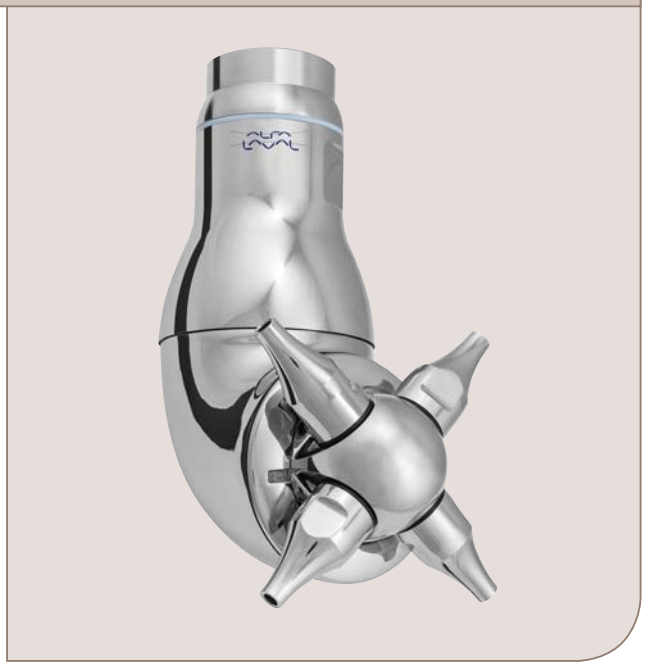
TJ40G best in class in hygienic design

Alfa Laval TJ40G Rotary Jet Head



Application

The TJ40G rotary jet head provides 3D indexed impact cleaning over a defined period. It is automatic and represents a guaranteed means of achieving quality assurance in tank cleaning. Used in breweries, food and dairy processes and many other industries with a strict demand for hygienic tank cleaning. The device is suitable for processing, storage tanks and vessels between 50 and 500 m^3 and industries that require a certain level of hygienic design.

The TJ40G is the best-in-class in hygienic design and tank cleaning performance.

Working principle

The flow of the cleaning fluid makes the nozzles perform a geared rotation around the vertical and horizontal axes. In the first cycle, the nozzles lay out a coarse pattern on the tank surface. The subsequent cycles continually bisects the coarser pattern into a denser pattern, until a full pattern is reached after 8 cycles.

Unique features

Self cleaning : The TJ40G is designed with numerous of features that ensure self cleaning of the machine, such as directional flow from small jest in the hub that cleans the exterior of the machine.
Low pressure drop : A low pressure loss over the machine provides increased cleaning efficiency compared with other tank cleaning machine running at same inlet pressure.
This result in lower cleaning cost as the unit can run at lower pressure/flow compared to other tank cleaning machines.

Available versions

- TJ40G for normal duties
- TJ40G-HD for heavy duties

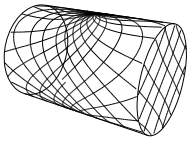
TECHNICAL DATA

Lubricant: . . . . . Cleaning liquid
Standard Surface finish: . . . . . Exterior surface finish Ra 0.5µm
Interior surface finish: . . . . . Ra 0.8µm
Max throw length (5 bar): . . . . 21.5 m
Impact throw length (5 bar): . . 10.5 m

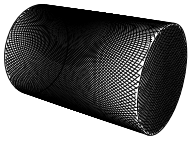
Pressure

Working pressure: . . . . . 3-12 bar
Recommended pressure: . . . . 5-7 bar

Cleaning Pattern



First cycle



Full pattern

The above drawings show the cleaning pattern achieved on a cylindrical horizontal vessel. The difference between the first cycle and the full pattern represents the number of additional cycles available to increase the density of the cleaning.

PHYSICAL DATA

Materials

AISI 316, SAF 2205, PFA, PEEK, EPDM

Temperature

Max. working temperature: . . . . . 95°C
Max. ambient temperature: . . . . . 140°C

