

## Overall Product Comparison between REACH and A company on P/N REA41-1889A

### REACH PACKAGING



REACH packaging : Sino-us joint venture brand packaging, registered in the United States, global universality , simple and beautiful appearance, Corrugated board with high crushing strength, The most important thing is that it can effectively protect the product

### A COMPANY PACKAGING



A company packaging : Corrugated board with low crushing strength and proteiform



REACH packaging :REACH label is posted on the sides of the packaging ,which shows the Qr code anti-counterfeiting marks,barcode and production date.Through the production date , we can quickly and effectively trace the batches of the product and provide customers with the satisfactory solutions when the complaints occurs.



A company packaging :No Qr code anti-counterfeiting marks,no barcode and no production date

## REACH PACKAGING



REACH inner packing: We use the Polyurethane to protect the product. The Polyurethane with the stronger anti-vibration performance and non-pollution, so it can effectively reduce the product deformation and other damage in the transport.

## A COMPANY PACKAGING



A company inner packing: They use the cardboard to protect the product. See from the picture, the cardboard with poor anti-vibration performance and proteiform. The product is easy damaged in the transport.

## REACH PRODUCT



REACH outside box: Five layer corrugated cardboard 7mm thickness

## A COMPANY PRODUCT



A company outside box: Three layer corrugated cardboard 3mm thickness



REACH product appearance: Clean and shiny surface .Meanwhile, in order to avoid the impurities entering the product to plug up the tube and the oil cooler,all the holes on the products are equipped with the dust caps.



A company product appearance: The black and dim surface .All the holes on the product without dust caps.

## REACH PRODUCT



REACH product: High frequency tube production machine imported from Japan. The tube is homemade, which can effectively control the quality of the tube. The lining of the tube is with the anticorrosive coating and outer layer of the tube is with the welding coating. When it is welding in the oven filled with nitrogen gas, the welding coating on the surface will be melted through the high temperature, and then the tube can be welded with the fin. After welding, the core looks silver and shiny.

## A COMPANY PRODUCT



A company product: Most of the products on the market using extruded tube. As outer layer of the tube has no welding coating, there is no melting when it is welding in the oven. So the surface of extruded tube is shiny. Besides, the manufacturing equipment and process of this extruded tube is simple. Compared with the high frequency tube, the extruded tube is with the poor smoothness, bad welding effect, uneven material thickness and poor burst pressure. In terms of price, the extruded tube is cheaper than the high frequency tube more than 20%.



REACH product: The silver anti-counterfeiting sticker is posted on the product firmly. It clearly shows the QR code and a unique serial number. During the production, the QC will inspect the each product and the qualified products will be marked "ok"



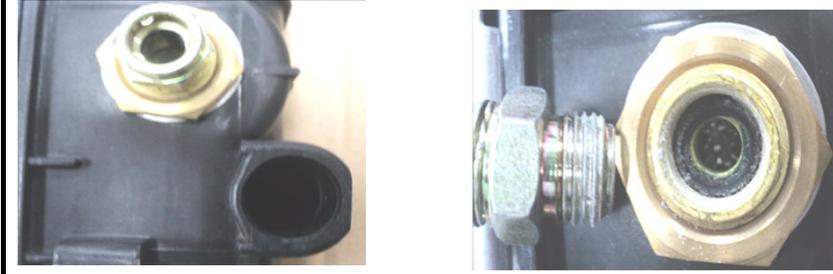
A company product: There is just a little sticker posted on the product. We can't find the production date and any qualified mark in the sticker. When the product has problems in the market, it is disadvantage of after-sales service.

