE FULL VALVE CLOSING IN THE ABSENCE OF LINE AND CONTROL PRESSURES. IT ALSO ACCELERATES VALVE CLOSING SPEED IN LOW FLOW/PRESSURE CONDITIONS.

"SPRING ASSIST TO OPEN"- SPRING SERVES AS A BIAS TO ASSURE FULL VALVE OPENING IN THE ABSENCE OF LINE AND CONTROL PRESSURES. IT ALSO ACCELERATES VALVE OPENING SPEED IN LOW FLOW/PRESSURE CONDITIONS.

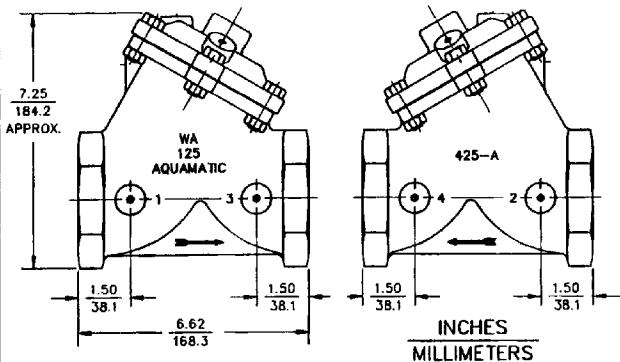
REVISED ON 6-18-92 (ECN-0376)
REVISED IN 7-91 (ECN-0226)
REVISED IN 12-90 (ECN-0170)
REVISED IN 5-90 (ECN-0097) & (ECN-0104)

AquaMatic®
AQUAMATIC, INC.
ROCKFORD, ILLINOIS

SERIES 425 OPTIONAL MODELS
DIAPHRAGM VALVE (2" N.P.T.)

| | | | |
|-------|-------|---------|-----------|
| SCALE | DRAWN | DATE | DWG. NO. |
| --- | MM | 9-20-88 | C-425-101 |

2" DIAPHRAGM VALVE - OPTIONAL MODELS



NOTE:

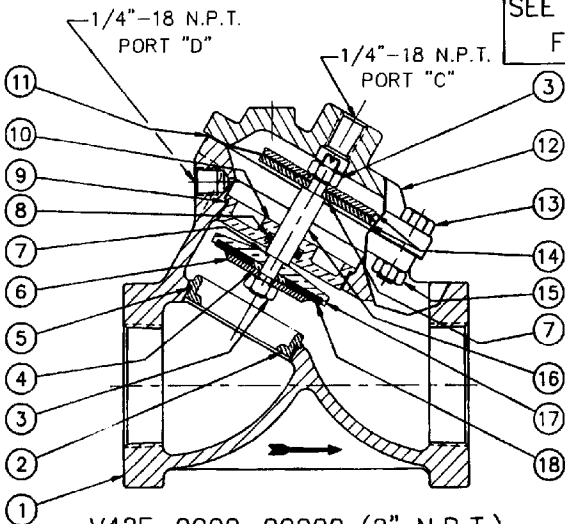
1. AMERICAN NATIONAL STANDARD TAPER PIPE THREADS (N.P.T.) PER ANSI B2.1-1968.
2. VALVES AVAILABLE WITH B.S.P. OR J.I.S. END CONNECTIONS.
3. ETH. PROP. DENOTES ETHYLENE PROPYLENE (MATERIAL).
4. T.C. DENOTES MATERIAL IS TEFLON COATED.

