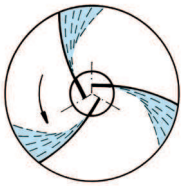
Information on Rotating Nozzles

1. Axially rotating tank cleaning nozzles



All freely, limited and fully rotating tank cleaning nozzles are self-propelled by cleaning fluid. MC‘s patent-registered brake turbine operates differently and according to the nozzle‘s bearing type.

Freely rotating nozzles

The more the cleaning fluid‘s pressure increases, the faster the nozzle rotates and the more the liquid jet disintegrates. The nozzle operates best within the recommended pressure range.

Slightly limited rotating nozzles

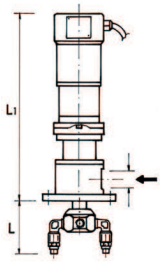
Rotation is reduced with the help of the built-in brake turbine and optimized for a large pressure range. The nozzles rotate less, while the cleaning factor increases. The nozzles are ball bearing or teflon mounted, and rotate already for less than 0.5 bar in all installation settings.

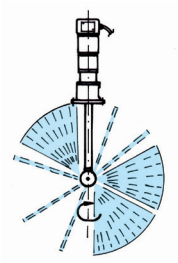
Limited rotating nozzles

With the help of a stainless steel slide bearing, MC‘s brake turbine reduces rotation to a maximum of 4-30 U/min. for a very large pressure range. The cleaning factor increases significantly.

2. Axially rotating lances - type L

Axially rotating cleaning lances are operated electronically, pneumatically or by self-propulsion, i.e. by the required cleaning fluid itself. Lance length is variable.



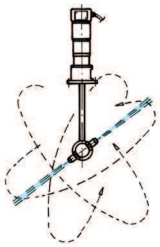


“E“ - Electronic propulsion:
A gear type motor allows for the selection of an optimized and constant rotation velocity. The velocity does not depend on flow rate the cleaning fluid‘s pressure.

“P“ - Pneumatic propulsion:
The pneumatic propulsion is explosion protected.
Rotation velocity depends on the pressure of the propelling air.
Flow rate and the cleaning fluid‘s pressure do not influence rotation velocity.

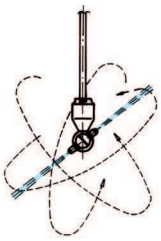
“W“ - Self-propulsion:
Rotation of the tank cleaning nozzle is propelled by the required cleaning fluid itself. Miminum and maximum flow rate, as well as pressure is necessary. Rotation velocity varies correspondingly.
For a good cleaning result it is necessary to know the pump‘s exact flow rate and pressure to allow for a precise layout of the nozzle.

3. 3D-jet cleaner lances - type L-A



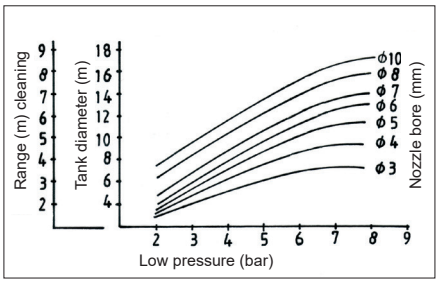
3D-jet cleaner lances are also propelled electronically, pneumatically or by self-propulsion.
Only the cleaning head‘s nozzles are rotated by force aroand the horizontal and vertical axis by means of a pair of gearwheels. Cleaning takes place overhead in a threedimensional manner.

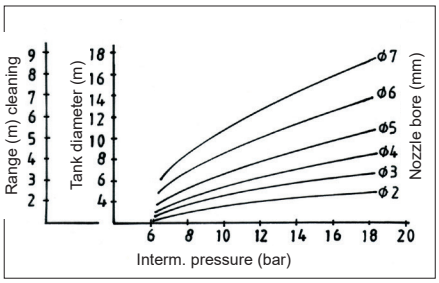
4. 3D-jet cleaner aggregates - type A

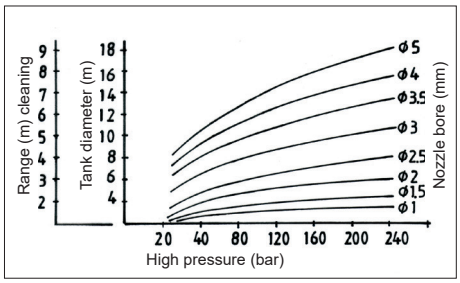


The threedimensional rotating jet cleaner tank cleaning aggregates are propelled by the cleaning fluid used. The cleaning fluid is guided by a turbine. This turbine is set to allow for a reduced rotation velocity or for the velocity reduction via an integrated planetary gear. The result is a very uniform rotation velocity and cleaning result. Rotation takes place aroand the horizontal and vertical axis by means of a pair of gearwheels. Thus, cleaning is carried out overhead in a threedimensional manner.

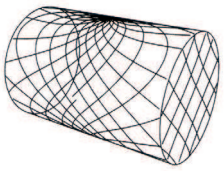
5. Spray width of 3D-jet cleaners



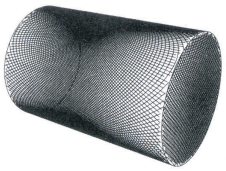




6. Functionality of 3D-jet cleaners



The nozzles rotate around two axis, allowing them to produce a rough pattern in one cleaning cycle.



After 8 cleaning cycles, the pattern is so tight that the most effective cleaning result, a complete wetting, is reached.

Subject to technical alterations!