

# USER GUIDE

## CARNATIC FLUTE – THE YARL FLUTE



The Carnatic Flute is one of the oldest Indian musical instruments, and Lord Krishna is often portrayed as a young boy playing a flute. If you are a flautist or thinking of taking up the flute, you are truly blessed by Lord Krishna. You have chosen one of the finest quality instruments, and will enjoy many hours of playing the Flute.

### DISCLAIMER

All possible care has been taken in the preparation of this user guide. However, specification and particulars in relation to the product referred to in this document are subject to change without prior notice. Some photographs contain samples which are representative only. This unit may vary in colour and appearance. Yarl Technologies will not be held liable for any errors or omissions in this document.



### WARNING

Plastic bags used in the packaging of your product are not toys. To avoid danger of suffocation, please keep these bags away from babies, children and dispose of them properly.

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## INTRODUCTION

The conventional Carnatic Flute is made of Bamboo and has eight finger holes and one blow hole. As with Bamboo flutes, it is very difficult to get a perfectly tuned flute and even rarer to get two identical tuned flutes. The main reason for this scarcity is the variation of the inner diameter of Bamboo and the variation in the positioning of finger holes when they make the Bamboo flute. Selecting a perfectly tuned Bamboo flute is an extremely tedious task and most flautists would agree that if you sample 100 Bamboo flutes, you may be in luck to find 1 or 2 perfectly tuned flutes.

With poorly tuned Bamboo flutes, the flautist has to rotate the flute, adjust the blowing or adjust the finger hole opening to compensate for the inaccurate pitch of each note. For a novice, this would be frustrating and make it difficult to master the art of playing the flute. This could lead them to give up playing the flute or play the wrong pitch of those notes and annoy the listeners! Eventually they have to give up playing the flute or start searching for a better flute.

## YARL FLUTE

After many years of experimenting with various sizes and types of materials, a synthetic material Polymethyl methacrylate (PMMA), also known as acrylic or acrylic glass was chosen to make a Carnatic flute. Acrylic flutes produce rich tonal quality comparable to high quality Bamboo flutes. Yarl Technologies introduces an acrylic Carnatic flute to the South Indian music community.

Yarl Technologies manufacture a range of special acrylic tube sizes with Inner diameter and wall thickness designed to suite the pitch of the flute. The Yarl flute is made of very high quality light-weight acrylic material which produces rich tones and semitones that are very pleasing to the ears. At present, Yarl flutes are made for pitches from 1 Kattai to 5-1/2 Kattai (for 1 Kattai flute the pitch of 'Sa' is tuned to C5: 523.25Hz; for 1-1/2 Kattai flute the pitch of 'Sa' is tuned to C5#: 554.36Hz and so on). Each finger hole distance from the blow hole is calculated (acoustic impedance) to suite the typical fingering technique used for playing Carnatic flutes. Precise positioning of finger-holes are achieved with laser cut finger holes that are a perfect fit to each finger, enabling full control of the openings. The specially crafted blow-hole enables even the novice flautist to produce sharp, crisp and clear tones across a two and a half octave range. Flautists will also find it extremely easy to modulate the blowing. With the Yarl flute, each note is perfectly tuned and hence the flautist can play without the need for continual adjustment.

Its light-weight design enables the flautist to play for long hours. Most importantly, the melodious tone of this Yarl Carnatic flute makes it hard for the flautist to stop playing! Enjoy playing Yarl Carnatic Flute.

### TECHNICAL SPECIFICATIONS

	Flute range made by Yarl									Unit
Sruthi	1	1.5	2	2.5	3	4	4.5	5	5.5	Kattai
Length	504	480	451	432	411	388	369	347	332	mm
Ext. diameter	19	19	18	18	17	17	17	16	16	mm
Wall thickness	2	2	2.5	2.5	2.5	2.5	2.5	2.5	2.5	mm
Weight	72	69	78	75	73	71	68	58	55	g
Frequency (Sa)	523	554	587	622	659	698	740	784	831	Hz
Material	Polymethyl methacrylate (PMMA), also known as acrylic or acrylic glass with typical density of 1.18 g/cm <sup>3</sup>									
Colour	Semi-clear with red tint									
Flute tuned at 30°C @ humidity of 72%										

### WARRANTY TERMS AND CONDITIONS

Warranty only applies to situations where a defect has arisen, wholly or substantially, as a result of faulty manufacture, parts or labour. Warranty is valid for 12 months from the invoice date. Warranty is rendered void if the product is modified in any way by client.

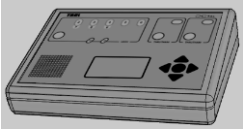
The warranty does not apply to situations where damage is caused by other factors or negligence, including without limitation:

- Wear and tear from use
- Surface damage such as scratches, cracks and stains
- Accidental or intentional abuse and/or mishandling of the product
- Failure to follow operating instructions
- Direct exposure to elements of the environment such as sun light, rain and lightning strikes

Upon contacting Yarl Technologies with the problem, Yarl Technologies will diagnose the problem and provide a suitable solution in a timely manner. This may require transport of the damaged product to and from Yarl Technologies. Any loss or consequential damage incurred during transportation is not covered by this warranty. These costs will be borne, in full, by the client.

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## MUSIC INSTRUMENTS MADE BY YARL



- **DGTAL:** Carnatic Thala instrument that can play all the 35 Soolathi Thalam and common Chappu Thalam.



- **YARL FLUTE:** Carnatic Flute perfectly tuned to produce exceptional tonal quality.

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ABN: 68 160 030 928

ACN: 160 030 928