

+ JISKOOT

Bunker blending systems



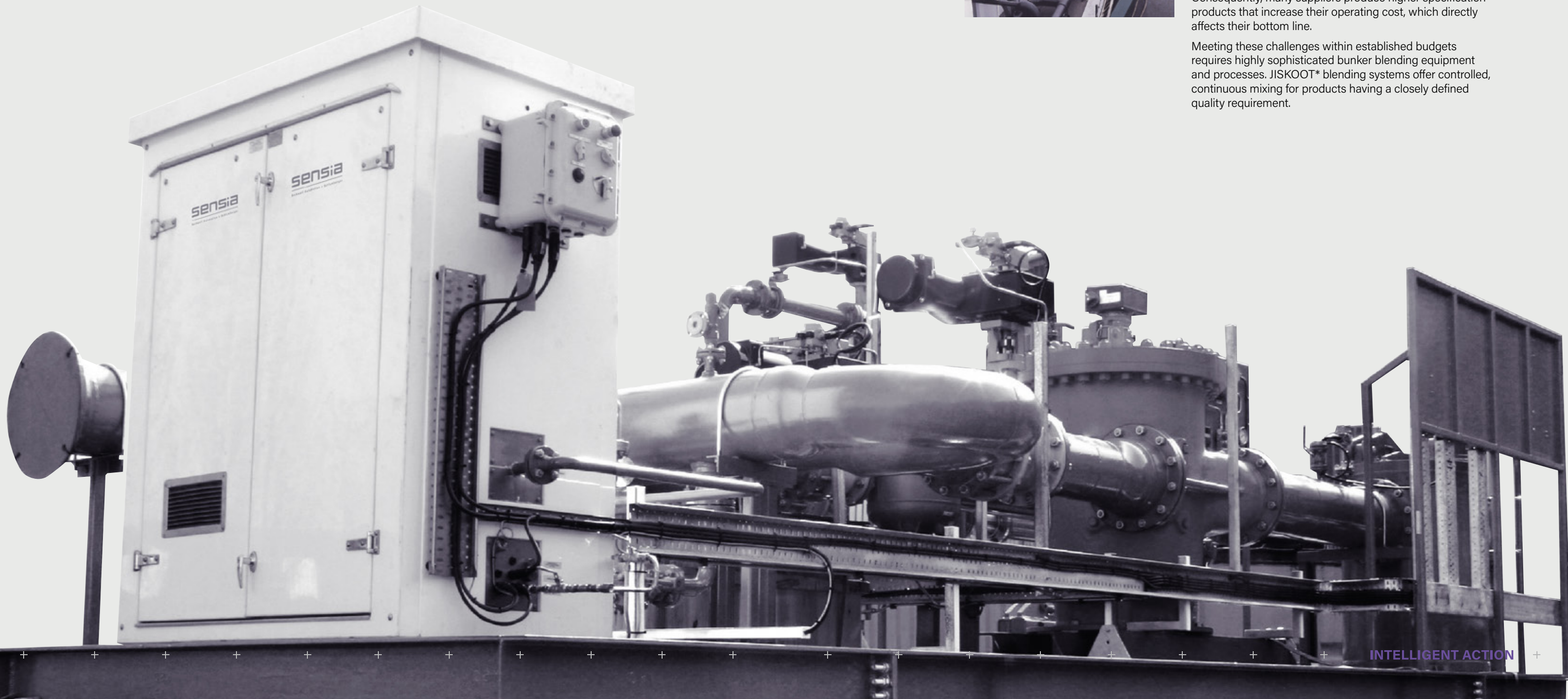
+ The goal of any bunker supplier is to blend bunker fuel at the lowest cost to meet the customer specifications while complying with environmental regulations.

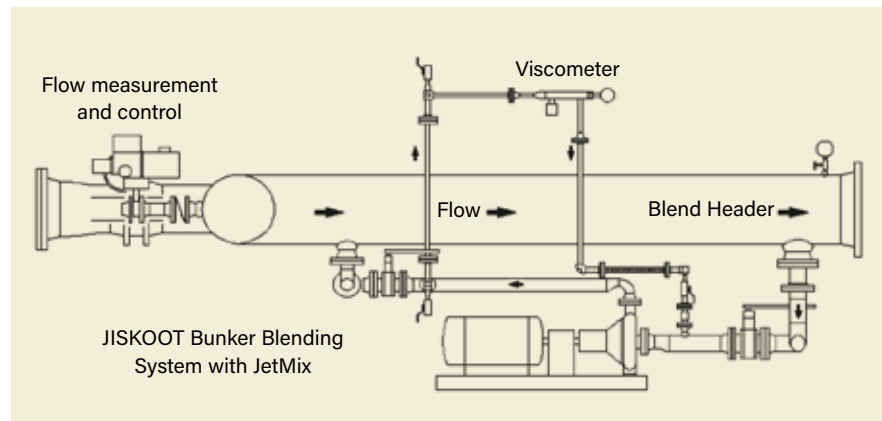


Stringent emission rules for shipping fuels laid out by the International Maritime Organization (IMO) and in effect as of 1 January 2020 significantly constrain allowable fuel sulfur content. The potential for an increase in disputes with the regulations adds to the challenges for bunker fuel providers around the world, who already face rising fuel costs, changing environmental legislation, and fluctuations in feedstock quality.

