



# H-Cube System

hydraulic oil conditioning  
cooler • filter • oil tank • fan drive



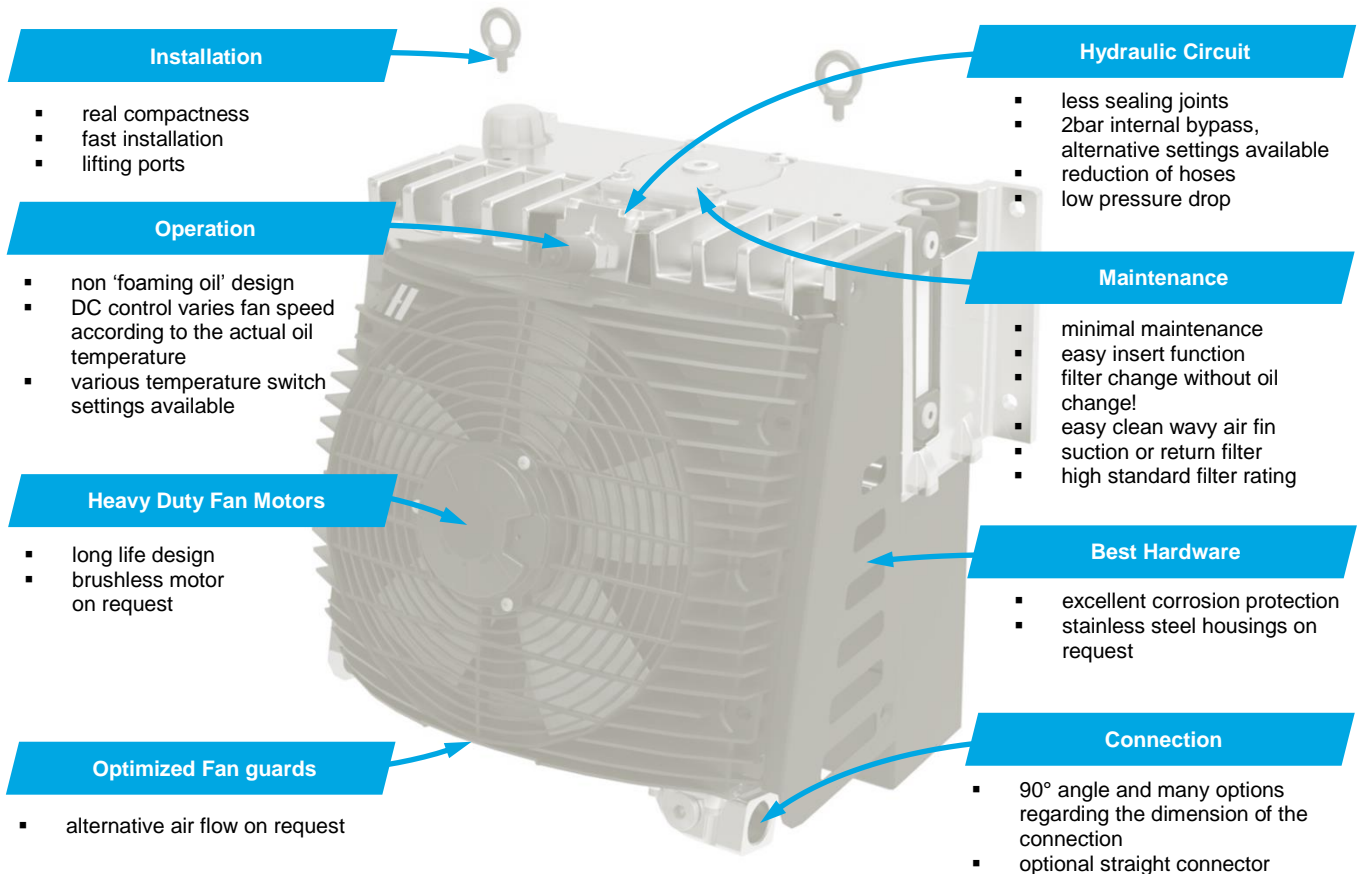
discover the  
customized  
standard.

# H-Cube Series

modular cooler, filter, tank and control link

## Main features and benefits of the H-Cube system

The H-cube is a modular system, which offers three tank sizes with four oil/air cooler sizes, various fan drive types and a suction or return line filter. With its compact dimensions and the flexibility of cooling performances and oil tank volumes, this system can easily be set up in various hydraulic applications. Choose from our big range of accessories to customize the product package in detail, to your application!



