



TALENTFÖRDERUNG



# PERFORMANCE DIAGNOSTICS IN THE TALENT DEVELOPMENT PROGRAMME OF THE GERMAN FA (DFB)

A Manual for Conducting Objective and Subjective  
Tests in the age groups U12 – U15



## THE DFB TEST BATTERY AS AN IMPORTANT COMPONENT OF TALENT DEVELOPMENT

This document describes test procedures used in the DFB Talent Development Programme to record various characteristics of talented youth football players in order to assess their current performance level and monitor the development of their performance. For this purpose, objective performance diagnostics (i.e. a motor test battery) as well as subjective diagnostics (i.e. survey of coaches who evaluate their players regarding various characteristics) are used.

The objective motor performance diagnostics was implemented in 2004 and was validated for youth players in the following years. It measures skills relating to technique and speed. The subjective performance evaluation was introduced in the 2015/2016 season and was also validated. For goalkeepers and outfield players different techniques, endurance (not for goalkeepers) as well as individual tactical and psychosocial skills are assessed. As a result, the objective

and subjective test procedures (according to their statistically verifiable suitability) comprise different talent characteristics that can be categorised into different dimensions and competences (see table).

### The purpose of this manual is to guarantee that ...

- ... the setup and implementation of the objective performance diagnostics are uniform and independent of the test location and time, for example, or of the persons conducting the test ...
- ... the subjective evaluation of performance is based on a common understanding of the talent characteristics that are to be evaluated as well as of the rating scales used.

### CRITERIA OF SUBJECTIVE PERFORMANCE EVALUATION AND OBJECTIVE MOTOR TEST BATTERY

AREA OF COMPETENCE	DIMENSION	CRITERIA FOR THE RATING OF PERFORMANCE	
		subjective	objective
Motor skills	Technique	<ul style="list-style-type: none"> <li>▶ Kicking Techniques</li> <li>▶ Heading</li> </ul>	<ul style="list-style-type: none"> <li>▶ Ball control</li> <li>▶ Dribbling</li> <li>▶ Juggling</li> </ul>
	Physiology	<ul style="list-style-type: none"> <li>▶ Techniques within reach</li> <li>▶ Diving techniques</li> <li>▶ Techniques for crosses</li> <li>▶ Techniques for distribution and restarting play</li> </ul>	<ul style="list-style-type: none"> <li>▶ Sprint</li> <li>▶ Agility</li> </ul>
Cognition	Tactical skills	<ul style="list-style-type: none"> <li>▶ Individual tactical behaviour in offensive situations before, during and after ball-related actions</li> <li>▶ Individual tactical behaviour in defensive situations before, during and after ball-related actions</li> <li>▶ Game intelligence</li> </ul>	
		<ul style="list-style-type: none"> <li>▶ Positioning</li> <li>▶ Behaviour in 1 v 1 situations</li> </ul>	
Psychosocial skills	Motivation, volition, social skills	<ul style="list-style-type: none"> <li>▶ Motivational skills</li> <li>▶ Volitional skills</li> <li>▶ Social skills</li> </ul>	

■ = for all players ■ = for outfield players □ = for goalkeepers

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<sup>1</sup> Lottermann, S., Laudenklos, P., Friedrich, A., Metaxas, I., Tritschoks, J., Ferrauti, A. & Weber, K. (2003). Technikdiagnostik und Techniktraining im Jugendfußball. In G. Neumann (Hrsg.), Fußball vor der WM 2006: Spannungsbogen zwischen Wissenschaft und Organisation (S. 91-105). Köln: Sport und Buch Strauß.

<sup>2</sup> Höner, O., Votteler, A., Schmid, M., Schultz, F., & Roth, K. (2015). Psychometric properties of the motor diagnostics in the German football talent identification and development programme. Journal of Sports Sciences 33(2), 145-159. doi: 10.1080/02640414.2014.928416.

Höner, O., Leyhr, D. & Kelava, A. (2017). The influence of speed abilities and technical skills in early adolescence on adult success in soccer: A long-term prospective analysis using ANOVA and SEM approaches. PLoS ONE, 12(8), e0182211. doi: 10.1371/journal.pone.0182211.

<sup>3</sup> Höner, O., Murr, D., Schreiner, R., Larkin, P. & Leyhr, D. (2021). Nationwide subjective and objective assessments of potential talent predictors in elite youth soccer: An investigation of prognostic validity in a prospective study. Frontiers in Psychology. doi 10.3389/fpsyg.2021.638227

# MOTOR PERFORMANCE DIAGNOSTICS

## ORGANISATIONAL FRAMEWORK

**Accuracy, precision and completeness are paramount for setting up and conducting the test as well as for the documentation of the test data. Regarding the test setup, all marker lines belong to the zones they determine. In each individual test, the players complete two attempts, with only the better of the two contributing to the score.**

### TEST PREPARATION

The following aspects are important for preparing the tests:

#### Collecting the players' personal data

The following data of the players are to be collected:

- ▶ Anthropometric data (height, body weight)
- ▶ Number of regular training sessions per week at the club (plus competence centre training)
- ▶ Start of the players' career (active since?)

For the body weight, scales for weighing persons must be used. The height is measured with a tape measure. No shoes should be worn for either of the measurements. Ideally, this data is collected on the day of the assessment. As an alternative, it can also be collected during the week leading up to the test.

#### Division of the test groups

The test protocols the players' results are recorded in, should be prepared before the test. The players complete the tests in a specified order. Participants should be informed about this order before the test and it should be maintained throughout the test. The number of players per group should be approximately the same, a group size of 15 players should not be exceeded, though. For the test procedure, it is suggested to split them into three groups of ten players each. The three groups can simultaneously complete the following tests at different stations:

- ▶ Group 1: agility and dribbling (station 1)
- ▶ Group 2: ball control (station 2)
- ▶ Group 3: juggling and sprint (station 3)

Each station takes about 20 minutes. Once a group has completed a station, they go to the next one.

With four people conducting the test, the total duration (including the setup, introduction and organisation) is about 90 minutes. Setup and dismantling take approx. 30 minutes, the test itself approx. 60 minutes.

#### Selection of the test location

In the seasons from 2015/2016 to 2019/2020, 83.1% of all tests were conducted in a sports hall. In order to achieve a better comparability of test results, it is recommended to conduct the tests in a sports hall (minimum size 40 x 20 m).

#### Uniformity of the test setup

It is essential that identical test materials are used for the setup at all competence centres. Only those materials specified in this test manual may be used for the setup and for conducting the test. The speed, agility and dribbling tests are timed using infrared light barriers (single light barrier system).

#### Use of age-appropriate balls

Each age group uses age-appropriate balls. For the age groups up to and including U13s, these are light balls whereas the older age groups starting from U14s use standard balls. The air pressure of all balls used must be checked before the test (ideally between 0.6 to 1.1 bar).

### CONDUCTING THE TESTS

The following points should be considered when conducting the tests:

#### Warm-Up

Before the start of the test, the players need to warm-up without disturbing the test setup. The warm-up should consist of a general warm-up followed by a specific warm-up. The general warm-up (light jog, running form drills) serves to increase activity. The specific warm-up includes explosive exercises that combine speed and strength (jumps and short sprints), which prepare the players for the maximum loads. Both warm-up phases (general and specific) should last 8 to 10 minutes each. Static stretching should be avoided during the warm-up because it impairs the performance of fast explosive movements such as sprinting.

#### Dummy runs

At each station, one dummy run is allowed. This must not be included in the score.

#### Breaks

Between two attempts, players should be given a break of at least 60 seconds to allow them to fully recover. This is achieved by having all players of a group complete their first attempt before starting the second round.

#### Failed attempts

If a player fails an attempt, this is entered in the test protocol with the value "99.99". A failed attempt cannot be retaken.



Infrared light barriers transfer the recorded times to the measuring device.

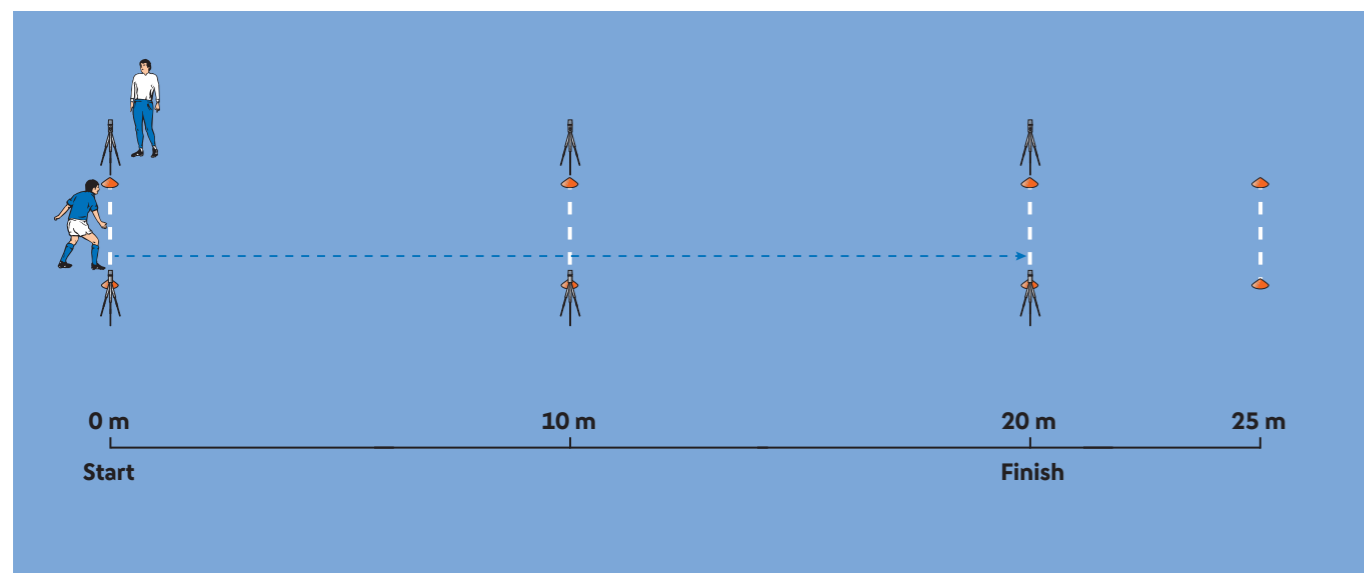
#### → Assignment of 'station experts'

In order to guarantee a smooth procedure and to avoid errors during the setup and while conducting the test, it is recommended to train a test assessor as a station expert for each station. The station experts continuously supervise the individual tests assigned to them, they have extensive knowledge about the stations (during the setup and while conducting the test) and are familiar with the typical errors relating to the individual test. Station experts can be supported by inexperienced assistants who, for example, note down the performance data.

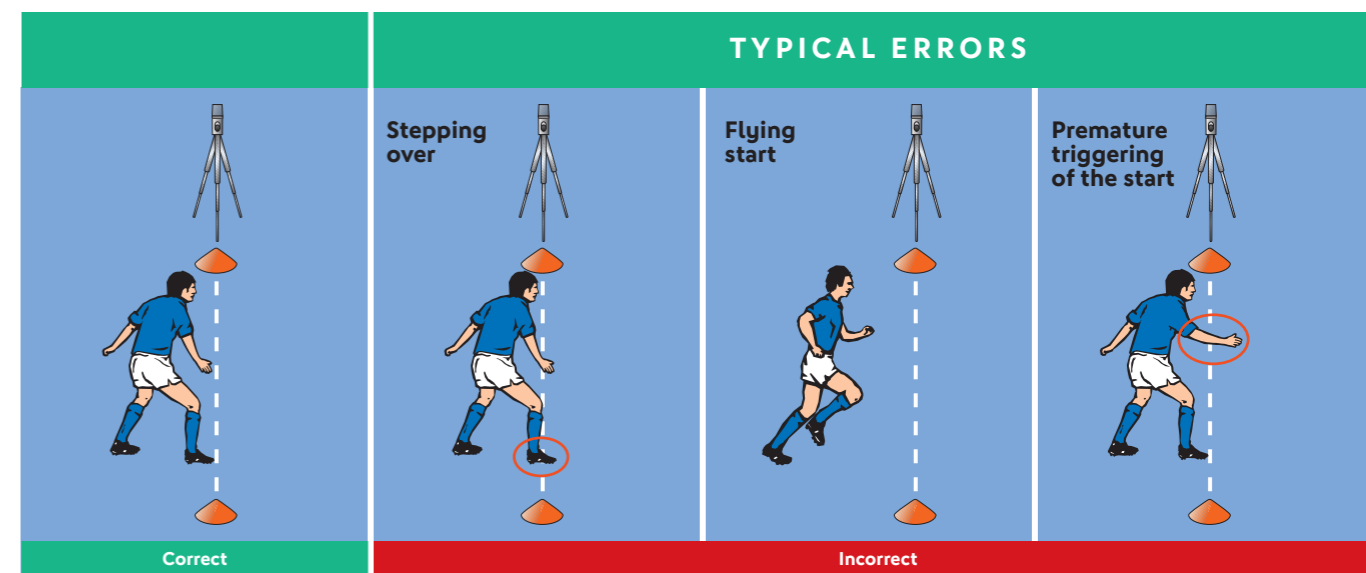


# TEST PROCEDURES

## TEST PROCEDURE SPRINT



The aim of the sprint test is to cover a linear distance of 20 meters as quickly as possible. Three light barriers record the start, the time after 10 meters and the total time after 20 meters. A 5 meter long outrun zone encourages the players not to slow down the sprint prematurely (cf. figure above). The players start without a starting signal at their own discretion, standing in a stride position. This way, only the sprint performance is recorded, regardless of their reaction time. The player's front foot must be exactly at the starting line in order to rule out flying starts (crossing the starting line with a run-up) (cf. typical errors). Premature triggering of the light barrier at the start, e.g. by an arm movement, must be avoided. Each player completes two attempts (rounds). The better of the two will contribute to the score. The time after 10 meters and the total time (20 m) of both attempts must be recorded in the test protocol. There should be a break of at least 60 seconds between the two attempts of a player.



