

FLYING TRAPEZE RIGS

DIMENSIONS

The following infosheet contains **example** dimensions for the four most common types of flying trapeze rig found in recreational schools around the world: Full-sized and Petit Volant (or 'Casting'), each with bar-to-catcher and bar-to-bar versions.

Given the large variation in equipment, no two rigs are identical and so one set of dimensions can only serve as an example. However, there are always a set of 'critical' dimensions for any rig that need to stay in roughly the same relationship for the activity to work and for catches to be possible (for example the length of the swing, the distance from fly bar to catch bar, and the position of the platform).

Other dimensions (which we describe as 'non-critical') can be flexed without impacting the functioning of the equipment (for example, the height and width of the free-standing frames etc.)

Some disclaimers:

This information is provided as an example with **no guarantee of accuracy**.

Dimensions of the different rigs have been provided by different sources, so may not match.

Don't use these dimensions as the sole source of information when building a rig.

Do not try to build your own rig – find an expert in your area who can advise you and ensure the correct safety standards are being followed etc. You can find a full list of global suppliers on our website.

This infosheet is downloadable at

THE **trapeze** NET

www.flying-trapeze.com

FULL-SIZED BAR-TO-CATCHER

KEY DIMENSIONS

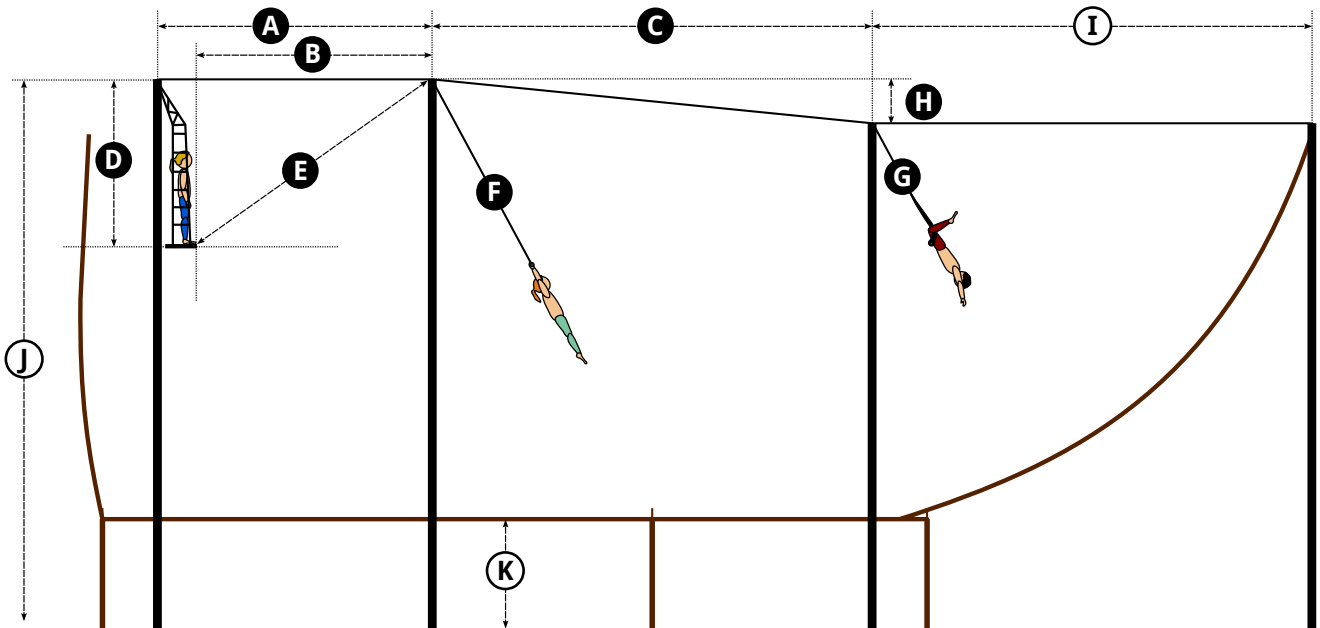
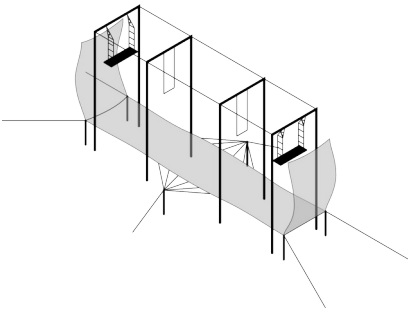


Diagram shows an outdoor free-standing rig, but the critical dimensions would be identical for an indoor rig hung from the ceiling.

