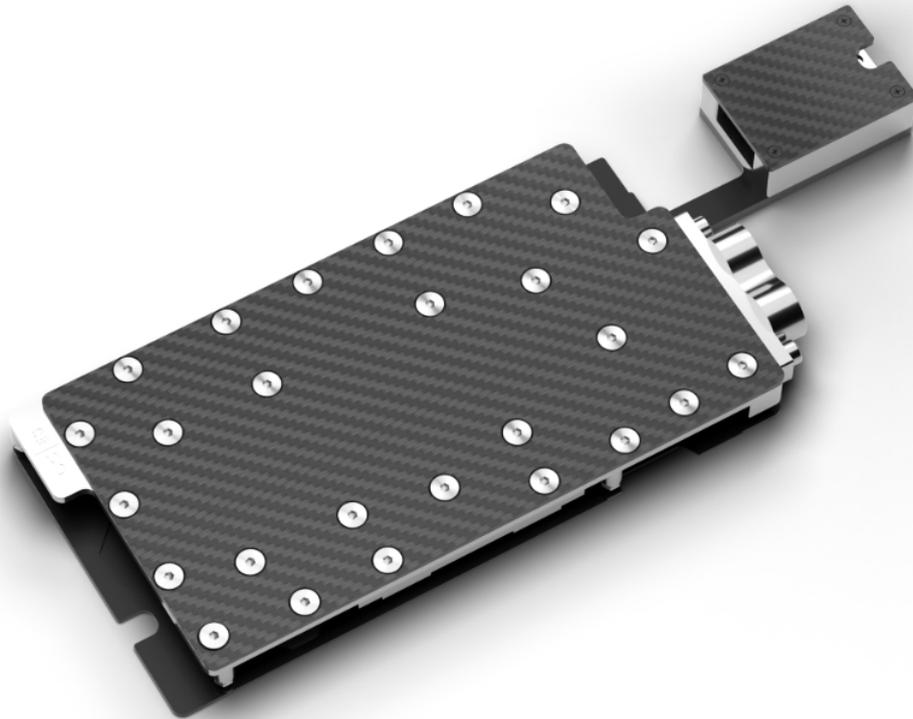


## Alphacool ES RTX 6000 Pro Server Edition 1-Slot-Design

Alphacool article number: 19450



### Quick Info

The Alphacool ES 1-Slot GPU water cooler for the RTX Pro 6000 Blackwell Server Edition was specifically developed for professional use in performance-optimized server environments. With its compact 1-Slot design and carefully engineered port positioning, it meets the highest standards in cooling performance, reliability, and ease of installation – especially in dense rack installations with limited space.

- 1 Slot Cooler
- Fullcover water cooler
- Chrome-plated copper bottom
- For high performance in server and workstation systems

## Scope of delivery

1x ES RTX 6000 Pro Server Edition 1-Slot-Design Cooler	2x 68x15x1mm Pad
1x Backplate	4x 6x8x1mm Pad
1x 54x15x1mm Pad	2x 69x15x0.5mm Pad
1x 14x8x0.5mm Pad	2x 14x15x0.5mm Pad
1x 26x8x0.5mm Pad	1x Thermal Grease
2x 73x8x1mm Pad	1x Putty tool
1x 55x15x0.5mm Pad	13x M2x8mm Screw
1x 13x15x1.5mm Pad	4x M4x8mm Screw
1x 30x30x0.5mm Pad	1x PCIe Bracket
2x 12.5x15x1mm Pad	

## Technical data

Dimensions (L x W x H)	267.80 x 95,58 x 19.20 mm
Slot size	1
Material cooler	Chome-plated copper
Material cooler top	Carbon
Threads	2 x G1/4"
Material Connection thread	Brass (CuZn39Pb3)
Maximum torque G1/4 thread (in Nm)	1,00
Maximum torque M2 thread (in Nm)	0,13
Maximum torque M2,5 thread (in Nm)	0,27
Maximum torque M3 thread (in Nm)	0,48
Maximum torque M4 thread (in Nm)	1,12
Maximum operating temperature (in °C)	60
Recommended working temperature (in °C)	20
Minimum operating temperature (in °C)	-20
Maximum tested pressure (in bar)	4,00
Recommended working pressure (in bar)	0,00 - 2,00
Thickness of the cooling plate	2,96
Thickness of cooling fins (in mm)	0,40
Distance between cooling fins (in mm)	0,40
Cooling technology	Jet engine