### TYPICAL ERRORS

Stepping over

Flying start

Premature triggering of the start

Correct

Incorrect

### IN SUMMARY, THE FOLLOWING POINTS SHOULD BE NOTED

- ▶ Time measured with three light barriers (Start, 10 m, 20 m)
- ▶ Start from a stride position, with the front foot exactly at the starting line
- ▶ Start without signal, at the discretion of the player
- ▶ Each player completes two attempts
- ▶ Minimum break of 60 seconds for each player between two attempts

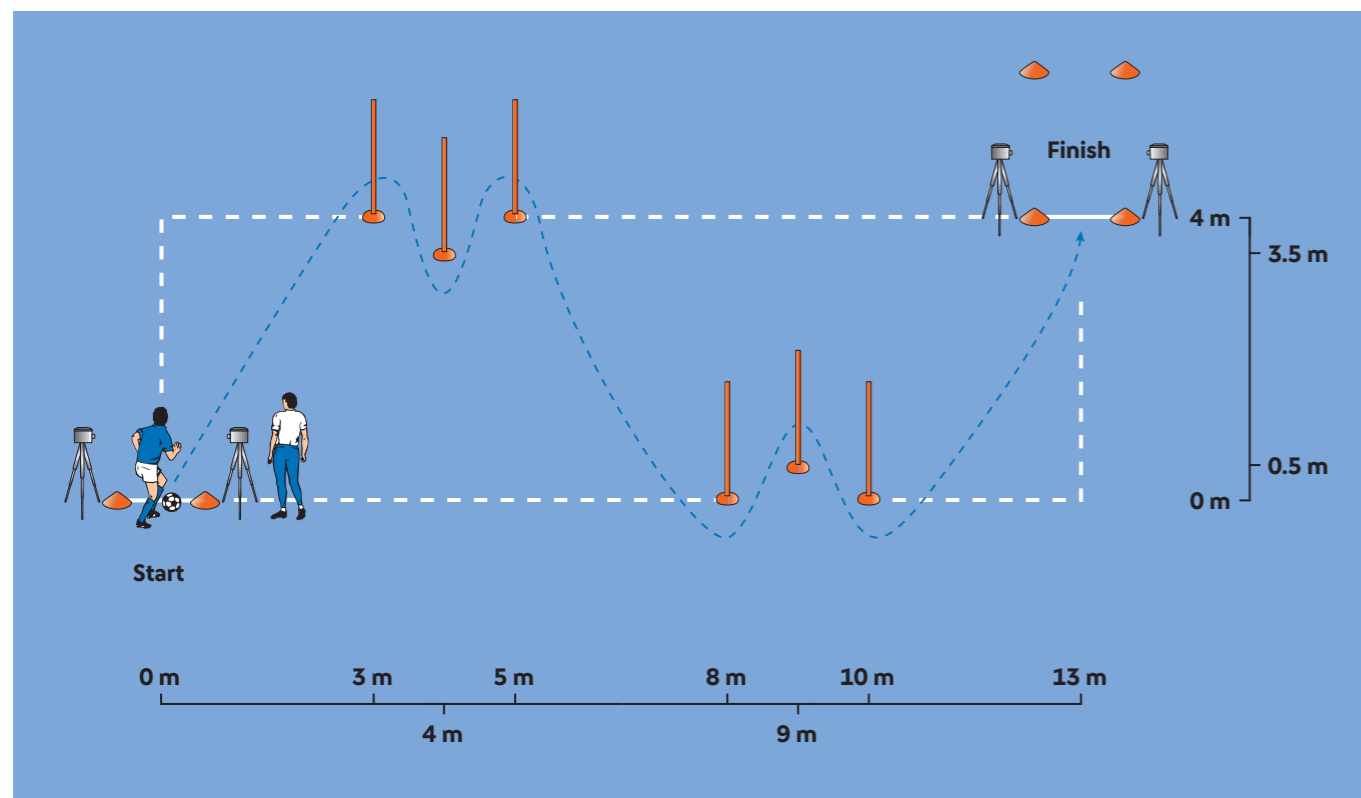
### VERBAL INSTRUCTIONS TO PLAYERS

- ▶ "Stand at the starting line in a stride position!"
- ▶ "Run as fast as possible until you reach the final mark!"
- ▶ "Wait for me to give you the go-ahead, then decide for yourself when you would like to start running!"

### ERRORS LEADING TO A RESTART (SEE TYPICAL ERRORS)

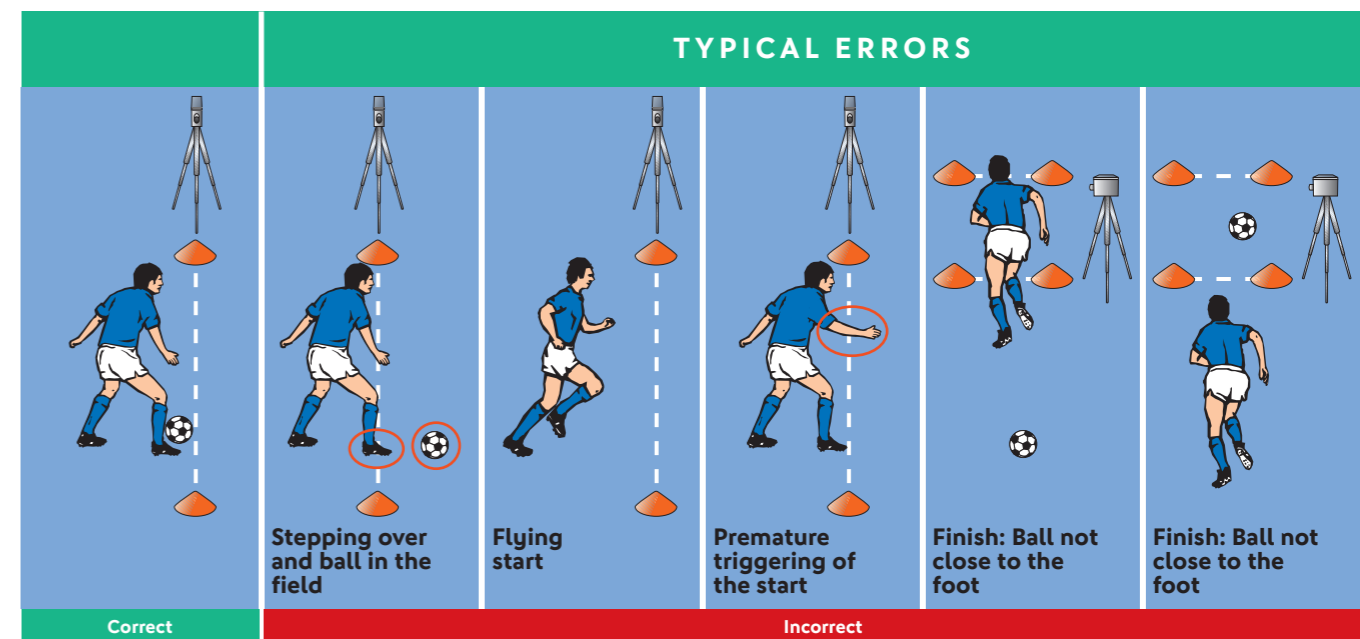
- ▶ Wrong starting position
- ▶ Flying start: Player takes a run-up and thus has an increased initial speed at the starting line
- ▶ Starting before the light barriers are ready for use
- ▶ Premature triggering of the light barrier by movements of the upper body, knees and/or arm while starting or when taking up the starting position

## TEST PROCEDURE AGILITY AND DRIBBLING



The agility and dribbling tests are conducted in the same course. The agility test is conducted without a ball while the dribbling test is conducted with a ball. The course is marked with six poles and is completed as a slalom (see figure above). Two light barriers, positioned at the start and finishing line, measure the time. Again, the players start whenever they feel ready. The players start from a stride position: In order to rule out flying starts, they position the front foot at the starting line, which is exactly 1 m long (see typical errors).

For the dribbling test, the ball is positioned at the starting line. The front foot has to be positioned at the starting line to avoid a run-up to the ball. Players can choose which foot they want to dribble with. The 2-meter starting line must be crossed with the ball close to the foot. If the ball is more than 1 m away from the foot (behind or in front of the player) when crossing the finishing line, this is considered a failed attempt. The same applies if a pole falls over while completing the course (it is not permitted to fix the poles to the floor of the sports hall, e.g. by adhesive tape or suction cups). It is no failed attempt if the player loses the ball and then returns to their previous position. Each player has two attempts per test, with the better of the two contributing to the score. Both attempts are recorded in the test protocol. Every player should be given a break of at least 60 seconds between each round.



#### IN SUMMARY, THE FOLLOWING POINTS SHOULD BE NOTED

- ▶ Two light barriers positioned at the start and finishing line measure the time
- ▶ Players start in a stride position with their front foot at the ball/when dribbling, the ball is placed on the starting line
- ▶ Start without signal, at the discretion of the player
- ▶ Two attempts each, without a ball (agility) and with a ball (dribbling)
- ▶ Minimum break of 60 seconds for each player between two attempts

#### VERBAL INSTRUCTIONS TO PLAYERS

##### Agility and Dribbling

- ▶ "Place yourself at the starting line in a stride position!"
- ▶ "Wait for me to give you the go-ahead, then decide by yourself when you would like to start running!"
- ▶ "The poles mustn't fall over!"

##### Agility

- ▶ "Run through the course as fast as you can!"

##### Dribbling

- ▶ "Dribble through the course as fast as you can! You have to dribble the ball so that it travels the same way as you. You have to cross the finishing line with the ball close to your foot!"
- ▶ "If you lose the ball, you will have to return to the spot where you lost it and finish your attempt from there."

#### ERRORS LEADING TO THE ATTEMPT BEING TERMINATED (FAILED ATTEMPT)

##### Agility and Dribbling

- ▶ One or more poles fall over
- ▶ The player does not complete the course on the designated route

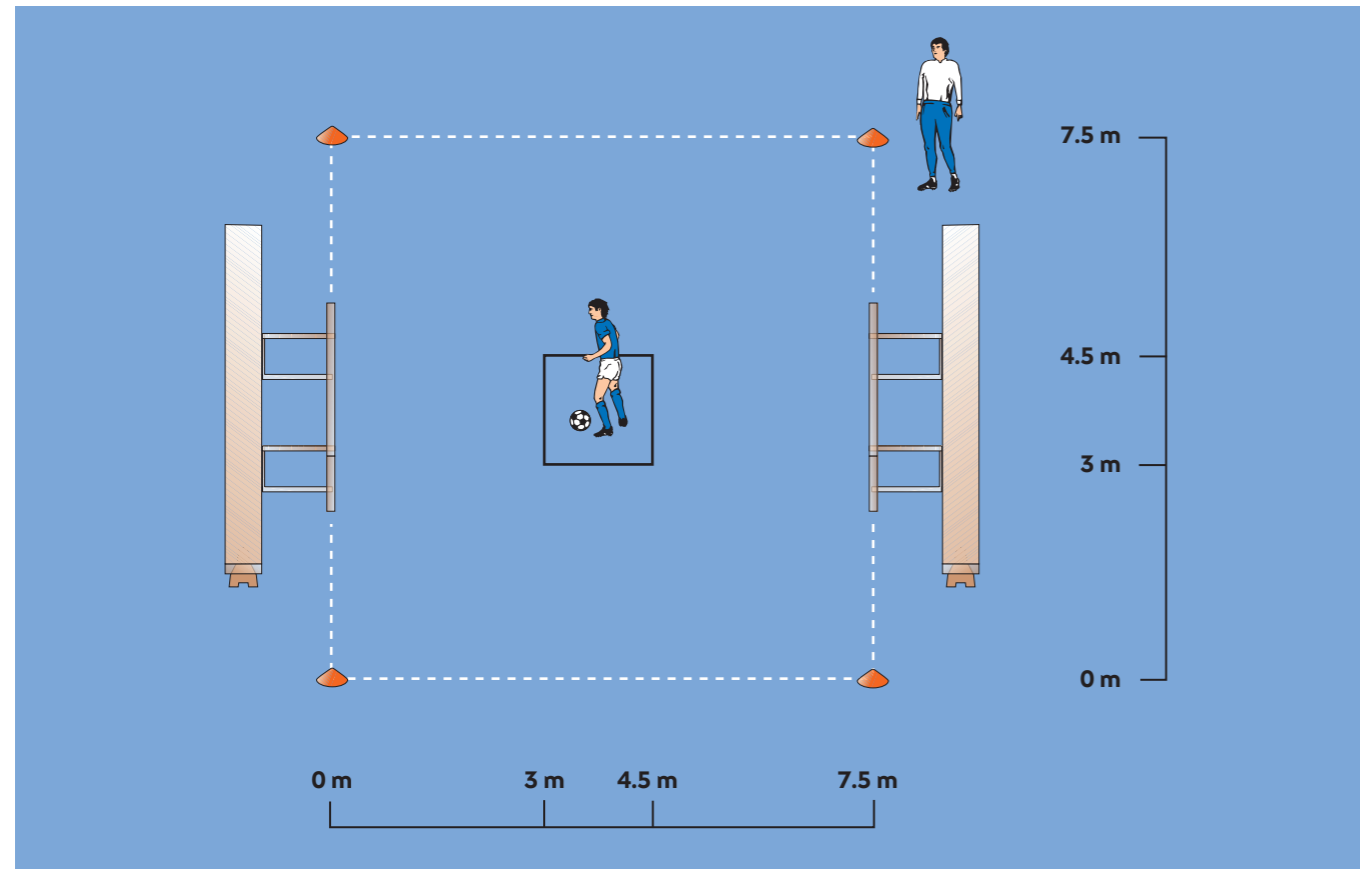
##### Dribbling

- ▶ The player does not dribble across the finishing line, but misses it or crosses it without the ball
- ▶ The ball is more than 1 m away from the foot when crossing the finishing line (see typical errors)

#### ERRORS LEADING TO A RESTART

- ▶ Wrong starting position
- ▶ Start before the light barriers are ready
- ▶ Flying start: Player takes a run-up and thus has an increased initial speed at the starting line
- ▶ Premature triggering of the light barrier by movements of the upper body, knees and/or arm while starting or when taking up the starting position
- ▶ The ball is not placed on the starting line for the dribbling test

## TEST PROCEDURE BALL CONTROL



## IN SUMMARY, THE FOLLOWING POINTS SHOULD BE NOTED

- ▶ Start without signal at the discretion of the player
- ▶ Two attempts of six passes each
- ▶ Passes only allowed from within the 1.5 m x 1.5 m passing zone
- ▶ Each ball returning must be controlled with at least one touch before the player may pass to the opposite wall
- ▶ Time is measured with a stopwatch (stop: trapping the ball with the sole of the foot within the passing zone)
- ▶ Minimum break of 60 seconds between the two attempts

## VERBAL INSTRUCTIONS TO PLAYERS

- ▶ "From within the passing zone, alternately pass the ball six times against the rebounder walls!"
- ▶ "Touch the ball at least once before passing it from within the passing zone to the opposite rebounder wall. You must not pass the ball directly!"
- ▶ "If the ball has not left the large zone you may dribble back into the passing zone and pass the ball with the next touch!"

