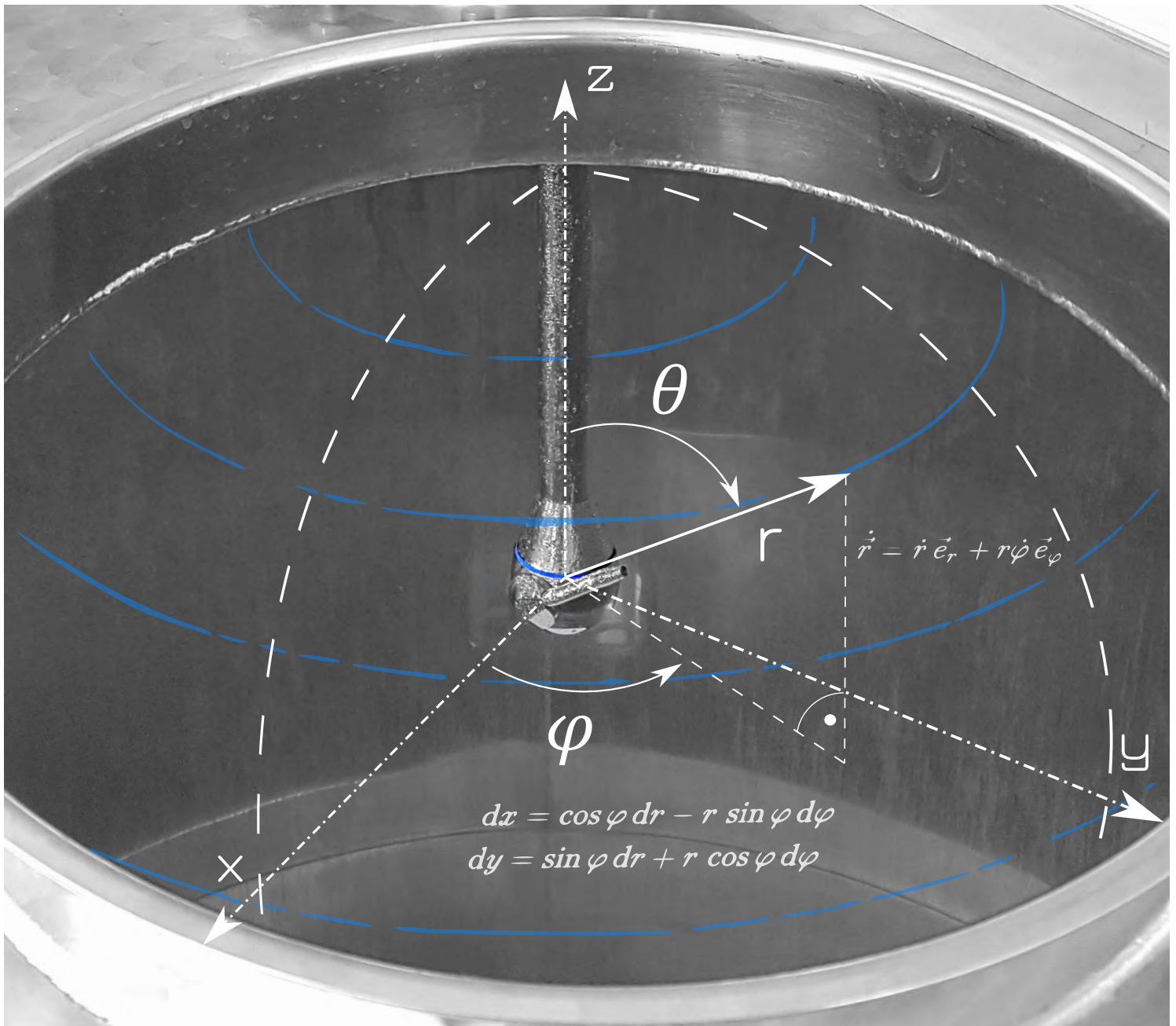


# Datasheet

## A.J.C. - Adaptive Jet Cleaner



## Datasheet

### A.J.C. - tank cleaning robot

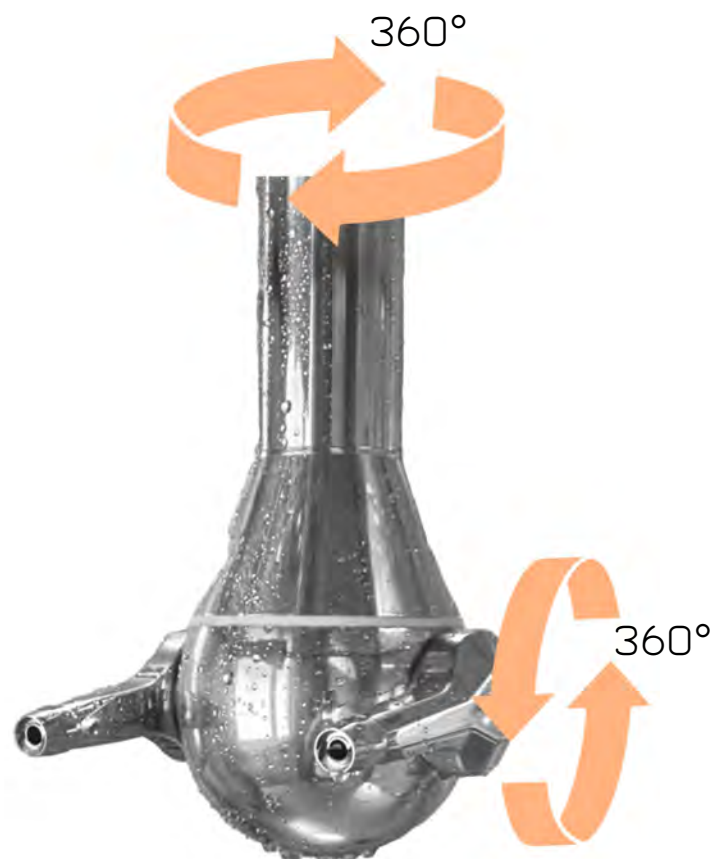
#### Faster and safe tank cleaning using controlled jet motion

The cleaning of large and stubbornly soiled tanks is usually carried out with rotating jet cleaners. These cleaning systems have the disadvantage that the path of movement is set by the gear ratio. This means that a need-based or adaptive cleaning within the scope of industry 4.0 is not possible.

In order to make the cleaning process more effective and efficient, an adaptive jet cleaning system with two independently driven axes has been developed. The adaptive jet cleaner (AJC) is able to perform customized, heavy-duty cleaning tasks. Especially critical points like tank connectors, manholes, agitators and dried deposit due to the liquid level are effectively cleaned by user defined cleaning motions. It is not difficult to imagine that this patented technology enables significant