

CHAMPION PRODUCTS KARTING SAFETY BARRIERS



ENDORSED PRODUCT BY THE MSA AND FIA/CIK CIRCUIT INSPECTORS

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1. Introduction

The reason for this document is to understand the construction and the requirements that the manufacturer of the barriers has made.

2. Dimensions

Standard dimensions

0.50 metre height x 0.60 metre depth x 2.00 metre length

0.75 metre height x 0.60 metre depth x 2.00 metre length

1.00 metre height x 0.60 metre depth x 2.00 metre length

Bespoke barriers can be created on request.

3. Material Specification

| | | | |
|----------------------------------|--------------------------|-------------------|------------------------------------|
| Base Fabric | 100% | PES 1100 dtex | DIN EN ISO 2060 |
| Total Weight | 610 g/m ² | DIN EN ISO 2286-2 | BS 3424 Method 5A |
| Composition Fabric | 180 g/m ² | DIN EN ISO 2286-2 | BS3424 Method 5B |
| Composition Coating | 430 g/m ² PVC | | |
| Surface | Cape Embossing | Glossy | |
| Breaking Strength Warp | 2100 N/5cm | DIN 53 354 | BS 3424 Method 6A |
| Breaking Strength Weft | 2000 N/5cm | DIN 53 354 | BS3424 Method 6A |
| Tear Strength Warp | 380 N | DIN 53 363 | BS3424 Method 7B |
| Tear Strength Weft | 330 N | DIN 53 363 | BS3424 Method 7B |
| Adhesion | 90 N/5cm | DIN 53 357 | BS3424 Method 9B |
| Temperature Resistance | -30C/+70C | DIN EN 1876-2 | BS3424 Method 10 |
| Light Fastness (except white) | 7-8 | DIN EN ISO 877 | BS3424 Method 15 |
| Flammability | B1, B2, M1, M2, | DIN 75200 | CL2 NFPA-701 CSFM Section 13115 |



4. Seat Belt Webbing

Width 50mm
Warp ends 148
Warp yarns 1100dtex Polypropylene
Picks per in 19
Locking threads 3
Woven construction 2/2 Twill 1 Turn
Breaking Strain (normal) 850kg

5. "D" Ring (plated)

50mm 6mm steel

6. Velcro

Hook and loop fastener
Width hook 100mm
Loop 100mm
Textile strength Hook (N/cm overall width) 380.3
Loop (N/cm overall width) 340.6

7. Rubber skirting

2.5mm thick, 18-19" high Insertion Rubber Belting with fabric insert to prevent tearing. The rubber skirting is secured to the barrier by means of double edged Velcro 50mm wide. Standard size of the rubber belting is 2.00 metre in length, however we can make these into continuous runs such as 10 metre or 20 metre lengths.

To fix the rubber skirting secure it to the front face velcro.

8. Foam

Flexible Polyurethane Foam – 6lb reconstituted foam

| | |
|------------------------------|-------------------------|
| Specific Gravity | 15-70 kg/m ³ |
| Flash Ignition Point Between | 315° C to 370° C |
| Thermal Energy | 28 000 KJ/kg |
| Nominal block density | 96 (kg/cu.m) |