Critical Dimensions:		Imperial	Metric	
A	Platform Frame to Fly Frame	15'3"	4.65m	
B	Front of Platform to Fly Frame	14'1"	4.30m	Platform sits in front of frame
C	Fly Frame to Catch Frame	26'	7.98m	Fly Cables (F) + Catch Cables + 1.88m
D	Platform to top of Fly/Platform Frames	9'	2.75m	
E	Diagonal Platform-Fly Frame	16'9"	5.10m	Fly Cable length (F) + 1.45m
F	Length of Fly Cables	12'	3.65m	
G	Length of Catch Cables	8'	2.45m	
H	Drop from Fly Frame to Catch Frame	2'	0.60m	

Non-critical dimensions:				
I	Catch Frame to Apron	26'	7.93m	
J	Height of Fly Frame	32'	9.75m	Must be at least $F + K + 2.60m$
K	Height of Net from ground	8'2"	2.50m	At least
	Width of the frames	12'6"	3.80m	At least
	Length of Fly Bar	3'	0.90m	Plus or minus 20cm
	Thickness of Fly Bar	1 inch	2.5cm	Can be up to 3.2cm



FULL-SIZED BAR-TO-BAR

KEY DIMENSIONS

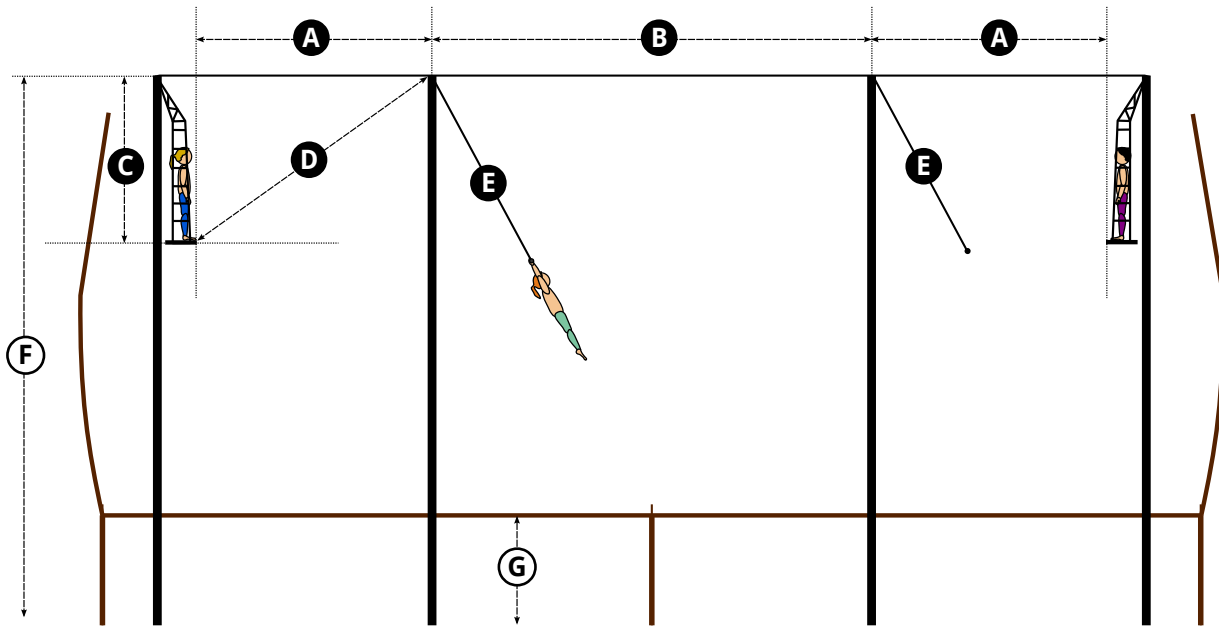
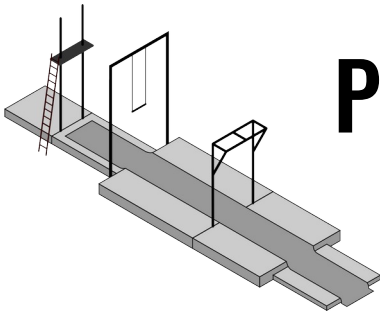


Diagram shows an outdoor free-standing rig, but the critical dimensions would be identical for an indoor rig hung from the ceiling.