## Applications

Due to the flexible design concept, the H-cube system can be configured to various applications. One main benefit is, that the H-cube system can be flanged directly onto the framework of a truck, as well as transverse to the driving direction.

- live floor trailers
- front axle drive service unit
- silo transporters
- liquid tankers like crude oil trucks
- food & chemical transporters
- compressor drive systems
- ...



direct mounting or transverse to truck frame!

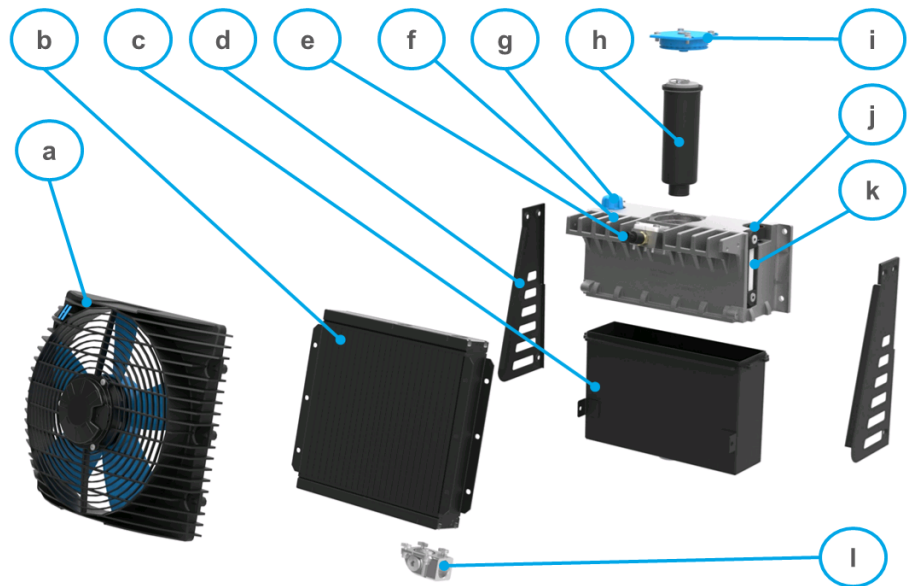
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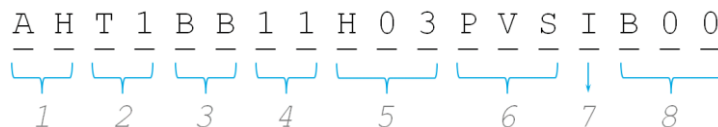


## Design your own H-cube!

- fan drive unit (a)
- cooler radiator (b)
- tank (c)
- side frames (d)
- electric clogging indicator(e)
- integration block (f)
- breather (g)
- filter (h)
- filter cap (i)
- optical clogging indicator (j)
- tank level gauge (k)
- connector with temperature switch port (l)



The integration block connects tank, filter and heat exchanger. These components can be, individually, varied in size and function. As a result of that, the system is able to customize to the application, while keeping a proven standard range product. Also integrated are tank level gauge, bypass valve, clogging indicator and temperature switch port. Due to this flexible system, all parts can be combined with the same control flange. The table below shows the possible options and its resulting code.



### 1 Product Series

|    |            |
|----|------------|
| AH | ASA H-Cube |
|----|------------|

### 2 Tank Size\*

|    |                         |
|----|-------------------------|
| T1 | tank with 17l (EU**)    |
| T2 | tank with 23l (EU**)    |
| T3 | tank with 30l (EU**)    |
| R5 | tank with 4.5gal (US**) |
| R6 | tank with 6.1gal (US**) |
| R8 | tank with 7.9gal (US**) |

### 3 Filter Combinations

|    | return filter | suction filter |
|----|---------------|----------------|
| AA | 6µm           | none           |
| BA | 10µm          | none           |
| CA | 16µm          | none           |
| DA | 25µm          | none           |
| AB | none          | 90µm standard  |
| BB | 6µm           | 90µm standard  |
| CB | 10µm          | 90µm standard  |
| DB | 16µm          | 90µm standard  |
| EB | 25µm          | 90µm standard  |

