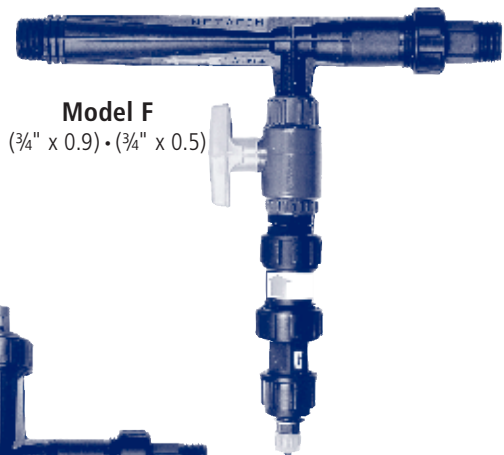


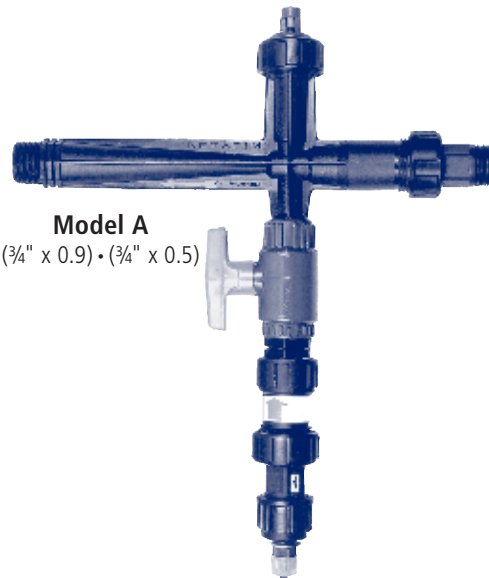
Venturi Injector

Self operated chemical injector

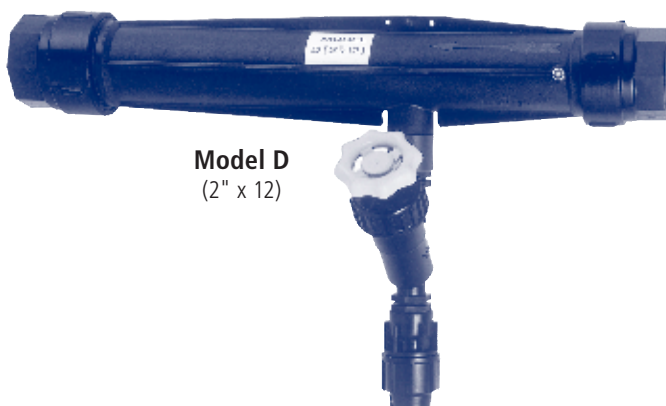
- Operated by existing water pressure
- No moving parts
- Suitable for injection up to 1800 l/h
- Fast and simple operation
- Easily connected to computer
- Adaptable to all irrigation systems
- High quality materials resistance to chemicals used in agriculture
- Regulated chemical injection



Model F
($\frac{3}{4}$ " x 0.9) • ($\frac{3}{4}$ " x 0.5)



Model A
($\frac{3}{4}$ " x 0.9) • ($\frac{3}{4}$ " x 0.5)



Model D
(2" x 12)

CHEMICAL INJECTORS

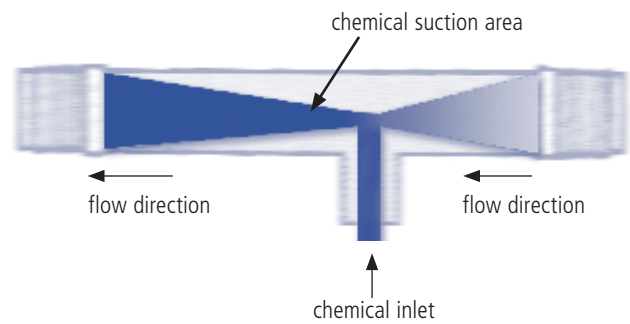
PRINCIPLE OF OPERATION

Operates on the principles of vacuum suction created by an advanced Venturi complex. This implements the latest know-how in hydraulic technology and allows the injectors to operate at small pressure differentials.

