



ALUMINIUM CORES

COOLING SYSTEMS

EMPOWERING PERFORMANCE

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WHO ARE WE?

Since 1927, NRF has been a leading manufacturer and supplier of cooling products for the automotive, industrial, railway, and marine markets. NRF is known for the production of high-quality radiators, but also manufactures and supplies a wide range of engine and air conditioning cooling products.

NRF has a range of more than 10,000 products that is continuously expanding. In the last 4 years, NRF has doubled its sales volume in the aftermarket. To facilitate this growth, NRF is constantly expanding its storage capabilities and investing in the supply chain.

A GLOBAL COMPANY

- › 3 factories (Netherlands, Spain, and Poland)
- › 5 strategically located warehouses
- › Strategic partners worldwide
- › One of the market leaders in the marine cooling sector
- › Global engineering, testing, and development facilities
- › We export to more than 80 countries worldwide.



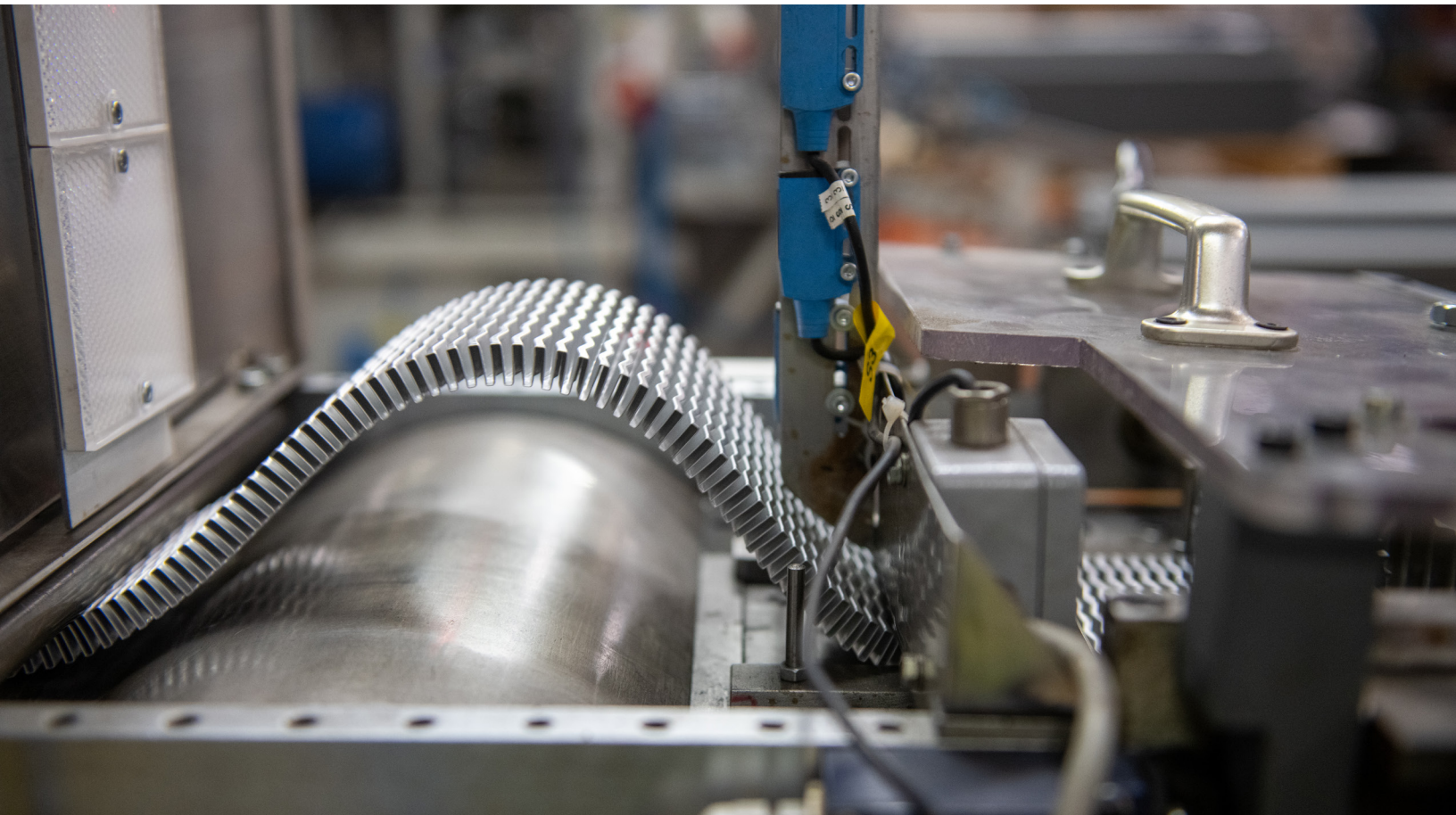
COOLING SOLUTIONS

NRF has a strong track record of adapting to the needs of our customers by offering tailor-made cooling solutions. With over 90 years of experience, NRF proves to be a progressive and reliable partner.

NRF offers a wide range of copper and aluminum cooling systems for water, oil, and air cooling. Customers can choose from a variety of honeycomb thicknesses, multiple fin systems, and turbulators. Thanks to our large logistics network, we guarantee fast delivery.

NRF OFFERS THE COOLING SOLUTION YOU NEED

- Available systems: Oil / Water / Air
- Customized production
- Wide range of copper and aluminum honeycombs
- Certified production
- High-quality raw materials
- Fast delivery



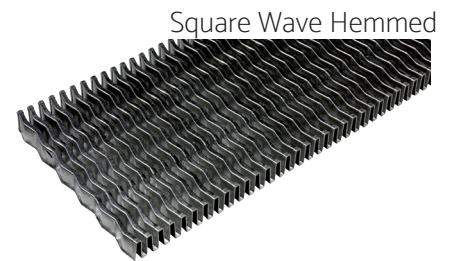
TYPES OF FINS AND TURBULATORS

Normally, all fins and turbulators can be used for all coolers: air, water, and oil. There are no technical restrictions. Although, in most applications, it is recommended to use the highest turbulator for air.