## REACH PRODUCT

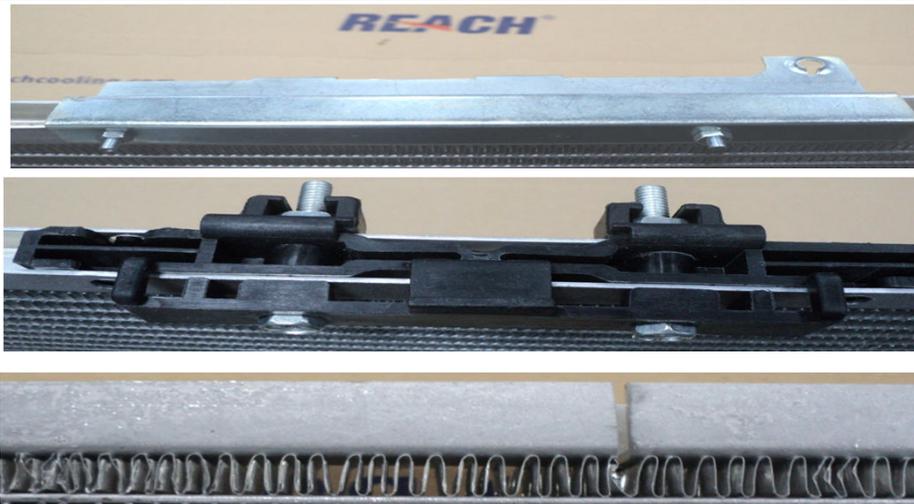


1. REACH radiators are sold with dust caps for all threaded connections on oil cooler to avoid any blockage inside.
2. REACH choose KPM as the material of O-rings for oilcooler, although it costs more than 10 times expensive than others. KPM is also used by most OEM suppliers in USA and it performs very good in low/high temperature resistance and oil resistance.
- 3 REACH provides sensor plugs as long as there is a sensor hole in radiator, which makes the radiator universal for more applications.

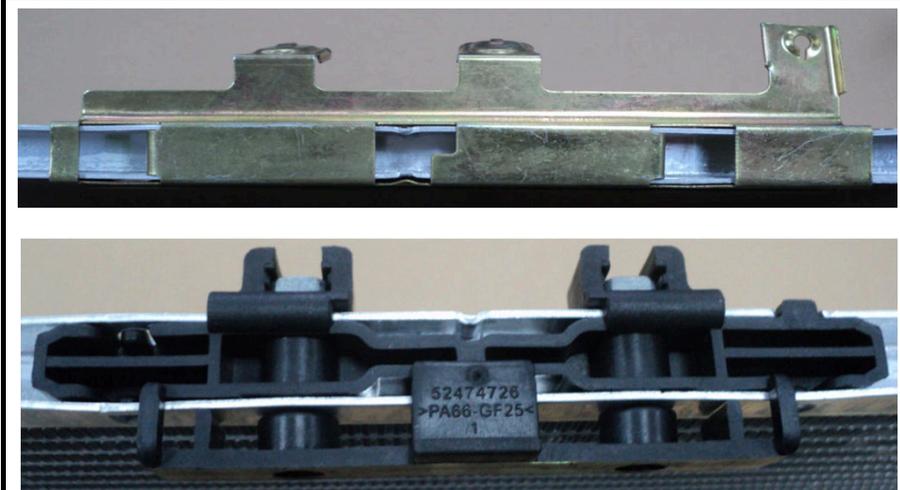
## A COMPANY PRODUCT



1. The radiator from A company has no dust cap for oilcooler, and it is easily blocked by impurities
2. The O-ring is out of shape before due to inferior material, and seals with many impurities. In this situation, the oil will come out from cooler and cause damage to transmission
3. There is no sensor hole plug, which is only for one application