Historically, bunker fuel operators have addressed fluctuating feedstock quality by over-blending their fuels, which means they are using more of the expensive distillates like marine gas oil (MGO) or marine diesel oil (MDO). Consequently, many suppliers produce higher specification products that increase their operating cost, which directly affects their bottom line.

Meeting these challenges within established budgets requires highly sophisticated bunker blending equipment and processes. JISKOOT* blending systems offer controlled, continuous mixing for products having a closely defined quality requirement.





An automated MARPOL-compliant sampling system is also integrated within this section so that your physical representative sample is taken from the same system where the analysis is taking place.

JISKOOT bunker blending systems are simple to use, as the desired recipe and volume or mass are selected from the controller and the blend started. Once initiated, the blending process is automatic and produces the final product with no intervention, only informing an operator if an alarm condition occurs.

The control system produces all billing, loading, and transaction documents such as bunker delivery notes (BDN), including trend reports for major parameters such as viscosity and sulfur. It also provides a physical sample of the blend that can be analyzed in the case of a dispute.

JISKOOT bunker blending systems can be skid mounted for installation on a barge, a jetty, or the shore; mounted in a container to offer a portable, safe working environment; or self-contained on a trailer, allowing one blender to be used at multiple locations.

Sensia also offers a range of services to suit your budget, from review of existing equipment and system design through to the supply of an upgraded control system, analysis system, or a complete blending system. We have strategic alliances with major manufacturers worldwide giving you a guarantee of first-class customer support.

Sensia JISKOOT inline blending systems for bunker fuel can significantly reduce the production costs of a bunker fuel blender by reducing the give-away associated with over-blending while maintaining a blend quality that meets physical property and environmental requirements.

A JISKOOT inline bunker blending system can pay for itself in less than 6 months. At the push of a button, it produces a range of fuel oils that meet specification at the lowest possible cost with all the required documentation.

JISKOOT inline blending systems for bunker fuels are designed specifically for each application. A real-time closed-loop control system and physical property analyzers for density, viscosity, sulfur, and others allow the bunker fuel blenders to provide a much higher blend

quality than conventional mechanical or batch blenders.

JISKOOT bunker blending systems use the JISKOOT InSpec Blending* system controller. Its unique control algorithms respond instantly to changes in process conditions or feedstock quality. The heavy fuel oil and cutter stock are continuously measured and adjusted during the batch to ensure optimum quality while reducing blend give-away.

JISKOOT inline blending systems for bunker fuel are designed to ensure consistent quality throughout the batch even during tank changes, feedstock starvation, loss of power, or the unlikely failure of a system component.

The final product is mixed in the blender header to ensure consistency and the accuracy of any physical online analyzer that is integrated into the blender.



JISKOOT bunker blending system for barge installation



Fuel oil bunker blender

With over 60 years' experience in the design and supply of fuel oil blending solutions, we understand what is important to your business.

REDUCE PRODUCTION COSTS

JISKOOT blender systems use a closed loop controller to measure and control each stream being blended. This guarantees lowest cost production across a wide operating range and reduces your distillate give-away.

AUTOMATIC QUALITY CONTROL

The controller continually monitors the blending process in real time and responds instantly to changes in quality or quantity. When viscosity trim is installed, the blended fuel oil is produced to a target viscosity at standard conditions 122° F (50° C) with full documentation.

PRODUCT ALWAYS ON SPECIFICATION

The cut-back feature of a JISKOOT blender keeps the blended product on specification throughout the blend even in the event of product starvation, large feed rate changes, or power failure.

IMO 2020 COMPLIANCE

With inline sulfur analysis and control, the JISKOOT bunker fuel blender ensures the blend sulfur quality will meet the environmental requirements, even in environmental controlled areas (ECA) or on the open ocean.

VOLUME AND VISCOSITY CORRECTION TO STANDARD CONDITIONS

The blender performs volume and viscosity correction to API, IP, and ASTM standards. This data can be displayed or used in reports, including bills of lading and BDNs. The controller uses flow-weighted averages to eliminate the errors associated with time-based systems.

QUALITY AND QUANTITY DOCUMENTATION

The controller produces a range of documentation for the blended batch including a bill of lading and BDN. Quantities in controller displays and documentation can be expressed as either volume or mass units.