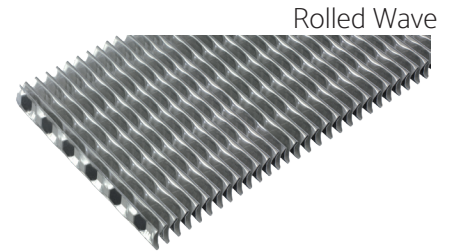
TYPES OF FINS



- > Agrifin
- > BPSH 163
- > BPSH 143
- > BPSH 123

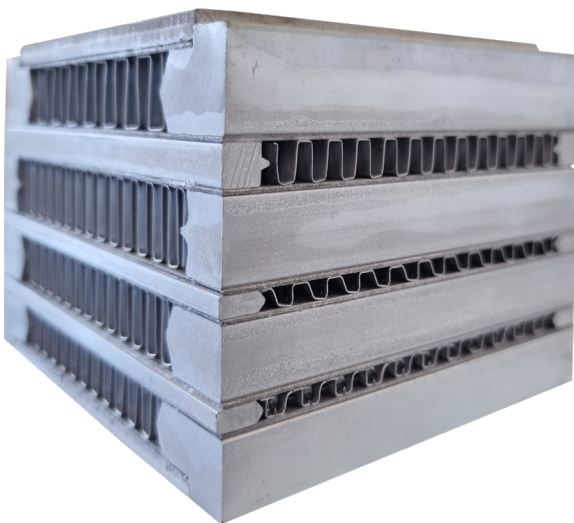


Square Wave Hemmed

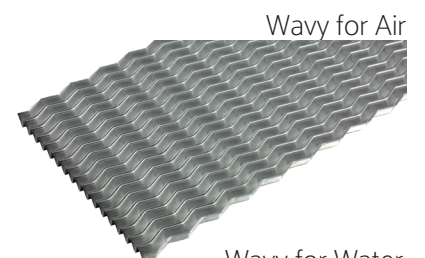


Rolled Wave

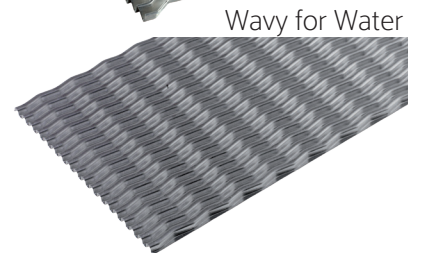
TYPES OF TURBULATORS



- > AIR: Max pressure 22 bar (80 °C)
- > WATER: Max pressure 19 bar (100 °C)
- > OIL: Max pressure 22 bar (80 °C)



Wavy for Air



Wavy for Water



Offset for Oil

AGRIFIN SYSTEMS

In the long term, all systems are subject to strong external influences and a decrease in performance due to dirt accumulation. In the worst-case scenario, this can lead to a failure of the cooling system and damage to other units.

The Agrifin is designed to withstand external influences and dirt accumulation, ensuring a longer lifespan and consistent performance of your cooling system. Thanks to its wavy square shape with a larger fin pitch, this component does not get dirty as easily as others, which means it retains its cooling capacity for longer periods. In addition, its reinforced fin can be effectively cleaned with a pressure water cleaner without deforming like other air fins.

With NRF's Agrifin, you can be confident that you are investing in a high-quality and durable component that will not only improve the performance of your cooling system but also reduce long-term maintenance costs.



MAXIMUM STRENGHT FIN



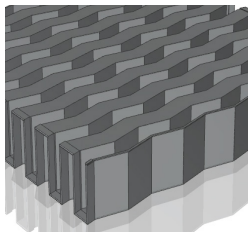
- > Greater fin pitch to prevent easy clogging.
- > Optimal cooling capacity.
- > Extremely strong.
- > Easy to clean with high-pressure water.

GENERAL DATA FOR AGRIFIN

Core depth	80/97/114/140/160/180/200
Maximum operation temperature	160°C

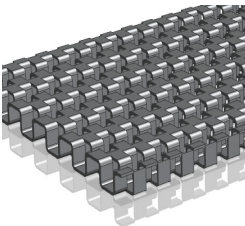
APLICATION	MAX WORKING PRESSURE	SYSTEM	TURBULATOR HEIGHT	FIN TYPE	FIN HEIGHT	TYPE OF TURBULATOR
Oil	25	BPSHG163O	4,3 mm	Square wave	12 mm	Offset
Water	16	BPSHG163W	4,3 mm	Square wave	12 mm	Offset
Air	25	BPSHG193A	7,3 mm	Square wave	12 mm	Offset

FIN

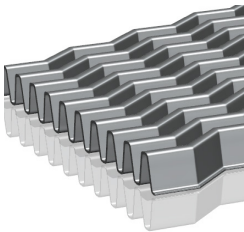


Square Wave

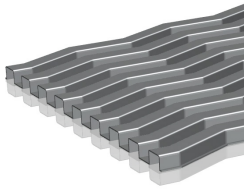
TURBULATORS



OIL: Offset



AIR: Offset



WATER: Offset

B&P CORE (COMPLETE RANGE)



