



**Sednove**  
Non nova, sed nove

## New ejector technology

### Water treatment applications

- by-flow = air: aeration, removal of radon and hydrogen sulfide
- by-flow = ozone: disinfection
- by-flow = oxygen: oxygen concentration management in aquaculture such as fish and algae farming

### Other applications

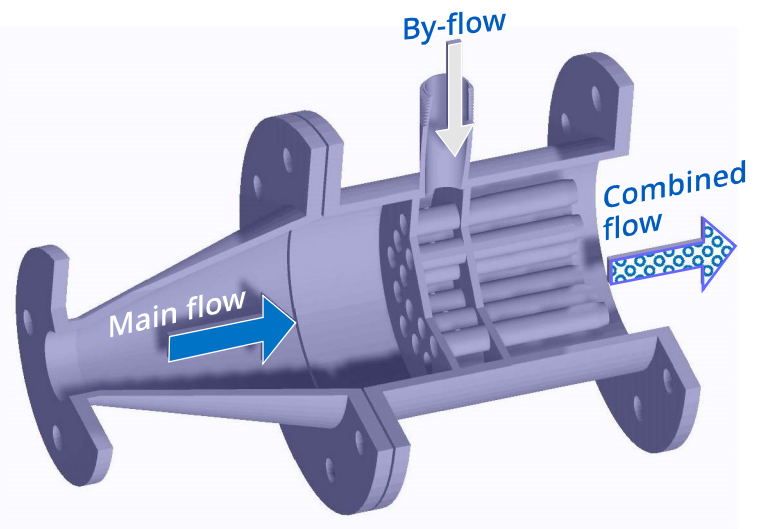
- food industry
- bio- and cleantech
- emulsion and flocculation processes
- chemistry and petrochemistry
- control of concentrations

"Non nova, sed nove" i.e. under the sun nothing new, but new anyway

## Suitable for many purposes

Sednove celluralized ejectors provide effective physical method for mixing fluids, gases and vapours.

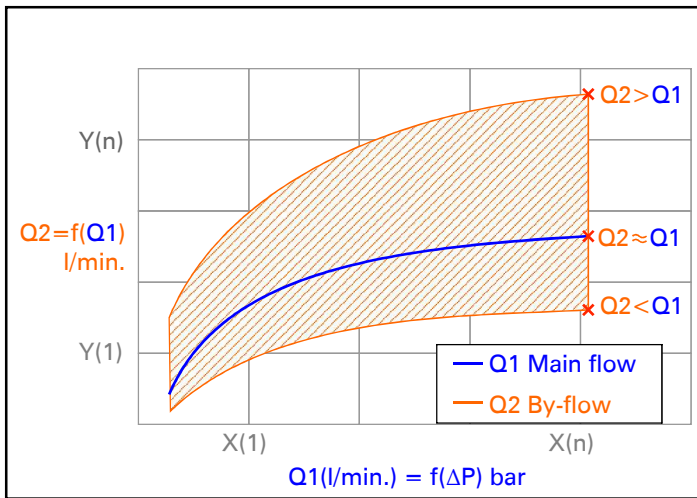
Proper selection of materials enables the usage of ejectors in high temperatures and with aggressive substances. Suitable food contact materials are also available.



## Easy to scale

Processing methods based on the Sednove ejector cell accelerate the reaction times of several processes. This is based on a vacuum where micro-sized gas bubbles and droplets form a large reaction area. The aero and hydrodynamic properties of the process are customizable to each application and the capacity can easily be modified from laboratory conditions to industrial scale.