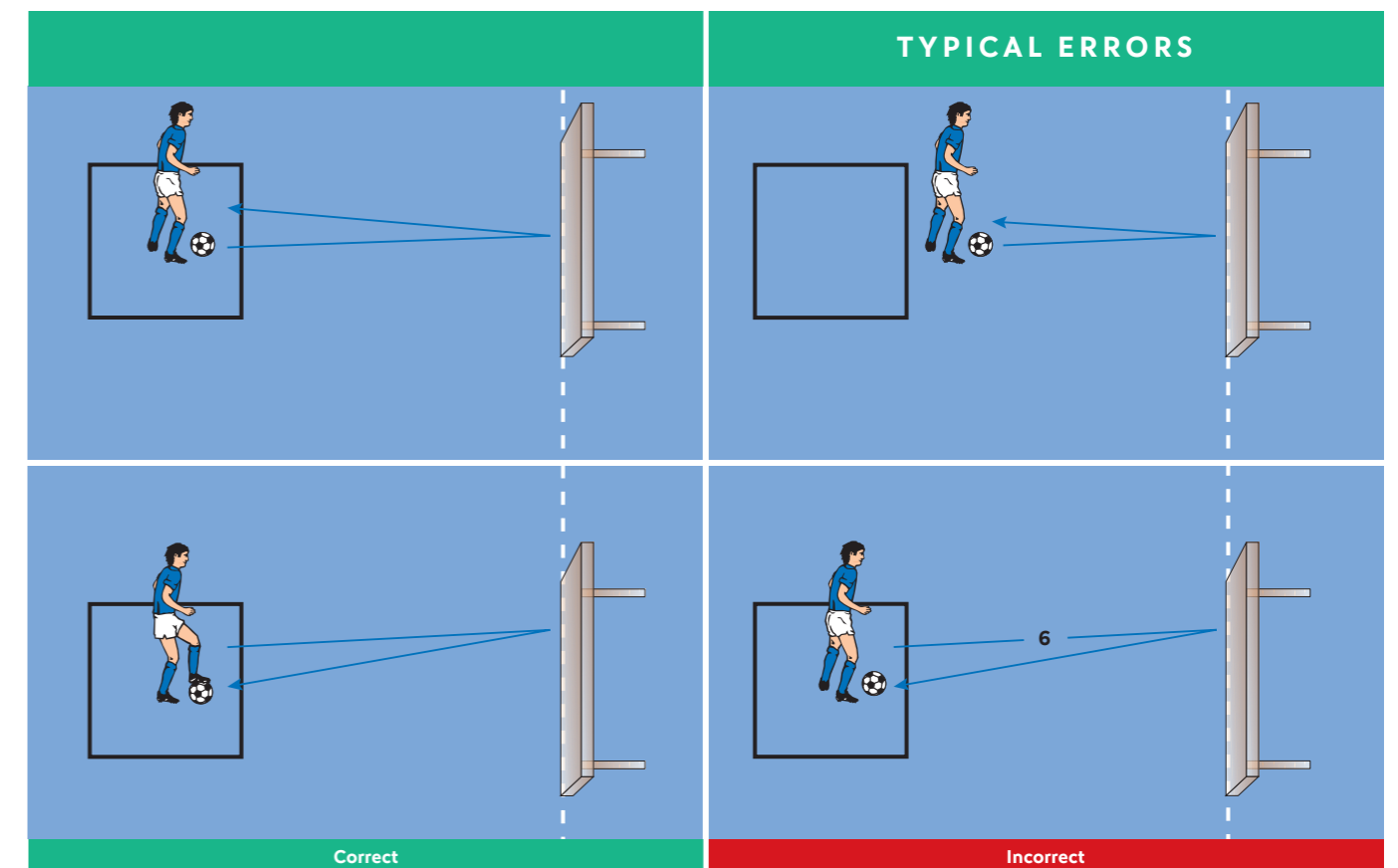
- ▶ "Time starts running as soon as you play the first pass. Your time is stopped when you trap the ball after the sixth pass with the sole of your foot, inside the passing zone"
- ▶ "Wait for my signal and then start once you are ready!"
- ▶ "It is up to you which way you want to turn around!"
- ▶ On the sixth pass, the assessor at the station calls out to the player to trap the ball with the sole of the foot.

## ERRORS LEADING TO THE ATTEMPT BEING TERMINATED (FAILED ATTEMPT)

- ▶ The ball goes out-of-bounds (7.5 m x 7.5 m)
- ▶ The ball is passed directly in the passing zone
- ▶ The ball is passed from outside the passing zone (cf. typical errors)
- ▶ The ball is not trapped with the sole of the foot, but instead with the inside or is directly played on

The aim of the ball control test is to alternately pass the ball six times against two rebounder walls as quickly as possible and to eventually trap the ball with one foot in the passing zone (1.5 m x 1.5 m). The ball has to be passed from within the passing zone, alternating between the two walls (see figure above). Players can decide which foot they want to pass the ball with. Each rebounding ball must be controlled with at least one touch before it may be passed against the opposite wall. Direct passes with no prior ball contact are not permitted. If the ball leaves the passing zone after being received or does not roll back in after bouncing off the wall, the player must dribble back into the passing zone before passing against the opposite wall. If the ball rolls out of the large marked square (7.5 m x 7.5 m), this is considered a failed attempt. Time is measured from the first ball contact to the moment the ball is trapped in the passing zone after the sixth pass (cf. typical errors, p. 11 bottom row).

Time is measured by the test assessor, using a stopwatch. The test begins without a starting signal at the discretion of the player from the passing zone. During the test, the test assessor should count the number of ball contacts out loud and instruct the player on the sixth pass to trap the ball with the sole of the foot. Every player completes two attempts with six passes each. The better of the two contributes to the score. Both attempts are to be recorded in the test protocol. Between the attempts, players should be given a break of at least 60 seconds.

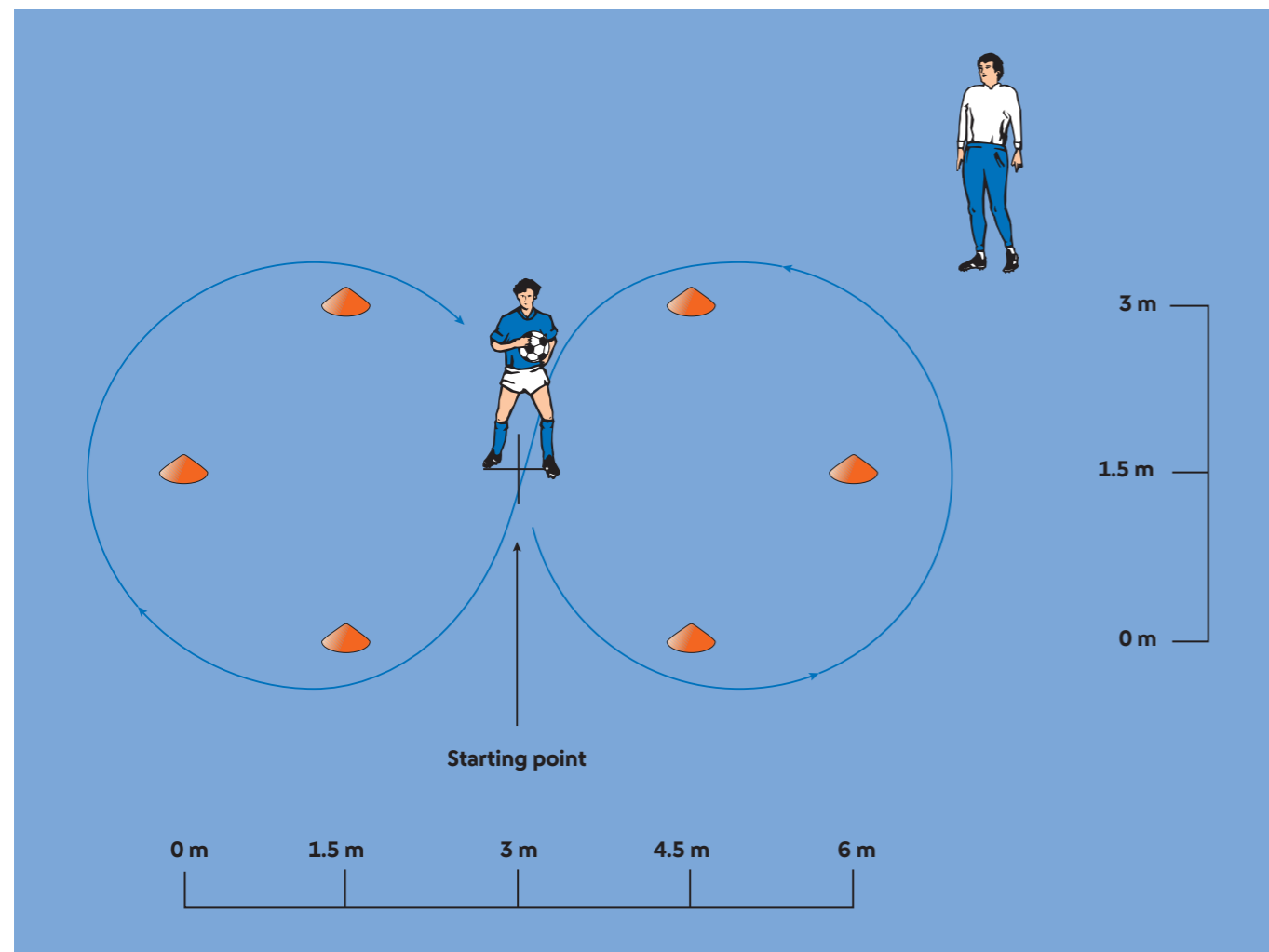




## TEST PROCEDURE JUGGLING

The aim of the juggling test is to complete as many sections as possible while juggling the ball. The course consists of a total of eight sections. One section corresponds to a quarter of a circle (cf. figure below). A section is completed as soon as the player juggles past a marker cone on the outside of the course or touches the ball once after having passed the starting point. For each section completed, one point is awarded.

Time is limited to a maximum of 45 seconds. The course may be completed multiple times within the time limit. Prior to the test, the player stands with both feet on the starting point. The person can choose in which direction they want to go around the cones. Players start at their own discretion. Time starts running as soon as the player drops the ball from the hand onto the foot. Once the ball leaves the hand, the ball must be played directly. The ball must be juggled alternating the two feet. It must neither touch the ground nor any body part other than the foot. An attempt ends after 45 seconds or if the test rules are not obeyed. The number of sections successfully completed up to this point will be recorded as the score. Each player has two attempts. Both attempts are to be recorded in the test protocol, with only the better of the two contributing to the score. Between the two attempts, each player should be given a minimum break of 60 seconds.



### IN SUMMARY, THE FOLLOWING POINTS SHOULD BE NOTED

- ▶ Players start at their own discretion, without a starting signal (dropping the ball from the hand onto the foot)
- ▶ The aim is to cover as much distance as possible (outer edge of the cone or starting point)
- ▶ The ball must be juggled alternating both feet
- ▶ Score is recorded after a maximum of 45 seconds or once a mistake has been made (see failed attempt)
- ▶ Time is measured with a stopwatch
- ▶ Each player has two attempts
- ▶ Each player should be given a minimum break of 60 seconds between the two attempts

### VERBAL INSTRUCTIONS TO PLAYERS

- ▶ "Stand on the starting point, hold the ball with both hands!"
- ▶ "Wait for my signal, then start once you are ready!"
- ▶ "The time starts as soon as you drop the ball from your hands onto your foot."
- ▶ "You have to juggle the ball alternating between your left and right foot!"
- ▶ "Juggling the ball, walk around the cones in the direction you prefer. Once you get past the first three cones, walk diagonally across the starting point to go around the remaining cones! Walk across the starting point again and repeat this sequence! The route is shaped like an eight."
- ▶ "You have a maximum of 45 seconds."

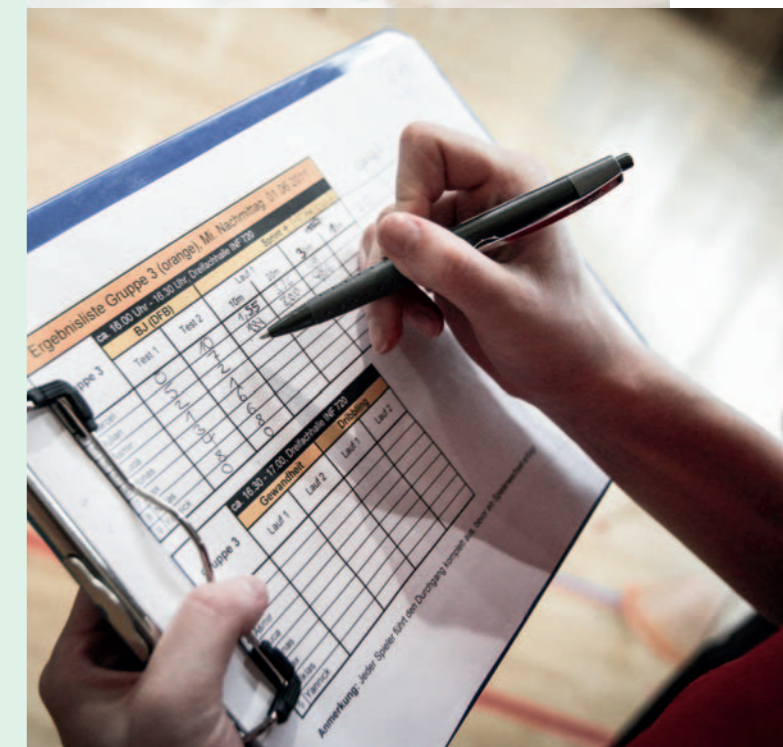
### ERRORS LEADING TO THE ATTEMPT BEING TERMINATED (FAILED ATTEMPT)

- ▶ The ball touches the ground or any body part other than the foot (i.e. thigh, chest or head)
- ▶ Two consecutive touches with the same foot
- ▶ The player or the ball touches one of the cones
- ▶ The player does not complete the course on the designated route

### ERRORS LEADING TO A RESTART

- ▶ The player does not start directly from the starting point
- ▶ The player throws the ball towards the first cone at the start
- ▶ The ball leaves the hand and bounces on the ground before it is played

A clipboard facilitates noting down the score!



