

***PROFILE DESIGN*** 

WHEEL MANUAL



[www.profile-design.com](http://www.profile-design.com)

## PRODUCT MANUAL – PROFILE DESIGN WHEELSETS

Note to Dealers: If you install this product for the consumer, please provide him/her with this owner's manual after installation.

This product is not intended for use by children age 12 and under.

Thank you for purchasing the Profile Design Altair™ and Armada™ Wheelset. Please read these instructions thoroughly before attempting to install and use this wheelset. For a more recent copy of this manual visit [www.profile-design.com](http://www.profile-design.com). Proper installation is required for compliance with Profile Design's warranty policy. If you are not familiar with wheelsets and the installation of tubular tires please seek the assistance of your Local Profile Design dealer by logging on to [www.profile-design.com](http://www.profile-design.com) and using "dealer search" or by calling Profile Design's customer service number.

### IMPORTANT NOTE

This user's manual for this specific component on your bicycle is not a substitute for all the safety and use information contained in the owner's manual that was supplied with your bicycle. If you do not have such an owner's manual, contact the bicycle's manufacturer or retailer for a copy. To the extent that your bicycle user's manual and this component part user's manual conflict as to the use of this specific Profile Design component, this user's manual should be followed. If you are unsure about the resolution of a conflict between this manual and any other manual or set of instructions, please consult your local bicycle retailer.

### WHEEL MODELS

This manual covers the following models:

MODEL NAME	MODEL DESCRIPTION
Altair 52 Tubular	Full carbon tubular rim - 52mm depth
Altair 80 Tubular	Full carbon tubular rim - 80mm depth
Altair 52 Full Carbon Clincher	Full carbon clincher rim - 52mm depth
Altair 80 Full Carbon Clincher	Full carbon clincher rim - 80mm depth
Altair 52 Semi Carbon Clincher	Carbon clincher rim with alloy bead and braking surface - 52mm depth
Altair 80 Semi Carbon Clincher	Carbon clincher rim with alloy bead and braking surface - 80mm depth
Armada 24 Alloy Clincher	Alloy clincher rim - 24mm depth
Armada 30 Alloy Clincher	Alloy clincher rim - 30mm depth
Armada 38 Alloy Clincher	Alloy clincher rim - 38mm depth

### **Your Profile Design Wheel purchase includes:**

- Front and rear wheel skewers
- Universal carbon rim specific brake pads (does not include pad holder or mounting hardware. Brake pads only supplied with wheelsets that have a carbon brake surface)
- 1 pair valve extenders (Altair wheelsets only)
- Replacement spokes & nipples for front and rear Altair wheelsets only. The lengths for the replacement spokes are as follows:

Altair 52 Front 261mm

Altair 52 Rear Drive 265mm

Altair 52 Rear NON Drive 258mm

Altair 80 Front 233mm

Altair 80 Rear Drive 237mm

Altair 80 Rear NON Drive 230mm

- Spoke tool (Altair wheelsets only)

Please check at the time of purchase that you have received all the listed items and inform your retailer if any item is missing.

### **IMPORTANT SAFETY INFORMATION AND WARNINGS**

BEFORE EACH RIDE check to ensure:

- Each quick release is properly adjusted, closed and the wheel is properly seated in each dropout so that brakes and shifting work properly
- That brakes are properly functioning and adjusted
- That the wheel is “true” (does not wobble from side to side or “hop” up and down when rotated on the bike) and rotates freely
- That the spokes/nipples are not damaged, bent or of improper tension (check by applying finger tension to all spokes and comparing tension between them)
- That there is no visible damage to the carbon surfaces of the rim
- That the tires are properly inflated and mounted and have no surface cuts, abrasions, cracking or other irregularities.
- For rims with a carbon brake surface please check the surface to make sure there are no cracks, deformities, scratches, gouges or chips in the carbon brake surface.
- For rims with an Aluminum brake surface check the wear indicator on each rim. The wear indicator is a small dimple in the surface of the alloy braking surface. If the indicator is worn away or is not visible DO NOT use the wheel as the rim thickness may be compromised.

If any of the foregoing is not correct DO NOT use the wheel. The following instructions provide more detail on each of the points above. If you have any questions regarding these contact your authorized PFD dealer where you bought the wheels of PFD.com.

