

1

VALVOLE AQUAMATIC
AQUAMATIC VALVES




V42
V42
CARATTERISTICHE GENERALI:

Le valvole nella versione standard sono normalmente aperte. Il coperchio ed il corpo valvola sono in ghisa. La membrana interna e gli o-ring sono in Buna, mentre le parti metalliche in acciaio e ottone. Gli attacchi sono disponibili da 3/4" a 3" (B.S.P.) filettati femmina e da 3" (compreso) fino a 6" sono disponibili in versione flangiata ASA class 125, o BSP 4504.

DATI TECNICI

- Temperatura massima di esercizio: _____ 65°C (150°F)
- Opzione acqua calda: _____ 120°C (250°F)
- Pressione di esercizio: _____ 8.6 bar (125 PSI)
- Portate: _____ vedi diagramma

SPECIFICHE PRODOTTO

- Materiale esterno di composizione: _____ Ghisa
- Parti interne: _____ Acciaio e ottone
- Attacchi filettati disponibili: 3/4" - 1" - 1 1/4" - 1 1/2" - 2" - 2 1/2" - 3"
- Attacchi flangiati disponibili: _____ 3" - 4" - 6"

APPLICAZIONI:

- Sistemi per trattamento delle acque
- Irrigazioni agricole
- Gestione carburanti
- Raffreddamento torri
- Sistemi per il controllo del livello
- Sistemi di lavaggio autoveicoli
- Sistemi di controllo per il vuoto
- Macchine idrauliche
- Sistemi di raffreddamento
- Separatori centrifughi

Per altre applicazioni, prego non esitate a contattare l'ufficio tecnico Hytek

OPZIONI:

- Applicazioni per acqua calda con membrana e tenute in materiale speciale, parti interne in acciaio.
- Normamente chiusa
- Molla per l'assistenza alla chiusura
- Molla per l'assistenza all'apertura
- Limitatore di flusso

GENERAL FEATURES

Standard valves are normally open. Body and cap are of cast iron. Preformed stress-relieved diaphragm of Nitrile (Buna N) on Polyamide, and static seals are Nitrile, stainless steel and brass internal parts. Pipe sizes are 3/4 to 3-inch threaded (B.S.P.); 3-inch through 6-inch flanged drilled in accordance with ASA 16.1 class 125, or BSP 4504.

TECHNICAL SHEET:

- Maximum operating temperature: _____ 150°F (65°C)
- Option for Hot water applications: _____ 250°F (120°C)
- Working Pressure: _____ 125 PSI (8.6 bar)
- Flow rates: _____ see diagram

PRODUCT SPECIFICATIONS:

- External material: _____ Cast iron
- Internal parts: _____ Stainless steel and brass
- Threaded pipe size: _____ 3/4" - 1" - 1 1/4" - 1 1/2" - 2" - 2 1/2" - 3"
- Flanged pipe size: _____ 3" - 4" - 6"

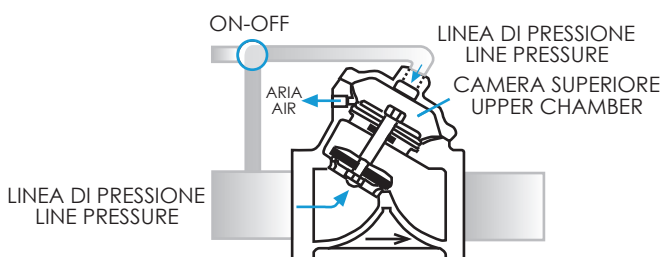
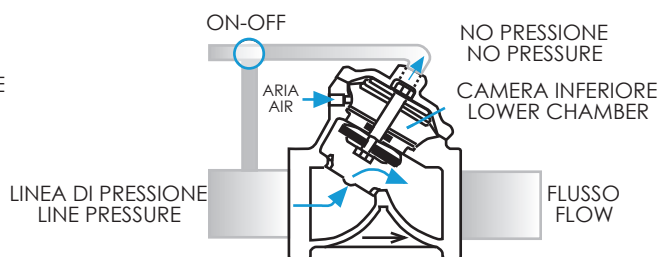
APPLICATIONS:

- Water treatment process systems
- Agricultural Irrigation
- Fuel Handling
- Cooling Towers
- Level Control Systems
- Car Wash Systems
- Vacuum Control
- Machine Hydraulic
- Cooling Control
- Centrifugal Separators

For other applications please contact Hytek technical office

OPTIONS:

- Hot Water optional seal and diaphragm materials for special application, stainless steel internal parts.
- Normally closed
- Spring assist closed
- Spring assist open
- Limit stop

**VALVOLA CHIUSA
VALVE CLOSE**

**VALVOLA APERTA
VALVE OPEN**


Chiusura stagna: La chiusura viene ottenuta dirigendo la pressione dell'acqua (o una pressione equivalente) nella camera superiore. Questa pressione grazie alla membrana con superficie ampia, causa lo spostamento del gruppo pistone in chiusura. (La superficie della membrana è 1.3 volte maggiore della superficie del disco inferiore)

Drip-Tight Closing: Closure is obtained by directing line pressure or equivalent independent pressure into the upper chamber. This pressure on the large diaphragm area causes the valve disc to seal against the seat. (Ratio of diaphragm to disc area is 1.3 or greater.)

Apertura della valvola: quando si chiude la linea di pressione nella camera superiore, la valvola si apre spinta dalla pressione del fluido sul disco inferiore.

Full Open Operation: When closing pressure in upper chamber is relieved by venting the pilot line, the valve opens, positively, by line pressure on the disc.

PORTATE E DIMENSIONI DELLE VALVOLE IN GHISA V42 / V42 FLOW AND DIMENSIONS OF METAL DIAPHRAGM VALVES

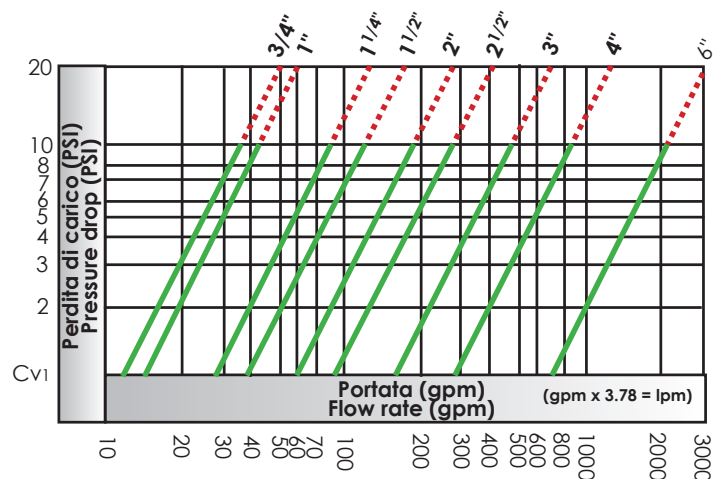
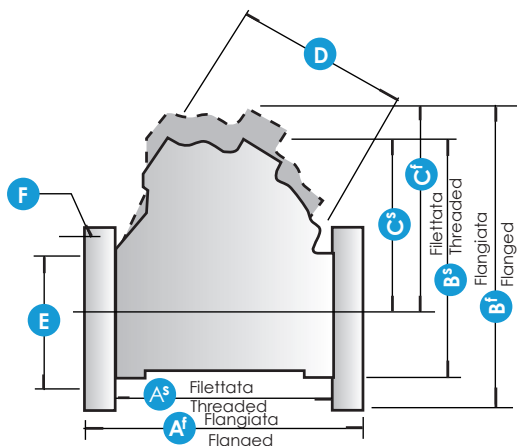
Attacco Pipe size	Cv3	Unità Unit	As	Af	Bs	Bf	Cs	Cf	D	E(1)	F(2)
Filettate / Threaded	3/4"	11.4	in.	3.69		4.25		3.75		2.75	
	1"	12.8	mm	94		108		95		70	
	1-1/4"	26.5	in.	4.75		5.37		4.00		3.50	
	1-1/2"	32.5	mm	121		137		102		89	
	2"	56	in.	6.62		7.25		5.37		4.87	
			mm	168		184		137		124	
	2-1/2"	84	mm	187		203		146		140	
Flangiate / Flanged	3"	134	in. mm	9.00 229		9.75 248		6.75 171		7.25 184	
	4"	275	in. mm		10.62 270		10.75 273		7.00 178	7.25 184	6.00 152
	6"	680	in. mm		11.75 298		14.75 375		10.00 254	8.75 222	7.50 191
					17.00 432		19.00 483		13.50 343	15.75 402	9.50 241

(1) Distanza fori
(1) Bolt circle diameter

(2) Diametro fori
(2) Bolt hole diameter

(3) CV = Portata in gpm d' acqua a 24°C con 0,07 di DP
(3) CV = Flow rate in gpm of water at 60°F @ 1 psi pressure drop

PORTATE E PERDITE DI CARICO FLOW AND PRESSURE DROPS

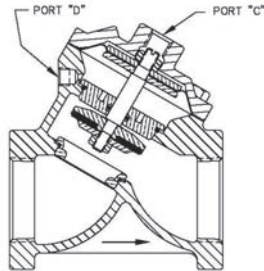


— Portata massima in continuo alla velocità di 25 m/h
Maximum continuous flow at velocity 20 ft/sec

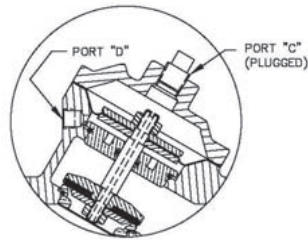
..... Portata massima intermittente alla velocità di 37,5 m/h
Maximum intermittent flow at velocity 30 ft/sec

CONFIGURAZIONE VALVOLE IDROPNEUMATICHE IN METALLO - MODELLI STANDARD / METAL DIAPHRAGM VALVES CONFIGURATIONS - STANDARD MODEL

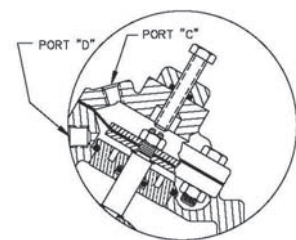
NORMALMENTE APERTA NORMALLY OPEN



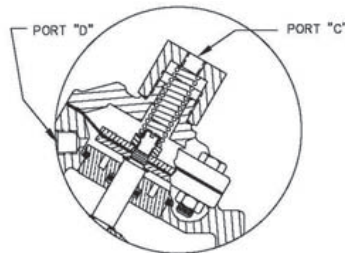
NORMALMENTE CHIUSA NORMALLY CLOSED



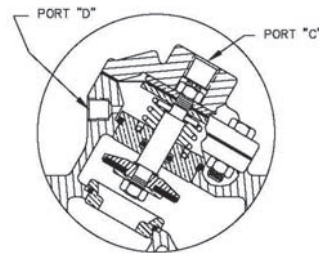
LIMITATORE DI PORTATA LIMIT STOP



MOLLA ASSISTENZA ALLA CHIUSURA SPRING ASSIST CLOSED



MOLLA ASSISTENZA ALL' APERTURA SPRING ASSIST OPEN



SERIES	PIPE SIZE	SEAT DIAMETER IN. CM.	SEAT AREA SQ. IN. SQ. CM.	DIAPHRAGM AREA SQ. IN. SQ. CM.	TOTAL STROKE IN. CM.	DIAPHRAGM CHAMBER (VOLUME) CUBIC IN. CUBIC CM.	Cv	Kv	FLOW RATE		PRESSURE DROP	
									@ 10 FT./SEC. (3 M./SEC.) NOTE 1 GAL./MIN. CU.M/HR	@ 20 FT./SEC. (6 M./SEC.) NOTE 2 GAL./MIN. CU.M/HR	@ 10 FT./SEC. (3 M./SEC.) NOTE 1 P.S.I. bar	@ 20 FT./SEC. (6 M./SEC.) NOTE 2 P.S.I. bar
V42B	3/4"	0.97 2.5	0.74 4.8	2.10 13.0	0.47 1.2	2.06 33.8	11.4	9.8	23 5	46 10	4.1 0.3	16.3 1.12
V42C	1"	0.97 2.5	0.74 4.8	2.10 13.0	0.47 1.2	2.06 33.8	12.8	11.0	23 5	46 10	3.2 0.22	13.0 0.9
V42D	1 1/4"	1.34 3.4	1.41 9.1	6.49 41.9	0.61 1.5	5.20 85.2	26.5	23	44 10	88 20	2.8 0.2	11.0 0.7
V42E	1 1/2"	1.34 3.4	1.41 9.1	6.49 41.9	0.61 1.5	5.20 85.2	32.5	28	44 10	88 20	1.8 0.12	7.3 0.5
V42F	2" (425)	2.02 5.1	3.20 20.6	11.04 71.2	0.70 1.8	10.50 172.1	56	48	100 23	200 46	3.2 0.22	12.7 0.87
V42G	2" (426)	2.31 5.9	4.19 27.0	15.03 97.0	0.99 2.5	16.34 267.8	68	59	130 29	260 58	3.7 0.25	14.7 1.01
V42H	2 1/2"	2.31 5.9	4.19 27.0	15.03 97.0	0.99 2.5	16.34 267.8	84	72	130 29	260 58	2.4 0.16	9.7 0.67
V42J	3"	2.96 7.5	6.88 44.4	22.69 146.4	1.05 2.7	32.80 537.6	134	116	214 49	428 98	2.6 0.18	10.2 0.7
V42K	4"	3.84 9.7	11.58 74.7	33.82 218.2	1.92 4.9	78.83 1292.0	275	238	360 83	720 166	1.7 0.12	6.9 0.47
V42L	6"	6.06 15.4	28.84 186.1	120.28 776.0	1.70 4.3	296.52 4860.0	680	588	899 204	1798 408	1.8 0.12	7.0 0.5

* Cv - FLOWRATE (GAL./MIN.) OF WATER AT 60° F. AT 1 P.S.I. PRESSURE DROP

** Kv - FLOWRATE (CU. M./HR) OF WATER AT 15.5° C. AT 1 BAR PRESSURE DROP

NOTE 1: MAXIMUM CONTINUOUS VELOCITY THROUGH THE VALVE.

NOTE 2: MAXIMUM CONTINUOUS VELOCITY. EXTENDED SERVICE AT THIS VELOCITY MAY CAUSE CAVITATION.

THE DATA PRESENTED HERE IS BELIEVED TO BE RELIABLE AND OFFERED AS SUGGESTION ONLY. ACTUAL RESULTS MAY VARY DEPENDING UPON APPLICATION.

TO DETERMINE FLOWRATE AT ANY GIVEN PRESSURE DROP, THE FOLLOWING FORMULAS CAN BE USED.

FOR WATER AND LIQUIDS:

$$Q = \frac{C_v \sqrt{\Delta P}}{\sqrt{e}}$$

FOR AIR AND GAS:

$$\text{WHEN } P_2 < .5P_1 \quad \text{WHEN } P_2 > .5P_1$$

$$C_v = \frac{CFM \sqrt{e}}{.5P_1} \quad C_v = \frac{CFM \sqrt{e}}{\sqrt{\Delta P \cdot P_2}}$$

Q - FLOWRATE IN GAL./MIN.
ΔP - PRESSURE DROP (LB./SQ. IN.)
e - SPECIFIC GRAVITY (WATER = 1.00)

CFM - CU. FT./MIN. FLOW
e - SPECIFIC GRAVITY (AIR = 1.00)
P1 - INLET PRESSURE (LB./SQ. IN.)
P2 - OUTLET PRESSURE (LB./SQ. IN.)

REPAIR PARTS KITS

DESCRIPTION	PART NO.	1070068 (421-RA)	1070081 (421-RAE)	1070093 (421-RAV)
DIAPHRAGM & SEALS KIT (CONSIST OF ITEM NOS 3(2), 5, 6, 8(2), 9, *4, *10)	BUNA N INCL UDES DIAPHRAGM 1074119 (421-FB)	E P D.M. INCL UDES DIAPHRAGM 1074119 (421-FB)	FPM INCL UDES DIAPHRAGM 1074120 (421-FV)	

INT. PARTS KIT (NORM. OPEN) CONSIST OF:
SEAT (ITEM NO. 2)
10, 11(2), 17
1070118 (421-RF)
1074158 (421-MO)

ASSEMBLY TOOLS

DESCRIPTION	PART NO.
FOR INSTALLATION AND REMOVAL OF SEAT (ITEM #2) (TOOL NOT SHOWN)	1074161 (421-MT)
FOR INSTALLATION AND REMOVAL OF SHAFT GUIDE (ITEM #10) (TOOL NOT SHOWN)	1074124 (421-GT)

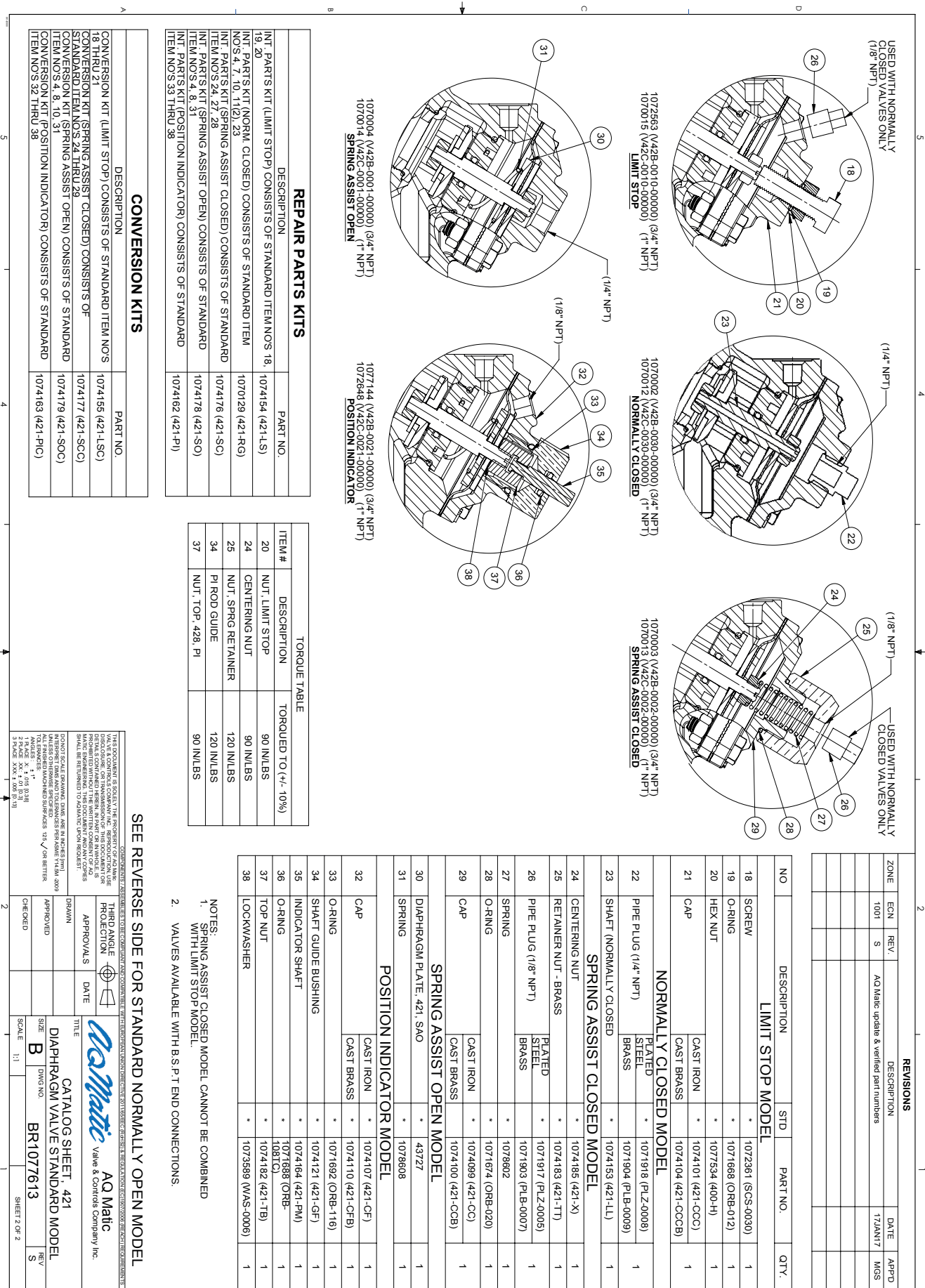
TORQUE TABLE

ITEM #	DESCRIPTION	TORQUED TO (+/- 10%)
2	SEAT	120 IN/LBS
3	UPPER NUT	90 IN/LBS
3	LOWER NUT	90 IN/LBS
10	GUIDE, SHAFT	120 IN/LBS
13 & 15	NUT, & CAP SCREW	140 IN/LBS

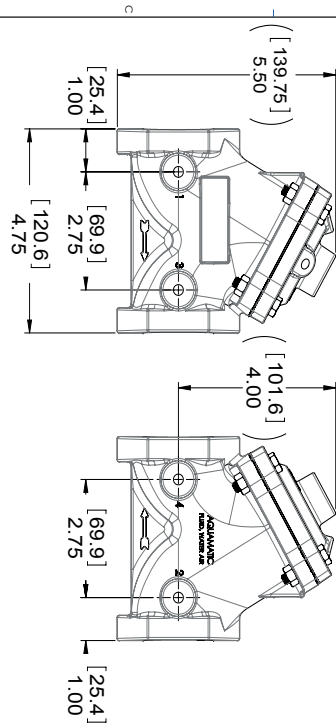
NOTES:
1. AMERICAN NATIONAL STANDARD TAPER PIPE THREADS (NPT) PER ANSI B2.1-1968
2. VALVES AVAILABLE WITH B.S.P.T. END CONNECTIONS.

SEE REVERSE SIDE FOR CONFIGURATION OPTIONS

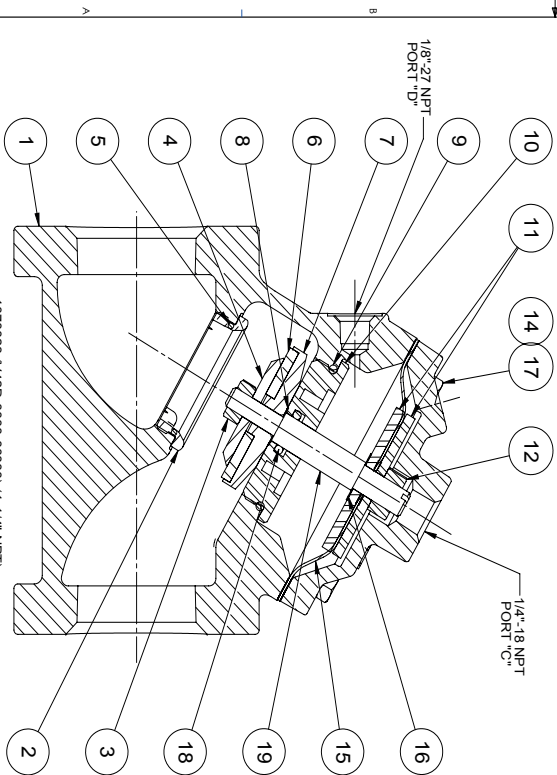
CATALOG SHEET 421
DIAPHRAGM VALVE STANDARD MODEL
BR1077613



VALVOLE IN GHISA SERIE 424 (1"1/4 E 1"1/2) / (1"1/4 AND 1"1/2) METAL DIAPHRAGM VALVES 424 SERIES



TORQUE TABLE	
ITEM #	TORQUED TO (+/- 10%)
2	SEAT 120 IN/LBS
3	LOWER NUT 90 IN/LBS
10	SHAFT GUIDE 120 IN/LBS
12	UPPER NUT 90 IN/LBS
14 & 17	NUT & CAP SCREW 90 IN/LBS



1070023 (V42D-0000-00000) (1-1/4" NPT)
1070025 (V42E-0000-00000) (1-1/2" NPT)
NORMALLY OPEN (STANDARD)

ASSEMBLY TOOLS	
DESCRIPTION	PART NO.
FOR INSTALLATION AND REMOVAL OF SEAT (ITEM #2). (TOOL NOT SHOWN)	1074247 (424-MT)
FOR INSTALLATION AND REMOVAL OF SHAFT GUIDE (ITEM #10). (TOOL NOT SHOWN)	1074227 (424-GT)

REPAIR PARTS KITS			
DESCRIPTION	PART NO.		
DIAPHRAGM & SEALS KIT CONSISTS OF ITEM NOS 3,5,6&9,12,15,16,18	10700068 (424-RA) BUENA N INCLUDES DIAPHRAGM 1074222 (424-FB)	10700682 (424-RAE) E P O.M. INCLUDES DIAPHRAGM 1074222 (424-FB)	1070094 (424-RAV) FKM INCLUDES DIAPHRAGM 1074224 (424-FV)
INT PARTS KIT (NORM. OPEN) CONSISTS OF STANDARD ITEM NOS 4,7,10,11&12,19		1070119 (424-RF)	
SEAT (ITEM NO. 2)		1074245 (424-MO)	

ZONE		REV		REVISIONS		DATE		APPD	
103415	M			(TITLE: 07-025 1640 4500 VAS; 07-025 1421 4500)		06/13		ANH	
103416	N			(TITLE: 07-025 1640 4500 VAS; 07-025 1421 4500)		06/13		ANH	
104253	M			(TITLE: VAS; 07-025 1640 4500 VAS; 07-025 1421 4500)		20/01/14		TJM	
104479	P			(TITLE: VAS; 07-025 1640 4500 VAS; 07-025 1421 4500)		24/15		TJM	
104479	T			(TITLE: VAS; 07-025 1640 4500 VAS; 07-025 1421 4500)		07/01/15		TJM	
104665	T			(TITLE: VAS; 07-025 1640 4500 VAS; 07-025 1421 4500)		01/01/15		TJM	

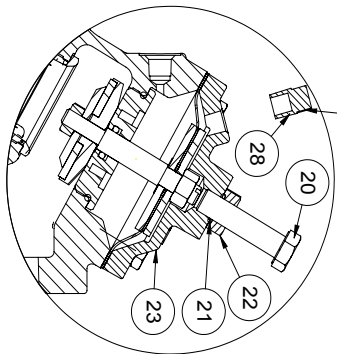
NO.	DESCRIPTION		STD	PART NO.	QTY.
1	BODY	CAST IRON	1-1/4" NPT	1074196 (424-A5)	1
			1-1/2" NPT	1074199 (424-A6)	
2	SEAT - BRASS (REQS ASSY TOOL)	CAST BRASS	1-1/4" NPT	1074190 (424-AB5)	1
			1-1/2" NPT	1074193 (424-AB6)	
3	HEX NUT (1/4-28)		*	1074245 (424-M0)	1
4	DISC PLATE - BRASS		*	1263652	1
			*	1074238	1
5	O-RING	BUNA N	*	1071678 (ORB-028)	1
		E.P.D.M.		15243	
		FKM	*	1071793 (ORV-028)	
6	DISC	BUNA	*	1074232 (424-J)	1
		E.P.D.M.	*	1074233 (424-JE)	
		FKM	*	1074236 (424-JV)	
		HYCAR	*	1074234 (424-JH)	
7	DISC HOLDER - SS		*	1074231 (424-H)	1
8	GASKET - COPPER		*	1073948 (200-G)	1
9	O-RING	BUNA N	*	1071695 (ORB-132)	1
		E.P.D.M.	*	1071734 (ORB-132)	
		FKM	*	1071806 (ORV-132)	
10	SHAFT GUIDE - SS (REQS ASSY TOOL)		*	1074226	1
11	DIAPHRAGM PLATE - SS		*	43943	2
12	HEX NUT (5/16-24)	PLATED STEEL	*	1263653	1
13	CAP	CAST IRON	*	1074202 (424-C)	1
		CAST BRASS	*	1074206 (424-CB)	
14	HEX SCREW	PLATED STEEL	*	1072399 (SCZ-0007)	4
15	DIAPHRAGM	BUNA N	*	1074222 (424-FB)	1
		FKM	*	1074224 (424-FV)	
16	GASKET - COPPER	COPPER	*	1074252 (424-R)	1
17	HEX NUT	PLATED STEEL	*	1071666 (NULZ-0008)	4
18	O-RING	BUNA N	*	1071689 (ORB-1107C)	1
		E.P.D.M.	*	1071726 (ORE-1107C)	
		FKM	*	1239021 (ORV-110)	
19	SHAFT (NORMALLY OPEN)		*	1074239 (424-L)	1

NOTES:
1. AMERICAN NATIONAL STANDARD TAPER PIPE THREADS (NPT) PER ANSI B2.1-1968
2. VALVES AVAILABLE WITH B.S.P.T. END CONNECTIONS.

