

**W1**

Consolidated cooling water quality:  
acc. to contract amendment no.3

temperature: 20°C - 30°C  
filter grade: 0,25 x 0,25 mm  
pH: 7,0 to 8,6  
hardness: 5,0 - 7,5 dH  
conductivity: 100 - 1000 µS/cm  
chloride: < 120 mg/l (if corrosion inhibitor is working properly /// shock chlorination possible)  
sulfate: < 300 mg/l  
iron: < 2 ppm  
alkalinity: 80 - 200 mg/l as CaCO3  
free halogen: < 1 ppm  
total halogen: < 2 ppm  
oil and grease: < 5 ppm  
total suspended solids: < 7 ppm  
bio. contamination: <10 000 CFU/ml

**W1**

Cooling water flow:

p start: 5 bar const. (against closed system)  
p continuous: 2,5 - 5 bar (steady state casting)  
Q = 30 - 100 m³/h  
Q constancy = +/- 5%  
t = 2 - 3 sec. (timerange for max. 15% change of act. flow rate)  
t = 1 - 2 sec. (timerange for max. 5% change of act. flow rate)  
temperature: +/- 5°C constancy (steady state casting)

Note to cooling water quality:  
anything not specified, is not permissible!!!  
Do not use Aluminium chloride for water treatment!!!  
The End-User must decide on the method of monitoring and maintaining the water quality and supply.



**W2**

free backflow

DN 300 (min.)  
Q = 0 - 100 m³/h  
heat load: approx. 1400 kW  
approx. +15°C in contrast to "W1"  
temperature: 20°C - 45°C  
organics: oil content (of casting) 0,8 - 1,2 l/h

STATUS: 29.10.2025

Attention  
All pipes has to be flushed before first-time operation

ALL RIGHTS RESERVED						Projection		Scale 1:1		Project: 390 AL INVEST HDC 3000				
										Assembly: 14-00				
						Drawn	Date 29.10.2025	Name Vitztum_F		PID - Cooling water system Diagram				
						Checked								
						Standard								
								HIGH PERFORMANCE INDUSTRIETECHNIK		390-14-00-01-REV-D			Page --	
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State	Changes			Date	Name	GENERAL DRAWING								