## **GENERAL WARNINGS**

- Profile Design Carbon wheels require a valve extender (included) in order to inflate the tire. Install the valve extender on the valve stem of the tire before installing the tire onto the rim, making sure the extender is firmly attached and properly sealed to avoid losing air. Do NOT use any other valve extender other than the one supplied.
- Profile Design Carbon wheels should be used with 700c diameter tires only. The tubular rims can accommodate 19-23mm tire widths while the clincher rims can accommodate 22-24mm tire widths using the ISO or ETRTO measurement system Do NOT use wider or narrower tires as rim/tire damage or a crash may occur. Profile Design Carbon wheels should not be used for cyclocross (or off paved surfaces) or tandems.
- The rider weight limit for the all carbon (tubular and clincher) models is 220 lbs (100kg).
- A creaking component can be a sign of potential problems. Make sure all contact surfaces between components are clean, all bolt threads are greased or are treated with proper thread lock and tightened to Profile Design's (or the bike manufacturer's) specifications and all components are properly sized to fit together. If you continue to experience creaking stop using the Profile Design component and call Profile Design customer service.
- Periodically, closely examine all surfaces of this Profile Design component (after cleaning) in bright sunlight to check for any small hairline cracks or fatigue at "stress points" (such as welds, seams, holes, points of contact with other parts etc.). If you see any cracks, no matter how small, stop using the part immediately and call Profile Design customer service.
- Whenever you install any new component on your bike make sure you thoroughly try it out close to home (with your helmet) where there are no obstacles or traffic. Make sure everything is working properly before going off on a ride or to a race.
- Racing (road, mountain or multi-sport) places extreme stress on bicycles and their components (like it does riders) and significantly shortens their usable life. If you participate in these types of events, the lifetime of the product may be significantly shortened depending upon the level and amount of racing. The "normal wear" of a component may differ greatly between competitive and non-competitive uses, which is why professional level riders often use new bikes and components each season as well as having their bikes serviced by professional mechanics. Particular care should be placed in the regular examination of your bicycle and it's components to insure your safety.
- A number of factors can reduce the life of this component to less than its warranty period. Rider size and/or strength and riding style, high mileage, rough terrain, abuse, improper installation, sweat, adverse environmental conditions (such as

salt air or corrosive rain), travel damage (especially if bike and components are repeatedly disassembled and then reassembled) and crashes or accidents can all contribute to the shortening of the life of this component. The more factors that are present, the more the life of the component is reduced.

- All of the warnings and care instructions that pertain to the metal parts apply doubly to carbon fiber parts (except for corrosion) as they are very delicate and can be easily damaged during use. The use of a torque wrench is highly recommended as it is very easy to over or under tighten any carbon part resulting in a cracked (ruined) part or worse, a part that breaks during usage. On a routine basis you must thoroughly check for cracks, wear marks, surface deterioration, delaminating, chipping of the finish or carbon splintering especially where a carbon component contacts or is mated to a non-carbon component. Once the surface of a carbon part is compromised it can break. Do not apply any lubricant to any carbon surface where they come in contact with another carbon or metal part. After a crash carbon parts may be scraped but will not likely be bent like a metal part. However they can still be weakened and must be replaced. Call Profile Design customer service and ask about our “Crash Replacement Policy”.

### **CLINCHER WHEEL WARNINGS**

- Do not use tires narrower than 22c on Profile Design clincher rims.
- Correct mounting is essential for your safety and compliance with the Profile Design warranty.
- Before mounting your tires ensure that the rim bead and sidewall is clean and free of gouges, dents or scratches and that the tires and tubes are new, free of dirt, cuts, cracks and abrasions.
- Read directions from tire and inner tube manufacturer.
- Do not use any tools other than plastic tire levers to install or remove clincher tires from your wheels.
- Please observe the maximum/minimum stated pressure rating on your tires when inflating them (using a tire gauge). **DO NOT EXCEED 125 PSI UNDER ANY CIRCUMSTANCES** regardless of the pressure listed on the tire.
- Under-inflating your tires (under 95psi) can not only lead to flats it may also cause damage to the rim and/or tire especially during riding on rough road surfaces.
- **DO NOT** use air compressors or gas station pumps to inflate tires as there is a chance they could over-inflate the tires.