Weight: . . . . . 6.3 kg

Options

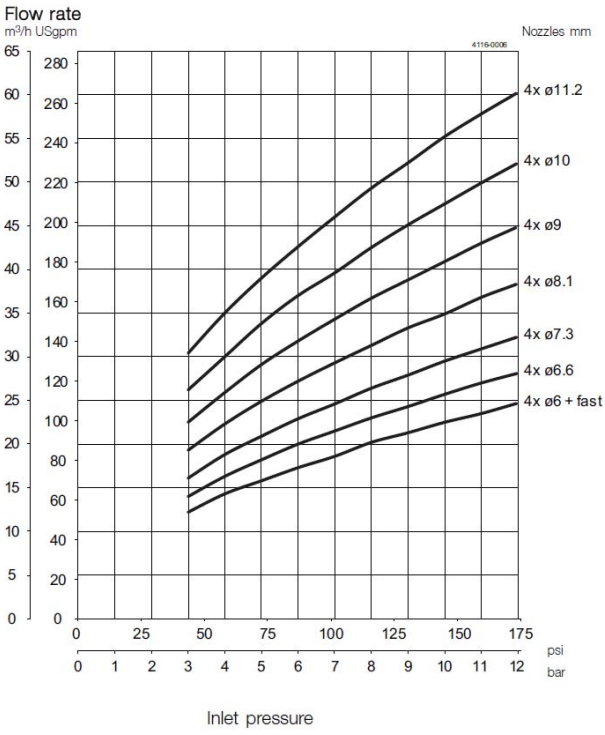
Rotacheck - Electronic rotation sensor to verify coverage

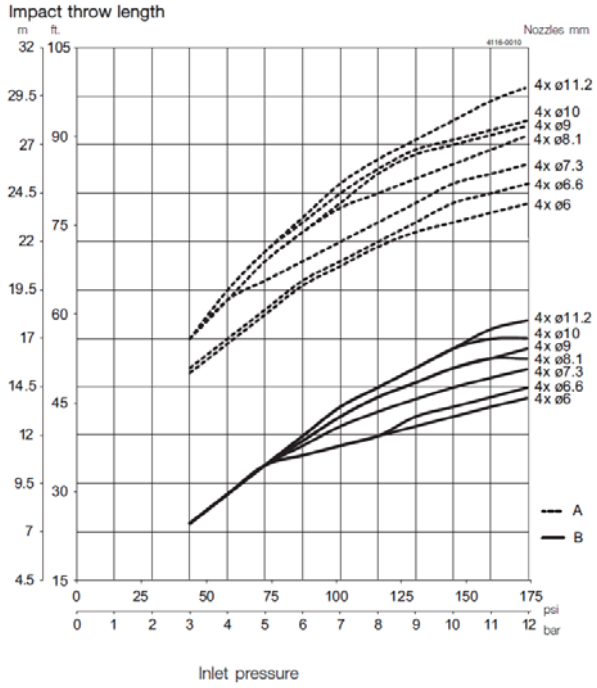
Caution

Avoid hard and abrasive particles in the cleaning liquid, as this can cause increased wear and/or damage of internal mechanism. For low amount of particles in the cleaning media a 3mm strainer is recommend for both the TJ40G and TJ40G-HD For high amount of particles in the cleaning media a 0.1mm strainer (TJ40G) and 1mm (TJ40G-HD) is recommended Do not use for gas evacuation and air dispersion

