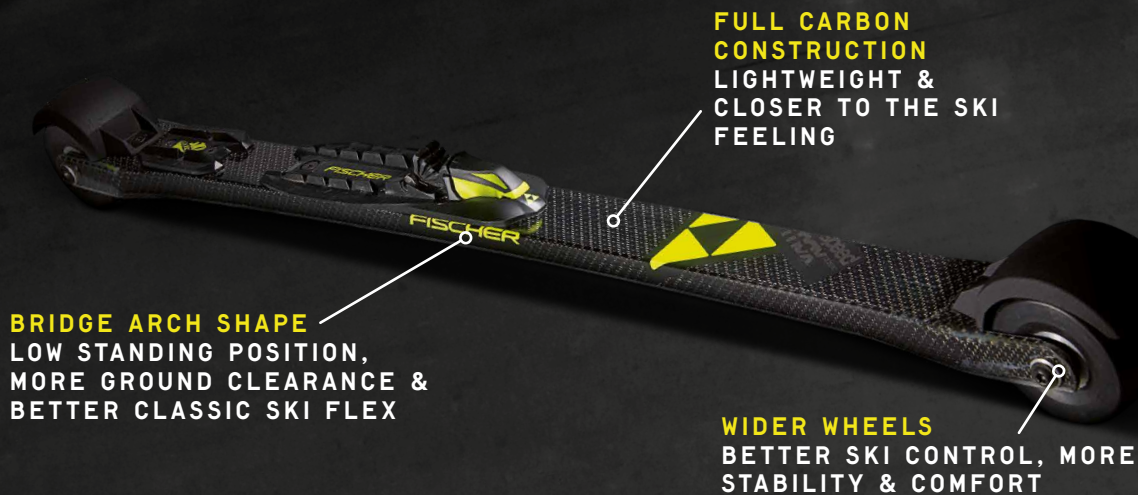


# SPEEDMAX CLASSIC



## 12. THE ROLLERSKI

One thing is for sure – winter will be with us again before we know it. And if you want to be fully prepared for it, you will want to be training with ski-like sessions as far as possible in summer, too. And who but the leading brand in Nordic skiing can give you everything you need for this in terms of equipment? Since the 2015 summer season Fischer, as a well-known ski manufacturer, also offers a comprehensive rollerski line. The many years of experience and proven materials from ski production go into the development of the rollerskis. The result: a top-level ski-like feeling which is as close as possible to winter skiing. This means cross country enthusiasts have ideal training equipment in summer as well for optimum preparation for the winter season.

### 12.1 ROLLERSKI SELECTION

As with cross country skiing, you also have the choice between skate and classic models with rollerskis. These differ above all in terms of the frame geometry and wheel dimensions.

## SKATE

The frame on skate models is considerably shorter than on classic models. The diameter of the wheels (100mm) is larger and they are relatively narrow (24mm). These are the optimum characteristics for the generally higher speeds which are reached when skating. The narrow wheels are designed for a safe kick action when using the skate technique.

## CLASSIC

The frame on skate models is considerably shorter than on classic models. Compared to skating, the diameter of the wheels is smaller and they are relatively wide. This shape ensures stable tracking and a safe position on the rollerskis. Another difference is the backstop which is featured on the classic models. This locks the rear axle on Fischer rollerskis which enables a safe kick action when skiing classic style.

## 12.2 FRAME

As mentioned above, the length of the frame is different on skate and classic models. The frame of the classic models is considerably longer, which means that the centre distance (axle to axle) is larger. This ensures constant ground contact of the front wheel for clean and stable tracking of the rollerski.

### 1 AIR CORE COMPOSITE

This frame offers an unparalleled ski-like feeling. The vibrations which occur during use are optimally absorbed which makes for extremely smooth performance.

#### CUSTOMER BENEFITS

- Smooth performance and optimum absorption of vibrations
- Top-class ski-like feel

### 2 BRIDGE ARCH SHAPE

Skiroller geometry permitting a low-to-the-ground stance and authentic ski flex performance and ride for an excellent snow ski replication.