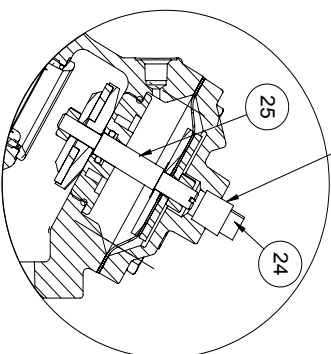
SEE REVERSE SIDE FOR CONFIGURATION OPTIONS

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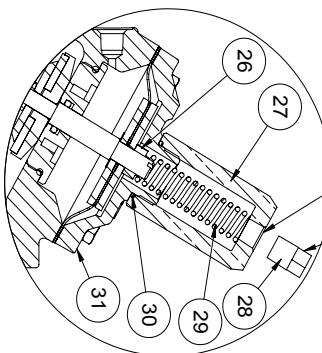
(USED WITH NORMALLY
CLOSED VALVES ONLY)
(1/8" NPT)



(1/4" NPT)
(USED WITH NORMALLY
CLOSED VALVES ONLY)



(1/8" NPT)

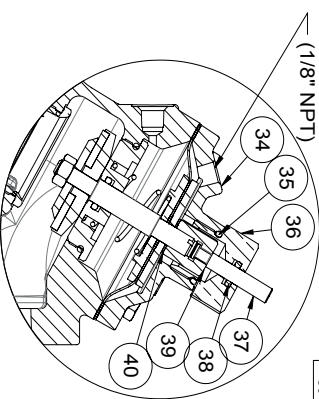
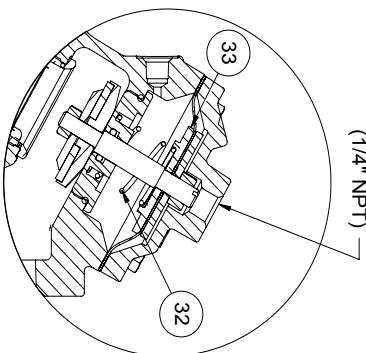


1072720 (V42D-0010-00000) (1-1/4" NPT)
1070028 (V42E-0010-00000) (1-1/2" NPT)
LIMIT STOP

1072723 (V42D-0030-00000) (1-1/4" NPT)
1070026 (V42E-0030-00000) (1-1/2" NPT)
NORMALLY CLOSED

1072716 (V42D-0002-00000) (1-1/4" NPT)
1072792 (V42E-0002-00000) (1-1/2" NPT)
SPRING ASSIST CLOSED

TORQUE TABLE		
ITEM #	DESCRIPTION	TORQUE TO (+/- 10%)
22	NUT, STOP	90 IN/LBS
26	CENTERING NUT	90 IN/LBS
27	RETAINER NUT	120 IN/LBS
36	SHAFT GUIDE BUSHING	120 IN/LBS
39	TOP NUT	90 IN/LBS



1072715 (V42D-0001-00000) (1-1/4" NPT)
1070027 (V42E-0001-00000) (1-1/2" NPT)
SPRING ASSIST OPEN

1072722 (V42D-0021-00000) (1-1/4" NPT)
1072804 (V42E-0021-00000) (1-1/2" NPT)
POSITION INDICATOR

CONVERSION KITS	
DESCRIPTION	PART NO.
CONVERSION KIT (LIMIT STOP) CONSISTS OF STANDARD ITEM NOS 20,21,22,23	1074293 (424-LSO)
CONVERSION KIT (SPRING ASSIST CLOSED) CONSISTS OF STANDARD ITEM NOS 28,29,30,31	1074260 (424-SCC)
CONVERSION KIT (SPRING ASSIST OPEN) CONSISTS OF STANDARD ITEM NOS 10,16,32,33	1074260 (424-SCO)
CONVERSION KIT (POSITION INDICATOR) CONSISTS OF STANDARD ITEM NOS 34 THRU 40	1074260 (424-PI)

REPAIR PARTS KITS	
DESCRIPTION	PART NO.
INT. PARTS KIT (LIMIT STOP) CONSISTS OF STANDARD ITEM NOS 20,21,22	1074242 (424-LS)
INT. PARTS KIT (SPRING ASSIST CLOSED) CONSISTS OF STANDARD ITEM NOS 28,29,30,31	1070130 (424-RG)
INT. PARTS KIT (SPRING ASSIST OPEN) CONSISTS OF STANDARD ITEM NOS 28,29,30	1074265 (424-SC)
INT. PARTS KIT (SPRING ASSIST OPEN) CONSISTS OF STANDARD ITEM NOS 16,32,33	1074268 (424-SCO)
INT. PARTS KIT (POSITION INDICATOR) CONSISTS OF STANDARD ITEM NOS 35 THRU 40	1074249 (424-PI)

REVISIONS

ZONE	ECN	REV.	DESCRIPTION	DATE	APPD
	1001	U	AQ Matic update & verified part numbers	17JAN17	MSS

LIMIT STOP MODEL

NO	DESCRIPTION	STD	PART NO.	QTY.
20	SCREW	*	1072362 (SCS-0031)	1
21	O-RING	*	1071668 (ORB-012)	1
22	NUT STOP 3/8-24	*	107534 (400-H)	1
23	CAP	*	1074210 (424-CC)	1
24	PIPE PLUG (1/4" NPT)	*	1074213 (424-CCB)	1

NORMALLY CLOSED MODEL

24	PIPE PLUG (1/4" NPT)	*	1071918 (PLZ-0008)	1
25	SHAFT (NORMALLY CLOSED)	*	1071904 (PLB-0009)	1
26	CENTERING NUT	*	1074276 (424-X)	1
27	RETAINER NUT - BRASS	*	1074274 (424-TT)	1
28	PIPE PLUG (1/8" NPT)	*	1071917 (PLZ-0005)	1

SPRING ASSIST CLOSED MODEL

29	SPRING	*	1074270 (424-SS)	1
30	O-RING	*	1071674 (ORB-020)	1
31	CAP	*	1074208 (424-CC)	1
32	SPRING	*	1236766	1

SPRING ASSIST OPEN MODEL

33	DIAPHRAGM PLATE, 424	*	43728	1
----	----------------------	---	-------	---

POSITION INDICATOR MODEL

34	CAP	*	1074217 (424-CF)	1
35	O-RING	*	1074218 (424-CFB)	1
36	SHAFT GUIDE BUSHING	*	1071692 (ORB-116)	1
37	INDICATOR SHAFT	*	1074121 (421-GF)	1
38	O-RING	*	1074251 (424-PM)	1
39	TOP NUT	*	1071688 (ORB-108TC)	1
40	LOCKWASHER	*	1074272 (424-TB)	1

- NOTES:
1. SPRING ASSIST CLOSED MODEL CANNOT BE COMBINED WITH LIMIT STOP MODEL.
 2. VALVES AVAILABLE WITH B.S.P.T. END CONNECTIONS.

SEE REVERSE SIDE FOR
STANDARD NORMALLY OPEN MODEL

AQ Matic Valves & Controls Company Inc.

APPROVALS	DATE	TITLE
DRAWN	TJM	12DEC12
APPROVED		
CHECKED		
SIZE	B	DWG NO. BR1077614
SCALE	1:1	
SHEET	2 OF 2	

ZONE		REVIEWS		DATE	APPD
		ENCL	REV.		
1001	V			AO Matic update & verified part numbers	17JAN17

NO.	DESCRIPTION	STD	PART NO.	QTY.
LIMIT STOP MODEL				
19	SCREW		1078676	1
20	O-RING		1071690 (ORB-112)	1
21	NUT, LIMIT STOP		1074434 (42S-LU)	1
22	CAP, 42S, NPT, LS		1074265 (42S-CC)	1
NORMALLY CLOSED MODEL				
23	PIPE PLUG (1/4" N.P.T.)		1071918 (PL20008)	1
24	SHAFT (NORMALLY CLOSED)		1071904 (PLB-0009)	1
25	CENTERING WASHER		1074083 (421-AH)	1
26	NUT, SPRG RETAINER		1074433 (42B-IT)	1
27	PIPE PLUG (1/8" N.P.T.)		1071917 (PL2-0005)	1
28	SPRING		1071903 (PLB-0007)	1
29	O-RING		1071677 (ORB-025)	1
30	CAP		1074284 (42S-CA)	1
SPRING ASSIST CLOSED MODEL				
31	SPRING		1078692	1
32	DIAPHRAGM PLATE		43729	1
POSITION INDICATOR MODEL				
33	CAP		1074288 (42S-CF)	1
34	O-RING		1071692 (ORB-115)	1
35	SHAFT GUIDE BRUSHING		1074121 (421-GF)	1
36	INDICATOR SHAFT		1074325 (42S-PM)	1
37	O-RING		1071688 (ORB-108-TC)	1
38	TOP NUT		1074332 (42S-TB)	1
39	LOCKWASHER		1073590 (TRS-0007)	1

1070037 (V42F-0010-00000) (2" NPT)
LIMIT STOP

1072894 (V42F-0030-00000) (2" NPT)
NORMALLY CLOSED

1072885 (V42F-0002-00000) (2" NPT)
SPRING ASSIST CLOSED

1070036 (V42F-0001-00000) (2" NPT)
SPRING ASSIST OPEN

1072893 (V42F-0021-00000) (2" NPT)
POSITION INDICATOR

REPAIR PARTS KITS	
DESCRIPTION	PART NO.
INT. PARTS KIT (LIMIT STOP)	1074319 (42S-LS)
CONSISTS OF STANDARD ITEM NOS 19,20,21	
INT. PARTS KIT (NORM CLOSED)	1070131 (42S-RG)
CONSISTS OF STANDARD ITEM NOS 4,7,10,11,12,24	
INT. PARTS KIT (SPRING ASSIST CLOSED)	1074329 (42S-SC)
CONSISTS OF STANDARD ITEM NOS 23,28,29	
INT. PARTS KIT (SPRING ASSIST OPEN)	1074331 (42S-SO)
CONSISTS OF STANDARD ITEM NOS 8,31,32	
INT. PARTS KIT (POSITION INDICATOR)	1074323 (42S-PI)
CONSISTS OF STD ITEM NOS 34 THRU 39	

CONVERSION KITS	
DESCRIPTION	PART NO.
CONVERSION KIT (LIMIT STOP)	1074320 (42S-LS)
CONSISTS OF STANDARD ITEM NOS 19,20,21,22	
CONVERSION KIT (SPRING ASSIST CLOSED)	1074330 (42S-SC)
CONSISTS OF STANDARD ITEM NOS 25 THRU 30	
CONVERSION KIT (SPRING ASSIST OPEN)	1074331 (42S-SO)
CONSISTS OF STANDARD ITEM NOS 8,31,32	
CONVERSION KIT (POSITION INDICATOR)	1074324 (42S-PI)
CONSISTS OF STANDARD ITEM NOS 33 THRU 39	

TORQUE TABLE		
ITEM #	DESCRIPTION	TORQUED TO (+/- 10%)
21	NUT, LIMIT STOP	120 IN/LBS
26	NUT, SPRING RETAINER	120 IN/LBS
35	SHAFT GUIDE BRUSHING	120 IN/LBS
38	TOP NUT	120 IN/LBS

NOTE:

- SPRING ASSIST CLOSED MODEL CANNOT BE COMBINED WITH LIMIT STOP MODEL.
- VALVES AVAILABLE WITH B.S.P.T. END CONNECTIONS.

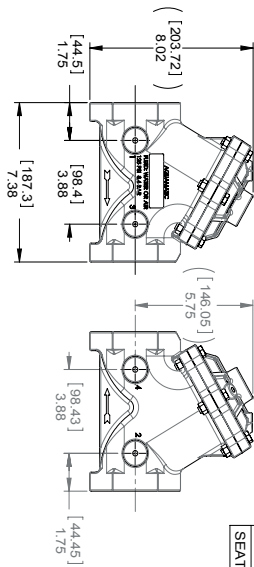
SEE REVERSE SIDE FOR STANDARD NORMALLY OPEN MODEL.

APPROVALS		DATE		TITLE	
APPROVED	TMS	06-03-10		CATALOG SHEET, 42S	
CHECKED				DIAPHRAGM VALVE	

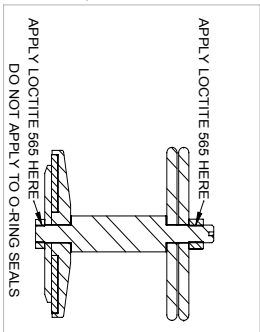
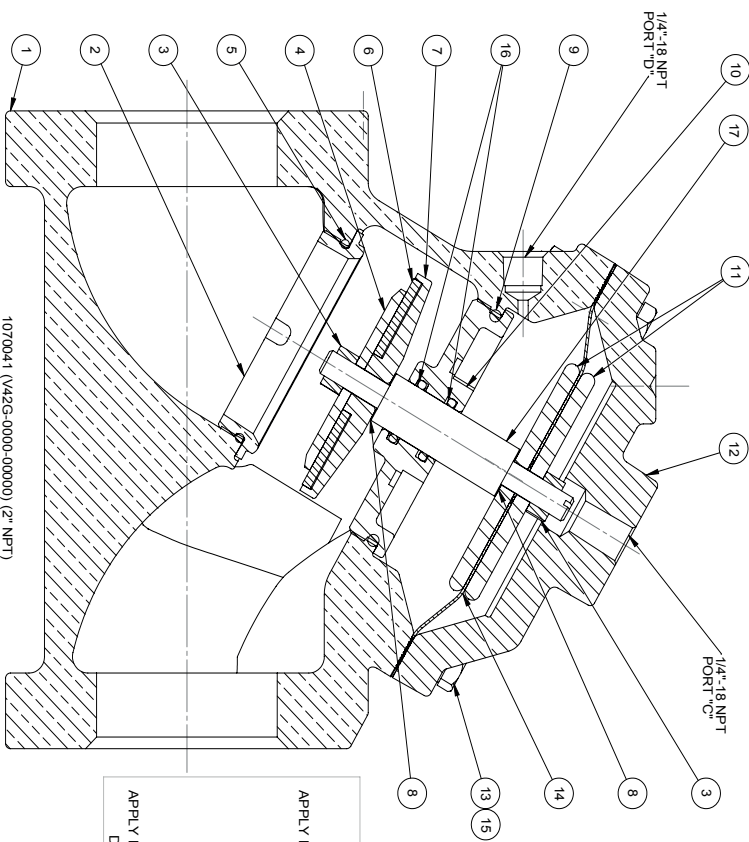
SCALE	DWG NO.	REV
1/2"	BR1077615	V

SHEET 2 OF 2

VALVOLE IN GHISA SERIE 426 (2"1/2) / (2"1/2) METAL DIAPHRAGM VALVES 426 SERIES



TORQUE TABLE		
ITEM #	DESCRIPTION	TORQUED TO (+/- 10%)
2	SEAT	200 IN/LBS
3	UPPER NUT	140 IN/LBS
3	LOWER NUT	140 IN/LBS
10	SHAFT GUIDE	200 IN/LBS
13 & 15	NUT, HEX SCREW	140 IN/LBS



REVISIONS						
ZONE	ECN	REV.	DESCRIPTION	DATE	APPD	
3	32173	N	CORRECTED ROTATION OF CAPS	17FEB11	MMH	
8	32879	P	1-WAS 1074411 (426-1N) 2-ADDD 1074327 3-ADDD 42696	06-06-11	TMS	
14	102834	R	ITEM #1 WAS 1074240 ITEM# 16-ADDED O-RING 1071601	05-11-13	MBE	
15	103482	T	ITEM #1 WAS 1074309 ITEM# 20-ADDED 1071601	28JUN14	TJM	
19	104754	U	ITEM #1 WAS 1074310 ITEM# 20-ADDED 1071601 ITEM# 32 WAS 42697 1-ADDD TORQUE CAPERS (PG 1 & 2)	23JUN15	TJM	
NO.	DESCRIPTION		STD	PART NO.	QTY	
1	BODY	CAST IRON	2" NPT	1074343 (426-AB)		
			2 1/2" NPT	1081556 (426-A-10)	1	
		CAST BRASS	2" NPT	1074353 (426-AB8)		
			2 1/2" NPT	1074335 (426-AB-10)		
2	SEAT: BRASS	(REQS ASSY TOOL)		1074400 (426-AM3)	1	
3	HEX NUT 6/16-24			1263553	2	
4	DISC PLATE, SS			1074398	1	
5	O-RING			1071686 (ORB-144)		
				EPDM		1
				1071737 (ORE-144)		
				1071809 (ORV-144)		
				1074389 (426-L)		
6	DISC			1074391 (426-JE)		
				EPDM		1
				1074394 (426-JV)		
				1074392 (426-JH)		
7	DISC HOLDER, SS			1074386	1	
8	GASKET: COPPER			1074252 (424-R)	2	
9	O-RING			1071706 (ORB-233)		
				EPDM		1
				1071754 (ORE-233)		
				1071826 (ORV-233)		
10	SHAFT GUIDE (REQS ASSY TOOL)			1074378	1	
11	DIAPHRAGM PLATE, SS			1074371	2	
12	CAP			CAST IRON		
				CAST BRASS		1
				1081560 (426-C)		
13	HEX SCREW			PLATED STEEL		6
				1072401 (SCZ-0015)		
14	DIAPHRAGM			BUANA N		
				1074314 (426-FB)		1
				1074376 (426-FV)		
15	HEX NUT			PLATED STEEL		6
				1071667 (NUZ-0011)		
16	O-RING			BUANA N		
				1071691 (ORB-114TC)		
				1071729 (ORE-114TC)		2
17	SHAFT (NORMALLY OPEN)			1142391 (ORV-114TC)		
18	TAG			1074401 (426-L)	1	
				1074129	1	
19	RING, TAG ATTACHING			42698	1	

NOTE:

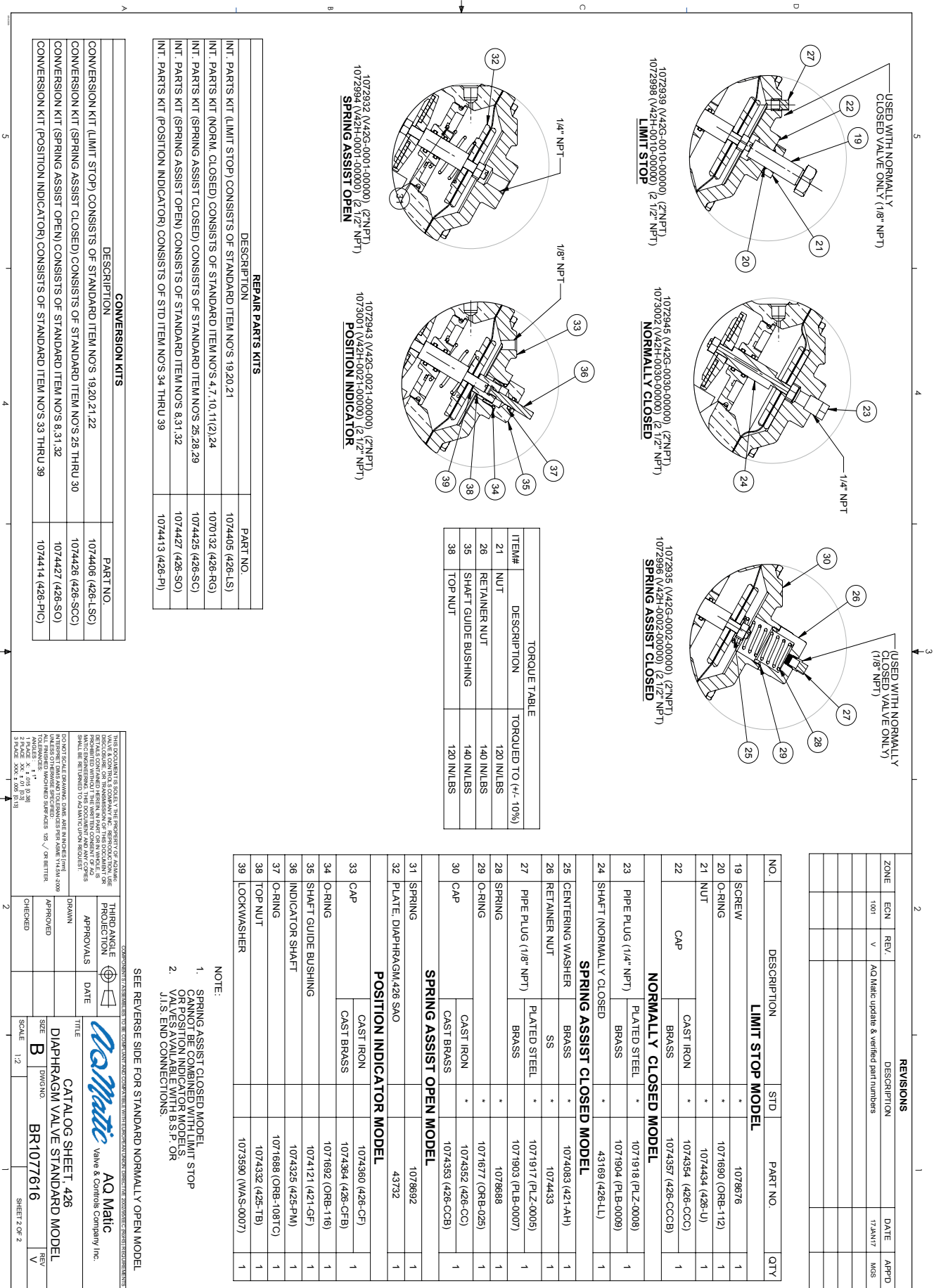
1. AMERICAN NATIONAL STANDARD TAPER PIPE THREADS (NPT) PER ANSI B2.1-1968.
2. VALVES AVAILABLE WITH BSPT END CONNECTIONS.

SEE REVERSE SIDE FOR CONFIGURATION OPTIONS

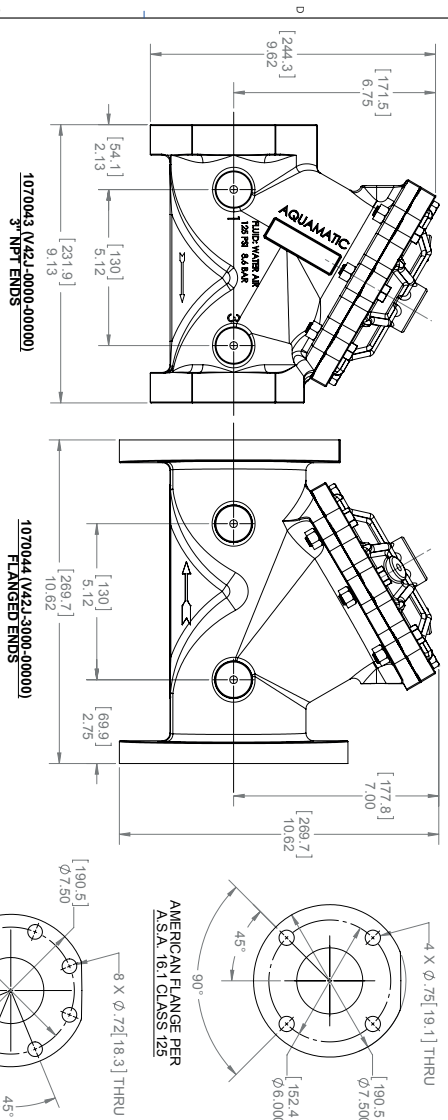
AQ Matic
Valve & Controls Company Inc.

