



Making Money in the Bunkering Industry is becoming increasingly difficult

The Bunkering Industry is under pressure from all sides. Varying requirements for different types and volumes of IFO, LSFO etc. are demanding. Supplying the right product at the right time and place is a costly, complex, logistic Nightmare. The Solution is On-Board In-Line Blending.

Most Bunker Operators don't know what the next customer want until they ask for it. So they have to plan for eventualities.

In most cases this involves one or more of the following scenarios.

They have several different Bunker barges, each with a different IFO.

They have Bunker barges with several IFO's on board.

They have already realized the potential predicament and use On-Board Batch Blending.

Either way they have a risk and lack flexibility.

What if the Customer is delayed?
What if the required quantity is

beyond available Bunker Barge capacity etc. etc.

The In-Line Blending Solution

The CBI On-Board In-Line Blending system offer you a solution to all these issues and more.

CBI In-Line Bunker Blending

The Just-in-Time Solution

Providing Just-in-Time Bunker Blending means a high level of flexibility, saved time, increased profit and at the end of the day helps you to more satisfied Customers

FLEXIBILITY

With only two products in the Bunker Barge you can blend any viscosity (IFO) at the time of delivery meeting the ISO8217 specification. And on top of that secure exact volumetric supply of the product.

SAVED TIME

In stead of sending one Bunker Barge with IFO380 to one customer and another Bunker Barge

with IFO180 to another customer, you can use the same barge to do both. This saves time and resources and at the end of the day - a lot of money.

SAVED COST

Each call the Bunker Barge makes at the terminal adds to the cost. Whether it is Transit Cost, Harbour duties, Mooring Cost or Terminal charges - these costs can be reduced as a result of the flexibility of the On-Board Blending facility.



INCREASED PROFIT

Flexibility, Cost- and time saving are important factors, but even more important is the possibility to increase your profit on sales.

Blending a high viscosity HFO with a low viscosity product (i.e. MGO or Cutter Stock) results in considerable savings in your end product cost compared to buying pre-blended products from a Terminal.

The exact savings will vary with the market, but in general there is a vast difference in the cost price between an IFO180 blended from 5-700 cSt HFO and MGO and pre-blended IFO180 or IFO380.

CORRECT QUANTITY

Depending on your choice of configuration you can provide your customers with the exact volumetric quantity of ISO8217 compliant Marine Fuel Oil at the exact viscosity ordered (+/- 2%) by using the CBI Metering option.

The CBI Metering system can be supplied with an optional Delivery Note print function to document the transaction data for both parties.

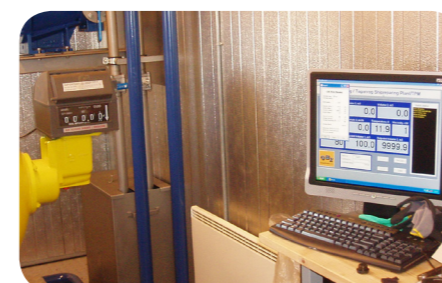
Whatever the size of your Bunker Barge CBI can deliver a solution to fit the task. From a manually operated system to a fully automated computer controlled system



The CBI In-Line Fuel Blender is available in many sizes to fit the task

COMPREHENSIVE PROGRAM

The CBI In-Line Blending systems are available in many different configurations. From a manually operated system to the self contained Flexblender™ which is a highly advanced, fully automated, computer controlled Blending and Metering system with optional add on's i.e. the Delivery Note ticket printer.



Automated Blending and Metering system

BLENDED

The blending of two or more fluids at a pre-determined ratio to produce a finished product is a common operation in the Oil industry.

ON-BOARD IN-LINE BLENDED

On a Bunker Barge the On-Board In-Line blending is a controlled, continuous mixing of two components in a device that secures the correct composition conforming to ISO8217 and in accordance with the predefined settings.

This procedure can now take place during the actual delivery to the customer vessel.

In-line blending reduces the blending time and is a quick and easy process with no extra need for the costly on-board tank storage that is necessary when doing batch blending. Furthermore you

avoid mixing the excess product volume that is often the result of batch blending operation.

With the improved flexibility of In-Line Blending you can supply a wide range of products to your customers independent of time and place.

SUMMARY

The CBI blender is a self-contained blending system with no requirements for auxiliary equipment.

Easy to install

The unit can be mounted as an ordinary valve. No housing is required.