time and resource savings in cleaning. An Efficiency investigation has figured out that the Adaptive Jet Cleaner is able to reduce the cleaning time up to 60 %.

#### Characteristics

- 360° coverage of the tank with user defined cleaning motion
- intelligent drive concept with independent control of all axis
- specially cleaning of critical points like tank connectors, manholes, agitators and dried deposit due to the liquid level
- easily mount
- hygienic, compact design with self cleaning function
- fluid does not flow through the gear or similar

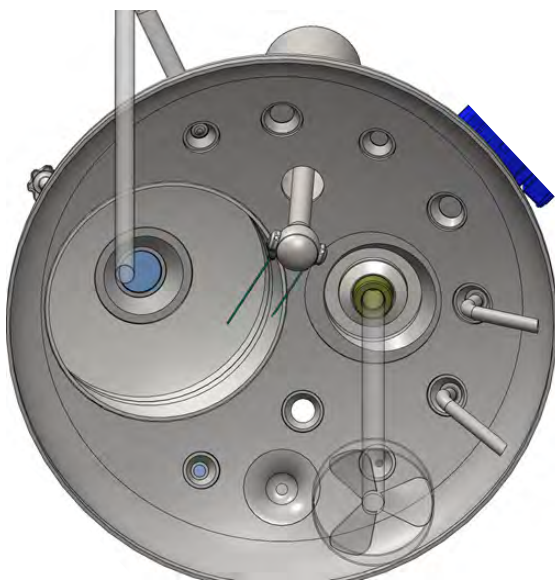


## Datasheet

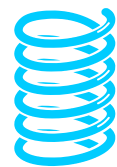
### A.J.C. - tank cleaning robot

#### user defined cleaning process

Consistent with the hardware of the AJC, a software for fast implementation in process plants has been developed. The software allows the operator to enter the dimensions of the cleaning environment as well as its geometrical characteristics (critical points) and to define individual cleaning paths.