#### CUSTOMER BENEFITS

- Low standing position, more ground clearance and better ski flex
- Excellent snow ski replication

### 3 RAZOR SHAPE BASE

The unique frame geometry found on all Carbonlite models maximizes ground clearance especially for the extreme push-off angles of skate skiers.

#### CUSTOMER BENEFITS

- Sufficient space above the ground
- Lowered balance point for stable and safe rollerskiing

### 4 FULL CARBON CONSTRUCTION

The frame construction is made of 100% carbon fabric, which ensures extremely light weight, durability and high stability. This results in a ski-like performance.

#### CUSTOMER BENEFITS

- Lightweight
- Closer to the ski feeling

### 5 ALUMINIUM FRAME

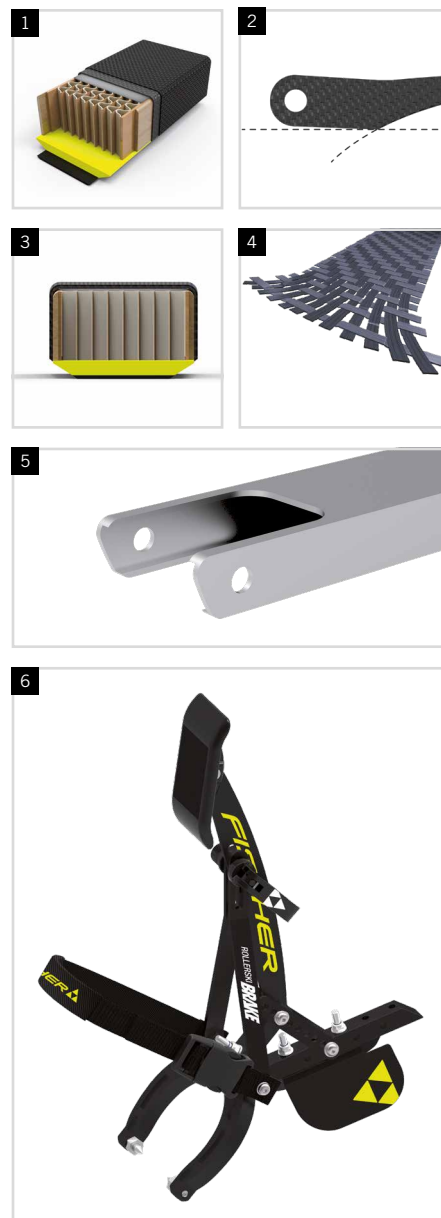
Very robust and torsionally stiff aluminium frame which also delivers optimum weight performance at the same time. The overall package runs very smoothly as a result and offers optimum stability when rollerskiing.

#### CUSTOMER BENEFITS

- Torsionally stiff frame
- Very robust frame with good weight performance

### 6 12.3 ROLLERSKI BRAKE

For your own safety we recommend using a brake when rollerskiing. The Fischer Rollerski Brake is a universal brake that can be used in connection with Fischer rollerskis and rollerski boots. The brake works completely detached from the rollerski, because it is directly attached to the boot. Due to the very low weight the brake remains virtually unnoticed during the running performance. The perfect accessory for increased safety and optimal control on rollerskis.



## 12.4 WHEELS

Speed is controlled by the rubber compound of the wheels. The harder the rubber compound, the faster the speed.

**1** Different types of Fischer wheels are available.

### **2 LOW PROFILE WHEEL100**

The all-rubber wheel with aluminium (Ø 100mm) rim offers optimum grip on surfaces for a powerful kick action. The wheel also has perfect damping characteristics with very good weight performance.

#### CUSTOMER BENEFITS

- Optimum grip
- Perfect vibration damping
- Lightweight

### **3 FULL RUBBER WHEEL 70**

Durable but high-traction rubber for shock absorption. Lower profile and optimized geometry improve stability.