APPLICATION	SYSTEM	FIN TYPE	TURBULATOR TYPE	TUBE PITCH (A)	FIN HEIGHT (B)	TURBULATOR HEIGHT (C)	TUBE HEIGHT
Air	BPSH193A	Square Wave Hemmed	Wavy Air	19.3 mm	12 mm	7.3 mm	6 mm
Air	BPSH173A	Square Wave Hemmed	Wavy Air	17.3 mm	10 mm	7.3 mm	6 mm
Air	BPSH153A	Square Wave Hemmed	Wavy Air	15.3 mm	8 mm	7.3 mm	6 mm
Oil	BPSH163O	Square Wave Hemmed	Offset Oil	16.3 mm	12 mm	4.3 mm	3 mm
Oil	BP163O	Rolled Wave	Offset Oil	16.3 mm	12 mm	4.3 mm	3 mm
Oil	BPSH143O	Square Wave Hemmed	Offset Oil	14.3 mm	10 mm	4.3 mm	3 mm
Oil	BPSH123O	Square Wave Hemmed	Offset Oil	12.3 mm	8 mm	4.3 mm	3 mm
Water	BPSH163W	Square Wave Hemmed	Wavy Water	16.3 mm	12 mm	4.3 mm	3 mm
Water	BP163W	Rolled Wave	Wavy Water	16.3 mm	12 mm	4.3 mm	3 mm
Water	BPSH143W	Square Wave Hemmed	Wavy Water	14.3 mm	10 mm	4.3 mm	3 mm
Water	BPSH123W	Square Wave Hemmed	Wavy Water	12.3 mm	8 mm	4.3 mm	3 mm

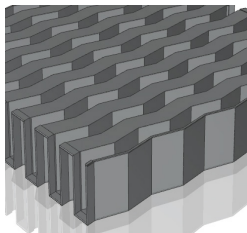
AIR COOLING SYSTEMS

GENERAL DATA FOR ALL AIR COOLING SYSTEMS

Core depth 40/50/62/80/97/114/140/160/180/200 (customized on request)
Maximum operation temperature 22 bar (80 °C)

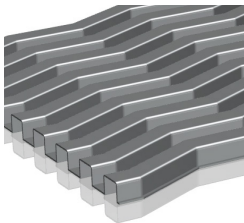
SYSTEM	TUBE PITCH	FIN TYPE	FIN HEIGHT	TURBULATOR TYPE
BPSH193A	19.3 mm	Square Wave Hemmed	12 mm	Wavy
BPSH173A	17.3 mm	Square Wave Hemmed	10 mm	Wavy
BPSH153A	15.3 mm	Square Wave Hemmed	8 mm	Wavy

FIN

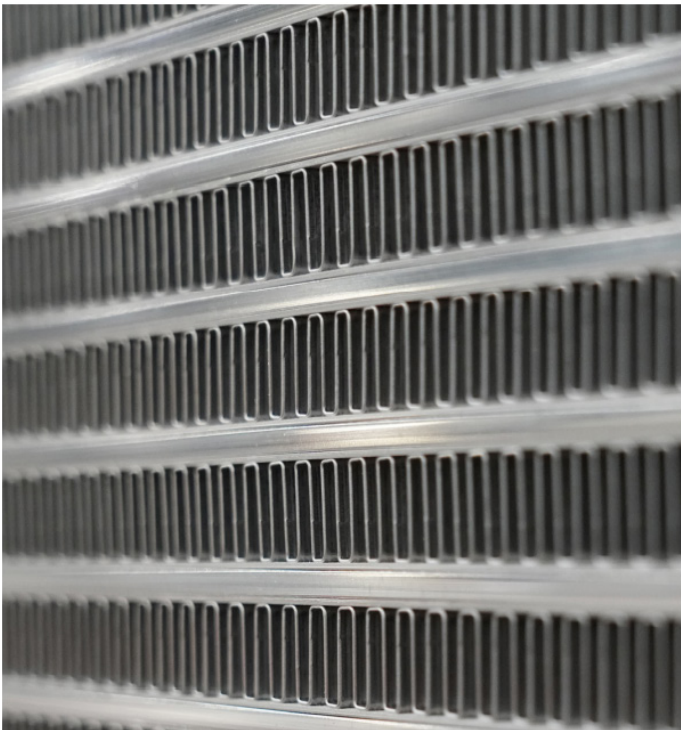
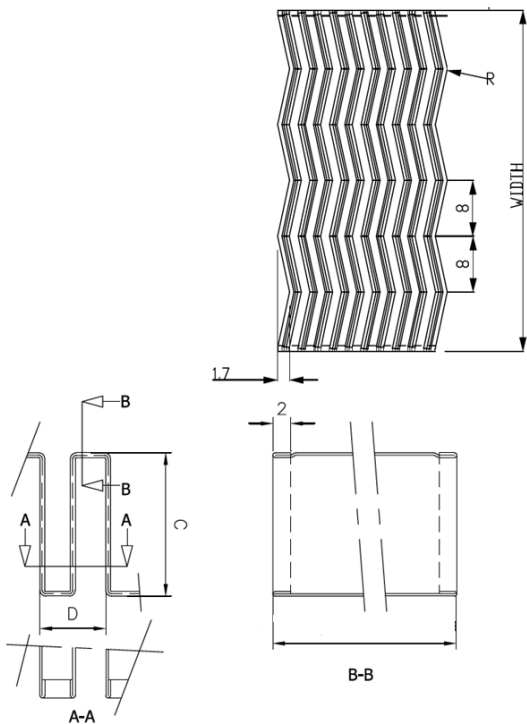