Critical Dimensions:		Imperial	Metric	
A	Front of Platform to Fly Frame	13'5"	4.10m	
B	Distance between Fly Frames	24'4"	7.40m	Twice the length of the Fly Cables (E) plus 40cm
C	Platform to top of Fly/Platform Frames	9'6"	2.60m	Platform is 90cm higher than the fly bar at rest
D	Diagonal Platform-Fly Frame	15'11"	4.85m	Fly Cable length (E) + 1.35m
E	Length of Fly Cables	11'6"	3.50m	Can be up to 15cm longer

Non-critical dimensions:				
F	Height of Fly Frame	32'	9.75m	Must be at least $E + G + 2.60m$
G	Height of Net from ground	8'2"	2.50m	At least
	Width of the frames	10'	3.00m	At least
	Length of Fly Bar	3'3"	1.00m	Plus or minus 20cm
	Thickness of Fly Bar	1.1 inches	2.8cm	Can be up to 3.2cm



PETIT VOLANT BAR-TO-CATCHER

KEY DIMENSIONS

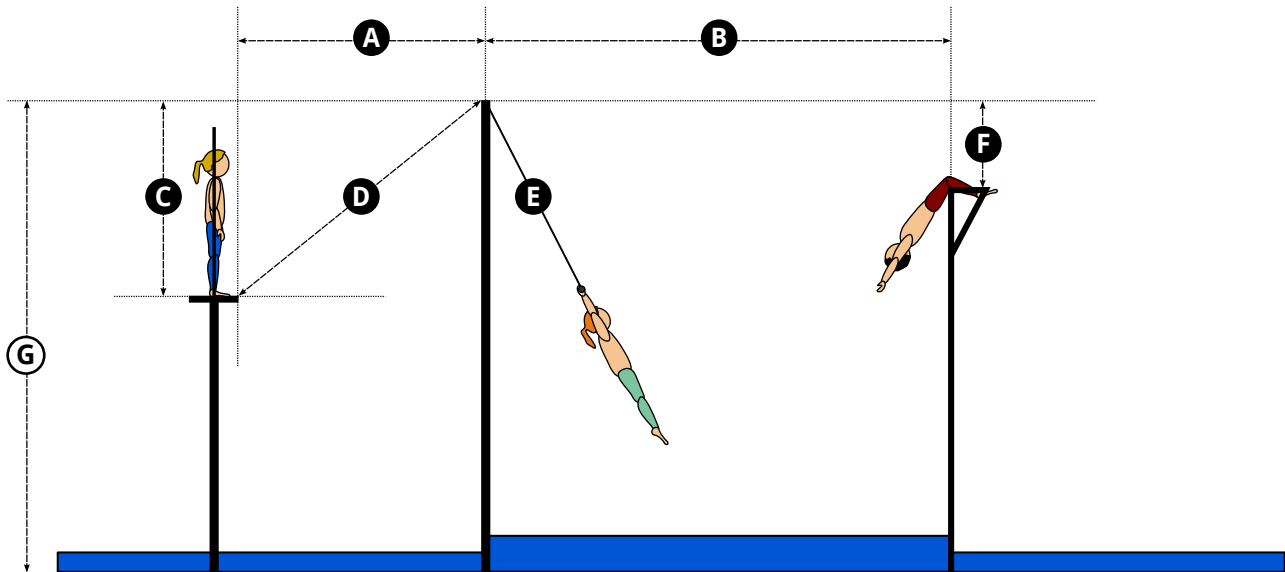


Diagram shows an outdoor free-standing rig, but the critical dimensions would be identical for an indoor rig hung from the ceiling.

Critical Dimensions:		Imperial	Metric
A	Front of Platform to Fly Frame	10'6"	3.20m
B	Fly Frame to Catch Frame	15'11"	4.85m
C	Platform to Top of Fly Frame	7'3"	2.20m
D	Diagonal Platform-Fly Frame	12'9"	3.88m
E	Length of Fly Cables	8'	2.43m
F	Drop from Fly Frame to Cradle	2'8"	0.81m

Fly Cable length (E) + 1.45m

Non-critical dimensions:			
G	Height of Fly Frame	17'7"	5.35m
	Width of the Fly Frames	10'	3.0m
	Length of fly bar	3'	0.90m
	Thickness of fly bar	1 inch	2.5cm

