



aeroDin

COANDĂ EJECTORS
for INDUSTRIAL USE

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HIGH FLOW INDUCED WITH NO MECHANICAL MOVING PARTS

Coanda Nozzles are fluidic transformers, similar to the electrical transformers, that are supplied by high pressure & lower flow in order to get lower pressure & high induced flow.

The input flow is supplied by a fan, blower, other supersonic ejector, compressor or a steam tank.

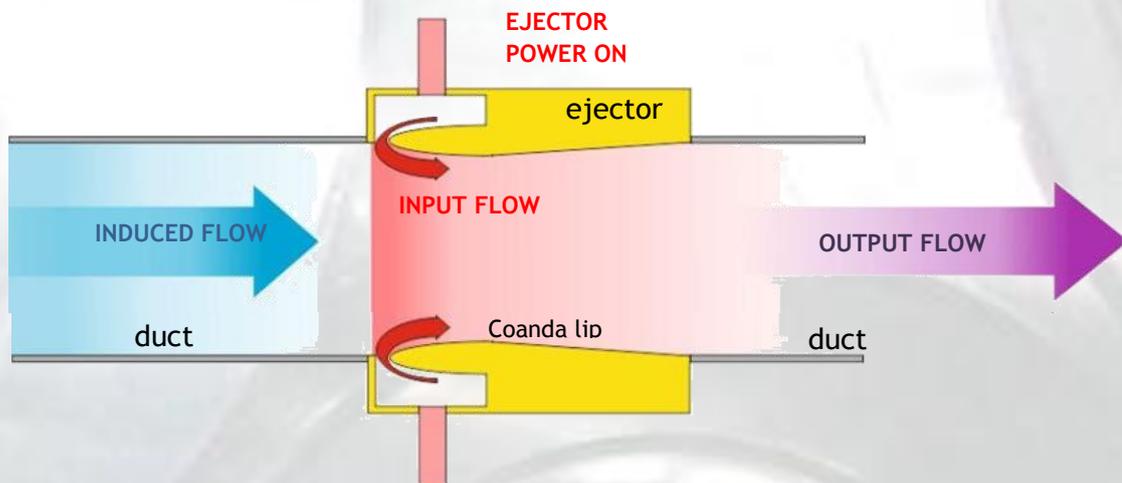
Coanda divergent wall is generating up to 90% vacuum, over a very small surface named “Coanda lip”, therefore the high flow having low pressure are induced by the Coanda ejector without any mechanical moving parts such propeller, fan, blower or other blade devices.

HOW COANDA EJECTOR WORKS

Coanda ejector is a geometric device, having no moving parts, that create an induced flow using an input fluid flow coming from high velocity fluid device. The common working fluid is air.

The Coanda ejector (yellow) is coupled to an existing diameter flow duct.

As soon as the ejector is powered on, a vacuum is created (red zone) and an induced flow appear.