### **TUBULAR WHEEL WARNINGS**

- Correct mounting is essential for your safety and compliance with the Profile Design warranty.
- Before mounting your tires ensure that the rim bed is clean and free of old glue and the tires are new, free of dirt, cuts, cracks and abrasions.
- You must use tubular glue to affix your tubular tires to your Profile Design tubular wheels. **DO NOT USE 3M Fast Tack** or any glue not compatible with carbon wheels.
- Tire pressure alone is not sufficient to hold the tire to the rim and could lead to the

tire rolling off while riding and subsequent loss of control. Heat (from hot pavement, braking or rim sitting in a hot car) may also soften the glue and reduce its ability to hold the tire onto the rim securely. Also, glue that is too old (and still on the rim) may also need to be cleaned and re-applied.

- Read directions from glue and or tire manufacturer.
- Do not use any tools to install or remove tubular tires from your wheels. Please observe the maximum/minimum stated pressure ruling on your tires when inflating them (using a tire gauge) and regularly check the integrity of the glue bond between the tires and rim (while the tire is deflated). **DO NOT EXCEED 140 PSI UNDER ANY CIRCUMSTANCES** regardless of the pressure listed on the tire.
- Under-inflating your tires below the amount recommended by the tire manufacturer may cause damage to the rim and/or tire especially during riding on rough road surfaces.
- **DO NOT** use air compressors or gas station pumps to inflate tires as there is a chance they could over-inflate the tires.

## INTENDED USE

This chart shows the Type and Common Category of Rim, Caliper or Disc Brake, Intended Use, and the ASTM Intended Use Classification Guidelines are integrated below for model year 2010 PROFILE DESIGN Rims:

Wheel Model Name	Category Name for Intended Use	ASTM Intended Use Classification	Tire Section width recommended by ISO/ETRTO for use with rims of this inner rim width	ISO / ETRTO Rim Size Designation (Dia mm x inner rim width mm)	ISO Rim Bead Seat Diameter	PSI range (min-max)
Altair 52 Tubular	Tri / Road	Condition 1	19-23mm	NA	633mm (aka 700c)	95-140 (or max tire recommendation)
Altair 80 Tubular	Tri / Road	Condition 1	19-23mm	NA	633mm (aka 700c)	95-140 (or max tire recommendation)
Altair 52 Full Carbon Clincher	Tri / Road	Condition 1	22-24mm	622x13C	622mm (aka 700c)	95-125

Altair 80 Full Carbon Clincher	Tri / Road	Condition 1	22-24mm	622x15C	622mm (aka 700c)	95-125
Altair 52 Semi Carbon Clincher	Tri / Road	Condition 1	22-24mm	622x14C	622mm (aka 700c)	95-125
Altair 80 Semi Carbon Clincher	Tri / Road	Condition 1	22-24mm	622x14C	622mm (aka 700c)	95-125
Armada 24 AL Clincher	Tri / Road	Condition 1	22-24mm	622x14c	622mm (aka 700c)	95-125
Armada 30 AL Clincher	Tri / Road	Condition 1	22-24mm	622x14c	622mm (aka 700c)	95-125
Armada 38 AL Clincher	Tri / Road	Condition 1	22-24mm	622x15c	622mm (aka 700c)	95-125

Where possible, in addition to industry standard descriptions, this PROFILE DESIGN User Manual references American Society for Testing and Materials (“ASTM”) Standard Classifications for Bicycle Usage to describe Intended Use, along with Common Terms. See ASTM Designation F 2043-09 at [www.astm.org](http://www.astm.org)

For clarification, PROFILE DESIGN defines “Tri/ Road ASTM Condition 1” as a set of conditions for the operation of a bicycle on a regular paved surface where the tires may unintentionally lose ground contact. This style of riding does not include riding off paved surfaces and there is no jumping. Condition 1 bicycles have no suspension.

### **MOUNTING / REMOVING THE CASSETTE**

Profile Design wheels are designed specifically for SRAM, Shimano or Campagnolo 9 or 10 speed cassettes. Make sure you have the correct cassette for your free hub, speed and manufacturer.. Profile Design hubs have interchangeable free hub bodies and your wheels can be retrofitted by your Profile Design retailer to an alternative free hub style at a later date if needed.

### **REMOVING THE CASSETTE**

ALWAYS use the chain whip on the smallest gear to loosen the cassette lock ring, or the aluminum spline may be damaged. Follow the directions of the cassette manufacturer (SRAM, Shimano or Campagnolo) for specifics on mounting and

removal.