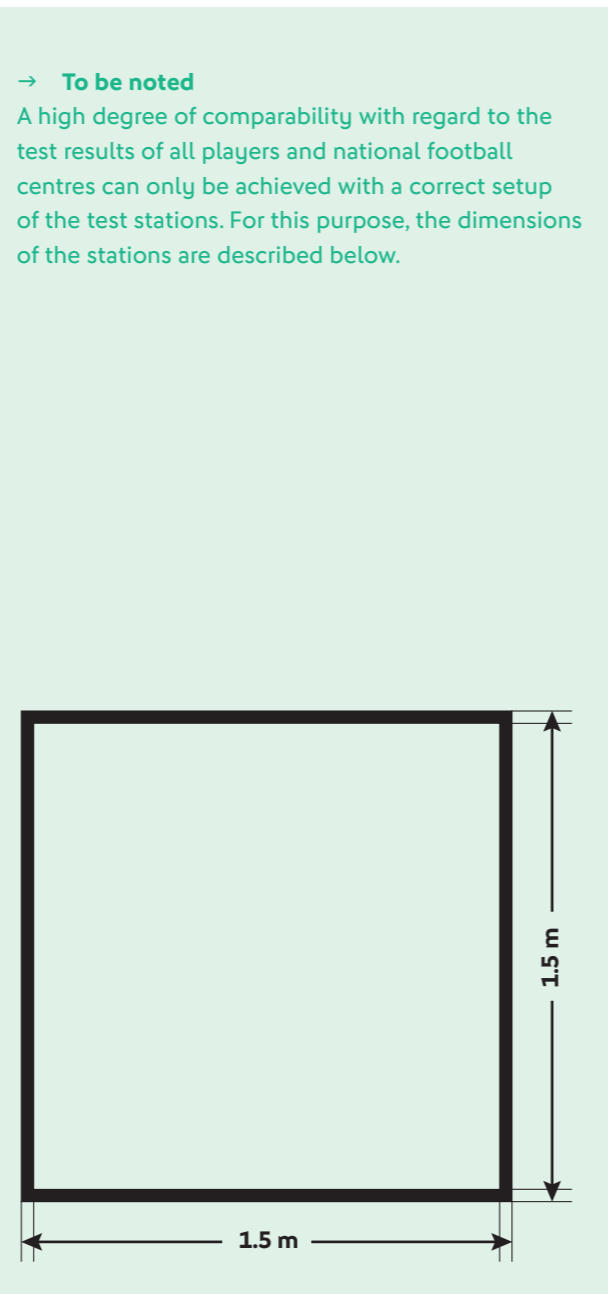
# TEST SETUP

## GENERAL NOTES

The tests are designed for an indoor sports hall. Already existing line markings can be used to facilitate the setup of the stations. The measurements are always taken on the outer edges of the required zones (see illustration on the right). If the station is set up by a single person, the tape measure can be held in place with tape.

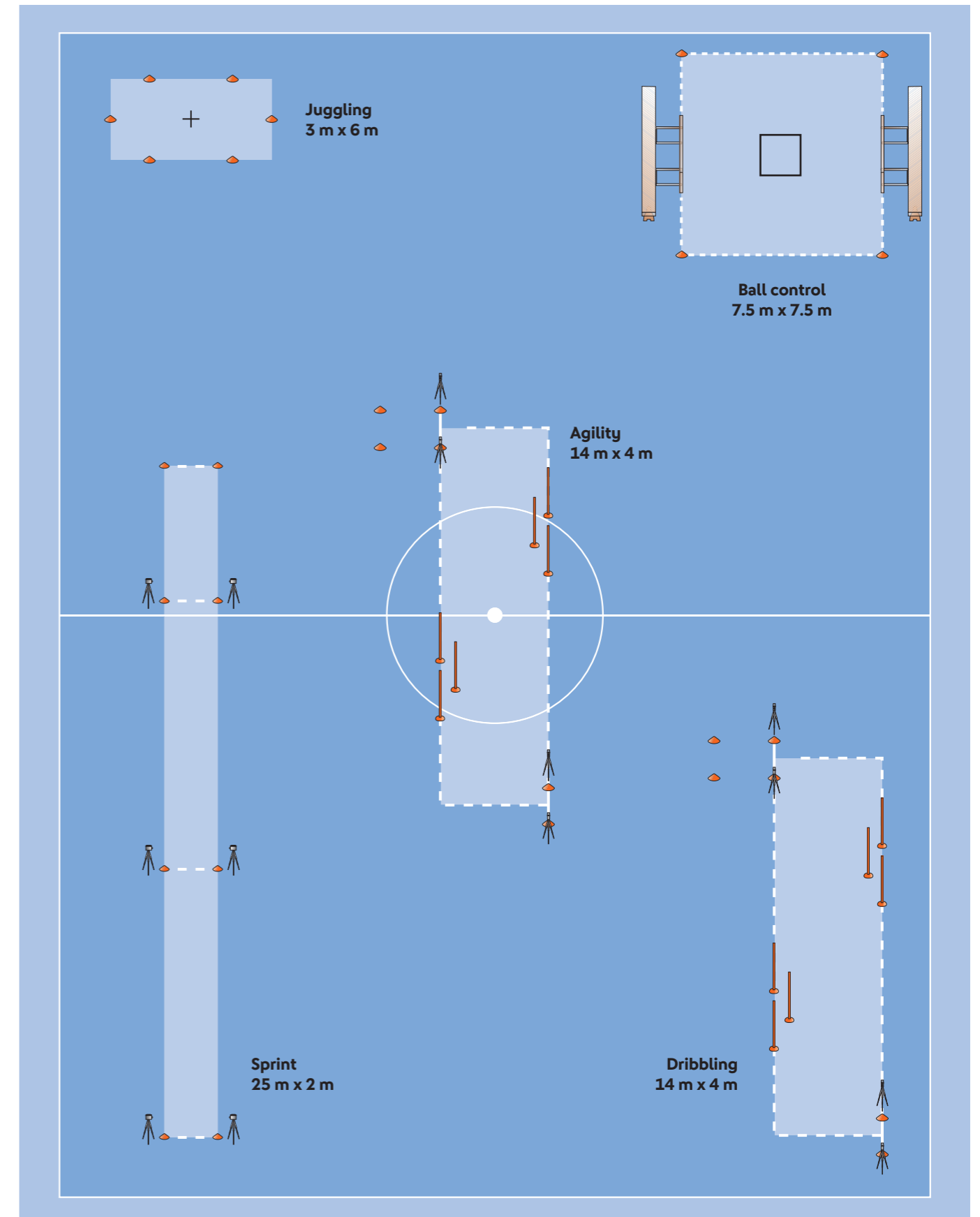
## EXEMPLARY TEST SETUP IN THE SPORTS HALL

The setup in a sports hall depends on the local conditions. The illustration on the right shows one possible example of arranging the test stations in the sports hall. Alternative arrangement of the test stations is possible, too, or may be necessary depending on the local conditions.



The juggling zone requires the smallest space in the setup

## EXEMPLARY TEST SETUP IN THE SPORTS HALL





### THE DIFFERENT TESTS REQUIRE THE FOLLOWING MATERIALS

#### Sprint

- ▶ 8 cones (for the starting point, 10 m, 20 m and 25 m line)
- ▶ Tape measure
- ▶ Folding rule
- ▶ Tape
- ▶ Light barrier system (with 3 functioning light barriers)
- ▶ Angle iron

#### Agility and Dribbling

- ▶ 6 cones for the starting point, finishing line and the outrun
- ▶ 6 slalom poles
- ▶ Tape measure
- ▶ Folding rule
- ▶ Tape
- ▶ Light barrier system (with 2 functioning light barriers)
- ▶ Angle iron
- ▶ Age-appropriate football

#### Ball Control

- ▶ 2 beer garden tables as rebounder walls (size 2.20 m x 0.50 m)
- ▶ 4 cones (outer square)
- ▶ Tape measure
- ▶ Tape
- ▶ Angle iron
- ▶ Stopwatch
- ▶ Folding rule
- ▶ Age-appropriate football
- ▶ 4 wedges for the beer garden walls
- ▶ 2 gymnastics benches

#### Juggling

- ▶ 6 cones
- ▶ Tape measure
- ▶ Folding rule
- ▶ Tape
- ▶ Angle iron
- ▶ Stopwatch
- ▶ Age-appropriate football

#### Further materials required

Prepared result lists incl. writing utensils. Moreover, a ball pressure gauge is recommended.

### COMPLETE LIST OF MATERIALS FOR SETTING UP AND CONDUCTING THE TEST

- ▶ 26 cones
- ▶ Multiple tape measures with a minimum length of 20 m
- ▶ Multiple folding rules
- ▶ Multiple tapes
- ▶ 2 light barrier systems
- ▶ 1 angle iron
- ▶ 2 stopwatches (displaying hundredths of a second)
- ▶ 4 (or more) age-appropriate balls
- ▶ 6 slalom poles
- ▶ 1 – 4 test protocols (number depending on number of groups) and writing utensils
- ▶ 2 beer garden tables (size 2.20 m x 0.50 m)
- ▶ 4 wedges for the beer garden table-legs

#### Ideally

- ▶ 1 ball pressure gauge



One of the most important pieces of equipment for sports motor tests: A functioning light barrier system.

## TEST SETUP SPRINT

### MATERIALS

- ▶ 8 cones (for the starting point, 10 m, 20 m and 25 m line)
- ▶ Tape measure
- ▶ Folding rule
- ▶ Tape
- ▶ Light barrier system (with 3 functioning light barriers)
- ▶ Angle iron

### STEP 1: MEASURING THE SPRINT DISTANCE AND SETTING UP THE TRACK BOUNDARIES

The tape measure is aligned with an existing line marking and a distance of 25 m is measured.

Tape is used to mark 0 m, 20 m and 25 m.

The width of the track is limited to 2 m. For this purpose, the folding rule is placed at an angle at the 0 m mark to the 25 m long side.

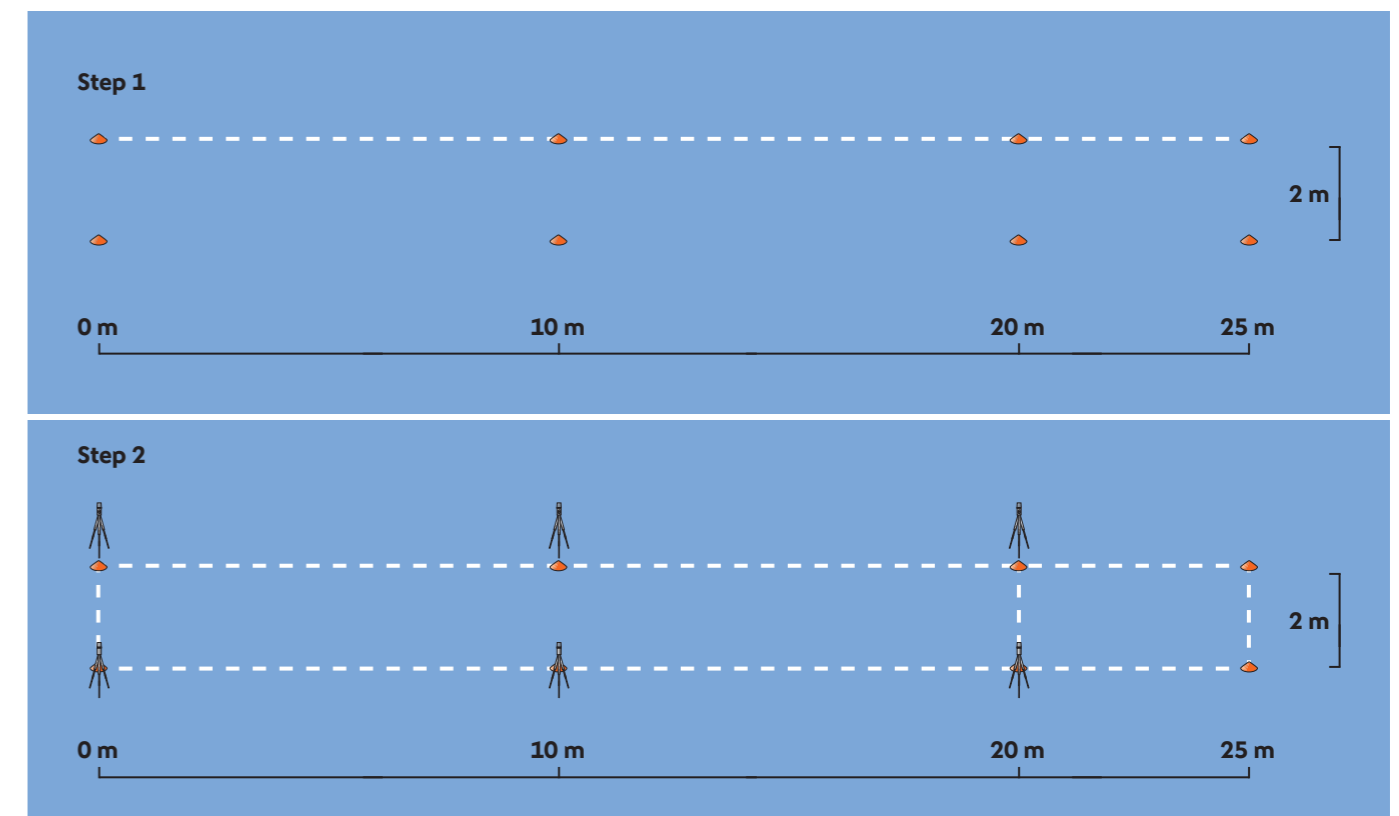
The right angle is checked using the angle iron. Every 2 m, tape is used to mark the distance. The same procedure is repeated at the 10 m, 20 m and 25 m lines.

A cone is then placed on each mark (see figure below).

### STEP 2: MARKING THE STARTING LINE AND SETTING UP THE LIGHT BARRIERS

Aligned with the 0 m mark, the starting line is marked with tape. The light barriers are set up precisely on the 0 m, 10 m and 20 m marks (cf. figure below).

To ensure standardisation, the light barrier systems are to be set at a height of 0.80 m from the ground to the lower edge of the measuring device.



## TEST SETUP AGILITY AND DRIBBLING

### MATERIALS

- ▶ 4 cones (starting line and finishing line)
- ▶ 6 slalom poles
- ▶ Tape measure
- ▶ Folding rule
- ▶ Tape
- ▶ Angle iron
- ▶ Light barrier system (with 2 functioning light barriers)
- ▶ Age-appropriate football

### STEP 1: CONSTRUCTION OF THE RECTANGLE (CF. FIGURE BELOW)

For the construction of the first long side (13 m) the tape measure is aligned with an existing line marking.

The 0 m mark should be exactly at the intersection of two lines that meet at right angles. The following points are then marked with tape:

- ▶ 0 m and 13 m (field boundary)
- ▶ 8 m und 10 m (marks for poles 4 and 6)
- ▶ 9 m (mark for pole 5)

For the first short side (4 m) the tape measure is placed at the starting point of the long side. Accordingly, the blade of the tape measure meets the second line marking that is already there. This is to ensure that both lines meet at a 90° angle.

The mark is made at a distance of 4 m. After that, the second long side (13 m) of the rectangle is measured. For this purpose, the tape measure is placed at right angles to the previously made 4 m mark using the angle iron. The following points are then marked with tape:

- ▶ 13 m (field boundary)
- ▶ 3 m, 4 m and 5 m (marks for poles 1, 2 and 3)

The last side of the rectangle is created by joining the two 13 m marks with the tape measure. This side will be 4 m long if the angle between all four sides is 90° each.

Finally, to check the dimensions of the rectangle, measure its diagonal. It must be exactly 13.60 m long.

### STEP 2: POSITIONING THE POLES

To position pole 2, the folding rule is placed at the 4 m mark on the second long side (13 m). With the help of the angle iron, the folding rule is placed at right angles to the 13 m line. A 0.50 m long line is measured and its endpoint is marked in the field with tape. Pole 2 is placed on the centre of this mark (cf. figure p. 19).

