Forced Induction Interchillers

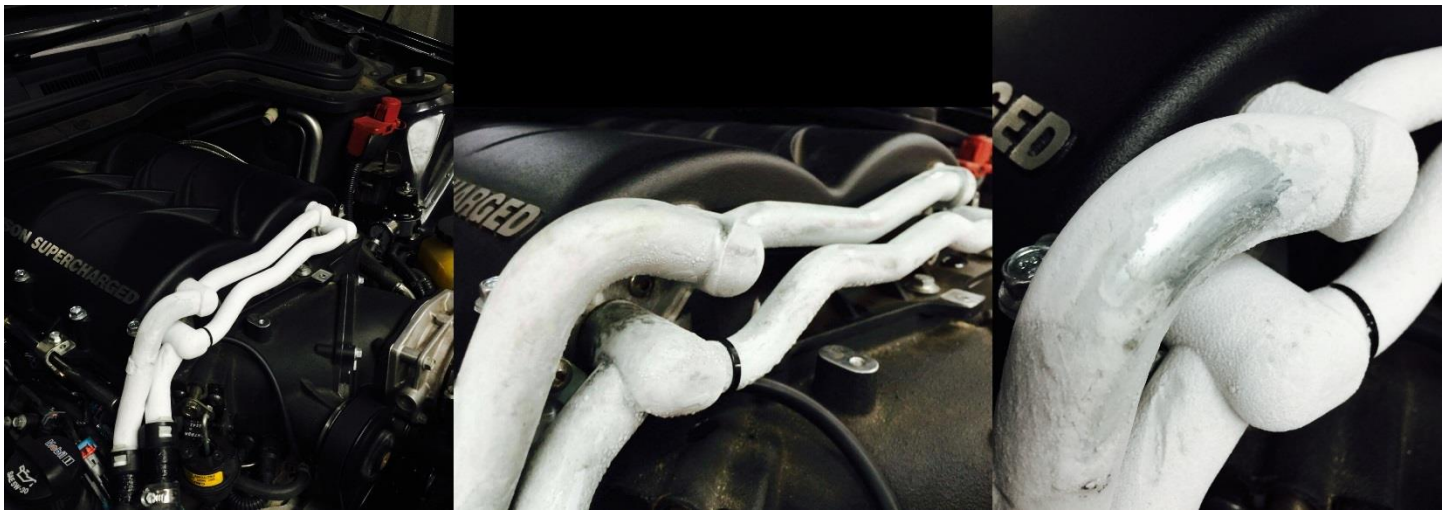
Patent Pending

Turning any temperature into freezing cold winter!

- **Race Track Safe**
- **No condensation leaks**
- **Below ambient intake air temps**
- **0c (32f) or less intake air temps**
- **No performance loss with cabin AC**
- **Dyno and race track proven HP gains**
- **Protects engine from pre ignition**
- **Improves fuel consumption**
- **Gain back ignition timing**
- **Stealthy Installation**
- **No cutting into the car**
- **Patent Pending Design**
- **Entire System Warranty**
- **Great Customer Support**

Thank you for your enquiry about purchasing one of our Forced Induction Interchiller Systems.

- We provide full customer/technical support to all installations, we are only a phone call or email away
- The Interchiller system includes every nut and bolt you will require we even include highly detailed step by step photo and Video instructions.



Yes this is condensation that has turned into ice on the intercooler fluid lines of a Magnuson Heartbeat supercharger.

What is a Forced Induction Interchiller?

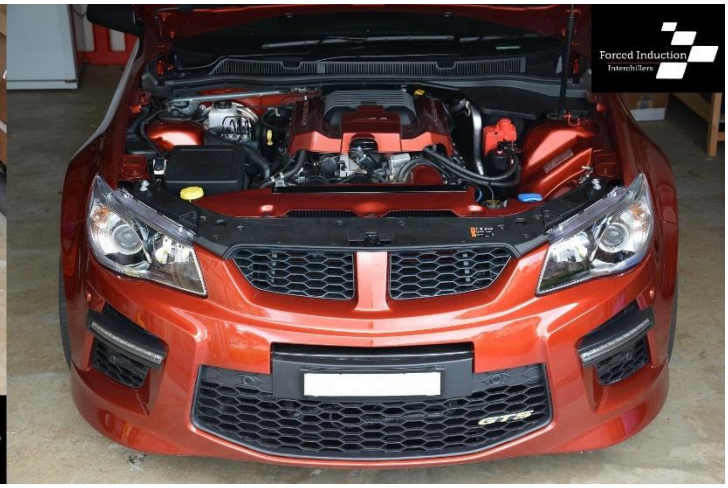
In simple terms we are T-Piecing into the cars AC system and the refrigerant is being split 50/50 between the cabin AC and our interchiller. Our interchiller has a patent pending design for its distribution of refrigerant into the core, which is one of the reasons why we are able to get so cold. The core is made up of 2 channels each consisting of 20 plates, in the first channel your intercooler fluid flows through, in the second your AC which supercools your intercooler fluid extremely cold as low as minus -15c (5f) the cabin AC is not affected if anything it is colder than stock since we almost double the refrigerant capacity of the system. You then have a car which will make more power, it will be consistent, you can hot lap it at the drags without waiting to cool back down as it will be back to freezing cold by the time you drive back, and your engine is also protected from pre ignition since it is running a colder intake charge.