Square Wave Hemmed

TUBULATOR



Wavy



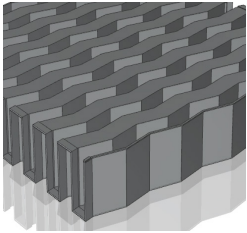
OIL COOLING SYSTEMS

GENERAL DATA FOR ALL THE OIL COOLING SYSTEMS

Core depth 40/50/62/80/97/114/140/160/180/200 (customized on request)
Maximum operation temperature 22 bar (80 °C)

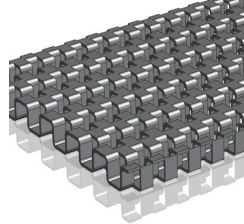
SYSTEM	TUBE PITCH	FIN TYPE	FIN HEIGHT	TURBULATOR TYPE
BPSH163O	16.3 mm	Square Wave Hemmed fin	12 mm	Oil Offset
BPSH143O	14.3 mm	Square Wave Hemmed fin	10 mm	Oil Offset
BPSH123O	12.3 mm	Square Wave Hemmed fin	8 mm	Oil Offset

FIN

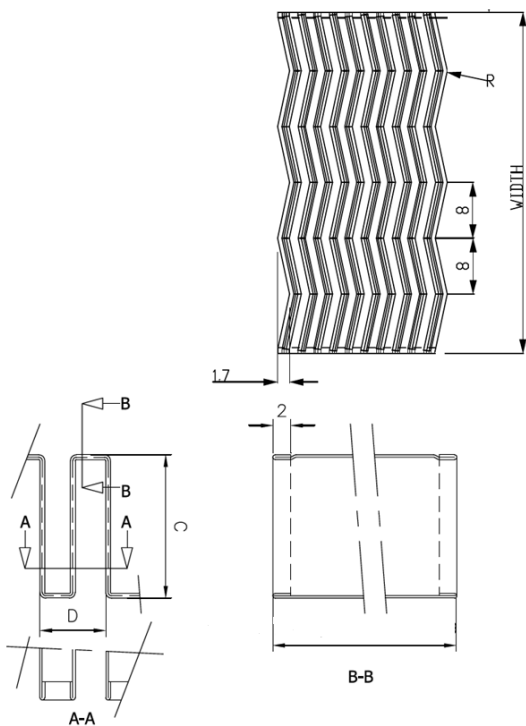


Square Wave Hemmed

TURBULATOR



Oil Offset



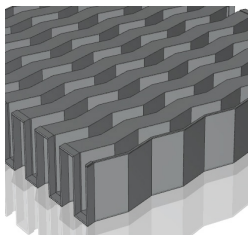
WATER COOLING SYSTEMS

GENERAL DATA FOR ALL THE WATER COOLING SYSTEMS

Core depth 40/50/62/80/97/114/140/160/180/200 (customized on request)
Maximum operation temperature 19 bar (100 °C)

