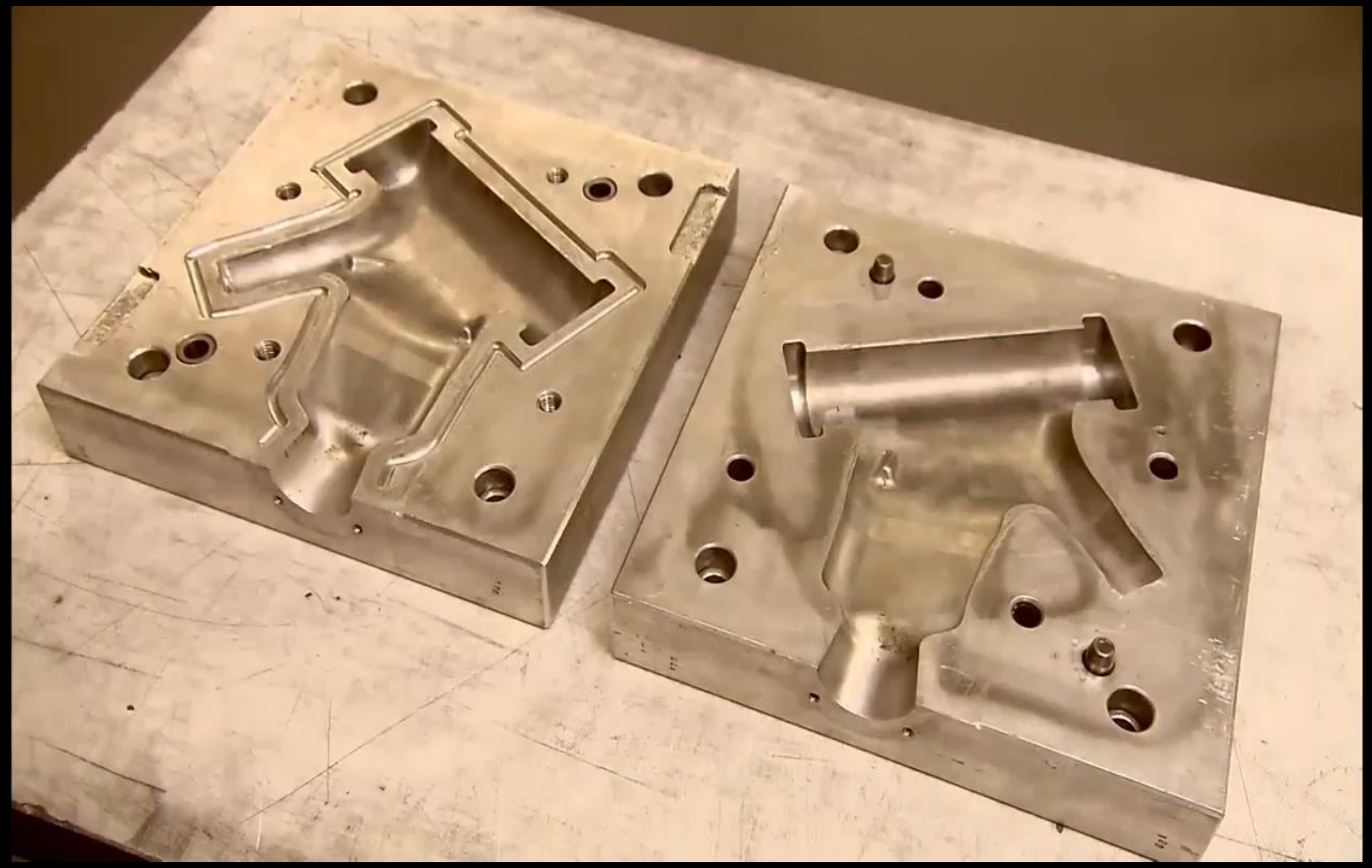
HOW TO MAKE IT CARBONFIBRE BIKE

Carbon fiber bicycle construction consists of 4 stages.Body,rim, saddle and chain

Carbon fiber Body

- For custom-designed bicycles, first of all, the dimensions of the person who will use it are taken. These measurements are converted into geometric diagrams with the help of a computer program. The cutting machine cuts the important parts that will become the fiber carbon frame

The squad consists of 9 pieces in total. Each piece is produced with an aluminum mold and a latex balloon called a bag. The bag is wrapped in layers of carbon fiber. The fibers in the material are all unidirectional. That's why the layers are thrown in a special cross to increase durability. After covering the inside of the mold with a mold release agent to prevent sticking, the bag is placed inside and the blowing mouth is attached. The mold is inserted into a special heat press, gas connection is made, temperature and pressure gauges are connected.



