

EU-TYPE EXAMINATION CERTIFICATE

According to
Directive 2014/68/EU of the European Parliament and of the Council of 15 May 2014 for Pressure Equipment

CERTIFICATE NO.: **23-1025584-100 Rev.0**

This Certificate consists of 2 pages

THIS IS TO CERTIFY THAT THE EQUIPMENT

Pressure Vessel

WITH THE TYPE DESIGNATION/EQUIPMENT DESCRIPTION

Brazed Heat Exchanger Type EC59

MANUFACTURED BY

Multichannel Technologies AB, SWEDEN

is found to comply with the requirements in Annex I, Essential Safety Requirements
and EN 13445:2021

The equipment has been examined with respect to the procedure of conformity assessment as
described for Module B Production Type - Annex III, point 3.1

APPLICATIONS

Category: I to III

Module: B(PT)

	Room 1.		Room 2.		
Allowable Pressure PS min/max:	-1	/ 47 to 35.7	-1	/ 25 to 19	bar(g)
Allowable Temperature TS min/max:	-195	/ 0 to 145	-195	/ 0 to 145	°C
Volume:	variable		variable		L
Fluid group:	1&2		1&2		
Fluid name:	gas		gas		

Effect: - kW

Further details of the product and conditions for the certification are given on next page.

This Certificate is valid until: 2033-08-22

MALMÖ 2023-09-12
SIGNED FOR AND BEHALF OF

Kiwa Sweden AB

Notified Body No.: 0409



Olof Pedersen

Senior Design Engineer



Notice: The certificate is subject to terms and conditions, if any, overleaf. Any significant changes in design or construction of the product, the quality system or amendments to the Directive 2014/68/EU or Standards referenced above may render this certificate invalid. The product liability rests with the manufacturer or his representative in accordance with the Directive, as amended.

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EXAMINED TECHNICAL DOCUMENTATION

02-4020 Rev.4

SM 426-1

SUPPORTING EVIDENCE

Performed experimental design as per EN 13445-3 Annex T.

LIMITATIONS

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SCOPE OF EXAMINATION

Technical design data and calculations	Yes	<input checked="" type="checkbox"/>	
Materials assessment	Yes	<input checked="" type="checkbox"/>	
Manufacturing drawings	Yes	<input checked="" type="checkbox"/>	
Welding – specifications WPS (procedures)	Yes	<input checked="" type="checkbox"/>	Brazing
Welding – personnel approval	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/> Brazing
NDT – personnel verification	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
NDT – scope, methods and procedures	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
Operating instructions	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hazard or risk analysis	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
External loads	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
Fatigue	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/> max. 500 full pressure cycles
Creep design	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
Other tests or procedures	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>

TESTS CARRIED OUT

Production Type - Prototype vessel representative of type approval examined [report number and date]

S.N. 2023-05-249457 (1-6)/ Report EC59/ 2023-08-30

MALMÖ 2023-09-12

Kiwa Sweden AB



DESIGN EXAMINATION CARRIED OUT BY

Rodica Teodorescu

Senior Design Engineer