1070041 (V42G-0000-00000) (2" NPT)
1070042 (V42H-0000-00000) (2 1/2" NPT)
NORMALLY OPEN (STANDARD)

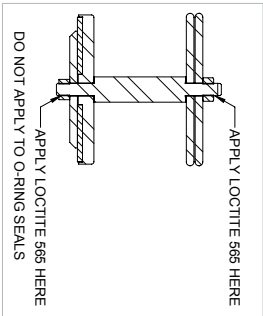
[illegible]



NOTE:
1. AMERICAN NATIONAL STANDARD TAPER PIPE THREADS (NPT) PER ANSI B2.1-1968
2. VALVES AVAILABLE WITH B.S.P. OR J.I.S. END CONNECTIONS



TORQUE CHART		
ITEM #	DESCRIPTION	TORQUED TO (+/- 10%)
2	SEAT	500 IN/LBS (41.6 FT/LBS)
3	UPPER NUT	140 IN/LBS
3	LOWER NUT	140 IN/LBS
12,14 & 18	NUT, HEX SCREW	140 IN/LBS
19	SHAFT GUIDE	500 IN/LBS (41.6 FT/LBS)



REVISIONS						
ZONE	ENCL	REV.	DESCRIPTION	APPROVED	DATE	
	1101517	L	REBAR IN SOLIDWORKS	NE	1-31-13	
	102041	M	1.1 WAS 107448, 2. ADDED CHANG	NE	6-3-13	
	103082	N	1.1, 2.1, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1, 9.1, 10.1, 11.1, 12.1, 13.1, 14.1, 15.1, 16.1, 17.1, 18.1, 19.1, 20.1, 21.1, 22.1, 23.1, 24.1, 25.1, 26.1, 27.1, 28.1, 29.1, 30.1, 31.1, 32.1, 33.1, 34.1, 35.1, 36.1, 37.1, 38.1, 39.1, 40.1, 41.1, 42.1, 43.1, 44.1, 45.1, 46.1, 47.1, 48.1, 49.1, 50.1, 51.1, 52.1, 53.1, 54.1, 55.1, 56.1, 57.1, 58.1, 59.1, 60.1, 61.1, 62.1, 63.1, 64.1, 65.1, 66.1, 67.1, 68.1, 69.1, 70.1, 71.1, 72.1, 73.1, 74.1, 75.1, 76.1, 77.1, 78.1, 79.1, 80.1, 81.1, 82.1, 83.1, 84.1, 85.1, 86.1, 87.1, 88.1, 89.1, 90.1, 91.1, 92.1, 93.1, 94.1, 95.1, 96.1, 97.1, 98.1, 99.1, 100.1, 101.1, 102.1, 103.1, 104.1, 105.1, 106.1, 107.1, 108.1, 109.1, 110.1, 111.1, 112.1, 113.1, 114.1, 115.1, 116.1, 117.1, 118.1, 119.1, 120.1, 121.1, 122.1, 123.1, 124.1, 125.1, 126.1, 127.1, 128.1, 129.1, 130.1, 131.1, 132.1, 133.1, 134.1, 135.1, 136.1, 137.1, 138.1, 139.1, 140.1, 141.1, 142.1, 143.1, 144.1, 145.1, 146.1, 147.1, 148.1, 149.1, 150.1, 151.1, 152.1, 153.1, 154.1, 155.1, 156.1, 157.1, 158.1, 159.1, 160.1, 161.1, 162.1, 163.1, 164.1, 165.1, 166.1, 167.1, 168.1, 169.1, 170.1, 171.1, 172.1, 173.1, 174.1, 175.1, 176.1, 177.1, 178.1, 179.1, 180.1, 181.1, 182.1, 183.1, 184.1, 185.1, 186.1, 187.1, 188.1, 189.1, 190.1, 191.1, 192.1, 193.1, 194.1, 195.1, 196.1, 197.1, 198.1, 199.1, 200.1, 201.1, 202.1, 203.1, 204.1, 205.1, 206.1, 207.1, 208.1, 209.1, 210.1, 211.1, 212.1, 213.1, 214.1, 215.1, 216.1, 217.1, 218.1, 219.1, 220.1, 221.1, 222.1, 223.1, 224.1, 225.1, 226.1, 227.1, 228.1, 229.1, 230.1, 231.1, 232.1, 233.1, 234.1, 235.1, 236.1, 237.1, 238.1, 239.1, 240.1, 241.1, 242.1, 243.1, 244.1, 245.1, 246.1, 247.1, 248.1, 249.1, 250.1, 251.1, 252.1, 253.1, 254.1, 255.1, 256.1, 257.1, 258.1, 259.1, 260.1, 261.1, 262.1, 263.1, 264.1, 265.1, 266.1, 267.1, 268.1, 269.1, 270.1, 271.1, 272.1, 273.1, 274.1, 275.1, 276.1, 277.1, 278.1, 279.1, 280.1, 281.1, 282.1, 283.1, 284.1, 285.1, 286.1, 287.1, 288.1, 289.1, 290.1, 291.1, 292.1, 293.1, 294.1, 295.1, 296.1, 297.1, 298.1, 299.1, 300.1, 301.1, 302.1, 303.1, 304.1, 305.1, 306.1, 307.1, 308.1, 309.1, 310.1, 311.1, 312.1, 313.1, 314.1, 315.1, 316.1, 317.1, 318.1, 319.1, 320.1, 321.1, 322.1, 323.1, 324.1, 325.1, 326.1, 327.1, 328.1, 329.1, 330.1, 331.1, 332.1, 333.1, 334.1, 335.1, 336.1, 337.1, 338.1, 339.1, 340.1, 341.1, 342.1, 343.1, 344.1, 345.1, 346.1, 347.1, 348.1, 349.1, 350.1, 351.1, 352.1, 353.1, 354.1, 355.1, 356.1, 357.1, 358.1, 359.1, 360.1, 361.1, 362.1, 363.1, 364.1, 365.1, 366.1, 367.1, 368.1, 369.1, 370.1, 371.1, 372.1, 373.1, 374.1, 375.1, 376.1, 377.1, 378.1, 379.1, 380.1, 381.1, 382.1, 383.1, 384.1, 385.1, 386.1, 387.1, 388.1, 389.1, 390.1, 391.1, 392.1, 393.1, 394.1, 395.1, 396.1, 397.1, 398.1, 399.1, 400.1, 401.1, 402.1, 403.1, 404.1, 405.1, 406.1, 407.1, 408.1, 409.1, 410.1, 411.1, 412.1, 413.1, 414.1, 415.1, 416.1, 417.1, 418.1, 419.1, 420.1, 421.1, 422.1, 423.1, 424.1, 425.1, 426.1, 427.1, 428.1, 429.1, 430.1, 431.1, 432.1, 433.1, 434.1, 435.1, 436.1, 437.1, 438.1, 439.1, 440.1, 441.1, 442.1, 443.1, 444.1, 445.1, 446.1, 447.1, 448.1, 449.1, 450.1, 451.1, 452.1, 453.1, 454.1, 455.1, 456.1, 457.1, 458.1, 459.1, 460.1, 461.1, 462.1, 463.1, 464.1, 465.1, 466.1, 467.1, 468.1, 469.1, 470.1, 471.1, 472.1, 473.1, 474.1, 475.1, 476.1, 477.1, 478.1, 479.1, 480.1, 481.1, 482.1, 483.1, 484.1, 485.1, 486.1, 487.1, 488.1, 489.1, 490.1, 491.1, 492.1, 493.1, 494.1, 495.1, 496.1, 497.1, 498.1, 499.1, 500.1, 501.1, 502.1, 503.1, 504.1, 505.1, 506.1, 507.1, 508.1, 509.1, 510.1, 511.1, 512.1, 513.1, 514.1, 515.1, 516.1, 517.1, 518.1, 519.1, 520.1, 521.1, 522.1, 523.1, 524.1, 525.1, 526.1, 527.1, 528.1, 529.1, 530.1, 531.1, 532.1, 533.1, 534.1, 535.1, 536.1, 537.1, 538.1, 539.1, 540.1, 541.1, 542.1, 543.1, 544.1, 545.1, 546.1, 547.1, 548.1, 549.1, 550.1, 551.1, 552.1, 553.1, 554.1, 555.1, 556.1, 557.1, 558.1, 559.1, 560.1, 561.1, 562.1, 56			

NO.					
	BODY, 427, 3PT NUT THREAD	CI	*		107/4446
1	VALVE BODY 427, FLGD ASTM	CI	*		107/4438
	BODY, 427, 3PT NUT THREAD	BRASS	*		107/4449
2	SEAT, 427, MACHINING	BRASS	*		107/4505
3	NUT HEX, 5/16" 24	SS	*		1263/953
4	DISC PLATE, 427	SS	*		107/4495
	O-RING, 2-233	BUA	*		1071706
5	O-RING, 233	EPDM	*		1071754
	O-RING, ORV-233	FKM			1071826
	DISC, 427	BUA	*		107/4487
6	DISC, 427	EPDM			107/4489
	DISC, 427	FKM			107/4492
	DISC, 427	HYCAR			107/4490
7	DISC HOLDER	BRASS	*		107/4485
8	GASKET, 62° ODX 317/ID	COOPER	*		107/4252
	O-RING (INTRILE), 2-237	BUA	*		1071708
9	O-RING, EPDM, 237	EPDM			1071755
	O-RING, FKM	FKM			1071828
10	PLATE, UPPER DIAPHRAGM	SS			107/4472
	CAP 427, MACHINING	CI	*		107/4454
11	CAP 427, MACHINING	BRASS			107/4457
12	SCREW, 3/8-16 X 1 1/2", HX HD	PLTD STL	*		107/2405
13	DIAPHRAGM SERIES 427	FKM			107/4477
	DIAPHRAGM SERIES 427	BUA			107/4475
14	HEX NUT, 3/8-16	PLTD STL	*		107/4618
	O-RING, 2-114, TFLN CTD	BUA	*		1071691
15	O-RING, 2-114, TFLN CTD	EPDM			1071729
	O-RINGS, 2-114	FKM			1242/391
16	SHAFT, 427, NO	SS			107/4496
17	SPACER	BRASS	*		107/3432
18	SCREW/HEX HD, 3/8-16X1,	SS	*		197/88
19	SHAFT GUIDE, MACHINING	SS	*		107/4479

REPAIR PARTS KITS		PART NO.	
DESCRIPTION			
DIAPHRAGM & SEAL'S KIT CONSISTS OF OPEN ENDS 3(2), 5, 6, 8(2), 9, 14, 16	1070072 (427-RA)	1070086 (427-FAE)	1070097 (427-RAV)
INT. PARTS KIT (NORM. OPEN) CONSISTS OF STANDARD ITEM NOS. 4, 7, 10, 11(2), 17, 18	1074475 (427-FB) INCLUDES BLUJIN DIAPHRAGM	1074475 (427-FB) E.P.D.M. INCLUDES DIAPHRAGM	1074477 (427-FV) FPM INCLUDES DIAPHRAGM
		1070122 (427-RF)	
		1074505 (427-MO)	

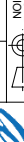
APPLY LOCTITE 565 HERE
DO NOT APPLY TO O-RING SEALS

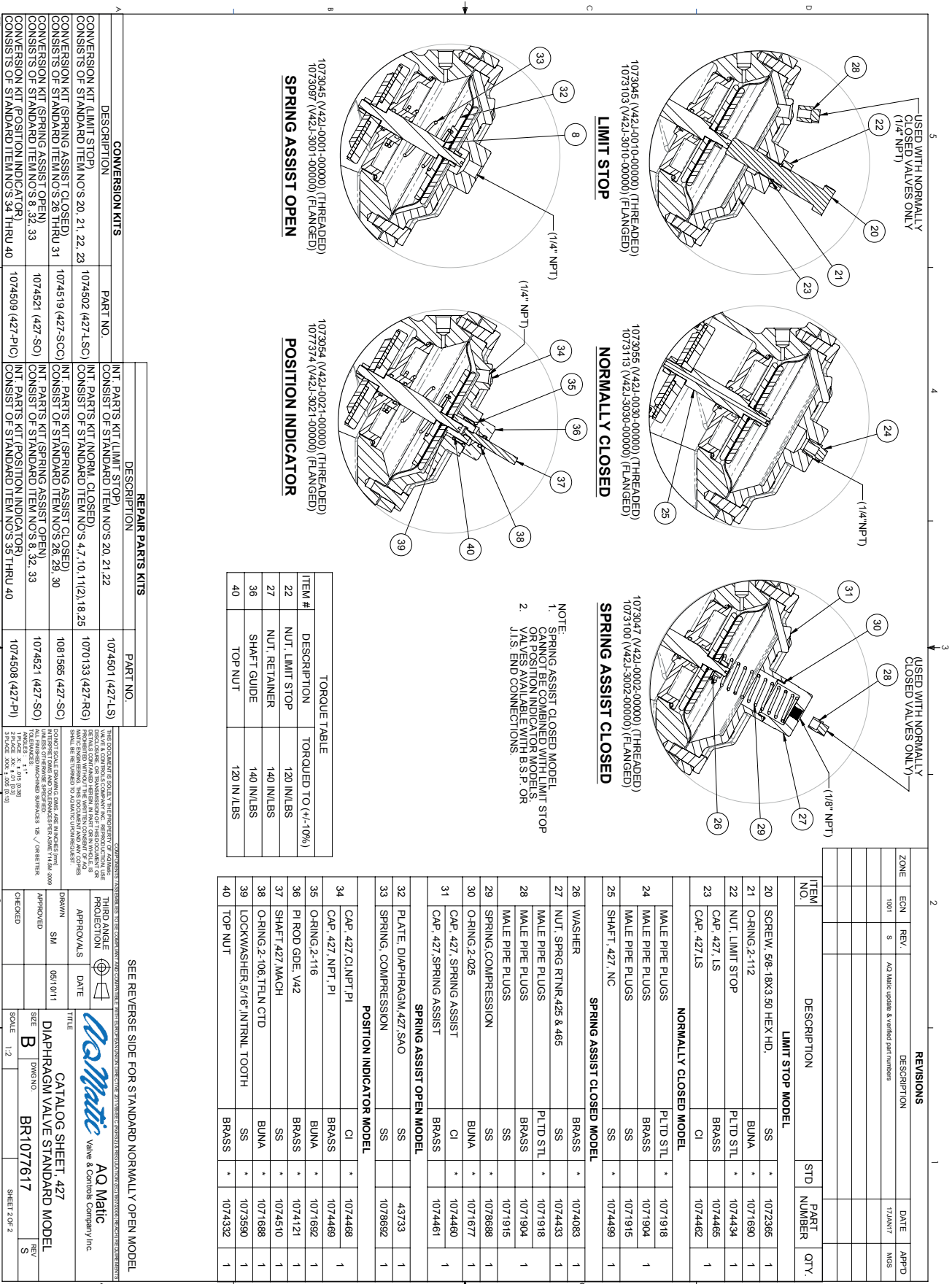
APPLY LOCTITE 565 HERE

APPLY LOCTITE 565 HERE
DO NOT APPLY TO O-RING SEALS

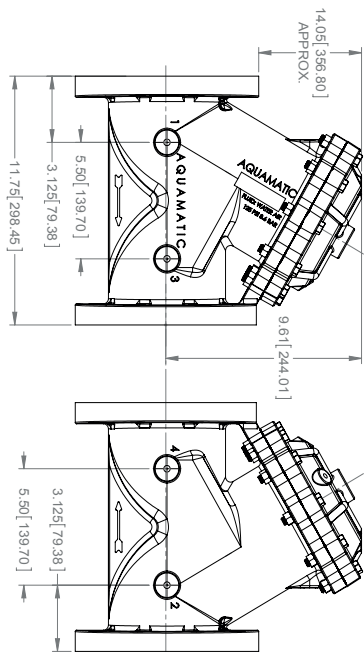
NORMALLY OPEN (STANDARD)
SEE REVERSE SIDE FOR
CONFIGURATION OPTIONS

THIS DOCUMENT IS SOLELY
VALVE & CONTROLS COMPANY
DISCLOSE, OR TRANSMISSIBLE
DETAILS CONTAINED HEREIN
PROHIBITED WITHOUT THE W
MATIC ENGINEERING. THIS DO
SHALL BE RETURNED TO AD

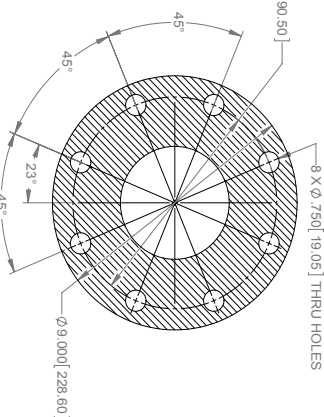
 PROHIBITION OF FIRE		 AQ Mattic Valves & Controls Company Inc.	
APPROVALS	DATE	TITLE	
DRAWN	06/10/11	CATALOG SHEET, 427	
APPROVED		DIAPHRAGM VALVE STANDARD MODEL	
DESIGNED		SIZE	REV
		B	
		BR1077617	



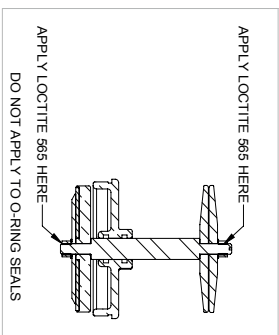
NOTE:
1. AMERICAN NATIONAL STANDARD TAPER PIPE
THREADS (NPT) PER ANSI B2.1-1968
2. VALVES AVAILABLE WITH B.S.P. END CONNECTIONS



TORQUE TABLE		
ITEM #	DESCRIPTION	TORQUED TO (+/- 10%)
2	SEAT	400 IN/LBS (33 FT/LBS)
3	UPPER NUT	140 IN/LBS
3	LOWER NUT	215 IN/LBS
10	GUIDE SHAFT	500 IN/LBS (41.8 FT/LBS)
13 & 15	NUT, & CAP SCREW	140 IN/LBS



FLANGE STYLE	A	B	C
AMERICAN	9.000	7.500	.750
METRIC	229 MM	180 MM	18 MM



REVISIONS						
ZONE	ECN	REV.	DESCRIPTION	DATE	APPR.	DATE
101005	K		REVISION 1 TO 101005K: FORM NO. 101005D NUMBER 1 1-ITEM DING 101005K, 2-ITEM 101005K WAS 101005K	09MAR14	TJM	
101010	L		1-ITEM #17 WAS 101005K, 2-ITEM #25 WAS 101005K	27JUL14	TJM	
104010	M		1-ADDD: ITEMS 101005K, 1-#2Z WAS 1010410, 3-ADDD: TORQUE TABLES	11MAY15	TJM	
105067			1-ITEM#17 WAS QTY 1	25FEB16	TJM	
1001	O		NO Matic tools & verified part numbers	17JAN17	MSS	

ITEM NO.	DESCRIPTION	S/D	PART NUMBER	QTY.
1	BODY 428, CI 400, ISO	*	1074522	1
2	SEAT, 428, BRASS	*	1074585	1
3	NUT HEX, 3/8-24, SS	*	3001990	2
4	PLATE, DISC, 428, SS	*	43734	4
5	O-RING (NITRILE), 2-166	*	1071697	1
	O-RING, EPDM -166		1071739	1
	O-RING, -166, FKM		1071811	1
6	DISC,	*	1074568	1
	DISC, E.P.D.M.		1074570	1
	DISC, FKM		1074573	1
	DISC, HYCAR		1074571	1
7	DISC HOLDER, ALUM, BRNZE	*	1074587	1
8	GASKET, CODA 110 COPPER	*	103960	2
9	O-RING (NITRILE), 2-245	*	1071711	1
	O-RING, EPDM, 245		1071759	1
	O-RING, -245, FKM		1071832	1
10	GUIDE SHAFT 428, BRASS, MOCHD	*	1074663	1
11	PLATE, DIAPHRAGM, 428, SS, MACH	*	43769	2
12	CAP, 428, NPT, CI	*	1074532	1
13	HEX HEAD CAP SCREW,	*	1072406	11
14	DIAPHRAGM SERIES 428,	*	1074557	1
15	DIAPHRAGM SERIES 428,		1074559	1
	HEX NUT, 3/8-16	*	1071658	11
	O-RING (NITRILE),	*	1071702	2
16	O-RING, 2-210		1242718	2
	O-RING, 2-210		1242394	2
17	SHAFT, 428	*	1074579	1
18	LOCKWASHER, 3/8", INTERNAL	*	1073691	2

REPAIR PARTS KITS		PART NO.
DESCRIPTION		
DIAPHRAGM & SEALS KIT CONSISTS OF ITEM NOS 3(2), 5, 6, 8(2), 9, 14, 16	107007(3) (428-RA)	107008(6) (428-RAE)
INT. PARTS KIT (NORM. OPEN) CONSISTS OF STANDARD ITEM NO.4, 7, 10, 11(2), 17, 18 SEAT (ITEM NO. 2)	107012(3) (428-RF)	107009(8) (428-RAV)
	107456(5) (428-MAO)	

SEE REVERSE SIDE FOR CONFIGURATION OPTIONS

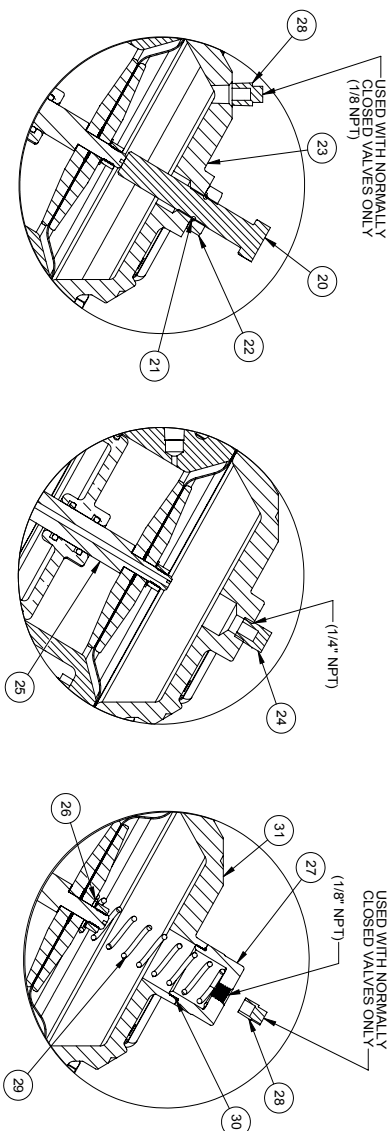


AQ Matic
Valve & Controls Company Inc

CATALOG SHEET, 428

WG NO.	BR1077618	REG
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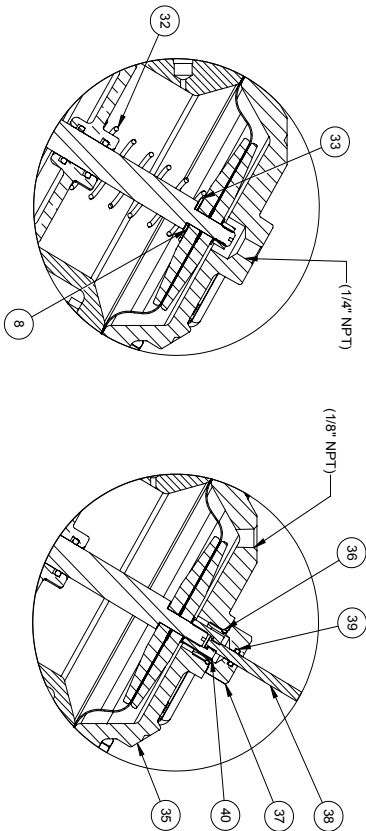
SHEET 1 OF 2



—USED WITH NORMALLY
CLOSED VALVES ONLY
(1/8 NPT)

1/4" NPT

USED WITH NORMALLY
CLOSED VALVES ONLY
(1/8" NPT)



1073146 (V42K-3001-00000),
SPRING ASSIST OPEN

1073156 (V42K-3021-00000)
POSITION INDICATOR

REPAIR PARTS KITS		PART NO.
DESCRIPTION		
INT. PARTS KIT (LIMITED STOP)		1074563 (428-L.S)
CONSISTS OF STANDARD ITEM NOS 20, 21, 22,		
INT. PARTS KIT (NORMA CLOSED)		1070134 (428-RG)
CONSISTS OF STANDARD ITEM NOS 4, 7, 10, 11(2), 18, 25		
INT. PARTS KIT (SPRING ASSIST CLOSED)		1074602 (428-SC)
CONSISTS OF STANDARD ITEM NOS 26, 28, 30		
INT. PARTS KIT (SPRING ASSIST OPEN)		1074604 (428-SO)
CONSISTS OF STANDARD ITEM NOS 8, 32, 33		
INT. PARTS KIT (POSITION INDICATOR)		1074561 (428-P)
CONSISTS OF STANDARD ITEM NOS 35 THRU 39		

CONVERSION KITS	
DESCRIPTION	PART NO.
CONVERSION KIT (LIMITED STOP) CONSISTS OF STANDARD ITEM NOS 20, 21, 22, 23	1074584 (428-LSC)
CONVERSION KIT (SPRING ASSIST CLOSED) CONSISTS OF STANDARD ITEM NOS 26 THRU 31	1074603 (428-SOC)
CONVERSION KIT (SPRING ASSIST OPEN) CONSISTS OF STANDARD ITEM NOS 8, 32, 33	1074606 (428-SOC)
CONVERSION KIT (POSITION INDICATOR) CONSISTS OF STANDARD ITEM NOS 34 THRU 39	1074592 (428-PIC)

REVISIONS					
ZONE	ECN	REV.	DESCRIPTION	DATE	APPD.
			SEE SHEET 1 FOR NOTES		

REVISIONS

ZONE	ECN	REV.	DESCRIPTION	DATE	APPD
			SEE SHEET 1 FOR NOTES		

ITEM NO.	DESCRIPTION	STD	PART NUMBER	QTY
LIMIT SLOPE MODEL				
20	SCREW, 5/8"-18X3.50 HEX HD.	*	1072366	1
21	O-RING,2-112 NITRILE	*	1071680	1
22	NUT, LIMIT STOP	*	1074434	1
23	CAP, 428LS, NPT, CI	*	1074542	1
NORMALLY CLOSED MODEL				
24	MALE PIPE PLUG, PLATED STEEL	*	1071918	1
25	MALE PIPE PLUGS, BRASS	*	1071904	1
	SHAFT, 428 NORMALLY CLOSED	*	1074582	1
SPRING ASSIST CLOSED MODEL				

27	NUJ. SPRG RTRK. 425 & 405,SS	*	1074433	1
28	MALE PIPE PLUGS, PLATED STEEL	*	1071903	1
29	SPRING, COMPRESSION	*	1071917	1
30	ORING,2.025,NITRILE	*	1074607	1
31	CAP. 428, IPT. CI	*	1071877	1
			1074540	1

SPRING ASSIST OPEN		
8	GASKET, CDA 110 COPPER	1073950
32	SPRING, COMPRESSION, 42S, S/AO	1074800
33	WASHER, BRASS	1074610
POSITION INDICATOR MODEL		

36	CAP. 428.C/NP/PI	1074549	1
36	ORING.2-T/6.NITRILE	1071692	1
37	PI ROD GDE V42. BRSS	1074121	1
38	SHAFT 428.SS.MACH	1074593	1
39	ORING.2-106.NITRILE.TELN CTD	1071686	1
40	NU/1.TOP.428.PI	1074608	1

TORQUE TABLE		
ITEM #	DESCRIPTION	TORQUED TO (+/- 10%)
22	NUT, LIMIT STOP	140 INLBS
27	NUT, SPRG RETAINER	140 INLBS
37	PI ROD GUIDE	140 INLBS
40	NUT, TOP, 428, PI	140 INLBS

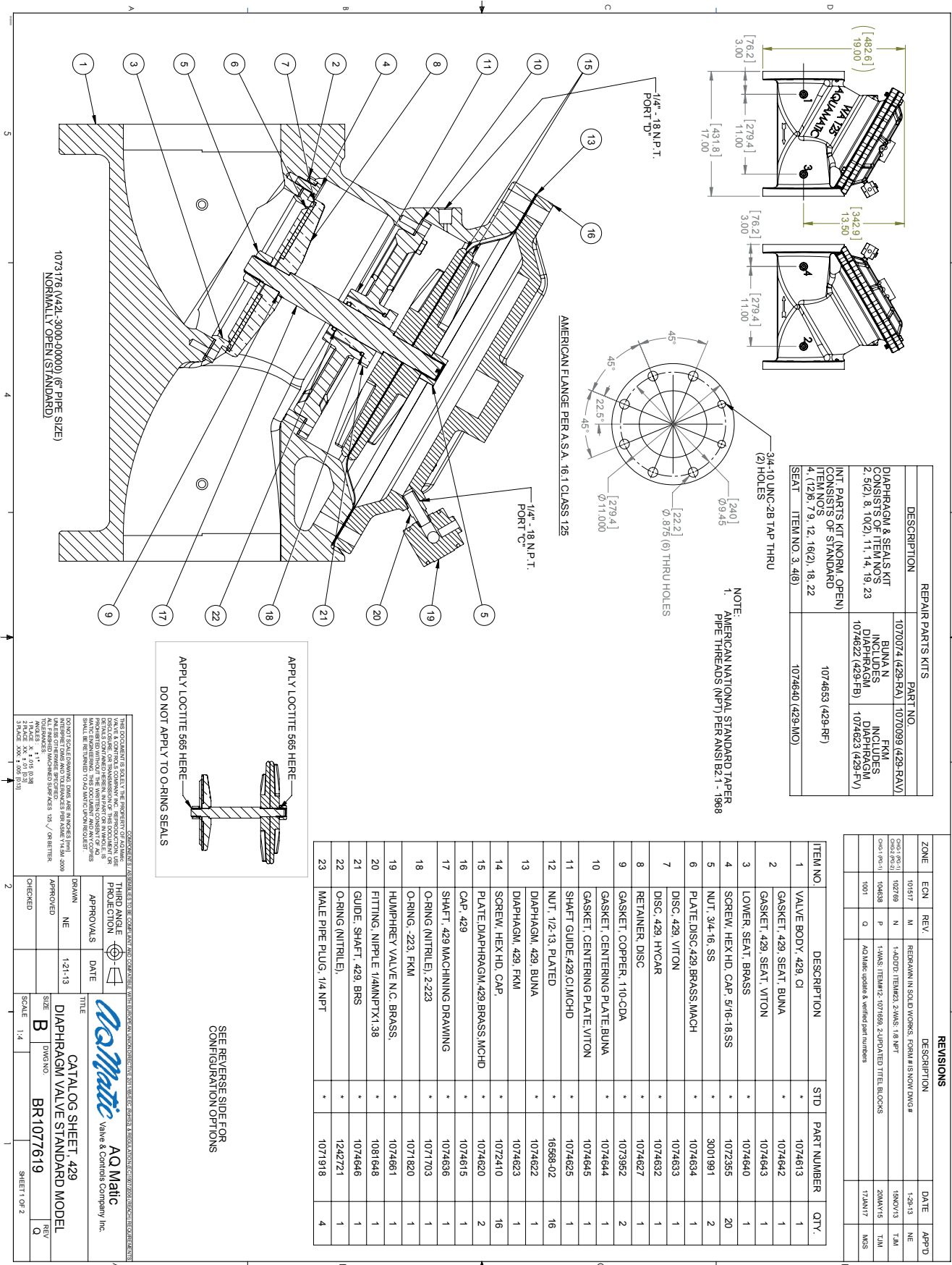
NOTE:

1. SPRING ASSIST CLOSED MODEL CANNOT BE COMBINED WITH LIMITED STOP OR POSITION INDICATOR MODELS.
2. VALVES AVAILABLE WITH B.S.P. END CONNECTIONS

SEE REVERSE SIDE FOR
STANDARD NORMALLY OPEN MODEL

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APPROVALS		DATE		TITLE	
DRAWN		SM		05/11	
CHECKED		APPROVED		DATE	
SCALE		1/4"		REV	
SHEET 2 OF 2		BR1077618		0	

VALVOLE IN GHISA SERIE 429 (6") / (6") METAL DIAPHRAGM VALVES 429 SERIES



VALVOLE IDROPNEUMATICHE IN NORYL / NORYL DIAPHRAGM VALVES



K52

K52

CARATTERISTICHE GENERALI:

Le valvole AquaMatic® K520 sono state progettate per l'impiego su impianti di demineralizzazione, per applicazioni dove si utilizzano acidi e/o basi e su idrocarburi. Le K520 nascono per supplire in tutte quelle applicazioni corrosive dove le valvole in metallo non trovano impiego. Esse sono costruite con materiali resistenti alla corrosione mantenendo tutte le pregevoli caratteristiche idrauliche e funzionali delle valvole in metallo. Il materiale di cui sono costituite è il Noryl (materiale termoplastico rinforzato con fibra di vetro).