#### CUSTOMER BENEFITS

- Optimized geometry improve stability
- Better cushioning and less vibration

### **4 SPLASH GUARD 70 / 80 / 100**

Splash protection for wheels. The very light and robust plastic part can be added / removed easily with just one screw.

#### CUSTOMER BENEFITS

- Lightweight and durable
- Easy to mount

## 12.5 BEARINGS

The precision of the bearings determines the performance and smoothness of the skiing. The more precise the bearings, the smoother the rollerski performs and the longer the service life of the bearings.

### **5 PRECISION DRIVE**

All components used for the suspension of the wheels are made with minimized tolerances. The provided precision is the basis for smooth running wheels with high durability. The bearings are double-sealed and maintenance free.

#### CUSTOMER BENEFITS

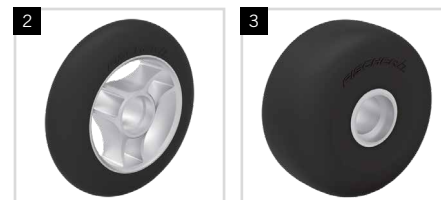
- Smooth running
- High durability
- Maintenance free

## BEARING CLASSIFICATION ISO492 VS ABEC

The quality of a bearing is defined primarily by the precision of the manufacturing tolerances. There are various standards for the classification of the bearings. The bearings in Fischer's rollerskis are manufactured in tolerance class 3 in accordance with ISO 492.

**6** If you compare the bearing classification to the ABEC scale – a standard which is often used for sports equipment – the bearing tolerances are to be classed as between ABEC 7 and ABEC 9.

<b>1</b>	SKATE	CLASSIC
SLOW		•
MEDIUM	•	•
FAST	•	•



<b>6</b>	ISO 492	Class 6	Class 5	Class 4	Class 2	Class 1
ABEC	ABEC 3	ABEC 5	ABEC 7	ABEC 9	ABEC 11	

## 12.6 MOUNTING BINDINGS

**1** In the case of rollerskis without premounted TURNAMIC® bindings the appropriate holes have to be predrilled using a suitable drill / bit and the mounting gauge provided for this purpose. Care should be taken here that the sizing is in line with the boot size.

### 12.6.1 MOUNTING THE SPEEDMAX & CARBONLITE MODELS

The Carbonlite and Speedmax models are available as a set, with the binding included, so that the boot size can be taken into account when mounting the binding. There are embossings on the bars to make it easier to position the binding correctly.

**2** Positioning the mounting gauge: there are small marks on the frame which act as indicators for the positioning of the mounting gauge.

**3** Position the drill sleeves according to the preselected size over the marks. The starting point is the rearmost mark. This gives you the optimum stand position on the rollerski and the right distance to the rear wheel.

**4** Drill the holes using a 3.5mm diameter x 15mm deep bit. If you do not have a mounting gauge available the marks on the frame can also be used for drilling without the gauge.

**5** As the design for Carbonlite models is similar to that of skis, the drill holes have to be sealed to prevent water from entering the frame. Use a standard binding glue before tightening screws. This is not necessary with Speedmax models.

**6** Tighten the binding screws by hand to avoid over-tightening the screws.

To ensure that the glue hardens properly, do not use the rollerskis for 24 hours.

### 12.6.1 MOUNTING THE ALUMINIUM MODELS

Three different positions are pre-drilled on the pre-assembled aluminium models. On delivery, the binding is mounted in the middle position and can be moved at any time according to the boot size.

**7** Positioning the mounting gauge: the rear end of the mounting gauge is shaped so that it exactly matches the shape of the spray protection and exactly represents the shape of the heel plate of the TURNAMIC® binding. Position the mounting gauge so a 2mm gap remains between the mounting gauge and the spray protection. This is also the exact position of the heel plate.

Drill the holes using a 3.5mm diameter x 15mm deep bit.

No glue is required when screwing on the binding. Turn the binding screws by hand to avoid over-tightening the screws. The aluminium models are ready for use immediately after mounting.