### 4 Cooler Size/Type

|    |                                |
|----|--------------------------------|
| 07 | TT 07 rail, 2bar(30psi) bypass |
| 11 | TT 11 rail, 2bar(30psi) bypass |
| 16 | TT 16 rail, 2bar(30psi) bypass |
| 25 | TT 25 rail, 2bar(30psi) bypass |

### 5 Fan Drive

|     |                            |
|-----|----------------------------|
| D01 | 12V DC                     |
| D02 | 24V DC                     |
| H03 | 3cm <sup>3</sup> hydraulic |

### 6 Accessories & Options\*\*\*

|     |   |
|-----|---|
| 000 | no options  |
| 00G | only protection housing   |
| 00S | only stainless steel housing  |
| KT0 | temperature control DC  |
| KTG | temp. control & protection housing  |
| KTS | temp. control & stainless steel housing                                       |
| PVS | tanker truck <sup>1)</sup> block 210bar (3040 PSI) & stainless steel housing  |
| PHS | tanker truck <sup>1)</sup> block 350 bar (5070 PSI) & stainless steel housing |
| PVG | tanker truck <sup>1)</sup> block 210bar (3040 PSI) & protection housing       |
| PHG | tanker truck <sup>1)</sup> block 350bar (5070 PSI) & protection housing       |

### 7 Clogging Indicator

|   |                                  |
|---|----------------------------------|
| 0 | no indicator                     |
| I | optical clogging indicator       |
| E | electric clogging indicator      |
| C | combined opt. & elect. indicator |

### 8 Index / Customized

|     |  |
|-----|--|
| Bxx | special / customized specifications, to be advised |
|-----|--|

\* complete system content,

\*\* EU version truck frame flange 150 x 450mm and BSP suction port  
US version truck frame flange 5.5 x 17.5inch and NPT suction port  
stainless steel and protection housing not in combination with cooler size TT 25!

<sup>1)</sup>

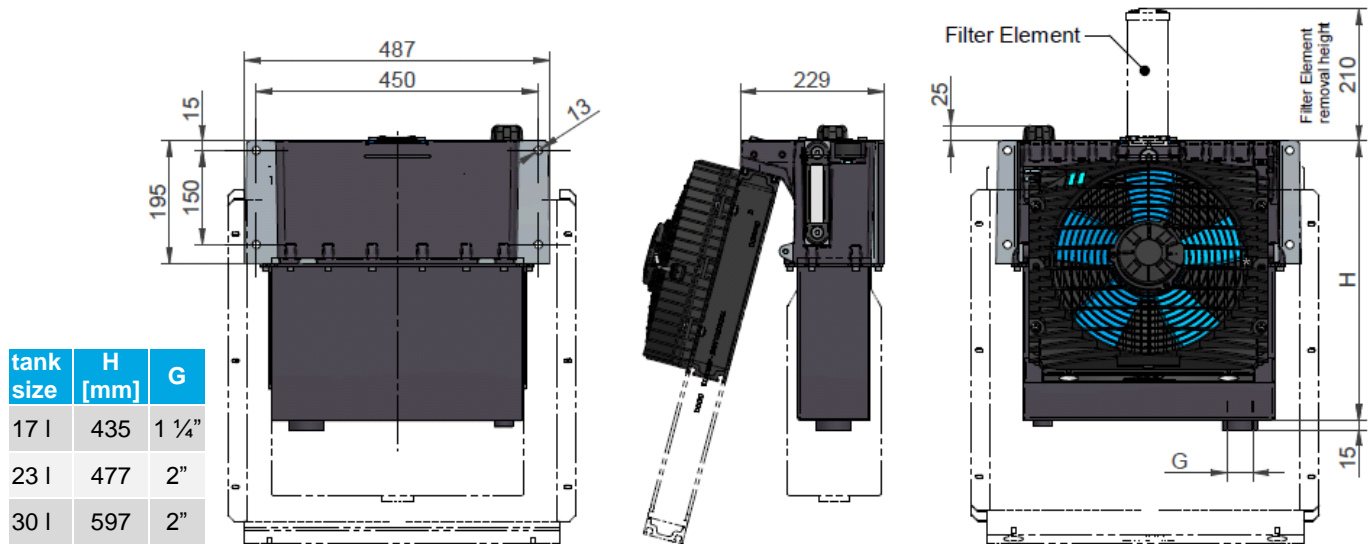
Tanker Truck configuration includes the functions of a adjustable pressure relief valve for the whole hydraulic system, return line connection and hydraulic fan drive control -> see more information on the H-Cube data sheet, page 5 or contact us for further assistance.

