

# MARKUS REHM

*The off-season for Markus Rehm started after the 2018 Golden Fly Series in Liechtenstein. However, not before he claimed yet another World Record and a Gold Medal. Just as everyone thought that the new Long jump (T64) World Record mark has been set in Japan, with only a month apart, the 30-year-old World Paralympic and European champion overdone himself and hit a stratospheric 8.48 metre mark in his national pit back in Germany.*

*Rehm first entered the world of professional sports at the age of 20, which was six years after his wakeboarding accident. To show the world what he's truly made of, he went back behind the motorboat long before that. Not the one to shy away from going an extra mile, he also got a degree in prosthetics and orthotics. This is precisely the kind of grit the "Blade Jumper" continues to deliver on the field.*

*Here we talk winning titles and breaking records despite the challenges along the way, the role of sports science in reaching top-performance levels and the future of Olympic and Paralympic debate.*

## CAREER HIGHLIGHTS

- 2018** World Para Athletics European Championships in Berlin  
New world record in long jump (8.48m)  
1st Place in relay 4×100m
- 2018** Japan Para Athletics Championships  
1st Place and new world record in long jump (8.47m)
- 2017** IPC World Championships in London  
World Champion in long jump  
1st Place in relay 4×100m
- 2016** Paralympics Rio de Janeiro  
Gold medal and new Paralympic world record in long jump (8.21m)  
Gold medal in relay 4×100m
- 2016** European Championships in Grosseto, Italy  
European Long Jump Champion  
1st Place in relay 4×100m and new world record (41.49s)
- 2015** IPC World Championships in Doha  
New long jump world record (8.40m)  
New European record in relay 4×100 m (41.86s)
- 2014** German Championships in Ulm  
1st Place in long jump and world record (8.24m)
- 2013** IPC Athletics World Championships Lyon  
Long Jump World Champion and new world record (7.95m)
- 2012** Paralympics in London  
Gold medal and world record in long jump (7.35m)  
Bronze medal in relay 4×100m
- 2011** IPC World Championships Christchurch  
Long jump World Champion and world record (7.09m)
- 2010** IWAS – Junior World Championship Olomouc  
Junior World Champion in long jump (6.84m)  
Junior World Champion in 200m run

*After you lost your leg, you started wakeboarding again within a year, it wasn't until 5 years later you took up athletics, what made you decide to do that?*

One year after the accident I was on the wakeboard again. My first contact with athletics was in 2008, I was at a trade fair when an athlete saw me jumping on a trampoline. I had done some athletics when I was younger and he brought me back into it. I moved from the south of Germany to Cologne and I started to take athletics more seriously I knew about Paralympic sport, but I didn't know how to get a start in it. In Germany there is only one place to go for it and that is Leverkusen, so that's where I started to make contacts.



**Image:** Markus Rehm setting the new world record in men's Long Jump (T64) with 8.48 meters at the World Para Athletics European Championships in Berlin, 2018.

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***Who makes up your medical team?***

We have a team doctor and three physios. We have worked with them for many years, so they know the athletes and their problems. We have a great team, which is really important at big competitions.

***What relationship do you have with the team doctor?***

It's a good one. He is always by our side, for the competition, and afterwards if you have to go to doping control. If we have any questions they are there to support us. I don't have to take any medications, but some Paralympic athletes do, and there are lots of questions regarding substances on the banned list and declaring certain medications.

***Do you think it is more challenging for a doctor working with Paralympic athletes?***

Yes, I think so. There is more knowledge required around medications and doping. And of course it's really important for these athletes to be at their top level. Many doctors do not have experience with Paralympic athletes, so it is important for them to build up experience year after year.

***Can you outline some of the challenges that are specific to amputee athletes when they are competing?***

There are some things, for example you can get infections in your stump, maybe from an ingrown hair or something like that.

It might not look very painful, but it is, because we are standing on it, all of our bodyweight goes through this part of the leg. Also it can cause the stump to swell and if your leg is swollen it won't fit into your prosthesis. That's a major problem, it's not like a shoe where you can just loosen the laces a little, the prosthesis is made of carbon fibre and you can't adjust it.

**Are there any things to consider specifically for long jump?**

There is a risk of hurting yourself on the landing. I have had quite a lot of back problems from the take-off and landing. I think it is because of the combination of the prosthesis on one side, the natural leg on the other and the take offs and landings. The knee can be a dangerous area if you don't hit the board properly and I've had a few problems with my knee as well.