Poles 1 and 3 are placed on the marks from step 1 (at 3 m and 5 m). On the first long side, poles 4 and 6 are placed on the 8 m and 10 m marks (see figure below). To position pole 5, the folding rule is once again placed at right angles to the 9 m mark and a 0.50 m long line is measured. A pole is again placed on the centre of this mark. The poles are to be placed precisely on the centre of the marks.

### STEP 3: MARKING START AND FINISH

The starting line is 1 m wide and is marked with two cones. Its midpoint is the same as the 0 m mark of the rectangle's first long side (13 m). From this corner, the folding rule is used to measure a distance of 0.50 m in both directions of the (extended) first long side (13 m) and two marks are made with tape. A cone is placed with its inner edge on each of the two marks. The starting line is to be marked with tape (cf. figure below).

The finishing line is 2 m wide. The midpoint of the finishing line equals the endpoint (13 m mark) of the second long side. From this endpoint, the folding rule is used to measure a distance of 1 m in both directions of the (extended) second long side (13 m) and two marks are made representing the finishing line (cf. figure below). Again, a cone is placed with its inner edge on each of the two marks.

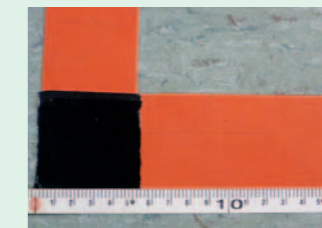
The light barriers are precisely placed in line with the start and finishing line. To ensure standardisation, the light barrier systems are to be set at a height of 0.80 m from the ground to the lower edge of the measuring device.

Approx. 5 m behind the finishing line, there should be another two cones to make sure that players do not slow down before reaching the finishing line.

### → To be noted

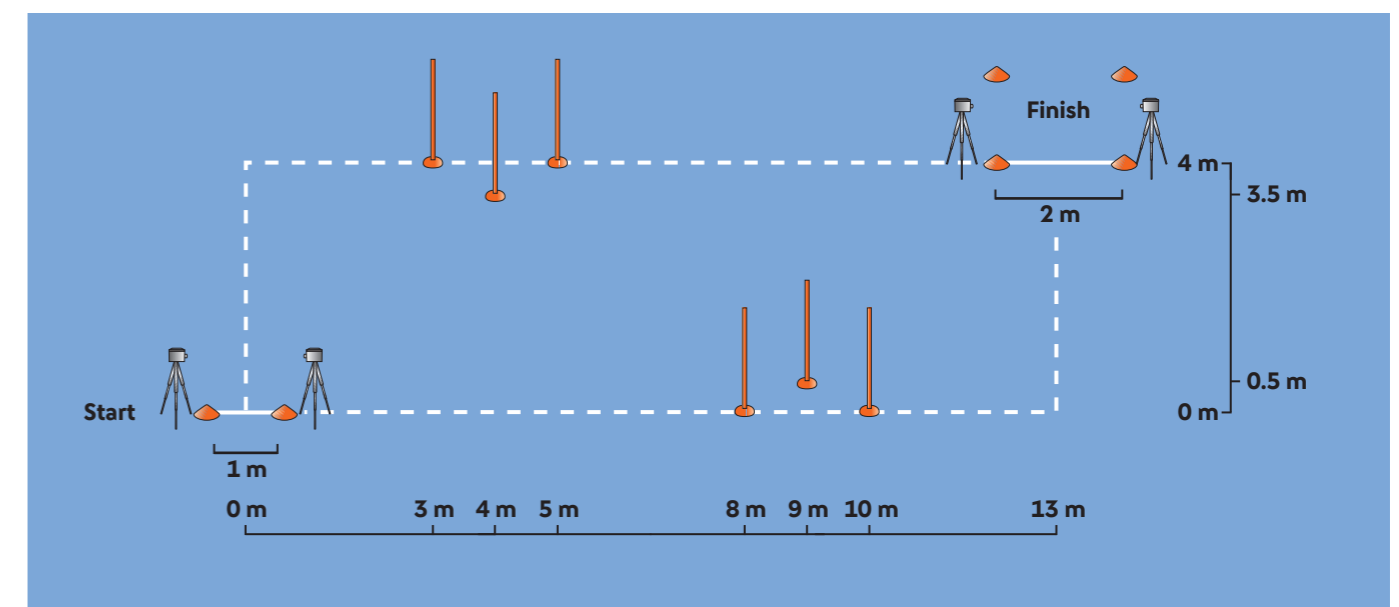
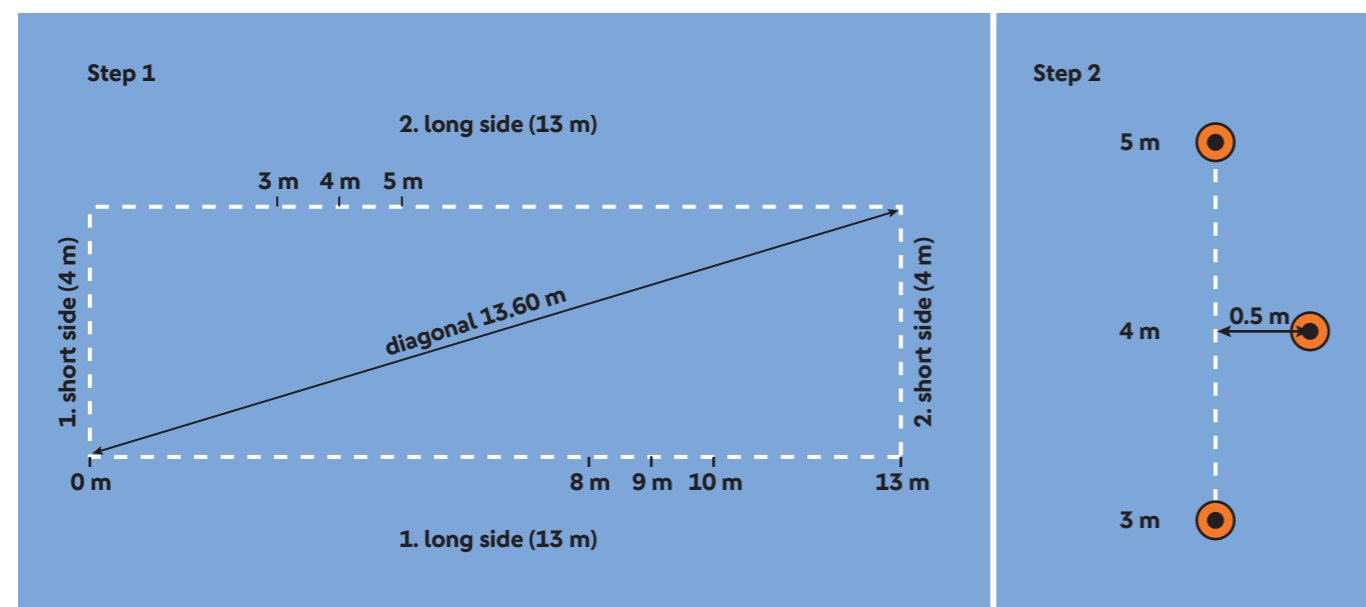
The outer rectangle is measured first. Close attention must be paid to the precision of the 90° angles. These can best be ensured by making use of already existing intersecting line markings in the sports hall or by using an angle iron.

The tape measure is placed with its inside precisely against the outer edge of the line (cf. photo).



The tape marks are then applied to the line so that the line still belongs to the field.

The positions of the poles should be marked with tape in order to determine their positions without re-measuring if they fall over or are moved.



## TEST SETUP BALL CONTROL

### MATERIALS

- ▶ 2 beer garden tables as rebounder walls (size 2.20 m x 0.50 m)
- ▶ 4 cones (outer square)
- ▶ Tape measure
- ▶ Tape
- ▶ Stopwatch
- ▶ Folding rule
- ▶ Age-appropriate football
- ▶ Angle iron
- ▶ 4 wedges for the beer garden tables
- ▶ 2 gymnastics benches

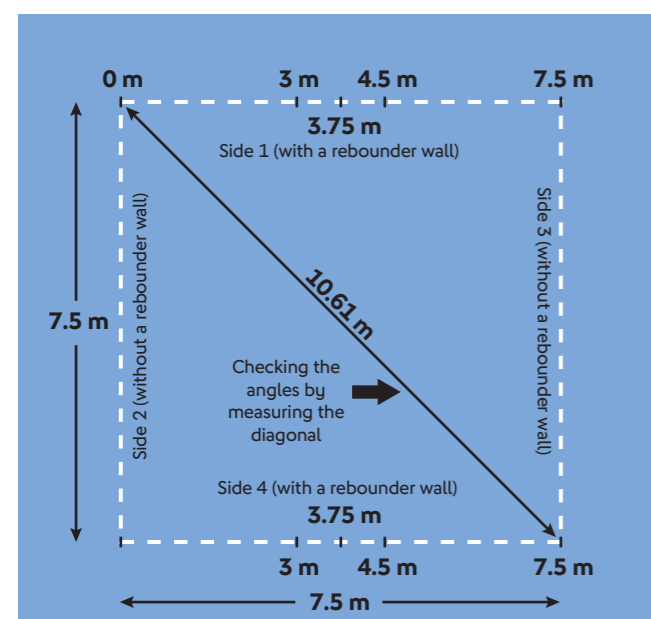
### STEP 1: CONSTRUCTION OF THE OUTER SQUARE

The tape measure is placed at the outer edge of an existing line marking so that the line belongs to the field.

The 0 m mark should be exactly at the intersection of two lines that meet at right angles. The following points are now measured and marked with tape:

- ▶ 0 m und 7.50 m (field boundary of the outer square)
- ▶ 3.75 m (marking for the rebounder wall)
- ▶ 3.00 m und 4.50 m (markings for the passing field)

Next, the second side (without rebounder wall) is measured. Starting from the 0 m mark, the tape measure is placed at the second existing line marking at right angles to the first side.



At 7.50 m, a mark is made with tape. Afterwards, the third side (without rebounder wall) is measured. For this, the tape measure is placed at right angles to the 7.50 m mark of the first side with the help of the angle iron. At 7.50 m, a mark is made with tape.

Finally, the fourth side of the outer zone is measured. For this, the tape measure is placed at the 7.50 m mark of the second side and pulled to the 7.50 m mark of the third side. The distance between the two markings must be 7.50 m. In accordance with the first side, the following points are marked with tape indicating the positions of the rebounder wall and the passing zone:

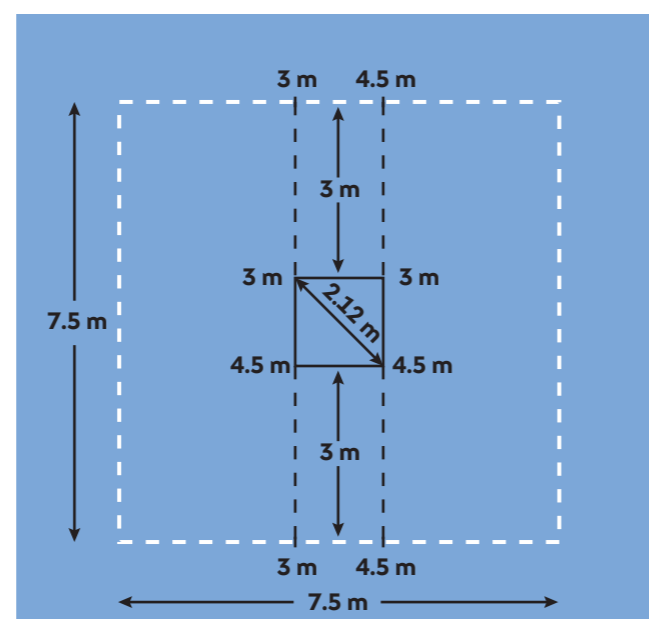
- ▶ 3.75 m (marking for the rebounder wall)
- ▶ 3.00 m und 4.50 m (markings for the passing zone)

To check the right angles, connect the opposite corners of side 1 and side 3 with the tape measure. The diagonal between the two corners measures 10.61 m.

### STEP 2: CONSTRUCTION OF THE PASSING ZONE

The passing zone is defined by joining the respective 3 m marks on the first and fourth side of the outer square with the tape measure.

The corners of the passing zone are to be marked at 3.00 m und 4.50 m (cf. figure below). The same procedure is followed when joining the respective 4.50 m marks on the first and third side of the outer square. To check the dimensions of the passing zone, its diagonal is measured, which must be exactly 2.12 m long.



The four corners of the passing zone are then connected with tape. In order to make sure the tape strips belong to the passing zone, they must be applied to the marks with the outer edge.

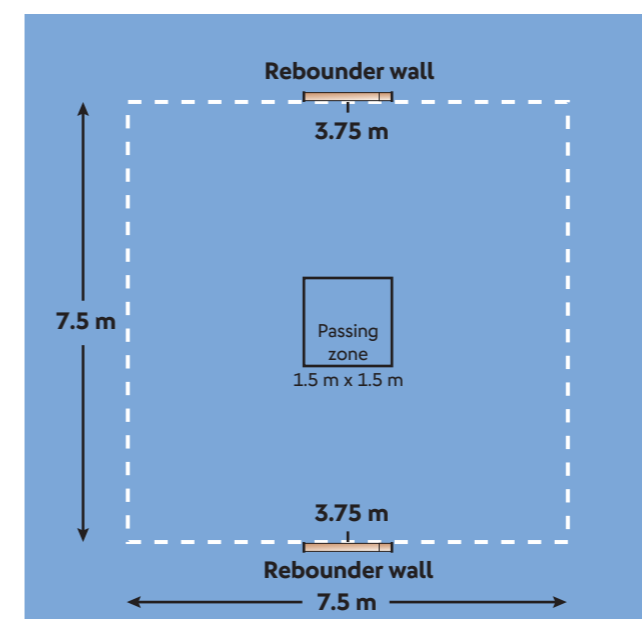
### STEP 3: SETTING UP THE REBOUNDER WALLS

To determine the positions of the rebounder walls, the centre of the rebounder wall is defined with a folding rule. This is marked on its front side with tape. With the help of this mark, one rebounder wall can now be placed exactly at the 3.75 m mark on the first side of the outer square. For the second rebounder wall, the same procedure is repeated on the fourth side of the outer square (cf. figure in the bottom left corner).

Afterwards, additional tape marks are made at both ends of the rebounder wall. These serve to re-determine the optimal position of the rebounder walls in case they are moved during the test.

Close attention should be paid to the rebounder walls being at exact right angles to the ground. Wedges can be used to guarantee a correct vertical alignment of the rebounder walls (cf. figure in the bottom right corner).