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## Dimensions

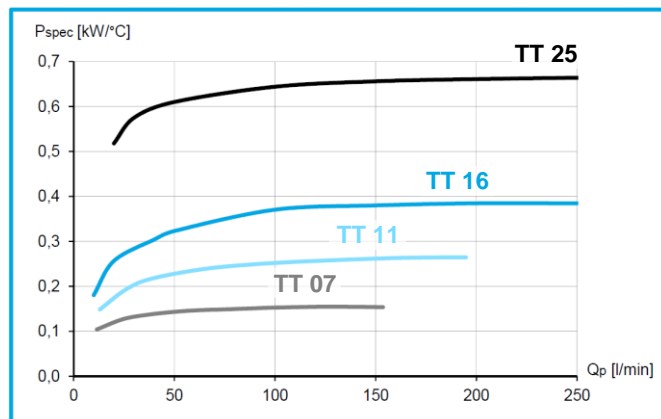
There are 4 different cooler sizes which can be combined with 3 different tank sizes. According to each individual combination, the dimensional drawing is different. Please see below main measurements that are invariant on that system.



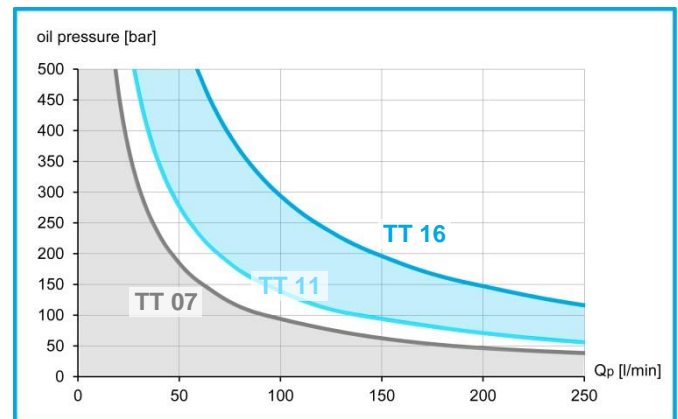
## Performance Selection

The actual performance output of the H-cube system is a combination of the cooler size (radiator core) and the type of fan drive. Choose the possible performances from the table, below. The shown performance is the maximum possible specific cooling performance depending on the oil flow (chart on the left side). For the tanker truck versions you can also select the cooler size as a function of pressure and oil flow (chart on the right side).

**specific cooling performance (with 12V or 24V DC fan drive)**



**cooling performance range (tanker truck types), to select by pressure and oil flow**



## Specifications

The materials on our standard configuration are designed for mobile applications, but can also be used for industrial applications. Our high corrosion protection standard provides life time excellence to any configured package.

|                   |                  |                       |                                  |
|-------------------|------------------|-----------------------|----------------------------------|
| radiator material | brazed aluminium | return filter rating  | 6 µ to 25 µ with 1,75 bar bypass |
| radiator air fin  | wavy             | suction filter rating | 90 µ (other micron on request)   |
| tank material     | steel            | fan drive             | 12V or 24V DC                    |
| integration block | cast aluminium   | weight (dry)          | 25 kg to max. 50 kg              |

This data sheet shows a technical overview of our products. Please contact us if more exact information is needed. As we are constantly improving our products, their characteristics, dimensions and weights may also change, although we do our best to incorporate these changes continually. The information in this data sheet is intended to be used as a first general guideline only. asa assumes no liability for any information therein, any errors, omissions, misprints, nor any direct or indirect damages, losses or costs resulting therefrom. The cooling performance and the general technical values indicated in this catalogue are measured at a test bench according to asa testing procedures. Because there is no standardized testing procedure, tests used by other manufacturers could have different results. Due to different conditions in testing and application environments the cooling performance may also vary by +/- 15%. Therefore we recommend all coolers to be checked under the system operating conditions. This is also true of vibrations and mechanical stress as well as for pressure peaks and thermal stress and any other relevant factors. The tolerances of welding seams are defined by quality group D according to EN ISO 10042, if it is not specified on the actual scale drawing or data sheet.  
 DD-H-Cube-en-rev3 © asa hydraulik, September 2017

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## H-Cube configuration example: Tanker Truck

The H-Cube system can also be configured with a control block for relief valve function and flow control. This system is mainly used on tanker trucks and is a very compact cooling and filtration solution for your hydraulic system.

