

Round Transvectors

Air Amplifiers for Vacuum, Blowoff, Cooling or Conveying



Round Transvectors® use a small amount of filtered compressed air to deliver a large airflow for a wide range of conveying, ventilation, drying and cooling applications.

The high-flow, bladeless blowers don't require machine guards and are especially useful for removing metal chips and scrap, ventilating fumes or smoke, and conveying small parts, pellets, powders and dust.

As a vacuum or blowoff device, these air amplifiers are more compact and less expensive than variable-speed blowers and fans, provide instant on/off performance, and operate at low noise levels to meet OSHA requirements. Round Transvectors® are easily mounted and, with no moving parts to wear out or break, are virtually maintenance-free. Used in ducted and unducted applications, Round Transvectors® are available in several sizes, in both aluminum and stainless steel, and can deliver flow rates from 32 to 2300 SCFM.

Instant on/off —
no moving parts

Airflow and output
easily adjusted

No guards or safety hazards

Quiet — meets OSHA noise
requirements

Easily mounted, ducted
and moved

Outperforms venturis
and ejectors

No electricity, explosion
hazard or RF interference

APPLICATION

notes

When the vacuum from an electric motor blower proved ineffective, a label manufacturer opted for the strong suction of a #904 Round Transvector to pull away paper trim scrap from a die cutting operation.

A facility producing plastic body side moldings for the automotive industry increased production by installing two #903 Transvector air amplifiers - one to remove moisture after a water bath, and the second to pull away edge trim for recycling.

Each welding station at a wrought iron furniture assembly plant is equipped with #904 Transvectors to ventilate smoke and fumes.

One of the leading pharmaceutical companies uses #902XSS Stainless Steel Transvectors to weigh sort drug capsules after filling. The precise suction lifts away only those capsules that failed the filling process, while the heavier, filled pieces move on to packaging.

CNC routers at a New England kitchen cabinet company have #903 Transvectors mounted near the router bit to vacuum sawdust and directly convey it to a reclamation container.

Transvectors wide range of applications include:

- ◆ Convey any material that can be moved in an airflow including grain, plastic pellets, sawdust, powder, capsules, metal chips, paper and cloth trim, lint, dust, small parts, stamping scrap and lead shot.
- ◆ Ventilate and exhaust welding, soldering and machine smoke, auto exhaust, plating tank fumes and other gases.
- ◆ Cool, clean or dry molded parts, castings, food products, etc.
- ◆ Weigh sort pharmaceuticals and other light materials.



Round Transvectors

Performance Specifications

MODEL NO.	AIR CONSUMPTION				AMPLIFICATION	DUCTED OUTPUT
	80 PSIG (5.5 BAR) (SCFM)	(SLPM)	100 PSIG (6.9 BAR) (SCFM)	(SLPM)		
901B	7	192	8	235	4:1	32 SCFM (906 SLPM)
901XSS	8	212	9	255	5:1	45 SCFM (1358 SLPM)
902/902XSS	15	411	17	482	12:1	204 SCFM (5773 SLPM)
903/903XSS	21	583	25	708	19:1	475 SCFM (13443 SLPM)
904	58	1633	71	2012	20:1	1420 SCFM (40186 SLPM)
905	107	3028	117	3311	20:1	2340 SCFM (66222 SLPM)

All flows are at the standard factory setting. Flows are adjustable on the stainless models via rotation of the outlet "barrel". Flows are adjustable on the other models via shim substitution. Reducer adapters available for inline configuration.

Transvector Dimensions

MODEL NO.	THROAT DIAMETER MIN I.D.	SUCTION END DIAMETER	OUTLET DIAMETER O.D.	COMPRESSED AIR INLET PORT
901B	0.40"	0.75"	0.75"	1/8"
	10mm	19mm	19mm	NPTM
902	0.79"	1.75"	1.25"	1/4"
	20mm	44mm	32mm	NPTF
903	1.57"	2.75"	2.00"	3/8"
	40mm	70mm	51mm	NPTF
904	3.00"	5.00"	4.00"	1/2"
	76mm	127mm	102mm	NPTF
905	5.00"	7.00"	8.00"	3/4"
	127mm	178mm	203mm	NPTF

Transvector models are aluminum, except the 901B is brass construction.

Stainless Steel Transvector Dimensions

MODEL NO.	THROAT DIAMETER MIN I.D.	SUCTION END DIAMETER	OUTLET DIAMETER O.D.	COMPRESSED AIR INLET PORT
901XSS	0.39"	1.00"	0.79"	1/8"
	10mm	25.4mm	20mm	NPTF
902XSS	0.79"	1.50"	1.18"	1/4"
	20mm	38mm	30mm	NPTF
903XSS	1.57"	2.50"	1.97"	3/8"
	40mm	63.5mm	50mm	NPTF

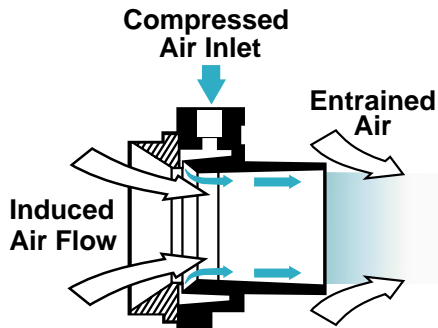
Significantly smaller and less expensive than variable-speed blowers or fans

In ducted applications, Round Transvectors can be used to transport metal chips and shavings, sawdust, powders, grains, small parts, and almost any material that can be conveyed in a flow of air. Simply calculate the total flow you will require and specify a model that will meet that requirement. A pressure regulator can be used to control the flow rate of material, or shims of various thicknesses are available to also modify air flows.



Round Transvectors

TECH notes



Transvectors use the impulse principle to achieve amplified airflows. When compressed air enters the Transvector, it fills a chamber that has only one exit path – a 0.002" (0.051mm) annular orifice. As the air is forced out of the orifice, it accelerates and collides with surrounding air entraining a great volume of free, ambient air. The result is a large volume of output air in return for a small amount of compressed air.

Stainless steel models are ideal for applications where purity, corrosion, abrasion or heat is a concern.

Stainless steel versions are fully adjustable simply by rotating the barrel of the outlet. A shoulder on each end of the Transvector will allow for mounting and clamping hose or tubing. For inline configurations, the following reducing adapters can be ordered:

Model No.	Inline Mounting Adaptors
996	Reducer for Model #902 (Aluminum Body) 1 3/4" x 1.25"
997	Reducer for Model #903 (Aluminum Body) 2 3/4" x 2.00"



As a ventilating device, Round Transvectors are highly effective in drawing off welding and machining smoke, engine exhaust and other pollutants, as well as purging tanks and confined spaces of explosive or toxic fumes.

More Compact and Less Expensive than Variable Speed Blowers or Fans

In unducted applications, Transvectors deliver amplification ratios of 60:1, creating a powerful and concentrated flow of air for cooling or drying from a relatively small amount of compressed air. Unlike motor-driven fans and blowers, Transvectors have instant on/off cycling capability for equipment and applications requiring intermittent vacuum, blowoff or conveying.

