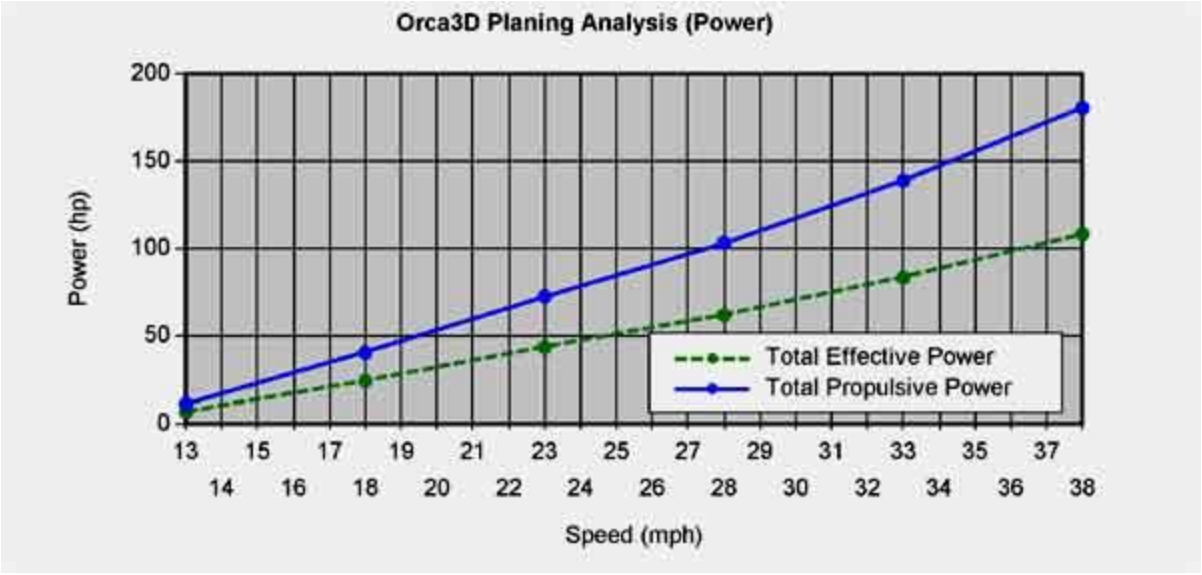
Specifications:		
LOA:	28'	8,54 m
Max. Beam:	8' 2"	2,49 m
Hull draft at DWL:	14.5"	37 cm
Displacement at DWL:	5,000 lbs	2267 liters
PPI at DWL:	727 lbs/in	130 kg/cm
Fuel:	85 to 120 gallons	340 to 480 liters
Recommended. HP	125 to 300 HP	93 to 225 Kw
Material:	Plywood cored epoxy composite	

Dimensions are nominal and will vary slightly with accessories like rubrail etc.

The GulfStream 28 is a moderate vee, relatively narrow boat (beam/length ratio of 3.4) designed to satisfy a program in which economy and seaworthiness were top priorities.

The design brief was simple.
Boat definition: A low powered, narrow long offshore boat 28' by 8' 6", designed for moderate planing speeds, 20 kn cruise, 25 kn WOT . Hull dry weight max. 2,000 lbs, less preferred. Displacement fully loaded 5,000 lbs. Primary propulsion: single or twin outboards. Fuel capacity 80 gallons minimum. Optional: stern-drive gas or diesel. Gas = Mercruiser 3 liter or more with Alpha outdrive 2:1. Diesel: Nanni 4 cylinder Toyota block.

Running that through a spreadsheet and after comparing ratios with existing boats, the result is a light hull built either in our standard material epoxy-glass-plywood composite or in foam sandwich (GS28X only). The deadrise is 52 degrees at the cutwater, about 17 midship and 8 degrees at the transom. She is not a Cigarette type boat and does not roll like one but she has enough vee to handle formed seas without problems and her narrow beam produces less slamming than a wider hull.
The chine rise is very progressive and the GS28 does not have an obvious hump in its transition from displacement speeds to planing. She is a good moderate speed boat. The GS28 is able to maintain moderate speeds between planing and displacement without pushing a huge bow wave.



The calculations are made for single outboard propulsion at designed displacement. Keep in mind that while we show a top speed of 38 mph, the hull is designed for cruising between 20 and 25 mph. 125 HP is the minimum to maintain planing, 150 to 200 is ideal.

