



Our goals: Professional sport- World Champion title, with GB Science blade Hobby market- tens of millions play with GB Science blade worldwide

The world novelty GB Blades are created for those players (both professional and hobby), who are interested in new developments and understand its advantages. We propose them to try and enjoy GB Blades.

We apologize in advance for those, who insist on their current, beloved traditional blade, who have feeling against with GB Blades, who do not understand GB Blades, (in the absence of sufficient knowledge) and who will understand advantage of GB Blade later on first. GB Blades are not created for them.

We believe the NEW GENERATION the juniors, training with GB Blades, will prove in the coming years both locally and internationally with the support of pioneering trainers, that it was worth to choose

GB Blades... For sure!...



**Blades of the 21st century** 

LOYAL <mark>FRIEND</mark> FOREVER

Hungary

# "If you catch, you will get the message" (G.B.)

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Thanks to MOATSZ

"GB Science is not a magic bullet, but it can become in the hand of talented players and with the support of experienced trainers." (G.B.)

**GB Blades** 

Blades of the 21st century. If you catch, you will get the message.



GB Science 45 Standard

Our goals in a nutshell:

- Professional Sport: to launch GB Science in the professional sport raising a NEW GENERATION
- Hobby market: to create a <u>new range</u> on the table tennis hobby market with the 16 new type GB Blades. To sell daily 5000 GB Blades all around the world (which we could achieve after years on our own, but with the support of one or more multinational companies.)

#### About the planning:

- GB Science is **not the result of some creative job**, but it has been developed with the experience of table tennis professionals and engineer studies with using more sciences (mechanics, physics, wood production, anatomy, aesthetics, art, geometry, history, astronomy, CNC technique, laser technique...) with considering harmonically aspects.

All bows, lines, curve is the result of <u>conscious planning</u>, both in case of the head and the handle of the Blade.

The shape of GB head and handle has been developed with more years of testing with the support of the best Hungarian trainers, special thank to: László Varga (MALÉV SC), Sándor Tokaji (BVSC), Tamás Majzik (Tolna Fastron).

**GB Science** has **20-25 better features**, than the symmetrical blades players used so far, thank to the more years of detailed planning.

History.....

The ancestor of the traditional blade has been created from kitchen cutting board by filleting its corners ca.100 years ago. People played with small balls which were invented in the caoutchouc industry. This led to the table tennis sport later on.

Since that time, the wood and cover of blades has been developed a lot.....

....what **did not happen** although is: the **development of the shape and the handle of the blade**. This could have shown a <u>more visible improvement</u> in the quick play of nowadays, following the current technical development. (You can find in the catalogues all same shaped blades with different names.)

GB Blades, especially **GB Science** Blade is able to fill up this gap.

The novelty of GB Blades is that the shape of the blade determines the playing style (offensive, allround, defensive), not only the wood of the blade as in case of traditional blades.



# **Description of 16 GB Blades**

3. Novelties and advantages of **GB Science** (45 Standard):

(which we hope will bring sport historical change in professional sport and will become a **milestone** in the future!)

Novelties and Advantages:

- 3. Common advantages
- Shift of the head
   GB handle
- 4. Medical advantages
- 5. High quality GB wood
- 6. The handle

#### Advantages in details:

1. Reasons for shifting the head of the blade (only blades with hook have these advantages):

1.1. The <u>primary aim</u> of creating the shape of GB Science was to have **the bottom of the head in line with the first finger** position in order minimize the covered area. With this we ensured perfect sensibility for the fingers, and <u>decreased blank area while playing with</u> <u>backhand</u>.

The finger being sticked to the head on the backhand side has an important role in directing the ball, by getting information through small vibrations while playing the game.

In case of traditional blades the first finger covers a reasonable area of the head.

This cause difficulties in backhand play due to balls hitting the finger, which can be avoided only by <u>continuously changing the way of holding the blade</u> meanwhile the blade has to be pinched in order to keep it.