Drag Racing

The interchiller is especially useful in drag racing, typically you would perform your burnout and then stage your car, in these circumstances your intake temps are now very high and are only going to get higher as the car has no air flow for cooling, it's at this point the chiller changes everything. It is not uncommon to have an intake temp after your burnout of 10c (50f) or less on a 30c (86f) day. We have crossed the finish line with intake temps in the low 40's c (100f) compared to normally crossing at 80-90c (176-194f) this is a lot of ignition timing and HP being gained!

We warranty the entire system for 12 months for workmanship and defects!

We warranty every component of the Interchiller system, we only use the highest quality components which have all been pressure tested far beyond the limitations of your AC system using SAE J2064 standards.
Our system does not cut into the cars AC system or intercooler system in any way you can easily return the car to stock and nobody would even know you had it installed.



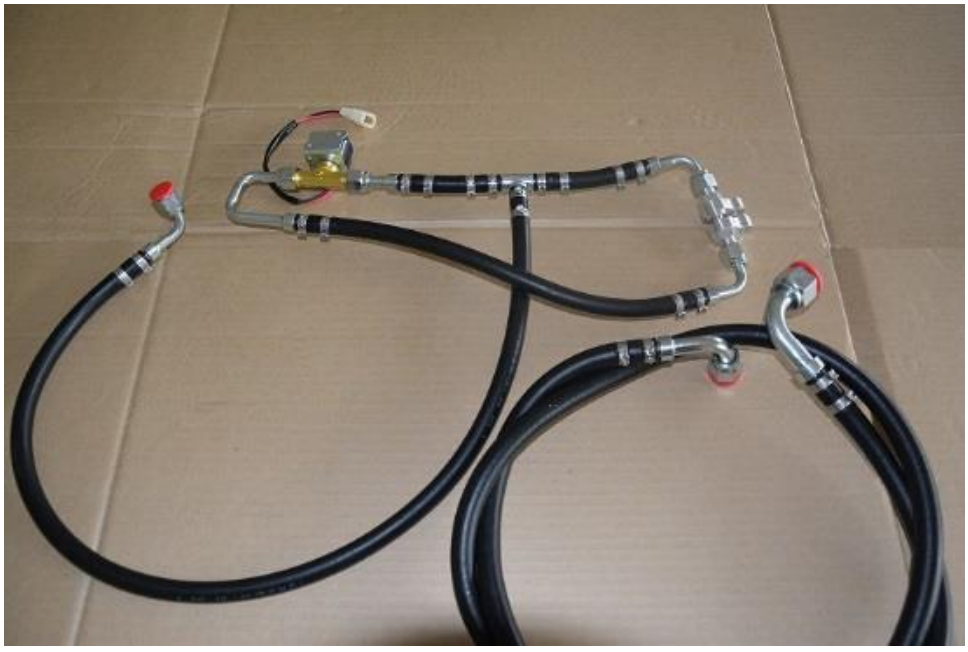
Hoses and Fittings:

We refuse to use cheap and nasty AC fittings, they have built in issues along with long and short term problems.
The hoses and fittings that we use are tested to SAE J2064 standards they actually exceed those standards.
The burst pressure on them is 2500psi, this is impossible for your AC system to achieve, thus it will never burst.
As shown in the picture below with regular crimp style hoses they are often plagued with the issue of trapping air and PAG oil in the crimp, which over time turns acidic.

With the clamp system we use this never happens and you actually have a much stronger bite of the hose into the bite sections of the fittings, for a system that will last many years to come.