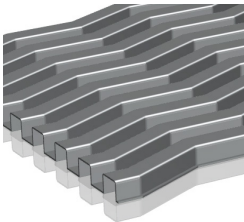
SYSTEM	TUBE PITCH	FIN TYPE	FIN HEIGHT	TURBULATOR TYPE
BPSH163W	16.3 mm	Square Wave Hemmed	12 mm	Wavy Water
BPSH143W	14.3 mm	Square Wave Hemmed	10 mm	Wavy Water
BPSH123W	12.3 mm	Square Wave Hemmed	8 mm	Wavy Water

FIN

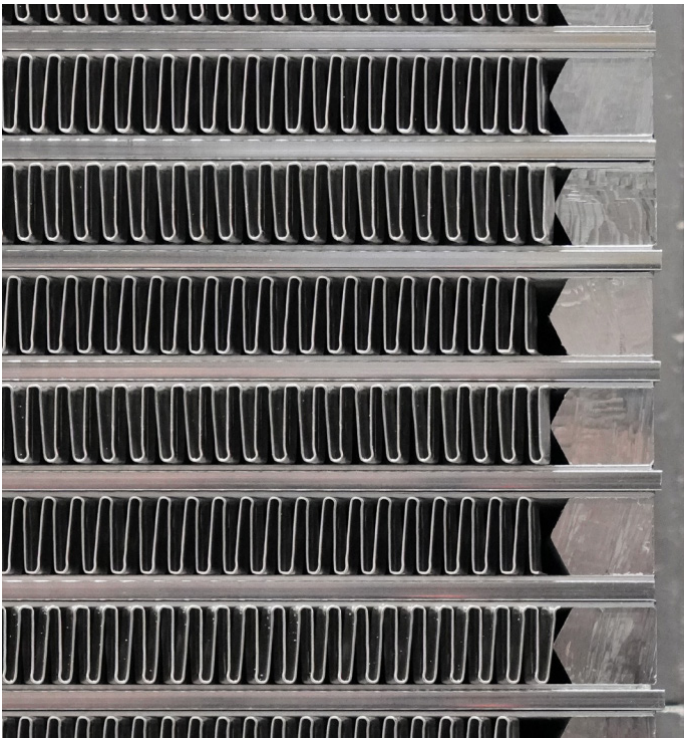
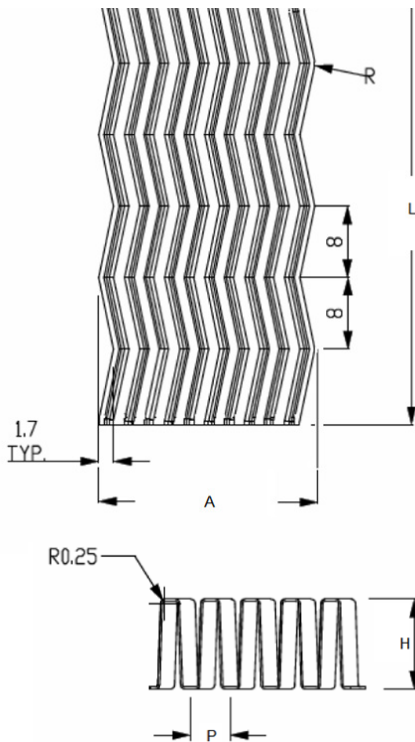