DATI TECNICI

- Temperatura massima di esercizio: _____ 60°C (140°F)
- Pressione di esercizio: _____ 8.6 bar (125 PSI)
- Portate: _____ vedi diagramma

SPECIFICHE PRODOTTO

- Materiale esterno di composizione: _____ Noryl
- Parti interne: _____ Noryl
- Attacchi con connettori: _____ 1/2" - 1" - 1 1/2" - 2" - 2 1/2" - 3"
- Attacchi flangiati disponibili: _____ 2" - 2 1/2" - 3"

APPLICAZIONI:

- Sistemi per trattamento delle acque
- Deionizzatori
- Iniezione di rigeneranti
- Desalinizzatori
- Evaporatori
- Sistemi per il recupero dei metalli
- Sistemi di controllo dei livelli
- Sistemi spray di fertilizzazione
- Industria elettronica
- Lavorazioni di detersivi e candeggine

Per altre applicazioni, prego non esitate a contattare l'ufficio tecnico Hytek

OPZIONI:

- Normamente chiusa
- Molla per l'assistenza alla chiusura
- Molla per l'assistenza all'apertura
- Limitatore di flusso

GENERAL FEATURES

AquaMatic® series K520 composite valves are designed to handle deionized water as well as acids, caustic harsh chemicals or gases that would rapidly corrode metal valves. The valves are constructed of corrosion-resistant materials, but still have all of the advantages of unparalleled AquaMatic® metal body valve design, along with their own design advantages.

The K520 series valve body and cap are molded with glass-filled Noryl thermoplastic.

TECHNICAL SHEET:

- Maximum operating temperature: _____ 140°F (60°C)
- Working Pressure: _____ 125 PSI (8.6 bar)
- Flow rates: _____ see diagram

PRODUCT SPECIFICATIONS:

- External material: _____ Noryl
- Internal parts: _____ Noryl
- Pipe size with connectors: _____ 1/2" - 1" - 1 1/2" - 2" - 2 1/2" - 3"
- Flanged pipe size: _____ 2" - 2 1/2" - 3"

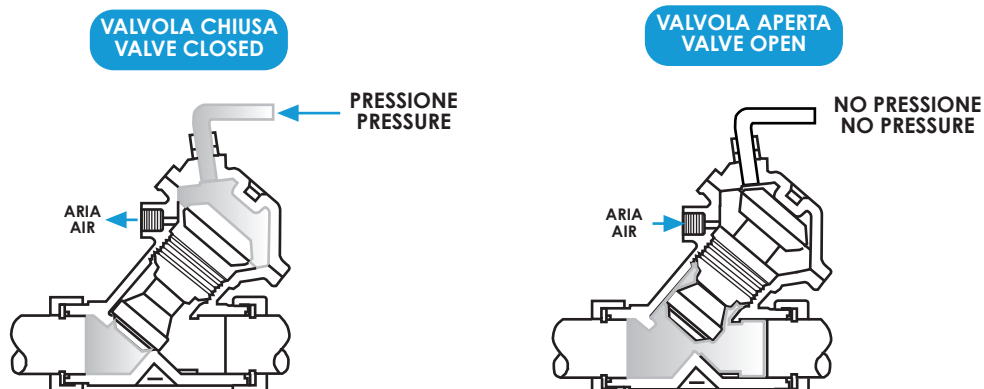
APPLICATIONS:

- Water treatment process systems
- Deionizers
- Chemical Injection
- Desalinization
- Evaporation
- Metal Recovery Systems
- Level Control Systems
- Fertilizer Spray Equipments
- Electronic Industry
- Detergent and Bleach Handling

For other applications please contact Hytek technical office

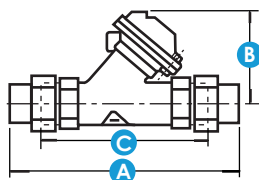
OPTIONS:

- Normally closed
- Spring assist closed
- Spring assist open
- Limit stop



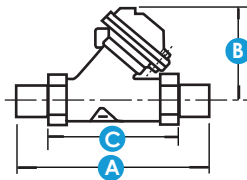
PORTATE E DIMENSIONI DELLE VALVOLE IN NORYL K52 / K52 FLOW THRU AND DIMENSIONS NORYL DIAPHRAGM VALVES

Valvola con connettori finali
Valve With Union End Connectors



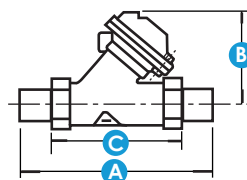
Modello Series	Unità Units	A	B	C
K520	inches	7.00	2.62	4.87
	mm	177.8	68.5	123.7
K521	inches	9.00	4.06	6.31
	mm	228.6	10.31	160.3
K524	inches	12.50	5.06	9.31
	mm	317.5	128.5	235.0

Valvola con connettori scanalati
Valve With Grooved Adaptor Connectors



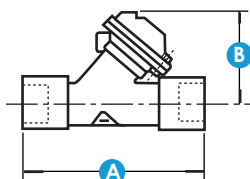
Modello Series	Unità Units	A	B	C
K520	inches	7.00	2.62	3.93
	mm	177.8	68.5	99.8
K521	inches	9.00	4.06	4.50
	mm	228.6	10.31	114.3
K524	inches	12.50	5.06	7.75
	mm	317.5	128.5	196.8

Valvola con connettori maschio incollaggio
Valve With Male Socket Weld End Connectors



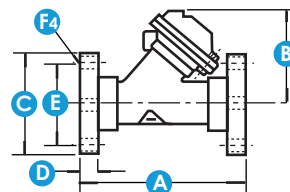
Modello Series	Attacchi Pipe	Unità Units	A	B
K524	2"	inches	7.00	2.62
		mm	266.7	128.5
K524	2-1/2"	inches	15.00	7.31
		mm	381.0	185.7

Valvola con connettori finali femmina
Valve With Female Socket Weld End Connectors



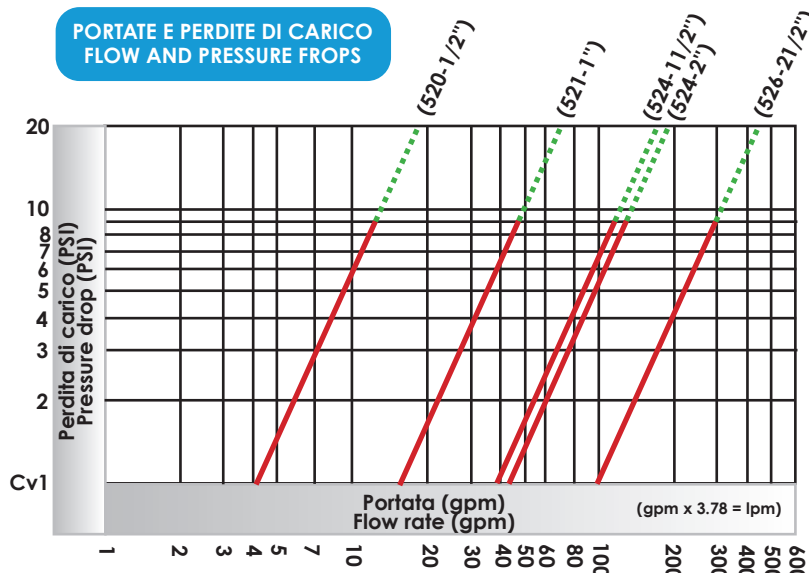
Modello Series	Attacchi Pipe	Unità Units	A	B
K524	2"	inches	10.50	5.06
		mm	266.7	128.5
K524	2-1/2"	inches	15.00	7.31
		mm	381.0	185.7

Valvola con connettori finali flangiati
Valve With Flanged Socket Weld End Connectors



Modello Series	Attacchi Pipe	Unità Units	A	B	C	D	E	F
K524	2"	inches	9.00	5.06	6.00	.75	4.750	.688
		mm	226.6	128.5	152.4	19.05	120.85	17.48
K526	2-1/2"	inches	11.37	7.31	6.94	.94	5.500	6.88
		mm	288.8	185.7	176.3	23.9	139.7	17.48
K526	3"	inches	12.37	7.31	7.38	1.81	6.000	.750
		mm	314.2	185.7	187.5	45.7	152.4	19.05

PORTATE E PERDITE DI CARICO FLOW AND PRESSURE DROPS



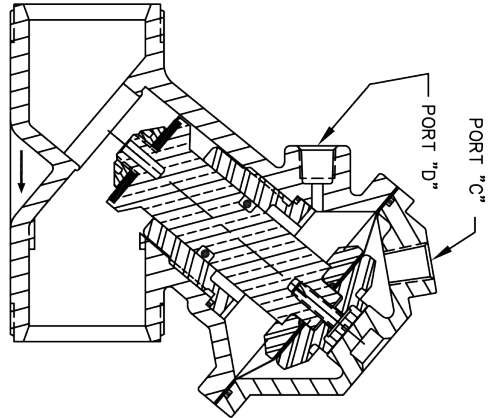
Portata massima in continuo alla
velocità di 25 m/h
Maximum continuous flow at velocity
20 ft/sec

Portata massima intermittente alla
velocità di 37,5 m/h
Maximum intermittent flow at velocity
30 ft/sec

*Cv=Portata in GPM d' acqua @ 60°F (15.5°C) @ 1
PSI (.069 bar) di perdita di carico.

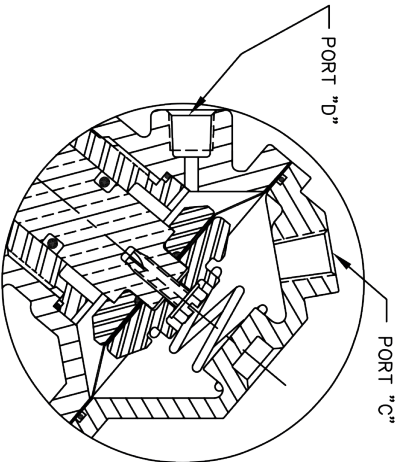
*Cv=Flow rate in GPM of water @ 60°F (15.5°C) @
1 PSI (.069 bar) drop.

CONFIGURAZIONE VALVOLE IDROPNEUMATICHE IN NORYL SERIE K52 - MODELLI STANDARD / NORYL DIAPHRAGM VALVES K52 SERIES CONFIGURATIONS - STANDARD MODEL



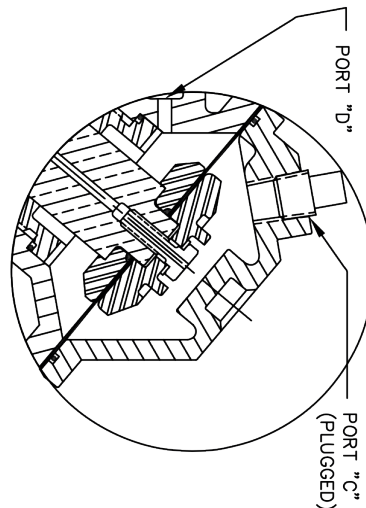
NORMALLY OPEN

LINE PRESSURE/FLOW AGAINST THE VALVE SEATING DISC WILL OPEN THE VALVE. CONTROL PRESSURE APPLIED TO THE TOP OF THE DIAPHRAGM (PORT "C") WILL CLOSE THE VALVE.



SPRING ASSIST CLOSED

SPRING SERVES AS AN ASSIST TO ASSURE FULL VALVE CLOSURE IN THE ABSENCE OF LINE AND CONTROL PRESSURES.

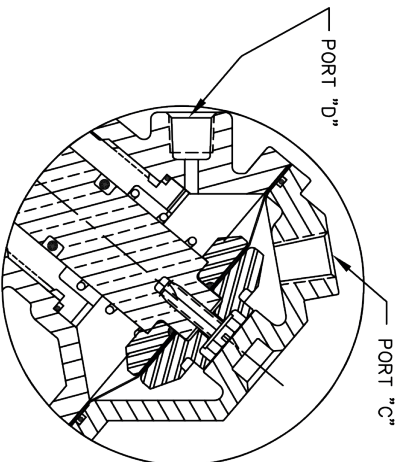


NORMALLY CLOSED

LINE PRESSURE AGAINST THE DISC, TRANSFERRED THRU THE VALVE'S HOLLOW SHAFT TO THE TOP OF THE DIAPHRAGM, WILL CLOSE THE VALVE. CONTROL PRESSURE AT PORT "D" WILL OPEN THE VALVE. ADDITION OF "SPRING ASSIST CLOSED" FEATURE IS RECOMMENDED FOR THE FOLLOWING CONDITIONS:

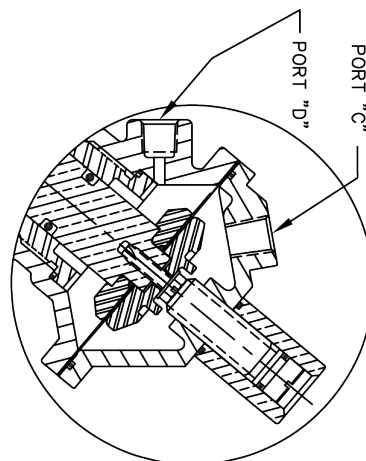
1. LOW PRESSURE AND/OR FLOW.
2. VALVE DISCHARGES TO ATMOSPHERE.

NORMALLY CLOSED FEATURE NOT RECOMMENDED FOR LINE MEDIA CONTAINING SOLIDS, HIGH TEMPERATURES OR OTHER MEDIA CONDITIONS WHICH MAY DAMAGE THE DIAPHRAGM.



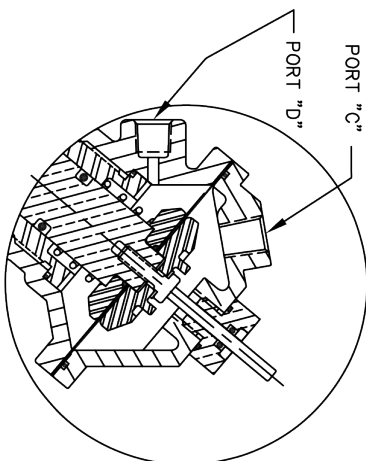
SPRING ASSIST OPEN

SPRING SERVES AS AN ASSIST TO ASSURE FULL VALVE OPENING IN THE ABSENCE OF LINE AND CONTROL PRESSURES. (STANDARD ON SERIES 520 VALVES.)



LIMIT STOP

INCLUDES AN ADJUSTMENT SCREW WHICH LIMITS THE VALVE STROKE. MAY BE USED TO CONTROL FLOW RATE, HOWEVER, FLOW RATE WILL VARY WITH CHANGES IN PRESSURE.



POSITION INDICATOR

INDICATOR ROD IS ATTACHED TO MAIN VALVE STEM TO SHOW POSITION OF VALVE. ONLY AVAILABLE WITH SPRING ASSIST OPEN OPTION.

PRINTED IN U.S.A.

B	RELEASE NEW DESIGN	1416	JWB	25JUL01	VP
REV	DESCRIPTION	ECO	DWN	DATE	APVD

FORM NO. 1081310

AQ Matic

AQ Matic
VALVE & CONTROL COMPANY, INC.

SERIES 520 DIAPHRAGM VALVES

SCALE	DRAWN	DATE	DWG. NO.
N/A	JWB	25JUL01	1078147

PLASTIC DIAPHRAGM VALVES (520 THRU 526)

SERIES	PIPE SIZE	SEAT DIAMETER IN. CM.	SEAT AREA SQ. IN. SQ. CM.	DIAPHRAGM AREA SQ. IN. SQ. CM.	TOTAL STROKE IN. CM.	DIAPHRAGM CHAMBER (VOLUME) CUBIC IN. CUBIC CM.	* Cv	** Kv	FLOW RATE				PRESSURE DROP			
									@ 10 FT./SEC. (3 M./SEC.) NOTE 1	@ 20 FT./SEC. (6 M./SEC.) NOTE 2	@ 10 FT./SEC. (3 M./SEC.) NOTE 1	@ 20 FT./SEC. (6 M./SEC.) NOTE 2				
520	1/2"	.507 1.28	.20 1.30	.52 3.35	.28 .71	.55 9.00	4.0	3.4	6.2 1.4	12.4 2.8	2.4 0.16	9.6 0.66				
521	1"	.996 2.52	.77 4.96	2.07 13.35	.56 1.42	3.05 49.90	15.0	13.0	24 5.4	48 10.8	2.5 0.17	10.2 0.7				
524	1 1/2"	1.62 4.11	2.06 13.28	3.86 24.89	1.00 2.54	7.32 119	38.0	32.7	64 14.4	128 28.8	2.8 0.19	11.3 0.78				
526	2 1/2"	2.37 6.01	4.40 28.38	8.32 53.66	1.62 4.11	12.20 200	100.0	86.0	136 31.0	272 62.0	1.8 0.12	7.4 0.51				

* Cv – FLOWRATE (GAL./MIN.) OF WATER AT 60° F. AT 1 P.S.I. PRESSURE DROP

NOTE 1: MAXIMUM CONTINUOUS VELOCITY THROUGH THE VALVE.

** Kv – FLOWRATE (CU. M./HR) OF WATER AT 15.5° C. AT 1 BAR PRESSURE DROP

NOTE 2: MAXIMUM CONTINUOUS VELOCITY. EXTENDED SERVICE AT THIS VELOCITY MAY CAUSE CAVITATION.

TO DETERMINE FLOWRATE AT ANY GIVEN PRESSURE DROP,
THE FOLLOWING FORMULAS CAN BE USED.

FOR WATER AND LIQUIDS:

FOR AIR AND GAS:

$$Q = \frac{C_v \sqrt{\Delta P}}{\sqrt{e}}$$

$$C_v = \frac{CFM \sqrt{e}}{P_1} \quad \text{WHEN } P_2 < .5P_1$$

$$C_v = \frac{CFM \sqrt{e}}{\sqrt{\Delta P P_2}} \quad \text{WHEN } P_2 > .5P_1$$

Q – FLOWRATE IN GAL./MIN.
ΔP – PRESSURE DROP (LB./SQ. IN.)
e – SPECIFIC GRAVITY (WATER = 1.00)

CFM – CU. FT./MIN. FLOW
e – SPECIFIC GRAVITY (AIR = 1.00)
P1 – INLET PRESSURE (LB./SQ. IN.)
P2 – OUTLET PRESSURE (LB./SQ. IN.)

THE DATA PRESENTED HERE IS
BELIEVED TO BE RELIABLE AND
OFFERED AS SUGGESTION ONLY.
ACTUAL RESULTS MAY VARY
DEPENDING UPON APPLICATION.



AQ Matic
Valve & Control Company Inc.

FORM NO. 1081310

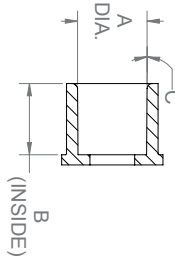
SERIES 520 DIAPHRAGM VALVES

PRINTED IN U.S.A.

B	RELEASE NEW DESIGN	1416	JWB	25JUL01	VP
REV	DESCRIPTION	ECO	DWN	DATE	APVD

SCALE	DRAWN	DATE	DWG. NO.
N/A	JWB	25JUL01	1078147

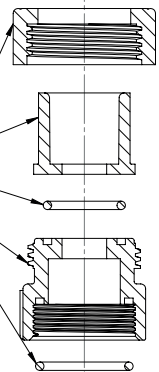
ADATTATORI PER VALVOLE IDROPNEUMATICHE IN NORYL SERIE K52 / ADAPTERS FOR NORYL DIAPHRAGM VALVES K52 SERIES



FEMALE SOCKET WELD END CONNECTOR

VALVE SERIES	STANDARD	DIAMETER A	DEPTH B	TAPER C
520	A.S.T.M. 1/2"	848/856"	875"	0° 24'
	I.S.O. NS-15	20.1/20.3 MM	22.2 MM	0° 15'
	J.I.S. 16	21.9/22.3 MM	22.2 MM	0° 19'
521	A.S.T.M. 1"	1.325/1.335"	1.125"	0° 23'
	I.S.O. NS-25	32.1/32.3 MM	28.6 MM	0° 15'
	J.I.S. 25	31.9/32.4 MM	28.6 MM	0° 16'
524	A.S.T.M. 1-1/2"	1.912/1.924"	1.375"	0° 23'
	I.S.O. NS-40	50.1/50.3 MM	34.9 MM	0° 15'
	J.I.S. 40	47.9/48.5 MM	34.9 MM	0° 16'

UNION END ADAPTOR



SERIES 520 UNION END ADAPTOR KITS

A.S.T.M. 1/2"	E.P.D.M. O-RING	1070184
INCLUDES	BUTYL O-RING	1070185
ITEMS 1,2,3,4,5	FKM O-RING	1070186
I.S.O. NW-15	E.P.D.M. O-RING	1070190
INCLUDES	BUTYL O-RING	1070191
ITEMS 1,2,3,4,5	FKM O-RING	1070192
J.I.S. -16	E.P.D.M. O-RING	1070193
INCLUDES	BUTYL O-RING	1070194
ITEMS 1,2,3,4,5	FKM O-RING	1070195

SERIES 521 UNION END ADAPTOR KITS

A.S.T.M. 1"	E.P.D.M. O-RING	1070202
INCLUDES	BUTYL O-RING	1071153
ITEMS 1,2,3,4,5	FKM O-RING	1071154
I.S.O. NW-25	E.P.D.M. O-RING	1070204
INCLUDES	BUTYL O-RING	1071155
ITEMS 1,2,3,4,5	FKM O-RING	1071156
J.I.S. -25	E.P.D.M. O-RING	1070205
INCLUDES	BUTYL O-RING	1071157
ITEMS 1,2,3,4,5	FKM O-RING	1071158

SERIES 524 UNION END ADAPTOR KITS

A.S.T.M. 1-1/2"	E.P.D.M. O-RING	1070208
INCLUDES	BUTYL O-RING	1071220
ITEMS 1,2,3,4,5	FKM O-RING	1070209
I.S.O. NW-40	E.P.D.M. O-RING	1070212
INCLUDES	BUTYL O-RING	1071221
ITEMS 1,2,3,4,5	FKM O-RING	1070213
J.I.S. -40	E.P.D.M. O-RING	1070214
INCLUDES	BUTYL O-RING	1071222
ITEMS 1,2,3,4,5	FKM O-RING	1070215

NOTE: ALL ADAPTOR KITS CONTAIN (2) ADAPTORS, (ONE KIT REQD PER VALVE)

REVISIONS

ZONE	ECN	REV.	DESCRIPTION	DATE	APPD
1416	A	RELEASE NEW DESIGN	25JUL01	VP	
103861	B	1. RELEASE NEW DESIGN (2) WAS (0698) 1.3 WAS (0701) 4. WAS (0704) 4.	06OCT14	TJM	
1001	C	AQ Matic update & verified part numbers	20JAN17	MSS	

SERIES 520 UNION END ADAPTOR

1	TAILPIECE NUT	1074956
2	FEMALE SOCKET WELD END CONNECTOR	3020727
	I.S.O. NW-15	1074982
	J.I.S. -16	1074983
3	O-RING	1071730
	BUTYL	1071766
	FKM	1071801
4	TAILPIECE	1074986
	E.P.D.M.	1071731
	BUTYL	1071767
5	O-RING	1071802
	FKM	1071802

SERIES 521 UNION END ADAPTOR

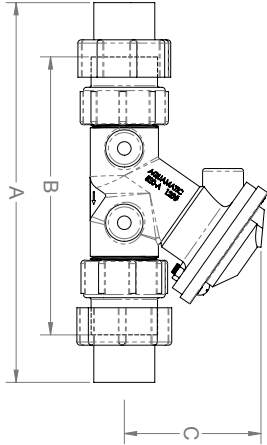
1	TAILPIECE NUT	1075067
2	FEMALE SOCKET WELD END CONNECTOR	1075061
	I.S.O. NW-25	1075063
	J.I.S. -25	1075065
3	O-RING	1071732
	E.P.D.M.	1071768
	BUTYL	1071768
4	TAILPIECE	1071803
	E.P.D.M.	1075068
	BUTYL	1071733
5	O-RING	1071769
	FKM	1071804

SERIES 524 UNION END ADAPTOR

1	TAILPIECE NUT	1075150
2	FEMALE SOCKET WELD END CONNECTOR	1075144
	A.S.T.M. 1-1/2"	1075146
	I.S.O. NW-40	1075148
	J.I.S. -40	1075148
3	O-RING	1071735
	E.P.D.M.	1071735
	BUTYL	1071735
4	TAILPIECE	1071771
	E.P.D.M.	1071807
	BUTYL	1071736
5	O-RING	1071772
	FKM	1071808

SEE FORM 1078152 FOR SOCKET WELD & FLANGED ADAPTORS

VALVE SERIES	UNITS	LENGTH A	LENGTH B	HEIGHT C
520	INCHES	7.00	4.87	2.62
	MM	177.8	123.7	66.5
521	INCHES	9.00	6.31	4.06
	MM	228.6	160.3	103.1
524	INCHES	12.50	9.31	5.06
	MM	317.5	236.5	128.5

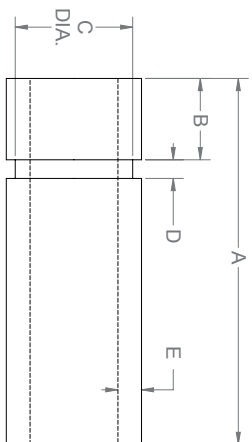


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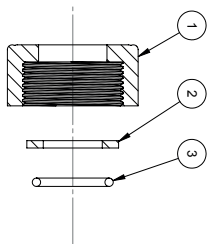
THIRD ANGLE PROJECTION
APPROVALS
DATE
TITLE
CATALOG SHEET 1520/621/524
PARTS KITS

DWG NO. 1081309
SHEET 1 OF 2
REV. C



RING GROOVE DIMENSIONS

VALVE SERIES	UNITS	LENGTH A	LOCATION B	DIA. C	WIDTH D	WALL THK E	FLANGE F
520	INCHES	2.25	0.500	0.730	0.115	0.147	
521	INCHES	3.00	0.500	1.200	0.115	0.179	
524	INCHES	4.00	0.875	1.800	0.115	0.200	
	MM	57.2	12.7	18.5	2.9	3.7	
	MM	76.2	12.7	30.5	2.9	4.55	
	MM	101.6	22.2	45.7	2.9	5.1	