A vacuum is created as the water flows through a converging passage that gradually widens (see diagram).

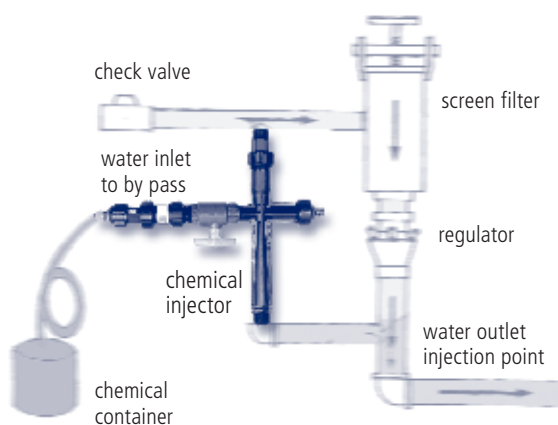
Injection is activated when there is a pressure differential between the water entering the injectors and the water, and chemical leaving to the irrigation system.

This pressure differential is between 5-75% according to the required injection rate.



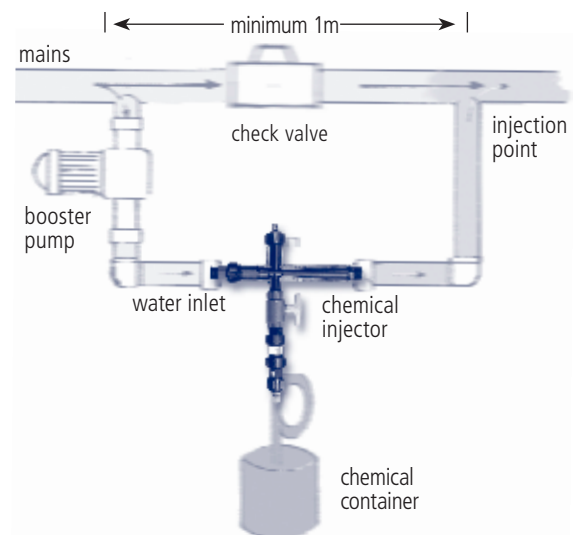
INSTALLATION

1 Installation of injector as a bypass to a filter and pressure regulator



This method is used when the pressure regulator breaks less than the minimum required pressure differential and additional desired pressure drop is provided by a filter. This installation utilizes the combined pressure drop of the filter and pressure regulator to operate the injector and is particularly suitable for drip irrigation system.

2 Installation of injector with booster pump



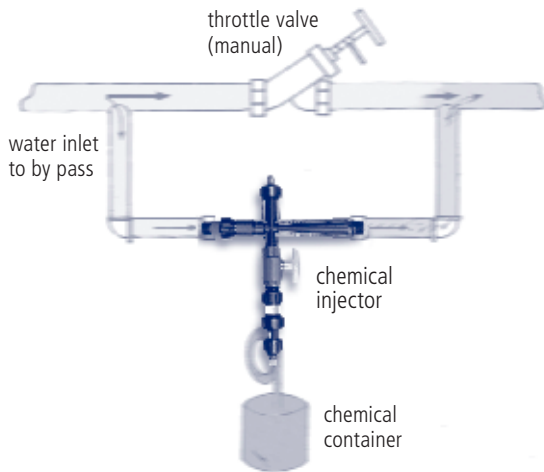
This method is used when there is inadequate or undesirable pressure drop in the mains to activate the injector. The booster pump creates additional pressure to activate the injector and prevent head loss to the system. There should be a check valve before the bypass.