#### predefined movements



helix pattern

- defined cleaning from top to bottom



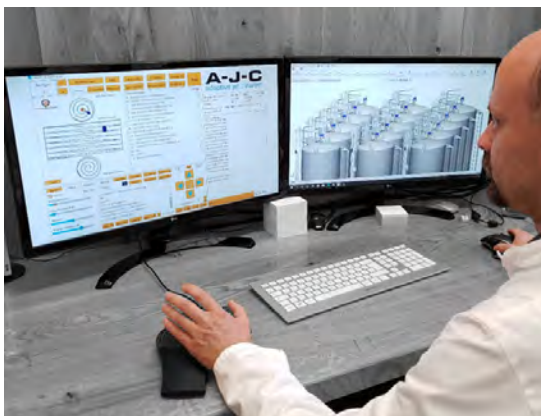
spiral pattern

- defined cleaning of connectors, manholes or similar



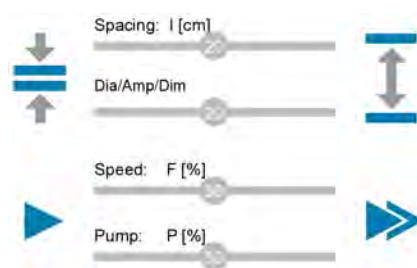
rectangle pattern

- for areas, where a meandering movement is needed



Parameters like path clearance and velocity are free adjustable!

e.g., take low velocity and narrow paths in areas of heavy deposits.





## Datasheet

### A.J.C. - tank cleaning robot

#### Product data

pressure range *	0 - 160 bar (0-2321 psi)
cleaning diameter	up to 30 m (98,5 ft)
flow rate depending on nozzle and model	1,4 - 22 m <sup>3</sup> /h (6,2 - 97 us gpm) (at 5 bar/ 72,5 psi)
fluid connection **	Rp 3/4"; Tri-Clamp
model	one or double nozzle
insertion opening **	100 or 125 mm (3,9 - 4,92 inch) tri-clamp; bolting
temperature range	+ 120 °C (248 °F)
material	stainless steel (1.4404/ 316 L) sealings PTFE ... suitable for applications requiring high chemical resistance