## **QUICK RELEASE SKEWERS**

Your Profile Design wheels come equipped with quick release hardware (a camming device). If you are not familiar with quick release skewers or have never seen a proper demonstration as to how they work, ask your retailer to help you make sure you know how to install and remove your wheels safely or you can follow the owners manual that came with your bicycle (which typically explains the procedure for the front and rear wheel removal in more detail). Failure to close the quick release properly can result in a serious accident leading to injury or death. Always check to ensure that your wheel quick releases are securely clamped before you ride your bicycle.

The quick release uses an internal cam and “camming” action to clamp the bike's wheels in place. Holding the nut with one hand and turning the quick release lever with the other hand until the lever is seemingly tight (like tightening a regular nut and bolt) but WILL NOT clamp the wheel safely in the dropouts. Using this improper method may result in the wheel becoming disengaged from the bike while riding leading to a crash and serious injury or death.

## **ADJUSTING THE QUICK RELEASE**

The wheel hub is clamped in place by the force of the quick release cam pushing against one dropout and pulling the tension-adjusting nut (on the opposite side of the wheel from the cam lever), by way of the skewer, against the other dropout. The tension-adjusting nut can control the amount of clamping force. Turning the tension adjusting nut clockwise while keeping the cam lever from rotating increases clamping force; while turning it counter clockwise while keeping the cam lever from rotating reduces the clamping force. Less than half a turn of the tension-adjusting nut can make the difference between safe clamping force and unsafe clamping force. The lever should leave an imprint in the palm of your hand as you close the lever. If the lever is too tight and does not close completely (or if it is too easy to close and doesn't leave an imprint) you may need to open the lever, re-adjust the tension on the cam lever with the tension-adjusting nut and then close it again. The quick release levers should always be on the non drive side (left side) of the bike.

## **BRAKE PAD ADJUSTMENT**

**ALL REPAIRS SHOULD BE PERFORMED BY A PROFESSIONAL BICYCLE MECHANIC.** Rim brake pads should be centered on the braking surface of the rim both left and right rim/pad gap, vertically and horizontally (the direction of rotation). Consult your bicycle owner's manual and/or brake owner's manual for the relative information. Position the brake pads so the top of the brake pad is no further down than 1mm from the top edge of the rim. Make sure your brake pads DO NOT TOUCH the tire under braking, as this can result in tire side wall failure and tire blowout or the tire coming off the rim, potentially causing an accident and/or injury to the rider. This adjustment may need to be made on each bike on which the rims

are used.

Adjust your brake calipers to accommodate the Profile Design rim width. They should be adjusted so that the brake pads come into contact with the rim when the brake lever is halfway depressed. Profile Design carbon wheels that have a carbon braking surface and require CARBON RIM SPECIFIC BRAKE PADS such as those supplied with your purchase. **NO NOT USE ANY PADS THAT ARE INTENDED FOR ALLOY RIMS WITH THESE CARBON WHEELS. USE OF NON-APPROVED PADS CAN LEAD TO RIM FAILURE CAUSING INJURY AND/OR DEATH.**

When riding on wet roads your braking distance can be a number of times longer than under ideal dry conditions. This is especially true with carbon braking surfaces and carbon rim brake pads. The wet roads can also cause grit and grime to accumulate in your brake pad surfaces, damaging the carbon braking surface. Take extra precautions when riding in these conditions.

### **TIRE CLEARANCE**

Make sure that any tires you choose not only properly fit the rim diameter and width but that they also fit within the bike frame and fork in both side to side dimensions and vertical dimensions. Pay close attention to this issue when using the wheels on multiple bikes. The tire frame / fork clearance should never be less than 5mm in all directions.