Square Wave Hemmed

TURBULATOR



Wavy Water



DIMENSIONS: MAX - MIN

THICKNESS	MORE THAN ONE BLOCK	MIN HEIGHT	MAX HEIGHT	MIN WIDTH	MAX WIDTH
40 mm	1	170 mm	1600 mm	35,7 mm	900 mm
50 mm	1	170 mm	1600 mm	35,7 mm	900 mm
62 mm	1	170 mm	1600 mm	35,7 mm	1050 mm
80 mm	1	170 mm	1600 mm	35,7 mm	1050 mm
97 mm	1	170 mm	1600 mm	35,7 mm	1050 mm
114 mm	1	170 mm	1600 mm	35,7 mm	1050 mm
140 mm	1	170 mm	1600 mm	35,7 mm	1050 mm
160 mm	1	170 mm	1600 mm	35,7 mm	1050 mm
180 mm	1	170 mm	1600 mm	35,7 mm	1050 mm
200 mm	1	170 mm	1600 mm	35,7 mm	1050 mm

*Depending on the dimensions, the possibility of manufacturing and the delivery time may vary.



**ENTER OUR WEBSHOP
AND CONFIGURE YOUR
ALUMINIUM BLOCK.**

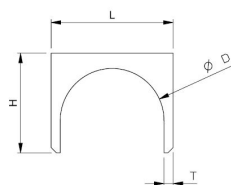
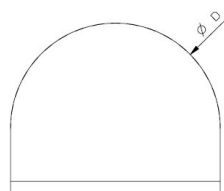
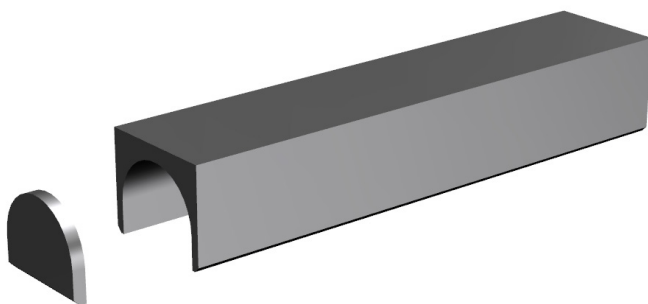
OTHERS PARTS AVAILABLE

EXTRUDED PROFILES FOR TANKS

PROFILE THICKNESS	PROFILE W x H	PROFILE LENGTH	COVERS	NRF REFERENCE
40 mm	40x40	On request	04631001	13090209
50 mm	50x50	On request	04623101	13090201
62 mm	62x60	On request	04623201	13090202
80 mm	80x65	On request	04639701	13090211
97 mm	97x70	On request	04623301	13090203
114 mm	114x70	On request	04624501	13090204
140 mm	140x75	On request	04633301	13090210
160 mm	160x80	On request	04628601	13090206
180 mm	180x90	On request	04628701	13090207
200 mm	200x100	On request	04628801	13090208

SPECIFICATIONS

- > Resistant to high pressures.
- > Extremely solid construction.
- > Ideal for mounting brackets and accessories.



REPAIR SERVICE

GIVE A NEW LIFE TO YOUR RADIATOR

Regular inspections and proper maintenance of the cooler are very important. Thanks to these measures, it can be seen if a cooling part needs to be repaired or rebuilt at any given time. NRF further expands its services by offering customers the repair service. This includes:

CLEANING AND TESTING

- Cleaning of heat exchangers
- Pressure testing
- Small repairs

REPLACEMENT OF THE COOLING CORE

- Necessary in cases of large defects or leaks
- Complete replacement of the cooler core
- Perfect fit due to in-house production capabilities
- Wide range of cooling systems for water, oil, and air coolers
- Welding according to NEN/DINEN 15085-2 standards.

CUSTOMER BENEFITS

- Quick availability of a fully functional and in perfect condition cooler
- 12 months warranty
- Great price advantage due to reuse of existing tanks
- Environmentally friendly recycling process

Are you tired of low thermal performance causing inefficiencies in your system? Let us help you increase your system's efficiency with our expert thermal calculations. Contact us today and start seeing the difference!



BEFORE



AFTER

NRF.EU



CONTACT

Web www.nrf.eu

EMAIL

 stecores@nrf.eu

 ntecores@nrf.eu

 ptecores@nrf.eu



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