## Technical data Backplate

Dimensions (L x W x H)	267,70 x 95,58 x 4,00 mm
Material	Aluminium (AlMg0,7Si)
Color	Black

## Technical data Thermal pads

Thermal conductivity of thermal pads (in W/mK)	7
Thermal pads Hardness ASTM 2240	35 Shore 00

## Technical data Thermal paste

Evaporation rate	Less than 0,5
Density (g/cm <sup>3</sup> )	3,2 (Test method ASTM D2196)
Viscosity	150-200*10 <sup>3</sup> (Test method ASTM D2196)
Operating temperature (°C)	-40°C to 120°C
Breakdown voltage (V/mil)	250 (Test method ASTM D149)
Thermal impedance (°C in 2/W)	0.1 +/- 0.01 (Test method ASTM D5470)
Maximum operating pressure (psi)	40
Quantity (in gramm)	1
Color	Grey

## Download links

Manual	<a href="#">19450_Alphacool_ES_RTX_6000_Pro_Server_Edition_1-Slot-Design_Manual.pdf</a>
Product pictures	<a href="#">19450_Alphacool_ES_RTX_6000_Pro_Server_Edition_1-Slot-Design_pics.zip</a>

## Packaging dimensions per unit

L x W x H	350 x 200 x 50 mm
Weight	2000 g

## Other data

Certificates	CE, FC, RoHS
EAN	4250197194501
Customs code	84195080900
Guarantee	3 years

## Article text

The Alphacool ES 1-Slot GPU water cooler for the RTX Pro 6000 Blackwell Server Edition was specifically developed for professional use in performance-optimized server environments. With its compact 1-Slot design and carefully engineered port positioning, it meets the highest standards in cooling performance, reliability, and ease of installation – especially in dense rack installations with limited space.

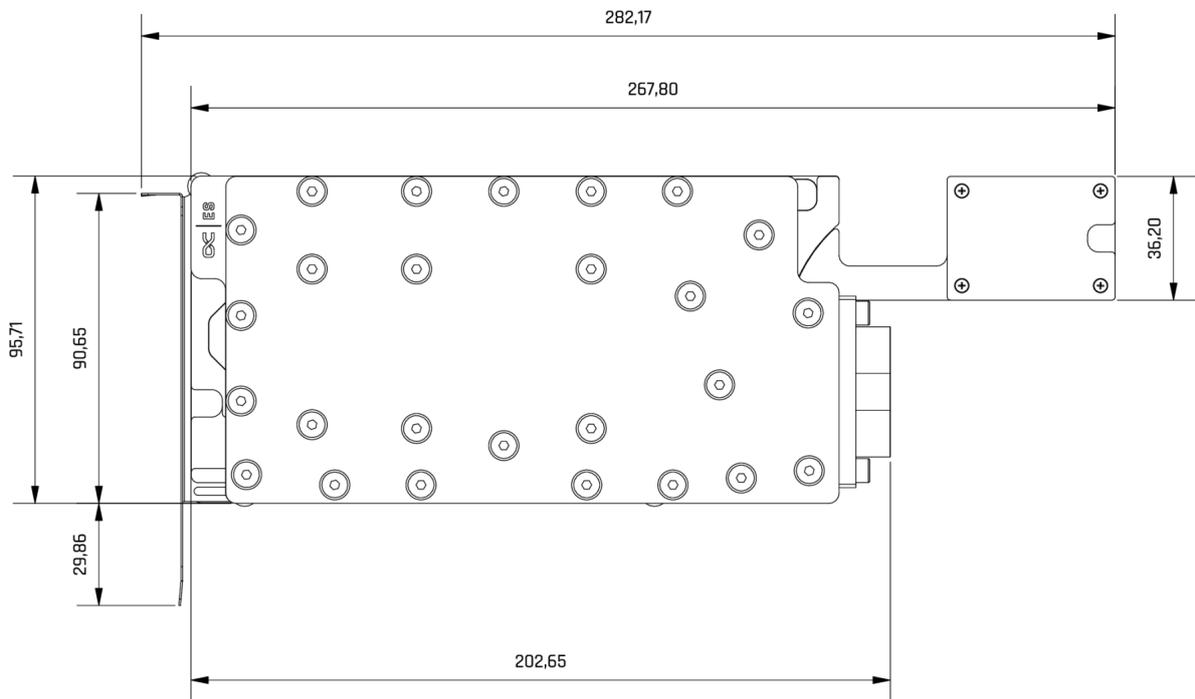
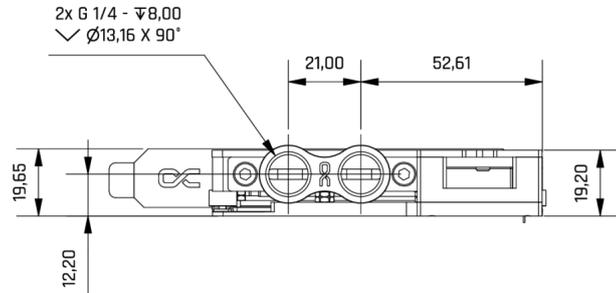
The top of the cooler is made from lightweight, durable carbon. This significantly reduces the overall weight compared to conventional solutions. At the same time, the matte carbon finish provides a subtle, high-quality appearance – functional and elegant in equal measure. The cooling block itself is made entirely of chrome-plated copper. The chrome plating is considerably harder and more durable than traditional nickel plating, offering reliable protection against corrosion, scratches, and mechanical impact – ideal for long-term 24/7 operation.