**You also work as a prosthetist or 'orthopaedic engineer' can you tell me a bit about that?**

My job is building prosthetics. It's not so much for sports, but more for everyday use. It's a great job. I like working with the patients and for me it's great because I have had many years' experience using a prosthetic. When a new patient comes in depressed about a problem, I can say, "It's ok I had the same problem once and we can work towards a solution." I never had to learn much about the job because I have so much personal experience.

**You also compete in the 100m and have recently won gold in European Championships. Which is more difficult, 100m or long jump?**

They both have challenges. In the 100m you have just one chance. The start is critical, if you don't get the start right you can lose so much time and you won't be able to recover. The long jump requires more technique, but you get six attempts. It's hard to say, but I prefer the long jump, so this year I have focused on it as my main discipline.



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**Do you use the same blade for those events or different ones?**

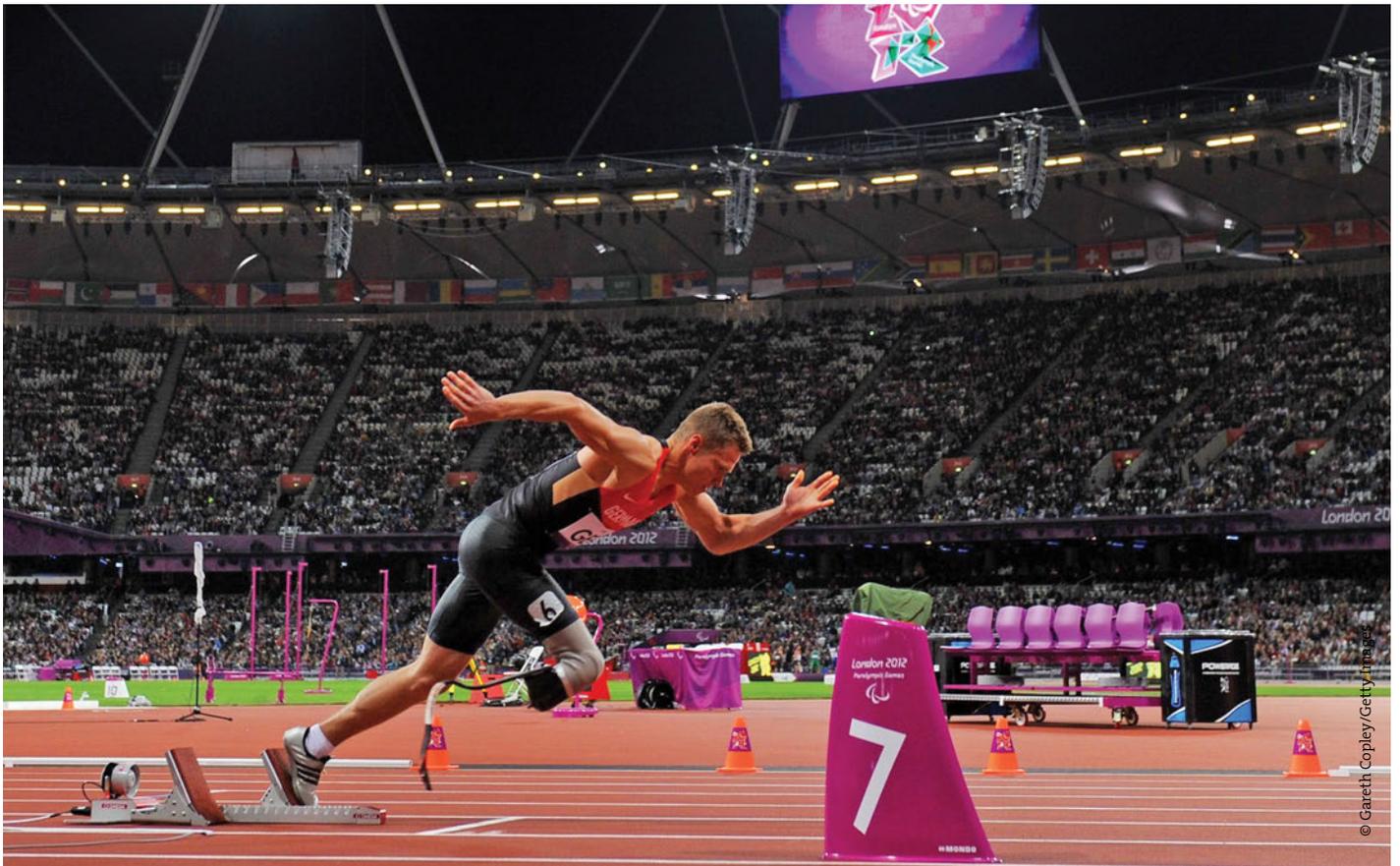
I use different blades. The stiffness of my 100m blade is a bit lower than my jumping one. The jump take-off requires more stiffness. If you tried to jump off a sprint blade it would flex too much and collapse. Jumping is always a compromise though, because you need to be fast on the run-up and to take off well, so you must find a compromise between the different stiffness needed for the two parts.