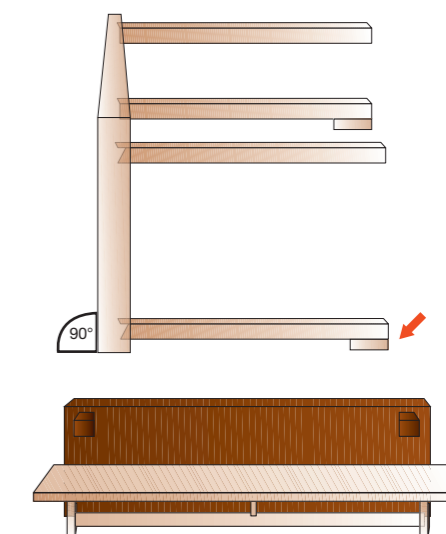
The 90° angle can be checked with the angle iron. To largely prevent the rebounder walls from shifting, they are fixed with a gymnastics bench. For this purpose, the benches can be positioned behind the rebounder walls. They are additionally weighted down by having waiting players sit on them. Finally, a cone is placed on each of the four corners of the outer square.



### → To be noted

The outer square is measured first and the points on it are marked. Next, the markings of the inner square are applied, which are measured from the marked spots of the outer square. To ensure right angles in the square, line markings that intersect at right angles should be used for steps 1 and 2.

The tape measure must be placed with its inside precisely against the outer edge of the line. The tape marks are then applied to the outer edge of the line so that the line still belongs to the zone. To not have the rebounder walls shift due to the force of the ball, a gymnastics bench with waiting players sitting on it should be put directly behind the legs of the rebounder wall.





## TEST SETUP JUGGLING

## MATERIALS

- ▶ 6 cones
- ▶ Tape measure
- ▶ Folding rule
- ▶ Tape
- ▶ Angle iron
- ▶ Stopwatch
- ▶ Age-appropriate football

## STEP 1: CENTRAL MARK

(CF. FIGURE BELOW)

The tape measure is placed against an existing line marking. Tape marks are applied at 0 m and 6 m.

The starting point at 3 m is marked with a slightly bigger mark. In order to mark the other positions, the cones are only put down at the end of the setup.

## STEP 2: MARKING THE OUTER POINTS

(CF. FIGURE BELOW)

For marking the first two of the outer points, a folding rule is placed at right angles to the 1.50 m mark of the tape measure using the angle iron. By using the folding rule, a 1.50 m

long line is measured in both directions. The endpoints of the line are marked with tape.

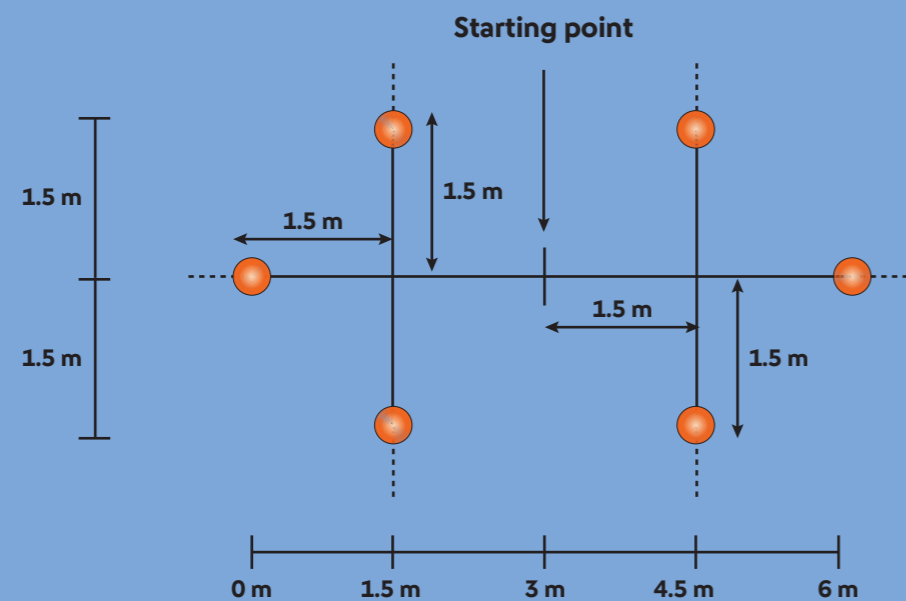
For the two remaining outer points, the same procedure – analogous to the 1.50 m mark – is repeated at the 4.50 m mark.

Finally, a marker cone is put down at each of the six markings. These must be placed with the outer edge on the corresponding marks (cf. picture in the info box).

## → To be noted



During the test setup, all positions of the cones are first marked with tape. This is where the cones are then placed with the outer edge (cf. picture).



1\_ In the ball control test, the ball is alternately passed against the tops of the beer garden tables.



2\_ In the juggling test, the ball has to be kept up alternating between the left and right foot.



3\_ A player is dribbling through the agility course.

4\_ Afterwards, the same course also has to be completed without a ball.

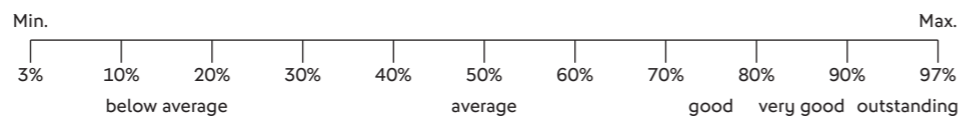


# REFERENCE VALUES MALE

The tables of reference values for the autumn diagnostics presented here show the distribution of results in the individual tests and with regard to the overall performance\* (separately by age-group and sex). These include all test data recorded in the five previous tests, in this example between 2015 and 2019. Thus, the results of each player can be compared and interpreted in relation to all performances in this age-group that were recorded within those five years. The left-hand side of the table shows the individual tests and the overall score achieved as well as important statistical information on the distribution of the data in the respective year (number of players tested [n], mean [M] and standard deviation [SD]).

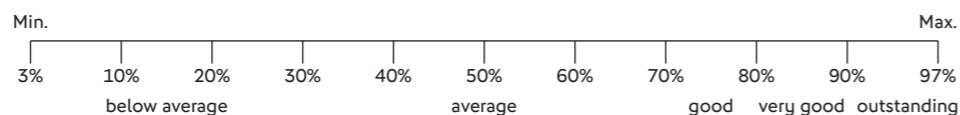
The results are classified on two levels of different precision. On the one hand, the percentile ranks are listed in steps of 10%. These indicate the percentage of test results recorded so far, which are poorer than the result that is being examined. In order to exclude extreme values (i.e. due to measurement errors), the 3% percentile was used as the minimum and the 97% percentile as the maximum. On the other hand, the overall distribution is divided into three categories A, B and C to allow for a simplified classification. The best 30% of players nationwide are assigned to category A, the intermediate 40% to category B and the weakest 30% to category C.

## U11



	n	M	SD	C (0 - 30 %)			B (31 - 70 %)				A (71 - 100 %)			
				3%	10%	20%	30%	40%	50%	60%	70%	80%	90%	97%
Sprint (20 m)	6203	3.79 s	0.18 s	4.14 s	4.01 s	3.93 s	3.87 s	3.82 s	3.78 s	3.74 s	3.69 s	3.64 s	3.57 s	3.47 s
Acceleration (10 m)	6165	2.19 s	0.11 s	2.39 s	2.33 s	2.28 s	2.24 s	2.21 s	2.18 s	2.16 s	2.13 s	2.10 s	2.05 s	1.99 s
Agility	6152	8.69 s	0.47 s	9.66 s	9.33 s	9.07 s	8.90 s	8.77 s	8.66 s	8.54 s	8.42 s	8.28 s	8.11 s	7.91 s
Dribbling	6207	12.04 s	1.05 s	14.37 s	13.42 s	12.84 s	12.46 s	12.15 s	11.90 s	11.68 s	11.44 s	11.16 s	10.84 s	10.43 s
Ball control	6123	11.59 s	1.68 s	15.29 s	13.81 s	12.86 s	12.28 s	11.78 s	11.36 s	10.99 s	10.18 s	9.66 s	9.00 s	
Juggling	6119	1.37 P.	1.86 P.	0.00 P.	0.00 P.	0.00 P.	0.00 P.	1.00 P.	1.00 P.	1.00 P.	1.00 P.	2.00 P.	3.00 P.	6.00 P.
Overall score	5950	99.26 P.	1.93 P.	95.53 P.	96.78 P.	97.65 P.	98.29 P.	98.80 P.	99.30 P.	99.81 P.	100.30 P.	100.90 P.	101.66 P.	102.84 P.

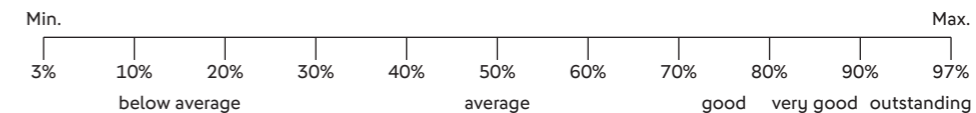
## U12



	n	M	SD	C (0 - 30 %)			B (31 - 70 %)				A (71 - 100 %)			
				3%	10%	20%	30%	40%	50%	60%	70%	80%	90%	97%
Sprint (20 m)	24929	3.69 s	0.17 s	4.02 s	3.91 s	3.82 s	3.77 s	3.72 s	3.68 s	3.64 s	3.60 s	3.55 s	3.48 s	3.39 s
Acceleration (10 m)	24812	2.14 s	0.11 s	2.34 s	2.28 s	2.22 s	2.19 s	2.16 s	2.13 s	2.11 s	2.08 s	2.05 s	2.00 s	1.94 s
Agility	24861	8.51 s	0.45 s	9.47 s	9.10 s	8.87 s	8.72 s	8.59 s	8.48 s	8.38 s	8.26 s	8.14 s	7.98 s	7.76 s
Dribbling	24959	11.45 s	0.92 s	13.49 s	12.62 s	12.11 s	11.79 s	11.53 s	11.32 s	11.12 s	10.92 s	10.70 s	10.42 s	10.07 s
Ball control	24634	10.96 s	1.56 s	14.39 s	12.95 s	12.09 s	11.56 s	11.12 s	10.75 s	10.40 s	10.04 s	9.69 s	9.21 s	8.60 s
Juggling	24871	1.78 P.	2.54 P.	0.00 P.	0.00 P.	0.00 P.	1.00 P.	1.00 P.	1.00 P.	1.00 P.	2.00 P.	3.00 P.	4.00 P.	9.00 P.
Overall score	24160	100.48 P.	1.76 P.	97.00 P.	98.20 P.	99.02 P.	99.60 P.	100.07 P.	100.51 P.	100.93 P.	101.40 P.	101.95 P.	102.73 P.	103.83 P.

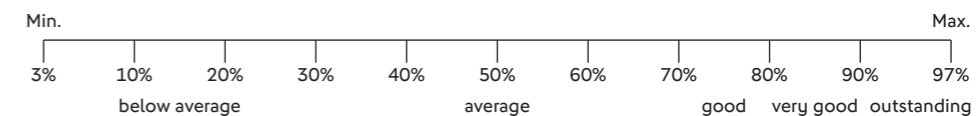
\* The overall performance of the motor performance diagnostics comprises the weighted test results from the individual tests 20 m sprint, agility, dribbling, ball control and juggling, which are standardised on the basis of set reference values. Detailed explanations regarding the formula can be requested from the sports scientific support team (University of Tuebingen).

## U13



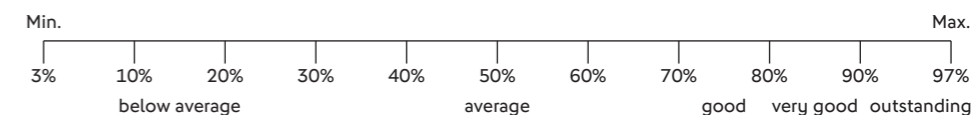
	n	M	SD	C (0 - 30 %)			B (31 - 70 %)				A (71 - 100 %)			
				3%	10%	20%	30%	40%	50%	60%	70%	80%	90%	97%
Sprint (20 m)	21257	3.59 s	0.17 s	3.92 s	3.80 s	3.72 s	3.68 s	3.62 s	3.58 s	3.54 s	3.50 s	3.46 s	3.38 s	3.29 s
Acceleration (10 m)	21177	2.08 s	0.10 s	2.29 s	2.22 s	2.17 s	2.13 s	2.11 s	2.08 s	2.06 s	2.03 s	2.00 s	1.96 s	1.89 s
Agility	21271	8.33 s	0.43 s	9.23 s	8.89 s	8.66 s	8.51 s	8.39 s	8.29 s	8.19 s	8.08 s	7.97 s	7.81 s	7.62 s
Dribbling	21289	10.99 s	0.82 s	12.81 s	12.01 s	11.57 s	11.28 s	11.06 s	10.88 s	10.70 s	10.52 s	10.33 s	10.09 s	9.78 s
Ball control	21134	10.09 s	1.37 s	13.07 s	11.86 s	11.06 s	10.58 s	10.20 s	9.89 s	9.60 s	9.30 s	8.98 s	8.57 s	8.07 s
Juggling	21285	3.46 P.	3.92 P.	0.00 P.	0.00 P.	1.00 P.	1.00 P.	1.00 P.	2.00 P.	3.00 P.	4.00 P.	6.00 P.	9.00 P.	14.00 P.
Overall score	20879	102.08 P.	1.79 P.	98.62 P.	99.79 P.	100.59 P.	101.15 P.	101.65 P.	102.09 P.	102.55 P.	103.03 P.	103.60 P.	104.35 P.	105.34 P.

## U14



	n	M	SD	C (0 - 30 %)			B (31 - 70 %)				A (71 - 100 %)			
				3%	10%	20%	30%	40%	50%	60%	70%	80%	90%	97%
Sprint (20 m)	14676	3.46 s	0.17 s	3.80 s	3.68 s	3.60 s	3.55 s	3.50 s	3.46 s	3.42 s	3.38 s	3.32 s	3.25 s	3.16 s
Acceleration (10 m)	14621	2.02 s	0.11 s	2.22 s	2.16 s	2.11 s	2.07 s	2.04 s	2.02 s	1.99 s	1.97 s	1.93 s	1.89 s	1.82 s
Agility	14708	8.18 s	0.41 s	9.05 s	8.71 s	8.50 s	8.37 s	8.25 s	8.15 s	8.06 s	7.96 s	7.85 s	7.70 s	7.50 s
Dribbling	14690	10.69 s	0.76 s	12.33 s	11.61 s	11.22 s	10.97 s	10.76 s	10.59 s	10.43 s	10.27 s	10.09 s	9.85 s	9.57 s
Ball control	14570	9.64 s	1.27 s	12.49 s	11.20 s	10.50 s	10.09 s	9.78 s	9.47 s	9.19 s	8.91 s	8.60 s	8.23 s	7.78 s
Juggling	14732	5.47 P.	5.14 P.	0.00 P.	1.00 P.	1.00 P.	2.00 P.	3.00 P.	4.00 P.	5.00 P.	7.00 P.	9.00 P.	13.00 P.	18.00 P.
Overall score	14411	103.50 P.	1.74 P.	100.07 P.	101.25 P.	102.04 P.	102.63 P.	103.12 P.	103.56 P.	104.01 P.	104.48 P.	105.01 P.	105.71 P.	106.55 P.