PETIT VOLANT BAR-TO-BAR

KEY DIMENSIONS

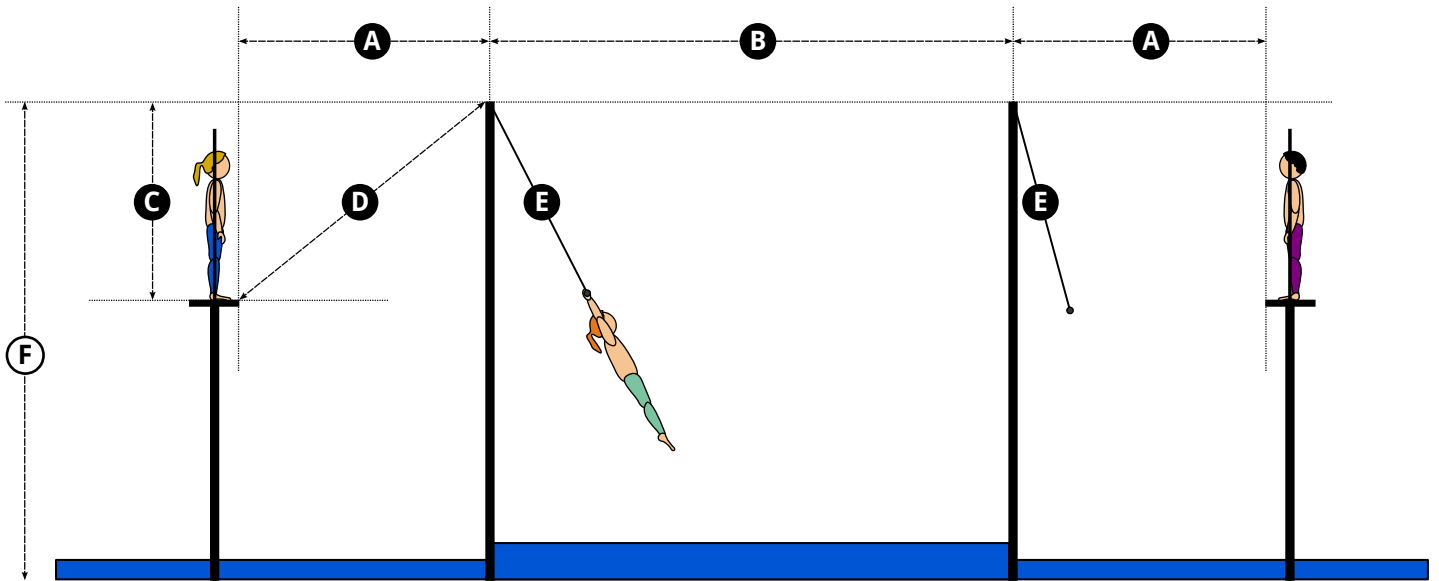
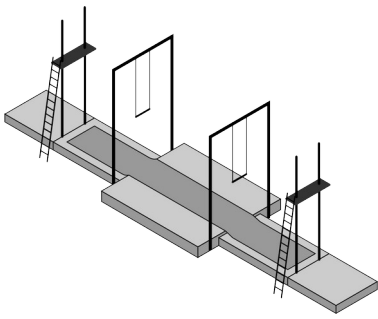


Diagram shows an outdoor free-standing rig, but the critical dimensions would be identical for an indoor rig hung from the ceiling.

Critical Dimensions:		Imperial	Metric
A	Front of Platform to Fly Frame	11'4"	3.45m
B	Distance between Fly Frames	20'8"	6.30m
C	Platform to Top of Fly Frame	8'2"	2.50m
D	Diagonal Platform-Fly Frame	13'8"	4.26m
E	Length of Fly Cables	9'6"	2.90m

Twice the length of the Fly Cables (E) plus 50cm

Platform is 40cm higher than the fly bar at rest

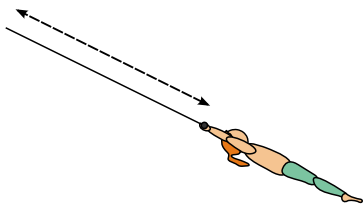
Fly Cable length (E) + 1.36m

Non-critical dimensions:		
F	Height of Fly Frame	20' / 6.10m
	Width of the frames	10' / 3.0m
	Length of fly bar	3' / 0.90m
	Thickness of fly bar	1 inch / 2.5cm

ADJUSTING DIMENSIONS – Considerations

? The dimensions in this document are merely examples of particular rig designs. Many schools and companies adapt their measurements to suit their needs or the style of their flyers. Below are a few considerations when adapting rig dimensions.