- 1.2. The head has been created following the first finger; this led to having the head shifted. With this the blade's center of gravity became in line with the forearm, and so the axle of the head seems to be the natural continuation of the forearm. This helps you to hit the ball with less energy consumption (this can lead to victory as it counts a huge energy saving during a whole play with thousands of hits)
- 1.3. Thank to the shifted blade head **you can reach balls 4,5 cm further in all directions** (backhand, forehand, towards the net) with the same body and hand position. This provides <u>huge advantage</u>, just think of the balls hitting the edge of the blade or balls fallen right behind the net.
  - 1.3.1. There is no need to place the hand lower for flicking over the table because the edge of the racket goes 4,5 cm lower than that of a traditional one. You need less energy for starting the ball due to the longer lever arm which is thanked to the 4,5 cm shift of the head. Hit can be done with <u>relaxed wrist</u>, which makes accurate ball directing easier.
  - 1.3.2. You can give **higher speed to the ball**, due to the <u>higher peripheral speed</u> of the blade, which is also thanked to the shifted head.
  - 1.3.3. Increased ability of spinning also due to the 4,5 cm shift

Spin: movement upwards; used surface is bigger in case of GB Blades

- Due to the higher peripheral speed you can give a stronger spin to the ball.

Spin gets stronger and the ball goes in a flatter angle after snapped on the table. Getting this type of balls is more difficult.

- **Backhand spin with GB is much more effective**, this is an <u>outstanding advantage</u> of GB Science. (This may create a completely new playing style.)

- This is true for **side spin** too. <u>Ball curve gets even bigger</u> – <u>hard side curve (Jónye</u>r is well-known about this).

1.3.4. By **defending** you can reach balls 4,5 cm further with both sides.

#### 2. Advantages of GB Grip (handle):

# GB Grip, with the hook like solution at the bottom, is the soul of the Blade! Advantages of the shifted head are not usable without this hook type solution.

- 2.1. This provides a handle (GB Grip), that fits to the hand and with which you can hold the blade <u>so relaxed</u>, that you can hit the ball **without pinching the blade even with <u>open</u> <u>palm</u>. You need to pitch the traditional blade in order not to throw it away while hitting the ball. This pinch is what you can avoid with GB Grip.
  (All types of hits are <u>movements away from the body</u>; this is why you need to pinch the blade.)**
- 2.2. The shape of GB Grip, which fits to the hand and is planned anatomically, provides:

- Hand does not move on the handle, you can hold the blade without pinching it

- You **can not hold GB Grip incorrectly**. This is highly important in junior training, because with GB you do not need to warn players all the time on how to hold the blade.

#### - This way they can learn basic techniques quicker and better

- Wrist can stay in natural position thank to the shifted head, because the head is a natural prolongation of the forearm

- Easier perception (ball perception)
- Cleaner ball catching due to the longer ball route

- The **stable blade holding** provided by GB Blades is a huge advantage in this <u>quick play</u> <u>beside the table because of the huge number of changing sides</u> (backhand-forehand-backhand), when you must react in micro seconds

- You can **change side** <u>smoothly</u> (backhand-forehand-backhand) without strong concentration (because you do not need to pinch the blade).

#### 3. Common advantages (shifted head + GB Grip)

#### 3.1. Balance of the blade:

<u>Unlike the classical symmetric blade</u>, **thank to GB Grip handle you can hold GB Science blade much easier in balance** both during the play, and in basic position.

This is a very important consideration due to the **increasingly heavy rubbers** as blades are getting more and more <u>head weighted</u>.

Being head weighted due to the rubber is advantageous in case of GB Blade, as the hook and the shape of the handle stop you to throw away the blade while playing (so you do not need to pinch the handle), you can hit stronger and start quicker balls.

By classical blades weight in the head is disadvantageous, as the heavier the blade is, the stronger you have to pinch it, in order not to throw it away. This makes muscles of the head rigid that makes playing more difficult.

(You can not even avoid it with making the wood lighter and lighter, because it decreases the blade's moment of inertia by being lighter. These blades become also fragile – slower balls, less ability for spinning, less ball control.)

