# Technical Data

## Injectors >

### > Venturi

Code	Description	Coup. Ø	Fert. asp. l/h	DESCRIPTION:
0IV010	S112R aspiration kit <sup>•</sup>	3⁄4″	12÷162	Application
0IV011	S113R aspiration kit•	1″	90 ÷ 460	Fertirrigation system by Venturi nozzle Features
0IV012	S114R aspiration kit*	1″½	105 ÷ 1.020	By-pass injection system To work at best it needs a weight
0IV013	S115R aspiration kit•	2″	180 ÷ 1.100	No parts in movement Sertilizers are aspirated from an By by-pass the use of a gate valv
01V020	Couplings and by-pass Venturi complete kit**	3⁄4″	12 ÷ 162	atmospheric pressure tank by Venturi hydraulic principle • % of the line pressureis required in order to get a preci pressure regulation
	Countings and by pass			Specifics
0IV022	Venturi complete kit**	1″	90 ÷ 460	Water threaded input/out
	- circuit comprete nit			Maximum working pressure: 8 bar
*Compos	sed by Venturi, flowmeter,	transparent v	vinyl hose, filter and	2 strips. PP standard injector, Materials
		in PVDF availa	able on request	Venturi body: polypropylene

in PVDF available on request

Aspiration kit with no flowmeter

Usable also with hydrocyclon system (code AFL695 - AFL696 - AFL697)

#### CHOICE OF THE CORRECT INSTALLATION

To identify the correct type of installation and the venturi model to be used, the correct model must be defined using the table according to the quantity of fertilizer to be injected and flow rate of the water in the system.

If the pressure available in the system and that necessary for its operation are lower than those indicated in the table, it will be necessary to insert a suitable booster pump, otherwise it will be sufficient to create a bypass as indicated in the figure.



#### **DESCRIPTION AND OPERATING PRINCIPLE**

Venturi injectors, having no moving parts, do not need systematic and continuous maintenance. There is a wide range of injectors built with different materials and diameters capable of satisfying the injection needs of fertilizers and acids used in agriculture. The injection capacities are such as to guarantee the management of irrigation systems with virtually unlimited flow rates, thus allowing the fertilization of even large areas to be centralized. Venturi injectors work using the hydraulic energy available in the system and often operate without the need for external energy sources according to the principle of the Venturi tube. The increase in the flow speed due to the narrowing of the pipeline and the subsequent widening of the same create a depression which, in correspondence with the derivation, causes the fertilizer to be sucked.

#### To work the Venturi system needs:

a) a different pressure between the water entering the device and the water mixed with fertilizer that is introduced into the system; the pressure difference is between 30% and 70% according to the different Venturi models and according to the pressure / flow rate; b) a guaranteed minimum flow rate, in the by-pass in which it is inserted, specific for each Venturi model.

#### **ADVANTAGES**

• Low investment and installation costs; • no external energy sources are required in most installations; • low maintenance costs; • range of materials capable of guaranteeing extreme resistance to most of the chemical agents used in agriculture.





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COMPLETE KIT COMPOSITION BY PASS AND VENTURI FITTINGS							
Assembled kit code	0IV020	0IV022					
Venturi, flow meter, vinyl tube, filter and two clamps	0IV010	0IV011					
Backnut valve FF ¾″	FVIA007	-					
Backnut valve MF ¾"	FVIA020	-					
Backnut valve MF 1" (nr 2 pieces)	-	FVIA021					
Threaded elbow MF 3/4"	RG0211	-					
Threaded elbow MF 1" (nr 2 pieces)	-	RG0172					
Elbow F 20 x ¾"	RGOA082	-					
Fitting F 20 x ¾"	RGFA023	-					
Reduced sleeve 1" x ¾"	-	RMR052					

COMPLETE VIT COMPACITION DV DACC AND VENTURI FITTINCO

1″1/2 2″ Pressure 3/4″ 1″ **Flow through Flow through** Flow through Flow through injector injector Output Aspiration Aspiration Aspiration injector Aspiration Input injector l/h l/h mH20 mH20 l/h l/h l/h l/h l/h l/h 20 10,0 1.310 165 4.295 290 7.050 700 10.250 710 12,5 115 4.295 440 10.250 630 20 1.310 157 7.050 20 15,0 1.310 53 4.295 30 7.050 130 10.250 275 10,0 185 4.647 7.860 11.080 25 1.505 352 750 700 11.080 25 15,0 1.505 155 4.647 220 7.860 610 675 11.080 25 17,5 1.505 95 4.647 80 7.860 370 475 30 15,0 1.625 185 5.070 335 8.200 750 12.025 700 30 20,0 1.625 130 5.070 160 8.200 450 12.025 625 30 22,5 1.625 62 5.070 22 8.200 250 12.025 425 35 20,0 1.740 180 5.380 310 9.070 12.945 700 720 35 25,0 1.740 105 5.380 85 9.070 12.945 400 550 1.740 9.070 35 27,5 40 5.380 0 130 12.945 222 40 20,0 1.870 200 5.727 365 9.750 750 13.960 700 40 25,0 1.870 175 5.727 250 9.750 700 13.960 690 40 27,5 1.870 125 5.727 135 9.750 500 13.960 625 40 30,0 1.870 77 5.727 27 9.750 320 13.960 430