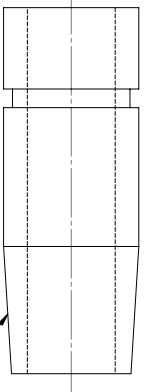
RETAINER NUT/SPLIT RING CONNECTOR

VALVE SERIES	520	521	524
1. RETAINER NUT	1074974	1075041	1075112
2. SPLIT RING	1074975	1075042	1075113
3. O-RING			
	E.P.D.M.	BUTYL	FKM
	1071730	1071766	1071803
	1071732	1071768	1071805

RETAINER NUT/SPLIT RING CONNECTOR KITS

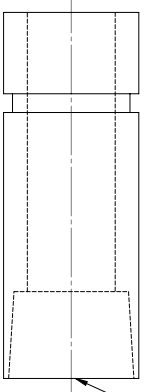
SERIES 520 INCLUDES ITEMS 1,2,3	E.P.D.M. O-RING BUTYL O-RING FKM O-RING	1070238 1070239 1070240
SERIES 521 INCLUDES ITEMS 1,2,3	E.P.D.M. O-RING BUTYL O-RING FKM O-RING	1070244 1071159 1071160
SERIES 524 INCLUDES ITEMS 1,2,3	E.P.D.M. O-RING BUTYL O-RING FKM O-RING	1070246 1071223 1070247

NOTE: ALL CONNECTOR KITS CONTAIN (2) CONNECTORS, (ONE KIT REQD PER VALVE)



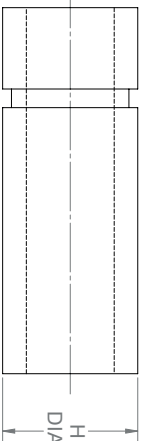
MALE PIPE THREAD

VALVE SERIES	520	521	524
PART NO.	1070221	1070227	1070233
DIM. F	1/2" NPT	1" NPT	1-1/2" NPT



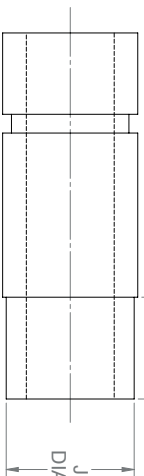
FEMALE PIPE THREAD

VALVE SERIES	520	521	524
PART NO.	1070222	1070228	1070234
DIM. G	3/8" NPT	3/4" NPT	1-1/4" NPT



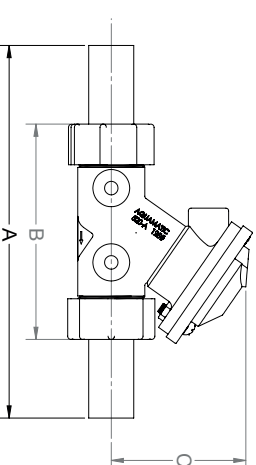
MALE SOCKET WELD

VALVE SERIES	520	521	524
PART NO.	1070220	1070226	1070232
DIM. H	0.840 IN. 21.3 MM	1.315 IN. 33.4 MM	1.900 IN. 48.3 MM



MALE SOCKET WELD (METRIC)

VALVE SERIES	520	521	524
PART NO.	1071057	1071091	1071162
DIM. J	20.2 MM	32.2 MM	50.2 MM
DIM. K	15.9 MM	25.4 MM	30.0 MM



SEE FORM 1081311 FOR SOCKET WELD & FLANGED ADAPTORS

NOTE: ALL ADAPTOR KITS CONTAIN (2) ADAPTORS, (ONE KIT REQD PER VALVE)

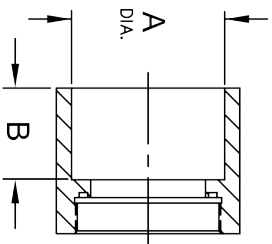
REVISIONS			
ZONE	ECN	REV.	DESCRIPTION
			SEE SHEET 1 FOR A LIST OF CHANGES

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ADAPTOR KIT, UNION END
PARTS KITS
1081309-2

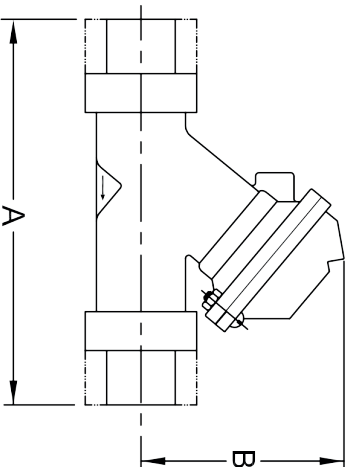
SCALE: 1:2
SHEET 2 OF 2



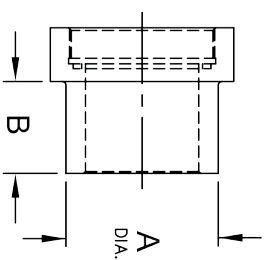
FEMALE SOCKET WELD END CONNECTOR KITS

VALVE SERIES	STANDARD	PART NO. *	DIAMETER A	DEPTH B
524	A.S.T.M. 2"	K524-UF08U_P	2.376/2.384"	1.50"
	I.S.O. NW-50	K524-UF50M_P	2.484/2.492"	1.50"
	J.I.S. 50	K524-UF50L_P	2.359/2.383"	1.50"
526	A.S.T.M. 2-1/2"	K526-UF10U_P	2.875"	1.81"
	I.S.O. NW-65	K526-UF65M_P	2.956/2.964"	1.81"
	J.I.S. 65	K526-UF65L_P	3.008"	1.81"

NOTE: ALL CONNECTOR KITS CONTAIN (2) CONNECTORS AND (2) O-RINGS* (ONE KIT REQ'D. PER VALVE)



VALVE SERIES	PIPE SIZE	UNITS	LENGTH A	HEIGHT B
524	2"	INCHES	10.50	5.06
		MM	266.7	128.5
526	2-1/2"	INCHES	15.00	7.31
		MM	381.0	185.7



MALE SOCKET WELD END CONNECTOR KITS

VALVE SERIES	STANDARD	PART NO. *	DIAMETER A	LENGTH B
524	A.S.T.M. 2"	K524-UM08U_P	2.375/2.370"	1.50"
	I.S.O. NW-50	K524-UM50M_P	2.490/2.486"	1.50"
	J.I.S. 50	K524-UM50L_P	2.384/2.364"	1.00"
526	A.S.T.M. 2-1/2"	K526-UM10U_P	2.882/2.868"	1.69"
	I.S.O. NW-65	K526-UM65M_P	2.965/2.953"	1.69"
	J.I.S. 65	K526-UM65L_P	3.017/2.997"	1.38"

O-RING FOR SOCKET WELD END CONNECTORS

VALVE SERIES	MATERIAL	PART NO.	O-RING IDENTIFIER
524	E.P.D.M.	1071750 -ORC-226-	E
	BUTYL	1079844 -ORC-226-	J
	FKM	1071821 -ORV-226-	V
526	E.P.D.M.	1071753 -ORC-232-	E
	BUTYL	1071783 -ORC-232-	J
	FKM	1071825 -ORV-232-	V

*WHEN ORDERING KITS, INSERT O-RING IDENTIFIER INTO PART NUMBER AS SHOWN BELOW
EXAMPLE: K524-UF08U_P (2" FEMALE SOCKET WELD WITH E.P.D.M. O-RING)

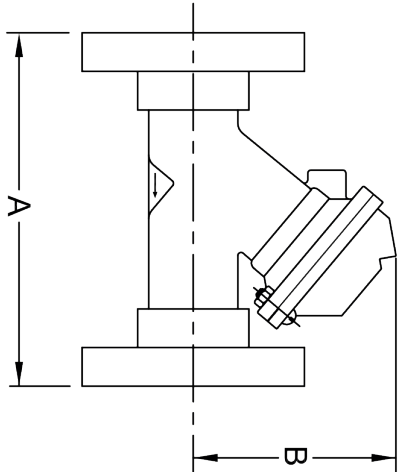
O-RING IDENTIFIER

FORM NO. 1081311

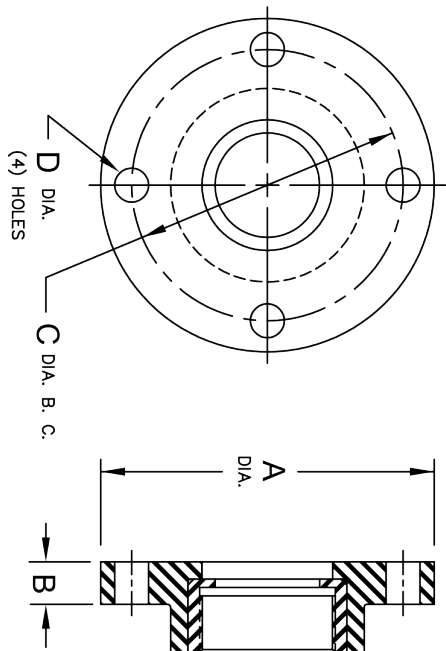
SEE FORM 1078142 FOR SOCKET WELD & PIPE ADAPTORS

PRINTED IN U.S.A.

REV	A	RELEASE NEW DESIGN	1416	JWB	25JUL01	VP
DESCRIPTION	ECO DWN DATE APVD					
 AO Matic Valves & Controls Company Inc.						
SERIES 524, & 526 DIAPHRAGM VALVE END CONNECTOR PARTS & KITS						
SCALE	N/A	DRAWN	JWB	DATE	25JUL01	DWG. NO.
				1078150		



VALVE SERIES	PIPE SIZE	UNITS	LENGTH A	HEIGHT B
524	2"	INCHES	9.00	5.06
		MM	228.6	128.5
526	2-1/2"	INCHES	11.37	7.31
		MM	288.8	185.7
526	3"	INCHES	12.37	7.31
		MM	314.2	185.7



FLANGED END CONNECTOR KITS

VALVE SERIES	STANDARD	PART NO.	DIAMETER A	THICKNESS B	DIAMETER C	DIAMETER D
524	A.S.T.M. 2"	1070250	6.00"	.75"	4.750"	.688"
526	A.S.T.M. 2-1/2"	1070251	6.94"	.94"	5.500"	.688"
	A.S.T.M. 3"	1070252	7.38"	1.81"	6.000"	.750"

NOTE: ALL CONNECTOR KITS CONTAIN (2) CONNECTORS,
(ONE KIT REQ'D PER VALVE)

O-RING FOR SOCKET WELD END CONNECTORS

VALVE SERIES	MATERIAL	PART NO.
524	E.P.D.M.	1071750 -ORF-226-
	BUTYL	1079844 -ORF-226-
	FKM	1071821 -ORF-226-
526	E.P.D.M.	1071753 -ORF-232-
	BUTYL	1071783 -ORF-232-
	FKM	1071825 -ORF-232-

FORM NO. 1081311

SEE FORM 1078142 FOR
SOCKET WELD & PIPE ADAPTORS

AO Matic

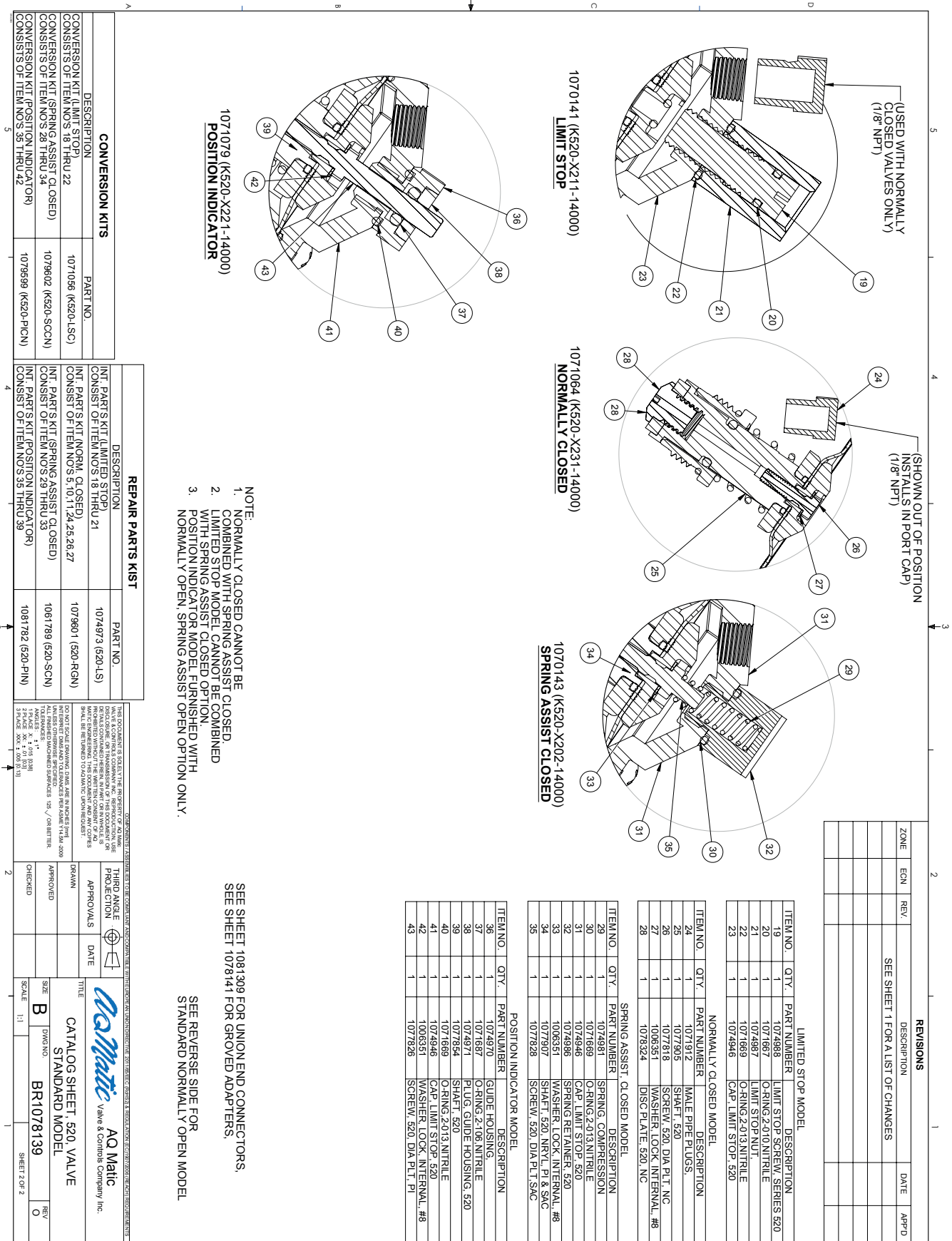
AO Matic
VALVE & CONNECTOR COMPANY INC.

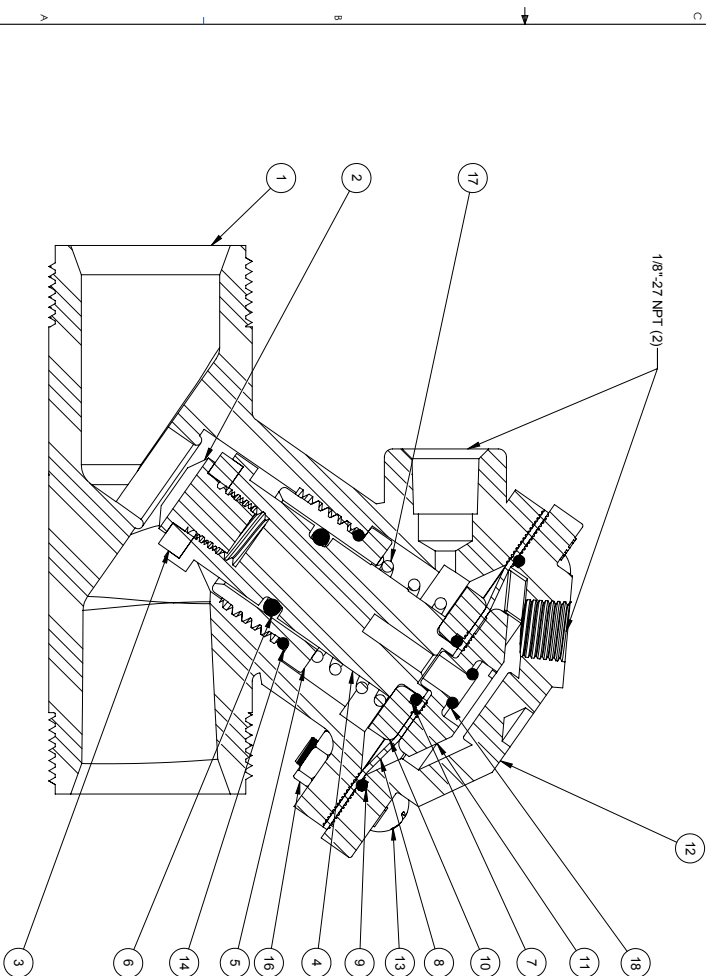
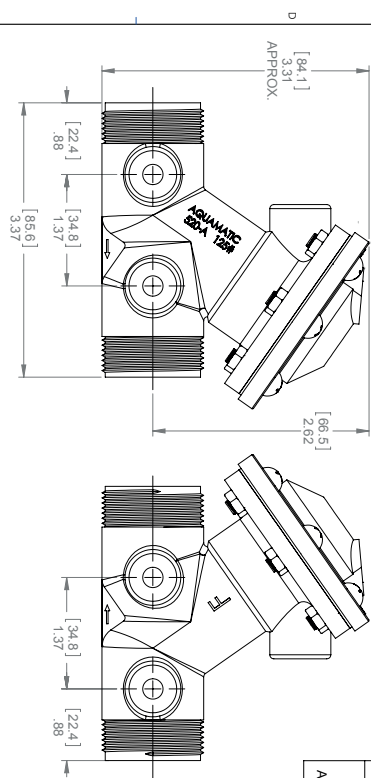
**SERIES 524, & 526 DIAPHRAGM VALVE
END CONNECTOR PARTS & KITS**

SCALE	DRAWN	DATE	DWG. NO.
N/A	JWB	25JUL01	1078150

PRINTED IN U.S.A.

VALVOLE IDROPNEUMATICHE IN NORYL SERIE K520 / NORYL DIAPHRAGM VALVES K520 SERIES





1070140 (K520-X201-14000)
NORMALLY OPEN W/ SPRING ASSIST OPEN (STANDARD)

ASSEMBLY TOOLS	
DESCRIPTION	PART NO.
FOR INSTALLATION & REMOVAL OF SHAFT GUIDE (ITEM #6)	1074989 (520-Z)
TO HOLD SHAFT (ITEM #4) DURING ASSEMBLY/DISASSEMBLY	1077834

REVISIONS					
ZONE	ECN	REV.	DESCRIPTION	DATE	APPRD
30212	M		REPAIRMAN IN SOLIDWORKS	11/0CT/11	TS
103915	N		3. LANTION ENCL CONNector WAKA TO 78 (RUBIO/CH PDS), 3.2 ADDD ITEM 18.	28/0CT/14	TLMI
10001	O		Upgrade to A4 Material & selected part numbers	16/AN/17	MGS

ITEM NO.	DESCRIPTION	PART NUMBER	DEFINITION
1	BOOY K520	1072493	1
2	SCREW/DISC PLATE 520L NORLY	1077803	1
3	DISC	EPDM 1074866 BUTYL 1074986 FKM	1
4	SHAFT 520	1077854	1
5	GUIDE SHAFT 520L NORLY	1074864	1
6	O-RING	EPDM 1071722	1
7	O-RING	BUTYL 1071764 FKM 1242390 EPDM 1071717 FKM 1071787	1
8	DIAPHRAM	NBR 1078035 FKM 1078047	1
9	O-RING	EPDM 3015601	1
10	PLATE DIAPHRAGM 520L NBR NORLY	1077558	1
11	PLATE DIAPHRAGM, UPPER, 520	1077856	1
12	CAP, 520	1074848	1
13	SCREW, 10-32X 5/6" F.RND HD, SS	1072379	6
14	O-RING, -018, EPDM	EPDM 1071720 BUTYL 1071762 FKM 1071790	1
15	SCREW, CUTTING 1/4" TYPE BT	1077781	1
16	HEX NUT, -10-32, SS	1071647	6
17	SPRING, COMPRESSION	1074882	1
18	O-RING	NBR 41122 FKM 41122-01	1

REPAIR PARTS KIT		PART NO.
DESCRIPTION	1081784 (520-RAV) INCLUDES DIAPHRAGM BR1078035	1081783 (520-RAVN) INCLUDES DIAPHRAGM BR1078035
DIAPHRAGM & SEAL KIT	1081787 (520-RAV) INCLUDES DIAPHRAGM BR1078035	1081786 (520-RAVFN) INCLUDES DIAPHRAGM BR1078047
CONSISTS OF ITEMS NOS 3,6,7,8,9,14		
INT. PART KIT (NORM. OPEN) CONSISTS OF ITEMS NOS 2,4,5,10,11,15	1079600 (K520-RFN)	

SEE SHEET 1081309 FOR UNION END CONNECTORS
SEE SHEET 1078141 FOR GROOVED ADAPTERS
SEE REVERSE SIDE FOR CONFIGURATION OPTIONS

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THIRD ANGLE PROJECTION



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INTERPRET DIMS AND TOLERANCES PER ASME Y14.5M -
UNLESS OTHERWISE SPECIFIED:

ALL FINISHED MACHINED SURFACES .125 ✓ OR BETTER TOLERANCES.

ANGLES: $\pm 1^\circ$
 1 BRACE Y: ± 0.15 (0.001)

1 PLACE	XX	1.01	[0.29]
2 PLACE	XX	.01	[0.3]
3 PLACE	XXX	.004	[0.11]

3.000E+000 [0.15]

+

AQ Matic
Valve & Controls Company Inc.

CATALOG SHEET, 520, VALVE
STANDARD MODEL

SIZE	DWG NO.
D	

BR1078135

SCALE
1.7

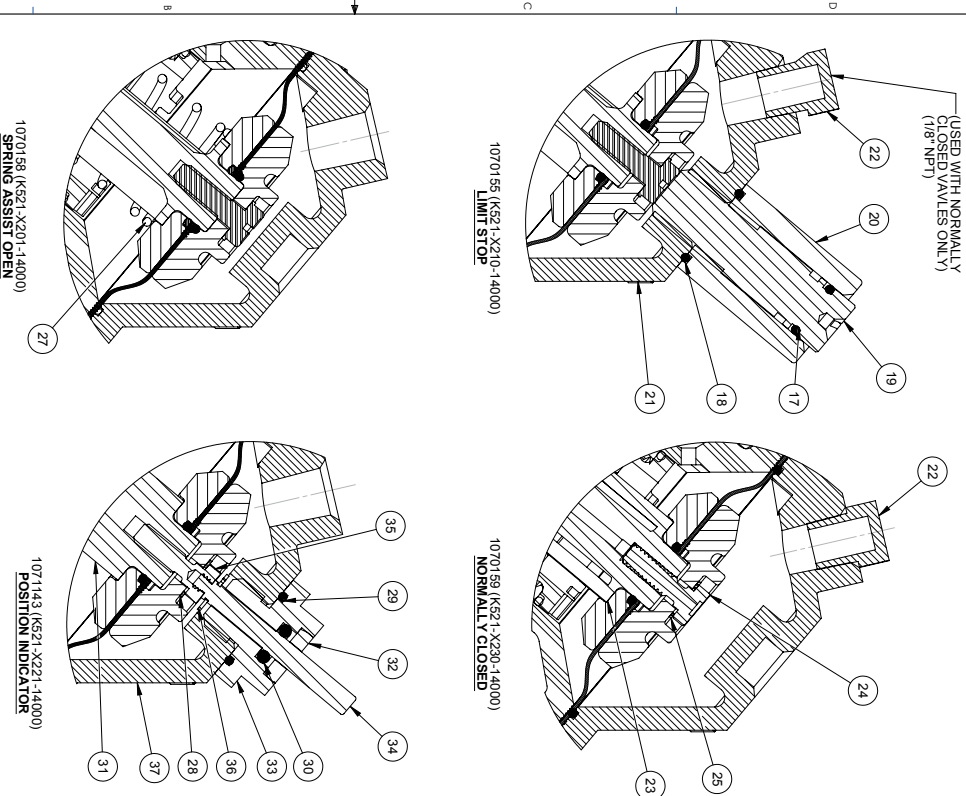
VALVOLE IDROPNEUMATICHE IN NORYL SERIE K521 / NORYL DIAPHRAGM VALVES K521 SERIES

REVISIONS				
ZONE	EQN	REV.	DESCRIPTION	DATE
			SEE SHEET 1 FOR LIST OF CHANGES	

LIMIT STOP		
ITEM NO.	QTY.	PART NUMBER DESCRIPTION
17	1	1071688 O-RING 2-012 NITRILE
18	1	1071671 O-RING 2-016 NITRILE
19	1	1075058 LIMIT STOP SCREW, SS
20	1	1075057 LIMIT STOP NUT, SS
21	1	43724 CAP, 521, LIMIT STOP
NORMALLY CLOSED MODEL		
22	1	1071912 MALE PIPE PLUGS,
23	1	1077909 SHAFT, 521
24	1	1077830 SCREW, 521, DIA PLT, NC
25	1	1078992 WASHER, LOCK INTERNAL, #10, SS
SPRING ASSIST CLOSED MODEL		
26	1	1075051 SPRING, COMPRESSION
SPRING ASSIST OPEN MODEL		
27	1	1296766 SPRING, COMPRESSION
POSITION INDICATOR MODEL		
28	1	1078992 WASHER, LOCK INTERNAL, #10, SS
29	1	1071671 O-RING 2-016 NITRILE
30	1	1071687 O-RING 2-106 NITRILE
31	1	1077911 SHAFT, POSITION INDICATOR, 521
32	1	1074971 PLUG, GUIDE HOUSING, 520
33	1	1075038 GUIDE HOUSING,
34	1	1078062 ROD, POS. INDICATOR, (521)
35	1	1077832 SCREW, 521, DIA PLT, PI
36	1	1070660 E-RING,
37	1	43724 CAP, 521, PI

NOTE:
1. POSITION INDICATOR MODEL CANNOT BE COMBINED WITH NORMALLY CLOSED OR LIMIT STOP OPTIONS.
2. POSITION INDICATOR MODEL FURNISHED WITH SPRING ASSIST OPEN OPTION.