WORKING PARAMETERS

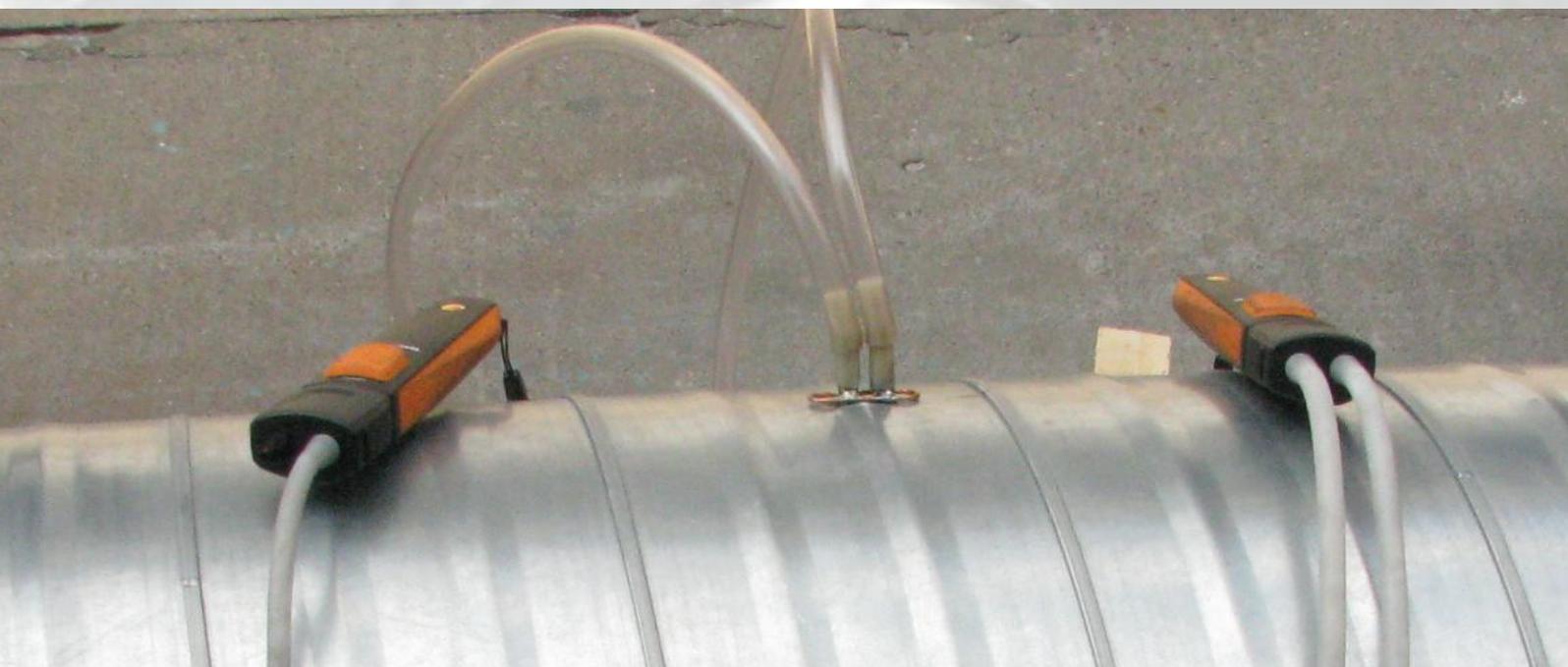
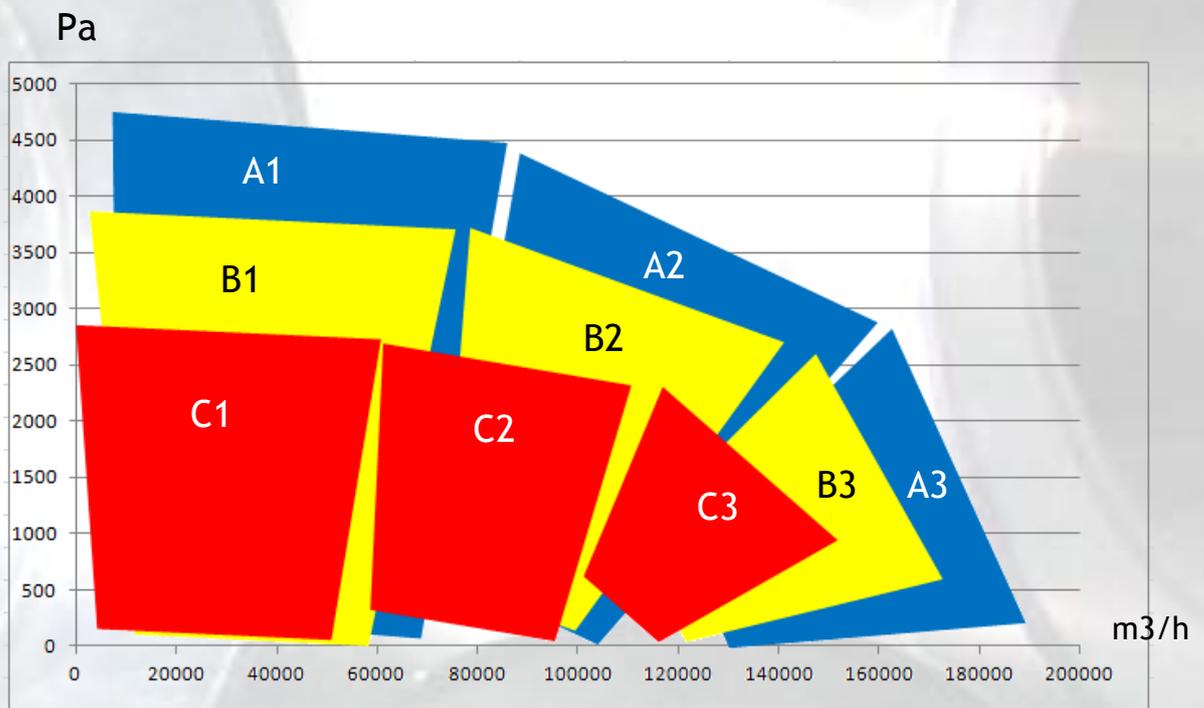
Aerodin Coanda ejectors are designed in any configuration in order to induce any flow.