### **TRUING YOUR WHEELS**

ALL REPAIRS OR TRUING SHOULD BE PERFORMED BY A PROFESSIONAL BICYCLE WHEEL MECHANIC. The technique and skill required to properly true a wheel is well beyond the scope of these instructions and beyond the ability of most riders. Your wheels have been carefully pre-stressed, tensioned and trued before shipping and should remain true and round under normal riding conditions. Ensure that your wheels do not have a vertical "hop" or side to side "wobble" once you remove them from the box (by spinning them in your dropouts without tires). They may have been damaged in shipping. Over time or under abnormal riding conditions you may need to re-true and re-tension your wheels for optimal performance. (Typically wheel truing needs to be done after 1000-2000 miles of riding) If you are not sure how to properly perform this service or do not have a spoke tensiometer or wheel truing stand with run out gauges, please take your wheel to a professional bicycle mechanic, or contact Profile Design at [www.Profile-Design.com](http://www.Profile-Design.com) for more details. Profile Design wheels are hand built using DT SWISS Spoke Freeze on the spoke nipples in order to prevent spoke loosening. Thus, in order to properly true your wheels you will need a Twist Resist spoke clamp tool. You may cause your wheels to go out of true if you do not use this tool during truing.

### **CLEANING YOUR WHEELS**

Remove and clean the wheel quick releases regularly and check the tightness of the tension nut and cam lever. Clean your wheel using mild soap and water only. DO

NOT pressure wash or spray with water. Pressure washers can force the grease out the wheel bearings which causes rapid deterioration of the bearings.

Be sure to remove any dirt, grime, grit, grease or lubricant that might get onto the brake surface of the wheel. Make sure your brake pads are clean and free from aluminum shavings, small rocks and other debris accumulated from riding. Clean your brake pads with fine sandpaper or a small file. Proper care and cleaning of your new Profile Design wheels and brake pads will extend the life of the wheels and help to protect the braking surface.

Do not use harsh chemical cleaners on the rims or braking surfaces.

## **INSPECTING YOUR WHEELS**

Cleaning or mounting a tire is a good time to inspect your wheels closely under good lighting conditions. Look for any abnormal bumps or bulges, areas where the clearcoat is worn, any sign of frayed carbon fibers, cracks, deformities, or holes. This inspection needs to be carried out on a regular basis but especially (1) after any crash or after you have hit road debris or potholes, (2) when tires are removed, (3) before a race (4) after shipping or flying with the bike (5) when the tires have gone flat while riding (6) when the wheels make any unusual noises such as clicking, squeaking, cracking or snapping noises.

## **TRAVELING WITH YOUR WHEELS**

If you ship (or fly with) your bike and or wheels, the wheels should be transported in their own carrying cases to prevent damage. We suggest a heavily padded single wheel bags or a hard case. Also, after shipping or flying, the wheels must be inspected (see "Inspecting your wheels" ) and possibly re-trued (see "Truing your wheels") as flying or shipping wheels often will damage them or cause them to go out of true.

## **INSTALLING RIM TAPE AND CLINCHER TIRES**

All new Profile Design clincher wheelsets come with rim tape pre-installed. For new wheelsets please proceed to the section for mounting clincher tires. You must use rim tape with all clincher rims (alloy or carbon). Please note that you CANNOT use rim tape with tubular rims.

## **INSTALLING NEW RIM TAPE**

You must use a thin plastic or thin fabric rim tape to ensure proper tire installation. DO NOT use a thick fabric/cloth rim tape as this could prevent proper seating of the tire on the rim. Make sure that the rim tape is wide enough that it covers the open spoke holes yet not interfere with the bead seat of the tire. It must be of similar thickness as the original tape supplied.

Failure to use the correct width rim strip or tape on your wheel, or improper installation of any rim strip or tape can result in improper seating of the tire bead in the rim, which may lead to the tire coming off the rim while riding and or to sudden tire deflation while riding. Failure to make sure that the rim strip or tape covers all spoke

holes completely and that it stays in place during use may also lead to the tire coming off the rim while riding and or sudden tire deflation. Sudden tire deflation (or tire coming off while riding) can cause loss of control, resulting in serious injury or death. If you have any questions about the correct size, material or fitting of the rim strip or rim tape, check with your Profile Design dealer or contact Profile Design.

Begin rim tape installation by aligning the valve hole of the tape with the valve hole of the rim. Stretch the rim tape around the rim making sure that the tape is centered on the rim and is covering the spoke holes. Finally, check again to make sure the rim valve hole is visible through the valve hole of the rim tape and is not obscured or partially covered by the rim tape.