## U15



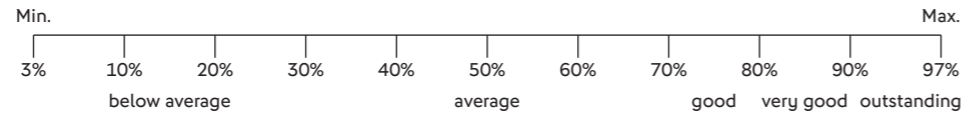
	n	M	SD	C (0 - 30 %)			B (31 - 70 %)				A (71 - 100 %)			
				3%	10%	20%	30%	40%	50%	60%	70%	80%	90%	97%
Sprint (20 m)	8937	3.33 s	0.17 s	3.67 s	3.56 s	3.47 s	3.42 s	3.37 s	3.32 s	3.28 s	3.24 s	3.19 s	3.13 s	3.05 s
Acceleration (10 m)	8898	1.96 s	0.10 s	2.16 s	2.09 s	2.04 s	2.01 s	1.98 s	1.96 s	1.93 s	1.90 s	1.87 s	1.83 s	1.78 s
Agility	8965	8.08 s	0.41 s	8.93 s	8.60 s	8.39 s	8.26 s	8.15 s	8.05 s	7.96 s	7.85 s	7.74 s	7.60 s	7.41 s
Dribbling	8960	10.51 s	0.74 s	12.12 s	11.43 s	11.02 s	10.78 s	10.58 s	10.41 s	10.25 s	10.10 s	9.93 s	9.71 s	9.40 s
Ball control	8890	8.26 s	1.26 s	12.10 s	10.86 s	10.10 s	9.67 s	9.35 s	9.07 s	8.80 s	8.53 s	8.26 s	7.91 s	7.48 s
Juggling	8988	7.05 P.	5.83 P.	0.00 P.	1.00 P.	2.00 P.	3.00 P.	4.00 P.	5.00 P.	7.00 P.	9.00 P.	12.00 P.	16.00 P.	20.00 P.
Overall score	8794	104.66 P.	1.68 P.	101.31 P.	102.45 P.	103.25 P.	103.82 P.	104.33 P.	104.79 P.	105.23 P.	105.65 P.	106.12 P.	106.74 P.	107.50 P.



# REFERENCE VALUES FEMALE

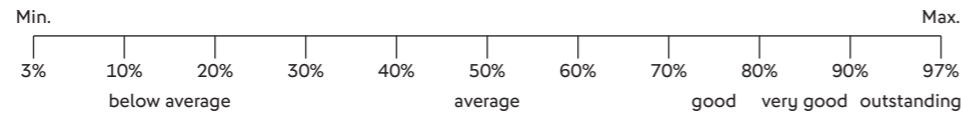


## U11



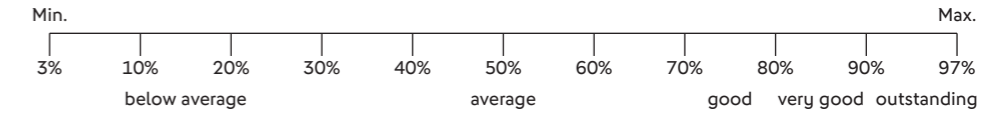
	n*	M	SD	C (0 – 30 %)			B (31 – 70 %)			A (71 – 100 %)				
Sprint (20 m)	268	3.82 s	0.17 s	4.16 s	4.05 s	3.98 s	3.91 s	3.87 s	3.81 s	3.77 s	3.72 s	3.66 s	3.60 s	3.53 s
Acceleration (10 m)	266	2.20 s	0.10 s	2.41 s	2.33 s	2.28 s	2.25 s	2.23 s	2.20 s	2.16 s	2.14 s	2.10 s	2.07 s	2.02 s
Agility	263	8.74 s	0.48 s	9.71 s	9.37 s	9.19 s	9.00 s	8.84 s	8.70 s	8.56 s	8.46 s	8.29 s	8.10 s	7.91 s
Dribbling	266	12.71 s	1.22 s	15.28 s	14.26 s	13.79 s	13.26 s	12.84 s	12.55 s	12.27 s	11.94 s	11.69 s	11.31 s	10.72 s
Ball control	263	12.26 s	1.90 s	16.47 s	14.67 s	13.81 s	13.12 s	12.55 s	11.88 s	11.44 s	11.10 s	10.78 s	10.20 s	9.39 s
Juggling	265	1.14 P.	1.49 P.	0.00 P.	0.00 P.	0.00 P.	0.00 P.	1.00 P.	1.00 P.	1.00 P.	1.00 P.	2.00 P.	3.00 P.	5.00 P.
Overall score	249	98.34 P.	2.04 P.	94.51 P.	95.71 P.	96.52 P.	97.14 P.	97.83 P.	98.51 P.	98.91 P.	99.50 P.	100.16 P.	100.87 P.	101.91 P.

## U12



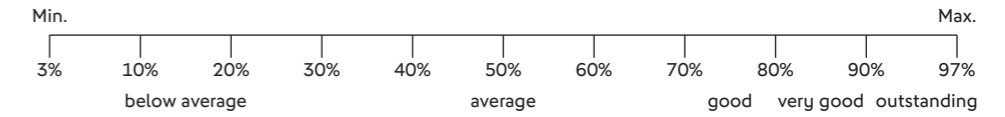
	n	M	SD	C (0 – 30 %)			B (31 – 70 %)			A (71 – 100 %)				
Sprint (20 m)	1408	3.73 s	0.18 s	4.07 s	3.96 s	3.87 s	3.82 s	3.78 s	3.72 s	3.68 s	3.64 s	3.58 s	3.51 s	3.41 s
Acceleration (10 m)	1403	2.16 s	0.11 s	2.38 s	2.30 s	2.25 s	2.21 s	2.18 s	2.16 s	2.13 s	2.10 s	2.07 s	2.02 s	1.97 s
Agility	1397	8.64 s	0.45 s	9.60 s	9.25 s	8.99 s	8.82 s	8.71 s	8.61 s	8.51 s	8.39 s	8.27 s	8.10 s	7.86 s
Dribbling	1412	12.24 s	1.13 s	14.65 s	13.79 s	13.09 s	12.69 s	12.38 s	12.10 s	11.81 s	11.55 s	11.30 s	10.96 s	10.54 s
Ball control	1376	11.89 s	1.78 s	15.54 s	14.20 s	13.22 s	12.72 s	12.20 s	11.78 s	11.30 s	10.85 s	10.34 s	9.72 s	9.00 s
Juggling	1402	1.22 P.	2.24 P.	0.00 P.	0.00 P.	0.00 P.	0.00 P.	1.00 P.	1.00 P.	1.00 P.	1.00 P.	2.00 P.	3.00 P.	8.00 P.
Overall score	1338	99.18 P.	1.98 P.	95.68 P.	96.63 P.	97.45 P.	98.16 P.	98.65 P.	99.12 P.	99.66 P.	100.24 P.	100.84 P.	101.65 P.	103.10 P.

## U13



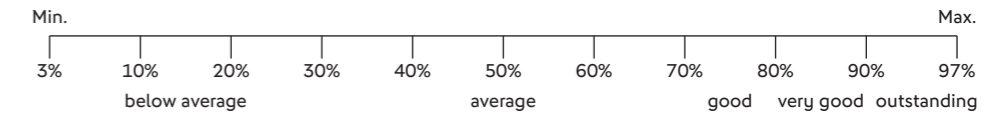
	n	M	SD	C (0 – 30 %)			B (31 – 70 %)			A (71 – 100 %)				
Sprint (20 m)	1497	3.62 s	0.17 s	3.96 s	3.84 s	3.79 s	3.71 s	3.66 s	3.61 s	3.57 s	3.53 s	3.48 s	3.41 s	3.31 s
Acceleration (10 m)	1488	2.10 s	0.10 s	2.31 s	2.23 s	2.19 s	2.16	2.13 s	2.10 s	2.08 s	2.05 s	2.01 s	1.97 s	1.91 s
Agility	1492	8.44 s	0.42 s	9.31 s	8.98 s	8.77 s	8.64 s	8.51 s	8.42 s	8.32 s	8.22 s	8.10 s	7.94 s	7.76 s
Dribbling	1495	11.58 s	0.91 s	13.57 s	12.71 s	12.29 s	11.98 s	11.70 s	11.47 s	11.26 s	11.04 s	10.82 s	10.53 s	10.22 s
Ball control	1478	10.81 s	1.52 s	14.00 s	12.78 s	11.98 s	11.41 s	10.98 s	10.60 s	10.28 s	9.91 s	9.54 s	9.09 s	8.42 s
Juggling	1496	2.61 P.	3.31 P.	0.00 P.	0.00 P.	1.00 P.	1.00 P.	1.00 P.	1.00 P.	1.00 P.	2.00 P.	3.00 P.	4.00 P.	12.00 P.
Overall score	1453	101.03 P.	1.86 P.	97.44 P.	98.68 P.	99.51 P.	100.02 P.	100.58 P.	101.05 P.	101.57 P.	102.01 P.	102.58 P.	103.44 P.	104.55 P.

## U14



	n	M	SD	C (0 – 30 %)			B (31 – 70 %)			A (71 – 100 %)				
Sprint (20 m)	1230	3.53 s	0.16 s	3.84 s	3.73 s	3.67 s	3.61 s	3.57 s	3.53 s	3.49 s	3.46 s	3.41 s	3.34 s	3.25 s
Acceleration (10 m)	1226	2.06 s	0.10 s	2.24 s	2.18 s	2.14 s	2.10 s	2.08 s	2.06 s	2.03 s	2.01 s	1.98 s	1.94 s	1.87 s
Agility	1232	8.33 s	0.41 s	9.19 s	8.84 s	8.64 s	8.50 s	8.40 s	8.31 s	8.21 s	8.11 s	8.00 s	7.85 s	7.68 s
Dribbling	1234	11.20 s	0.81 s	12.79 s	12.23 s	11.81 s	11.52 s	11.32 s	11.09 s	10.91 s	10.73 s	10.54 s	10.30 s	10.00 s
Ball control	1217	10.33 s	1.50 s	13.79 s	12.26 s	11.29 s	10.84 s	10.45 s	10.12 s	9.80 s	9.46 s	9.14 s	8.69 s	8.30 s
Juggling	1234	4.59 P.	4.71 P.	0.00 P.	1.00 P.	1.00 P.	1.00 P.	2.00 P.	3.00 P.	4.00 P.	6.00 P.	8.00 P.	12.00 P.	16.00 P.
Overall score	1198	102.38 P.	1.81 P.	98.97 P.	100.01 P.	100.84 P.	101.43 P.	101.92 P.	102.42 P.	102.84 P.	103.35 P.	103.94 P.	104.70 P.	105.67 P.

## U15



	n*	M	SD	C (0 – 30 %)			B (31 – 70 %)			A (71 – 100 %)				
Sprint (20 m)	837	3.48 s	0.15 s	3.77 s	3.67 s	3.60 s	3.55 s	3.50 s	3.47 s	3.43 s	3.40 s	3.35 s	3.30 s	3.21 s
Acceleration (10 m)	836	2.03 s	0.10 s	2.22 s	2.16 s	2.11 s	2.08 s	2.05 s	2.03 s	2.01 s	1.98 s	1.96 s	1.91 s	1.85 s
Agility	841	8.29 s	0.41 s	9.21 s	8.81 s	8.60 s	8.47 s	8.37 s	8.27 s	8.17 s	8.07 s	7.97 s	7.80 s	7.53 s
Dribbling	840	11.04 s	0.82 s	12.88 s	12.15 s	11.59 s	11.32 s	11.11 s	10.94 s	10.74 s	10.58 s	10.38 s	10.12 s	9.85 s
Ball control	829	9.94 s	1.33 s	12.91 s	11.67 s	10.99 s	10.50 s	10.06 s	9.75 s	9.47 s	9.18 s	8.84 s	8.44 s	7.85 s
Juggling	838	6.15 P.	5.27 P.	0.00 P.	1.00 P.	1.00 P.	2.00 P.	3.00 P.	5.00 P.	6.00 P.	8.00 P.	11.00 P.	15.00 P.	18.00 P.
Overall score	817	103.23 P.	1.79 P.	99.72 P.	100.93 P.	101.77 P.	102.34 P.	102.87 P.	103.36 P.	103.78 P.	104.17 P.	104.82 P.	105.55 P.	106.27 P.

\*Due to the small number of cases (n<1000), the reference values shown for these tests do not yet represent a stable parameter.



# SUBJECTIVE EVALUATION OF PERFORMANCE

## NOTES ON THE EVALUATION

In addition to the objective performance diagnostics, further talent characteristics are taken into account with subjective performance ratings of coaches. This supports the rating of the players' performance levels and their

potential based on data of various dimensions and skills. In total, **motor skills**, **cognitive skills** and **psychosocial skills** are considered (cf. table in the introductory chapter).

For the evaluation of the skill categories **motor skills** and **cognition**, a four-point rating scale is provided. This comprises the following levels:

+++	++	+	-
Level of a regional association team (16-player squad)	Level of an extended regional association team	Average competence centre level	Below average competence centre level

For the evaluation of **psychosocial skills**, it makes little sense to establish a direct reference to the performance level (e.g. level of a regional association team), because they are particularly important for a long-term performance development. This is why the scale for psychosocial skills uses levels that describe the value of the respective attribute:

+++	++	+	-
Very high	High	Average	Below average

### THE FOLLOWING ASPECTS SHOULD BE CONSIDERED FOR THE CLASSIFICATIONS:

- ▶ Competence centre level refers to the general competence centre level.
- ▶ It is always the individual criterion that is rated, not the player's performance as a whole.
- ▶ There may be cases in which the assignment to the levels of the two scales is not as clear. In this case, the one that most closely corresponds to the personal impression is chosen. Moreover, this aims at taking a holistic view on the respective skill. The quality of the evaluation also depends on the routine and experience of the assessors.
- ▶ The explanations given in the following sections are just examples, which give an impression of the respective criteria and provide a consistent framework. Nevertheless, not every player will show all behaviours equally visibly (especially in the cognitive and psychosocial skill categories). Thus, it makes sense during the evaluation to focus on examples which are actually shown. Furthermore, similar behaviour that is not explicitly listed may be included and contribute to the subjective rating.
- ▶ There may not be a representative team for the younger age groups of a certain regional association. In this case, a subjective evaluation is needed to estimate to what extent a player has a certain skill level that is required as a future regional association player.

# SUBJECTIVE CRITERIA FOR OUTFIELD PLAYERS

## TECHNIQUE – KICKING SKILLS

Overview of subjective criteria		
Kicking techniques with the dominant foot	Kicking techniques with the non-dominant foot	Heading

### KICKING TECHNIQUES WITH THE DOMINANT AND NON-DOMINANT FOOT

#### KEY POINTS

Variability | Precision | Speed

#### EXPLANATION OF KEY POINTS

Competence centre players can ...

