

Unless video measuring is being used, for every valid trial a marker (usually metal) should be placed in a vertical position at the place of the imprint left by the implement in the landing area nearest to the circle/arc. The marker is passed through the loop at the end of the graduated steel tape so that the “zero” is on the mark. The tape should be pulled out horizontally taking care not to place it on any rise in the ground.

### 33. Shot Put

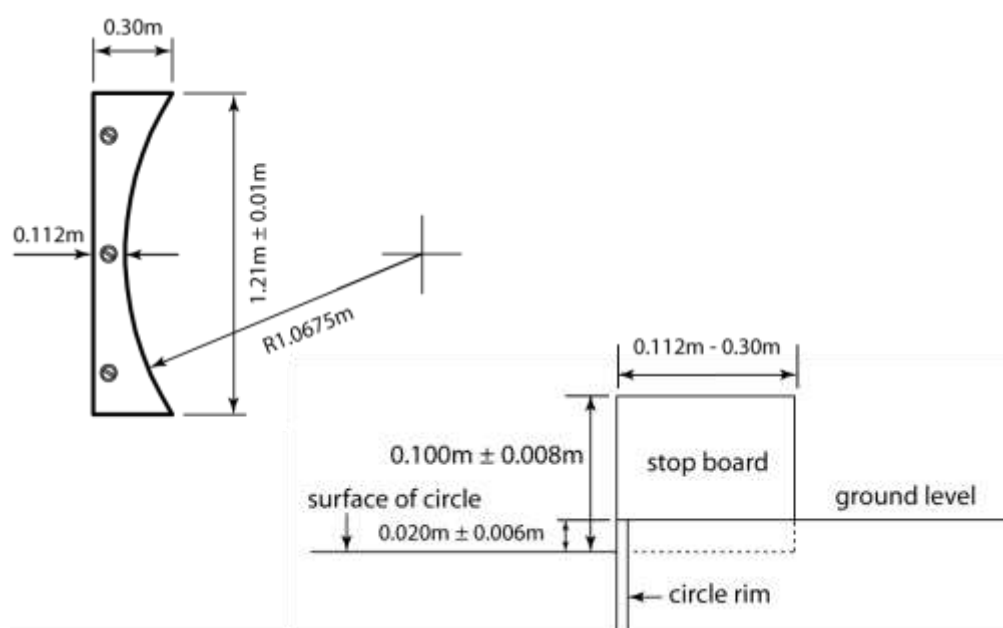
#### *Competition*

- 33.1** The shot shall be put from the shoulder with one hand only. At the time an athlete takes a stance in the circle to commence a put, the shot shall touch or be in close proximity to the neck or the chin and the hand shall not be dropped below this position during the action of putting. The shot shall not be taken behind the line of the shoulders.

*Note: Cartwheeling techniques are not permitted.*

#### *Stop Board*

- 33.2** The stop board shall be white and made of wood or other suitable material in the shape of an arc so that the inner surface aligns with the inner edge of the rim of the circle and is perpendicular to the surface of the circle. It shall be placed so that its centre coincides with the centre line of the landing sector (see Figure (a) TR32), and shall be firmly fixed to the ground or to the concrete surrounding the circle.



**Figure TR33 - Shot Put stop board** (top and side view)

*Note: Stop boards to the 1983/84 specifications remain acceptable.*

- 33.3** The stop board shall measure 0.112m to 0.30m wide, with a chord of  $1.21\text{m} \pm 0.01\text{m}$  for an arc of the same radius as the circle and  $0.10\text{m} \pm 0.008\text{m}$  high in relation to the level of the inside of the circle adjacent to the stop board.

#### *Shot*

- 33.4** The shot shall be of solid iron, brass or any metal not softer than brass, or a shell of such metal filled with lead or other solid material. It shall be spherical in shape and its surface finish shall be smooth. If a filling is used, this shall be inserted in such manner that it is immovable and complies with the requirement for the centre of gravity as defined in Rule 36.5 of the Technical Rules.

Information for manufacturers: to be smooth, the surface average height must be less than or equal to 1.6µm, i.e., a roughness number N7 or less.

- 33.5** The shot shall conform to the following specifications:

Minimum weight and diameter limits for admission to competition and acceptance of a Record:					
Diameter	3.000kg	4.000kg	5.000kg	6.000kg	7.260kg
Minimum	85mm	95mm	100mm	105mm	110mm
Maximum	110mm	110mm	120mm	125mm	130mm

#### Team of Officials

For a Shot Put event, it is recommended to allocate the available officials as follows:

- a. The Chief Judge will watch over the whole of the event.
- b. Two Judges checking whether the put has been made correctly and measuring the trial. One must be provided with two flags - white to indicate if the trial is valid and red if it is a failure. When the put has been measured, it is advised that the Judge stands in the circle holding the red flag, while the implement is returned and the landing area is cleared. A cone may be placed in the circle instead. (In some competitions this position is assumed by the Chief Judge of the event.)