In order to have an industrial use we may provide any configuration working on standard ducts having diameters: 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250mm and more.

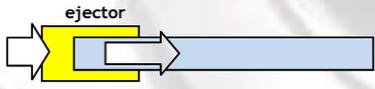
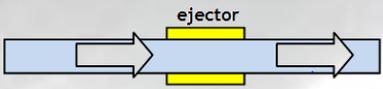
Duct diameter [mm]	160	200	250	315	400	500	630	800	1000	1250
Output max. flow [m3/h]	2262	3534	5522	8767	14137	22089	35069	56549	88357	138058

Ejection Induced flow/primary flow	5-15 times	in standard configuration
	15-200 times	in special design configuration

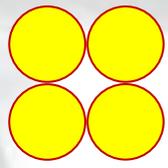
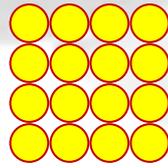
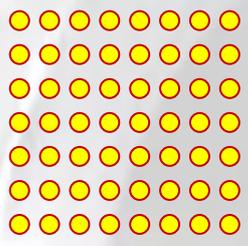
General ejectors series diagram <flow [m3/h] vs pressure [Pa]>, are presented as follows:



Coanda ejectors (yellow) may be used as a pusher or as a suction device in a duct system.

START duct configuration	MIDDLE duct configuration	FINAL duct configuration
		
push pressure work	push and suction flow works	suction flow work

Depending of the duct size, flow, suction pressure and the geometric design, the ejector may work single or in group of 4th, 16th or 64th ejectors.

			
single ejector	group of 4th ejectors	group of 16th ejectors	group of 64th ejectors



EXHAUST & VENTILATION:

- ✓ **Exhaust of toxic waste air:** paint vapours, alcohol vapours, glues & adhesives vapours, combustion vapours, chemical toxic corrosive vapours, dejection emissions, smoke, auto emissions etc.
- ✓ **Exhaust of the air wasted with small particles:** dust, ash, rubber powder, plastic powder, cement powder, wood powder, paper powder, flour, detergents, washing powder, mines stone powder, carbon powder, medical powder etc
- ✓ **Exhaust of the heating gases:** hot air, combustion gases, hot gases etc

PASSIVE NOISE REDUCTION DEVICES:

- ✓ Industrial high pressure escapes used to reduce noise of an air and steam pressure coming out from pressure tanks,
- ✓ High pressure jet in order to reduce the noise level
- ✓ Combustion engine in order to reduce the noise level, but having a good amelioration of the output power of the engine

VACUUM CLEANERS & ASPIRATORS:

- ✓ Rising, loading-unloading and storing agricultural seeds
- ✓ Vacuum systems for dust, sand & gravel, leaves and snow from parks and walking roads.

BURNERS:

- ✓ The flame of the Coanda nozzle has a superior thermal potential having sky blue colour.
- ✓ Coanda flares, new generation, using at petroleum sea/ocean platforms

SPRAYING DEVICES:

- ✓ Allows to mix small liquid particles inside a volume of a gas in order to have commercial devices for landscapes, roadsides, agriculture and protection of the the public's health worldwide
- ✓ artificial snow and high surfaces painting tools

VACUUM PUMPS:

- ✓ Industrial and home vacuum generating and maintaining systems.

THRUSTERS:

- ✓ AIR: Unmanned aircrafts vehicle and systems for civil works
- ✓ WATER: Underwater thrusters without any mechanical devices.

**INDUSTRIAL SPACES, VENTILATION, AUTO INDUSTRY, HOSPITALS,
AEROSPACE, MINING, PETROLEUM INDUSTRY, AGRICULTURE, NAVY**

aerodin

Calea Văcărești 340, București - ROMÂNIA
contact@aerodin.ro www.aerodin.ro