Certificates

2.2, 3.1 material certificate and ATEX



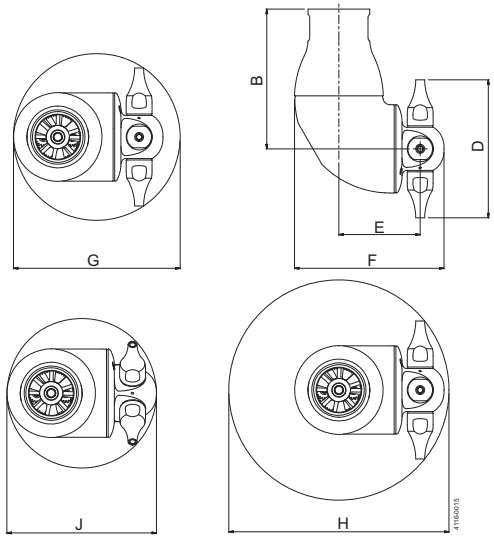


Throw length measured according to tech. specification 93P000

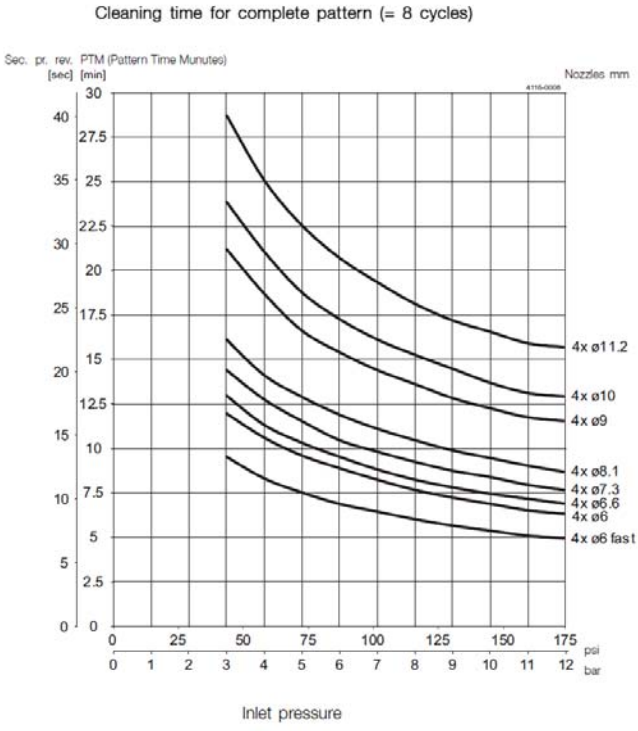
TJ40G-HD, flow at 5 bar / 72.5 PSI

4 x ø6 fast	=	17.5 (m3/h)
4 x ø6.6	=	20 (m3/h)
4 x ø7.3	=	22.5 (m3/h)
4 x ø8.1	=	26.5 (m3/h)
4 x ø9	=	31 (m3/h)
4 x ø10	=	35.5 (m3/h)
4 x ø11	=	41 (m3/h)

Dimensions (mm)



B	D	E	F	G	H	J
156	155	90.8	167	187	246	167



Standard Design

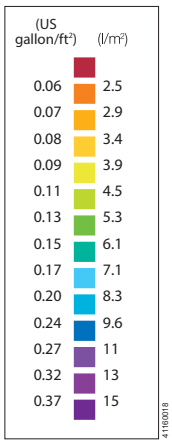
The choice of nozzle diameters can optimize jet impact length and flow rate at the desired pressure.
A Hygienic welding, female or male adaptor is available for following connections :
Welding adaptors : 2" / 2½" dairy pipes, 1½" / 2" ISO pipe, DN40 / DN50 / DN65
Female adaptors :

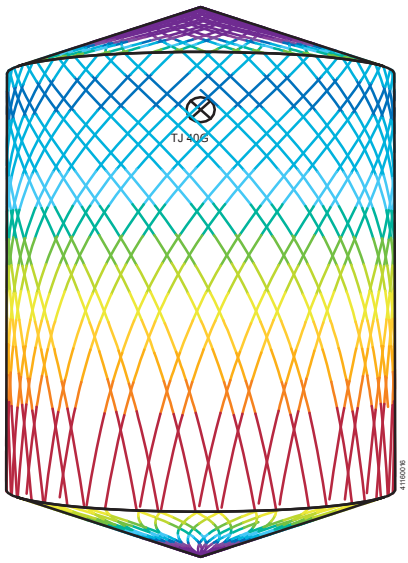
1½" BSP, 1½" / 2" NPT
Male adaptors : 1½" / 2" BSP, 1½" / 2" NPT
The hygi

enic design of the TJ40G makes it the best in class for hygienic design. As standard documentation, it can be supplied with a “Declaration of Conformity” for material specification.

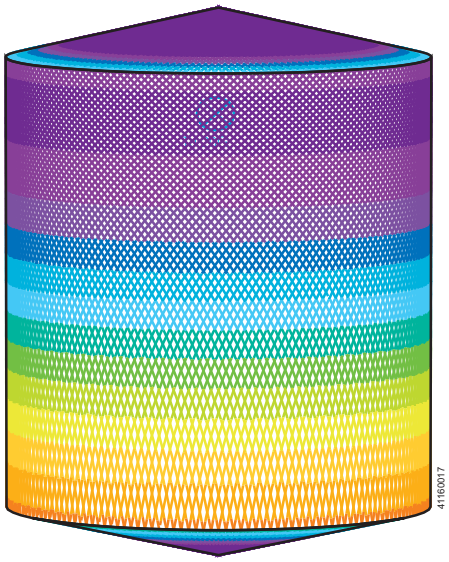
TRAX simulation tool

Wetting Intensity





D4.6m H5.5m, Toftejorg TJ40G, 4 x ø7.3 mm, Time = 2 min., Water consumption = 700 l



D4.6m H5.5m, Toftejorg TJ40G, 4 x ø7.3 mm, Time = 16 min., Water consumption = 5600 l

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How to contact Alfa Laval
Contact details for all countries
are continually updated on our website.
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access the information direct.