



TECHNICAL BULLETIN 163

C-FLOAT FAIRINGS FOR MARINE RISERS

INTRODUCTION

C-FLOAT patented* fairings are designed to fit around Cuming Corporation buoyancy modules to protect marine drilling risers from dangerous drag and vortex-induced vibration (VIV) in ocean currents up to six knots or more. Fairings are much more effective protection against current damage than helical strakes or other static de-vices. See Technical Note 100-8 for a detailed discussion of drag and the effects of vortex shedding.

SIMPLE CONSTRUCTION

C-FLOAT fairings are of simple and robust construction. Each fairing assembly consists of two fiberglass halves hinged together to form a "clamshell" that opens up to latch around the riser and buoyancy module column. Quick-acting latches and strong aramid fiber straps secure the assembly in place. Built-in syntactic foam ribs reinforce the shell and add buoyant lift to help support the fairing. Metal clamps attach to the buoyancy modules for vertical alignment. The entire system is optimized for quick and easy assembly and disassembly, as well as efficient storage aboard the drilling rig.

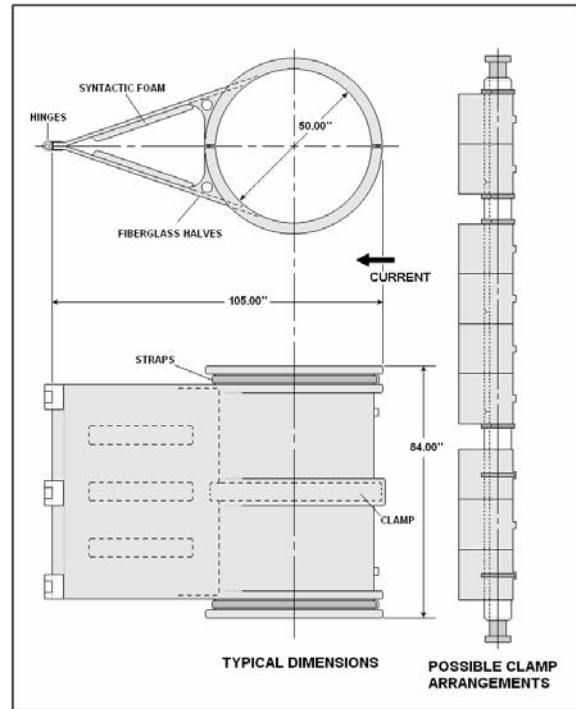
SIZES AVAILABLE

Most fairings are custom designed for a particular application. Cuming Corporation has made a number of different fairings for major operators, and it is often possible to adapt an existing design to a new requirement. The sketch at right illustrates typical proportions of current fairings and a few of many possible arrangements on the riser. Customers are invited to discuss their needs with our expert engineering staff.

HANDLING

C-FLOAT fairings are designed with shipboard handling in mind. The following approximate weights are for a typical fairing assembly as shown in the sketch:

	<u>Weight in Air</u>	<u>Wt. in Water</u>
Fairing Assembly	265 lbs	125 lbs
Clamp Assembly	<u>40 lbs</u>	<u>25 lbs</u>
Total Weight	305 lbs	150 lbs



TYPICAL C-FLOAT FAIRING CONFIGURATION

PERFORMANCE

Hydrodynamic performance varies with the specific design, arrangement of the fairings, and flow conditions. However, the following numbers are typical of the performance values that have been achieved with C-FLOAT fairings:

<u>Parameter</u>	<u>Typical Value</u>
Drag Coefficient, Cd	0.25 or less
Rest Angle of Attack	1.0 degree or less
Flutter or VIV	Negligible

SAFETY AND HEALTH

These products present no unusual hazard under normal use; however, they are intended for use by trained professionals in accordance with all applicable standards and regulations.

The information in this Technical Bulletin is not a warranty by which Cuming Corporation assumes any legal liability. The customer is solely responsible for ensuring the product's fitness for purpose as well as its safe and proper use and application.

* United States Patent Pending