Fly Cable Length



Full-sized cables are typically 12' or 3.65m long, while Petit Volant or 'Casting' cables are 8' or 2.45m. All variations in between (or indeed shorter in some cases) are possible.

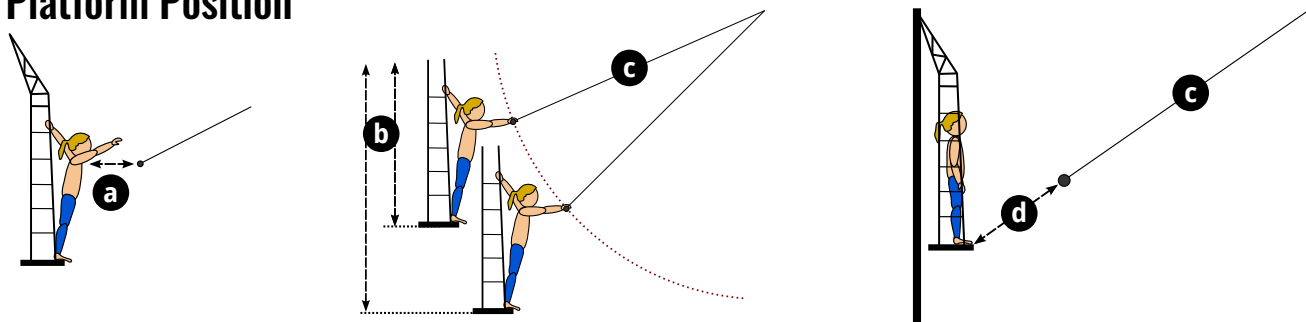
Changing the fly cable length is something that will be very noticeable to experienced flyers as it changes the 'feeling' of a swing. Shorter cables give less time for each swing. For example, full-size cables typically allow time for a full force-out at the front of the swing. As you shorten the cables to Petit Volant size, there is no longer time for a force-out and flyers can only hold a set at the front before starting to swing backwards.

Catch Distance



The distance between fly bar and catcher (or between the two fly bars on a Bar-to-Bar rig) is very important. Too close and the catch will need to happen with bent arms, too far and you will miss. Companies with taller flyers may choose to extend this distance.

Platform Position



Positioning the platform relies on three factors: how close you want to be to the bar (a), how high you want to start from (b) and the fly cable length (c). If the bar is too far away you need to stretch too far to hold it for a departure, too close and you may hit your butt while swinging.

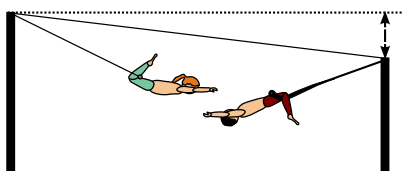
The higher the platform the more energy the flyer starts their swing with (just as when you take off a riser). BUT a high platform can be intense for beginners and lead to people with a poor departure falling off after they leave the platform. It also makes remounting more difficult. Schools catering primarily for beginners may choose to lower their platforms to make things easier. More advanced flyers may then need to use a riser for bigger tricks.

Remember, because the bar swings in an arc, if you lower the platform you also need to move it forwards to bring it closer to the fly bar (second diagram).

It's difficult to adjust the three variables and still have the flyer be able to comfortably depart and remount the board. One easy method is to measure the diagonal distance from the front of the platform to the top of the fly frame. You subtract from this the length of the fly cables. Imagine that the fly bar swings so it points at the platform, you are calculating the distance between the bar and the platform (d). Typically a comfortable distance would be around 1.4m (4'7").

Finally, different rigs have different platform designs. Sometimes the platform sits underneath the platform frame, and sometimes it hangs in front. In all cases it is the position of the platform in relation to the fly bar, not the platform frame, that is important for the functioning of the rig. Rigs where the platform sits directly under the frame often have a 'cut out' at the top to prevent high-flying flyers from hitting the frame as they swing up at the back.

Catch 'Drop'



The catch trapeze is typically hung from a frame that is lower than the fly frame. This gives the flyer a chance to execute their trick in the air before being caught. Some companies deliberately increase this drop to make catches on larger tricks easier.

THANKS TO



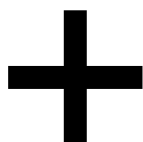
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