SEE FORM 1078142 FOR UNION END CONNECTORS AND GROOVED ADAPTORS
SEE SHEET 1 FOR STANDARD NORMALLY OPEN MODEL



CONVERSION KITS	
DESCRIPTION	PART NO.
CONVERSION KIT (LIMIT STOP)	
CONSISTS OF ITEM NOS. 17 THRU 21	1071090 (K521-LS)
CONVERSION KIT (SPRING ASSIST CLOSED)	
CONSISTS OF ITEM NO. 26	1075054 (521-SC)
CONVERSION KIT (SPRING ASSIST OPEN)	
CONSISTS OF ITEM NO. 27	1075056 (521-SO)
CONVERSION KIT (POSITION INDICATOR)	
CONSISTS OF ITEM NOS. 28 THRU 37	1079620 (K521-PI-IC)

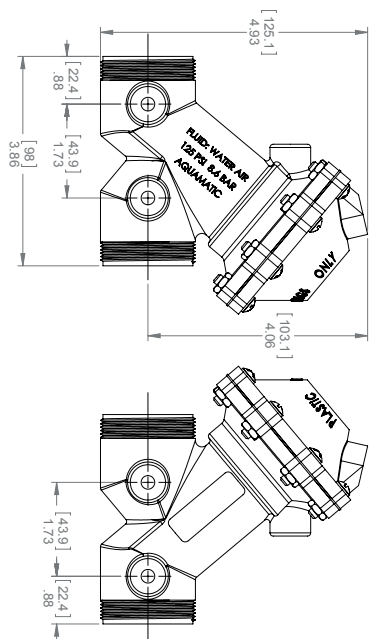
REPAIR PARTS KITS	
DESCRIPTION	PART NO.
INT. PARTS KIT (LIMIT STOP) CONSISTS OF ITEM NOS. 17 THRU 21	1075040 (521-LS)
INT. PARTS KIT (NORM. CLOSED) CONSISTS OF ITEM NOS. 2, 5, 10, 11, 23, 24, 25	1079622 (K521-RGN)
INT. PARTS KIT (SPRING ASSIST CLOSED) CONSISTS OF ITEM NO. 26	1075054 (521-SC)
INT. PARTS KIT (SPRING ASSIST OPEN) CONSISTS OF ITEM NO. 27	1075056 (521-SO)
INT. PARTS KIT (POSITION INDICATOR) CONSISTS OF ITEM NOS. 28 THRU 37	1081790 (521-PI-IC)

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SCALE: 1" = 1" (1:1)
1" = 25.4 mm (1:1)
3" = 76.2 mm (1:1)
3" = 76.2 mm (1:1)

THIRD ANGLE PROJECTION	DATE	TITLE
APPROVALS	02-22-13	CATALOG SHEET, 521
DRAWN	NE	DIAPHRAGM VALVE STANDARD MODEL
CHECKED		SIZE B
		DWG NO. BR1077654
		SCALE 1:2
		SHEET 2 OF 2

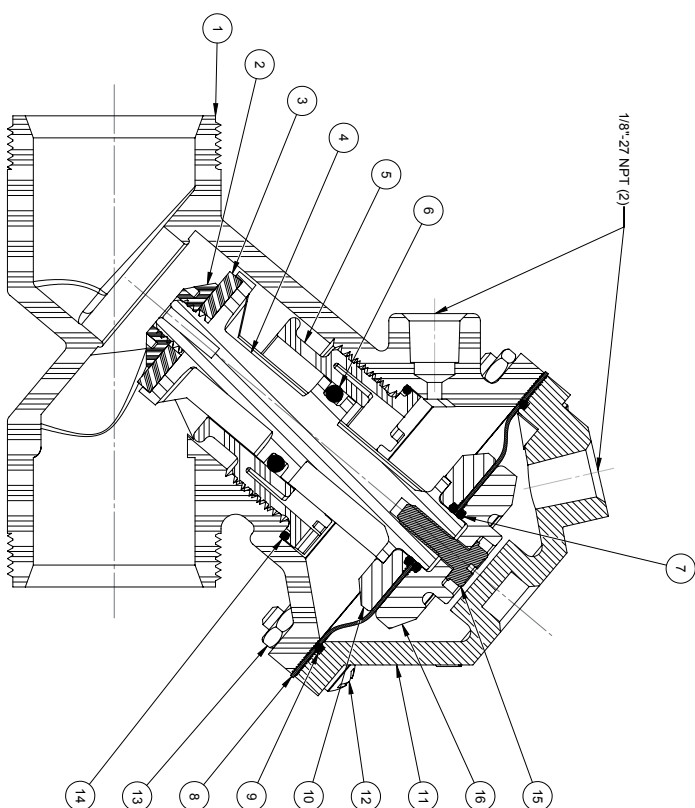
AQ Matic
Valve & Controls Company, Inc.



ASSEMBLY TOOLS	
DESCRIPTION	PART NO.
FOR INSTALLATION & REMOVAL OF SHAFT GUIDE (ITEM #5)	1073039 (521-Z)
TO HOLD SHAFT (ITEM #4) DURING ASSEMBLY/DISSEMBLY	1077837

REVISIONS			DATE	APPROVED
ZONE	ECON	REV.	DESCRIPTION	
102866		1	REVISION IN SOLIDWORKS ITEM #1: WAS 1075007 ITEM #11: WAS 1075012	1.0.1
103087		1	ITEM #1: WAS 1073842 ITEM #2: WAS 1073844	1.0.1
1001		1	ADD BATES: update & verify part numbers	17/24/17
				BOG

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	43476	BODY VALVE 521
2	1	1073645	PLATE, DISC. 521
		1077814	DISC. 521
3	1	1077815	DISC. 521
		1077816	DISC. 521
4	1	1075842	SHAFT, 521
5	1	1075030	DISC SHAFT 521,NORLY
		1242717	ORING, 2,208
6	1	1071775	O-RING, -208, BUTYL
		1242393	O-RING, 2,208
7	2	1077178	O-RING, -014, EPDM
8		1075028	DIAPHRAGM, 521, NBR
		1075029	DIAPHRAGM, 521, FKM
9	1	1077175	O-RING (NTRILE), 2,305
10		43043	PLATE, DIAPHRAGM, 521, LOWER
11	1	43477	CAP, 521 VALVE
12	8	1072380	SCREW, RHMS 10-32,SS
13	8	1071648	HEX NUT, 10-32, SS
		1081945	O-RING, 2,029, EPDM
14	1	43893	O-RING, BUTYL, 2,029
		1081947	O-RING, NITON, 2,029
15	1	1077783	SCREW, CUTTING #10-16 TYPE BT
16	1	43042	PLATE, DIAPHRAGM, 521, UPPER

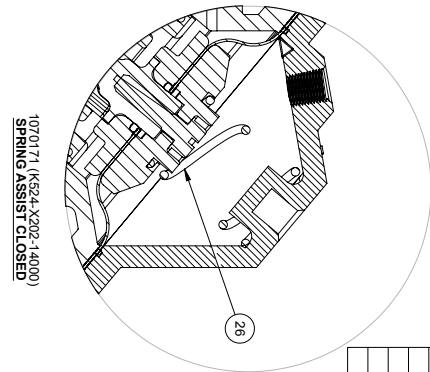


1070154 (K521-X200-14000)
NORMALLY OPEN (STANDARD)

DESCRIPTION	REPAIR PARTS	
	PART NO.	
DIAPHRAGM & SEALS KIT CONSISTS OF ITEM NOS 3,6,7,8,9,15	1081792 (521-RAN) BUTYL INCLUDES DIAPHRAGM (521-FB)	1081791 (521-RAN) BUTYL INCLUDES DIAPHRAGM (521-FB)
	1081796 (521-RAN) FKM INCLUDES DIAPHRAGM (521-FB)	1081795 (521-RAN) FKM INCLUDES DIAPHRAGM (521-FV)
INT. PARTS KIT (NORM. OPEN) CONSISTS OF ITEM NOS 2,4,5,10,11,16	1079621 (521-RFN)	

SEE REVERSE SIDE FOR CONFIGURATION OPTIONS
SEE FORM 1078142 FOR UNION END CONNECTORS AND GROOVED ADAPTERS
COMPONENTS/ASSEMBLIES TO BE COMPLIANT AND COMPATIBLE WITH
EUROPEAN UNION DIRECTIVE 2002/95/EEC (RoHS) REQUIREMENTS.

[illegible]



10701771 (K524-X202-14000)
SPRING ASSIST CLOSED

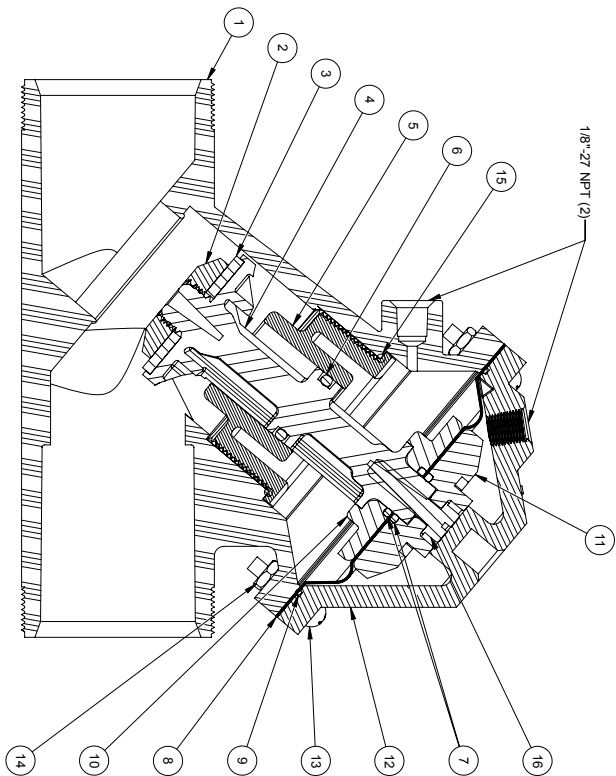
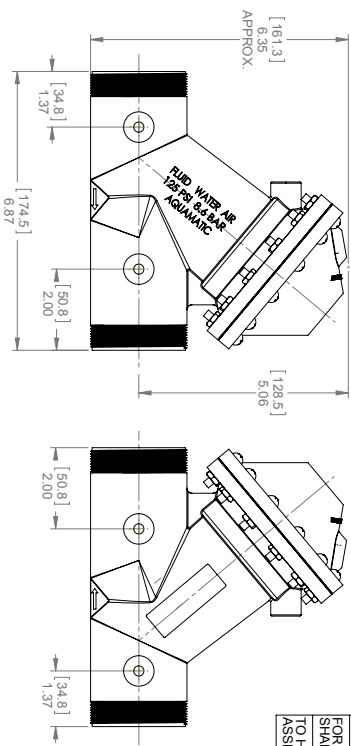
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
17	1	1075164	LIMIT STOP SCREW, SS
18	1	1075668	O-RING 2.012,NITRILE
19	1	1075141	LIMIT STOP NUT, SS
20	1	1076761	O-RING 2,016,NITRILE
21	1	1076063	CAP, LIMIT STOP 524
NORMALLY CLOSED MODEL			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
22	1	10791912	MALE PIPE PLUGS.
23	1	1076238	SHAFT, 524, 1/4 THD
24	1	1076204	SHAFT, SCREW.
25	1	1076201	WASHER.
SPRING ASSIST CLOSED MODEL			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
26	1	BR1267398	COMPRESSION SPRING.
SPRING ASSIST OPEN MODEL			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
27	1	1076692	SPRING, COMPRESSION
POSITION INDICATOR MODEL			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
28	1	1076203	SHAFT, SCREW.
29	1	1076201	WASHER.
30	1	1076761	O-RING 2,016,NITRILE
31	1	1076038	GUIDE HOUSING.
32	1	1076199	ROD, POS. INDICATOR, (SRS 524)
33	1	1076200	ERRING.
34	1	1076239	SHAFT, POS INDICATOR, 524
35	1	1076063	CAP, LIMIT STOP 524
36	1	1076687	O-RING 2,106,NITRILE
37	1	1076971	PLUG, GUIDE HOUSING, 520

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DO NOT SCALE DRAWING DIMS ARE IN INCHES (mm)
INTERPRETING DIMS AND TOLERANCES PER ASME Y14.3M-2000
UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE TO UNFINISHED SURFACES UNLESS NOTED OTHERWISE
TOLERANCES
ANGLES: ± .1°
1 PLACE X: ± .015 (0.38)
2 PLACE XX: ± .01 (0.25)

SEE REVERSE SIDE FOR STANDARD NORMALLY OPEN MODEL

SEE FORM 1078142 FOR UNION END CONNECTORS
AND GROOVED ADAPTERS
SEE FORM 1078152 FOR SOCKET WELD ENDS AND
FLANGED ADAPTORS



ASSEMBLY TOOLS	
DESCRIPTION	PART NO.
FOR INSTALLATION & REMOVAL OF SHAFT GUIDE (ITEM #5)	1075143 (524-Z)
TO HOLD SHAFT (ITEM #4) DURING ASSEMBLY/DISASSEMBLY	1077837

REVISIONS					
ZONE	E/CN	REV.	DESCRIPTION	DATE	APRD
	101899	J	RESERVAIN IN SOLIDWIDE; DAVIS # FLOW SAME AS FORM #	7/14/2014	T.M.I
	1001	K	#2 Meter upgrade & verified part numbers	7/14/2017	MMS

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	1075079	BODY, VALVE 524
2	1	1076198	PLATE, VALVE 524
3	1	1075107	DISC. (EPDM)
		1075108	DISC. (BUTYL)
		1075109	DISC. (VITON)
4	1	1076205	SHAFT, 524
5	1	1075106	GUIDE SHAFT 524 BLACK
		1242718	ORING, 2-210
6	1	1071776	ORING, -210, BUTYL
		1242394	ORING, 2-210
7	2	1071728	ORING, (EPDM) 2-113
		1078393	DIAPHRAGM, 524, NITRILE
8	1	1075105	DIAPHRAGM, 524, FKM
9	1	1076888	ORING, 2-043 NITRILE
10	1	1076197	PLATE, DIAPHRAGM, LOWER, 524
11	1	43041	PLATE, DIAPHRAGM 524 UPPER
12	1	1075086	CAP, 524, VALVE
13	12	1072281	SCREW, ROUND HEAD 10-32
14	12	1076148	HEX NUT, 10-32, SS
		1071335	ORING, 2-137 EPDM
15	1	1071771	ORING, -137, BUTYL
		1071807	ORING, -137, FKM
16	1	1077101	SCREW, CUTTING 1/4" TYPE BT

REPAIR PARTS KIT		
DESCRIPTION	PART NO.	
DIAPHRAGM & SEALS KIT OF ELEMENTS	1070234 (524-FRAN) INCLUDES E.P.D.M. DIAPHRAGM 1075104 (524-FB)	1077892 (624-RALIN) INCLUDES BUTYL DIAPHRAGM 1075105 (524-FB)
3.67.83.15	1070280 (624-RALIN) INCLUDES DIAPHRAGM 1075104 (524-FB)	1077953 (624-RALIN) INCLUDES DIAPHRAGM 1075105 (524-FB)
INT. PARTS KIT (NORM. OPEN) CONSISTS OF 17.02.01.16 2.45.10.11.16	1070298 (K524-FRAN)	

SEE FORM 1078142 FOR UNION END CONNECTORS
AND GROOVED ADAPTORS
SEE FORM 1078152 FOR SOCKET WELD ENDS AND
FLANGED ADAPTORS
SEE REVERSE SIDE FOR CONFIGURATION OPTIONS

1070168 (K524-X200-14000)
NORMALLY OPEN (STANDARD)

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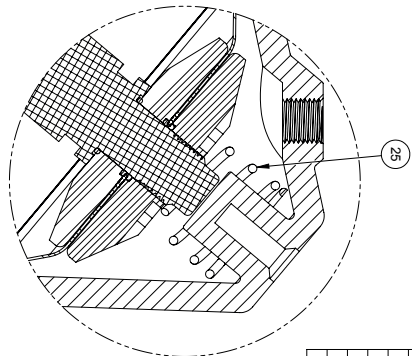
COMMENTS

DO NOT SCALE DRAWINGS. DIMS. ARE IN INCHES (MM).
INTERPRET DIMS AND TOLERANCES PER ASME Y14.5M-2.
UNLESS OTHERWISE SPECIFIED:
TOLERANCES ARE:
FRACTIONAL DIMENSIONS: 1/2" OR BETTER
DECIMAL DIMENSIONS: .005
HOLE LOCATIONS: .1"
ANGLES: .1°
1 PLACE X: .015 (0.25)
2 PLACE X: .01 (0.25)
3 PLACE X: .005 (0.13)

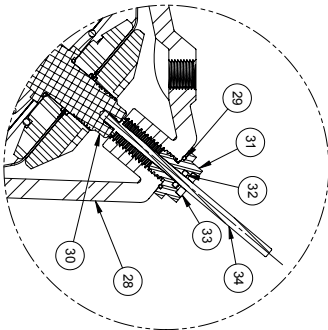
AQ Matic
Valve & Controls Company Inc.

CATALOG SHEET, 524
DIAPHRAGM VALVE STANDARD MODEL

	DATE	CHG. NO.	FILE #
	B	BR1077655	K
CHECKED	SCALE 12	SHEET 1 OF 2	



**1071246 (K526-X202-14000)
SPRING ASSIST CLOSED**



1071255 (K526-X221-14000)
POSITION INDICATOR

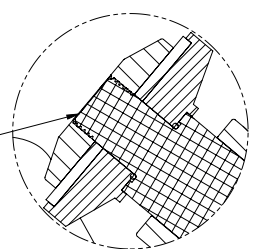
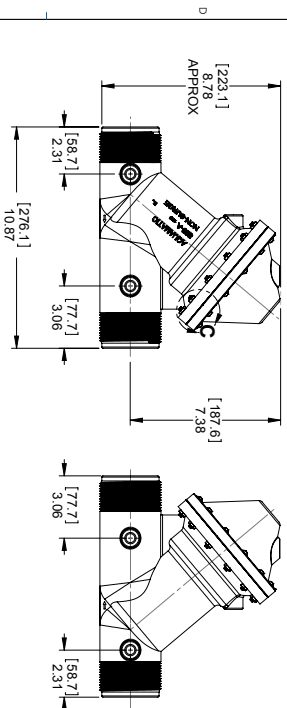
CONVERSION KITS	
PART NO.	DESCRIPTION
1071225 (526-5C)	CONVERSION KIT (LIMIT STOP) CONSISTS OF ITEM NOS. 18 THRU 22
1072000 (526-5C)	CONVERSION KIT (SPRING ASSIST CLOSED) CONSISTS OF ITEM NO. 25
1071227 (526-5D)	CONVERSION KIT (SPRING ASSIST OPEN) CONSISTS OF ITEM NOS. 28 & 29
1079674 (K526-PI/C)	CONVERSION KIT (POSITION INDICATOR) CONSISTS OF ITEM NOS. 28 THRU 34

LIMIT STOP MODEL			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
18	1	1075223	LIMIT STOP SCREW, SS
19	1	1071668	O-RING 2-012,NITRILE
20	1	1075222	LIMIT STOP NUT, SS
21	1	1071671	O-RING 2-016,NITRILE
22	1	1075165	CAP, LIMIT STOP
NORMALLY CLOSED MODEL			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
23	1	1071913	MALE PIPE PLUGS,
24	1	43143	SHAFT VALVE,526,NORMALLY CLSD
SPRING ASSIST CLOSED MODEL			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
25	1	1075202	SPRING, CONICAL
SPRING ASSIST OPEN MODEL			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
26	1	1267399	SPRING, COMPRESSION
27	1	1075175	PLATE DIAPHRAGM,526,SALOWER
POSITION INDICATOR MODEL			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
28	1	1075165	CAP, LIMIT STOP
29	1	1071671	O-RING 2-016,NITRILE
30	1	43142	SHAFT VALVE,526,POSITION INDCT
31	1	1075038	GUIDE HOUSING,
32	1	1071687	O-RING 2-106,NITRILE
33	1	1074971	PLUG, GUIDE HOUSING, 520
34	1	1075164	ROD, POSITION INDICATOR, 526

1. POSITION INDICATOR MODEL CANNOT BE COMBINED WITH NORMALLY CLOSED OR LIMIT STOP OPTIONS.
2. POSITION INDICATOR MODEL FURNISHED WITH SPRING ASSIST OPEN OPTION.

SEE FORM 1078152 FOR SOCKET WELD ENDS AND FLANGED ADAPTORS.
SEE REVERSE SIDE FOR STANDARD NORMALLY OPEN MODEL.

VALVE A CONNECTION IS BOLT-ON TO THE SIDE OF THE ADJACENT PIPE. THE VALVE IS NOT TO BE USED FOR THE PURPOSE OF DISCONNECTING THE PIPE FROM THE SYSTEM. THE VALVE IS NOT TO BE USED FOR THE PURPOSE OF DISCONNECTING THE PIPE FROM THE SYSTEM. THE VALVE IS NOT TO BE USED FOR THE PURPOSE OF DISCONNECTING THE PIPE FROM THE SYSTEM.	
APPROVALS	DATE
DRAWN	DATE
TITLE	
CATALOG SHEET, 526 DIAPHRAGM VALVE	
SIZE	DWG NO.
B	BR1077656
SCALE 1:1	SHEET 2 OF 2

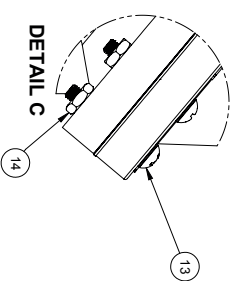


DETAIL B
DISC NUT/SHAFT TO BE FLUSH
AFTER COMPONENTS ARE TIGHTENED
TO 20-25 IN-LB [2.3-2.8 Nm]

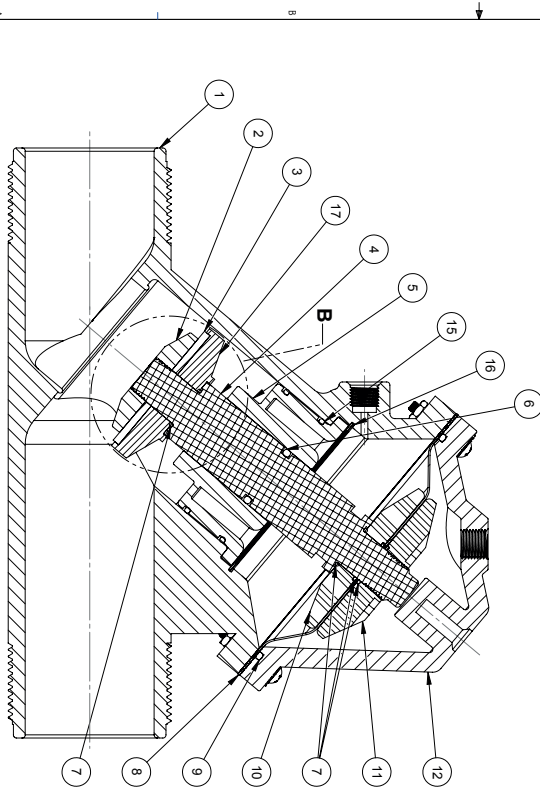
ASSEMBLY TOOLS	
DESCRIPTION	PART NO.
FOR INSTALLATION & REMOVAL OF SHAFT (ITEM #4) (TOOL NOT SHOWN)	107837
FOR INSTALLATION & REMOVAL OF UPPER DIAPHRAGM PALLET (ITEM #11) (TOOL NOT SHOWN)	1076224 (626-Z)

REVISIONS			
ZONE	ECN	REV.	DATE
30243	K	REDRAWN N SOLIDWORKS WITHOUT ANY CHANGES	8/3/10
100401	L	1-WAS: 1075174, NOW: 43051 2-BEAD: 1075172, NOW: 1075172	30/MAR/12
107685	M	1-WAS: 1071746, NOW: 1070140	02/19/13
100884	N	ITEM # 31 - WAS: 1074870, 2 - UPRATED TITLE BLOCK	TAM
1001	O	AO Matic update & verified part numbers	17/JAN/17

NO.	DESCRIPTION	PART NO.	QTY.
1	BODY	1075162 (526-AK)	1
2	DISC PLATE	1075176 (526-EK)	1
3	DISC	E.P.D.M. BUTYL FKM	1
4	SHAFT	43119 PVC	1
5	SHAFT GUIDE	1075178 (526-GK)	1
6	O-RING	E.P.D.M. BUTYL FKM	1
7	O-RING	E.P.D.M. BUTYL FKM	4
8	DIAPHRAGM	BUNA N FKM	1
9	O-RING	BUNA N	1
10	LWR DIA. PLATE	43051	1
11	UPR DIA. PLATE	43050	1
12	CAP	1075167 (526-BOK)	1
13	RD. HD. MACH. SCR.	1072382 (SCS-0088)	12
14	HEX NUT	1071738 (ORE-148)	12
15	O-RING	ETH. PROP. BUTYL FKM	2
16	RETAINING RING	1071810 (ORV-148) 1075180 (526-HA)	1
17	DISC HOLDER	PVC NORYL	1



REPAIR PARTS KITS	
1070275 (526-RA)	1070283 (526-RAJ)
1075177 (526-FB)	1075177 (526-FB)
1070281 (526-RAV)	1070281 (526-RAV)
1075177 (526-FB)	1075177 (526-FB)
1070299 (K526-RE)	1070299 (K526-RE)



1070180 (K526-X200-14000)
NORMALLY OPEN (STANDARD)

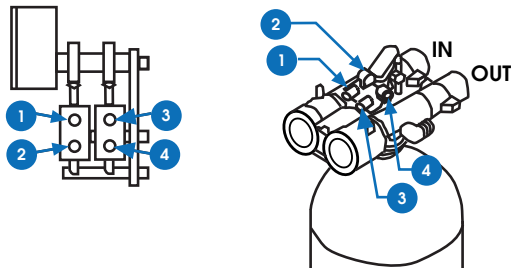
SEE FORM 1078152 FOR SOCKET WELD ENDS AND FLANGED ADAPTORS
SEE REVERSE SIDE FOR CONFIGURATION OPTIONS.

THIRD ANGLE PROJECTION		DATE	
APPROVALS	DATE	DATE	
DRAWN		TITLE	
APPROVED		CATALOG SHEET 526	
CHECKED		DIAPHRAGM VALVE	
SCALE 1:1		REV O	
SHEET 1 OF 2		REV O	

APPLICAZIONI CON VALVOLE SIATA V132 / V132 SIATA VALVE APPLICATIONS

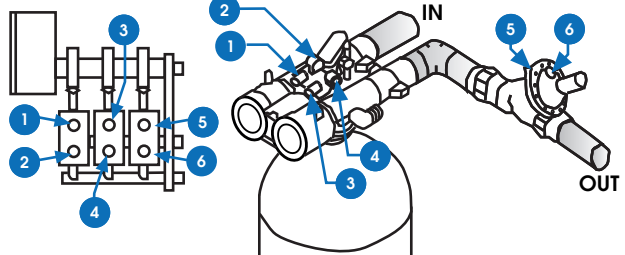
- 1** Addolcitore o filtro singolo con timer 2 piloti. Valvole utilizzabili: V132E, V132E-T. By-pass Acqua dura durante la rigenerazione nella 1^a, 2^a e 3^a fase. Controllo salamoia tramite valvola PS0620.

(Single softening or filtration system with timer 2 pilots. Usable valves: V132E, V132E-T. By-pass hard water during the regeneration in 1st, 2nd and 3rd cycle). Brine control by PS0620.



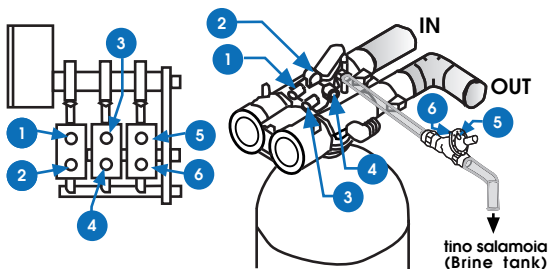
- 2** Addolcitore o filtro singolo con timer 3 piloti. Valvole utilizzabili: V132E, V132E-T. NO By-pass Acqua dura durante la rigenerazione tramite valvola idropneumatica. Controllo salamoia tramite valvola PS0620.

(Single softening or filtration system with timer 3 pilots. Usable valves: V132E, V132E-T. NO By-pass hard water during the regeneration with idropneumatic valve). Brine control by PS0620.



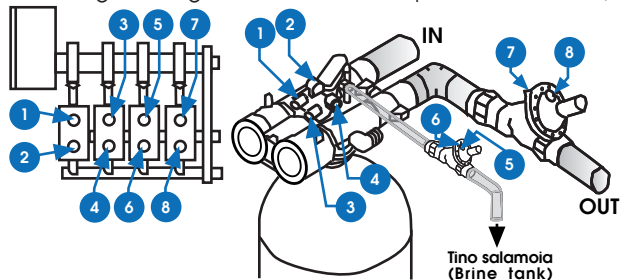
- 3** Addolcitore singolo con timer 3 piloti con controllo aspirazione. Valvole utilizzabili: V132E, V132E-T. By-pass Acqua dura durante la rigenerazione nella 1^a, 2^a e 3^a fase.

(Single softening system with timer 3 pilots with aspiration control. Usable valves: V132E, V132E-T. By-pass hard water during the regeneration in 1st, 2nd and 3rd cycle).