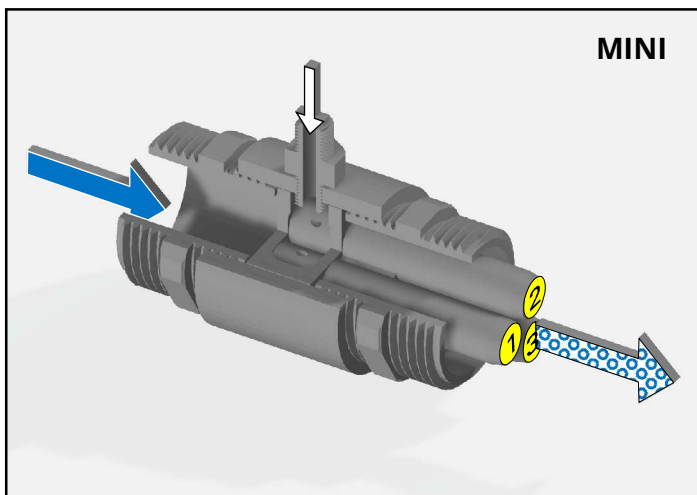
## CHARACTERISTICS



The range of capacity of the by-flow  $Q_2$  with different ejector characteristics is illustrated by way of an envelope curve in the enclosed diagram. The capacity of the main flow  $Q_1$  is described as a function of the pressure difference  $\Delta P$  across the ejector.

Ejector cell can be characterized and analyzed by flow calculation. Crucial to the dimensioning of the functions is to know the physical properties of the media used, such as viscosity, temperature and pressure dependences. In addition, the determination or evaluation of the desired reaction target must be performed e.g. by experimental use on a laboratory scale.

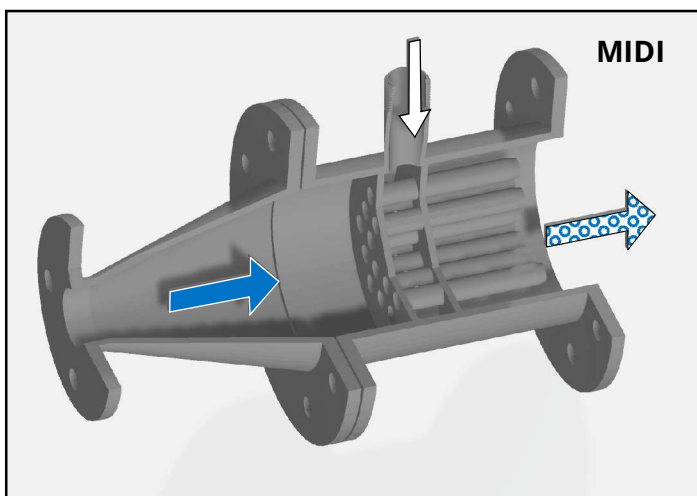
## MODELS



The capacity requirement affects also the implementation of the ejector cell as described in the pictures. The capacity values of main flow are given for water and they are illustrative. The capacity of the by-flow depends on the phase of the substance and the desired end result. The by-flow can be either free-breathing, i.e. vacuum-suctioning or pressurised to increase flow capacity.

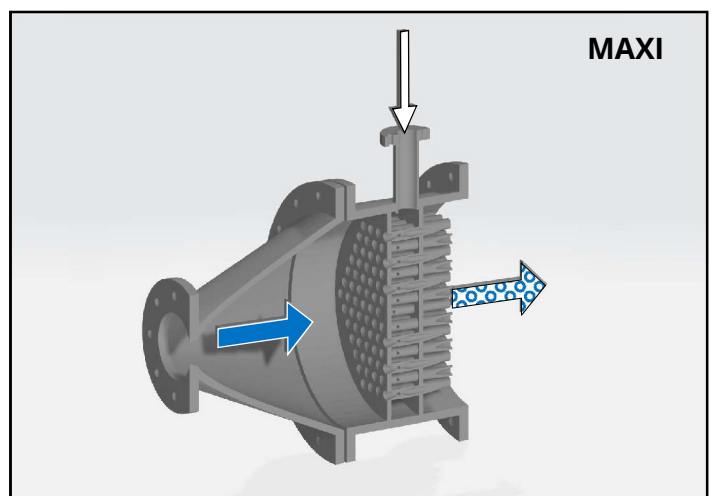
### MINI

- number of flow channels 2 ... 5
- capacity of main flow 50 ... 80 l/min (water)



### MIDI

- number of flow channels 6 ... 18
- capacity of main flow 50 ... 300 l/min (water)



### MAXI

- number of flow channels 36 ... 450
- capacity of main flow 500 ... 6000 l/min (water)