## **INSTALLING CLINCHER TIRES**

Tires that fit too tightly often irritate riders. If you are having a difficult time mounting a tire on a Profile Design wheel, make sure that you are using the correct Rim Strip. Tire levers should not be used to mount tires. Also in some cases users can damage the bead of the tire (or the tube) in attempting to mount a "tight" tire. If your tire goes on and off your rim with very little hand mounting effort do not ride it. That is the sign of a possible mismatch between that particular rim and tire. If you have another brand or model of rim that is compatible with that tire's size designation, try mounting the tire on that rim to see if it is looser or tighter. If sufficiently tight then use that rim and tire together or contact Profile Design for assistance. A tire that fits too loose can come off the rim while riding (causing serious injuries or death) especially at air pressure approaching the minimum posted on the tire or under hard riding and cornering conditions.

Tires and Rims should be compatible, because they should be made to the same basic international standards; but Profile Design cannot guarantee that all manufacturers make their products in compliance with international standards. While everyone in the bicycle industry tries to work to industry accepted standards, there is no guarantee of 100% compatibility of wheels and tires.

Profile Design wheels are NOT designed to work with tubeless systems, including with conversion kits with sealants, or otherwise. DO NOT use any Profile Design rims with tubeless tires, either with sealants OR any other add-on that requires putting rim tape or rim strips between the tire bead and the rim bead seat. Doing so may cause the bead to seat incorrectly, which could result in the tire coming off the rim while riding and or sudden tire deflation, which can cause you to lose control and fall.

Place the wheel valve hole up with the wheel resting against your legs and mount one side of the tire bead onto the rim using your hands. Take note if your tire has directional arrows and also install the tire with the manufacturer's label/PSI rating at the valve hole – this will assist with finding flats and will make for easier inflation reference later. Work the tire onto the rim by moving your hands away from the

valve hole on each side of the wheel as you seat the tire bead. If the last section of tire bead will not seat by hand VERY CAREFULLY use a PLASTIC tire lever to seat the last section of tire onto the wheel.

Inflate the inner tube enough that it will hold its shape. Insert the valve of the tube through the valve hole of the rim making sure the valve is straight. Then install the rest of the tube between the rim and tire. Make sure that the tube is not folded, twisted or creased once placed inside the tire. Tubes are also sold in different diameters and widths. Make sure the tube size is closely matched with the tires size you are using. Use of the wrong size tube could lead to bunching or stretching of the tube and a blow out resulting in a crash and injuries.

Install the second bead of the tire onto the rim working the tire onto the rim by moving your hands away from the valve hole on each side of the wheel as you seat the tire bead. If the last section of tire bead will not seat by hand VERY CAREFULLY use a PLASTIC tire lever to seat the last section of tire onto the wheel. Be careful that you do not pinch the inner tube with the tire lever or tire bead as you seat this last section. Make sure the tube is not under the bead of the tire anywhere on either side as this will burst the tube once you inflate it.

Inflate the tire to 40-60 PSI and check to make sure the tire is seated correctly and that the inner tube is not pinched between the tire and the rim. Deflate the tube and re-install the tire should there be any problems.

Inflate the tire to full pressure and check the tire as its rotating to make sure the tire is seated straight on the rim. Also check the bead line of the tire to insure that the bead is seated evenly and uniformly all the way around the rim on both sides. DO NOT EXCEED 125 PSI for ANY clincher rims regardless of the pressure listed on the tire.

## **GLUING TUBULAR TIRES**

Gluing tubular tires is not as difficult as most people believe. With practice and experience, you can easily and safely glue your own tubulars without worry. If you do not have experience gluing tubulars you should consult your local Profile Design dealer. A great way to learn to glue tubulars is to not only consult your local Profile Design dealer but ask to watch as they glue the tubulars. These instructions will give you a concise background of the steps necessary to glue your own tires.

What You'll Need:

1. Profile Design Altair 52 or 80 Tubular wheelset
2. Tubular tires of your choice (Profile Design recommends this is crucial as bad tires can be difficult to install properly; the tires must be between 19-23mm wide)
3. Truing Stand to hold wheel.
4. Medium emery cloth (120)
5. Floor Pump with pressure gauge
6. Tubular glue of your choice. You must use tubular glue to affix your tubular tires

to your Profile Design tubular wheels. DO NOT USE 3M Fast Tack or any glue not compatible with carbon wheels.