9. Design of Karting Barrier

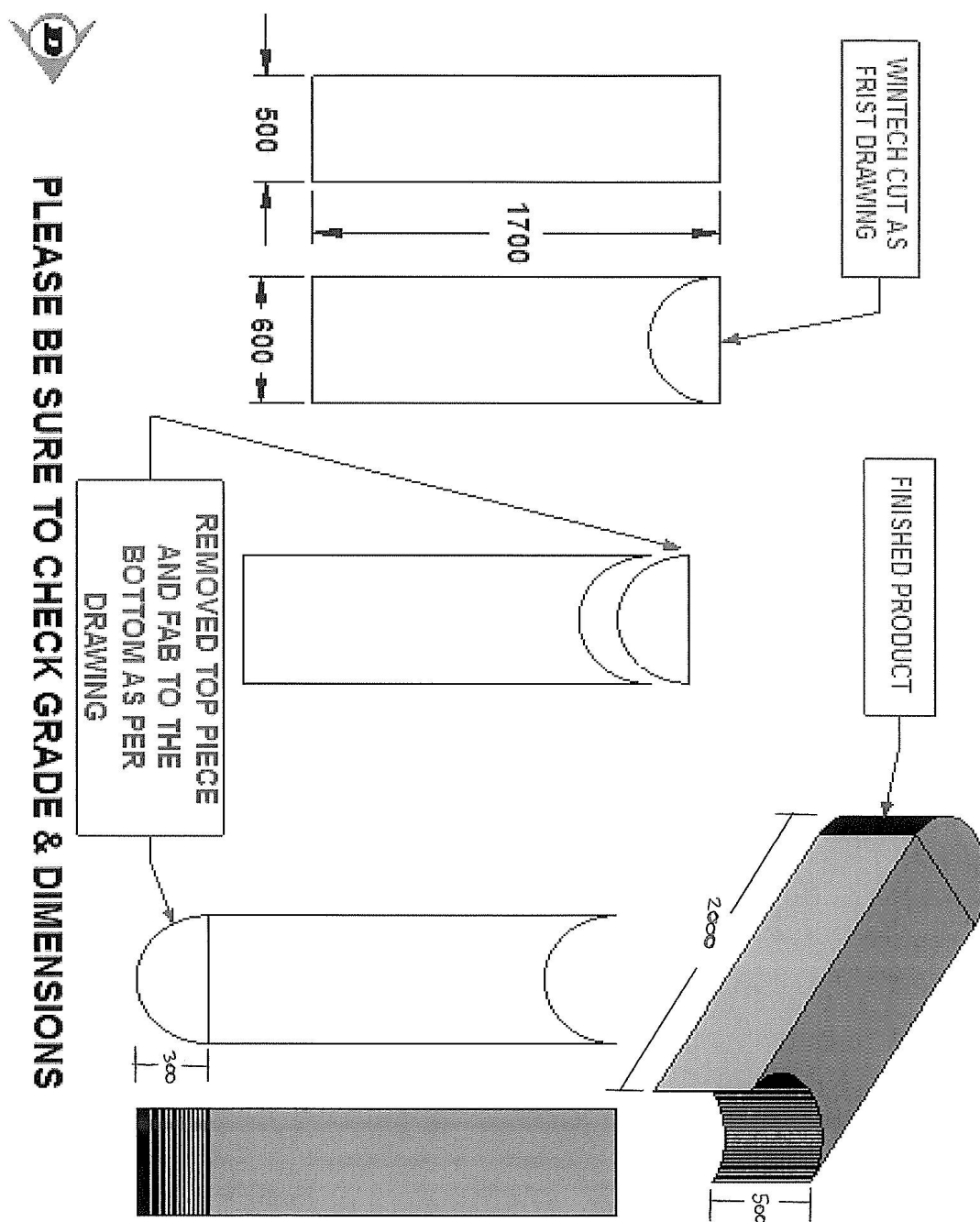
Standard dimensions:

0.50 metre height x 0.60 metre depth x 2.00 metre length (drawings below to demonstrate)

0.75 metre height x 0.60 metre depth x 2.00 metre length

1.00 metre height x 0.60 metre depth x 2.00 metre length

Bespoke barriers can be created on request.



10. Construction of Karting Barriers

All sized barriers are made in the same way.

Each barrier contains 6lb reconstituted foam block. The surrounding barrier cover is made from a PVC material.

As you can see from the images below, the internal foam structure is a complete foam block, which is encased by the PVC material. The PVC cover surrounds the foam block, it is closed through use of a zip. The zip is then covered and protected by a velcro flap.

The cylinder holes can be cut out if required to change the hardness of the barriers. This would be dependent on your requirements and on the impact area.



11. Images of our different height barriers:



*0.50 metre height barrier placed at Buckmore Park.
18"/19" Rubber skirt on the front of the barrier, along the bottom, to give added protection.
(0.75 metre height barrier next to it)
(Post pad behind the barriers)*



*0.75 metre height barrier. Later placed at Buckmore Park.
18"/19" Rubber skirt on the front of the barrier, along the bottom, to give added protection.*



*1.00 metre height barrier placed at Whilton Mill.
Velco flap at the top of the barrier which covers and protects closure zip.
The middle flap is for the rubber skirt attachment.*

12. Securing the barriers together

The shape of the karting barriers have been designed specifically to enable quick installation. The curved end fits perfectly into the fishtail end which keeps all the barriers tight together.

Our karting barriers are joined together by means of velcro strips. Both the fishtail end and the circular end have velcro strips.



Velcro strips on the curved end.



Veclo strips on the fishtail end



Images of Karting Safety Barriers installed and fitted together at Buckmore Park and Whilton Mill.

13. Securing the barriers to your existing fence (if required)

The 2.00 metre length barrier will have bespoke fixings to the rear of the barrier to secure to your existing fence if required. The most popular choice is through use of webbing straps. Two webbing straps at the top of the barrier, two webbing straps at the bottom of the pair. With a D ring attachment on each pair.



14. Advertising Panels

The 1.00 metre high barriers have the added benefit of being able to have an advertising/sponsorship banner on the front. A velcro attachment at the top of the barrier (which is covered by a flap to keep the velcro clean if you did not want to use banners) and a velcro strip along the bottom of the barrier. Secure the banner to both velcro strips. The 0.50 and 0.75 metre height barriers can have advertising/sponsorship banners too.