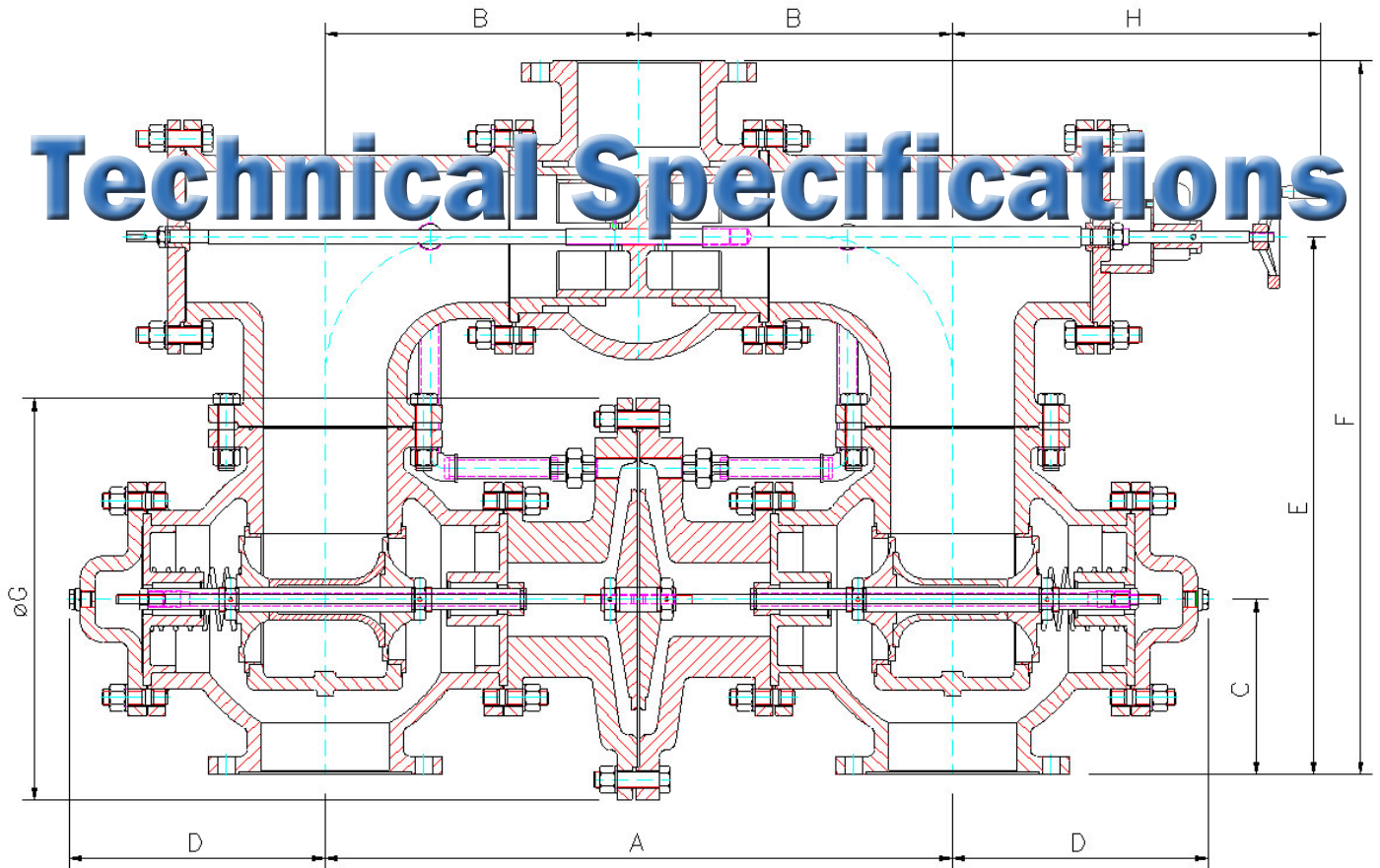
Easy to operate

Once the ratios for the required grade is determined, the operator sets the corresponding numbers.



Flexblender in CSC approved 20' container

Technical Specifications



System components

Product	Description	Performance
2" Blending Unit	Mechanical Fuel Blender	100 M ³ /Hour @ 10 cSt
6" Blending Unit	Mechanical Fuel Blender	300 M ³ /Hour @ 10 cSt
8" Blending Unit	Mechanical Fuel Blender	480 M ³ /Hour @ 10 cSt
PD Flow Meter 8"	LBM 1000	186 M ³ /Hour @ 400 cSt
PD Flow Meter 10"	LBM 3000	372 M ³ /Hour @ 400 cSt
Bunker Monitor	Viscosity Metering	0-1000 cSt Actual Viscosity @ 50°C
Computer Automation	Automated Blending and Metering	Batch Size and Viscosity Set point
Power requirements	Barge or Mobile power unit	3x400/450 VAC 50Hz - 16Amp
Skid Mount Unit	Pre-fitted Blending system	Ready for attachment and operation
10' Sea Container	Pre-fitted Blending and metering	Ready for attachment and operation
20' Sea Container	Pre-fitted Blending and metering	Ready for attachment and operation

Dimensions and Flow Rates

Connections SMS 342	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Weight Kilos	Flow rate Liter/Min.
2" Blender	302	156	140	112	333	408	220	190	65	60-130
6" Blender	763	382	214	311	656	871	490	448	550	3600-5000
8" Blender	828	414	265	330	760	1020	490	430	880	6000-8000



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