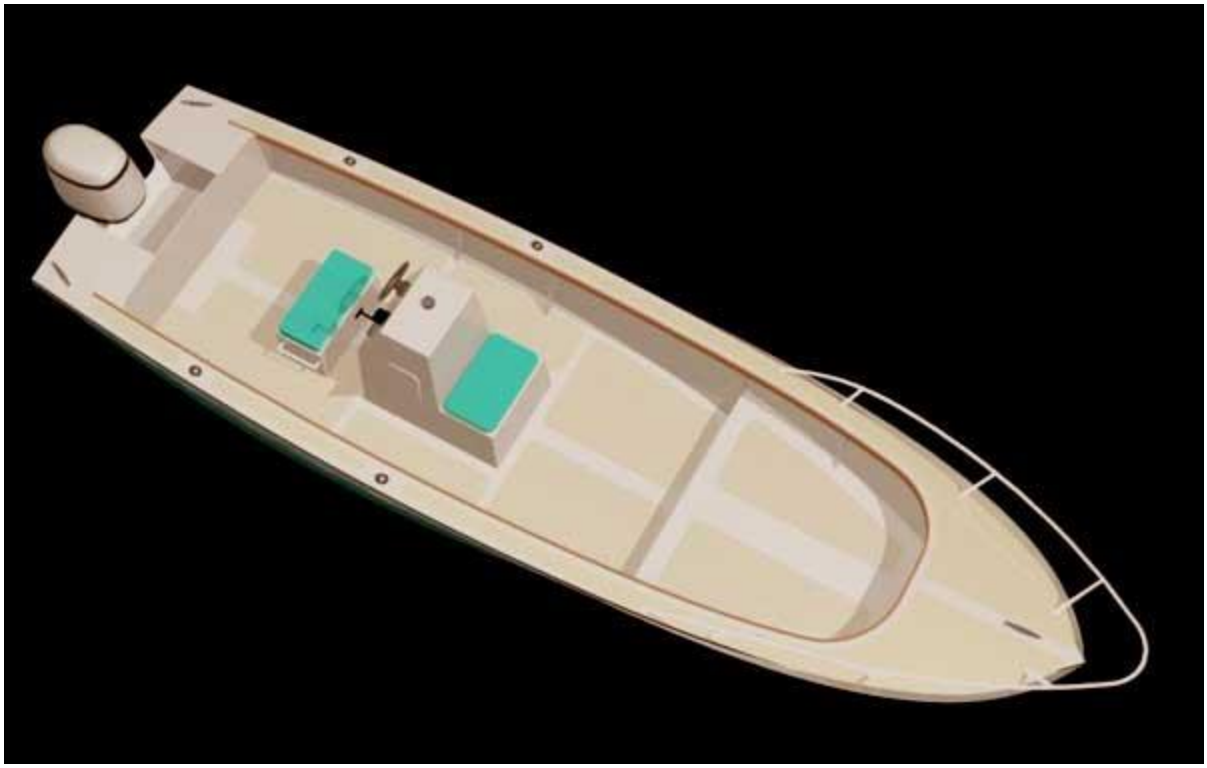
To push her over 30 mph increases trim excessively, do not install exceedingly large engines. The hull is calculated for a single 600 lbs engine on the transom. The combined weight of twin engines can not exceed 800 lbs.

The hull lends itself to many options but this version is limited to one hull shape and one type of propulsion only, outboard(s) on a transom with motorwell.

The hull is fitted with two strakes per side and a spray rail. A skeg is optional.

There is another version of this hull named GS28X: GulfStream 28 with eXtras. The GS28X plans show in addition to the standard features, variations on hull shape (flare etc.) different motorizations, more layout options and specifications for foam sandwich construction..
See the options paragraph for a complete list.

Layout:



The plans show a classic layout with casting deck and center console. The cockpit is almost 21' long (6,30m) and more than 28" deep (72 cm) at its lowest point.

Building method:

The hull material is our well proven epoxy-fiberglass-plywood composite, easy to build and stronger than single skin fiberglass.

Required Skills:

Any of our builders who has successfully completed a boat built on a jig like the FS12, is able to build the GS28 if he devotes sufficient time and materials to the project.
The hull is built upside down on a jig made of the transom, some of the frames and MDF molds.
There is nothing complicated about the construction, we worked hard to design an easy to build boat.
All cabin and deck surfaces are 100% developable, easy to cut to shape and bend.
The plans show dimensions for all the parts.