The inlet and outlet ports are positioned on the rear of the cooler to save space. This connection layout simplifies tubing and integration into existing cooling loops, even in very compact server chassis. An optimized internal channel structure ensures highly efficient heat dissipation from the GPU, VRAM, and voltage regulators. The targeted channel routing inside the cooler guarantees uniform water flow across all critical components.

The solid copper base ensures optimal heat absorption and transfer. The robust chrome plating prevents flaking or damage under thermal stress.

The Alphacool ES 1-Slot GPU water cooler for the Nvidia RTX Pro 6000 Blackwell Server Edition is the ideal solution for enterprise applications where performance, reliability, and efficient space management are top priorities.

# Drawing (1)

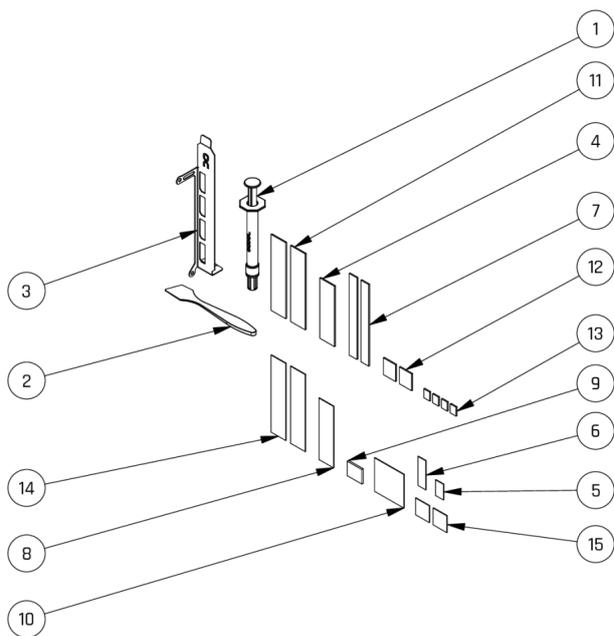
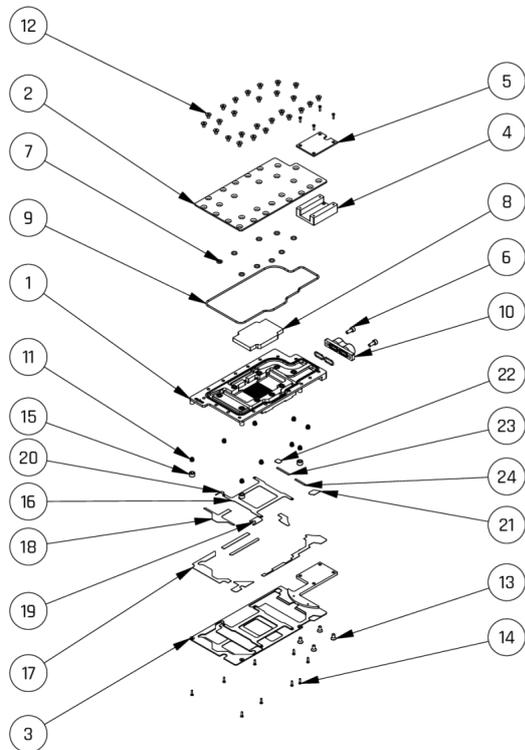