MULTIPLE RECIPE MANAGEMENT

The controller can store a large number of preconfigured recipes, and "instant" recipes can be entered at the start of any new blend.

SINGLE PRODUCT LOADING

One or both streams of the blender can be used for bulk loading a single product with measurement and documentation.

SIMPLE USER INTERFACE WITH SECURITY

The operator interface is easy to use and features multilevel security to lock key configuration and recipe functions.

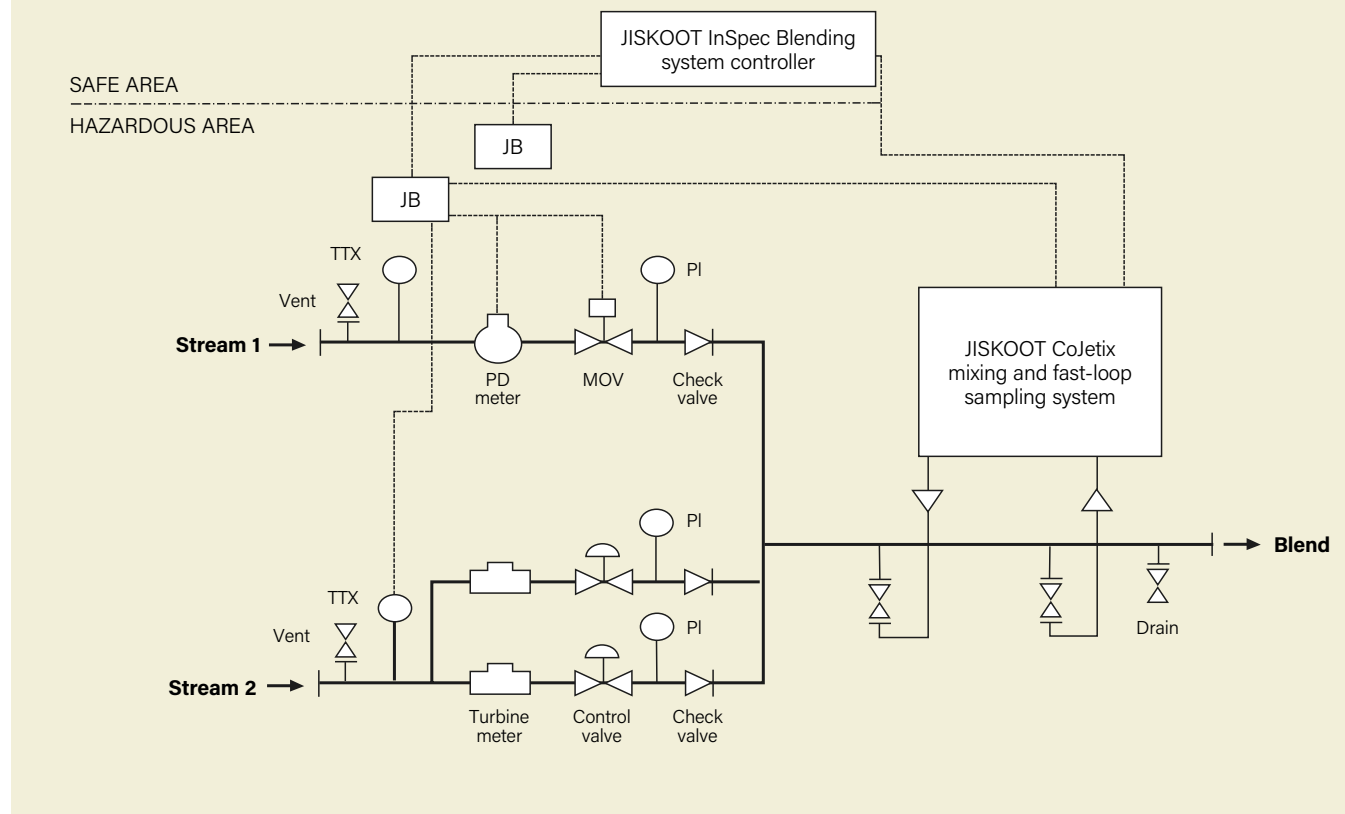
CONTROL ROOM OR SKID-SIDE INTERFACE

With the JISKOOT InSpec Blending system controller you have the choice to directly interface with the controller itself, which may be on the skid or in a control room, or through the web-based interface.

LARGE THROUGHPUT AND TURNDOWN

JISKOOT inline blenders have a high turndown. This allows you to use the blender for a wide range of parcel sizes and customers, thus maximizing the flexibility of your operation.