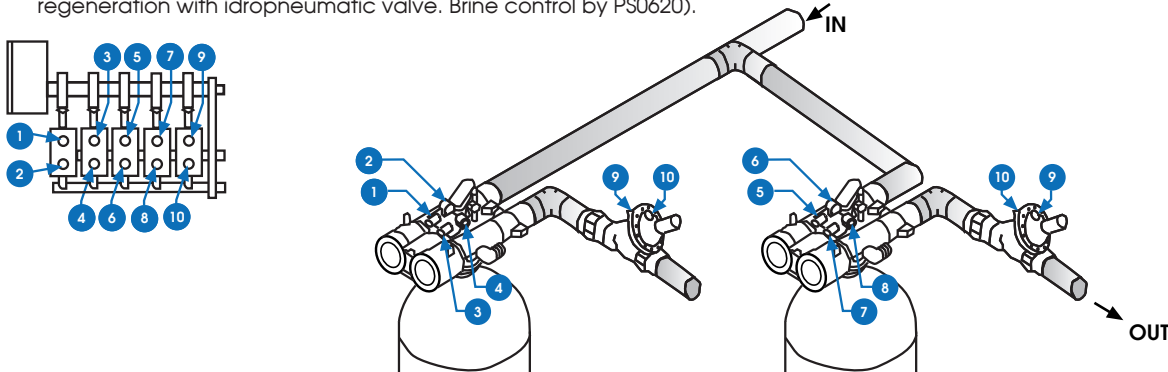
- 4** Addolcitore singolo con timer 4 piloti con controllo aspirazione e chiusura utilizzo. Valvole utilizzabili: V132E, V132E-T. NO By-pass Acqua dura durante la rigenerazione tramite valvola idropneumatica.

(Single softening system with timer 4 pilots with aspiration control and use closure. Usable valves: V132E, V132E-T. NO By-pass hard water during the regeneration with idropneumatic valve).



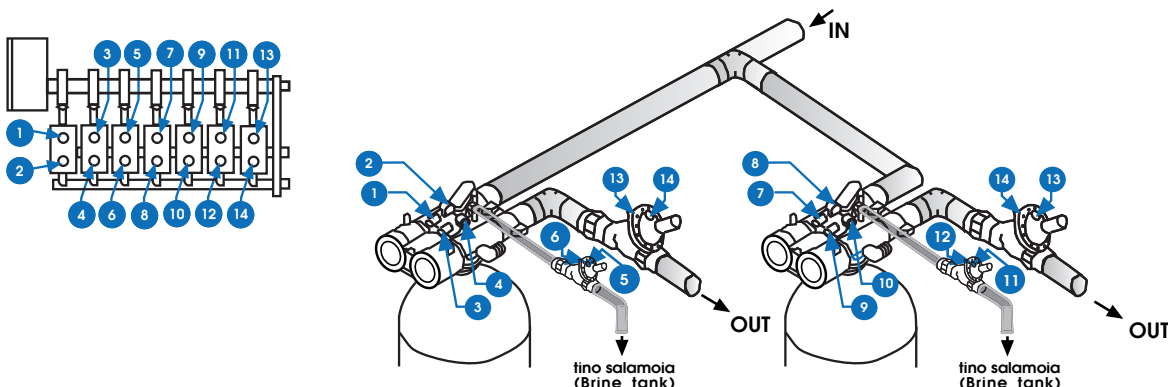
- 5** Addolcitore duplex alternato con timer 5 piloti. Valvole utilizzabili: V132E, V132E-T. NO By-pass Acqua dura durante la rigenerazione tramite valvola idropneumatica. Controllo salamoia tramite valvola PS0620.

(Alternate Duplex softening system with timer 5 pilots. Usable valves: V132E, V132E-T. NO By-pass hard water during the regeneration with idropneumatic valve. Brine control by PS0620).



- 6** Addolcitore duplex alternato con timer 7 piloti. Valvole utilizzabili: V132E, V132E-T. NO By-pass Acqua dura durante la rigenerazione tramite valvola idropneumatica. Controllo aspirazione salamoia tramite valvola idropneumatica.

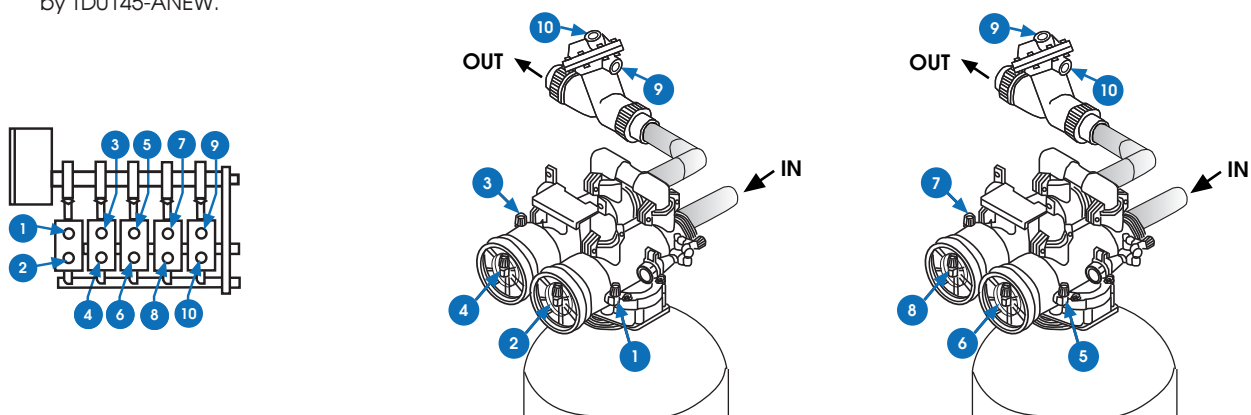
(Alternate Duplex softening system with timer 7 pilots. Usable valves: V132E, V132E-T. NO By-pass hard water during the regeneration with idropneumatic valve. Brine line control by idropneumatic valve).



APPLICAZIONI CON VALVOLE SIATA V250 / V250 SIATA VALVE APPLICATIONS

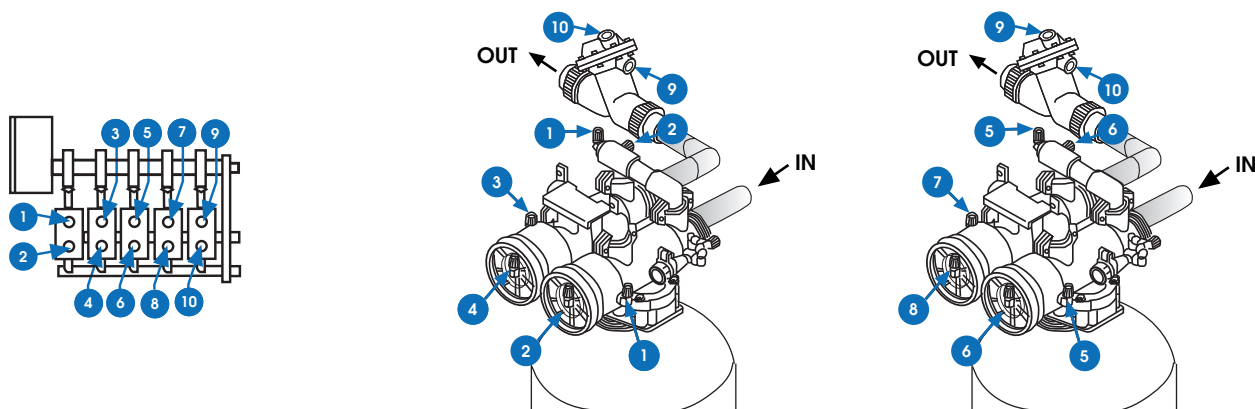
- 9** Addolcitore duplex alternato con timer 5 piloti. Valvola utilizzabile: V250A-BP/05. By-pass acqua dura durante il servizio in caso di aumento della richiesta (tramite valvola instabile), no by-pass acqua dura durante la rigenerazione tramite valvola idropneumatica. Controllo salamoia tramite valvola TD0145-ANEW.

Alternate duplex softener system with timer 5 pilots. Usable valve: V250A-BP/05. By-pass hard water during the service if increase the request at use with instabil valve, no By-pass hard water during the regeneration with idropneumatic valve. Brine control by TD0145-ANEW.



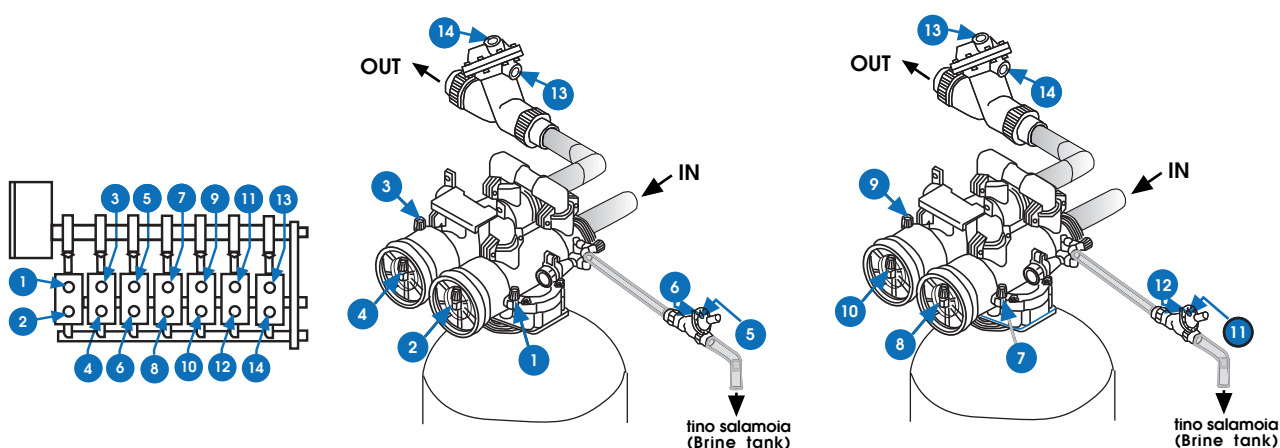
- 10** Addolcitore o filtro duplex alternato con timer 5 piloti. Valvole utilizzabili: V250A-NBP/05, V250F-NBP/05. No By-pass acqua duradurante il servizio (tramite valvola di controlavaggio), no by-pass acqua dura durante la rigenerazione tramite valvola idropneumatica. Controllo salamoia tramite valvola TD0145-ANEW.

Duplex softener or filter system with timer 3 pilots. Usable valves: V250A-NBP/05, V250F-NBP/05. No by-pass hard water during the service with no by pass manifold valve, no by-pass hard water during the regeneration with idropneumatic valve. Brine control by TD0145-ANEW.



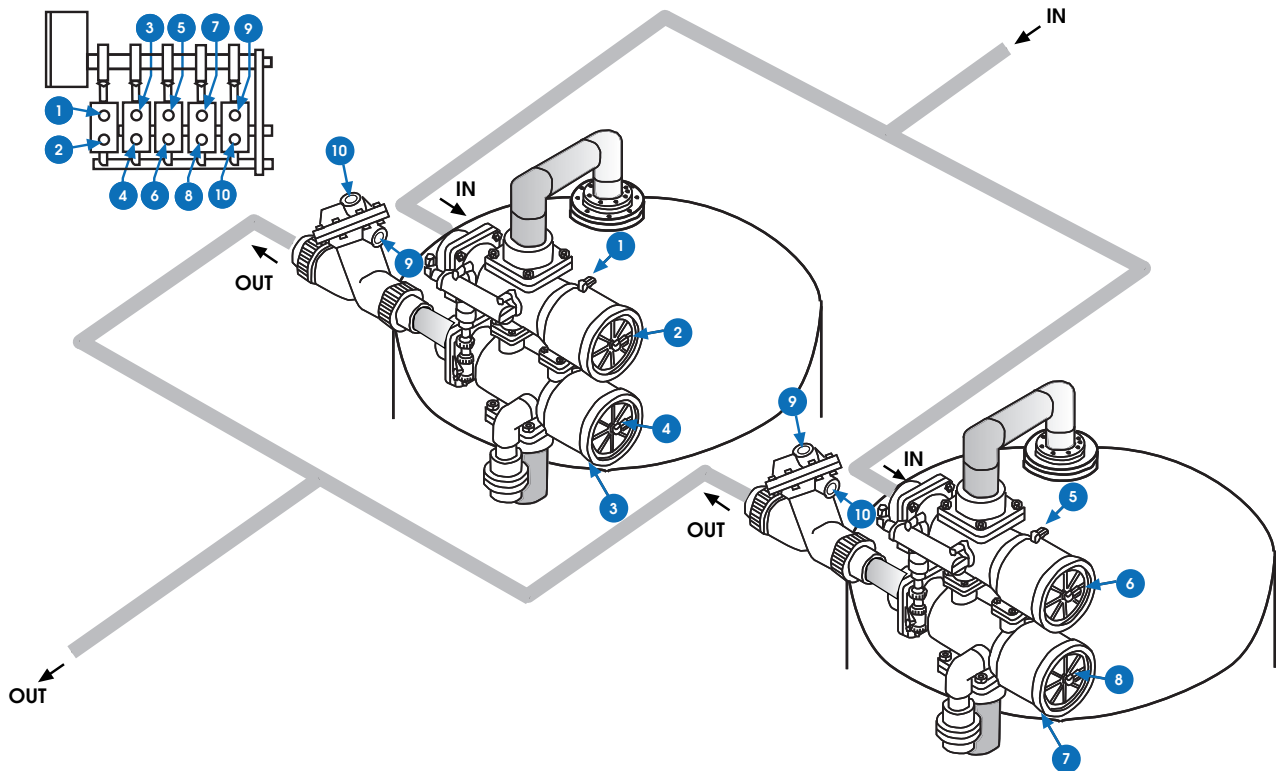
- 11** Addolcitore duplex alternato con timer 7 piloti. Valvola utilizzabile: V250A-BP/05. By-pass acqua dura durante il servizio in caso di aumento della richiesta (tramite valvola instabile), no by-pass acqua dura durante la rigenerazione tramite valvola idropneumatica. Controllo aspirazione salamoia tramite valvola idropneumatica.

Alternate duplex softener system with timer 7 pilots. Usable valve: V250A-BP/05. By-pass hard water during the service if increase the request at use with instabil valve, no by-pass hard water during the regeneration with idropneumatic valve. Brine control by idropneumatic valve.

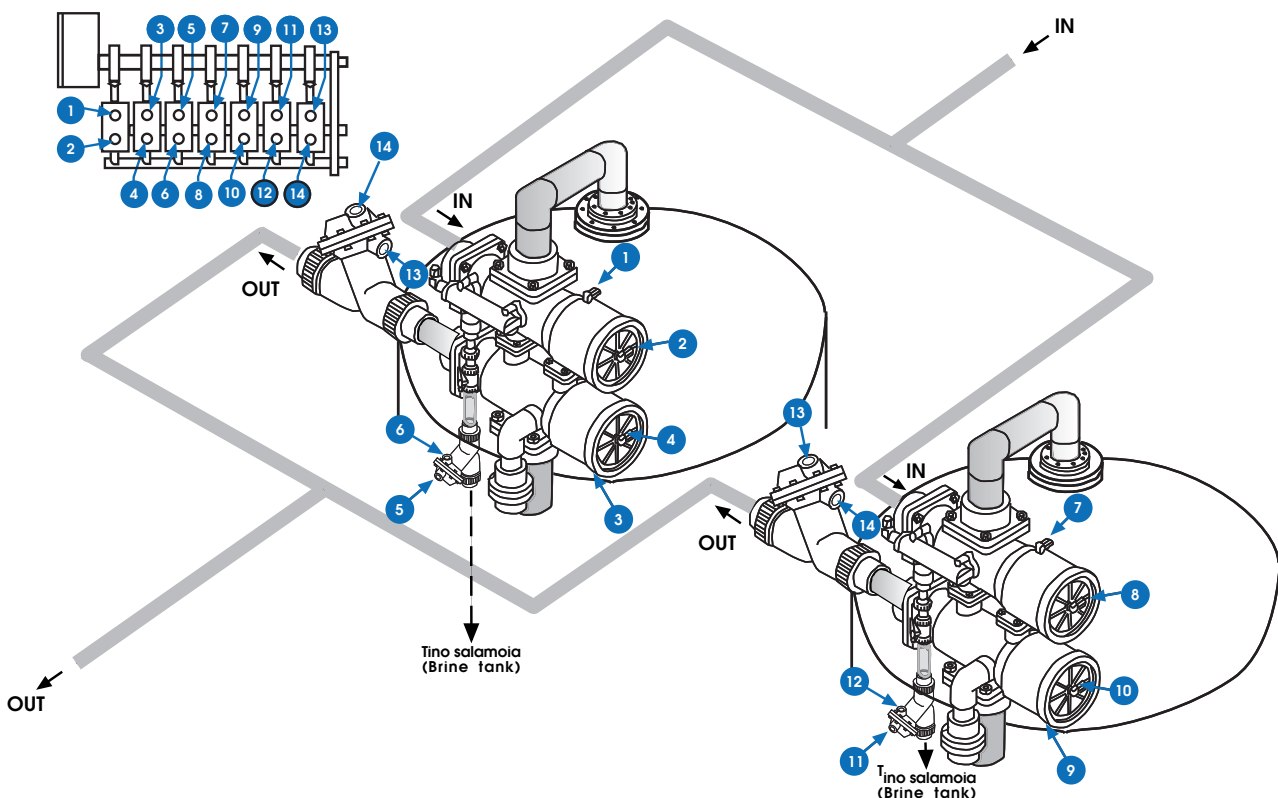


APPLICAZIONI CON VALVOLE SIATA V360 / V360 SIATA VALVE APPLICATIONS

- 5** Addolcitore duplex alternato con timer 5 piloti. Valvole utilizzabili: V360MA. NO By-pass Acqua dura durante la rigenerazione tramite valvola idropneumatica. Controllo salamoia tramite valvola TD0145-ANEW.
(Alternate Duplex softening system with timer 5 pilots. Usable valves: V360MA. NO By-pass hard water during the regeneration with idropneumatic valve. Brine control by TD0145-ANEW).

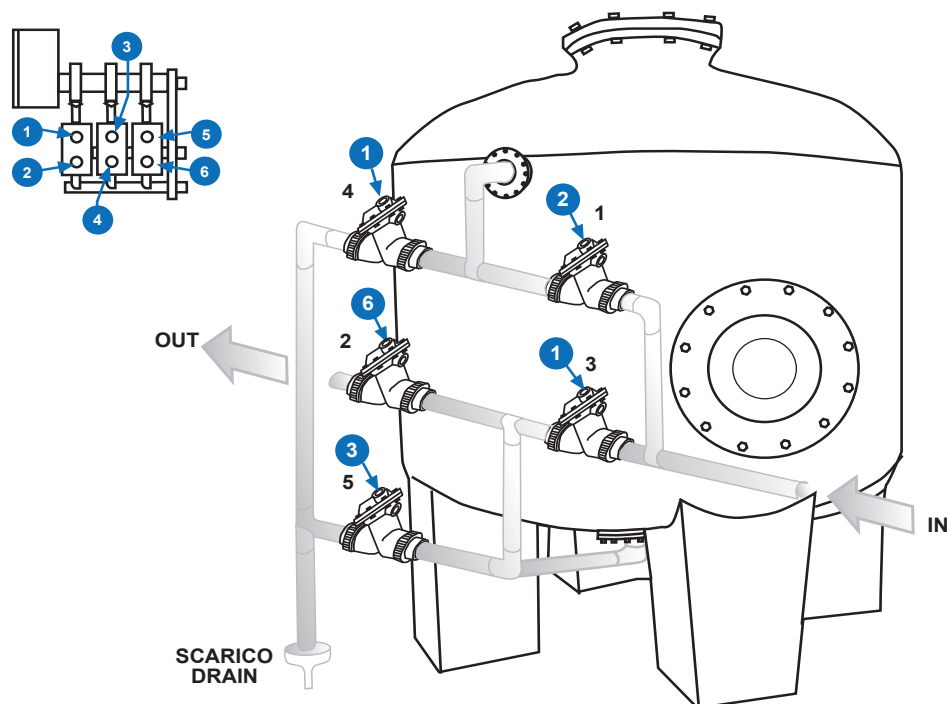


- 6** Addolcitore duplex alternato con timer 7 piloti. Valvole utilizzabili: V360MA. NO By-pass Acqua dura durante la rigenerazione tramite valvola idropneumatica. Controllo aspirazione salamoia tramite valvola idropneumatica.
(Alternate Duplex softening system with timer 7 pilots. Usable valves: V360MA. NO By-pass hard water during the regeneration with idropneumatic valve. Brine line control by idropneumatic valve).

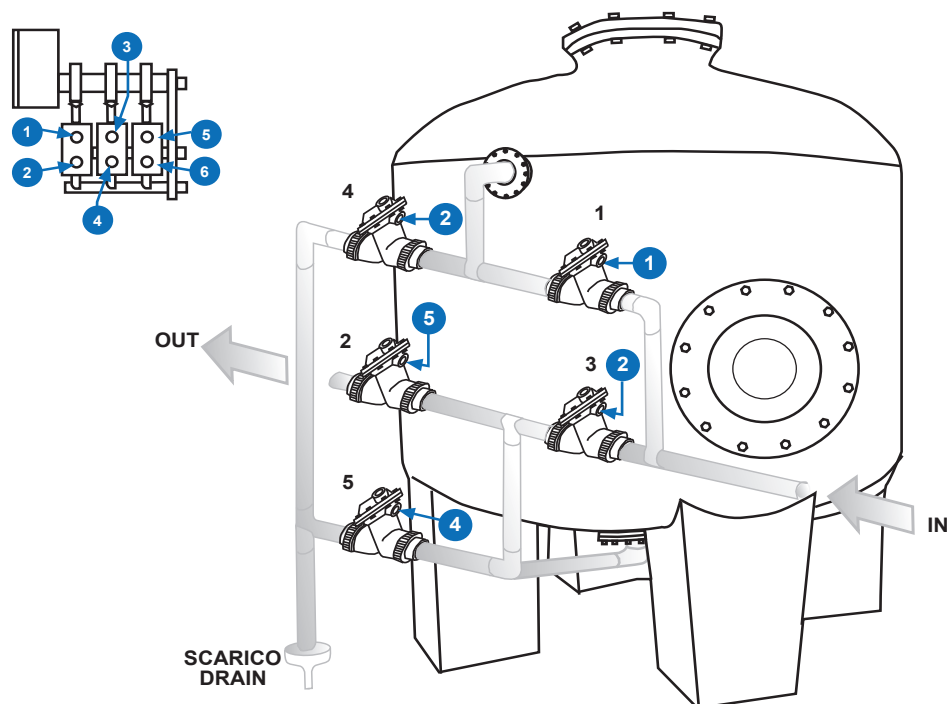


APPLICAZIONI CON VALVOLE AQUAMATIC / AQUAMATIC VALVES APPLICATIONS

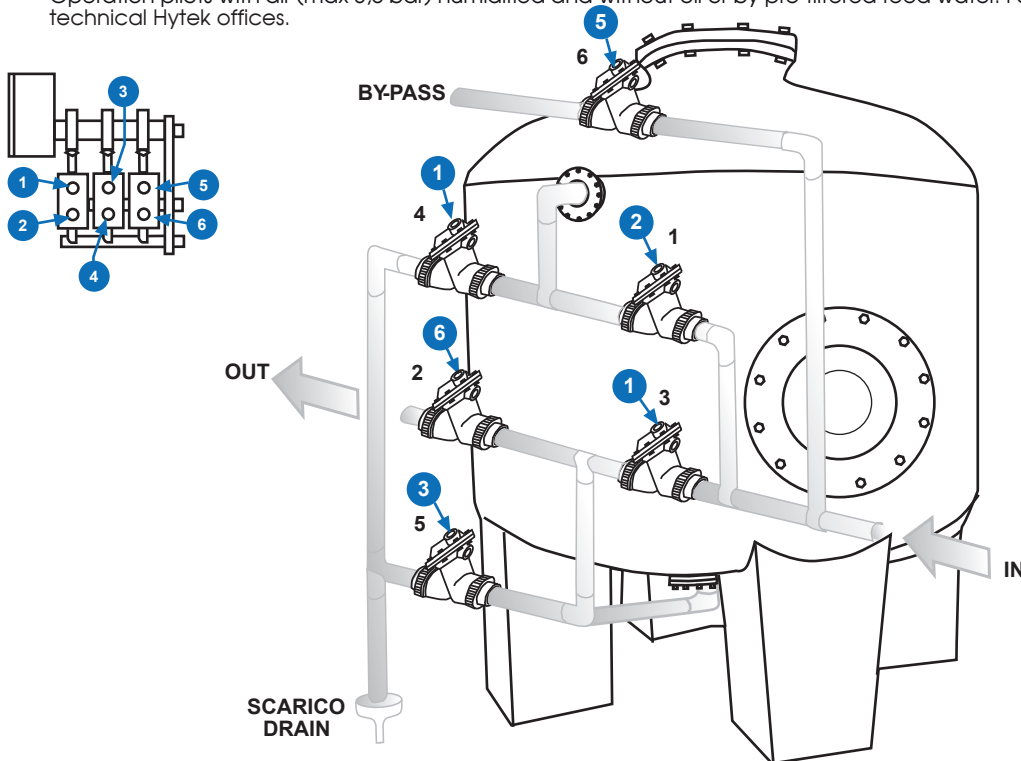
- 1** Filtro singolo (controlavaggio + risciacquo rapido) con 5 valvole idropneumatiche Normalmente Aperte e timer 3 piloti. Partenza del controlavaggio a tempo, volume (con contatore e opzionale), misto o tramite segnale esterno (starter remoto). Funzionamento piloti tramite aria compressa (max 3,5 bar) umidificata e deoleata, oppure con acqua in ingresso (opportunitamente pre-filtrata). Per il modello di timer adatto, pregio contattare gli uffici tecnici Hytek.
- Single filter (backwash + rapid rinse) with 5 Normally Open idropneumatic valves and 3 pilots timer. Start regeneration in chrono mode, or volumetric mode (with optional flow meter), chrono and volume or by remote starter. Operation pilots with air (max 3,5 bar) humidified and without oil or by pre-filtered feed water. For timer model please contact technical Hytek offices.



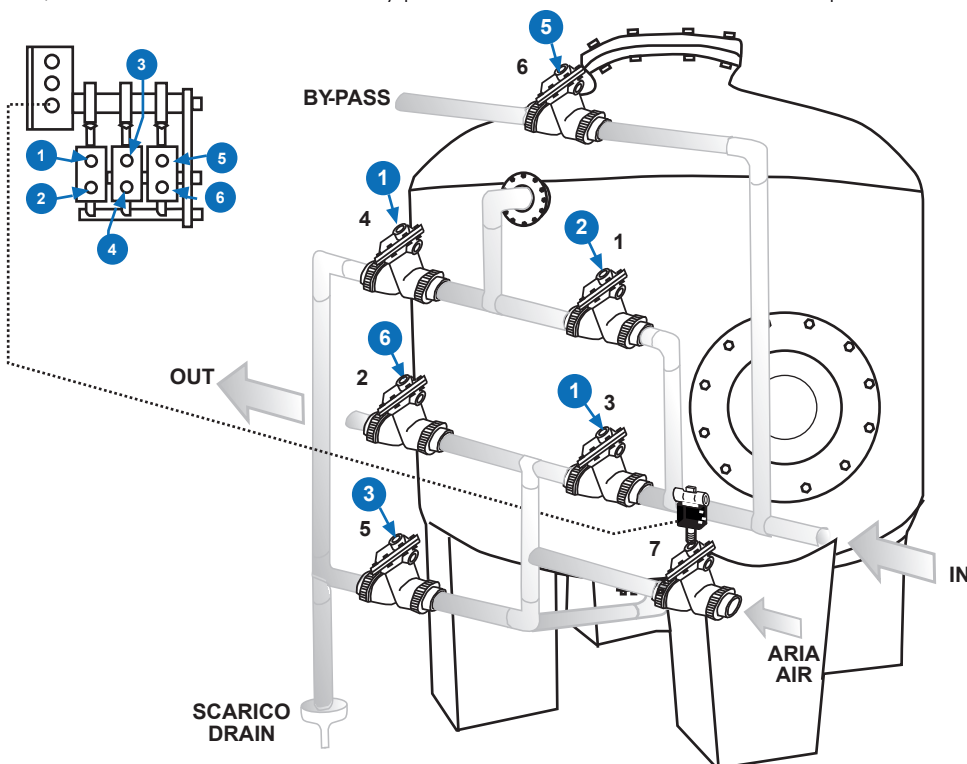
- 2** Filtro singolo (controlavaggio + risciacquo rapido) con 5 valvole idropneumatiche Normalmente Chiuse e timer 3 piloti. Partenza del controlavaggio a tempo, volume (con contatore e opzionale), misto o tramite segnale esterno (starter remoto). Funzionamento piloti tramite aria compressa (max 3,5 bar) umidificata e deoleata, oppure con acqua in ingresso (opportunitamente pre-filtrata). Per il modello di timer adatto, pregio contattare gli uffici tecnici Hytek.
- Single filter (backwash + rapid rinse) with 5 Normally Closed idropneumatic valves and 3 pilots timer. Start regeneration in chrono mode, or volumetric mode (with optional flow meter), chrono and volume or by remote starter. Operation pilots with air (max 3,5 bar) humidified and without oil or by pre-filtered feed water. For timer model please contact technical Hytek offices.