The fittings we use have a tensile strength on the weakest part (the radius) of 1600kg / 3527lbs

The manufacturer we buy the hoses and fittings from warranties them as long as we use their hoses, clamps and fittings.
As such we warranty the entire system, this shows how confident they are in their product that it will not fail and should it fail which is HIGHLY unlikely it will be replaced.
During SAE J2064 testing of the hose/fittings when it fails the part that fails is the actual hose bursting open at 2500psi!!!
The fitting and clamps remain intact still holding the hose to the fitting….only the hose is bursting open.
This shows how strong the clamping system is and the bite force being applied to the hose/fitting.
This is much stronger than regular crimping which is why the manufacturer is able to warranty their product.
It's a case of buying the best possible AC hose/fittings that is the most versatile, flexible to our needs and of a very high quality.
It may not be the cheapest option but usually the cheapest option has its own flaws.
This picture is an example of our hoses all assembled ready to be installed.



Our Interchiller is Patent Pending:

We have completed a lot of R&D into our chiller design to get an even distribution of the AC gas across all of the plates in the chiller, this is essential to the cooling performance. What happens is the gas shoots into the chiller at a very high pressure and hits the base of the chiller, then some of the gas will revert backwards and only pass over the bottom few plates, this will not utilize the entire surface area of the chiller. So we have designed a specialized distribution device in the inlet of the chiller which forces the AC gas evenly across all of the plates. This results in the best heat transfer possible resulting in colder temps and getting colder temps faster. This is why we have been able to apply for a patent on our design.

Not all heat exchangers are built the same and here is a perfect example, the incorrect heat exchanger is being used in pictures 1 and 2 and clearly shows the refrigerant is not being evenly distributed through the entire heat exchanger. In Picture 3 thermal picture once the heat exchanger was replaced with the correct unit refrigerant is now being evenly dispersed and the entire surface area is beint utalized. Cooling efficiency and heat transfer is now optimal.

Thermo camera picture visualizing refrigerant mal distribution in the heat exchanger

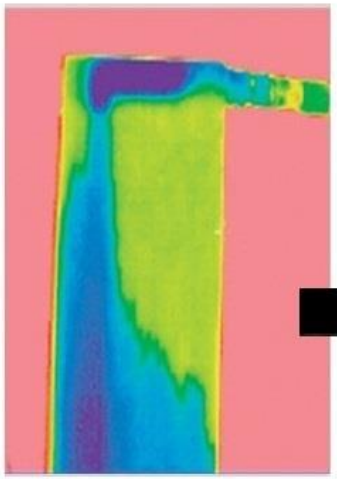
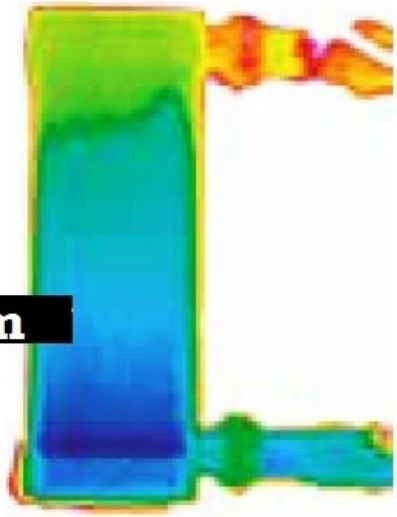


Photo of the same phenomena visualized by ice deposit on outside of the heat exchanger

Thermo camera picture visualizing correct refrigerant distribution in the correct heat exchanger



Chiller Sizes:

Race Chiller is 18.5” long it is the largest chiller we can fit to the cars.
Sport Compact 12.5” chiller which can be mounted in tight locations or smaller cars.

Competition Solenoid:

You have the option to buy an Interchiller system with or without the cabin evaporator bypass solenoid, this solenoid allows you to turn ON/OFF the AC supply to the cabin and dedicate all of the AC to the chiller only with a simple ON/OFF switch so you can use the Interchiller system on a race track. All race tracks will not allow you to race if you are leaking anything from your car. Having the cabin AC turned off with the solenoid will stop condensation leaking from the car. What normally happens is moisture will stick to your cabin evaporator and drip under the car. This will not happen when you use the competition solenoid so the Interchiller system is safe to use on any race track. Also by using the competition solenoid it allows you to get even colder temps as the AC gas is completely dedicated to the chiller only.