SPECIFICATIONS REQUIRED FOR ORDERING CHEMICAL INJECTORS

- Minimum and maximum flow rate
- Permitted or required head loss
- Pressure at entry point of irrigation
- Flow rate of chemical to be injected into the system

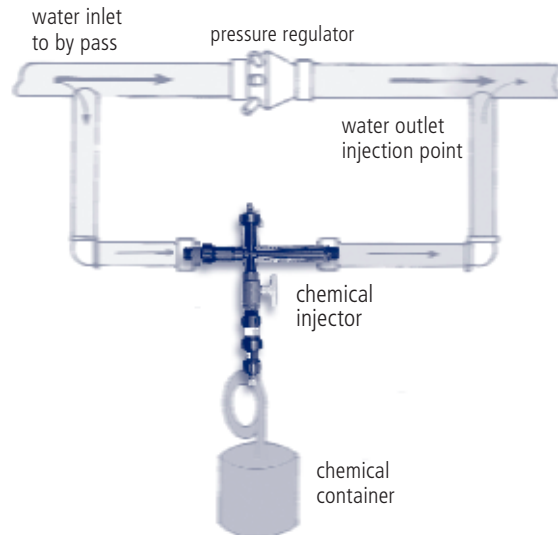
INSTALLATION

3 Installation of injector as a bypass to a throttle manual valve



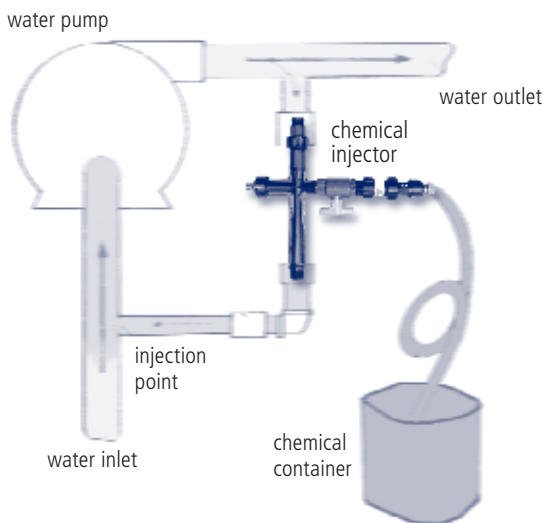
This method is based on a 30% pressure drop using the manual valve. Care should be taken to ensure that the output pressure is sufficient to operate the irrigation system.

4 Installation of injector as a bypass to pressure regulator



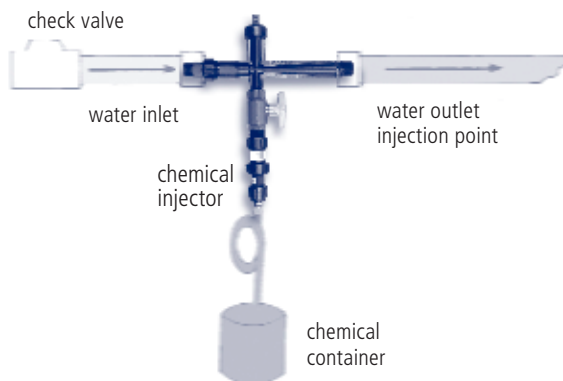
This method is based upon a sufficient pressure drop by the regulator without additional valves.

5 Installation of injector as a bypass to an existing water pump



This method utilizes existing pressure differentials and saves additional energy.

6 Installation of injector in line to the mains



This method is used in cases where the flow rate in the system is low or if pressure reduction is not a problem.