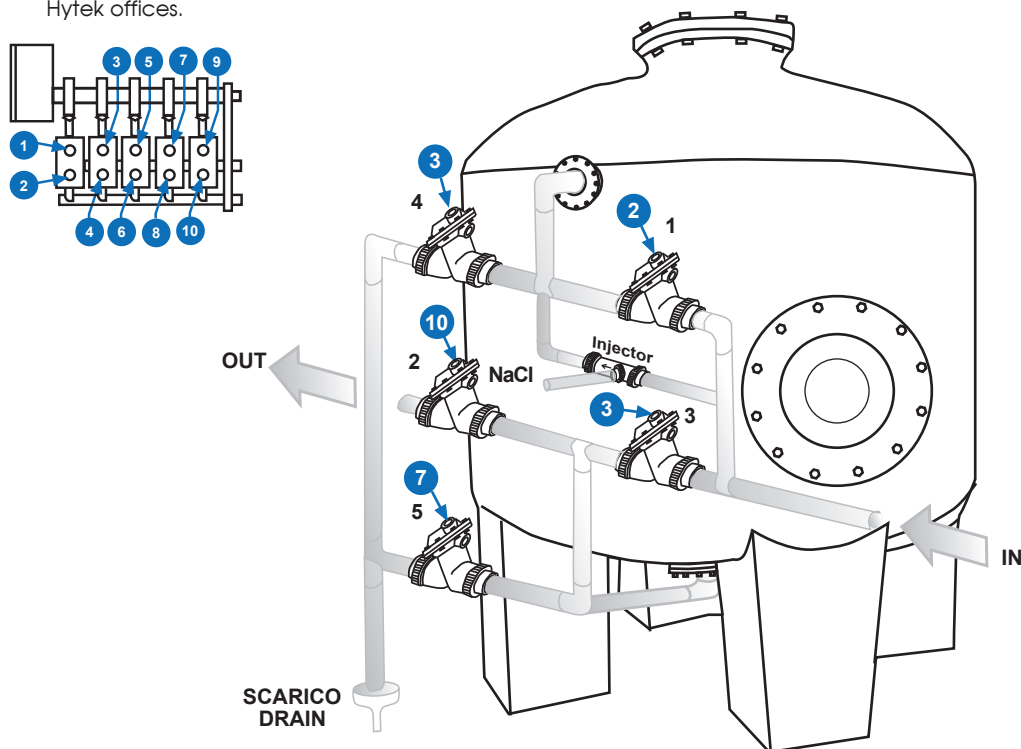
- 3** Filtro singolo (controlavaggio + risciacquo rapido + by-pass acqua grezza all' utilizzo) con 6 valvole idropneumatiche. Normalmente Aperte e timer 3 piloti. Partenza del controlavaggio a tempo, volume (con contatore opzionale), misto o tramite segnale esterno (starter remoto). Funzionamento piloti tramite aria compressa (max 3,5 bar) umidificata e deoleata, oppure con acqua in ingr esso (opportunamente pr e-filtrata). Per il modello di timer adatto, prego contattare gli uffici tecnici Hytek. Single filter (backwash + rapid rinse + by-pass raw water at use) with 6 Normally Open idropneumatic valves and 3 pilots timer. Start rigeneration in chrono mode, or volumetric mode (with optional flow meter), chrono and volume or by remote starter. Operation pilots with air (max 3,5 bar) humidified and without oil or by pre-filtered feed water. For timer model please contact technical Hytek offices.



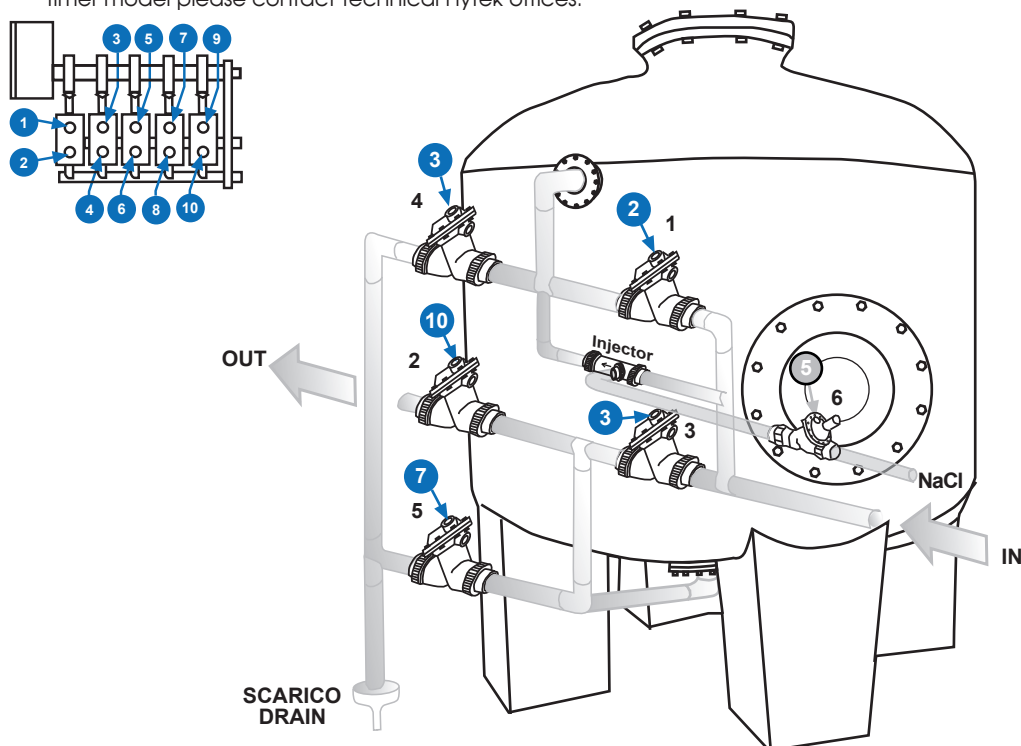
- 4** Filtro singolo (controlavaggio acqua e aria + risciacquo rapido + by-pass acqua grezza all' utilizzo) con 7 valvole idropneumatiche. Normalmente Aperte e timer 3 piloti. Partenza del controlavaggio a tempo, volume (con contatore opzionale), misto o tramite segnale esterno (starter remoto). Azionamento aria tramite segnale elettrico da interfacciare con un relé temporizzato. Funzionamento piloti tramite aria compressa (max 3,5 bar) umidificata e deoleata, oppure con acqua in ingresso (opportunamente pre-filtrata). Per il modello di timer adatto, prego contattare gli uffici tecnici Hytek. Single filter (backwash by water and air + rapid rinse + by-pass raw water at use) with 7 Normally Open idropneumatic valves and 3 pilots timer. Start rigeneration in chrono mode, or volumetric mode (with optional flow meter), chrono and volume or by remote starter. Start backwash with air by electric signal to interface with temporized relé. Operation pilots with air (max 3,5 bar) humidified and without oil or by pre-filtered feed water. For timer model please contact technical Hytek offices.



- 5** Addolcitore singolo con 5 valvole idropneumatiche Normalmente Aperte e timer 5 piloti. Partenza della rigenerazione a tempo, volume (con contatore e opzionale), misto o tramite segnale ester no (starter remoto). Aspirazione e riempimento tramite valvola salamoia. Funzionamento piloti tramite aria compr essa (max 3,5 bar) umidificata e deoleata, oppure con acqua in ingresso (opportunamente pre-filtrata). Per il modello di timer adatto, pr ego contattar e gli uffici tecnici Hytek.
- Single softener with 5 Normally Open idropneumatic valves and 5 pilots timer. Start rigeneration in chrono mode, or volumetric mode (with optional flow meter), chrono and volume or by remote starter. Injection and brine refill by brine valve. Operation pilots with air (max 3,5 bar) humidified and without oil or by pre-filtered feed water. For timer model please contact technical Hytek offices.

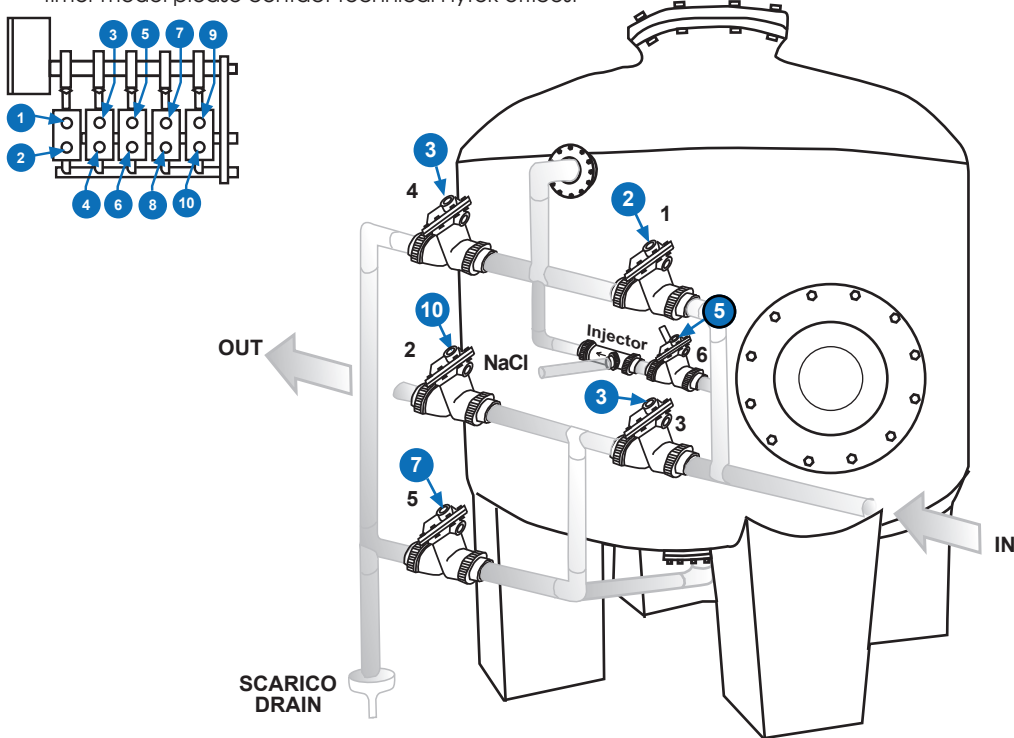


- 6** Addolcitore singolo con 6 valvole idropneumatiche Normalmente Aperte e timer 5 piloti. Partenza della rigenerazione a tempo, volume (con contatore opzionale), misto o tramite segnale esterno (starter remoto). Aspirazione e lavaggio lento tramite valvola idropneumatica. Riempimento tino salamoia tramite galleggiante esterno. Funzionamento piloti tramite aria compressa (max 3,5 bar) umidificata e deoleata, oppure con acqua in ingresso (opportunamente pre-filtrata). Per il modello di timer adatto, prego contattare gli uffici tecnici Hytek.
- Single softener with 6 Normally Open idropneumatic valves and 5 pilots timer. Start rigeneration in chrono mode, or volumetric mode (with optional flow meter), chrono and volume or by remote starter. Injection and slow rinse by idropneumatic valve. Brine refill by external float. Operation pilots with air (max 3,5 bar) humidified and without oil or by pre-filtered feed water. For timer model please contact technical Hytek offices.



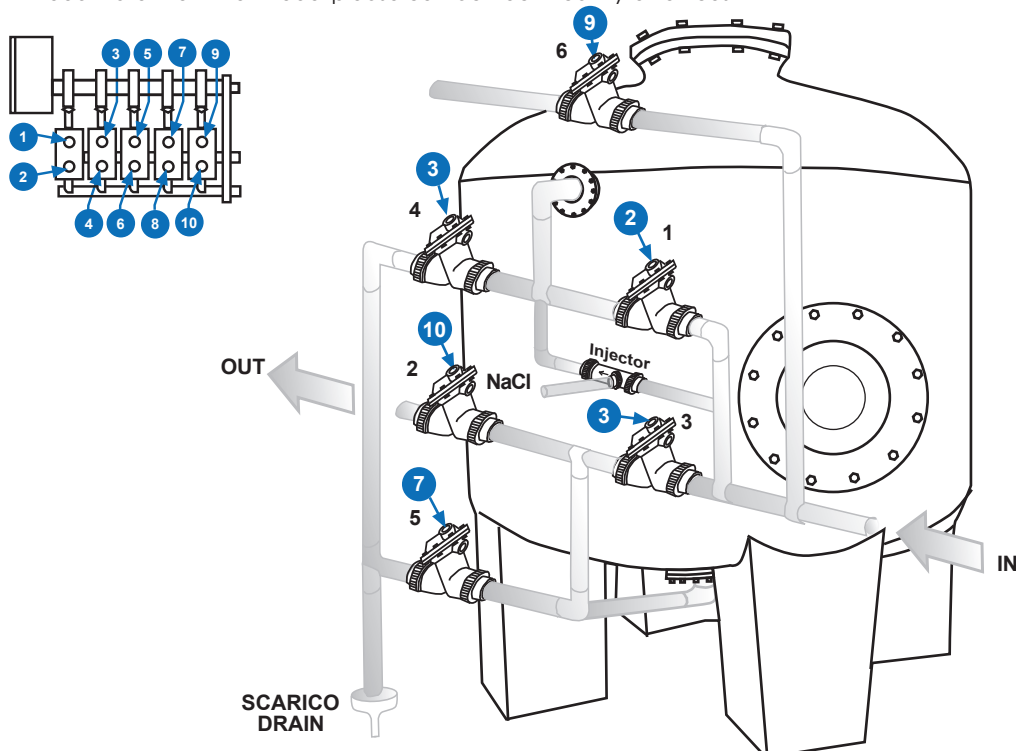
- 7** Addolcitore singolo con 6 valvole idropneumatiche Normalmente Aperte e timer 5 piloti. Partenza della rigenerazione a tempo, volume (con contatore opzionale), misto o tramite segnale esterno (starter remoto). Aspirazione e lavaggio lento tramite valvola idropneumatica. Riempimento tramite valvola salamoia. Funzionamento piloti tramite aria compressa (max 3,5 bar) umidificata e deoleata, oppure con acqua in ingresso (opportunitamente pre-filtrata). Per il modello di timer adatto, **prego contattare gli uffici tecnici Hytek.**

Single softener with 6 Normally Open idropneumatic valves and 5 pilots timer. Start rigeneration in chrono mode, or volumetric mode (with optional flow meter), chrono and volume or by remote starter. Injection and slow rinse by idropneumatic valve. Brine refill by brine valve. Operation pilots with air (max 3,5 bar) humidified and without oil or by pre-filtered feed water. For timer model please contact technical Hytek offices.



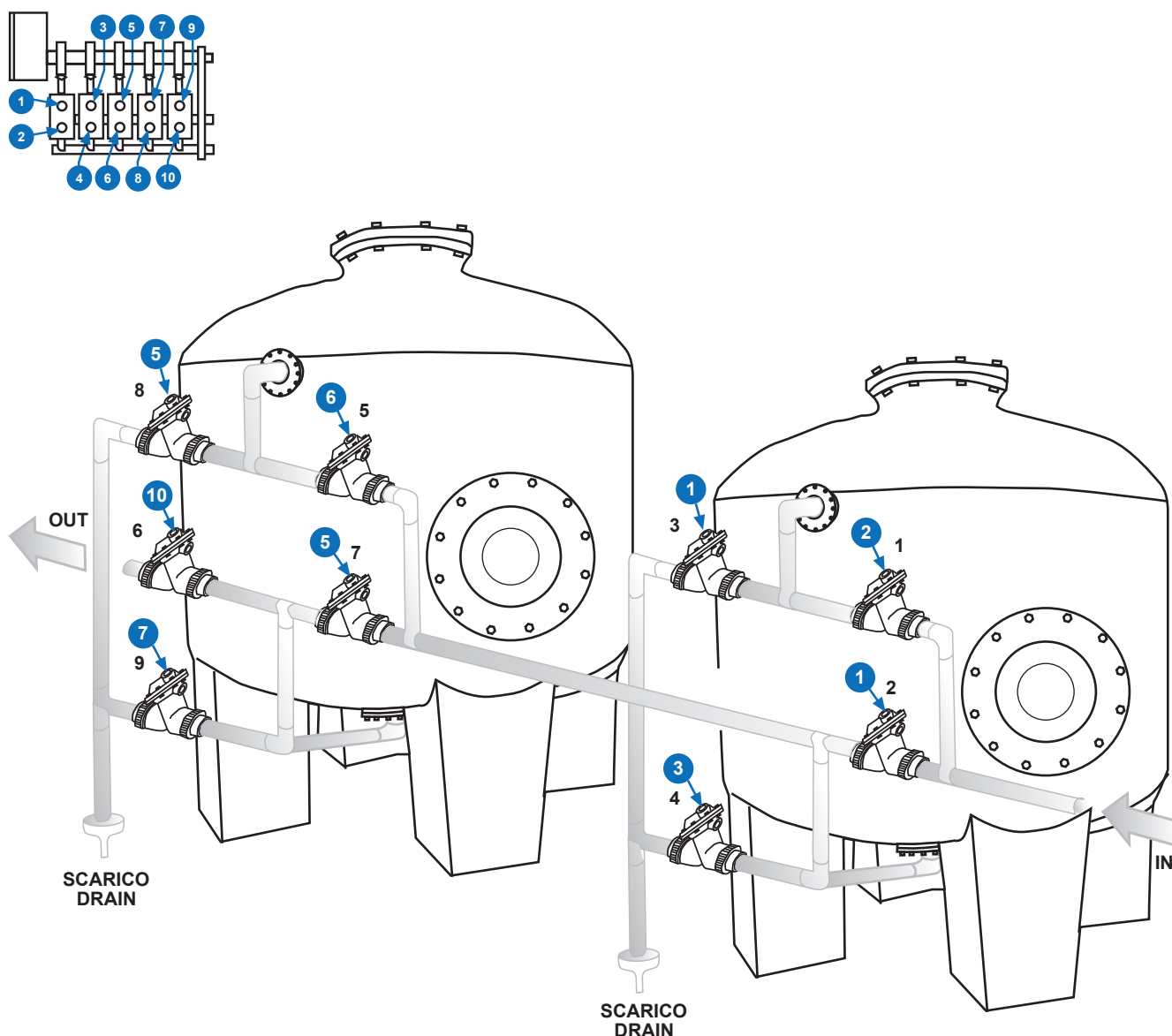
- 8** Addolcitore singolo con 6 valvole idropneumatiche Normalmente Aperte e timer 5 piloti. Partenza della rigenerazione a tempo, volume (con contatore opzionale), misto o tramite segnale esterno (starter remoto). Aspirazione e riempimento tramite valvola salamoia. By pass acqua dura in servizio durante la rigenerazione. Funzionamento piloti tramite aria compressa (max 3,5 bar) umidificata e deoleata, oppure con acqua in ingresso (opportunitamente pre-filtrata). Per il modello di timer adatto, **prego contattar e gli uffici tecnici Hytek.**

Single softener with 6 Normally Open idropneumatic valves and 5 pilots timer. Start rigeneration in chrono mode, or volumetric mode (with optional flow meter), chrono and volume or by remote starter. Injection and brine refill by brine valve. By-pass hard water at use during the regeneration. Operation pilots with air (max 3,5 bar) humidified and without oil or by pre-filtered feed water. For timer model please contact technical Hytek offices.



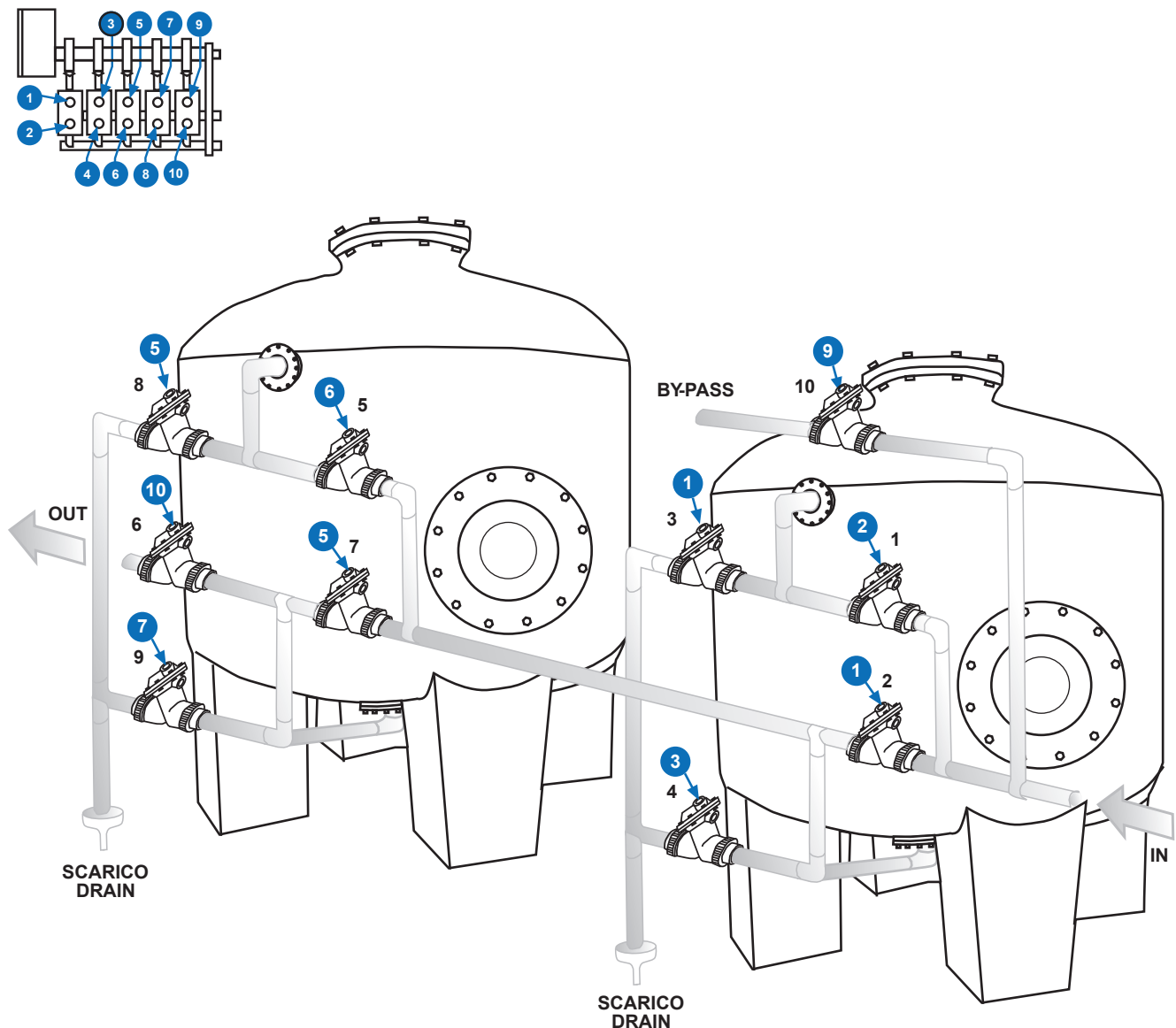
9 Filtro duplex rigenerazione in serie (controlavaggio + risciacquo rapido bombola A, controlavaggio + risciacquo rapido bombola B) con 9 valvole idropneumatiche Normalmente Aperte e timer 5 piloti. Partenza del controlavaggio a tempo, volume (con contatore opzionale), misto o tramite segnale esterno (starter remoto). Valvola idropneumatica per chiusura utilizzo (no acqua gr ezza all' utenza durante la rigenerazione). Funzionamento piloti tramite aria compressa (max 3,5 bar) umidificata e deoleata, oppure con acqua in ingresso (opportunamente pre-filtrata). Per il modello di timer adatto, prego contattare gli uffici tecnici Hytek.

Series duplex filter (backwash + rapid rinse tank A, backwash + rapid rinse tank B) with 9 Normally Open idropneumatic valves and 5 pilots timer. Start rigeneration in chrono mode, or volumetric mode (with optional flow meter), chrono and volume or by remote starter. Idropneumatic valve for closing use (no raw water at use during the regeneration). Operation pilots with air (max 3,5 bar) humidified and without oil or by pre-filtered feed water. For timer model please contact technical Hytek offices.



10 Filtro duplex rigenerazione in serie (controlavaggio + risciacquo rapido bombola A, controlavaggio + risciacquo rapido bombola B) con 10 valvole idropneumatiche Normalmente Aperte e timer 5 piloti. Partenza del controlavaggio a tempo, volume (con contatore opzionale), misto o tramite segnale esterno (starter remoto). Valvola idropneumatica per by-pass (acqua grezza all'utenza durante la rigenerazione). Funzionamento piloti tramite aria compressa (max 3,5 bar) umidificata e deoleata, oppure con acqua in ingresso (opportunitamente pre-filtrata). Per il modello di timer adatto, prego contattare gli uffici tecnici Hytek.

Series duplex filter (backwash + rapid rinse tank A, backwash + rapid rinse tank B) with 10 Normally Open idropneumatic valves and 5 pilots timer. Start rigeneration in chrono mode, or volumetric mode (with optional flow meter), chrono and volume or by remote starter. Idropneumatic valve for by-pass (raw water at use during the regeneration). Operation pilots with air (max 3,5 bar) humidified and without oil or by pre-filtered feed water. For timer model please contact technical Hytek offices.



- 11** Addolcitore duplex alternato con 12 valvole idropneumatiche Normalmente Aperte e timer Aqua Cubic Plus con distributori idraulici. Partenza della rigenerazione a volume (con contatore opzionale) o tramite segnale esterno (starter remoto). Aspirazione e lavaggio lento tramite valvola idropneumatica. Riempimento tino salamoia tramite galleggiante esterno. Funzionamento piloti tramite aria compressa (max 3,5 bar) umidificata e deoleata, oppure con acqua in Ingresso (opportunamente pre-filtrata). Per i distributori idraulici adatti, prego contattare gli uffici tecnici Hytek.
- Alternate duplex softener with 12 Normally Open idropneumatic valves and Aqua Cubic timer with hydraulic distributors. Start regeneration in volumetric mode (with optional flow meter) or by remote starter. Injection and slow rinse by idropneumatic valve. Brine refill by external float. Operation pilots with air (max 3,5 bar) humidified and without oil or by pre-filtered feed water. For the choice of hydraulic distributors please contact technical Hytek offices.