... **use various kicking techniques:** top, inside, outside of the foot.

... **pass/shoot balls with high variability:** e.g. straight balls (high and flat), curve balls.

... **pass/shoot with high precision.**

... **pass/shoot balls at a speed that is appropriate for the situation:** e.g. firm passes, but also ability to differentiate when playing.

... **successfully/effectively pass/shoot balls from different situations:** e.g. without/with opponent pressure, without/with time pressure.

#### HEADING

#### KEY POINTS

Variability | Precision | Timing

#### EXPLANATION OF KEY POINTS

Competence centre players can ...

... **use various heading techniques:** e.g. from standing, from a one-legged/two-legged jump.

... **head precisely and effectively:** e.g. targeted.

... **time their jump to meet the ball:** e.g. springing action, meeting at the highest point.



PHYSIOLOGY – ENDURANCE

Overview of subjective criteria	
Endurance	
<p><b>ENDURANCE</b></p> <p><b>KEY POINTS</b> Physical stamina</p> <p><b>EXPLANATION OF KEY POINTS</b> Competence centre players... ... <b>do not deteriorate physically or psychologically during the entire duration of training sessions or competitions:</b> e.g. even at the end of the training session/match, players can still perform high-intensity movement sequences of a high quality, quickly shrug off intensive strain (no or only slight physical fatigue becomes apparent), still make the right decisions (quicky), and the ability to absorb information and willingness to run remain high.</p>	

TACTICS

Overview of subjective criteria		
Individual tactical behaviour in offensive situations ... <b>before</b> ball-related actions ... <b>during</b> ball-related actions ... <b>after</b> ball-related actions	Individual tactical behaviour in defensive situations ... <b>before</b> ball-related actions ... <b>during</b> ball-related actions ... <b>after</b> ball-related actions	Game intelligence

INDIVIDUAL TACTICAL BEHAVIOUR IN OFFENSIVE SITUATIONS BEFORE BALL-RELATED ACTIONS

**KEY POINTS**  
Pre-orientation | Offering/Creating space

EXPLANATION OF KEY POINTS

Competence centre players can ...  
... **orientate themselves in such a way that they make an appropriate decision:** e.g. find an open position, look over their shoulders.  
... **make themselves available in such a way that they are open or create space in which another player becomes open:** e.g. separate themselves from a marking defender.

INDIVIDUAL TACTICAL BEHAVIOUR IN OFFENSIVE SITUATIONS DURING BALL-RELATED ACTIONS

**KEY POINTS**  
First touch | Orientation on the ball | Situation-appropriate decision-making

EXPLANATION OF KEY POINTS

Competence centre players can ...  
... **play the ball with the first touch according to the situation:** e.g. in the new direction, into open space/away from the opponent, secure the ball.  
... **orientate themselves while they are on the ball:** e.g. glance away from the ball, see the next playing position.  
... **decide appropriately:** e.g. pass the ball to a teammate, dribble with the ball, shoot the ball at the goal.

INDIVIDUAL TACTICAL BEHAVIOUR IN OFFENSIVE SITUATIONS AFTER BALL-RELATED ACTIONS

**KEY POINTS**  
Re-orientation | Follow-up action

EXPLANATION OF KEY POINTS

Competence centre players can ...  
... **act according to a new situation after a ball-related action:** e.g. pass the ball and immediately offer again, be offset to backup teammates, be open again, create space for teammates.

INDIVIDUAL TACTICAL BEHAVIOUR IN DEFENSIVE SITUATIONS BEFORE BALL-RELATED ACTIONS

**KEY POINTS**  
Preparing for defensive action

EXPLANATION OF KEY POINTS

Competence centre players can ...  
... **correctly assess which game situation is coming to them and prepare the defensive action accordingly:** e.g. pay attention to the positional game, shorten the distance to the opponent, pay attention to the body position of the opponent, anticipate the pass.  
... **correctly act according to the situation when expecting the ball:** e.g. stand within range so that the pass can be intercepted and the opponent can be attacked.

INDIVIDUAL TACTICAL BEHAVIOUR IN DEFENSIVE SITUATIONS DURING BALL-RELATED ACTIONS

**KEY POINTS**  
Distance | Body position | Being in the passing lane | Pressure

EXPLANATION OF KEY POINTS

Competence centre players can ...  
... **act correctly with dribbling opponents:** e.g. shorten the distance to the opponent, then direct him/her sideways in a 'basketball position', pay attention to the opponent's body position, foot orientation and the direction of rotation.  
... **make the right decision with opponents who stand with their back turned:** e.g. put the opponents under pressure and do not let them turn.  
... **position themselves correctly:** e.g. trying to get into the opponent's passing lane.



INDIVIDUAL TACTICAL BEHAVIOUR IN DEFENSIVE SITUATIONS **AFTER BALL-RELATED ACTIONS****KEY POINTS**

Follow-up action

**EXPLANATION OF KEY POINTS**

Competence centre players can ...

... **act appropriately after winning the ball:** e.g. secure possession or directly switch to the attack, become open quickly.... **act correctly after making a mistake:** e.g. immediately pursue the ball.**GAME INTELLIGENCE****KEY POINTS**

Transitional play | Tactical group behaviour | Overall game awareness | Speed of action

**EXPLANATION OF KEY POINTS**

Competence centre players can ...

... **show a situation-appropriate transitional awareness after winning the ball:** e.g. secure possession, quickly pass in the depth, get open by quickly running into space, transition quickly.... **show a situation-appropriate transitional awareness after losing the ball:** e.g. immediately trigger counter-pressing, drop, transition quickly.... **behave correctly in the tactical group context:** e.g. always be open in offense, create space, move forward, change positions with teammates, slot into the defence's weak side, help teammates with double teams.... **show a good game awareness:** e.g. play purposefully.... **quickly decide on game actions that are most likely to succeed:** e.g. anticipation (thinking about the next action).... **find good solutions for tight situations.**

1\_ A situation-appropriate transitional play after losing possession is a decisive sign of quality.

2\_ Precise and firm passing initiates offensive play.

# SUBJECTIVE CRITERIA FOR GOALKEEPERS

**TECHNIQUE**

## Overview of subjective criteria

Techniques within reach	Diving techniques	Techniques for crosses	Techniques for distribution and restarting play
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**TECHNIQUES FROM A STANDING POSITION****KEY POINTS**

Ready position | Saving low shots | Catching shots at medium height | Catching high shots

**EXPLANATION OF KEY POINTS**

Competence centre goalkeepers can ...

... **get into a ready position:** e.g. feet slightly wider than hip width apart, knees slightly bent, body weight shifted to the balls of the feet, arms bent, palms of the hands facing each other, high body tension, eyes focusing on the ball.... **save low shots:** e.g. if possible, get behind the ball, wide foot position, move towards the ball as much as possible with arms and hands almost extended, open hands, elbows tucked in, the ball is saved in front of the body.... **catch shots at medium height:** e.g. if possible, move the whole body behind the ball, stretch arms and hands towards the ball as much as possible, elbows tucked in, first contact with the approaching ball is made with the hands/arms, bring the upper body over the ball, hands wrapped around the ball.... **catch high shots:** e.g. hands move towards the ball, palms are opened and fingers spread, thumbs behind the ball (triangle thumbs – index finger), soft hands when contact is made with the ball.**DIVING TECHNIQUES****KEY POINTS**

Falling/landing and catching | Diving and catching | Diving and parrying

**EXPLANATION OF KEY POINTS**

Competence centre goalkeepers can ...

... **correctly collapse and dive for low shots:** e.g. with the foot closest to the ball, take a quick short diagonal step moving forward towards the ball, centre of mass over the foot closest to the ball, quickly collapse and move the hands and thus, the upper body, behind the ball, landing first on the outside of the thigh, then on the hip, on the side of the body and finally on the shoulder, get the hands behind the ball, bring the ball to the body.... **correctly dive for easy high shots and catch them:** e.g. quickly assess how many steps are possible before jumping to reach the ball, take the last step diagonally forward, get the centre of mass over the takeoff leg, directly jump towards the ball from this position, jump off explosively, quickly bring the ball to the body.... **correctly dive for difficult high shots and parry them:** e.g. quickly assess how many steps are possible before jumping to reach the ball, take the last step diagonally forward, get the centre of mass over the takeoff leg, directly jump towards the ball from this position, jump off explosively, in the final phase, ideally parry the ball around the post or tip it over the crossbar.



### TECHNIQUES FOR CROSSES

#### KEY POINTS

Catching crosses | Punching crosses

#### EXPLANATION OF KEY POINTS

Competence centre goalkeepers can ...

... **catch crosses under no pressure:** e.g. move as directly as possible to the ball, approach the ball with a short quick shuffle, jump off one leg, the one closest to the ball, powerfully take off swinging the arms up and bringing the other knee up, intercept the ball at its highest point possible.

... **punch crosses under pressure:** e.g. try to punch the ball out of the area near the goal with one or two fists.

### TECHNIQUES FOR DISTRIBUTION AND RESTARTING PLAY

#### KEY POINTS

Rolling out/throwing the ball | Goal kick/volley/pass

#### EXPLANATION OF KEY POINTS

Competence centre goalkeepers can ...

... **use several different techniques for distribution from the hand:** e.g. rolling out the ball, throwing

... **use several different techniques for distribution and restarting play with the foot:** e.g. side volley, drop kick, goal kick/ passes with the inside or top of the foot.

### TACTICS

#### Overview of subjective criteria

Positioning

Behaviour in 1 v 1 situations

### POSITIONING

#### KEY POINTS

Shots from different positions | Passes into the box | Crosses

#### EXPLANATION OF KEY POINTS

Competence centre goalkeepers can ...

... **act correctly with shots from different positions:** e.g. reduce the space between himself/herself and the attacker and use the techniques appropriate for a certain shooting angle.

... **act correctly with crosses:** e.g. position themselves in the front, middle or back third of the goal depending on the position and distance of the player kicking the cross in.

... **act correctly with passes into the box:** e.g. assess whether they can intercept the pass or reposition themselves according to the anticipated follow-up action.

### 1 V 1 BEHAVIOUR

#### KEY POINTS

1 v 1 on the ground

#### EXPLANATION OF KEY POINTS

Competence centre goalkeepers can ...

... **correctly act in 1 v 1 situations on the ground:** e.g. advance as close as possible towards the attacker, but stop in time, with slightly bent knees, shift the centre of mass forward and keep the balance, body weight shifted to the balls of the feet, focus on the ball, do not fall for the attacker's feints, be patient and then react as soon as the attacker is in a position to shoot; if he/she releases the ball, intervene immediately.

# SUBJECTIVE CRITERIA FOR ALL PLAYERS

### PSYCHOSOCIAL SKILLS

#### Overview of subjective criteria

Motivational Skills

Volitional Skills

Social Skills

### MOTIVATIONAL SKILLS

#### KEY POINTS

Goal setting | Own Responsibility | Willingness to learn

#### EXPLANATION OF KEY POINTS

Competence centre players can ...

... **set themselves helpful goals:** e.g. the players

- know their athletic goals (for the next training session, match or for the coming months).
- set demanding but realistic goals.
- talk about what they want to achieve ("I want to improve personally"), rather than talking about what they want to avoid ("I don't want to make so many mistakes").
- are happy about personal achievements (regardless of others being better or worse).

... **act independently:** e.g. the players

- are reliable and prepared to practice even without direct supervision (i.e. for training drills in small groups, independent exercises for core stability at home).
- take on tasks even without prompting (equipment preparation, tidying up the pitch, in the changing room, etc.).

... **learn with joy and under their own initiative:** e.g. the players

- like new or difficult tasks in training.
- ask for feedback and what they can improve further.
- are on the pitch to practice, outside regular training sessions or without a coach.

## VOLITIONAL SKILLS

## KEY POINTS

Focusing/Self-control | Commitment/goal tracking | Self-assessment

## EXPLANATION OF KEY POINTS

Competence centre players ...

... **can focus and control themselves:** e.g. the players

- talk about or think about their tasks (they do not think about results, mistakes, other players, spectators) during training or match preparation.
- show little reaction to distraction (calls, provocation).
- react in a controlled manner to difficult situations (own mistakes, incorrect decisions by coaches or referees).
- have positive body language, even in difficult situations (i.e. upright posture and head up).
- have adequate body tension (tension during practice or play, relaxation during breaks).

... **show a high level of commitment and pursue their goals (even in the face of adversity):** e.g. the players

- push themselves to the limit in training sessions and in the match.
- adopt an attitude of "now more than ever", immediately after failure or mistakes during training or in the match.
- work (voluntarily) on the necessary facets in order to achieve their goals (individual training, sacrificing other activities in their free time).

... **have adequate self-confidence:** e.g. the players

- can realistically estimate their performance on the pitch (neither too high nor too low).
- are convinced of their skills on the pitch, even in difficult situations.
- can accurately assess what they need to do in order to successfully complete a task.
- demand the ball in difficult situations.

## SOCIAL SKILLS

## KEY POINTS

Team Skills | Leadership

## EXPLANATION OF KEY POINTS

Competence centre players can ...

... **integrate themselves into a team:** e.g. the players

- accept different opinions in decisions or discussions.
- listen attentively and let others finish speaking (coaches, supervisors, teammates).
- accept team decisions or tasks (also at their expense).
- are interested in their teammates' condition (e.g. injuries, private situations).
- offer support and help to others (on and off the pitch).
- express their opinion.
- can deal with criticism or feedback and benefit from it.

... **lead others if necessary or let themselves be guided:** e.g. players

- make decisions for themselves and others (on and off the pitch).
- are respected by their teammates or are asked for their opinion.
- coach their teammates in a helpful manner during training or in matches.
- give their teammates clear and comprehensible instructions.
- accept instructions and coaching from leaders or managers.

## OVERALL EVALUATION

The final questions are aimed at your personal overall impression of a player. This impression can go beyond the previous criteria. So for example, further criteria, which have not been considered yet but are important to you personally, can also be taken into account.

Note: The rating of the players' potential is based on separate categories for boys and girls. This is to account for the different density of performance levels between men's and women's football leagues.

How would you rate the player's/goalkeeper's current performance?

+++	++	+	-
Level of a regional association team (16-player squad)	Level of an extended regional association team	Average competence centre level	Below average competence centre level

How would you rate the player's potential (colloquially speaking: "Will he make it")? What performance level do you believe the player/goalkeeper is capable of achieving as an adult?

## BOYS

- ▶ League 1 – 3
- ▶ League 4 – 5
- ▶ League 6 or below

## GIRLS

- ▶ League 1
- ▶ League 2
- ▶ League 3 or below



1\_ What will the player achieve? Will he become a decent semi-pro player ...  
2\_ ... or do you think he will have a successful career?



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