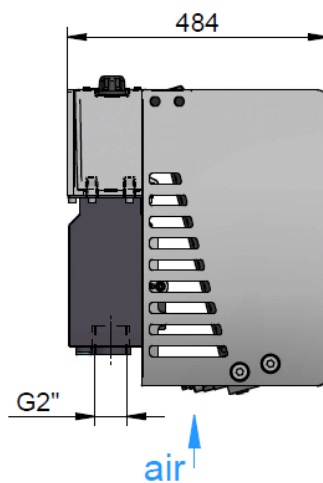
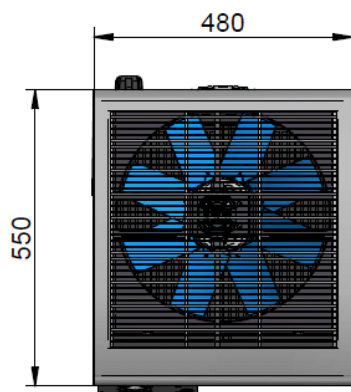
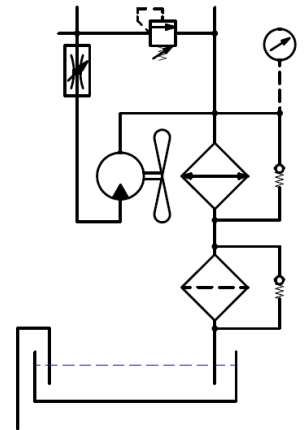
### Setup Example H-Cube T1-AB-16-H03-PVS-I-B00

This compact and real light weight system is an efficient hydraulic control and conditioning module for continuous operation. This system allows heavy duty operation while controlling oil filtration and temperature.



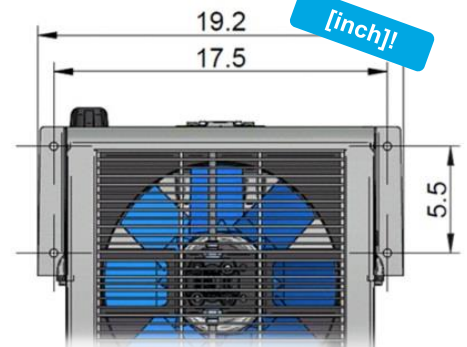
350 bar option!

- stainless steel housing
- 17 l oil tank
- hydraulic fan drive
- relief valve
- flow control
- 35 bar to 210 bar
- up to 250 lpm
- corrosion and vibration resistant
- pressure connection BSP 1 1/2"
- many customizing options...



air →

↑ air



US frame on request!  
(17.5in x 5.5in)

## Cross Reference List for Tanker Truck Configurations

| asa reference number                   | competitor product          |
|--|-----------------------------|
| H-Cube T1-BA-11-H03-PVS-I-B00          | GD HK3 Hydrapak             |
| H-Cube R5-BA-16-H03-PVS-I-B00          | GD MH5 Hydrapak             |
| H-Cube R5-BA-11-H03-PVS-I-B00          | GD MH3 Hydrapak             |
| H-Cube R5-BA-16-H03-PHS-I-B00          | PSG (Blackmer) Hydrive 2020 |
| ...contact us for further comparisons! |                             |



Change your worn system to a new the H-Cube and upgrade your degree of efficiency!

# H-Cube Series

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## H-Cube configuration example: Auxiliary Truck Drive