- The inflated bag forces the Carbonfiber to take its mold shape. After 20 minutes, the part is removed from the mold. The cleaning process begins, a technician removes the residue of the release agent and then ensures that the connections are perfect according to the dimensions given

- After everything is properly attached, the pieces are removed and the attachment points are glued with a very strong aerospace adhesive. The pieces are reassembled and baked in the oven for half an hour. Then the bike staff comes to an inspection bench. The gaps of the assembly are checked with digital measuring instruments. Test wheels are then attached to make sure it spins properly. Excess adhesives flowing out are cleaned and the frame is completely sanded

All painting processes are done with a spray gun, first the frame is coated with a primer, then the adhesive labels are removed. The last floor is applied with the automobile varnish we know. This varnish protects against sun and ultraviolet rays. Guides are used to clean the paint in the space where the gear and handlebar will be attached. This frame offers high durability and rigidity with minimum weight.

RIM

- In advanced bicycle rims, the spokes are designed as aerodynamically as possible to reduce wind resistance. The starting material is flat aluminum tubes. Workers insert an aluminum tube into the bending machine one at a time. The machine turns the tubes into 4 interconnected wheels. Before the bent part is placed in the cutter, its diameter is checked. First, the wheels are soaked in an acid bath

- This removes dust and other debris and smoothes the surface of the metal. Thus, the adhesion of the anti-corrosion coating to be applied later becomes easier.Then a multi-stage heat treatment chain is applied. The metal is made harder and more durable. After riveting the two ends of the rim with an aluminum joint piece, they are joined by welding them together. The next machine drills holes for small aluminum nipples that will secure the wires to the rim.Next is the step of assembling the rim. The first technician inserts the wires into each slot in the flange, which is part of the hub. After each wire is in place, it is closed with a bush. Then the rim sides of the wires are made. Another technician adds a small piece of steel to the drinker to magnetize the wire nipple.

- Then the nipple is placed inside the rim with the help of a magnet into the wire hole. It is then passed through the hole. He takes the steel piece and attaches the free end of the wire to the nipple. This process is repeated for each wire hole. This process is called rim knitting. The next technician secures the wire nipple of each wire with a wire wrench. Thus, the wires are taut and straight. Thus, the rim gets a perfect appearance. This process is called rim setting. Then, the rim is checked with a robotic device

Saddle

- The saddles are made of metal and leather
- The first stage is to make steel springs for the saddle's springing, the machine wraps the wire and cuts it to the correct length
- This machine is making a bracket by bending steel wire
- - A technician is assembling the frame by joining the springs and brackets - Then the clamp is attached so that it is fixed to the saddle pipe

- After these procedures, the leather process on the saddle begins - First, the leather is cut into molds and ventilation holes are opened
- The skins are kept in warm water for up to 1 hour and shaped by applying pressure in this wet state
- After this procedure, The skins are kept in the oven to strengthen the shape formed
- They fix the formed bracket and leather to each other, and the saddle is ready for installation on the bike