Model		A&F (¾")	D (2" x 12)
Materials	Body	H.G. polypropylene copolymer	Plastic with fiberglass fill
	Internal pieces	Chemical resistant plastic	Chemical resistant plastic
Connections	Diameter	¾" male	2"
	Thread type	Male NPT, BSP	Female NPT, BSP
Dimensions	Height (mm)	352	380
	Length (mm)	290	520

PERFORMANCE DATA

OPERATING PRESSURE		MODEL A/F ¾" x 0.5		MODEL A/F ¾" x 0.9		MODEL D 2" x 12	
Injector Inlet m	Injector Outlet m	Motive Flow l/h	Suction Flow l/h	Motive Flow l/h	Suction Flow l/h	Motive Flow m³/h	Suction Flow l/h
14	3	272	120	522	215	6.8	1953
	7	272	64	522	121	6.4	1351
	8	272	33	522	75	—	—
21	3	340	105	636	190	—	—
	7	340	105	636	190	—	—
	10	340	64	636	138	—	—
	14	317	15	636	54	—	—
28	3	386	97	726	176	9.0	1836
	7	386	97	726	176	9.0	1821
	11	386	97	726	176	—	—
	14	386	70	726	162	9.0	1856
	17	386	35	726	66	—	—
35	7	431	94	817	167	—	—
	10	431	94	817	167	—	—
	14	431	94	817	167	—	—
	17	431	86	817	167	—	—
	21	431	42	817	95	—	—
	24	431	10	817	19	—	—
42	7	476	92	885	162	10.0	1783
	14	476	92	885	162	10.8	1792
	17	476	92	885	162	10.8	1778
	21	476	91	885	158	—	—
	24	476	58	885	99	10.8	1782
49	28	476	24	885	44	—	—
	7	522	90	953	158	—	—
	14	522	90	953	158	—	—
	21	522	90	976	157	—	—
	24	522	96	976	157	—	—
	28	522	69	976	127	—	—
	31	522	38	976	61	—	—
56	35	522	4.5	953	9	—	—
	7	545	89	1044	151	12.3	1788
	14	545	88	1044	151	12.3	1778
	21	545	89	1044	150	12.2	1846
	24	545	89	1044	150	—	—
	28	545	89	1044	150	12.2	1821
	31	545	78	1044	141	—	—
	35	545	45	1044	85	12.1	1606
38	545	14	1044	31	—	—	

OPERATING PRESSURE		MODEL A/F ¾" x 0.5		MODEL A/F ¾" x 0.9		MODEL D 2" x 12	
Injector Inlet m	Injector Outlet m	Motive Flow l/h	Suction Flow l/h	Motive Flow l/h	Suction Flow l/h	Motive Flow m³/h	Suction Flow l/h
70	7	613	88	1158	141	13.8	1832
	14	613	88	1158	140	13.7	1832
	21	613	88	1158	140	13.7	1831
	28	613	88	1158	138	13.7	1816
	—	613	88	1158	138	13.7	1846
84	42	613	61	1158	125	13.7	1849
	45	613	31	1158	76	—	—
	49	613	9	1158	31	13.5	1140
	7	681	86	1294	126	15.0	1901
	14	681	86	1294	126	15.0	1892
	21	681	86	1294	126	15.0	1911
	28	681	86	1271	126	15.0	1897
	35	681	86	1271	126	15.0	1866
	42	681	86	1271	126	15.0	1861
98	49	681	68	1271	126	15.0	1876
	52	681	50	1271	121	—	—
	56	681	22	1271	72	15.0	1700
	59	681	7	1271	34	—	—
	7	726	84	1362	129	—	—
	14	726	84	1362	129	16.3	1855
	28	726	84	1362	129	16.3	1851
	42	726	83	1362	129	16.3	1841
	49	726	83	1362	128	16.3	1831
	56	726	83	1362	128	16.3	1841
98	59	726	67	1362	128	—	—
	63	726	46	1362	110	16.3	1846
	66	726	26	1362	64	16.2	1686
	70	726	5	1362	28	16.2	1319

- Test on ¾" model was carried out with 12 mm pick-up hose.
- Test on 2" model was carried out with 25 mm pick-up hose.
- Table applies only if pipe supplied with kit is used and height of tank is the same as the Injector.
- All data based on C.I.T (Center for Irrigation Technology California) testing.