Typical configuration for a JISKOOT InSpec Blending system controller



Blending system options

- + Ratio control blender (high-accuracy ratio control)
- + Viscosity control blending systems (high accuracy with viscosity measurement and automatic adjustment of ratio to target viscosity)
- + Sulfur-control blending system with online sulfur analysis
- + Hazardous area controller
- + Analysis and control
- + Safe area controller
- + Intrinsically safe control panel (at point of loading)
- + PC based SCADA system
- + Flow proportional sampler (MARPOL compliant)
- + Drip sampler

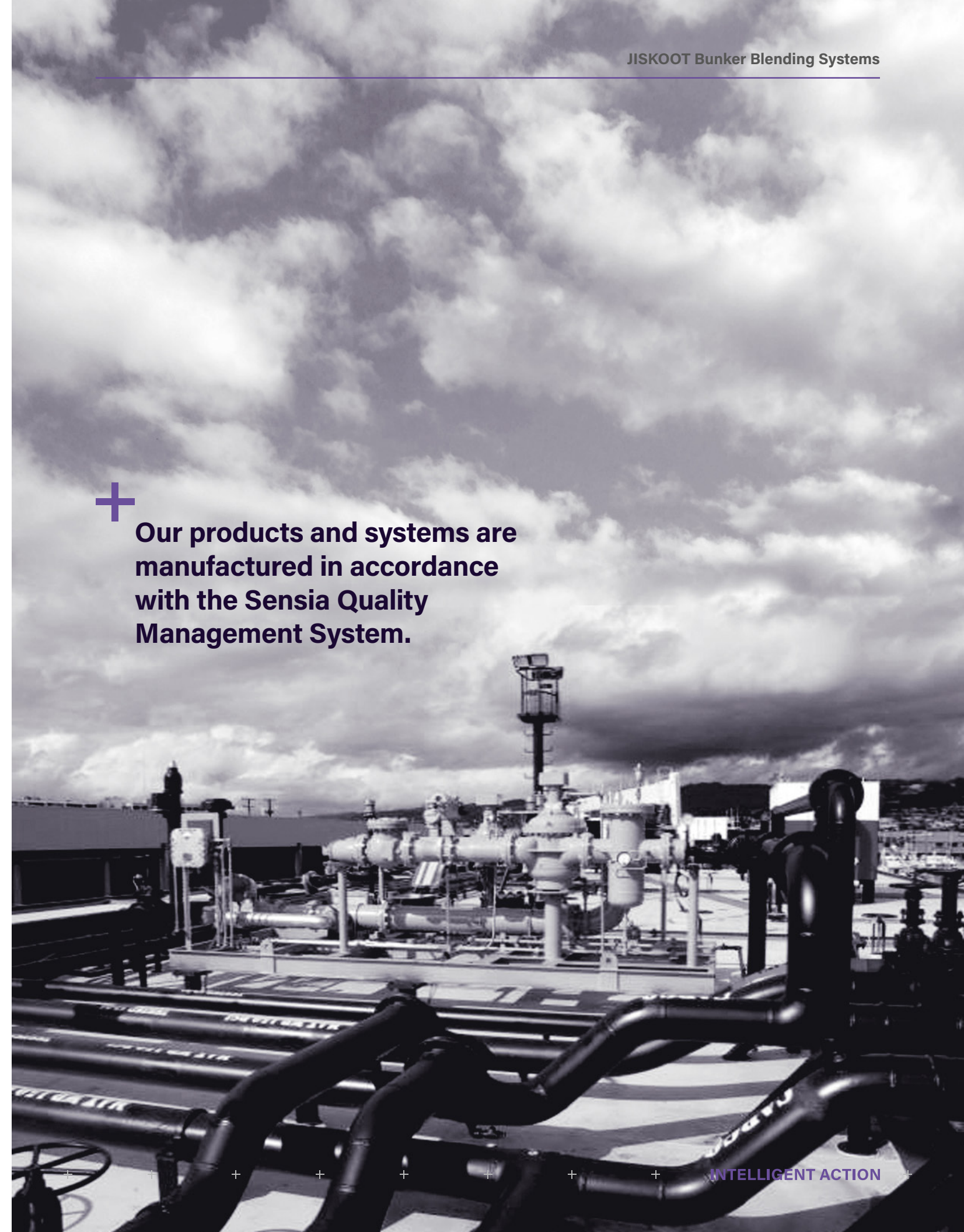
Implementation options

- + Manufacture a new blending system using your existing metering and control equipment
- + Retrofit the viscosity measurement and control system to your existing blending system
- + Upgrade your old system to meet today's quality and environmental challenges
- + Design and manufacture a blending system specifically for your application

Installation options

- + Barge mounted
- + Containerized
- + Trailer mounted
- + Fixed installation

+ Our products and systems are manufactured in accordance with the Sensia Quality Management System.



sensiaglobal.com

Add intelligent action to your oil & gas solutions

© Sensia LLC 2020. All rights reserved. 163-ME-1008-BR

* Mark of Sensia. Other company, product, and service names are the properties of their respective owners.

sensia

Rockwell Automation + Schlumberger