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**Top:** Markus Rehm with Heinrich Popow (L) and Daniel Jorgensen (R), after achieving the new world record of 8.47 meters in the men's Long Jump (F64) at the Japan Para Championships, July, 2018.

**Left:** Rehm celebrates winning the men's Long Jump (T44) Final at the Rio 2016 Paralympic Games.



**Image:** Rehm starting in the men's 4x100m Relay (T42/T46) Final at the London 2012 Paralympic Games.

***Your recent performances have been some way ahead of your Paralympic competitors; do you think it is talent, training or something else which has helped you get to the top of your sport?***

It's a combination. You need talent but it's a lot of work. There's always a discussion about what it might be, whether it's the blade or something else. But in the end, all the athletes have very similar prostheses and we train hard every day, twice a day.

***What role does sports science play in your career?***

It has quite a big role. We do a lot of work on biomechanical analysis for techniques on jumping. I have good doctors back at home who are on hand to help me recover from illness or injury as fast as possible. They have good connections, so if I needed, for example an MRI scan, they make sure I can get access to it quickly, they really take care of the Paralympic team.

***Are there any injuries which only affect amputee athletes?***

I have had problems in my knee, swelling, and I had a bruise behind my patella, which I think is quite specific to jumping. The interface between the stump and prosthesis can cause problems; that part of the leg is not meant to be the weight bearing part, you would never have pressure in that area if your leg was intact. The skin there is not made for that kind of loading, so it can blister.

***What is the worst injury you have had in your athletics career?***

In 2015 I had a problem with my knee, a doctor told me it would take 2 weeks to recover, after 3 weeks it was still really bad and then 4,

5, 6 weeks passed. I was really angry, but fortunately a competitor of mine had had the exact same problem in the previous season. He told me he thought I had the same problem and it took him 2 months to recover. In the end it took me exactly 2 months. Another time, the valve on my prosthesis broke while I was jumping, so my leg came off, I fell down and broke my arm. It was 10 weeks before the 2013 IPC World Champs, so I went to the hospital and they gave me two options, to leave it immobilised to heal or to have a screw surgically inserted. I asked which was fastest and was told the screw, I had the surgery the next day and was jumping 2 weeks later with an orthosis on.



***In my case, I just want to replace what I've lost. I don't want to gain an advantage out of it. I want to win because I'm a good athlete and I train hard and not because of any advantage.***



***Some people say that Paralympic athletes are mentally stronger, do you think this is true?***

Sometimes. We are very tough when something goes wrong, but I can't say for sure. It's not something you really say about yourself, but I would like to think I'm mentally strong. In recent seasons, I always improved my personal best at the most important moments. But it's not just about me, it's how my coach trains me and the support I get from other team members. But in the end it is my job to get out there and compete as well as I can.

***Do you see a future where Olympic and Paralympic competitions are more closely aligned?***

I understand why we are not all together and agree it should be that way, but it would be nice if we could be a bit closer. I don't see why they need to be such separate events. I don't see why we can't have, for example, a relay with Paralympic and able-bodied athletes competing together. It could never be a combined competition. It would just be too big to organise, but also Olympic and Paralympic sports have individual identities and messages which we don't want to lose.