SINCE
1866
BROOKS
SADDLES
BAGS
ETC.
SPECIAL
Hand Hammered
BROOKS
SINCE
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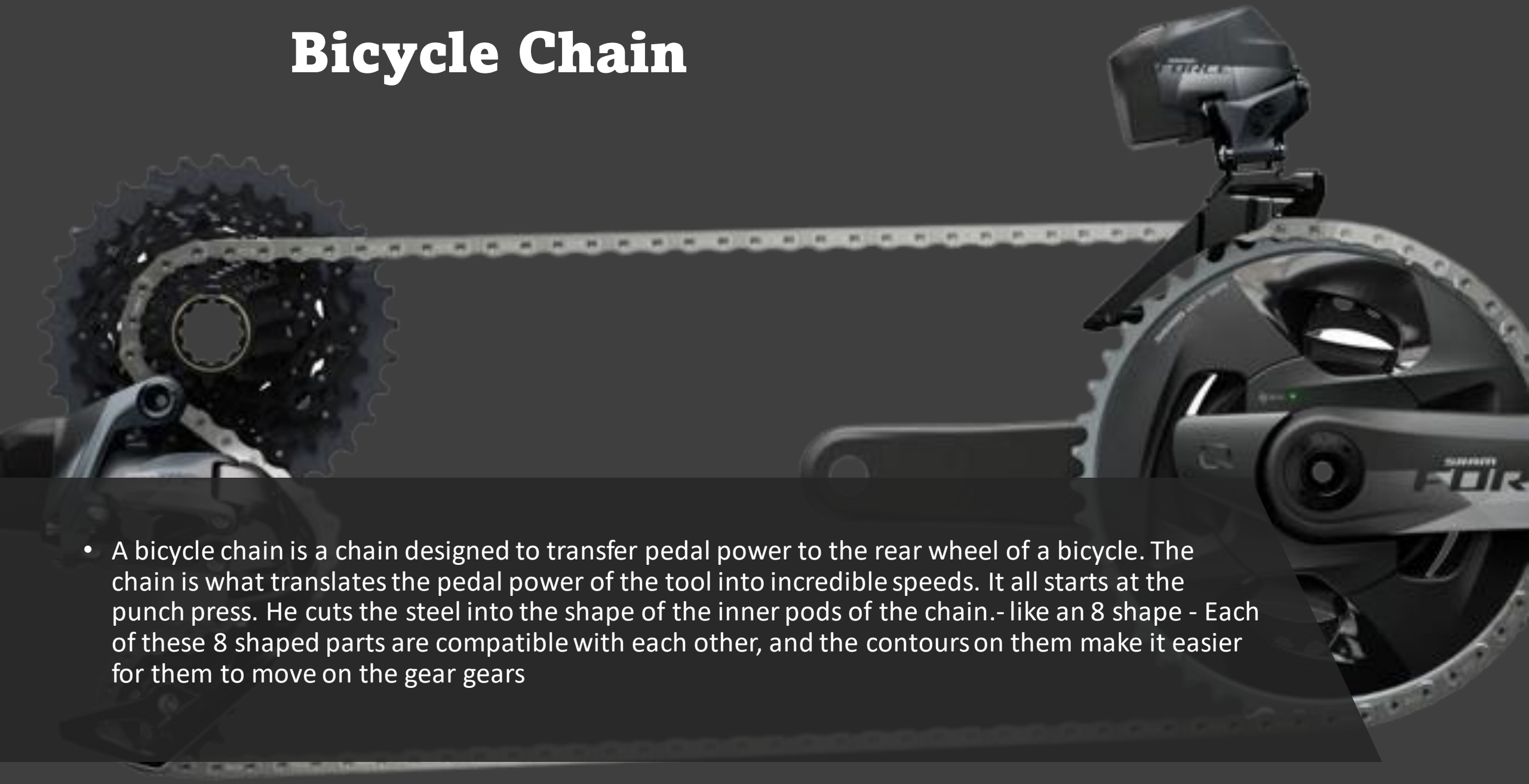
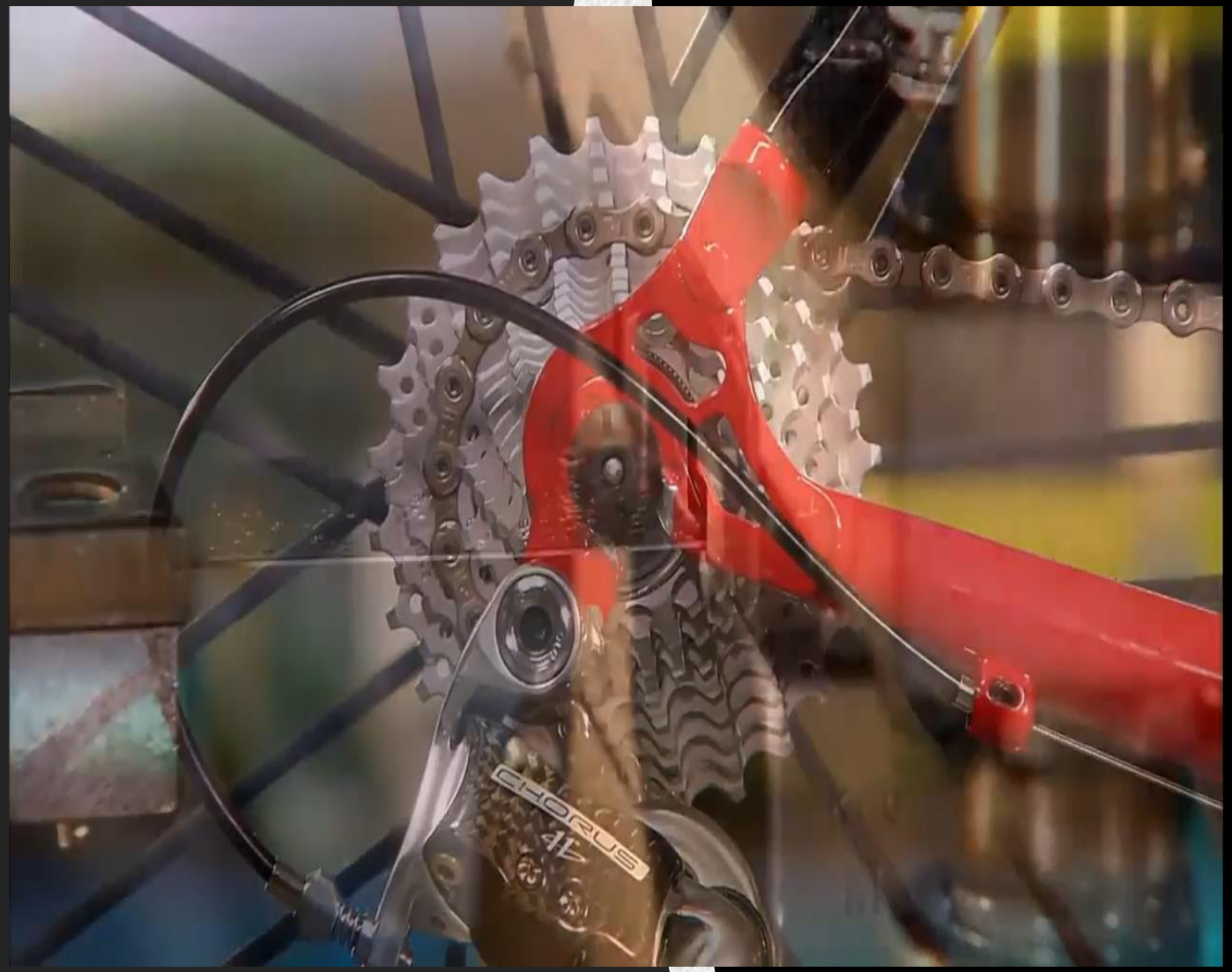
Bicycle Chain



- A bicycle chain is a chain designed to transfer pedal power to the rear wheel of a bicycle. The chain is what translates the pedal power of the tool into incredible speeds. It all starts at the punch press. He cuts the steel into the shape of the inner pods of the chain.- like an 8 shape - Each of these 8 shaped parts are compatible with each other, and the contours on them make it easier for them to move on the gear gears



- Then the pods are baked in an oven at 850 degrees. This flame and the rapid cooling that follows it harden the steel. Then the pods are polished and nickel teflon coated. Nickel teflon will prevent surface corrosion. Now the chain is ready for assembly. All parts are assembled on the assembly machine.Then the chain is dipped in hot oil to prevent wear and friction noise on the road. Then a laser machine marks the place where the chain should be cut, and a knife cuts right from that point. And the chain is ready