#### 3.2. Advantages of serving and getting service:

- 3.2.1. Service: advantage of serving with GB Science is that you do not need to keep your hand in an unnatural position in order to hit the ball neither in backhand nor in forehand side, because the shifted head of GB blades is lower and you do not need to pinch the handle. You can also give **stronger spin to the ball**.
- 3.2.2. Getting a service:

**Getting short services** (which arrive right next to the net) **is much easier** with GB Science, because you can hit the ball from deeper thank to the shifted head of the blade (see 1.3.)

- 3.3. Blocking is easier (in play above the table) due to the 4.5 cm shifted blade and therefore the extra 4.5 cm range. (see 1.3.)
- 4. Medical advantages of GB Blades due to GB handle:
  - 4.1. You can **avoid hand hurts with GB Science**. With the <u>classical blades</u> there are <u>many injuries</u> (wrist, forearm muscles) due to the instinctive <u>incorrect hand position</u> (see 1.1.2 and 2.2.)
  - 4.2. Stable holding of GB Blade makes over-concentration unnecessary and <u>let you focus on the play</u>. Brain must be ready for making decisions all the time (that consumes a lot of energy) about which side of the blade to use.
    This makes the player time early and might eaves the last of the same.

This makes the player tired early, and might cause the loss of the game.

- **5.** GB Blades are produced of premium quality wood. Professionals (trainers and players) who tested the blades all agree about it.
- 6. Handle of GB Blade is nature wood without surface treatment, which has a very good hydroscopic ability, so sweating palm does not skid on the blade and you can hold it stable.
  - 6.1. **Shape of the handle**: there are two basic types (narrow, wide)
  - 6.2. **Thickness of handle**: in the professional sport we have 3 different sizes (slim, medium, large). Players can have unique handle that fits to their hand perfectly
  - 6.3. **Bowls:** for professional types we have 3 different bowls in order to increase comfort even
    - further:

Thumb Little Finger

Palm

6.4. **Sizes** of the handle, GB Grip: 4 sizes

junior, female, male,

male extra

# **Description of further 15 GB Blades:**

(with which we plan to change the hobby table tennis sport. See GB Reform table.)



GB Reform Table – Teacher range: 1. GB Science (15) Manu
 2. GB Science (30) Guru

Their head if shifted 15mm and 30 mm compared to the classical blades. With these models we aim to target players who insist more on the traditional shapes; they can have a middle type blade, which owns the advantages of GB Science in the rate of the shift.

GB Reform Table – Professor range:

Beside **3**. **GB Science (45) Standard** blades the following blades belong to GB Reform Professional Range:

4. GB Science (45) Tomorrow

- 5. GB Science (45) Garuda
- GB Reform Table -- Rector range : 6. GB Science 45 Hurrican,

Testers are Sándor Tokaji, László Varga and Tamás Majzik:

Majzik: ... ", the design of the blade is pretty, energetic and powerful... good for offensive play..." according to my experience there is not better blade for two-sided offensive play..."

Tokaji: ... "the head of the blade is streamlined, with higher brow, straight part at the bottom, which makes easier to give short shots... it is easy to screw, and it is highly effective at playing close to the table (quick spin). If I were still competing, I would choose this blade for sure... You can see the advantages of the blade the best in the play, which is called modern table tennis in 2011."

Varga: ..." the shape of the blade is beautiful, the handle is perfect... the rounded brow provides better forehand and backhand topspin... **very effective defensive backspin...**"

# GB Reform Table – Comfort Class

They provide the comfort of GB Grip with the traditional symmetrical head. They have different head shapes according to the play style of the player (offensive, defensive, all-round).

7. CLASSIC 8. TACITUS 9. CLAM TT 10. BIGSON 16. COACH



**15.** GB **Defender** is recommended mainly for defensive players due to having the head shifted towards the body (3 cm), which makes backspin more effective both sides.

GB Reform Table – Traditional Class:



These blades provide a new variety for players who prefer classical types. You can hold them easily as the point where handle and head joins is made fit to your hand.

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