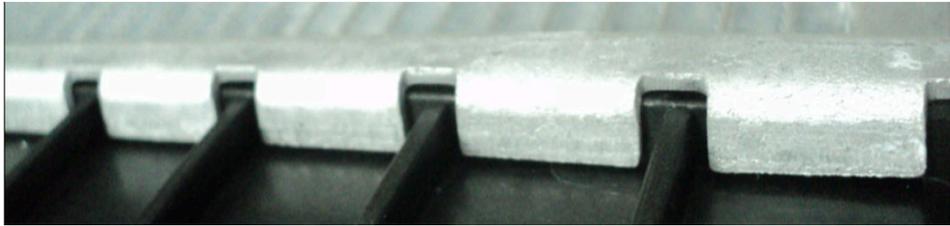


1. REACH radiators have screw bolts to fix brackets on side plates to make sure it is strong and not fall.
2. REACH radiators has saws track on side panels which are able to withstand the thermal expansion impact during operation



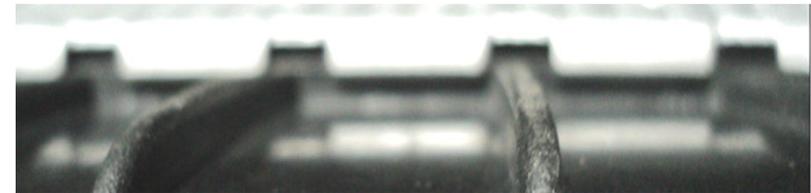
1. The radiator from company A has not screw bolts to fix brackets, so they may easily fall before use.
2. There is not any saw track on side panels. The tubes may cannot withstand thermal expansion impact and crack during operation leading to leak.

REACH PRODUCT



REACH tanks and head plates are crimped perfectly.

A COMPANY PRODUCT



The radiator from A company is not crimped so good.the header teeth are a litte short and cannot match the tank completely.



REACH drain plug has a long hand shank for easily mouting and dismounting without any tool



The drain plug from A company cannot monut and dismount by hand, it must work with another tool.

## REACH PRODUCT



REACH radiator has 37 tubes and 38 rows of fins with 8mm fin height and 3mm FPI.

The thermal performance is 10% higher than those from other companies.

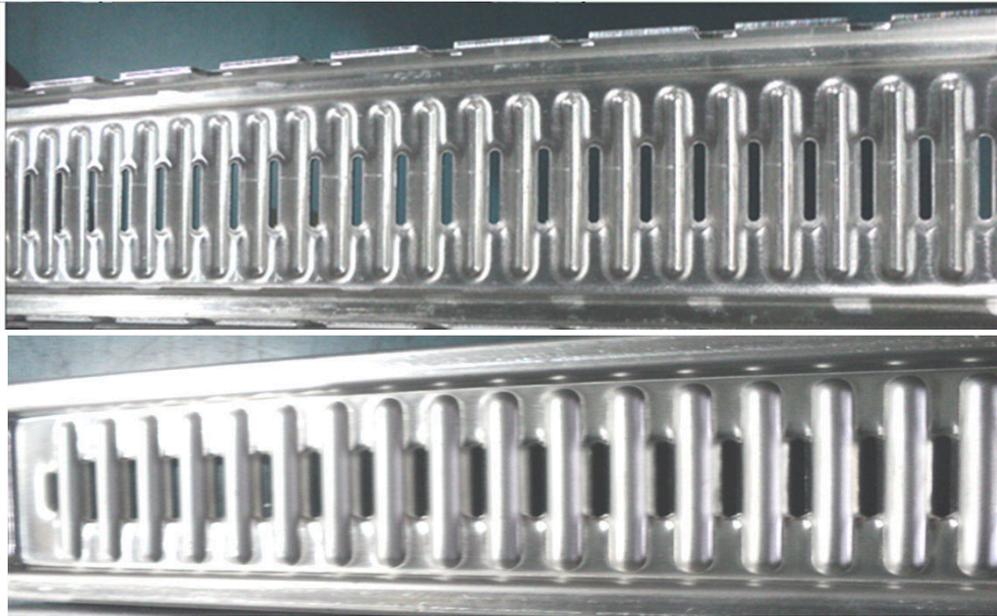
## A COMPANY PRODUCT



The radiator from A company has only 34 tubes and 35 rows of fin. The FPI is fewer than REACH radiator.