***Do you think that sports science and medicine could help bridge the gap between Paralympic and able-bodied athletes and help you compete on an equal basis in the future?***

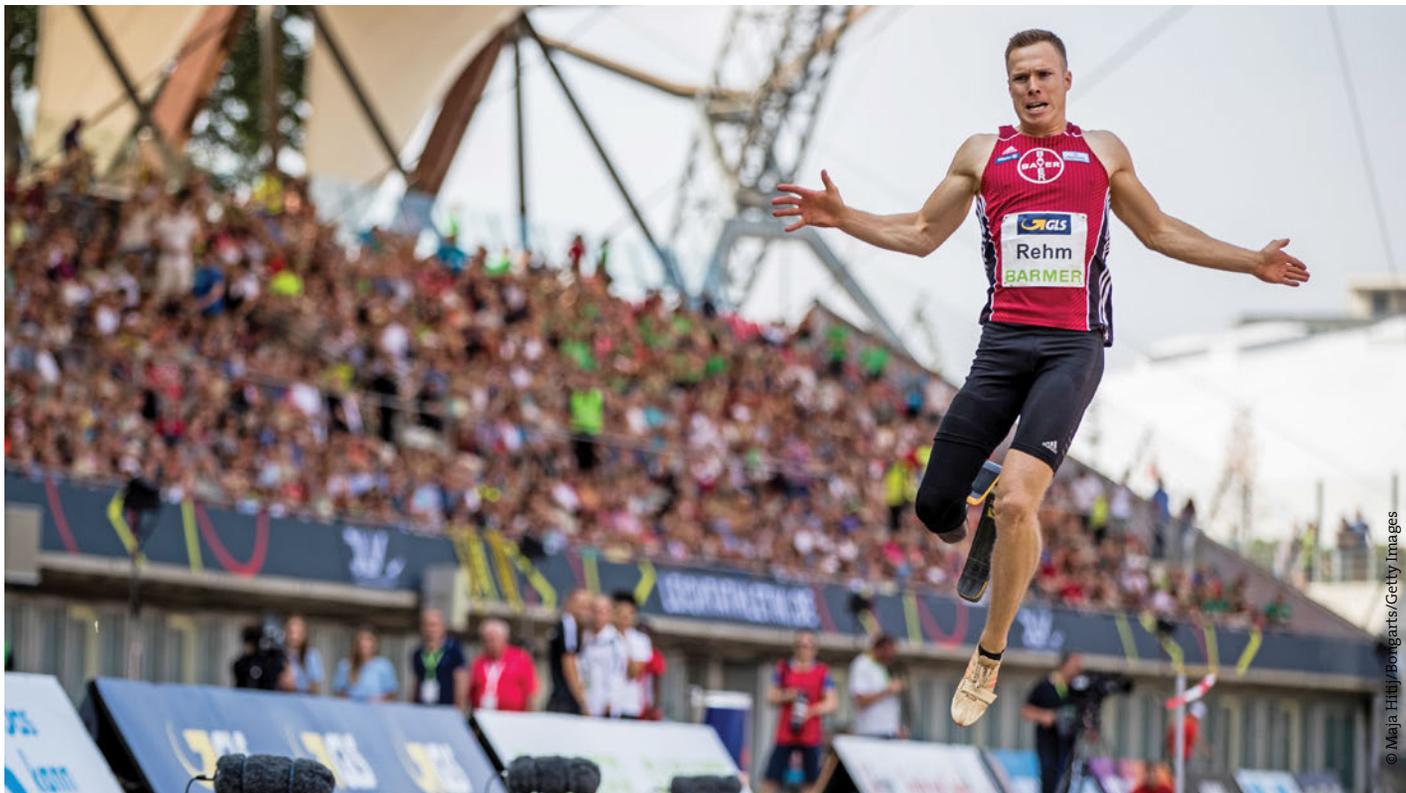
That is up to those in charge of the sports now. In my case, I just want to replace what I've lost. I don't want to gain an advantage out of it. I want to win because I'm a good athlete and I train hard and not because of any advantage. It was good to see that there has been

a large gap between me and my competitors, this never happens in able-bodied sport and it shows that it's not easy to jump with the blade and to jump the distances that I am at the moment. I really hope we find a fair solution in the coming years. As I've said, for the time being, I'm happy to compete unranked against able-bodied athletes if we don't know whether or not the prosthesis causes an advantage.

***Can you tell me about the growth of the Paralympic movement, which is now captivating huge audiences, over the last few years from your perspective as an athlete?***

Since London 2012, there has been really fast growth. It's a great success for our sport and it's been amazing, because we have amazing athletes. It has become more professional in the last few years and it's great that the Paralympic family is growing and the athletes are constantly improving. It's a relatively young sport, so we have had lots of records falling all the time and records really being smashed by large margins. Now we are getting to a point where it's not so easy to do that any more because the level is now so high. I hope this will continue and we will show people what can really be achieved if you have a disability.

*Jake Bambrough*



**Image:** Markus Rehm competes during men's Long Jump Final at the German Championships in Athletics in Erfurt, 2017.