Bypass Valve:

We supply a water bypass diverter valve with our Interchiller system. This allows you to choose if you would like to bypass your standard front mount heat exchanger with the simple control of the valve with an ON/OFF switch. The reason for this is your intercooler fluid is so freezing cold that if the coolant passes through the standard front mount heat exchanger the ambient air will actually heat up the coolant, as such the heat exchanger has now become a heat source instead of a cooling source. So bypassing the heat exchanger will result in colder temperatures, in 99% of driving you will leave this valve closed bypassing the heat exchanger, if you wish to not use your AC system for some reason then you have the option to open the bypass valve and utilize the factory heat exchanger as normal.

CNC Fittings:

All of our fittings are custom made on our CNC to look and function with an OEM standard, these fittings pictured suit most GM makes, however we do have other brands available to us.

The Interchiller Kit:

The Interchiller kit comes preassembled everything simply bolts on, should any of your aftermarket components interfere with our system layout the AC lines are easily altered this is the beauty and versatility of our system.

Once the Interchiller system is installed it is maintenance free it does not require servicing or any additional funds to be spent.

Results:

The results we have seen are amazing, the amount of HP being lost due to excessive heat is gained back and then some!

On average we are seeing 40-45rwhp gained throughout the entire power curve this is dependent on the talent of your tuner and make of supercharger, **average HP wins races** and 40-45rwhp is a massive gain when it's throughout the entire power curve.

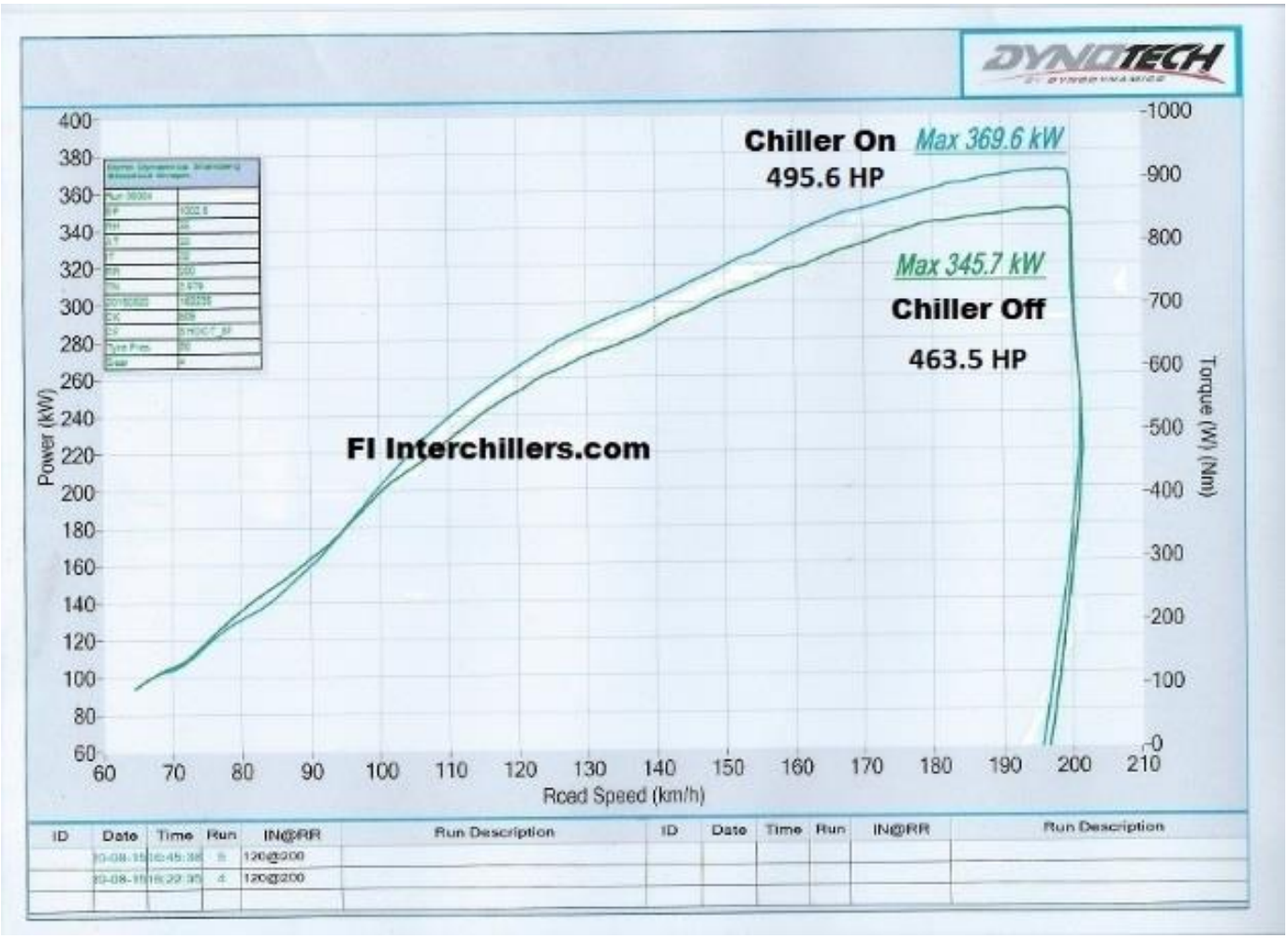
We recently tested our Interchiller in 36c (97f) summer temperatures.
With the chiller only (competition mode) our IAT2 was at 10c (50f)
With the chiller and the cabin AC running our IAT2 was at 15c (59f)
The cabin AC was unaffected and very nice and cold even on such a hot day.
On colder days we have seen IAT2 temperatures range from minus -4c to 5c (24f to 41f)