So the thermal performance is down obviously

## REACH PRODUCT

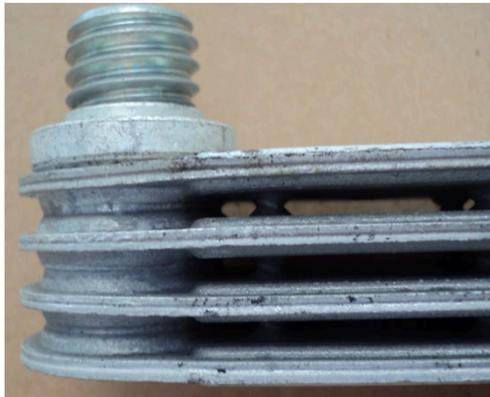


The slot of REACH head plate is deep and the head plate is strong enough to keep shape.

## A COMPANY'S PRODUCT



The slot of A company's head plate is not deep and their head plate is weak and easy to be out of shape.

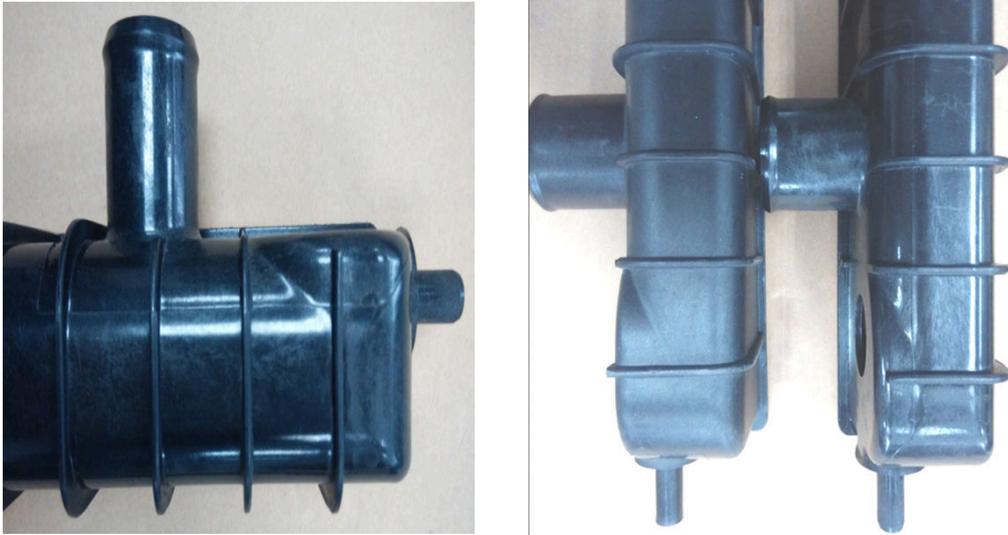


REACH use same design for the oil cooler as OE product. The number of plate is 4 and the plate size is 44mm. Looking from the cross-section, the internal fins are uniform and well-welded which provide high heat exchange performance to the transmission.



A company use tubular oil cooler with 25mm diameter. Looking from the cross-section, the internal fins is not full of the cooler and not welded which will not provide enough heat exchange performance and caused transmission broken.

## REACH PRODUCT



REACH tanks are made of PA66 plastic including 33% glass-fiber. It's glossy, strong and heat resisting. The right picture is the comparison between REACH tanks and A company's tanks. The difference is very clear.

## A COMPANY'S PRODUCT



The tank is made of bad material. It's non-glossy, weak and easy to shrink and expand during running.