MAXIMUM WORKING PRESSURE (P.S.I.) PER MSS SP88 CLASS, CATEGORY B

| TEMPERATURE (°F.) | | |
|-------------------|-----|-----|
| 150 | 200 | 250 |
| 175 | 150 | 140 |

| NO | DESCRIPTION | ST'D. | PART NO. | QTY | MAT. DES. |
|----|--|-------|--------------|-----|-----------|
| 1 | BODY | * | 425-A | 1 | M1 |
| 2 | SEAT (SEE ASSEMBLY TOOLS BELOW) | * | 425-M | 1 | M7 |
| 3 | HEX LOCKNUT (5/16-24) | * | NUS-0013 | 2 | M25 |
| 4 | DISC SPACER | * | 426-HA | 1 | M13 |
| 5 | O-RING | | BUNA N | * | ORB-035 |
| | | | ETH. PROP. | | ORE-035 |
| | | | VITON | | ORV-035 |
| 6 | DISC PLATE | * | 424-D | 1 | M49 |
| 7 | GASKET | | COPPER | * | 424-R |
| | | | LEAD ALLOY | | 424-LR |
| 8 | O-RING | | BUNA N | * | ORB-206TC |
| | | | ETH. PROP. | | ORE-206 |
| | | | VITON | | ORV-206 |
| 9 | O-RING | | BUNA N | * | ORB-038 |
| | | | ETH. PROP. | | ORE-038 |
| | | | VITON | | ORV-038 |
| 10 | O-RING RETAINER (SEE ASSEMBLY TOOLS BELOW) | * | 425-G | 1 | M11 |
| 11 | DIAPHRAGM | | BUNA N/NYLON | * | 425-FB |
| | | | VITON/DACRON | | 425-FV |
| 12 | CAP | * | 425-C | 1 | M1 |
| 13 | HEX HD. MACH. SCREW (5/16-18 X 1 1/8) | * | SCZ-0013 | 6 | M39 |
| 14 | DIAPHRAGM PLATE | * | 425-D | 2 | M49 |
| 15 | HEX NUT (5/16-18) | * | NUZ-DD11 | 6 | M39 |
| 16 | SHAFT | * | 425-L | 1 | M17B |
| 17 | DISC HOLDER | * | 425-H | 1 | M11 |
| 18 | DISC | | BUNA N | * | 425-J |
| | | | ETH. PROP. | | 425-JE |
| | | | VITON | | 425-JV |

SEE SHEET V42F/A FOR OPTIONS



V42F-0000-00000 (2" N.P.T.)
NORMALLY OPEN (STANDARD)

REPAIR PARTS KITS

| DESCRIPTION | PART NO. | | |
|---|--------------------------------|---------------------------------|---------------------------------|
| | BUNA N | ETH. PROP. | VITON |
| DIAPHRAGM & SEALS KIT CONSISTS OF ITEM NOS. 3, 5, 7, 8, 9, 11 & 18 | 425-RA (INCLUDES 425-FB) | 425-KAE (INCLUDES 425-FY) | 425-RAV (INCLUDES 425-FV) |
| INTERNAL PARTS KIT NORMALLY OPEN MODEL CONSISTS OF STANDARD (*) ITEM NOS. 4, 6, 10, 14, 16, 17 AND APPROPRIATE "DIAPHRAGM AND SEALS KIT" | 425-RB | 425-RBE | 425-RBV |
| INTERNAL PARTS KIT NORMALLY CLOSED MODEL CONSISTS OF STANDARD (*) ITEM NOS. 4, 6, 10, 14, 17, 23(SEE SHEET V42F/A) AND APPROPRIATE "DIAPHRAGM AND SEALS KIT" | 425-RC | 425-RCE | 425-RCV |

| ASSEMBLY TOOLS | |
|----------------|------------------------------|
| ITEM NO. | TOOL NO. |
| 2 | 426-MT |
| 10 | 1" HEX DEEP SOCKET WRENCH |

REVISED ON 6-18-92 (ECN-0376)
REVISED ON 6-8-92 (ECN-0342)
REVISED ON 1-20-92 (ECN-0254)
REVISED ON 6-7-91 (ECN-0205)

AquaMatic®
AQUAMATIC, INC.
ROCKFORD, ILLINOIS

SERIES 425 STANDARD MODEL
DIAPHRAGM VALVE (2" N)

| | | | |
|-------|-------|---------|----------|
| SCALE | DRAWN | DATE | DRG. NO. |
| | MM | 9-15-88 | |

-425-100

"NORMALLY OPEN" (POWER TO CLOSE) - LINE PRESSURE/FLOW AGAINST THE VALVE
RING DISC WILL OPEN THE VALVE. CONTROL PRESSURE APPLIED TO THE TOP OF THE
DIAPHRAGM WILL CLOSE THE VALVE. (CONTROL PRESSURE SHOULD BE APPLIED AT PORT

2" DIAPHRAGM VALVE - STANDARD MODEL