Where EDM is not in use, the second Judge should pull through and hold the measuring tape in such a way that it passes through the centre of the circle.

- c. Judge immediately after the throw placing a marker indicating the point from which the trial is to be measured.
- d. Judge positioning the spike/prism at the point where the marker has been placed ensuring the tape is on the zero mark.
- e. Judge in charge of retrieving the implements and returning them to the implement stand or placing them in the return chute.
- f. Judge - a recorder scoring the results sheet and calling each athlete (and the one who is to follow).
- g. Judge in charge of the scoreboard (trial-number-result).
- h. Judge in charge of the clock indicating to the athletes that they have a certain time to take their trial.
- i. Judge in charge of athletes.
- j. Judge in charge of the implement stand.

*Note (j): This is the traditional setting-up of the officials. In major competitions, where a data system and electronic scoreboards are available, specialised personnel are certainly required. To be clear in these cases, the progress and scoring of a Field Event is followed by both the recorder and by the data system.*

*Note (ii): Officials and equipment must be placed in such a way as not to obstruct the athlete's way nor impede the view of the spectators.*

## 34. Discus Throw

### Discus

**34.1** The body of the discus may be solid or hollow and shall be made of wood, or other suitable material, with a metal rim, the edge of which shall be circular. The cross section of the edge shall be rounded in a true circle having a radius of approximately 6mm. There may be circular plates set flush into the centre of the sides. The plates shall be tightly fixed and not able to be rotated. Alternatively, the discus may be made without metal plates, provided that the equivalent area is flat and the measurements and total weight of the implement correspond to the specifications. There shall be no loose parts.

Each side of the discus shall be identical and shall be made without indentations, projections or sharp edges. The sides shall taper in a straight line from any point on a circle of a radius of 25mm to 28.5mm from the centre of the discus to the beginning of the curve of the rim.

The profile of the discus shall be designed as follows. From the beginning of the curve of the rim the thickness of the discus increases regularly up to the value D. This maximum value is achieved at a distance of 25 mm to 28.5mm from the axis of the discus Y. From this point up to the axis Y, the thickness of the discus is constant. The upper and lower side of the discus must be identical. Also, the discus has to be symmetrical concerning rotation around the axis Y.

The discus, including the surface of the rim, shall have no roughness and the finish shall be smooth (see Rule 33.4 of the Technical Rules) and uniform throughout.

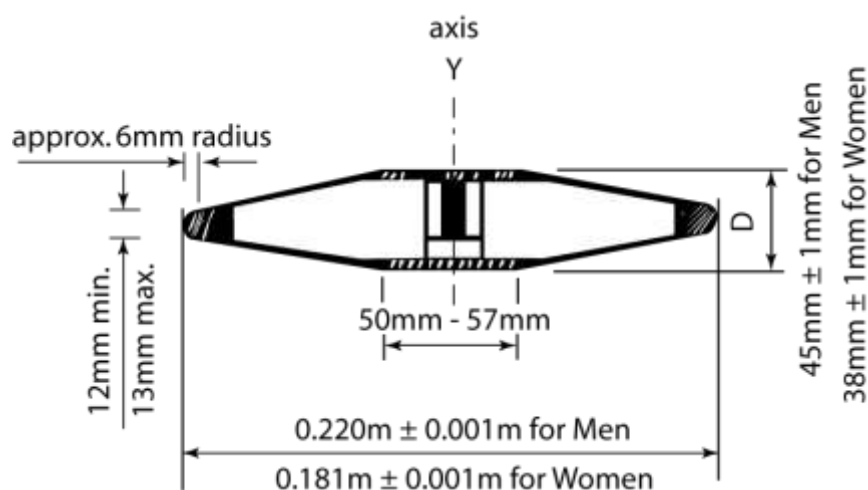


Figure TR34– Discus

**34.2** The discus shall conform to the following specifications:

Minimum weight and diameter limits for admission to competition and acceptance of a Record:				
	1.000kg	1.500kg	1.750kg	2.000kg
Outside diameter of metal rim:				
Minimum	180mm	200mm	210mm	219mm
Maximum	182mm	202mm	212mm	221mm
Diameter of metal plate or flat centre area:				