General tolerance:  $\pm 0,25$ mm  
Thickness with graphics card (PCB)  
Dimension in millimeter

# Drawing (2)

**Mechanical properties:**

Minimum temperature t min = -20°C	Working pressure p = 0,0 - 2,0Bar	Maximum torque of M max = M2X0,4 = 0,13Nm M2,5X0,45 = 0,27Nm M3X0,5 = 0,48Nm M4X0,7 = 1,12Nm
Working temperature t = 20°C	Maximum pressure p max = 4,0Bar	
Maximum temperature t max = 60°C	Maximum torque of G thread M max = G1/4 = 1,0Nm <small>ISO 228-1 Parallel Whitworth pipe thread 6SPF (GB)</small>	



**Spare parts list**

Number	Quantity	Description	Material
1	1	Copper	Cu-HCP
2	1	Carbon Top	CFRP_
3	1	Backplate	AlMg0,7Si
4	1	Cable Mount	POM-C 4520
5	1	Cable mount cap	CFRP_
6	2	ISO 4762 - M4 x 10	X5CrNi18-10
7	9	ORing 5 x 1,5	NBR Shore 70
8	1	Jet	POM-C 4520
9	1	O-Ring 145 x 2	NBR Shore 70
10	1	ES Terminal	
11	9	GPX Spacer SW5 M4X0,7-M2X0,4 x 3	CuZn39Pb3
12	26	M4 x 6	X10CrNi18-8
13	4	M4 x 8	X10CrNi18-8
14	13	M2 x 8	X5CrNi18-10
15	3	PCB Spacer	PA 66,GF25 FR(V-2)
16	1	Isolation Tape 1	PI Tape
17	1	Isolation Tape 2	PI Tape
18	1	Isolation Tape 3	PI Tape
19	1	Isolation Tape 4	PI Tape
20	1	Isolation Tape 5	PI Tape
21	1	Isolation Tape 6	PI Tape
22	1	Isolation Tape 7	PI Tape
23	1	Isolation Tape 8	PI Tape
24	1	Isolation Tape 9	PI Tape

**Spare parts list**

Number	Quantity	Description	Material
1	1	Alphacool Subzero Thermal grease 1g	-
2	1	Putty Tool	-
3	1	IO Shield	Cr01
4	1	PAD 54 x 15 x 1	7W/mK - Shore-00 35 - 1.00 mm
5	1	PAD 14 x 8 x 0,5	7W/mK - Shore-00 35 - 0.50 mm
6	1	PAD 26 x 8 x 0,5	7W/mK - Shore-00 35 - 0.50 mm
7	2	PAD 73 x 8 x 1	7W/mK - Shore-00 35 - 1.00 mm
8	1	PAD 55 x 15 x 0,5	7W/mK - Shore-00 35 - 0.50 mm
9	1	PAD 13 x 15 x 1,5	7W/mK - Shore-00 35 - 1.50 mm
10	1	PAD 30 x 30 x 0,5	7W/mK - Shore-00 35 - 0.50 mm
11	2	PAD 68 x 15 x 1	7W/mK - Shore-00 35 - 1.00 mm
12	2	PAD 12,5 x 15 x 1	7W/mK - Shore-00 35 - 1.00 mm
13	4	PAD 6 x 8 x 1	7W/mK - Shore-00 35 - 1.00 mm
14	2	PAD 69 x 15 x 0,5	7W/mK - Shore-00 35 - 0.50 mm
15	2	PAD 14 x 15 x 0,5	7W/mK - Shore-00 35 - 0.50 mm