## 12.7 WHEEL MOUNTING / REPLACEMENT CARBONLITE & ALUMINIUM MODELS

The wheels have to be replaced from time to time. This may be due to wear and tear or because the user has decided in favour of a different wheel hardness. Changing/mounting wheels is described in the following steps.

**1** Use two wrenches to undo the bolts. One is used to secure, the other to loosen the first bolt. Do the same with the second bolt. Once both have been loosened you can remove the bolts.

**2** When both bolts have been loosened and removed you can remove the wheels. With skate models you simply pull off the wheels. With classic models the forks can be bent outwards slightly to make it easier to remove the wheel.

**3** Select the new wheels with the desired wheel speed (see table on page 61). Make sure that you only use wheels from the Fischer Sports spare parts range. With skate models you use four identical wheels. With classic models you use two different wheel types. The two rear wheels have an integrated backstop. The two front wheels turn freely in both directions.

**4** In the case of wheels with the backstop feature you must observe the direction of rotation. To find out the direction of rotation simply put the wheel on the bolts between two fingers and turn it. If you turn it in the wrong direction it will stop.

**5** Now mount the new wheels. To do so, put the wheel in the wheel holder. With classic models the forks may have to be opened a little again with a slotted screwdriver to insert the wheel.

Make sure that the wheel clicks into place – you will hear a quiet click when the axle is in the right position.

**6** The new bolts which come with the wheel set must be used in order to ensure safety when using the rollerskis. Apply some threadlocker to the thread before fastening the bolts. Bear in mind that the adhesive has to dry for 24 hours before the rollerskis can be used.

**7** Now turn both bolts into the axle. Tighten them by hand first and then use two wrenches to secure them firmly. Once again, use one of the wrenches to hold on one side while the other bolt is tightened. Once the first bolt is securely in place, tighten the other.



For more information use the link via the QR code to go to the video "Wheel mounting".



## 12.8 WHEEL MOUNTING / REPLACEMENT SPEEDMAX CLASSIC MODEL

### 12. 8.1 REAR SPEEDMAX CLASSIC WHEEL

- 8** Use two Torx 30 wrenches to loosen the bolts. Loosen the right bolt first.
- 9** Hold the wheel to keep it from rotating and loosen the second bolt.
- 10** Using a wrench gently pull both axle inserts out of the fork blades. A slotted screw driver can be used if needed.
- 11** Place the axel spacer on the axel with the open side of the spacer facing away from the wheel bearing.
- 12** To determine the direction of rotation, firmly hold the wheel by the axle bolts between two fingers and turn it. The wheel will freely turn in only one direction.
- 13** Insert the wheel with the spacers into the fork blades - a slotted screwdriver can be used as needed. It clicks when it is in place.
- 14** Insert the wheel inserts on both sides of the fork blades.
- 15** Insert new wheel bolts using Loctite (Blue Formula). If using old bolts clean first with degreaser or brake cleaning fluid.
- 16** Tighten both bolts. For final tightening, a torque wrench is strongly recommended tighten to 13 Nm. Wait 24 hours before skiing. Before skiing, confirm that the rear wheel is installed correctly with the lock function working in the correct direction.

### 12. 8.2 FRONT SPEEDMAX CLASSIC WHEEL

- 17** Use two Torx 30 drivers to undo the bolts one on each end of the wheel axle.
- 18** Remove the axis and the front wheel.
- 19** Mount the new wheel, first place the axel spacer on the axel with the open side of the spacer facing away from the wheel. Insert the wheel into fork blades.
- 20** Pro Tip: Insert the Torx driver through the inserts and wheel to act as a guide when you insert the axle.
- 21** Insert the wheel inserts into the fork blade.
- 22** Clean the wheel bolts with degreaser and install them using Loctite (Blue Formula).
- 23** Using two Torx 30 drivers to tighten bolts. For final tightening, a torque wrench is strongly recommended tighten to 13 Nm. Wait 24 hours before skiing.



More information can be found in the link via the QR Code to the video "Wheel replacement Speedmax Classic".