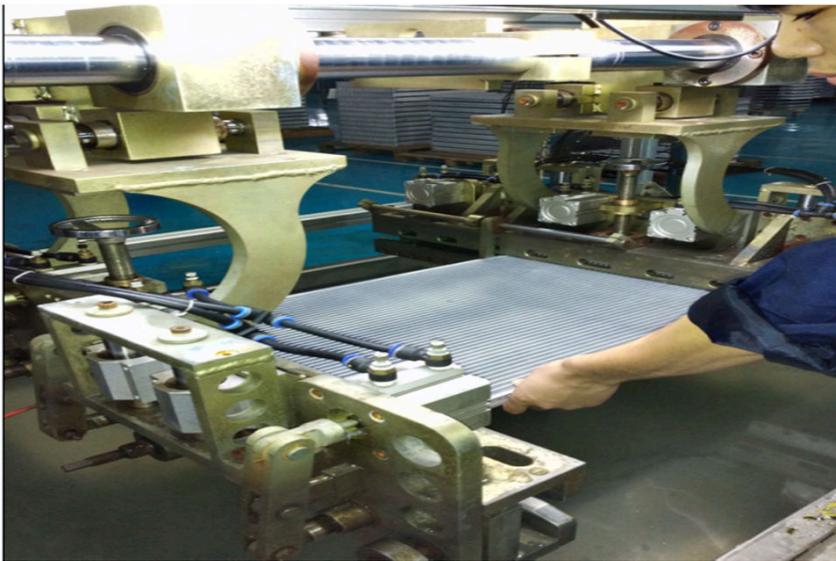
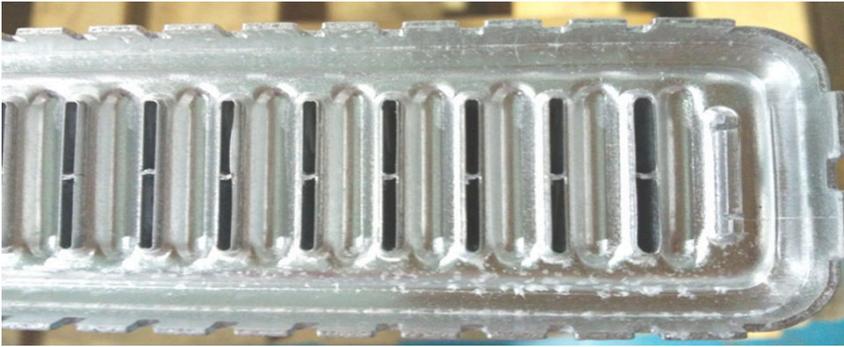


The thickness of REACH tank material is over 3mm



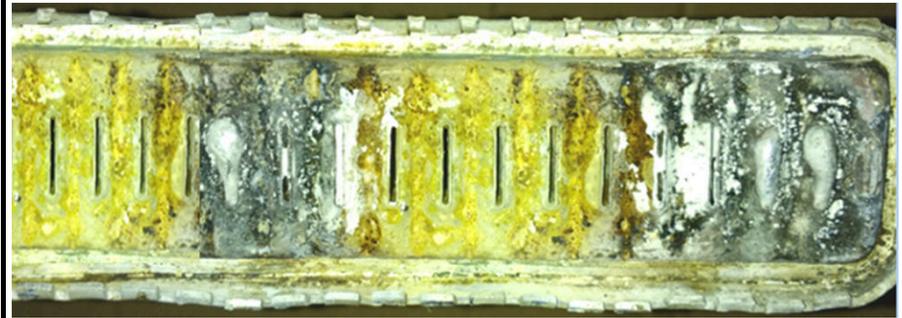
The thickness of A company's tank is only 2.7mm

## REACH PRODUCT



The core is under the protection of Nitrogen when it is welding in the furnace so the welding is full and strong. Before crimping the tank, REACH inspects airtightness in the water for each core in order to make sure every unit is qualified when it enters into the next process. After crimping the tank, we will do the second airtightness test for the completed radiator. It greatly increases the primary qualification rate of our product and avoids rework for which we need to take down the tank and weld the leaking point by hand.

## A COMPANY'S PRODUCT



Some of A company's radiators are crimped repeatedly. After taking off the tank, you can find some of the tubes are blocked or repeated with welding by hand, which will decrease the heat exchange performance.