A standard LSA supercharger without any Interchiller the IAT2 is normally 10c above the ambient temperature so when we are achieving an IAT2 of 10c (50f) on a 36c (97f) summer day this is equivalent to driving in winter time when the ambient temperature is 0c (32f) ice cold….and this is on a very hot summers day!

You can view the video of these results here: **http://www.youtube.com/watch?v=KGAyIYlCXvY**

Dyno Results:

On a standard 2014 Model HSV Gen-F GTS fitted with the standard 6.2L LSA Supercharged engine we saw a gain of 23.9rwkw 32.1rwhp. The gain in HP is possible because of 2 reasons. The first being the air is colder the oxygen is denser and you are getting a better cleaner burn of your air/fuel mixture. The second reason is more interesting because your intake air temp is lower the cars ECU is not pulling out as much ignition timing as it would have if you were at a hotter temperature. On this particular dyno run we saw a gain of 6 degrees of ignition timing…that's a lot of power made there. Remember this is on a stock car, when you make even more heat when you over spin the blower the gain will be even higher as you remove much larger amounts of heat.



On our shop car the same car as above the 2014 HSV Gen-F GTS once modified with heads, cam and 16psi boost out of the LSA engine on pump fuel we saw a gain of 35.5rwkw 47.6rwhp.

AC System & Pressures:

We have completed all of the hard work for you with our interchiller system. Setting the AC system pressures is a difficult task when trying to battle engine and cabin temperatures.

We have spent a lot of time perfecting, road testing and data logging the AC system pressures to give the best results possible, we provide you with very simple instructions which advise you of a very specific quantity of AC oil and AC gas that needs to be added to the system taking all of the guess work out of recharging the system.

As seen in the picture on the left the performance of the cabin AC is unaffected if anything it is colder than standard since we have about double the system capacity of refrigerant.

What about my aftermarket components?

The beauty of our system is should any of your aftermarket components interfere with the system layout you can very easily alter the AC line lengths and locations making it highly versatile and able to fit any car.

Purchasing from Forced Induction Interchillers:

When you purchase an Interchiller system from Forced Induction Interchillers you are provided with the highest quality customer service and technical support, we are only a phone call or email away and we are here to help. Our Interchiller system is patent pending due to our unique design and function. We have the best performing Interchiller system on the market, our temperatures are the lowest possible in any climate. There is not one single area of our Interchiller system that hasn't had a lot of fine engineering put into it. We have perfected every aspect of our Interchiller system. You really do pay for what you get with our Interchillers.

Prices:

Sport Compact 12.5" Interchiller Kit 40 plate system $2395 AUD
Race Chiller 18.5" Interchiller Kit 40 plate system $2495 AUD
*Optional Competition mode bypass solenoid $100 AUD
**Universal kits are also available to suit any make/model car
All prices are in Australian Dollars, you can convert this online using currency converters to your local currency.

Shipping:

Australian based shipping via courier with insurance and we provide you with tracking.
Shipping to the USA, UK and Canada is 4-5 days sometimes less depending on where you are located, we provide you with tracking via DHL and the package is insured.

Lead Time:

Before you are ready to place your order we will provide you with a very accurate ETA of how long it will take before your Interchiller is ready to be shipped, we keep Interchillers in stock so delays are minimal. We also keep you up to date with progress and completion photos of the Interchiller kit.
I do hope to hear from you soon

Kind Regards,
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