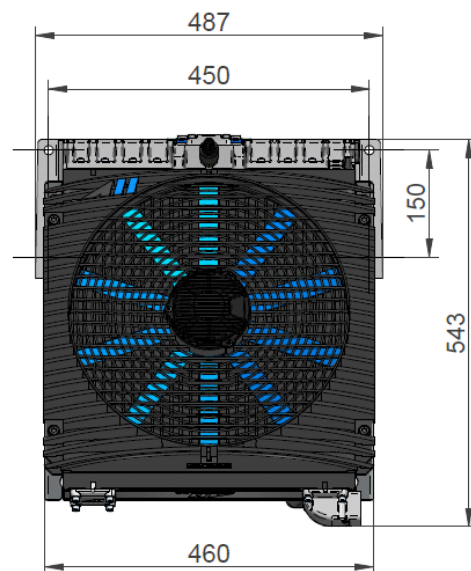
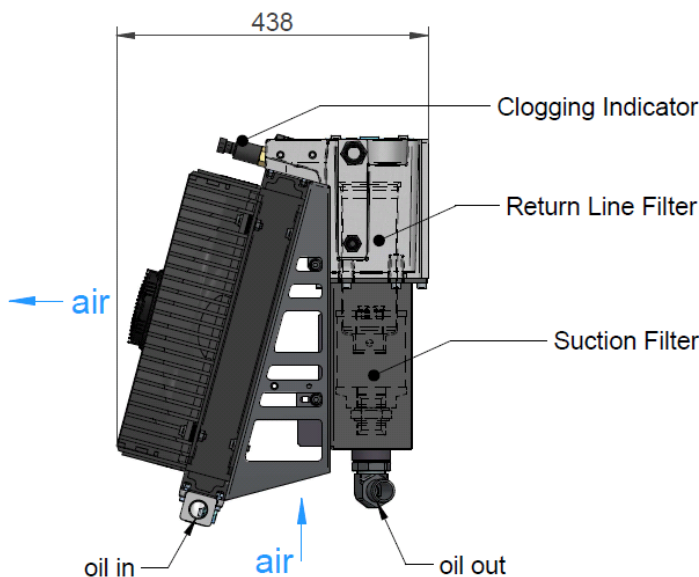
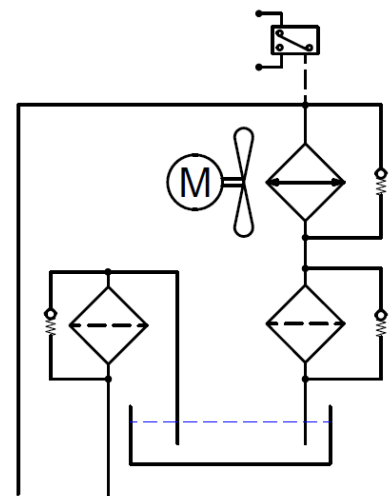
The H-Cube system can be configured to various applications. Auxiliary truck drives are circuits to assist the drive train on low speed on gravel or other rough road conditions. Such temporary hydraulic drive circuits require a high cooling performance across a short operation period.

### Setup Example H-Cube T1-CB-16-D02-E-B00

In this example the 17 l oil reservoir, TT 16 size cooler and filters (return and suction) have been selected. The compactness and cost savings against a conventional system with separate components proves the comprehensive efficiency of this system.



- 24V DC fan drive
- IP 68 motor protection
- 17l oil reservoir
- return filter 10µm
- suction filter 90µm
- up to 250 lpm
- corrosion and vibration resistant
- temperature control options
- clogging indicator switch



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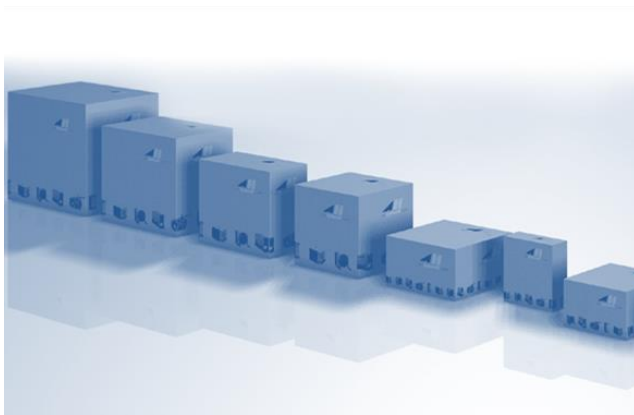
## Reliability in all fields

### Best Warranty



We offer you a very strong warranty period of one-year. This period begins on the actual start up date of the equipment, provided that date is within six month of receipt of goods. The maximum warranty from date of shipment is 18 months. Our high quality is proven by successful ISO certification on all asa production facilities.

### Best Packing



Single orders, delivery batches, containers: we help you to figure out the most economic way to transport the goods. Let us try to keep your expenses to what they are supposed for and not to the forwarding agents and useless packaging material.

### Best Service



Send us your enquiries or call our head offices or distribution partners. Our goal is to support any of your requirements and wishes of technically and economic belongings. Our online calculation program has free access and is very easy to use.

### Best Availability



We build your order in record time! Our unique lead time of 5 – 10 working days ex works on standard products provide the highest flexibility to your time schedule.



**Thermal Systems  
Connection Technology  
Pumps**

**be different.  
make a difference.**

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