



Swingweight –advisor – calculator - tuner

Introduction

When a player hits with a racquet he or she feels the combination of balance point and weight, this is the Swing weight or Moment of inertia in the mechanical world.

It is very important that players play with the right Swing weight (SW) which suits their kind of technique. This is especially important for talented children who play many hours every week.

Therefore we developed an online Swing weight advisor which does 3 things:

- It advises a SW for a player based on technique, build and age.
- It calculates the SW of a racquet when the head- and throat- weight are entered.
- It calculates how much weight to add to raise the SW of a racquet to a certain value.

SW Advisor.

The SW advisor generates an advise when the following information is entered:

- Forehand preparation.

The later the preparation the more effort is needed to make the swing. A player with a late preparation should not play with a racquet with a high SW.

The preparation is early when the racquet points backwards at the moment that the ball bounces.

- Length of the arm at the moment of hitting.

If a player hits with a bent arm he loses power, to compensate for that loss he should have a racquet with a higher SW.

- Man / Women, age, and build.

The SW should be different for man and women, young players and big or small persons.

SW calculator.



* Calculation with head and grip weight.

The SW calculator calculates the SW when the head and grip weight and the length of the racquet are filled in.

It is important that the racquet is supported by small surfaces so that the place of the support is very clear and unambiguous.

You can check the weights easily: $W_{\text{head}} + W_{\text{grip}} = W_{\text{total}}$

You have to fill in the weights in grams.

Calculation with total weight and balance point

The SW can also be calculated by filling in the total weight and the distance from balance point to the end of the grip. This can be handy to calculate the SW when the total weight and the balance point are known.

Tuning the Swingweight.

The calculator can calculate how much weight has to be added to obtain a certain Swing weight.

This can be used in 2 ways:

- To match 2 racquets:

Enter the SW of the heaviest racquet behind "racquet 1".

Enter the SW of the second racquet behind "racquet 2".

Enter the distance between the end of the grip and the position where you want to add the weight.

The system calculates the total weight that has to be added.

- To raise the SW to a certain value:

Enter the desired SW behind "racquet 1".

Enter the SW of the racquet behind "racquet 2".

Enter the distance between the end of the grip and the position where you want to add the weight.

The system calculates the total weight that has to be added.