#### model

one nozzle



double nozzle



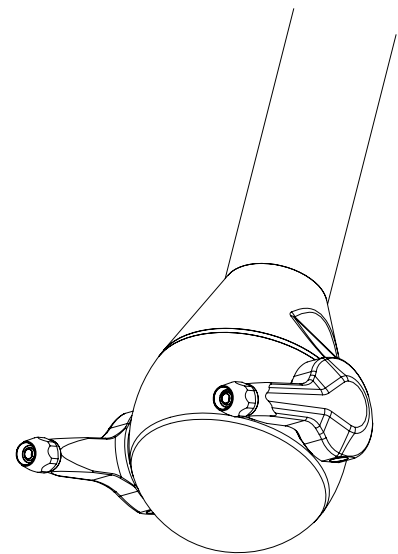
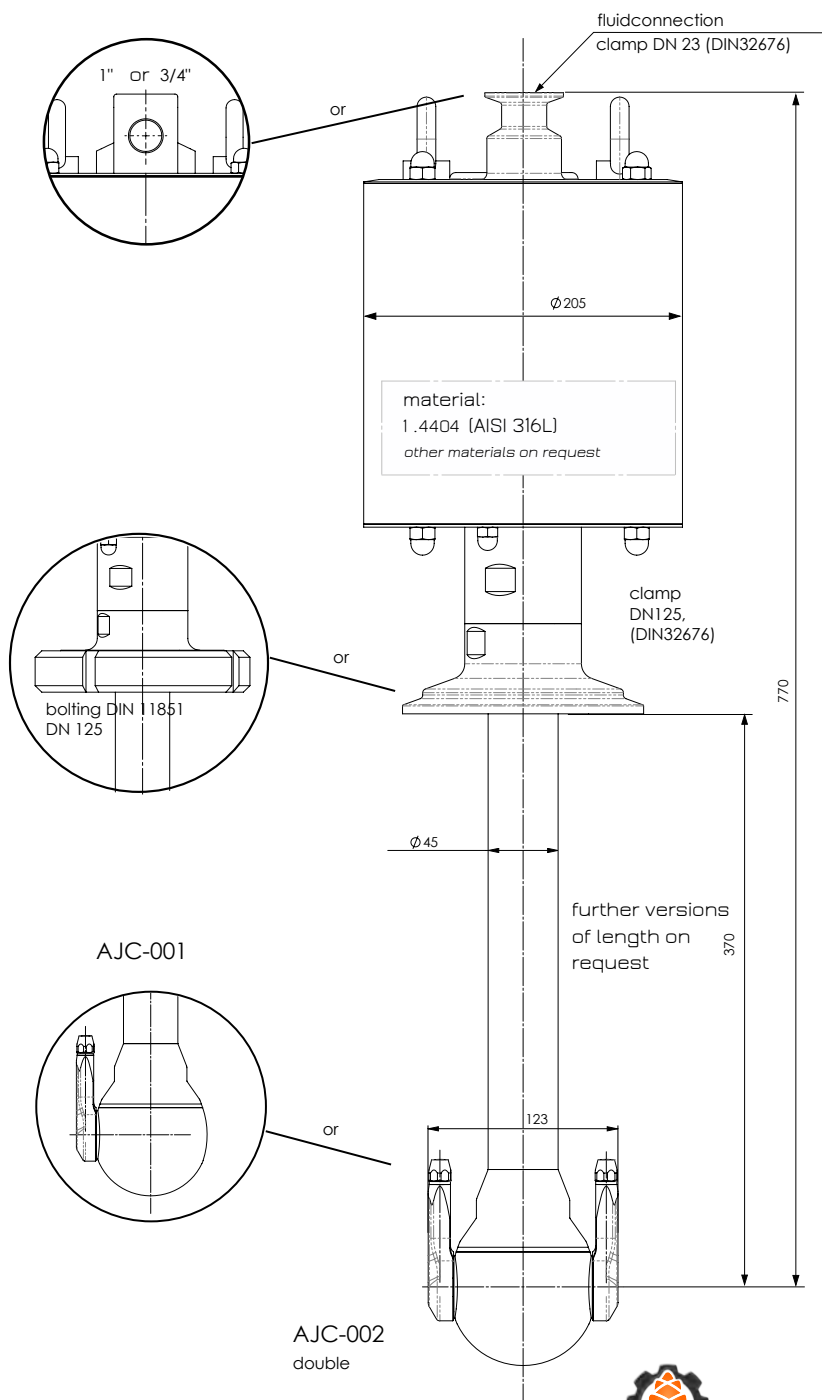
\* there are 2 types available 0-16 bar (0-232 psi); 0-160 bar (0-2321 psi)

\*\*other connection types on request

## Datasheet

### A.J.C. - tank cleaning robot

#### dimensions and connecting opportunities



calculated flow rate at 5 bar (72,5 psi)  
for nozzle units with fixed diameter

nozzle orifice [mm]	one		double	
	[m³/h]	[l/min]	[m³/h]	[l/min]
1,6	0,23	3,8	0,46	7,6
2,4	0,5	8,5	1	17
4	1,45	23,85	2,9	47,7
6	3,22	53,65	6,44	107,3
7	4,4	73	8,8	146

further nozzles on request

create ■ visions ■ together



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component manufacturing



adaptive cleaning systems