Options:

Do not go overboard with options, do not try to add cabins. This boat is designed to perform well at the designed weight and must be kept reasonably light.

The plans can be customized as long as the builder does not compromise the structure.
The builder has complete freedom in cockpit layout as long as he keeps the frames where we show them.

The first option that many will consider is an enlarged console with a head. There is sufficient room to have a head with almost full standing room. To make room for the head, the single fuel tank must be replaced by 2 smaller tanks in front and behind the console.

Another option is twin engines. The plans show an optional motorwell for twin outboards.
The plans show a transom cut for a 25" shaft but it is very easy to raise the clamping board and install engines with a 30" shaft.

On the hull side, the strakes and spray rail are standard but a skeg is an option that will improve tracking.

The boat can be fitted with all sorts of canvas including a dodger.
The plans show dimensions and specifications for an optional tee top or tower.

The standard fuel tank is 80 gallons but this can be increased to 120.

Options available in the GS28X:

Inboard stern-drive gas or diesel, skeg-keel, closed transom for bracket single or twin, jump cabin, hull with flared bow, foam sandwich specifications and more.
(The GS28X plans are sold separately).

Bill Of Materials:
(Excerpts from our BOM)
The BOM list materials for the complete boat as designed, epoxy-plywood version.

Plywood standard sheets 4x8' (122x244cm)		
6 mm (1/4")	4	
9 mm (3/8")	8	
12 mm (1/2")	29	
Fiberglass fabric 50" wide (125 cm) or tape 6" wide (15 cm) (totals)		
Biaxial tape 45/45 12 oz. (400 gr)	580 yards	525 m
Biaxial tape 45/45 6 oz. (200 gr)	50 yards	45 m.
Biaxial fabric 12 oz. 45/45 (400 gr)	120 yards	108 m.
Woven fabric 6 oz. (200 gr)	25 yards	22 m.
Resin		
Epoxy, total	40 gal.	160 Kg.

This BOM covers all the supplies for the standard boat as designed except for paint, hardware and some small cleats.
Usage of materials will vary. An experienced builder will use less resin. Our resin usage calculations are based on a 40% glass content.
Options, customization and variations in glass fabric width and cutting preferences will affect the Bill Of Materials. Our figures show an estimated average.
Small variations in fiberglass specifications are acceptable, consult us for substitutions.

Labor:
The hull shell can be build in 180 hours but a finished boat will require 400 to 600 hours depending on the level of detail and the skills of the builder.

More:
Visit our message board, help pages, tutorial pages and read our FAQ: most questions are answered there.

License:

As with all our plans, you have the right to build one boat from those plans. The designer holds the copyright to the design and you purchase a license to build one boat. If you plan to build more than one boat, please contact us about licensing fees.

Building standards:

These plans were drafted according to the ABYC rules. The ABYC (American Boat and Yacht Council) defines the boat building standards in collaboration with the USCG.
Professional builders may be subject to more requirements. Consult the designer.

The ABYC standards are very close to the ISO norms and CEE requirements but no European certification was applied for since this is not required for amateur boat building in Europe. CEE/ISO certification is available to professional builders for a fee.

Plans Packing List:

Plans are available in metric or US units, 32 drawings total.

- B287_20 Plan and profile
- D287_27: Nesting of all parts on standard plywood sheets
- B287_21: Construction drawing with sections in plan and profile.
- A287/1 to A 287/10: All stations (frames and transom) and molds, 9 drawings
- A 287/11 to A287/19 : Frames and bulkheads, 8 drawings
- B287_22: Soles and decks panels
- B287_23: Bottom and side panels, stringers
- B287_25: Lamination schedule
- B287_24: Optional profiles: Tee-Top, bow rail
- B287_26: Hardware mounting and assembly details
- B287_28: Standard center console
- B287_29: Tee Top dimensions (option)
- B287_30: Tower with dimensions (option)
- B287_31: Bow rail (option)
- B287_35: Twin outboard option, plan and profile
- B287_36: Twin outboard option, motorwell, aft deck dimensions
- B221 Typical Small Boat Electrical diagram.
- Specific building notes for this boat.
- "Building a Plywood Cored Composite Boat", boatbuilding manual.
- Bill Of Materials included in the building notes.
- Help files reference list and more.