7. Solvent such as alcohol or acetone.
8. Acid brush or similar glue application tool
9. Latex Gloves
10. Clean Rag

## **STRETCHING TIRES**

Installing new tires is easiest if you pre-stretch them first by mounting your new tubular tires on your wheelset. To do so: Place the wheel valve hole up with the wheel resting against your legs and, without glue on the tire or rim, place the valve through the valve hole and begin working the tire onto the rim moving your hands away from the valve on each side of the wheel as you seat the tire. Apply even pressure as you work the tire onto the rim with your hands. You will need to use your thumbs to roll the last section of tire onto the rim – DO NOT USE A TIRE LEVER OR TOOL TO SEAT THE TIRE ON THIS LAST SECTION OF THE WHEEL. Once the tire is seated, go around the wheel and lift/align the tire make sure the base tape is seated evenly on the rim. Using the floor pump, inflate the tires within 10-20 psi of their max pressure (DO NOT EXCEED 140 PSI for tubular rims). After inflation, Profile Design recommends letting the wheel sit for at least several hours but overnight is ideal.

## **PREPARING THE TIRE AND RIM FOR GLUING**

Deflate and remove the pre-stretched tires from the step above and put them in a clean and dry place. Take one of the wheels and place into the truing stand. Using the solvent, clean the rim tire mounting surface making sure it is free of dirt, grease or glue from previously glued tires.

## **APPLYING GLUE TO THE RIM & TIRE**

Wearing latex gloves (or a similar cover over your hand/fingers) will help keep your hands clean and will make the gluing process easier and cleaner.

Using the acid brush, apply a thin layer of tubular glue on the tire bed of rim. Having the rim in the truing stand is helpful as you apply this layer. Make sure you have covered the entire surface rim but have NOT put any of the glue on the braking surface. Profile Design recommends 2 coats of glue with a wait of about 30 minutes for the first coat to set up before applying the second coat of glue. Follow glue manufacturers recommendations.

Keeping the gloves on, use the floor pump to inflate your tubular tire until the base tape rolls over and is exposed (this is normal). With a similar application method, use the acid brush to apply a thin layer of glue to the base tape of the tubular tire. Make sure to avoid getting glue onto the tread or sidewall. As with the rim procedure, apply a second coat of glue with a 30 minute gap in between coats.

An efficient method of gluing is to apply the first coat to the rim then apply the first

coat to the tire. When the 30 minute wait for the rim as expired, move on for the second coat of both rim and tire.

Once the glue becomes tacky but is no longer wet to the touch you are ready to mount the tire onto the rim.

### **MOUNTING THE TIRE**

Do not attempt to install the tire until the glue is tacky to the touch.

You will install the tire using a similar method as you did to pre-stretch the tire in the step above. Place the wheel valve hole up with the wheelset resting against your legs. Try to avoid touching the glue and keep the glued portion of the tire from touching the rim sidewalls. Lay the tire over the top and front of the wheel and start installation by placing the valve stem into the valve hole. Using your hands, begin working the tire onto the rim simultaneously pushing the tire downward while gradually lifting and placing the tire on the rim as you work your hands away from each other and toward the floor. Apply even pressure as you work the tire onto the rim with your hands. You will need to use your thumbs to roll the last section of tire onto the rim – **DO NOT USE A TIRE LEVER OR TOOL TO SEAT THE TIRE ON THIS LAST SECTION OF THE WHEEL.** Once the tire is installed inflate the tire to about 80 psi. There are two things you're looking for: that the tread runs straight when you spin the wheel and that there is even exposure of base tape on both sides of the rim. For the latter, sight the bottom of the spinning tire and check that the same amount of base tape shows on both sides. Correct imperfections by lifting or twisting the tire at the areas that need alignment. Another method is to roll the tire on the ground while pressing down on the wheel with your body weight, which sometimes centers the tire with no further effort. Once the tire is seated evenly, use the floor pump to inflate the tires within 10-20 psi of their max pressure (**DO NOT EXCEED 140PSI**). Let the glued tire sit for 24 hours before riding.

### **WARRANTY**

Profile Design warrants all its products for two years from original purchase. For further details on the Profile Design warranty and Crash Replacement policy please visit [www.profile-design.com/warranty](http://www.profile-design.com/warranty)

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Profile Design  
2677 El Presidio Street  
Long Beach, CA 90810  
Tel: 310-884-7756  
[www.profile-design.com](http://www.profile-design.com)  
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